MEDICAL DISORDERS SERIES

Volume 1: CODEBOOK FOR ADULTS AT ENROLLMENT AND EXIT

B. H. Operskalski, L. L. Colbert, D. L. Wesley, E. S. Bloomfield,
A. M. Bell, N. F. Campbell, S. M. Polich

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HEALTH INSURANCE EXPERIMENT

THE RAND CORPORATION
This Note describes the contents of a data file on adult medical disorders from the Health Insurance Experiment (HIE), a major social experiment conducted by The RAND Corporation from 1974 to 1982 under a grant from the U.S. Department of Health and Human Services. The experiment assessed how variations in patients' share of health care costs, as determined by insurance plan, affected their use of health services, their satisfaction with care, the quality of their care, and the state of their health. A related purpose was to study how those outcomes were influenced by the mode of delivery, i.e., fee for service or health maintenance organization. RAND is issuing a number of data files from the study on tape, grouped in topical series, with associated documentation.

This Note describes many of the measures used by the HIE to determine how different levels of insurance affected the health status of adults in the study. A similar Note will be released describing the measures used for children. Together, the adult and children files constitute the HIE Medical Disorders Series. Background information is provided on the files, including the sample of participants for whom data were recorded and how the data were compiled. The adult file, described here, contains 5,871 records, each representing one adult enrollee in the experiment. The variables documented here are derived from raw data elicited at the beginning and end of the experiment. The information provided allows the user to trace the construction of each variable from the questions asked of participants. Each variable is briefly described and information on the distribution of values is summarized. Then follow a listing of the input variables from which it was derived and the steps followed in its construction.

The file presented here would be useful for testing new hypotheses related to health insurance coverage and health status, conducting comparative analyses of the HIE and other population samples, and studying the relationship between measures in this file and utilization
or cost measures from other HIE files, as well as for answering numerous other research questions. This file, along with other HIE data files, affords researchers in many health-related fields the opportunity to use a unique source of information representing years of data collection and processing.

In addition, RAND is releasing for public use the data files on participation status, demographic and economic information covering the full original sample as well as subsets of that sample, fee-for-service claims aggregated by year, service and charge information collected through the HIE insurance claim forms, definitions of the codes used in HIE claims, adult and child health status and attitudes at the beginning and end of the experiment, child medical disorders at the beginning and end of the experiment, and the raw data from the questionnaires that recorded each participant’s medical history. Most analyses will require use of data from two or more of these HIE files.
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SITE
INSTAT
ERTERM
MHOA
MHOAX
MHOB
MHOBX
SCREENED
SCREENEX
OUTAREAX
PEGFLAG
ACNE

ACNESTAT (acne status at enrollment)
ACNESTAX (acne status at exit)
ACNEBIN (binary acne status at enrollment)
ACNEBINX (binary acne status at exit)
ACNESEV (severity of acne at enrollment)
ACNESEVX (severity of acne at exit)
ACNEIMP (impact of acne at enrollment)
ACNEIMPX (impact of acne at exit)

ANEMIA

ANEMHGB (hemoglobin value at enrollment)
ANEMHGBX (hemoglobin value at exit)
ANEMHGBA (adjusted anemia status at enrollment)
ANEMHGBAX (adjusted anemia status at exit)
ANEMMMHQ (anemia status based on MHQ at enrollment)
ANEMMMHAX (anemia status based on MHQ at exit)
ANEMSTAT (anemia status at enrollment)
ANEMSTAX (anemia status at exit)
ANEMHICT (hematocrit value at enrollment)
ANEMHICTX (hematocrit value at exit)
ANEMMCV (mean cell volume at enrollment)
ANEMMCVX (mean cell volume at exit)
ANEMIMP (impact of anemia at enrollment)
ANEMIMPX (impact of anemia at exit)

ANGINA

ANG1TRIG (chest pain at enrollment)
ANG1TRIGX (chest pain at exit)

ECG1 (intraventricular conduction abnormality at enrollment)
ECG1X (intraventricular conduction abnormality at exit)
ECG2 (ST segment or T wave abnormality at enrollment)
ECG2X (ST segment or T wave abnormality at exit)
ECG3 (ventricular enlargement at enrollment)
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I. INTRODUCTION

This section presents an overview of the Health Insurance Experiment (HIE) and its data collection and file development efforts. It provides essential background information for understanding the contents of this codebook. Section II describes the distinctive features of the adult medical disorders file, including a brief description of the medical disorders included on the file, the file sample, and data collection instruments relevant to this file. Section III describes the disorder-specific tests and procedures. Section IV presents the codebook. In addition to the codebook itself, Sec. IV includes a brief description of the organization of the codebook, a discussion of special variables on variables on the file, and some comments on the use of the codebook.

EXPERIMENTAL DESIGN

The RAND Corporation conducted the Health Insurance Experiment from 1974 to 1982 in six sites across the United States: Dayton, Ohio; Seattle, Washington; Franklin County and Pitchburg, Massachusetts; and Georgetown County and Charleston, South Carolina.\(^1\) The main purpose of the experiment was to assess how varying patients' cost of health services affected their use of services, their satisfaction with health care, the quality of their care, and the state of their health. A related purpose was to study how those outcomes were affected by the mode of delivery--fee for service or health maintenance organization (HMO).\(^2\)

Over the course of the experiment, information of some kind was obtained for 26,148 persons. A total of 24,340 persons were

\(^1\)The sites were chosen to represent the four census regions of the country and both urban and rural areas. They also differed in the amount of delay to obtain an appointment, reflecting different degrees of stress on the ambulatory medical care system. Site selection is described in Philip J. Held, Site Selection Criteria for the Health Insurance Study, The RAND Corporation, N-2266-HHS, May 1985.

\(^2\)For a discussion of the purposes and design of the HIE, see Joseph P. Newhouse, "A Design for a Health Insurance Experiment," Inquiry, Vol. 11, 1974, pp. 5-27. HIE is also called HIS, Health Insurance Study. The terms are synonymous.
administered a baseline interview (baseline participants), of which 7,700 were ultimately enrolled. An additional 554 persons were enrolled later, all but a few of them newborns or adopted children under one year of age. Those 8,254 insured enrollees were assigned to an experimental insurance treatment, and data on their use of health services were collected throughout their period of participation. Another 2,483 adjunct enrollees were not assigned to an insurance treatment but resided with insured enrollees or were members of a short-lived control group in Dayton.

Selection of Enrollees

Persons offered enrollment in the experiment represent a random sample from each site, subject to certain eligibility restrictions. They were chosen by a two-stage baseline selection process. In each site an areawide probability sample of dwelling units was drawn. Their occupants were interviewed for eligibility, and those found eligible were questioned in depth about their socioeconomic characteristics and experience with health care (baseline interview).

Eligibility criteria excluded those whose health care delivery systems differed from options available to the general population. The following groups were excluded:

- Those who were eligible for Medicare or would become so during the experiment, i.e., those 62 years of age and older, or younger than 62 but with a Medicare-eligible condition such as end-stage renal disease.

---

3This and other distinctive NIE terms are defined in the Glossary at the end of this document.

4Of the remaining 16,640 persons, the 15,441 who did not enroll are called baseline-only participants; the other 1,229 are part of the adjunct enrollee group defined below.

5Note that "insured" in NIE terminology only means "assigned to an experimental treatment." By the same token, "uninsured" applies only to a participant not so assigned, not necessarily someone lacking health insurance altogether.

6Subject also to slight oversampling of low-income families in Dayton, Massachusetts, and South Carolina.
- 3 -

- Those with family incomes over $25,000 (1975 dollars).
- Those institutionalized (jail, long-term hospital).
- Veterans with service-connected disabilities.
- Those in the military and their dependents.  

Project staff verified the accuracy of the information given by baseline participants with employers and insurance companies.

In the second selection stage, HIE staff drew a representative sample of eligible persons to be offered enrollment and assigned each family to one of the insurance plans described below. A sophisticated technique assured that, across plans, families closely resembled each other in 24 health and socioeconomic characteristics.  

Experimental Treatments

Sixteen experimental treatments distinguished between coinsurance rates, delivery systems, and maximum out-of-pocket expenditures. All but one of the treatments were health insurance plans, listed below as A-D. Enrollees who had gone through the baseline selection process were assigned to one of the plans. The remaining treatment involved a control group in Seattle, chosen separately.

Insurance Plans. Plans A-N entailed different degrees of cost sharing under the fee-for-service system. Within each cost-sharing group, listed below, plans also differed by the ceiling placed on maximum expenditure. Plan O involved participation in a prepaid group practice, a traditional type of HMO:

A. Free care (0% coinsurance) (one plan).
B-D. Family pays 25% of its medical bills (25% coinsurance) (three plans).

---

7 Details of HIE eligibility requirements are in Lorraine Clasquin and Marie E. Brown, Rules of Operation for the RAND Health Insurance Study, The RAND Corporation, R-1602-HEW, May 1977, Sec. II.
8 The logic and techniques used to determine optimal sample sizes and assign individual families to experimental plans are described in Carl N. Morris, "A Finite Selection Model for Experimental Design of the Health Insurance Study," Journal of Econometrics, Vol. 11, 1979, pp. 43-61.
E-G. 50% coinsurance (three plans).

H-J. 50% coinsurance for dental and outpatient mental health services and 25% coinsurance for all other services (three plans).

K-M. 95% coinsurance (three plans).

N. 95% coinsurance on outpatient services; 0% on hospital care (one plan).9

O. 0% coinsurance if care was received at a Seattle HMO, Group Health Cooperative of Puget Sound; 95% if care was received outside the HMO (one plan).

Plans requiring coinsurance (B-N) placed a ceiling on annual out-of-pocket expenditures, above which care was free.10 In all but one plan (N), the ceiling was a specified percentage of the family’s income or a dollar limit, whichever was less. The percentage varied with family income and the dollar limit varied with the plan, as indicated below:

<table>
<thead>
<tr>
<th>Plan</th>
<th>Percentage of Family Income</th>
<th>Dollar Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-D</td>
<td>5, 10, or 15</td>
<td>1000/750</td>
</tr>
<tr>
<td>E-G</td>
<td>5, 10, or 15</td>
<td>1000</td>
</tr>
<tr>
<td>H-J</td>
<td>5, 10, or 15</td>
<td>1000/750</td>
</tr>
<tr>
<td>K-M</td>
<td>5, 10, or 15</td>
<td>1000</td>
</tr>
<tr>
<td>N</td>
<td>--</td>
<td>150 per individual; 450 per family</td>
</tr>
</tbody>
</table>

9During the experiment’s first year in Dayton, the provisions of plans A-N differed in two ways: Only plan A covered dental services for adults; and the coinsurance rate on plans K-N was 100 percent instead of 95 percent.

10During the experiment’s first year in Dayton, expenditures for outpatient mental health care did not apply toward the ceiling.

11In plans B-D and H-J the $1000 limit applied during the first two years of enrollment for Dayton families who enrolled from November 1974 to February 1975; and during the first year of enrollment for Seattle families who enrolled from January to September 1975. The $750 limit applied during subsequent enrollment years for the aforementioned families, and during the entire enrollment period for all other families.
HMO Control Group. A random sample of existing members of the Group Health Cooperative (subject to HIE eligibility requirements) was drawn as a control group for the HMO experimental group assigned to plan 0. The control group was formed to compare HMO use by those who had chosen that delivery mode (i.e., members of the control group) with use by those experimentally transferred to an HMO from the fee-for-service system (i.e., members of the experimental group). Enrollees in the HMO control group continued with the Group Health Cooperative under their prior arrangements but provided the same data as HMO experimental members. With respect to the insurance provider, enrollees assigned to plans A-0 (including the HMO experimental group) were said to be HIE-insured; the HMO control group was termed HMO-insured.

Services Provided

Plans A-0 provided the same comprehensive benefits, including hospital, physician, dental, mental health, visual, and auditory services, drugs (including over-the-counter drugs for certain chronic conditions), and supplies. Services of nonphysician providers, such as audiologists, chiropractors, clinical psychologists, optometrists, physical therapists, and speech therapists, were also covered. The only noteworthy exclusions were nonpreventive orthodontic services, cosmetic surgery for preexisting conditions, and outpatient mental health visits exceeding 52 per year.

Enrollees were able to choose the physicians and other persons who provided their health care. However, if those in the HMO experimental group sought care outside the HMO that was available within, they were responsible for 95 percent of the cost. (For covered services, such as dental or chiropractic, that were unavailable at the HMO, members of the experimental HMO group were fully reimbursed.)

Enrollees in the HMO control group retained whatever benefit package they or their employer had purchased from the HMO. Members of both control and experimental groups were reimbursed 5 percent of the cost of care obtained outside the HMO to encourage the reporting of non-HMO care.
Terms of Enrollment

Families who accepted the insurance plan offered from plans A-O were enrolled in the experiment for either three or five years, the term randomly assigned. All members of the HMO control group were enrolled for five years.

Enrollees assigned any benefits from their existing health insurance policies to the HIE during the time they participated. No family was financially penalized by HIE enrollment. Enrollees were reimbursed for the cost of maintaining their policies, and if their HIE plan could, under any conceivable set of circumstances, provide less coverage than their private policies, they were paid the maximum difference.\textsuperscript{12}

Table 1 indicates the timing of enrollment in the experiment and number of enrollees insured immediately after the baseline selection process in each site.

DATA COLLECTION

Over the course of the experiment, extensive data were collected on participants' demographic and economic characteristics, health status, and use of health services. Background information was obtained on local health care costs, providers, and types of services rendered. The data collection instruments are described in Table 2.

Table 2 shows the amount and types of data gathered from the various participant groups. The most extensive data, especially longitudinal data on the use of health services, are available from the 8,254 insured enrollees, who participated in the experiment longest. The 15,411 baseline-only participants provided much demographic and socioeconomic data as well as information on health status, experience with health care, and health-related attitudes. Limited data were obtained for the 2,483 adjunct enrollees.

Several subcontractors to RAND participated in the data collection effort. Until March 1975, Mathematica, Inc., supervised data collection, administered the insurance plans, and processed claim forms.

\textsuperscript{12}Calculation of the maximum difference is described in Appendix A.
Table 1

HIE ENROLLMENT PERIODS

<table>
<thead>
<tr>
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<td>3-year</td>
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<td>5-year</td>
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<td>3-year(^2)</td>
<td>800</td>
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<tr>
<td>5-year</td>
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<tr>
<td>Total</td>
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</tr>
</tbody>
</table>

NOTE: Timelines mark the month and year in which the first person enrolled in the experiment and the month and year in which the last person left the experiment. Data on use of health services continued to be collected from several groups after the end dates shown here: one year afterward for the Dayton 5-year group and Seattle, Fitchburg, and Franklin County 3-year groups; six months afterward for the Dayton 3-year group.

\(^1\)Numbers refer to enrollees insured immediately after the baseline selection process. An additional 554 persons were enrolled and insured later, nearly all of them newborns or adopted children under 1 year of age. Figures for Seattle include the HMO control group.

\(^2\)Some of these enrollees were also members of a preenrollment group between November 1976 and February 1979. An additional 339 persons participated in the preenrollment phase but did not formally enroll in the experiment.

\(^3\)Some of these enrollees were also members of a preenrollment group between November 1976 and February 1979. An additional 213 persons participated in the preenrollment phase but did not formally enroll in the experiment.
### Table 2

**PRINCIPAL HIE DATA COLLECTION INSTRUMENTS**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Topics Covered</th>
<th>Data Collected</th>
<th>How</th>
<th>When</th>
<th>From</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Screening questionnaire [1]</td>
<td>Demographic information to establish basic eligibility</td>
<td>Interview</td>
<td>Beginning of HIE operation in site</td>
<td>Occupants of representative sample of dwelling units on geographic clusters in site</td>
<td></td>
</tr>
<tr>
<td>2. Baseline questionnaire, 2 parts</td>
<td>Income, employment, family composition, health status, health care experience and insurance coverage, satisfaction with medical care</td>
<td>Interview</td>
<td>4-6 months before enrollment</td>
<td>Baseline participants</td>
<td></td>
</tr>
<tr>
<td>3. Enrollment verification form</td>
<td>Changes in family composition, economics, or insurance coverage since baseline questionnaire</td>
<td>Interview</td>
<td>Between administration of baseline questionnaire and enrollment date</td>
<td>Baseline participants determined eligible</td>
<td></td>
</tr>
<tr>
<td>4. Medical history questionnaire (MHQ), 3 versions by age group: 0-4 years, 5-13 years, 14+ years</td>
<td>Form A: health status, attitudes, habits, and specific medical disorders</td>
<td>Administered by self or parent [2]</td>
<td>Just before enrollment and exit [3]</td>
<td>Insured enrollees</td>
<td></td>
</tr>
<tr>
<td>5. Medical screening examination, 3 versions by age group: 0-2 years, 3-13 years, 14+ years</td>
<td>Physiologic tests</td>
<td>Paramedical personnel</td>
<td>Just before enrollment and exit</td>
<td>Sample of insured enrollees at enrollment; all exiting enrollees</td>
<td></td>
</tr>
<tr>
<td>6. Health report</td>
<td>Use of medical or dental services and time spent obtaining them; any restricted activity or bed disability</td>
<td>Administered by self or parent [4]</td>
<td>Biweekly during period of participation</td>
<td>Insured enrollees</td>
<td></td>
</tr>
</tbody>
</table>

---

1. Administered as a separate questionnaire only in Dayton; part of baseline questionnaire in other sites.
2. When "parent" appears in this column, a parent was asked to provide data for children 13 and younger.
3. "Exit" refers to normal departure from the experiment after completing the assigned enrollment period, three or five years, whereas those who "attributed," or voluntarily left the experiment early, received an "attrition" MHQ that was identical to the exit MHQ.
4. In the first year of the experiment in Dayton, the health report was administered weekly to a random half of Dayton enrollees. In the first year of the experiment in Massachusetts and South Carolina, 25 percent of enrollees were exempted to measure the reporting requirement's effect on the use of health services. Also at one point virtually all participants stopped filling out health reports, for budgetary reasons.
<table>
<thead>
<tr>
<th>Instrument</th>
<th>Topics Covered</th>
<th>How</th>
<th>When</th>
<th>From</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Health care questionnaire, 3 versions by age group: 0-4 years, 5-13 years, 14+ years</td>
<td>Health status, attitudes, habits (subset of NHIS)</td>
<td>Administered by self or parent</td>
<td>Each anniversary of enrollment except at exit</td>
<td>Insured enrollees</td>
</tr>
<tr>
<td>8. Annual income report</td>
<td>Amount and sources of family income, taxes paid</td>
<td>Self-administered</td>
<td>Annually (April)</td>
<td>Head of insured family</td>
</tr>
<tr>
<td>9. Periodic employment report</td>
<td>Wages, hours worked, family payments for care of children or elderly, government program benefits received</td>
<td>Self-administered</td>
<td>Semiannually</td>
<td>Enrollees (head and family members 16 and older)</td>
</tr>
<tr>
<td>10. Assets and debts questionnaire</td>
<td>Family assets and liabilities</td>
<td>Self-administered</td>
<td>Exit</td>
<td>Head of insured family</td>
</tr>
<tr>
<td>11. Knowledge of coverage questionnaire</td>
<td>Details of HIE insurance plan</td>
<td>Self-administered</td>
<td>Specified intervals</td>
<td>Insured enrollees</td>
</tr>
<tr>
<td>12. Insurance abstraction</td>
<td>Details of selected insurance policies</td>
<td>Abstraction</td>
<td>At time of knowledge of coverage questionnaire</td>
<td>Insurance company brochures</td>
</tr>
<tr>
<td>13. Chronic condition questionnaire</td>
<td>Status of condition, correctness of diagnosis, adequacy of treatment</td>
<td>Physician interview</td>
<td>At exit medical screening examination</td>
<td>Sample of insured enrollees found to have certain chronic conditions</td>
</tr>
<tr>
<td>14. Evaluation questionnaire</td>
<td>Perceptions and attitudes about HIE and health care system</td>
<td>Self-administered</td>
<td>Exit</td>
<td>Head of insured family</td>
</tr>
<tr>
<td>15. Health notice</td>
<td>Use of medical or dental services</td>
<td>Administered by self or parent</td>
<td>Biweekly during preenrollment phase (South Carolina); 6 months - 1 year after exit (other sites)</td>
<td>Preenrollees (South Carolina), insured enrollees who have exited (other sites)</td>
</tr>
</tbody>
</table>

5. Intended intervals were enrollment, 18 months, 3 years, and 5 years after enrollment (the last only for the 5-year participants). Actual mailings approximated these intervals in Massachusetts and South Carolina; the first mailing was 2-1/2 years and 1 year after enrollment in Dayton and Seattle, respectively.

6. Hypertension, diabetes, thyroid diseases, chronic heart diseases, chronic lung diseases, joint diseases, ulcers, cerebrovascular disease.
<table>
<thead>
<tr>
<th>Instrument</th>
<th>Topics Covered</th>
<th>How</th>
<th>When</th>
<th>From</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Medical expense report (MER)--fee-for-service claim form. A types: Doctors' services and supplies. Dental care. Hospital and extended care. Pharmacy.</td>
<td>Each use of medical or dental service, drugs, and equipment; reason or diagnosis; treatment.</td>
<td>Administered by self or parent</td>
<td>Time of occurrence</td>
<td>Insured enrollees and providers/suppliers</td>
</tr>
<tr>
<td>17. Services rendered report (SERR)--HMO equivalent of MER [12]. Two types: Doctors' services and supplies. Hospital and extended care.</td>
<td>Each use of medical service provided by HMO; reason or diagnosis; treatment</td>
<td>Abstraction</td>
<td>Annually to cover entire previous year</td>
<td>HMO records for insured enrollees in HMO experimental and control groups</td>
</tr>
<tr>
<td>18. Factor price survey</td>
<td>Wages and benefits of selected hospital personnel [6], average daily inpatient population</td>
<td>Phone and mail</td>
<td>Semiannually</td>
<td>Sample of local hospitals</td>
</tr>
<tr>
<td>19. Consumer price index</td>
<td>Prices of selected nonmedical products in the six HIE sites</td>
<td>Phone and inspection</td>
<td>Semiannually</td>
<td>Sample of local retailers</td>
</tr>
<tr>
<td>21. Dentist capacity utilization survey (DCUTS)</td>
<td>Similar to PCUTS</td>
<td>Phone</td>
<td>Annually</td>
<td>Sample of local dentists [11]</td>
</tr>
<tr>
<td>22. Insurance preference questionnaire</td>
<td>Willingness to pay higher premium to reduce out-of-pocket expense limit</td>
<td>Self-administered</td>
<td>Exit</td>
<td>Head of insured family</td>
</tr>
</tbody>
</table>

7. Pharmacy data were obtained directly from an HMO-supplied computer tape. Dental care was not available through the HMO; HMO participants reported claims for dental care and other non-HMO services on the MER.
8. Categories of personnel: registered nurses (general-duty), medical technicans, licensed professional nurses, nursing aides, kitchen helpers, general laborers, and maids or porters.
9. Waiting time for appointments: Appointments per hour; patients seen in office, home, and hospital; weekend office hours; office staffing; cost of office visit; whether new patients accepted.
10. Physicians (M.D. or D.O.) specializing in general practice, internal medicine, and pediatrics.
11. Except in Fitchburg, Franklin County, and Georgetow County, where all dentists were surveyed.
Thereafter, National Opinion Research Center managed data collection and Glen Slaughter and Associates handled insurance administration and claim processing. American Health Profiles, Inc., conducted the medical screening examinations at enrollment (October 1974 through January 1977); CompuHealth administered those examinations at exit (October 1977 through December 1981).

FILE DEVELOPMENT

Subcontractors sent the collected data to RAND, either in hardcopy form or as cleaned data tapes. At RAND the hardcopy data were encoded for machine readability and subjected to computerized checks for logical consistency and adherence to specified response ranges; outliers were checked only for fidelity to the original response and otherwise left unchanged. Limited cross-checking was done to assess logical consistency among a respondent's answers. All identifiers permitting information to be linked to a specific respondent were replaced twice to protect respondents' privacy.\(^{13}\) The cleaned records were then arranged in the HIE version of standard computer file format, and the resulting files of primary variables made available for HIE analyses.

When an analyst needed information that required manipulation of primary data, derived variables were constructed. The analyst and a programmer determined a suitable way of obtaining the information by extracting, aggregating, or transforming primary data, and the programmer wrote the appropriate logic. With the analyst's approval, the new variable was entered on the master file.

Both primary and derived variable files are being issued to the public in a number of topical series. Appendix B provides a complete list of the files to be issued.

\(^{13}\) The first conversion was known only to the subcontractor, the second only to RAND. Neither institution could make the full link from the respondent's name to his or her identifier on the analytic files.
The machine-readable tape for each file includes data in both SAS\textsuperscript{14} (Statistical Analysis System) and character formats, and an index of character-format variables.\textsuperscript{15}

A codebook is also provided for each file. This volume contains the codebook for the adult medical disorders file, a derived variable file in the medical disorders series. Section II describes the basic features of this file, such as disorders included, sample size, and data collection instruments. Section III presents information relevant to each individual disorder. Section IV presents the codebook itself with some introductory material important to the proper use of the file.

\textsuperscript{14}A registered trademark of the SAS Institute Inc.
\textsuperscript{15}These are the components of all files issued by RAND. Other institutions (e.g., National Archives) will distribute these files and may alter their contents.
II. ADULT MEDICAL DISORDERS FILE

The HIE medical disorders series comprises two files of data on certain chronic diseases or problematic physical conditions among persons enrolled in the experiment. The adult medical disorders (ANEDIS) file, presented in this Note, is composed of selected data gathered from HIE participants, aged 14 to 61, at enrollment in and exit from the study. The other file addresses the medical disorders of children. The data in these two files provide some of the basic measures used by the HIE to determine how different levels of insurance influence health status.

This Note documents some of the derived variables that were constructed for the HIE analysis of the following 17 adult disorders:

<table>
<thead>
<tr>
<th>Acne</th>
<th>Hypertension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anemia</td>
<td>Joint disorders</td>
</tr>
<tr>
<td>Angina pectoris</td>
<td>Kidney disease and urinary tract infection</td>
</tr>
<tr>
<td>Chronic obstructive airway disease</td>
<td>Peptic ulcer disease</td>
</tr>
<tr>
<td>Congestive heart failure</td>
<td>Sleeping pill and tranquilizer use</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>Surgical conditions</td>
</tr>
<tr>
<td>Hay fever</td>
<td>Thyroid disease</td>
</tr>
<tr>
<td>Hearing loss</td>
<td>Vision impairments</td>
</tr>
<tr>
<td>Hypercholesterolemia</td>
<td></td>
</tr>
</tbody>
</table>

To be a suitable measure for a longitudinal analysis of the health of a general population, a physical disorder must be easily traceable over time and responsive to changes in the level and quality of health care. The

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1Persons aged 62 and older were excluded from the HIE because they were eligible for Medicare or would become so during the experiment.

2The adult medical disorders codebook includes only a subset of the derived variables used by HIE analysts—those considered most useful for a wide variety of potential public users.

3Data were gathered on cancer also, but too few cases were reported to be useful for analysis.

4Hernias, varicose veins, hemorrhoids, and tonsiladenoid disease.
HIE adult disorders were chosen because they exhibit all or some of a specified set of characteristics, such as being common among adults, being easily diagnosed or measured, being amenable to treatment or control, having adverse effects on the individual's overall well-being (including psychological or social repercussions), or having potentially serious or even fatal complications.

Here and in Sec. III we provide background information to help analysts use the derived variables presented in Sec. IV, the codebook itself. This section describes the sample of participants for whom data were recorded as well as how the data were gathered, including the data collection instruments used and when and to whom they were administered. Readers are referred to the Preface and Introduction of this Note for more detailed information on the design of the HIE and its overall strategy for measuring disorder-specific effects on health as a function of level of insurance.

In addition, we stress that the present Note should be read and used in conjunction with the initial series of Rand reports detailing each disorder. That series describes each disorder, reviews important measurement issues, discusses HIE methods for assessing the prevalence and effects of each disorder among HIE participants, summarizes HIE results for all six study sites at enrollment, and presents HIE quality-of-care criteria for each disorder. Therefore, we do not repeat that information here. Because of their detailed outlines of research methods and considerations, the initial reports are necessary for a thorough understanding of the specific methods used to investigate each medical condition. The use of these reports in conjunction with the medical disorders codebook is highly recommended.

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5The disorders are analyzed individually in R-2262-HHS (Vols. 2 through 17) and R-2723-HHS. Those publications are listed in Appendix C.
FILE SAMPLE

The adult medical disorders file contains a record for each of the 5,871 persons who met the following criteria:

1. Enrolled in the HIE (respondent met eligibility requirements, accepted enrollment, and was assigned to an insurance plan) or was selected to be a member of the Seattle HMO control group.
2. Completed an adult enrollment or exit questionnaire or an enrollment or exit medical screening examination.⁶

Table 3 shows the sample distribution by site.

Table 3
SAMPLE DISTRIBUTION BY SITE FOR ADULT MEDICAL DISORDERS DATA

<table>
<thead>
<tr>
<th>Site</th>
<th>Number of Respondents*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dayton</td>
<td>867</td>
</tr>
<tr>
<td>Seattle</td>
<td>2435</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>1213</td>
</tr>
<tr>
<td>South Carolina</td>
<td>1356</td>
</tr>
<tr>
<td>Total</td>
<td>5871</td>
</tr>
</tbody>
</table>

*Respondents are totaled for the two sites in Massachusetts and in South Carolina.

The size of the sample population cited here differs from that cited in the initial Rand HIE reports on the individual physical disorders.⁷ Those reports used only the results of the enrollment

⁶Adults were defined as those 14 to 61 years of age. However, this sample includes two 13-year-olds who were inadvertently given adult questionnaires at enrollment and two 62-year-olds who were enrolled a month late through administrative error. All data from these respondents remain in the present file.
⁷R-2262-HHS and R-2723-HHS, as noted above.
questionnaires and screening examinations. Some members of the sample population who completed enrollment questionnaires and screening examinations subsequently dropped out of the enrollment process before being assigned to an insurance plan and thus are now excluded from the adult medical disorders sample.

Most of the 5,871 people on this file have both enrollment data and exit data. This sample does include, though, some participants who have enrollment data only and some who have exit data only. Those with enrollment data only include persons who completed the enrollment process and so were enrolled in the study, but subsequently dropped out of the study before their three- or five-year enrollment period was completed. All variables based on data collected at exit will have missing values for these people. Those with exit data only consist primarily of those who were under 14 years of age at the time they enrolled in the HIE, and were 14 years or older when they exited from the study. Therefore, these people completed the questionnaire designed for children (5 to 13 years of age) at enrollment and the questionnaire for adults (14 years of age and over) at exit. Because the children's questionnaire does not contain the same questions as the adults' questionnaire, the variables based on the adult enrollment questionnaire cannot be constructed for these people.

The Seattle HMO control group was created so that analysts could compare HMO use by those who had chosen that delivery mode with use by those experimentally transferred to an HMO from the fee-for-service system. HMO control families continued with the Group Health Cooperative of Puget Sound under their prior arrangements but followed the same protocol as the HMO experimental families. The HMO control group participated for the full five years, and their medical disorders data are included in this file.

The HMO control families were allowed to add non-newborn members to their policies. These new members became part of this group primarily by marrying into an enrolled family. This additional subgroup, consisting of 18 people who became part of the study after the initial enrollment process, will have data only at exit.
DATA COLLECTION INSTRUMENTS

The data used in constructing the derived variables in this file were gathered at enrollment and exit by means of a self-administered medical history questionnaire (MHQ) and a medical screening (physical) examination. The MHQ and the screening examination are items 4 and 5 on the list of data collection instruments in Table 2.

Medical History Questionnaire

The medical history questionnaire was administered in two parts, MHQA and MHQB. Form A asked for relatively subjective evaluations, such as perceptions and attitudes concerning health care and general health habits (e.g., smoking, exercise). Form B, on the other hand, focused on relatively objective health status information such as physical limitations and the presence of certain chronic or acute disorders. The medical history questionnaire contained a battery of questions on each of the 17 disorders. Most of these disorder-specific batteries appeared in Form B, although some appeared in Form A for Dayton.

The MHQs (both Forms A and B) were fielded twice for most adult participants—once at the beginning of the experiment after the participant had accepted enrollment and again at the end, when the participant exited. Exceptions occurred, however, in Dayton and South Carolina:

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Term for leaving the experiment are carefully distinguished. Those who completed their assigned enrollment period are said to have exited; those who voluntarily withdrew before the end of their enrollment period are said to have attributed; those who became permanently ineligible or failed to fulfill their obligations during the enrollment period are said to have been involuntarily terminated. Death is a separate category.

All data collected through the MHQs are being released as separate files for public use (items MH4A/B through MH9A/B listed in Appendix B). The raw MHQ variables used in constructing many of the derived variables in this file can be abstracted from those files. The procedure for merging the raw and derived variables is detailed in a forthcoming user's guide (item RF3 listed in Appendix B). No raw screening examination data will be released.
In Dayton, Form B was given only to the participants who took a medical screening examination or who enrolled after the screening examination center had closed. For all other Dayton participants, missing values were recorded for MHQs questions.

In South Carolina, analysts decided to have the three-year and five-year participants exit simultaneously rather than enroll simultaneously, as in the other sites. Consequently, though participants in both groups were chosen at the same time, the three-year group was not formally enrolled in an insurance plan until the third year of the experiment. Nevertheless, data were collected for that group throughout the first and second years. Members of that group who participated in this preenrollment data collection during years one and two are referred to as members of the Prenrollment Group (PEG). The PEG data collected during that period are now identified as PEG-period-only data. The simultaneous-exit variation had two results.

-- The PEG participants filled out enrollment MHQs in 1976 as part of the preenrollment process. In 1978 those who were still eligible and who still wished to join the experiment were enrolled in the South Carolina three-year group. They thus have two enrollment MHQs, one completed in the 1976 preenrollment process and one completed during actual enrollment in 1978. If the participant completed MHQs in both 1976 and 1978, the 1976 data were used in the adult medical disorders file.

-- About 200 PEG participants refused formal enrollment in 1978 and were subsequently dropped from the experiment. They were replaced with additional participants, referred to as the replacement PEGs. Enrollment data for the replacement PEGs differ from those of the other three-year South Carolina participants in two ways. First, the replacements have enrollment MHQs from 1978 only, unlike the others, who have two enrollment MHQs. Second, they did not take the enrollment screening examination, which in
South Carolina was administered in 1976 only. Therefore, for the replacement PEGs, enrollment screening examination data will be missing on the adult medical disorders file and the enrollment MHQ data are from 1978. However, sources of exit data for the replacement PEGs are the same as for all other groups—i.e., data are taken from the exit MHQA and MHQB and from the exit medical screening examination. A special indicator variable is included on the file to allow the user to identify the replacement PEGs.

After its first administration in Dayton, the enrollment MHQ was revised to clarify the questions and obtain more precise responses. The revised questionnaire was then administered in Dayton at exit and in all other sites at both enrollment and exit. Thus, all enrollment and exit questions at all sites other than Dayton correspond with the Dayton exit questions, but some differ from the Dayton enrollment questions. To permit comparison of the data across sites, variables based on the Dayton enrollment MHQ questions were subsequently recoded to correspond with Dayton exit variables and enrollment/exit variables from all other sites.\textsuperscript{10} Nevertheless, analysts should note wording differences when comparing Dayton enrollment data with Dayton exit data and all nonDayton data.\textsuperscript{11} Copies of the adult medical disorders batteries are included in Appendix D for the Dayton enrollment and nonDayton enrollment/exit MHQs.

In all forms and versions of the MHQ, the battery of questions for nearly every disorder was introduced by a "trigger" or "skip" question, which established whether the battery applied to the respondent. Persons who responded "no" to the trigger question were immediately instructed to skip to the next disorder battery. If a respondent inadvertently answered an inapplicable question, the response was not included in the data file, but rather was coded as a missing value for that variable.\textsuperscript{12}

\textsuperscript{10} Each instance of such recoding is noted in the codebook, Sec. IV.
\textsuperscript{11} Enrollment and exit questions at all other sites correspond with the Dayton exit questions. Further, users of this codebook should note that non\textit{Dayton} in all cases means \textit{all other sites}.
\textsuperscript{12} When a respondent correctly skipped a question, it was usually coded as a special missing value.
Medical Screening Examination

The medical screening examination was administered to a randomly selected subsample of the population at enrollment (50 to 75 percent, varying by site) and to all members of the exit population. Both the enrollment and exit examinations produced data on general physiologic health. For some disorders, however, tests administered or procedures used at enrollment varied from those at exit. Such differences are detailed in the individual condition descriptions in Sec. III as well as being noted briefly in the codebook, Sec. IV, when they affect the variable constructions.

The details of the contents and administration of the enrollment and exit medical screening examinations are the subject of a previous RAND report. It discusses the overall design of the examination, including the criteria for selecting the tests to be administered, the tests that were excluded and the reasons for their exclusion, and the differences between the enrollment and exit examinations. It also reports on the actual administration of the screening examination, including planning, scheduling, site setup and preparation, and problems encountered. Finally, it presents detailed descriptions of each testing procedure as well as a tabular summary of the diseases and conditions to be identified by the medical screening examination, the techniques used, the population screened for each test, and the NHQ questions that pertain to each disorder. Therefore, we do not repeat that information here.

When an initial test measurement fell outside a preestablished normal range of values, the test was usually repeated. In such cases, the second measurement was used for NHQ analyses. This can be seen in the codebook in the constructions of many of the screening exam variables. The normal range of values sometimes differed from enrollment to exit and by site and so a table of normal ranges of values is provided in Appendix E.

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Most screening examinations took place at HIE screening examination centers. Some participants, though, did not take their screening examinations at these centers. Instead they took the examinations from their private physicians. These are referred to as "out-of-area" screening exams. These out-of-area families were those who lived farther than 100 miles from the nearest HIE screening examination center and so were permitted to use their own private physicians (providers of their own choice). Out-of-area screening exams required the collection of fewer measurements, so individuals who took out-of-area exams can be expected to show missing values for a substantial number of screening exam variables. A special indicator variable is included on this file to allow users to identify those respondents who took out-of-area screening examinations.
III. DISORDER-SPECIFIC QUESTIONS AND TESTS

This section summarizes the methods of data collection unique to each adult medical disorder, including the NHQ questions, the tests administered, and the methods used. Differences between the enrollment and exit procedures are detailed. We again stress that full discussions of research methods appear in the initial series of RAND HIE reports\(^1\) on medical disorders and are not repeated here.

With respect to revisions in the question batteries, the following subsections specify only substantial changes from the Dayton enrollment NHQ. Other revisions can be assumed to be minor.

ACNE

Data on acne were obtained from the NHQs and the screening exam. The acne battery asked how recently the respondent had consulted a physician about the disorder; whether a physician had diagnosed acne; what treatments had been prescribed and which were currently being used; and how much pain, worry/concern, and activity restrictions the disorder had caused.

During the enrollment screening examination, two facial photographs were taken of those who believed they had acne or whom examining technicians classified as having acne: one of the forehead and the other of the cheek. A board-certified dermatologist examined the photographs and if the photographs were judged to show acne, the subject was classified as having that disorder. The dermatologist did not grade acne by severity.

During the exit screening examination, those who had been judged to have acne were again photographed. (No respondents taking the out-of-area screening exam were photographed.) The photographs of all participants with acne, taken at both the enrollment and exit screening examinations, were then read together in random order, without distinguishing the examination at which they were taken. At that

\(^1\)Rand HIE and RAND HIE, as noted above.
reading, both the presence/absence of acne and its severity was recorded. A modified version of either the Pillsbury scale\textsuperscript{2} of the National Center for Health Statistics or the Cook et al.\textsuperscript{3} scale was used as the basis of judgment.

ANEMIA

Anemia data were obtained from the MHQs and the screening exam. The anemia battery asked how recently the respondent had consulted a physician about the disorder; whether a physician had diagnosed anemia; what treatments had been prescribed and which were currently being used; and the level of worry/concern, and activity restriction, and the number of days in bed caused by the disorder.

During the enrollment screening examination, blood samples were taken and analyzed on the automated Coulter Model S cell counter for hemoglobin, hematocrit, red blood cell count, mean corpuscular volume, mean corpuscular hemoglobin, and mean corpuscular hemoglobin concentration.

During the exit screening examination, blood samples were again taken and analyzed as at enrollment and, further, were analyzed for serum iron (SI) and total iron-binding capacity (TIBC) for all adults whose hemoglobin level fell below the normal limits. Transferrin saturation (SI divided by TIBC) was then calculated for the exit samples. No adjustments were made for altitude or race.

All HIE blood samples were drawn after 11:00 a.m., and half were drawn between 6:00 p.m. and 10:00 p.m. Because of diurnal variations in hemoglobin concentration, a slight systematic bias downward in hemoglobin values might be expected when values for the latter samples are compared with those for samples drawn earlier in the day.

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ANGINA PECTORIS AND ECG ABNORMALITIES

Angina variables are created using data from the MHQs and the screening exam. The angina battery asked how frequently and severely, and under what conditions, the respondent experienced chest pain and other signs and symptoms of angina; how recently he had consulted a physician about the disorder; whether a physician had diagnosed angina; which medications had been used and to what effect; and the level of pain, worry/concern, and activity restrictions, and the number of days in bed, caused by the disorder. In Dayton, the entire chest pain battery appeared in Form A of the enrollment MHQ; in all other MHE sites, it appeared in Form B. It appeared in Form B of the exit MHQ for all sites.

The variable ANGIBIN is the most straightforward indicator of the presence/absence of angina. Its values are based on the Rose scoring method and evidence of a medical diagnosis. The presence of angina and the degree of resulting impairment are indicated by the variable ANGINOE.

During both the enrollment and exit screening examinations, persons meeting the following criteria were given a resting, 12-channel electrocardiogram (ECG):"\n
- Men 30 years of age and older; women 35 years of age and older.
- Other adults (14 and older) who answered yes to any of the following questions asked at the screening examination (not on the MHQ):

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*The Rose questionnaire and scoring method are widely used to detect angina pectoris. Most MHQ questions relating to angina are modifications of Rose questions. The original Rose questionnaire and scoring algorithms are reproduced in Daniel M. Berman et al., Conceptualization and Measurement of Physiologic Health for Adults, Vol. 4: Angina Pectoris, The RAND Corporation, R-2262/4-HHS, June 1981, Appendix A; for a discussion of the method's reliability and validity, see p. 4 of that report.

ECG stress tests could not be administered during either the enrollment or exit screening examinations, though their results would have provided more conclusive evidence of the presence/absence of angina.
"Have you ever taken any of these heart medicines: digitalis, digitalis leaf, digitoxin, or digoxin?"

"During the past 12 months, have you ever felt short of breath or has the doctor ever told you that you had heart failure?"

"Have you had pain, discomfort, heaviness, or pressure in your chest in the past 12 months, not related to an injury or a 'chest cold'?"

"Has a doctor ever said you have high blood cholesterol?"

"Have you ever been told by a doctor that you had high blood pressure?"

"Are you now taking pills or medicine for high blood pressure?"

* Persons whose blood pressure reading equaled or exceeded 90 mm Hg diastolic or 140 mm Hg systolic.

The ECG was not connected with the diagnosis of angina pectoris.

A board-certified cardiologist interpreted each electrocardiogram and indicated any abnormalities by assigning the appropriate code from a given list. Different abnormality codes were used at enrollment and exit. The cardiologist was asked to list, in no special order, no more than five abnormalities for each respondent.

To define the subpopulation whose ECGs could indicate a risk of serious incapacitation or premature death, KIE analysts created seven derived variables with the prefix ECG. For each participant, the seven variables were coded to reflect the presence or absence of each of the

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6The abnormality codes used are reproduced in Smith et al., op. cit., pp. 360-361.
seven abnormalities. The following derived variables were thus constructed:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Abnormality</th>
<th>HIE Code</th>
<th>Enrollment</th>
<th>Exit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECG1</td>
<td>Intraventricular conduction</td>
<td></td>
<td>2000-2199</td>
<td>8, 62-66</td>
</tr>
<tr>
<td>ECG2</td>
<td>ST-segment or T-wave abnormality</td>
<td></td>
<td>4150-4162</td>
<td>88, 91, 117, 95-100, 102-110</td>
</tr>
<tr>
<td>ECG3</td>
<td>Ventricular enlargement</td>
<td></td>
<td>5100-5129</td>
<td>67-74, 76-80</td>
</tr>
<tr>
<td>ECG4</td>
<td>Infarction (except subendocardial and atrial)</td>
<td></td>
<td>5310-5374</td>
<td>41-59</td>
</tr>
<tr>
<td>ECG5</td>
<td>Atrial fibrillation</td>
<td></td>
<td>1240-1249</td>
<td>4-6</td>
</tr>
<tr>
<td>ECG6</td>
<td>Ventricular dysrhythmias</td>
<td></td>
<td>1400-1450</td>
<td>16</td>
</tr>
<tr>
<td>ECG7</td>
<td>Artificial pacemaker dysrhythmias</td>
<td></td>
<td>6200-6299</td>
<td>3</td>
</tr>
</tbody>
</table>

MINNECG indicates whether any abnormality was noted on a respondent's ECG, using the more stringent "Minnesota" criteria based on four abnormalities:⁷

<table>
<thead>
<tr>
<th>Abnormality</th>
<th>HIE Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left bundle branch block (intrapreventricular conduction)</td>
<td>2120</td>
</tr>
<tr>
<td>ST-segment changes</td>
<td>4150-4152</td>
</tr>
<tr>
<td>T-wave changes</td>
<td>4160-4162</td>
</tr>
<tr>
<td>Infarction (except subendocardial and atrial)</td>
<td>5310-5374</td>
</tr>
</tbody>
</table>

CHRONIC OBSTRUCTIVE AIRWAY DISEASE

Data on chronic obstructive airway disease (COAD) were obtained from the NHQs and the screening exam. In Dayton, the NHQ questions appeared in NHQA, in NonDayton they were included in NHQB. The wording for some questions differed slightly, though these differences were considered insignificant for most questions (see the codebook and Appendix D).

The NHQ contained two batteries of questions related to chronic obstructive airway disease—-one on chronic bronchitis, emphysema, and phlegm production, and one on smoking behavior. The bronchitis battery asked when and how frequently the respondent brought up phlegm; whether and how recently he had consulted a physician about the disorder; whether a physician had diagnosed bronchitis or emphysema; what treatments had been prescribed and which were currently being used; and the level of pain, worry/concern, and activity restrictions, and the number of days in bed, caused by the disorder. The phlegm-production questions originated from the World Health Organization. The smoking battery asked how long the respondent had been smoking, how long ago he had stopped smoking, if applicable, and how much he smoked either currently or previously.

In addition, four NHQ shortness-of-breath questions originally developed to elicit information on congestive heart failure were, in the absence of that disorder, used as indirect indicators of emphysema. Responses were analyzed first to determine their scalability according to Guttman scalogram criteria and then to form a severity scale for shortness of breath (dyspnea).

The enrollment and exit screening examinations included a spirometry test using an automated spirometer. Each respondent taking the spirometry test was given three tries. Forced vital capacity (FVC) and forced expiratory volume in one second (FEV1) were measured at both enrollment and exit and the measurements corrected to body temperature

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and pressure saturated with water vapor. Maximal mid-expiratory flow rate (MMFR) was also measured at enrollment, but results were so variable that the test was dropped from the exit examination. Assessments of pulmonary function were based on FEV1 and FEV1 divided by FVC. The variables representing FEV1 expressed as a percentage of a predicted value are PERPRED and PERPREDX at enrollment and exit, respectively. The predicted value is based on the equation published by Knudson et al.3

CONGESTIVE HEART FAILURE AND CHEST X-RAY ABNORMALITIES

Data on congestive heart failure were obtained from the MHQs and the screening exam. All variables documented here are based on MHQ information. The congestive heart failure battery asked how frequently and severely, and under what conditions, the respondent experienced shortness of breath and other signs and symptoms of congestive heart failure; how recently he had consulted a physician about the disorder; whether a physician had diagnosed an enlarged heart or heart failure; what medications had been prescribed and which were currently being taken; and the level of pain, worry/concern, and activity restrictions, and the number of days in bed caused by the disorder. The Dayton enrollment MHQ Form A contained the shortness-of-breath/heart failure battery. The dyspnea questions included those developed by Rose and Blackburn and used by the World Health Organization.19 In other sites, the shortness-of-breath/heart failure battery (revised version) was administered in Form B at both enrollment and exit.

Two additional questions in Form B, used in all administrations other than Dayton enrollment, had no equivalent in Dayton's Form A. One pertained to the number of pillows used if a person reported orthopnea (shortness of breath when lying down), and the other to the last time the participant had consulted a physician about an enlarged heart or heart failure.


DIABETES MELLITUS

Derived variables for diabetes were created from NHQ data and screening exam data. The diabetes battery, which appeared on NHQ Form B, asked whether the respondent thought that he had diabetes or whether the disorder had been diagnosed by a physician; how recently he had consulted a physician about the disorder; what treatments/medications had been prescribed and which were currently being used; and the level of pain, worry/concern, and activity restrictions, and the number of days in bed caused by the disorder.

When the participants arrived for the enrollment screening examination, a glucose load based on skin surface area was administered to everyone except known diabetics who were taking insulin or an oral hypoglycemic agent. Precisely two hours later, a blood sample was taken by venipuncture. Nearly all HIE glucose tolerance tests were administered after 2:00 p.m.; many were performed in the early evening. The samples were analyzed by the glucose-oxidase method in Dayton and by SMA-12/60 techniques in all other sites. To make all measurements comparable, those analyzed by SMA-12/60 techniques were linearly transformed as necessary before being used for HIE analyses. (See the codebook for the actual transformation.)

A random blood glucose measurement was made during the exit screening examination. In this case, random means that the drawing of the blood sample was not preceded by a glucose load but simply was drawn at the end of the examination, usually between two and six hours after the subject's last consumption of food or liquid. In all sites, samples were analyzed by the glucose-oxidase method.

HAY FEVER

Data on hay fever were obtained from the NHQs only. The hay fever battery, which appeared on NHQ Form B in all sites, asked how recently the respondent had consulted a physician about the disorder; whether in the past year any medications had been prescribed or injections administered for hay fever or other plant allergies; whether any medications had actually been taken; and the level of pain, worry/concern, and activity restrictions, and the number of days in bed,
caused by the disorder. In addition, unlike the Dayton enrollment battery, the revised version in the nonDayton sites specifically asked about allergies to plants and grasses. The two versions also differed with respect to the timing of medical care for hay fever and the length of time in a year that the person was afflicted with the disorder.

Because of wording modifications in the revised NHQ, the variable names in the Dayton enrollment battery differ from those in the revised battery. The values of the variables between versions were equated by creating a combined variable that was given the prefix DEIC and the number of the Dayton enrollment variable. For example, the trigger question for Dayton (variable name - DEI4219) and that for NonDayton sites (variable name - DEI5318) were combined to create DEIC4219. (See HAYFNHQ in the codebook for a specific example.)

HEARING LOSS

Data on hearing loss were gathered from the NHQs and the screening exam. All variables documented here were derived from screening exam data except for the variables on impact, HEARIMP and HEARIMPX, which were based on questions from the NHQs. The hearing loss battery, which appeared on NHQ Form B in all sites, asked how recently the respondent had consulted a physician about the disorder; whether and how recently he had had a hearing test; whether he had ever had an ear injury or ear surgery or used a hearing aid; and the level of worry/concern and activity restrictions caused by the disorder. A minibattery, originally developed and tested by the National Center for Health Statistics, focused on the nature and severity of the respondent's hearing deficiencies.\(^\text{11}\) Those questions were ordered according to increasing levels of loudness necessary to hear and understand sound, conforming to criteria necessary for Gottman scalogram analysis. When compared with audiometric data, the scale levels were found to correspond well with the threshold hearing levels of the better ear.

During the enrollment screening examination, measures of hearing sensitivity were obtained for each ear separately (without the hearing aid if the examinee was wearing one) with a Beltone 12-D manual pure-tone-threshold audiometer, while the examinee was seated in a soundproof booth. The HIE test procedure began with an air conduction test. The examinee was presented with a tone of gradually increasing intensity until response was obtained. Then the actual threshold determination started with the first test tone (1000 Hertz (Hz)) presented at an intensity 20 decibels (dB) below that of the familiarization tone. At the point that the examinee failed to respond, the intensity was increased in steps of 5 dB until sound was again heard. The intensity was then raised by another 5 dB and, after response, decreased by 15 dB. The series of ascending presentations was repeated to determine the thresholds of the remaining frequencies (500, 2000, and 4000 Hz).

When results indicated a threshold of 20 dB or higher at any frequency for either ear, bone conduction measurements were obtained. The bone conduction procedures were identical to those used for air conduction tests.

During the exit screening examination, every HIE participant was asked to undergo pure-tone audiometry with the Synergetics automated Model 2510 audiometry station. Persons unable to use the automated audiometer were manually tested by a technician using the Beltone 12-D manual pure-tone-threshold audiometer.

HYPERCHOLESTEROLEMIA

Data for hypercholesterolemia were obtained from the NHQs and the screening exam. The cholesterol battery, which appeared on NHQ Form B in all sites, asked how recently the respondent had consulted a physician about the disorder; whether he had ever had a blood cholesterol test; whether a physician had diagnosed high cholesterol; whether any medications had ever been prescribed and whether any, prescribed or not, were currently being taken; and the level of worry/concern and activity restrictions caused by the disorder. An eating habits and diet battery, which also appeared in NHQ Form A, asked whether the respondent was on certain special diets, and if so, for what reason.
During the enrollment screening examination, serum cholesterol was measured. The type of test differed by site as follows. In all sites, cholesterol was part of the SMA 12/60 panel. In Dayton, Seattle, and South Carolina, the Lieberman-Burchard test without extraction was performed; specifically, the Huang modification with Technicon reagent was used in Dayton and Seattle, and with Hycel reagent in South Carolina. In Massachusetts, the enzymatic oxidase technique was employed. Values varied among sites, principally because the enzymatic oxidase method gives systematically lower readings than does the Lieberman-Burchard method.

During the exit screening examination, all adult HIE participants again received a cholesterol test. Techniques differed by both site and enrollment period. For participants enrolled for the three-year period in Seattle and Massachusetts and for the five-year period in Dayton, cholesterol level was determined by the Lieberman-Burchard technique without extraction; the test was done on the SMAC machine with Technicon reagent. The enzymatic oxidase method was used for three-year participants in Dayton, for five-year participants in Seattle and Massachusetts, and for both groups of participants in South Carolina.

At enrollment and exit, repeat analyses were performed on any serum sample whose cholesterol value exceeded 260 mg/dl, even if that value fell within the so-called normal range for the laboratory doing the examination in that site. If the test was repeated, the second (i.e., repeat) measurement was taken as the true value.

HYPERTENSION

Data on hypertension were obtained from the MHQs and the screening exam. The blood pressure battery asked whether and how recently the respondent had had a blood pressure test; whether a physician had diagnosed elevated blood pressure; how recently the respondent had consulted a physician about the disorder; how long the disorder had persisted; whether any antihypertensive medications had been prescribed and whether any, prescribed or not, were currently being taken; how much salt the respondent used; whether he was currently on a weight-loss diet; and the level of pain, worry/concern, and activity restrictions,
and the number of days in bed caused by the disorder. The blood pressure battery appeared on MHQ Form A at enrollment in Dayton but on Form B at enrollment in all other HIE sites as well as in all sites at exit.

During the enrollment screening examination in Dayton, sitting and standing systolic and diastolic blood pressure in the examinee's left arm were measured with an Infrasonde 3000 electronic sphygmomanometer. If any of the four measurements exceeded the HIE threshold for hypertension (systolic greater than or equal to 140 mm Hg, diastolic greater than or equal to 90 mm Hg), a second set of sitting measurements was taken after a rest period of at least 10 minutes. In addition, examinees were questioned about the use of antihypertensive medications and previous physicians' diagnoses of hypertension.

In all other nonDayton sites at enrollment, the initial measurements were only sitting blood pressure from the right arm; they were taken with a Physiometrics automatic blood pressure recorder, which produces a hard-copy record. For examinees taking antihypertensive medication, a standing measurement was also obtained. If either the systolic or the diastolic sitting pressure reading was elevated (systolic greater than or equal to 140 mm Hg, diastolic greater than or equal to 90 mm Hg), then the sitting measurement was repeated after at least 10 minutes of rest.

During the exit screening examination in all sites, blood pressure in the left arm was measured with a Synergetics Automatic Model 2230 Blood Pressure Station, an automated device that uses the auscultation technique and provides a numerical readout. Sitting measurements were obtained from all participants; standing and/or repeat sitting measurements (after a 10 minute rest) were obtained from any examinee who met the same criteria as in the nonDayton enrollment examination.

**JOINT DISORDERS**

Data on joint disorders were taken from the MHQs and the screening exam. The MHQ contained a battery of questions related to joint and muscle disorders that are indicative of gout, rheumatoid arthritis, tenosynovitis, or osteoarthritis. In all sites except Dayton, the joint problem battery appeared on MHQ Form B; in Dayton, it was on Form A.
The joint problems battery asked whether the respondent experienced certain symptoms (pain, aching, swelling, etc.) associated with the various joint disorders; whether a physician had ever diagnosed rheumatism, arthritis, or gout; how recently the respondent had consulted a physician about the disorder; what medications he currently took; and the level of pain, worry/concern, and activity restrictions, and the number of days in bed, caused by the disorder.

Both the enrollment and exit screening examinations included measurements of blood urate (uric acid) level, grip strength, walking speed, joint size, and rheumatoid factor to detect joint disease in the hands and wrists. Urate analyses were done for all adult examinees. The blood samples were analyzed by the automated method of Sabrinho and Simeão.¹² X-rays were also taken, but only at the enrollment screening examination.

The other four measurements were performed at enrollment only for adult examinees who said, when asked at the screening examination, that during the past year they had had joint pain, aching, swelling, or stiffness not caused by injury. The same was true at exit, except for joint size. At exit, joint size was measured only if the participant had already had it measured at enrollment.

Grip strength was measured with a sphygmomanometer that consisted of an inflatable rubber bag attached to a mercury pressure gauge. Walking speed was measured over a total distance of 50 feet, with a walk of 23 feet from the starting line, a turn, and a walk of 25 feet to return. Joint sizes were measured for selected fingers in Dayton at enrollment and all ten fingers in all other enrollment examinations and all exit examinations with an arthrocircimeter manufactured by Abbott Laboratories. Rheumatoid factor was measured in two stages. First, a screening test that is highly sensitive for rheumatoid factor was performed. Second, if the result of the first test was positive, the exact amount of rheumatoid factor present as serum titer was measured.

KIDNEY DISEASE AND URINARY TRACT INFECTION

Data on kidney disease and urinary tract infections were obtained from the MHQs and the screening exam. The battery on kidney disease or kidney, bladder, and urine infection, which appeared on MHQ Form B in all sites, asked how recently the respondent had consulted a physician about one of those disorders; whether a physician had diagnosed kidney disease; whether a physician had ever prescribed any medications; whether any, prescribed or not, were currently being taken; and the level of pain, worry/concern, and activity restrictions, and the number of days in bed, caused by the disorder.

At enrollment and exit, several laboratory tests were performed to determine the presence of kidney disease or kidney or bladder infection, including measurement of blood urea nitrogen (BUN), urinalysis (for blood, protein, and glucose), and urine culture. Blood samples were analyzed for creatinine (Dayton only) or BUN (all other sites) on the Technicon Autoanalyzer as part of the SMA-12/60 panel. At both enrollment and exit at all sites except one, the BUN level was determined by a variant of the Marsh procedure; at exit of the Dayton three-year sample, the BUN level was determined by the urease method as part of the SMA-12 battery of tests. Because of the higher prevalence of urinary tract infections among women, urine cultures were performed for women only.

In addition, at the enrollment screening examination, several questions were asked on a self-administered questionnaire to identify women who were currently pregnant, menstruating, or taking hormones or birth control pills. Menstruation can affect the findings and the interpretation of the urinalysis. At the exit screening examination, that group of questions was expanded to include an item related to symptoms such as burning or pain while urinating.

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PEPTIC ULCER DISEASE AND DYSEPSIA

Data on peptic ulcer disease were taken solely from the MHQs. No laboratory tests or other procedures specifically related to ulcer disease were performed during either the enrollment or exit screening examination. The stomach pain or ache battery, appearing on Form A in Dayton and on Form B in all other sites at enrollment, asked whether the respondent had had episodes or attacks of stomach pain or ache in the past three months, the length of the episodes, their proximity to meals, whether the pain was relieved by milk or food, and whether the respondent was awakened at night by stomach pain. It also asked how recently the respondent had consulted a physician about the disorder; whether a physician had diagnosed a stomach or duodenal ulcer and, if so, whether the diagnosis had been confirmed by an upper gastrointestinal tract x-ray examination; whether any medications had ever been prescribed; how often the respondent took antacids or aspirin to alleviate stomach pain; and the level of pain, worry/concern, and activity restrictions, and the number of days in bed, caused by the disorder.

SLEEPING PILL AND TRANQUILIZER USE

All HIE data on sleeping pill and tranquilizer use were taken from the MHQs.\textsuperscript{15} The MHQ asked about the incidence and frequency of use of tranquilizers and sleeping pills and the level of worry/concern, and activity restrictions, and the number of days in bed caused by the disorder.

The MHQ employed the terms "sleeping pills" and "tranquilizers" to elicit information about hypnotics and anxiolytics.\textsuperscript{16} In this codebook, names of variables derived from questions in the sleeping pill battery

\textsuperscript{15}Difficulties in testing methods prevented the use of urine screening examinations, as had been projected at the outset of the experiment.

\textsuperscript{16}Hypnotic and anxiolytic drugs refer to sleeping pills (barbiturate and nonbarbiturate hypnotics), minor tranquilizers (nonbarbiturate anxiolytics or, equivalently, antianxiety agents), and daytime sedatives (hypnotic barbiturates at low dosages).
are prefixed PILL (as in PILLEFREQ, PILLUSE, etc.). Variable names involving prescription tranquilizers use the prefix TRAN or TRANQ. "Sedatives" were included in the tranquilizer category because, although they cause drowsiness, they are often prescribed for the relief of anxiety.

Dayton enrollment and nonDayton versions of the battery differ significantly. For example, in Dayton the initial trigger question asks for current use whereas the nonDayton versions ask about use in the last three months. The user is referred to the actual batteries in Appendix C.

Surgical Conditions

Data on surgical conditions were obtained from the NHQs for all conditions. Screening exam data were obtained on varicose veins only.

The NHQ contained separate but similar batteries on three surgically correctable conditions—hernias, varicose veins, and hemorrhoids. The batteries, which appeared on NHQ Form B in all sites, asked whether the respondent had ever had surgery for one of the conditions; how recently he had had the condition; how recently he had consulted a physician about the condition; what treatments (including surgery) had been prescribed; (for varicose veins only) which were currently being used; and the level of pain, worry/concern, and activity restrictions, and the number of days in bed, caused by the disorder. Another brief battery asked whether the respondent had ever had gall bladder or tonsil/adenoïd surgery.

Varicosity examinations were performed in all sites at enrollment on all women at least 20 years of age and all men who reported having had varicose vein surgery or who had noticed varicosities in their legs within the previous 12 months. Veins were evaluated for severity, location, and drainage system. At exit, the same examination was performed on all women at least 20 years of age and all men who reported the presence of varicose veins.
THYROID DISEASE

Data on thyroid disease were gathered from the MHQs and the screening exam. The goiter or thyroid trouble battery, which appeared on MHQ Form B in all sites, asked how recently the respondent had consulted a physician about the disorder; whether a physician had diagnosed a goiter; prescription what treatments (medications, surgery, radiation) had been prescribed; what medications were currently being used; and the level of pain, worry/concern, and activity restrictions, and the number of days in bed, caused by the disorder.

During the enrollment screening examination, blood samples were drawn from all adult participants. In Dayton and Seattle, the Murphy-Pattee test of total serum T4, which uses the competitive protein-binding assay, was performed. The normal range for the Dayton laboratory was 3.0 to 7.0 micrograms (mcg) per 100 ml; for the Seattle laboratory, it was 4.0 to 10.7 mcg per 100 ml. In addition, in Seattle, if the total serum T4 was abnormal or if the subject was pregnant or taking thyroid medications, hormones, or birth control pills, a resin T3 uptake was performed and a free T4 index was computed. The Seattle laboratory's normal range for the free T4 index was 3.2 to 12.8 mcg per 100 ml.

In Massachusetts and South Carolina, the radio-immunoassay (RIA) procedure for measuring total serum T4 was used. As in Seattle, a resin T3 uptake was performed on selected patients, but a T7, rather than a free T4, index was calculated. The normal range for the RIA T4 was 5.0 to 13.0 mcg per 100 ml in Massachusetts and 4.0 to 11.0 mcg per 100 ml in South Carolina. In Massachusetts, the normal range for the T7 was 0.9 to 3.0 mcg per 100 ml; in South Carolina, 0.9 to 3.6 mcg per 100 ml.

During the exit screening examination, the RIA T4 test was conducted for all HIE participants. Further, anyone with an elevated T4 value or who was pregnant or taking thyroid medications, hormones, or birth control pills was tested for resin T3 uptake so that a free T4 index or T7 could be calculated. At all sites except Dayton, the level of thyroid-stimulating hormone (TSH) was also measured in persons with low total T4 values.
VISION IMPAIRMENTS

Data on vision impairments were taken from the MHQs and the screening exam. Unlike most batteries in the MHQ, the vision battery did not have an initial trigger question. Everyone completing the MHQ responded to all questions in the battery; there were no skip patterns.

The MHQ contained two batteries of questions related to vision impairments—one on eyesight and one on glaucoma. The eyesight battery asked whether and how recently the respondent had had his vision tested by a physician; why the test was needed; whether corrective lenses were prescribed and were currently worn; how well the respondent could see without corrective lenses; and the level of pain, worry/concern, and activity restrictions caused by the disorder. The glaucoma battery asked whether the respondent had ever been tested for increased pressure in the eye; how recently he had consulted a physician about the disorder; whether a physician had diagnosed glaucoma; what medications were currently being taken; and the level of pain, worry/concern, and activity restrictions, and the number of days in bed, caused by the disorder.

During the enrollment screening examination, measurements of visual acuity were obtained for each eye separately. For far vision, illiterate examinees were tested with the Illiterate E Chart and all other examinees were tested with the Snellen Eye Chart. For near vision, the Rosenbaum Near Vision Card was used in all cases. If the examinee wore corrective lenses, both corrected and uncorrected vision was tested. Examinees with natural far vision worse than 20/20 who did not wear glasses or lenses, and examinees with corrected far vision worse than 20/20, were tested for pinhole acuity.
IV. THE CODEBOOK

This codebook describes each variable in the Adult Medical Disorders File. In addition, a brief description of the organization of the codebook follows, along with descriptions of special variables on the file, comments on the use of the codebook, and a discussion of missing data.

ORGANIZATION

For each variable in the adult medical disorders file, a variable description is provided, followed by a listing of the input variables from which the variable is derived. The SAS code used to construct the variable is then listed.

The variable descriptions, arranged in boxes as shown in Fig. 1, form the core of the codebook. Each description comprises the following elements:

- Variable name, a unique identifying character combination.
- File designation, the substantive abbreviation used by analysts. ANEDIS is the acronym used to designate the adult medical disorders file.
- Variable label, a capsule description of the variable.
- Response codes and their definitions.
- Prose definition of the variable.

Any essential explanatory notes are located just under the box.

Some exit variables contain "out-of-area" screening examination data, and that fact is also noted below the variable description box.

As mentioned in Sec. II, "out-of-area" families were those who lived farther than 100 miles from the nearest HIE screening examination center and were permitted to receive exit screening examinations from

\footnote{A technical description of the file, including the location and length of each variable, is provided in Appendix F.}
their private physicians (providers of their own choice). Their screening examination data are not as complete as those of in-area examinees.²

![Table](image)

**Fig. 1 - Example of codebook format**

The next block of information below the variable description box is a listing of the input variables used to construct the derived variable. They may be either primary variables or other derived variables. The primary variables are specified by numbers prefixed DEI, for data element indicator. Every DEI represents a question on a data collection instrument—in this case, the MHQ or screening examination form used at the particular site. Following every DEI, in parentheses, is the source of the question—MHQA, MHQB, or screening examination. In some instances, a particular question may come from MHQA in Dayton, but from MHQB in NonDayton sites. In such cases, both sites and sources are listed. Otherwise, only the source is listed. Following this information is the actual question or input variable description. Response codes are not listed for the input variables from the MHQs.

²Tests performed solely during the in-area examination include acne photographs, spirometry tests, varicose vein tests, tonometry and audiometry tests, tympanometry tests, some laboratory tests, and arthritis evaluations.
The users are referred to the actual questionnaire batteries provided in Appendix D. Response codes are listed for screening examination variables.

Some of the input variables are designated temporary variables. These are intermediate variables, used in the construction of the final derived variables on the file. These temporary variables are not included on this file.

Next, the information labeled construction shows the SAS code used to construct the derived variable. In some cases, HIE programmers have added code to identify the reasons for missing values—for example, to distinguish cases where the question was inapplicable from those where the response was omitted in error or those where, for reasons of HIE design and strategy, the respondent was not given the questionnaire. When such distinctions are not made, however, users should be aware that a value may be "missing" for a variety of reasons. Several indicator variables, described below, enable the user to distinguish several categories of "missing." The user will not, however, be able to distinguish every missing case using these indicator variables. (See the section on Missing Data for a further explanation.) In addition, when clarification was needed, HIE programmers added explanatory comments, enclosed in parentheses, to the code.

At the right of each variable description box is summary information on the distribution of values. For variables with a small number of discrete values, a table of response frequencies is given. The first column lists all response codes appearing for the variable. The second and third columns show, respectively, the absolute and cumulative response frequencies for each code. The fourth and fifth columns show the corresponding absolute and cumulative percentages. For variables with a large number of discrete values or for continuous variables, statistics such as the mean, median, and standard deviation are given instead of frequencies. The total number of observations is 5,871 in the AMEDIS file.

SPECIAL VARIABLES

Header Variables

Each record in the AMEDIS file begins with five identifying variables: FILENAME, PERSON, ENKTERM, SITE, and INSTAT. FILENAME is a six-character code unique to each file. It is different from the file identifier in the upper right corner of the variable description boxes. FILENAME is used for administrative purposes by the HIE. PERSON identifies each enrollee, permitting data to be linked for an individual across years and files. ENKTERM indicates whether an individual was enrolled in the experiment for a three-year or five-year term. SITE denotes in which of the six study areas the participant lived at enrollment. INSTAT distinguishes all participants who were at any time insured under the HIE (INSTAT = 1) from those who were never insured under the HIE (INSTAT = 3). It also identifies members of the Seattle HMO control group (INSTAT = 2), who were not insured under the HIE but were used for comparison with the HMO experimental group that was HIE-insured. For the AMEDIS file, INSTAT equals 1 or 2 for all respondents. INSTAT equal to 3 may appear on other files that the user may wish to use in conjunction with the AMEDIS file. Both SITE and INSTAT can be used to select analytic subsamples.

Indicator Variables

As mentioned previously, HIE programmers often added code that assigns special missing values to a variable to identify some of the reasons for the missing values. In some cases, though, these distinctions are not made and there is just one general missing category. Several indicator variables are included on this file that the user may find useful in making some of these distinctions. These indicator variables include MHQA, MHQAX, MHQB, MHQBX, SCREENED, SCREENDX, BESFLAG, and OUTAREAX. MHQA and MHQAX indicate whether a

"Ever insured" participants did not necessarily remain insured throughout their enrollment period; they could have been suspended (and reinstated) for various reasons. "Never insured" includes both those who refused enrollment and those who did not meet HIE eligibility criteria.
respondent completed the MHQA at enrollment or exit, respectively; MHQB and MHQEX indicate whether the respondent completed the MHQB at enrollment or exit; and SCREENED and SCREENDX indicate whether a participant was given a screening examination at enrollment or exit. PEGFLAG indicates whether or not a participant was a replacement PEG; if so, the respondent will have no enrollment screening examination data and his enrollment MHQ data will have been taken from an MHQ administered in 1975. OUTAREAX indicates whether or not a respondent took an out-of-area screening examination.

MISSING DATA

To understand why a given participant was assigned a missing value for a particular variable, the user often must carefully study the way in which the variable was constructed. Two major reasons for missing data in this file include:

- Persons who were 13 years of age or younger at enrollment but 14 years or older at exit were systematically assigned missing values for all variables based on enrollment data, because they did not fill out the enrollment questionnaire for adults.
- Persons who enrolled in, but did not complete, the experiment were assigned missing values for all variables based on data collected at exit. This includes those who attrited, died, or were terminated from the study.

We stress that those participants falling into the first category will have missing values for *all* enrollment variables and those falling into the second category will have missing values for *all* exit variables. These missing values are assigned before any construction of variables and so any code listed under "CONSTRUCTION" does not apply to these participants. In a few instances the code ends with an "ELSE" statement assigning all remaining cases to a special missing value. (See the variable PILLIMPX in the codebook as an example.) In the frequencies, though, there will still be a number of cases with a "." missing. This is a result of these cases in category 1 or 2 above.
Other major reasons for missing data in the AMEDIS file include:

- Persons who were part of the replacement PEG group were assigned missing values for all screening examination variables at enrollment.
- As noted in Sec. II, the questionnaire fielded in Dayton at enrollment differed substantially from the revised questionnaire used in Dayton at exit and in all other sites at both enrollment and exit. Many questions either were not asked or were asked in a different manner in Dayton at enrollment. Consequently, some derived variables could not be constructed from enrollment data for Dayton participants, because the data necessary for construction had not been gathered. Thus, Dayton participants were assigned missing values for those enrollment variables.
- Persons who did not complete an entire questionnaire--either because the HIE study design excluded them from that questionnaire or because for whatever reason they failed to return it--were assigned missing values for all variables derived from that questionnaire.
- Persons who for whatever reason did not complete individual questions were assigned missing values for all variables based on those questions.
- Persons who did not take a screening examination--either because the HIE study design excluded them, or because for whatever reasons they failed to take it--were assigned missing values for all variables derived from that examination.
- Persons who for whatever reason did not complete a particular part of the screening examination were assigned missing values for all variables based on that test.
- Persons taking out-of-area screening examinations, which were not as complete as the regular screening examination, were assigned missing values for those variables based on tests or procedures not performed as part of the out-of-area screening examinations.
When HIE programmers did not include code to distinguish between the reasons for missing values, the indicator variables discussed in the previous section can be used to determine if a participant has missing values as a result of the above reasons, such as no MHQ or no screening examination. However, no indicator variable has been included on this file that will allow the user to distinguish among those participants who have missing values as a result of the first two major reasons listed above, i.e. those participants not present at enrollment and those not present at exit. It is important to note that when the indicator variables are used in the code under "CONSTRUCTION" this code does not apply to those participants not present at enrollment or exit. (For an example, see the variable ANEMMHQX in the codebook.) Code such as "IF MHQBX < 0 THEN ANEMMHQX = B;" will only assign a "B" to those cases with MHQBX < 0 who were part of the original exit sample. Those people in category 2 above, i.e. those not present at exit, will still have a '.' missing. This can be misleading if the user does not keep this fact in mind when examining the frequency for the indicator variable MHQBX, which shows 755 persons who have MHQB missing. This number includes those in category 2.

CODEBOOK USE

This codebook constitutes a basic reference for analysts of the adult medical disorders file. The tables of statistical frequencies highlight any extreme values that may indicate a need for special analysis. The cumulative frequency values enable analysts to calculate measures of central tendency and dispersion such as the median and the interquartile range. For most disorders, a status variable enables analysts to determine whether a respondent has a particular physical disorder, and data on each disorder are accompanied by an indicator of its effect on a respondent (pain, worry, restricted activity, or bed days).

Most of the derived variables presented in the AMEDIS codebook were used at both enrollment and exit. Exit variables follow enrollment variables in the codebook, and are denoted by an "X" at the end of the variable name. A few, however, were used just once—a fact clearly noted below the variable description box.
An alphabetical listing of the variables contained in the AMEDIS file is provided in Appendix G to facilitate the use of this codebook. This listing gives the page numbers for each variable in the codebook along with a capsule description of the variable.

Users must rely heavily on this codebook for correct interpretation of the special missing codes for each variable, because the derived variables included in this document were created for use by different HIE analysts at different times. As a result, special missing designations do not always correspond from one condition to another, or from enrollment to exit. For example, the special missing "B" may indicate no questionnaire taken for one disorder but may indicate a missed trigger question for another disorder.

As was mentioned above, questionnaires were initially fielded at Dayton. Subsequent questionnaires for the NonDayton sites and Dayton exit were revised and refined. As a result of this, there are often slight to major variations between Dayton and NonDayton questions at enrollment. These differences are reflected in the codebook and are clearly indicated by separate constructions or by constructions broken down by "SITE=1" for Dayton and "SITE NE 1" for NonDayton.

The AMEDIS file contains only derived variables that were created for HIE analysts. If the user wishes to examine primary variables or to create different derived variables from the primary variables, he must obtain additional HIE files. Primary variables based on the MHQs will be released as several separate files (see Appendix B). There are no plans, however, to release the primary screening examination variables. The user must rely on this derived file for all screening examination data related to the adult medical disorders.

A related derived variable file that may be of interest to the user of this AMEDIS file is the health status and attitude (HSA) file (see Appendix B). Health status was viewed by the HIE as having four dimensions: physical, mental, social, and physiologic. The AMEDIS file documents the derived variables relating to physiologic health. Variables relating to physical, mental, and social health are documented in the HSA file. Physiologic health is defined in terms of functional status, i.e., the ability to perform activities considered normal for
persons in good health. Mental health measures were designed to gauge several dimensions of emotional distress and well-being. Measures of social health incorporate information on personal interactions and social participation. In addition, this HSA file details variables on self-ratings of general health; health habits, such as smoking and drinking; and attitudes toward medical and dental care.

Broader analyses will require other derived variable codebooks and files. Reference to the master sample series is necessary for selecting analytic subsamples based on specific demographic and eligibility criteria and for linking individuals to families. The codebooks in that series pertain to demographics of the full sample (all participants and anyone ever considered for participation), eligibility data for the enrolled sample, and changes in the composition of enrolled families. Those codebooks have been published by The RAND Corporation and are listed in Appendix B.
CODEBOOK FOR ADULT MEDICAL DISORDERS FILE
VARIABLE FILENAME

Name of file

DHADAA

FILENAME is a unique 6-character code that identifies this file as the Adult Medical Disorder File (AMEDIS).

VARIABLE PERSON

Person identifier

PERSON is an 8-character alphanumeric code that uniquely identifies the participant in the HIE to whom the following data refer. The 2nd character of PERSON designates in which site a participant resided during enrollment in the HIE:
A=Dayton; B=Seattle; E=Elkhart; F=Franklin County;
G=Charleston; H=Georgetown County.
### SITE

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
</tr>
<tr>
<td>1</td>
<td>867</td>
</tr>
<tr>
<td>2</td>
<td>2435</td>
</tr>
<tr>
<td>3</td>
<td>956</td>
</tr>
<tr>
<td>4</td>
<td>657</td>
</tr>
<tr>
<td>5</td>
<td>584</td>
</tr>
<tr>
<td>6</td>
<td>772</td>
</tr>
</tbody>
</table>

SITE identifies the participant's place of residence at enrollment.

### INSTAT

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>INSTAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
</tr>
<tr>
<td>1</td>
<td>5269</td>
</tr>
<tr>
<td>2</td>
<td>662</td>
</tr>
</tbody>
</table>

INSTAT describes the participant's insurance status in the Health Insurance Experiment.
**ENRTERM**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DESCRIPTION</th>
<th>CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENRTERM</td>
<td>Enrollment term</td>
<td>3 - 3 years, 5 - 5 years</td>
</tr>
</tbody>
</table>

ENRTERM distinguishes the participants who accepted 3-year and 5-year terms of enrollment. Source for this variable is the Document Accountability File.

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM %</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3419</td>
<td>58.24</td>
<td>58.24</td>
</tr>
<tr>
<td>5</td>
<td>2452</td>
<td>41.77</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**MHQA**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DESCRIPTION</th>
<th>CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>MHQA</td>
<td>MHQA indicator at enrollment</td>
<td>- No MHQA, 1 - MHQA present</td>
</tr>
</tbody>
</table>

MHQA indicates whether or not the participant took the MHQA at enrollment.

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM %</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>687</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>
### Variable MHQA

**Indicator at exit**

<table>
<thead>
<tr>
<th>CODES</th>
<th>Description</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>.</td>
<td>No MHQA</td>
<td>751</td>
<td>751</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>1</td>
<td>MHQA present</td>
<td>5120</td>
<td>5120</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

MHQA indicates whether or not the participant took the MHQA at exit.

### Variable MHQB

**Indicator at enrollment**

<table>
<thead>
<tr>
<th>CODES</th>
<th>Description</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>.</td>
<td>No MHQB</td>
<td>936</td>
<td>936</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>1</td>
<td>MHQB present</td>
<td>4935</td>
<td>4935</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

MHQB indicates whether or not the participant took the MHQB at exit.
### MHGBX

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM FREQ</th>
<th>%</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5116</td>
<td>5116</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

MHGBX indicator at exit

**CODES**

1 - No MHGB
2 - MHGB present

MHGBX indicates whether or not the participant took the MHGB at exit.

### SCREENED

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM FREQ</th>
<th>%</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2903</td>
<td>2903</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

SCREENED indicates whether or not the participant took the screening exam at enrollment.

### SCREENDX

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM FREQ</th>
<th>%</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5076</td>
<td>5076</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

SCREENDX indicates whether or not the participant took the screening exam at exit.
**VARIABLE OUTAREAX AMEDIS**

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM FREQ</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>5580</td>
<td>291</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Out-of-area screening examination indicator at exit.

**CODES**

- i: Did not take out-of-area screening examination
- 1: Took out-of-area screening examination at exit

OUTAREAX indicates whether or not the participant took the out-of-area screening examination at exit.

**Note:** No out-of-area screening examinations were given at enrollment.

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**VARIABLE PEGFLAG AMEDIS**

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM FREQ</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>5548</td>
<td>223</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Replacement PEG indicator

**CODES**

- i: Not a replacement PEG
- 1: Replacement PEG

PEGFLAG indicates whether or not the participant was a replacement PEG.
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ACNSTAT</th>
<th>AMEDIS</th>
<th>ACNE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acne status from facial skin photograph at enrollment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CODES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Missing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 - Acne present</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 - No photograph taken (i.e., no acne)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 - Photograph not readable due to administrative errors or camera problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - Not at screening exam</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACNSTAT is an indicator of acne status based on the interpretation of two facial skin photographs (one forehead photograph and one cheek photograph) by a board-certified dermatologist.

**INPUT VARIABLES**

DE17120 (Screening exam) Interpretation of acne skin photograph by physician
1 - Acne present
2 - Acne not present
3 - Questionable

DE17121 (Screening exam) Acne skin photograph completion code
1 - Photograph taken
2 - Photograph not taken

SCREENED Screening exam indicator
1 - Screening exam present

MHQB MHQB indicator at enrollment

(cont.)
VARIABLE ACNESTAT (cont.)

CONSTRUCTION

IF DEI7120 = 1
THEN ACNESTAT = 1;
IF DEI7120 = 2 OR DEI7120 = 3
THEN ACNESTAT = 2;
IF DEI7120 = 4 AND DEI7121 = 2
THEN ACNESTAT = 3;
IF DEI7120 = 5 AND ACNESTAT \= 3 AND SCREENED = 1
THEN ACNESTAT = 4;
IF MHQ8 = 1 AND SCREENED \= 1
THEN ACNESTAT = 5;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ACNESTAT</th>
<th>AMEDIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ACNE</td>
</tr>
<tr>
<td>Acne status from facial skin photograph at exit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Missing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Acne present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 - Not present in photograph</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 - No photograph taken (i.e., no acne)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 - Photograph not read due to administrative errors or camera problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - Not at screening exam</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACNESTAT is an indicator of acne status based on the interpretation of two facial skin photographs (one forehead photograph and one cheek photograph) by a board-certified dermatologist.

NOTE: No photos were taken for those participants taking part in the out-of-area screening exam.

INPUT VARIABLES

DEI7120 (Screening exam): Interpretation of Acne Skin Photograph by Physician
1 - Acne present
2 - Acne not present
3 - Questionable
VARIABLE ACNESTAT (cont.)

INPUT VARIABLES (cont.)

DE13031 (Screening exam) Acne skin photograph completion code
   1 = Photograph taken
   2 = Photograph not taken
MHOQX MHOQ indicator at exit
INAREA (Temporary variable) Inarea screening exam indicator
   1 = Took inarea screening exam

CONSTRUCTION

IF DE17120 = 1
   THEN ACNESTAT = 1;
IF DE17120 = 2 OR DE17120 = 3
   THEN ACNESTAT = 2;
IF DF17120 = . AND DE13031 = 2
   THEN ACNESTAT = 3;
IF DE17120 = . AND ACNESTAT = 3 AND INAREA = 1
   THEN ACNESTAT = 4;
IF MHOQX = 1 AND INAREA = 1
   THEN ACNESTAT = 5;

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2991</td>
<td>437</td>
<td>15.17</td>
<td>15.17</td>
</tr>
<tr>
<td>2</td>
<td>2443</td>
<td>2880</td>
<td>84.83</td>
<td>100.00</td>
</tr>
</tbody>
</table>

VARIABLE ACNBIN

AMDIS ACNE

Binary acne status from screening photo at enrollment

CODES

- Not classifiable or missing
- 1 = Acne present
- 2 = Acne not present

This variable is a recoding of ACNESTAT.

INPUT VARIABLE

ACNESTAT Acne status from facial skin photograph at enrollment

(cont.)
VARIABLE ACNEBIN (cont.)

CONSTRUCTION

IF ACNESTAT = 1
    THEN ACNEBIN = 1;
IF ACNESTAT = 2 OR ACNESTAT = 3
    THEN ACNEBIN = 2;

VARIABLE ACNEBINX

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ %</th>
<th>CUM %</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>699</td>
<td>699</td>
<td>14.82</td>
<td>14.82</td>
</tr>
<tr>
<td>2</td>
<td>4019</td>
<td>4718</td>
<td>85.18</td>
<td>100.00</td>
</tr>
</tbody>
</table>

ACNEBINX

Binary acne status from screening photo at exit

CODES

. = Not classifiable or missing
1 = Acne present
2 = Acne not present

ACNEBINX is a recoding of ACNESTAT.

INPUT VARIABLE

ACNESTAT Acne status from facial skin photograph at exit

CONSTRUCTION

IF ACNESTAT = 1
    THEN ACNEBINX = 1;
IF ACNESTAT = 2 OR ACNESTAT = 3
    THEN ACNEBINX = 2;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ACNESEV</th>
<th>AMEDIS</th>
<th>ACNE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity of acne at enrollment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td>0 : Missing, no photo taken</td>
<td>0 : No acne</td>
<td>0 : No acne</td>
</tr>
<tr>
<td>1 : 1 Comedo/papule</td>
<td>1 : Extensive comedos/papules</td>
<td>1 : Pustules</td>
<td></td>
</tr>
<tr>
<td>2 : Extensive comedos/papules</td>
<td>2 : Extensive comedos/papules</td>
<td>2 : Extensive comedos/papules</td>
<td></td>
</tr>
<tr>
<td>3 : Inflammatory cysts</td>
<td>3 : Inflammatory cysts</td>
<td>3 : Inflammatory cysts</td>
<td></td>
</tr>
<tr>
<td>4 : Inflammatory cysts</td>
<td>4 : Inflammatory cysts</td>
<td>4 : Inflammatory cysts</td>
<td></td>
</tr>
</tbody>
</table>

ACNESEV indicates the severity of acne at enrollment as graded by a dermatologist.

**INPUT VARIABLE**

DE15017 (Screening exam) Acne graded by a dermatologist

0 : No acne
1 : 1 Comedo/papule
2 : Extensive comedos/papules
3 : Pustules
4 : Inflammatory cysts

CONSTRUCTION

ACNESEV = DE15017;
### VARIABLE ACNEIMP

**Impact of acne status at enrollment**

**CODES**

- . = Missing
- 0 = No Impact
- 1 = Some Impact

**ACNEIMP** indicates whether acne caused any pain, worry/concern, or activity restrictions.

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM FREQ</th>
<th>%</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>.</td>
<td>941</td>
<td>941</td>
<td>83.37</td>
<td>83.37</td>
</tr>
<tr>
<td>0</td>
<td>4110</td>
<td>4110</td>
<td>36.63</td>
<td>100.00</td>
</tr>
</tbody>
</table>

### INPUT VARIABLES

- **DE14394** (MQH8): In the last 12 months, have you had trouble with pimples on your face?
- **DE14409** (MQH8): During the past 3 months, how much pain has your acne or have your pimples caused you?
- **DE14410** (MQH8): During the past 3 months, how much has your acne or have your pimples worried or concerned you?
- **DE14411** (MQH8): During the past 3 months, did problems with the way your acne or pimples look cause you to miss or avoid conversations with people?

**DE14409** (Temporary variable): Rescales DE14409 so that 1 = no impact, no pain; 4 = a great deal of pain

**DE14410** (Temporary variable): Rescales DE14410 so that 1 = no impact, no worry; 4 = a great deal of worry

**DE14411** (Temporary variable): Rescales DE14411 so that 1 = no impact, don't avoid conversations; 4 = avoid conversations most of the time.

### CONSTRUCTION

```
DE14409 = 5 - DE14409;
DE14410 = 5 - DE14410;
DE14411 = 5 - DE14411;

ACNEIMP = 0;
IF (DE14409 > 1) OR (DE14410 > 1) OR (DE14411 > 1) THEN ACNEIMP = 1;
IF DE14394 = . THEN ACNEIMP = .;
```
VARIABLE: ACNEIMPX

Impact of acne status at exit

CODES

- 0 = Missing
- 1 = No impact
- 2 = Some impact

ACNEIMPX indicates whether acne caused any pain, worry/concern, or activity restrictions.

INPUT VARIABLES

DE14394 (MHGB) In the last 12 months, have you had trouble with pimples on your face?
DE14409 (MHGB) During the past 3 months, how much pain has your acne or have your pimples caused you?
DE14410 (MHGB) During the past 3 months, how much has your acne or have your pimples worried or concerned you?
DE14411 (MHGB) During the past 3 months, did problems with the way your acne or pimples look cause you to miss or avoid conversations with people?

DE14X409 (Temporary variable) Rescales DE14409 so that
- 1 = no impact, no pain
- 4 = a great deal of pain

DE14X410 (Temporary variable) Rescales DE14410 so that
- 1 = no impact, no worry
- 4 = a great deal of worry

DE14X411 (Temporary variable) Rescales DE14411 so that
- 1 = no impact, don't avoid conversations
- 4 = avoid conversations most of the time.

CONSTRUCTION

DE14X409 = 5 - DE14409;
DE14X410 = 5 - DE14410;
DE14X411 = 5 - DE14411;

ACNEIMPX = 0;
IF (DE14X409 > 1) OR (DE14X410 > 1) OR (DE14X411 > 1)
    THEN ACNEIMPX = 1;
IF DE14394 = ., THEN ACNEIMPX = .;
**VARIABLE ANEMHGBX**

Hemoglobin value at exit

**CODES**

. = Missing hemoglobin value
A = No screening exam

Range of test results = 5.2 to 19.2 g/100 ml

ANEMHGBX is the hemoglobin test result measured during the exit screening examination. If the initial measurement was outside the normal range, the repeat value was used.

**INPUT VARIABLES**

DE17470 (Screening exam) First hemoglobin test result
DE12196 (Screening exam) Repeat hemoglobin test
SCREENDX Screening exam indicator at exit

**CONSTRUCTION**

ANEMHGBX = DE17470;

IF DE12196 >= 0 THEN ANEMHGBX = DE12196;

ANEMHGBX = ANEMHGBX/10;

IF SCREENDX = . THEN ANEMHGBX = A;

**ANEMHGBX**

NUMBER OF OBSERVATIONS 4015
NUMBER OF MISSING 956
MEAN 15.46
MEDIAN 15.50
MINIMUM VALUE 5.20
MAXIMUM VALUE 19.20
STANDARD DEVIATION 1.39
COEFFICIENT OF VARIATION 9.68
SKEWNESS 0.17
KURTOSIS 0.60
VARIABLE: ANEMHGBA

Anemia status based on hemoglobin result at enrollment; adjusted for age, sex, and pregnancy

CODES

1 - Did not take screening exam
A - Replacement FEC
2 - Male age 17 and ANEMHGBA < 13.0;
   female, not pregnant and ANEMHGBA < 11.5;
   female, pregnant and ANEMHGBA < 10.0
3 - Missing sex or age data
4 - Missing hemoglobin data

ANEMHGBA categorizes a person as being anemic or not based on the hemoglobin level (ANEMHGBA) measured during the enrollment screening examination. ANEMHGBA is adjusted for age, sex, and pregnancy.

NOTE: No respondents were assigned a value of 3.

INPUT VARIABLES

AGE Age of participant
ANEMHGB Hemoglobin test results
SEX (Temporary variable) Sex recorded, expands SEX to create a category for pregnant respondents
1 - male
2 - female, not pregnant at time of screening exam
3 - female, pregnant at time of screening exam
SCREENED Screening exam indicator at enrollment
VARIABLE ANEMHOBA (cont.)

CONSTRUCTION

(Note: AGE and SEXR determine normal ranges)

IF (SEXR = 1) AND (AGE >= 18) AND (ANEMHGB < 13.0)
THEN ANEMHOBA = 1;
IF (SEXR = 1) AND (AGE >= 18) AND (ANEMHGB >= 13.0)
THEN ANEMHOBA = 2;
IF (SEXR = 1) AND (AGE <= 17) AND (0 < ANEMHGB < 12.5)
THEN ANEMHOBA = 1;
IF (SEXR = 1) AND (AGE <= 17) AND (ANEMHGB >= 12.5)
THEN ANEMHOBA = 2;
IF (SEXR = 2) AND (0 < ANEMHGB < 11.5)
THEN ANEMHOBA = 1;
IF (SEXR = 2) AND (ANEMHGB >= 11.5)
THEN ANEMHOBA = 2;
IF (SEXR = 2) AND (0 < ANEMHGB < 10.0)
THEN ANEMHOBA = 1;
IF (SEXR = 2) AND (ANEMHGB >= 10.0)
THEN ANEMHOBA = 2;
IF (SEXR = 2) AND (0 < ANEMHGB < 9.0)
THEN ANEMHOBA = 1;
IF (SEXR = 2) AND (ANEMHGB >= 9.0)
THEN ANEMHOBA = 2;
IF (SEXR = 2) AND (0 < ANEMHGB < 8.5)
THEN ANEMHOBA = 1;
IF (SEXR = 2) AND (ANEMHGB >= 8.5)
THEN ANEMHOBA = 2;
IF SCREENED = 1 AND ANEMHGB < .
THEN ANEMHOBA = 4;

(For Replacement PCs only)

ANEMHGB = A;
VARIABLE ANNMGBAX AMEDIS
ANEMIA

Anemia status based on hemoglobin result at exit; adjusted for age, sex, and pregnancy

CODES

1 - Did not take screening exam
2 - Male over 17 and ANEMGMBX < 13.0; male 13-17 and ANEMGMBX < 12.5; female, not pregnant and ANEMGMBX < 11.5; or female, pregnant and ANEMGMBX < 10.0
3 - Male over 17 and ANEMGMBX >= 13.0; male 13-17 and ANEMGMBX >= 12.5; female, not pregnant and ANEMGMBX >= 11.5; or female, pregnant and ANEMGMBX >= 10.0
4 - Missing sex or age data
5 - Missing hemoglobin data

ANNMGBAX categorizes a person as being anemic or not based on the hemoglobin level (ANEMGMBX) measured during the exit screening examination. ANNMGBAX is adjusted for age, sex, and pregnancy.

NOTE: No respondents were assigned a value of 3.

INPUT VARIABLES

AGE Age of participant
ANEMGMBX Hemoglobin test result
SEX (temporary variable) Sex recoded, expands SEX to create a category for pregnant respondents
0 - Female, not pregnant at time of screening exam
1 - Male
3 - Female, pregnant at time of screening exam
SCREENDX Screening exam indicator at exit
VARIABLE ANEMHGBX (cont.)

CONSTRUCTION

(Note: AGE and SEXR determine normal ranges)

<table>
<thead>
<tr>
<th>IF</th>
<th>THEN</th>
<th>ANEMHGBX</th>
</tr>
</thead>
<tbody>
<tr>
<td>(AGE &gt;= 18) AND (SEXR = 1)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>(AGE &gt;= 16) AND (ANEMHGBX &gt;= 13.0)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>(SEXR = 1) AND (AGE &lt;= 17.999) AND (ANEMHGBX &lt; 12.5)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>(SEXR = 1) AND (AGE &lt;= 17.999) AND (ANEMHGBX &gt;= 12.5)</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANEMHGBX CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
</tbody>
</table>

ANEMHGBX indicates anemia status based on MHQ responses.

VARIABLE ANEMHQB

ANEMHQB indicates anemia status based on MHQ responses at enrollment.

ANEMHQB CODES

- 0 - No MHQ
- 1 - No MHQ, for Replacement PEGs only
- 2 - Previously diagnosed as anemic, or currently taking iron or blood transfusions
- 3 - Previously diagnosed as anemic, on diet or vitamins
- 4 - Not previously diagnosed as anemic
- 5 - Missed trigger question (DE14815 or DE19042)

ANEMHQB indicates anemia status based on MHQ responses.)
VARIABLE ANEMHQ (cont.)

INPUT VARIABLES

DE14315 (Dayton - MHQB) Has a doctor told you that you currently have anemia sometimes called low blood or are you currently under treatment for it?
DE14320 (MHQB) Are you currently on a special diet for anemia?
DE14321 (MHQB) Are you currently taking iron pills or shots for anemia?
DE14322 (MHQB) Are you currently taking vitamin pills or shots for anemia?
DE14323 (MHQB) Are you currently having blood transfusions for anemia?

DE19042 (Non-Dayton - MHQB) Has a doctor ever said that you had anemia or low blood?

SITE Participant's place of residence at enrollment
MHQB MHQB indicator at enrollment

CONSTRUCTION

IF (DE14315 = 1 OR DE14315 = 2 OR DE19042 = 1)
THEN ANEMHQ = 1;
ELSE IF DE14321 = 1 OR DE14323 = 1
THEN ANEMHQ = 2;
ELSE IF DE14320 = 1 OR DE14322 = 1
THEN ANEMHQ = 3;
ELSE ANEMHQ = 4;
END;

IF (DE14315 = 3 OR DE19042 = 2)
THEN ANEMHQ = 5;
IF MHQB = 1 AND SITE = '1' AND DE14315 = .
THEN ANEMHQ = 5;
IF MHQB = 1 AND SITE = '1' AND DE19042 = .
THEN ANEMHQ = 5;
IF MHQB = . THEN ANEMHQ = .;

(Note: For Replacement PEGs, this last line is replaced by:

IF MHQB < 0 THEN ANEMHQ = 0; )
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ANEMMPHX</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANEMIA</td>
<td></td>
</tr>
</tbody>
</table>

Anemia status based on NHQ responses at exit

**CODES**

- Missing relevant NHQ question(s)
- No NHQ
- Previously diagnosed as anemic, taking iron or transfusions now
- Previously diagnosed as anemic, on diet or vitamins
- Not previously diagnosed as anemic
- Missed trigger question (DE19042)

ANEMMPHX indicates anemia status based on NHQ responses.

**INPUT VARIABLES**

DE14320 (MHQ2) Are you currently on a special diet for anemia?  
DE14321 (MHQ2) Are you currently taking iron pills or shots for anemia?  
DE14322 (MHQ2) Are you currently taking vitamin pills or shots for anemia?  
DE14323 (MHQ2) Are you currently having blood transfusions for anemia?  
DE19042 (MHQ2) Has a doctor ever said that you had anemia or low blood?  
MHQBX  MHQ2 indicator at exit

**CONSTRUCTION**

IF DE19042 = 1  
THEN DO:
   IF DE14321 = 1 OR DE14322 = 1  
   THEN ANEMMPHX = 1;
   ELSE IF DE14320 = 1 OR DE14323 = 1  
   THEN ANEMMPHX = 2;
   ELSE ANEMMPHX = 3;
END;

(cont.)
VARIABLE ANEMPHQX (cont.)

CONSTRUCTION (cont.)

IF DE19042 = 2
    THEN ANEMPHQX = 4;
IF NHQBX = 1 AND DE19042 < 0
    THEN ANEMPHQX = 3;
IF MHQBX < 0
    THEN ANEMPHQX = 8;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ANEMSTAT</th>
<th>AMEDIS</th>
<th>ANEMIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anemia status based on hemoglobin level and MHQ responses at enrollment</td>
<td></td>
<td></td>
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<tr>
<td>CODES</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Missing</td>
<td></td>
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<tr>
<td></td>
<td>Replacement FEQ</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low hemoglobin; taking iron pills or blood transfusions</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Low hemoglobin; on special diet or taking vitamin pills or shots for anemia</td>
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<tr>
<td></td>
<td>Low hemoglobin; previously diagnosed as anemic, but no treatment within past 12 months</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Low hemoglobin; not previously diagnosed as anemic</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low hemoglobin; did not answer DE14315 or DE19042</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low hemoglobin; did not complete MHQ</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Hemoglobin ok; taking iron pills or blood transfusions</td>
<td></td>
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<td></td>
<td>Hemoglobin ok; on special diet or taking vitamin pills or shots for anemia</td>
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<tr>
<td></td>
<td>Hemoglobin ok; previously diagnosed as anemic, but no treatment within past 12 months</td>
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<tr>
<td></td>
<td>Hemoglobin ok; not previously diagnosed as anemic</td>
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<tr>
<td></td>
<td>Hemoglobin ok; did not answer DE14315 or DE19042</td>
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<td></td>
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<tr>
<td></td>
<td>Hemoglobin ok; did not complete MHQ</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not screened; taking iron pills or blood transfusions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not screened; on special diet or taking vitamin pills or shots for anemia</td>
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<tr>
<td></td>
<td>Not screened; previously diagnosed as anemic, but no treatment within past 12 months</td>
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<tr>
<td></td>
<td>Not screened; not previously diagnosed as anemic</td>
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<tr>
<td></td>
<td>Not screened; did not answer DE14315 or DE19042</td>
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<tr>
<td></td>
<td>Not screened; did not complete MHQ</td>
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<tr>
<td></td>
<td>Missing sex or age date</td>
<td></td>
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<tr>
<td></td>
<td>Missing hemoglobin data</td>
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</tr>
</tbody>
</table>

ANEMSTAT indicates anemia status based on hemoglobin level at the screening examination and responses to the MHQ.

INPUT VARIABLES

ANEMHGBA  Anemia based on hemoglobin level, adjusted for age, sex and pregnancy
ANEMMHQ   Anemia based on answers to MHQ

(cont.)
VARIABLE ANEMSTAT (cont.)

CONSTRUCTION

IF ANEMHG8 = 1 AND ANEMMHQ = 1 THEN ANEMSTAT = 11;
IF ANEMHG8 = 1 AND ANEMMHQ = 2 THEN ANEMSTAT = 12;
IF ANEMHG8 = 1 AND ANEMMHQ = 3 THEN ANEMSTAT = 13;
IF ANEMHG8 = 1 AND ANEMMHQ = 4 THEN ANEMSTAT = 14;
IF ANEMHG8 = 1 AND ANEMMHQ = 5 THEN ANEMSTAT = 15;
IF ANEMHG8 = 1 AND ANEMMHQ = 6 THEN ANEMSTAT = 16;
IF ANEMHG8 = 2 AND ANEMMHQ = 1 THEN ANEMSTAT = 21;
IF ANEMHG8 = 2 AND ANEMMHQ = 2 THEN ANEMSTAT = 22;
IF ANEMHG8 = 2 AND ANEMMHQ = 3 THEN ANEMSTAT = 23;
IF ANEMHG8 = 2 AND ANEMMHQ = 4 THEN ANEMSTAT = 24;
IF ANEMHG8 = 2 AND ANEMMHQ = 5 THEN ANEMSTAT = 25;
IF ANEMHG8 = 2 AND ANEMMHQ = 6 THEN ANEMSTAT = 26;
IF ANEMHG8 = 3 AND ANEMMHQ = 1 THEN ANEMSTAT = 31;
IF ANEMHG8 = 3 AND ANEMMHQ = 2 THEN ANEMSTAT = 32;
IF ANEMHG8 = 3 AND ANEMMHQ = 3 THEN ANEMSTAT = 33;
IF ANEMHG8 = 3 AND ANEMMHQ = 4 THEN ANEMSTAT = 34;
IF ANEMHG8 = 3 AND ANEMMHQ = 5 THEN ANEMSTAT = 35;
IF ANEMHG8 = 3 AND ANEMMHQ = 6 THEN ANEMSTAT = 36;
IF ANEMHG8 = 4 THEN ANEMSTAT = 99;

(For Replacement PICS only)

ANEMSTAT = A;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ANEMSTAX</th>
<th>ANEMDIS</th>
<th>ANEMIA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Anemia status based on hemoglobin level and MHQ responses at exit</td>
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<tr>
<td>CODES</td>
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<tr>
<td>Missing</td>
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</tr>
<tr>
<td>11</td>
<td>Low hemoglobin; taking iron pills or blood transfusions</td>
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<tr>
<td>12</td>
<td>Low hemoglobin; on special diet or taking vitamin pills or shots for anemia</td>
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<tr>
<td>13</td>
<td>Low hemoglobin; previously diagnosed as anemic, but no treatment within past 12 months</td>
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<tr>
<td>14</td>
<td>Low hemoglobin; not previously diagnosed as anemic</td>
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<tr>
<td>15</td>
<td>Low hemoglobin; did not answer DE15042</td>
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<tr>
<td>16</td>
<td>Low hemoglobin; did not complete MHQ</td>
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<tr>
<td>21</td>
<td>Hemoglobin ok; taking iron pills or blood transfusions</td>
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<tr>
<td>22</td>
<td>Hemoglobin ok; on special diet or taking vitamin pills or shots for anemia</td>
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<tr>
<td>23</td>
<td>Hemoglobin ok; previously diagnosed as anemic, but no treatment within past 12 months</td>
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<tr>
<td>24</td>
<td>Hemoglobin ok; not previously diagnosed as anemic</td>
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<tr>
<td>25</td>
<td>Hemoglobin ok; did not answer DE15042</td>
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</tr>
<tr>
<td>26</td>
<td>Hemoglobin ok; did not complete MHQ</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Not screened; taking iron pills or blood transfusions</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Not screened; on special diet or taking vitamin pills or shots for anemia</td>
<td></td>
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<tr>
<td>33</td>
<td>Not screened; previously diagnosed as anemic, but no treatment within past 12 months</td>
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</tr>
<tr>
<td>34</td>
<td>Not screened; not previously diagnosed as anemic</td>
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<tr>
<td>35</td>
<td>Not screened; did not answer DE15042</td>
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<td></td>
</tr>
<tr>
<td>36</td>
<td>Not screened; did not complete MHQ</td>
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<td>98</td>
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<td></td>
</tr>
<tr>
<td>99</td>
<td>Missing hemoglobin data</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ANEMSTAX** indicates anemia status based on hemoglobin level at the screening examination and responses to the MHQ.

**INPUT VARIABLES**

- ANEMHGBAX Anemia based on hemoglobin level, adjusted for age, sex and pregnancy
- ANEMMHQX Anemia based on answers to MHQ

(cont.)
VARIALE ANEMSTAX (cont.)

CONSTRUCTION

1F ANMIGBAX = 1 AND ANEMHMIQX = 1 THEN ANEMSTAX = 11;
1F ANMIGBAX = 1 AND ANEMHMIQX = 2 THEN ANEMSTAX = 12;
1F ANMIGBAX = 1 AND ANEMHMIQX = 3 THEN ANEMSTAX = 13;
1F ANMIGBAX = 1 AND ANEMHMIQX = 4 THEN ANEMSTAX = 14;
1F ANMIGBAX = 1 AND ANEMHMIQX = 5 THEN ANEMSTAX = 15;
1F ANMIGBAX = 1 AND ANEMHMIQX < 0 THEN ANEMSTAX = 16;
1F ANMIGBAX = 2 AND ANEMHMIQX = 1 THEN ANEMSTAX = 21;
1F ANMIGBAX = 2 AND ANEMHMIQX = 2 THEN ANEMSTAX = 22;
1F ANMIGBAX = 2 AND ANEMHMIQX = 3 THEN ANEMSTAX = 23;
1F ANMIGBAX = 2 AND ANEMHMIQX = 4 THEN ANEMSTAX = 24;
1F ANMIGBAX = 2 AND ANEMHMIQX = 5 THEN ANEMSTAX = 25;
1F ANMIGBAX = 2 AND ANEMHMIQX < 0 THEN ANEMSTAX = 26;
1F ANMIGBAX = 0 AND ANEMHMIQX = 1 THEN ANEMSTAX = 31;
1F ANMIGBAX = 0 AND ANEMHMIQX = 2 THEN ANEMSTAX = 32;
1F ANMIGBAX = 0 AND ANEMHMIQX = 3 THEN ANEMSTAX = 33;
1F ANMIGBAX = 0 AND ANEMHMIQX = 4 THEN ANEMSTAX = 34;
1F ANMIGBAX = 0 AND ANEMHMIQX < 0 THEN ANEMSTAX = 35;
1F ANMIGBAX = 3 THEN ANEMSTAX = 98;
1F ANMIGBAX = 4 THEN ANEMSTAX = 99;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANEMHCT</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>- No screening exam or hematocrit missing</td>
</tr>
<tr>
<td></td>
<td>A - Replacement PEG</td>
</tr>
</tbody>
</table>

Range of test results - 25.4 to 56.1%

ANEMHCT is the hematocrit level measured during the enrollment screening examination.* If the initial measurement was outside the normal range, the repeat value was used.

*Hematocrit is not measured directly. It is calculated by multiplying red blood cell count (RBC) times the mean cell volume (MCV), each of which is measured by the impedance technique in the Coulter Model S.

**INPUT VARIABLES**

DE17472 (Screening exam) First hematocrit test results
DE17473 (NonDayton - Screening exam) Repeat hematocrit test
DE12220 (Dayton - Screening exam) Repeat hematocrit test

**CONSTRUCTION**

ANEMHCT = DE17472;

IF DE12220 = .
   THEN ANEMHCT = DE12220;

IF DE17473 = .
   THEN ANEMHCT = DE17473;

ANEMHCT = ANEMHCT/10;

(For Replacement PEGs only)
ANEMHCT = A;
VARIABLE ANEMICTX

Hematocrit value at exit

CODES
.
  = Missing hematocrit value
A  = No screening exam

Range of test results = 16.1 to 82.5%

ANEMICTX is the hematocrit test result measured during the
exit screening examination. If the initial measurement was
outside the normal range, the repeat value was used.

*Hematocrit is not measured directly. It is calculated by
multiplying red blood cell count (RBC) times the mean cell
volume (MCV), each of which is measured by the impedance
technique in the Coulter Model S.

INPUT VARIABLES

DE17472  (Screening exam)  First hematocrit test results
DE12220  (Screening exam)  Repeat hematocrit test
SCREENDX Screening exam indicator at exit

CONSTRUCTION

ANEMICTX = DE17472;
IF DE12220 >= 0
  THEN ANEMICTX = DE12220;
ANEMICTX = ANEMICTX/10;
IF SCREENDX = . THEN ANEMICTX = A;
VARIABLE ANEMOCV

Mean cell volume at enrollment

CODES

. = No screening exam or MCV missing
A = Replacement PEG

Range of test results - 60 to 115 cubic microns

ANEMOCV is the mean cell volume test result measured during the enrollment screening examination. If the initial measurement was outside the normal range, the repeat value was used.

INPUT VARIABLES

DE17474 (Screening exam) first mean cell volume test
DE17475 (NonDayton - Screening exam) Repeat mean cell volume test
DE12221 (Dayton - Screening exam) Repeat mean cell volume test

CONSTRUCTION

ANEMOCV = DE17474;
IF DE12221 NE .
   THEN ANEMOCV = DE12221;
IF DE17475 NE .
   THEN ANEMOCV = DE17475;

{For Replacement PEGs only}

ANEMOCV = A;
VARIABLE ANEMMCVX

Mean cell volume at exit

CODES

. = Mean cell volume missing
  A = No screening exam

Range of test results = 57 to 128 cubic microns

ANEMMCVX is the mean cell volume test result measured during the exit screening examination. If the initial measurement was outside the normal range, the repeat value was used.

INPUT VARIABLES

DE17474 (Screening exam) First mean cell volume test
DE12221 (Screening exam) Repeat mean cell volume test
SCREENUX Screening exam indicator at exit

CONSTRUCTION

ANEMMCVX = DE17474;
IF DE12221 >= 0
  THEN ANEMMCVX = DE12221;
IF SCREENUX = . THEN ANEMMCVX = A;

ANEMMCVX

NUMBER OF OBSERVATIONS 4606
NUMBER OF MISSING 1269
MEAN 90.44
MEDIAN 90.00
MINIMUM VALUE 57.00
MAXIMUM VALUE 128.00
STANDARD DEVIATION 5.99
COEFFICIENT OF VARIATION 6.62
SKEWNESS -0.16
KURTOSIS 2.61
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ANEMIMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANEMDIS</td>
<td>ANEMIA</td>
</tr>
</tbody>
</table>

**Impact of anemia at enrollment**

**CODES**

- Miss = Missing, includes those without anemia
- 0 = No MIQB, Replacement PEGs only
- 1 = No impact
- 2 = Some impact

**ANEMIMP** indicates whether anemia caused worry/concern, activity restriction, or days in bed.

**INPUT VARIABLES**

- **DE14325** (MIQB) During the past 3 months, how much has your anemia worried or concerned you?
- **DE14326** (MIQB) During the past 3 months, how much of the time was your anemia kept you from doing the kinds of things other people your age do?
- **DE14327** (MIQB) During the past 30 days, how many days has your anemia kept you in bed all or most of the day?
- **WORRY** (Temporary variable) Rescaling of DE14325
- **ACTIVITY** (Temporary variable) Rescaling of DE14326
- **BEDDAYS** (Temporary variable) Rescaling of DE14327
- **MIQB** MIQB indicator at enrollment

**CONSTRUCTION**

[Construct WORRY, ACTIVITY, AND BEDDAYS]

(Note: Code rescales impact questions so that 0 = No impact)

- WORRY = (4 - DE14325);
- ACTIVITY = (5 - DE14326);
- BEDDAYS = DE14327;

[Construct ANEMIMP]

- ANEMIMP = SUM(WORRY, ACTIVITY, BEDDAYS);
- IF ANEMIMP > 0 THEN ANEMIMP = 1;

[For Replacement PEGs only]

- IF MIQB = . THEN ANEMIMP = 0;
VARIABLE ANEMIMPX

Impact of anemia at exit

CODES

. = Missing, includes those without anemia
B = No M HQB
O = No impact
i = Some impact

ANEMIMPX indicates whether anemia caused worry/concern, activity restriction, or days in bed.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ANEMIMPX</th>
</tr>
</thead>
<tbody>
<tr>
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<td>ANEMIA</td>
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<table>
<thead>
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<th>FREQ</th>
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<tr>
<td>.</td>
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<td>B</td>
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<td>84.49</td>
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<td>i</td>
<td>174</td>
<td>735</td>
<td>15.51</td>
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</table>

INPUT VARIABLES

DEI14325 (M HQB) During the past 3 months, how much has your anemia worried or concerned you?
DEI14326 (M HQB) During the past 3 months, how much of the time has your anemia kept you from doing the kinds of things other people your age do?
DEI14327 (M HQB) During the past 30 days, how many days has your anemia kept you in bed all or most of the day?
WORRY (Temporary variable) Rescaling of DEI14325
ACTIVITY (Temporary variable) Rescaling of DEI14326
BEDDAYS (Temporary variable) Rescaling of DEI14327
M HQBX (MHQB indicator at exit)

CONSTRUCTION

{Construct WORRY, ACTIVITY, AND BEDDAYS}
(Note: Code rescales impact questions so that 0 = No impact)

WORRY = (4 - DEI14325);
ACTIVITY = (5 - DEI14326);
BEDDAYS = DEI14327;

{Construct ANEMIMPX}

ANEMIMPX = SUM(WORRY, ACTIVITY, BEDDAYS);
IF ANEMIMPX > 0 THEN ANEMIMPX = i;
IF MHQB = . THEN ANEMIMPX = B;
### VARIABLE ANGITRIG

Presence or absence of chest pain, discomfort, heaviness, or pressure at enrollment

**CODES**

- 0 = No answer to DE13758 (Dayton) or DE19018 (NonDayton)
- M = No MHQ
- 1 = Chest pain, discomfort, heaviness, or pressure in past 12 months
- 2 = No chest pain, discomfort, heaviness, or pressure in past 12 months

ANGITRIG indicates whether respondent felt pressure, discomfort, or pain in the chest during the 12 months before administration of the MHQ.

<table>
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<td>M</td>
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<tr>
<td>1</td>
<td>819</td>
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<td>15.85</td>
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<tr>
<td>2</td>
<td>4348</td>
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</table>

**NOTE:** NonDayton respondents were initially asked DE19018; if response was "yes" they were skipped over DE13758 (discomfort, heaviness, or pressure) to answer the angina battery of questions. If response was "no" they were asked DE13758.

**INPUT VARIABLES**

- **DE13758** (Dayton - MHQ) Have you had pain, discomfort, heaviness, or pressure in your chest in the past 12 months?  
  (NonDayton - MHQ) Have you had any discomfort, heaviness, or pressure in your chest during the past 12 months?
- **DE19018** (NonDayton - MHQ) Have you had chest pain in the past 12 months?
- **MHQ** MHQ indicator at enrollment

(cont.)
VARIABLE ANGITRIG (cont.)

CONSTRUCTION

{Dayton}

ANGITRIG = DE13758;
  IF MHQB = ., THEN ANGITRIG = M;

{NonDayton}

IF DE19018 = 1;
  THEN ANGITRIG = 1;
ELSE IF DE19018 = 2
  THEN ANGITRIG = DE13758;
ELSE IF DE19018 =
  THEN ANGITRIG = .;
IF MHQB = ., THEN ANGITRIG = M;

| VARIABLE | ANGITRIG | AMEDIS
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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<table>
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<th>FREQ</th>
<th>%</th>
<th>%</th>
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<td>.</td>
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ANGITRIG indicates whether respondent felt pressure, discomfort, or pain in the chest during the 12 months before administration of the MHQ.

NOTE: Respondents were initially asked DE19018; if response was "yes" they were skipped over DE13758 (discomfort, heaviness, or pressure) to answer the angina battery of questions. If response was "no" they were asked DE13758.
VARIABLE ANOTRIGX (cont.)

INPUT VARIABLES

DE13758 (MHQB) Have you had any discomfort, heaviness, or pressure in your chest in the past 12 months?
DE19018 (MHQB) Have you had chest pain in the past 12 months?
MHQB X MHQB indicator at exit

CONSTRUCTION

IF DE19018 = 1
   THEN ANOTRIGX = 1;
ELSE IF DE19018 = 2
   THEN ANOTRIGX = DE13758;
ELSE IF DE19018 = .
   THEN ANOTRIGX = .;
IF MHQB = . THEN ANOTRIGX = M;

<table>
<thead>
<tr>
<th>VARIABLE: ECG1</th>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>CUM</th>
<th>%</th>
</tr>
</thead>
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<tr>
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<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Intraventricular conduction abnormality noted on ECG at enrollment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>. = No usable electrocardiogram</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R = Replacement PFC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 = No intraventricular conduction abnormality noted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = Intraventricular conduction abnormality noted</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>ECG1 indicates whether respondent's ECG showed evidence of intraventricular conduction abnormality.</td>
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</table>

INPUT VARIABLES

DE17333 (Screening exam) ECG completion code
DE17335 (Screening exam) ECG interpretation 1
DE17336 (Screening exam) ECG interpretation 2 (cont.)
VARIABLE ECG1 (cont.)

INPUT VARIABLES (cont.)

DE17337 (Screening exam) ECG interpretation 3
DE17338 (Screening exam) ECG interpretation 4
DE17339 (Screening exam) ECG interpretation 5

CONSTRUCTION
IF DE17333 = 1
THEN 00;

IF 2000 <= DE17335 <= 2199 OR 2000 <= DE17336 <= 2199 OR
2000 <= DE17337 <= 2199 OR 2000 <= DE17338 <= 2199 OR
2000 <= DE17339 <= 2199
THEN ECG1 = 1;
ELSE ECG1 = 0;
END;

(For Replacement ECGs only)
ECG1 = R;

VARIABLE ECGIX

<table>
<thead>
<tr>
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<th>FREQ</th>
<th>CUM</th>
<th>%</th>
<th>CUM</th>
</tr>
</thead>
<tbody>
<tr>
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<td>45</td>
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<td>1.65</td>
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</tbody>
</table>

ECGIX indicates whether respondent's ECG showed evidence of intraventricular conduction abnormality.

INPUT VARIABLES

DE18034 (Screening exam) ECG completion code
DE17335 (Screening exam) ECG interpretation 1
DE17336 (Screening exam) ECG interpretation 2
DE17337 (Screening exam) ECG interpretation 3

{cont.}
VARIABLE ECG1X (cont.)

INPUT VARIABLES (cont.)

DE17333  (Screening exam)  ECG interpretation 4
DE17339  (Screening exam)  ECG interpretation 5

CONSTRUCTION

IF DE17334 = 1
THEN DO;

IF DE17335 = 8 OR 62 <= DE17335 <= 66 OR
DE17336 = 8 OR 62 <= DE17336 <= 66 OR
DE17337 = 8 OR 62 <= DE17337 <= 66 OR
DE17338 = 8 OR 62 <= DE17338 <= 66 OR
DE17339 = 8 OR 62 <= DE17339 <= 66
THEN ECG1X = 1;
ELSE ECG1X = 0;
END;

VARIABLE ECG2

<table>
<thead>
<tr>
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<th>FREQ</th>
<th>CUM</th>
<th>%</th>
<th>CUM</th>
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<tr>
<td>.</td>
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<tr>
<td>R</td>
<td>293</td>
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<tr>
<td>0</td>
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<td>194</td>
<td>1725</td>
<td>11.25</td>
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</table>

ECG2 indicates whether respondent's ECG showed evidence of ST segment or T wave abnormality.

INPUT VARIABLES (cont.)

DE17333  (Screening exam)  ECG completion code
DE17335  (Screening exam)  ECG interpretation 1
DE17336  (Screening exam)  ECG interpretation 2
VARIABLE ECG2 (cont.)

INPUT VARIABLES (cont.)

DE17337 (Screening exam) ECG Interpretation 3
DE17338 (Screening exam) ECG Interpretation 4
DE17339 (Screening exam) ECG Interpretation 5

CONSTRUCTION

IF DE17333 = 1
THEN DO;

IF 4150 <= DE17335 <= 4162 OR 4150 <= DE17336 <= 4162 OR
   4150 <= DE17337 <= 4162 OR 4150 <= DE17338 <= 4162 OR
   4150 <= DE17339 <= 4162
THEN ECG2 = 1;
ELSE ECG2 = 0;
END;

(For Replacement PEs only)

ECG2 = R;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VALUE</th>
<th>AMIDIS</th>
<th>ANGINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECG2X</td>
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<td></td>
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<tr>
<td>ST segment or T wave abnormality noted on ECG at exit</td>
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<td>.</td>
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<tr>
<td></td>
<td>0</td>
<td>2476</td>
<td>2476</td>
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<tr>
<td></td>
<td>1</td>
<td>247</td>
<td>2723</td>
</tr>
</tbody>
</table>

CODES

. = No usable electrocardiogram
0 = No ST segment or T wave abnormality noted
1 = ST segment or T wave abnormality noted

ECG2X indicates whether respondent's ECG showed evidence of ST segment or T wave abnormality.
VARIABLE ECG2X (cont.)

INPUT VARIABLES

DE13034 (Screening exam) ECG completion code
DE17335 (Screening exam) ECG interpretation 1
DE17336 (Screening exam) ECG interpretation 2
DE17337 (Screening exam) ECG interpretation 3
DE17338 (Screening exam) ECG interpretation 4
DE17339 (Screening exam) ECG interpretation 5

CONSTRUCTION

IF DE13034 = 1
THEN DO;

IF DE17335 = 88 OR DE17335 = 91 OR DE17335 = 117 OR
95 <= DE17335 <= 100 OR 102 <= DE17335 <= 110 OR
DE17336 = 88 OR DE17336 = 91 OR DE17336 = 117 OR
95 <= DE17336 <= 100 OR 102 <= DE17336 <= 110 OR
DE17337 = 88 OR DE17337 = 91 OR DE17337 = 117 OR
95 <= DE17337 <= 100 OR 102 <= DE17337 <= 110 OR
DE17338 = 88 OR DE17338 = 91 OR DE17338 = 117 OR
95 <= DE17338 <= 100 OR 102 <= DE17338 <= 110 OR
DE17339 = 88 OR DE17339 = 91 OR DE17339 = 117 OR
95 <= DE17339 <= 100 OR 102 <= DE17339 <= 110
THEN ECG2X = 1;
ELSE ECG2X = 0;

END;
### VARIABLE: ECG3

**AMEDIS ANGINA**

Ventricular enlargement noted on ECG at enrollment

**CODES**

- . = No usable electrocardiogram
- R = Replacement ECG
- C = No right or left ventricular enlargement noted
- 1 = Right or left ventricular enlargement noted

ECG3 indicates whether respondent's ECG showed evidence of ventricular enlargement.

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>% CUM</th>
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<tbody>
<tr>
<td>.</td>
<td>3923</td>
<td>3923</td>
<td>0</td>
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<tr>
<td>R</td>
<td>223</td>
<td>223</td>
<td>99.54</td>
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### INPUT VARIABLES

- DE17333 (Screening exam) ECG completion code
- DE17335 (Screening exam) ECG interpretation 1
- DE17336 (Screening exam) ECG interpretation 2
- DE17337 (Screening exam) ECG interpretation 3
- DE17338 (Screening exam) ECG interpretation 4
- DE17339 (Screening exam) ECG interpretation 5

### CONSTRUCTION

**IF DE17333 = 1**

**THEN DO:**

**IF 5100 <= DE17335 <= 5129 OR 5100 <= DE17336 <= 5129 OR 5100 <= DE17337 <= 5129 OR 5100 <= DE17338 <= 5129 OR 5100 <= DE17339 <= 5129 THEN ECG3 = 1:**

**ELSE ECG3 = 0;**

**END:**

(for Replacement PEOs only)

ECG3 = R;
VARIABLE ECG3X

VENTRICULAR ENLARGEMENT NOTED ON ECG AT EXIT

CODES
- = No usable electrocardiogram
0 = No right or left ventricular enlargement noted
1 = Right or left ventricular enlargement noted

ECG3X indicates whether respondent's ECG showed evidence of ventricular enlargement.

INPUT VARIABLES

DE13034 (Screening exam) ECG completion code
DE17335 (Screening exam) ECG Interpretation 1
DE17336 (Screening exam) ECG Interpretation 2
DE17337 (Screening exam) ECG Interpretation 3
DE17338 (Screening exam) ECG Interpretation 4
DE17339 (Screening exam) ECG Interpretation 5

CONSTRUCTION

IF DE13034 = 1
THEN DO;

IF 67 <= DE17335 <= 74 OR 76 <= DE17335 <= 80 OR
67 <= DE17336 <= 74 OR 76 <= DE17336 <= 80 OR
67 <= DE17337 <= 74 OR 76 <= DE17337 <= 80 OR
67 <= DE17338 <= 74 OR 76 <= DE17338 <= 80 OR
67 <= DE17339 <= 74 OR 76 <= DE17339 <= 80
THEN ECG3X = 1;
ELSE ECG3X = 0;
END;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ECG4</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEDIS ANGINA</td>
<td></td>
</tr>
</tbody>
</table>

**Infarction noted on ECG at enrollment**

**CODES**

- . = No usable electrocardiogram
- R = Replacement ECG
- 0 = No infarction noted (excluding subendocardial and atrial)
- 1 = Infarction noted (excluding subendocardial and atrial)

ECG4 indicates whether respondent's ECG showed evidence of infarction (excluding subendocardial and atrial).

**INPUT VARIABLES**

- DE17333 (Screening exam) ECG completion code
- DE17335 (Screening exam) ECG Interpretation 1
- DE17336 (Screening exam) ECG Interpretation 2
- DE13737 (Screening exam) ECG Interpretation 3
- DE17338 (Screening exam) ECG Interpretation 4
- DE17339 (Screening exam) ECG Interpretation 5

**CONSTRUCTION**

IF DE17333 = 1
THEN DO;

IF 5300 <= DE17335 <= 5379 OR 5300 <= DE17336 <= 5379 OR
5300 <= DE17337 <= 5379 OR 5300 <= DE17338 <= 5379 OR
5300 <= DE17339 <= 5379 THEN ECG4 = 1;
ELSE ECG4 = 0;
END;

(for Replacement ECGs only)

ECG4 = R;
**VARIABLE**: ECNA\(X\)  
**VALUE**: AMEDIS ANGINA

Infarction noted on ECG at exit

**CODES**

0 = No usable electrocardiogram
1 = Infarction noted (excluding subendocardial and atrial)

**ECNA\(X\)** indicates whether respondent's ECG showed evidence of infarction (excluding subendocardial and atrial).

---

**INPUT VARIABLES**

- DE1303\(A\) (Screening exam) ECG completion code
- DE17335 (Screening exam) ECG interpretation 1
- DE17336 (Screening exam) ECG interpretation 2
- DE17337 (Screening exam) ECG interpretation 3
- DE17338 (Screening exam) ECG interpretation 4
- DE17339 (Screening exam) ECG interpretation 5

**CONSTRUCTION**

IF DE1303\(A\) = 1  
THEN DO;

  IF 41 <= DE17335 <= 59 OR 41 <= DE17336 <= 59 OR 41 <= DE17337 <= 59 OR 41 <= DE17338 <= 59 OR 41 <= DE17339 <= 59  
  THEN ECNA\(X\) = 1;
  ELSE ECNA\(X\) = 0;

END;
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<thead>
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<th>ECG5</th>
<th>AMEDIS</th>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
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<td>1724</td>
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<td>1</td>
<td>1725</td>
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</tbody>
</table>

ECG5 indicates whether respondent's ECG showed evidence of atrial fibrillation.

INPUT VARIABLES

DE17333 (Screening exam) ECG completion code
DE17335 (Screening exam) ECG interpretation 1
DE17336 (Screening exam) ECG interpretation 2
DE17337 (Screening exam) ECG interpretation 3
DE17338 (Screening exam) ECG interpretation 4
DE17339 (Screening exam) ECG interpretation 5

CONSTRUCTION

IF DE17333 = 1
THEN DO;

IF 1240 <= DE17335 <= 1249 OR 1240 <= DE17336 <= 1249 OR
1240 <= DE17337 <= 1249 OR 1240 <= DE17338 <= 1249 OR
1240 <= DE17339 <= 1249
THEN ECG5 = 1;
ELSE ECG5 = 0;
END;

{For Replacement PEGs only}

ECG5 = R;
VARIABLE ECDSX

AMELIS
ANGINA

Atrial fibrillation noted on ECG at exit

CODES

. = No usable electrocardiogram
0 = No atrial fibrillation noted
1 = Atrial fibrillation noted

ECDSX indicates whether respondent's ECG showed evidence of atrial fibrillation.

INPUT VARIABLES

DEI3034 (Screening exam) ECG completion code
DEI7325 (Screening exam) ECG interpretation 1
DEI7336 (Screening exam) ECG interpretation 2
DEI7337 (Screening exam) ECG interpretation 3
DEI7338 (Screening exam) ECG interpretation 4
DEI7339 (Screening exam) ECG interpretation 5

CONSTRUCTION

IF DEI3034 = 1
THEN DO;

IF 4 <= DEI7335 <= 6 OR 4 <= DEI7336 <= 6 OR
4 <= DEI7337 <= 6 OR 4 <= DEI7338 <= 6 OR
4 <= DEI7339 <= 6
THEN ECDSX = 1;
ELSE ECDSX = 0;

END;
<table>
<thead>
<tr>
<th>VARIABLE</th>
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<th>AMEDIS</th>
<th>ANGINA</th>
</tr>
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<tr>
<td>VENTRICULAR DYSRHYTHMIA NOTED ON ECG AT ENROLLMENT</td>
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**CODES**

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<th>FREQ</th>
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<th>%</th>
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<td>0.29</td>
<td>100.00</td>
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</tbody>
</table>

ECG6 indicates whether respondent's ECG showed evidence of ventricular dysrhythmia.

**INPUT VARIABLES**

DE17333 (Screening exam) ECG completion code
DE17335 (Screening exam) ECG interpretation 1
DE17336 (Screening exam) ECG interpretation 2
DE17337 (Screening exam) ECG interpretation 3
DE17338 (Screening exam) ECG interpretation 4
DE17339 (Screening exam) ECG interpretation 5

**CONSTRUCTION**

IF DE17333 = 1
THEN DO:

IF 1400 <= DE17335 <= 1450 OR 1400 <= DE17336 <= 1450 OR 1400 <= DE17337 <= 1450 OR 1400 <= DE17338 <= 1450 OR 1400 <= DE17339 <= 1450
THEN ECG6 = 1;
ELSE ECG6 = 0;
END;

(For Replacement PECs only)

ECG6 = R;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ECG6X AMEDIS ANGINA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventricular dysrhythmia noted on ECG at exit</td>
<td></td>
</tr>
</tbody>
</table>

**CODES**

- \( = \) No usable electrocardiogram
- \( 0 \) = No ventricular dysrhythmia noted (including ventricular premature systole)
- \( 1 \) = Ventricular dysrhythmia noted (including ventricular premature systole)

ECG6X indicates whether respondent's ECG showed evidence of ventricular dysrhythmia.

**INPUT VARIABLES**

<table>
<thead>
<tr>
<th>DE13034</th>
<th>Screening exam</th>
<th>ECG completion code</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE17335</td>
<td>Screening exam</td>
<td>ECG interpretation 1</td>
</tr>
<tr>
<td>DE17336</td>
<td>Screening exam</td>
<td>ECG interpretation 2</td>
</tr>
<tr>
<td>DE17337</td>
<td>Screening exam</td>
<td>ECG interpretation 3</td>
</tr>
<tr>
<td>DE17338</td>
<td>Screening exam</td>
<td>ECG interpretation 4</td>
</tr>
<tr>
<td>DE17339</td>
<td>Screening exam</td>
<td>ECG interpretation 5</td>
</tr>
</tbody>
</table>

**CONSTRUCTION**

IF DE13034 = 1 THEN DO;

IF DE17335 = 16 OR DE17336 = 16 OR DE17337 = 16 OR DE17338 = 16 OR DE17339 = 16 THEN ECG6X = 1; ELSE ECG6X = 0; END;
<table>
<thead>
<tr>
<th>VARIABIF</th>
<th>ECC7</th>
<th>AREDS</th>
<th>ANGINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artificial pacemaker noted on ECG at enrollment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CODES**

- . = No usable electrocardiogram
- R = Replacement PEG
- 0 = No artificial pacemaker noted
- 1 = Artificial pacemaker noted

**ECG7** indicates whether respondent's ECG showed evidence of an artificial pacemaker.

**INPUT VARIABLES**

- DE17333 = [Screening exam] ECG completion code
- DE17335 = [Screening exam] ECG interpretation 1
- DE17336 = [Screening exam] ECG interpretation 2
- DE17337 = [Screening exam] ECG interpretation 3
- DE17338 = [Screening exam] ECG interpretation 4
- DE17339 = [Screening exam] ECG interpretation 5

**CONSTRUCTION**

```plaintext
IF DE17333 = 1 THEN DO;
  IF 6200 <= DE17335 <= 6299 OR 6200 <= DE17336 <= 6299 OR 6200 <= DE17337 <= 6299 OR 6200 <= DE17338 <= 6299 OR 6200 <= DE17339 <= 6299 THEN ECG7 = 1;
  ELSE ECG7 = 0;
END;
```

(for Replacement PEGs only)

ECG7 = R;
VARIABLE  ECG7X
       AMEDIS ANGINA

    Artificial pacemaker noted on ECG at exit

CODES

.  =  No usable electrocardiogram
0  =  No artificial pacemaker noted
1  =  Artificial pacemaker noted

ECG7X indicates whether respondent's ECG showed evidence of
an artificial pacemaker.

INPUT VARIABLES

DE11034  [Screening exam]  ECG completion code
DE17335  [Screening exam]  ECG interpretation 1
DE17336  [Screening exam]  ECG interpretation 2
DE17337  [Screening exam]  ECG interpretation 3
DE17338  [Screening exam]  ECG interpretation 4
DE17339  [Screening exam]  ECG interpretation 5

CONSTRUCTION

IF DE11034 = 1
    THEN DO;
        IF DE17335 = 1 OR DE17336 = 1 OR DE17337 = 1 OR
        DE17338 = 1 OR DE17339 = 1
        THEN ECG7X = 1;
        ELSE ECG7X = 0;
    END;
<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>.</td>
<td>3923</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>R</td>
<td>223</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>0</td>
<td>1486</td>
<td>1486</td>
<td>86.15</td>
<td>86.15</td>
</tr>
<tr>
<td>1</td>
<td>217</td>
<td>1703</td>
<td>12.58</td>
<td>98.73</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
<td>1725</td>
<td>1.28</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**NOTE:** No respondent had more than two abnormalities noted.

**INPUT VARIABLES**

<table>
<thead>
<tr>
<th>ECG1</th>
<th>Intraventricular conduction abnormality noted on ECG</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECG2</td>
<td>ST segment or T wave abnormality noted on ECG</td>
</tr>
<tr>
<td>ECG3</td>
<td>Ventricular enlargement noted on ECG</td>
</tr>
<tr>
<td>ECG4</td>
<td>Infarction noted on ECG</td>
</tr>
<tr>
<td>ECG5</td>
<td>Atrial fibrillation noted on ECG</td>
</tr>
<tr>
<td>ECG6</td>
<td>Ventricular dysrhythmia noted on ECG</td>
</tr>
<tr>
<td>ECG7</td>
<td>Artificial pacemaker noted on ECG</td>
</tr>
</tbody>
</table>

**CONSTRUCTION**

\[
\text{ECGSUM} = \text{SUM}(\text{ECG1, ECG2, ECG3, ECG4, ECG5, ECG6, ECG7});
\]

{For Replacement PLG5 only}

\[
\text{ECGSUM} = R;
\]
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ECGSUMX</th>
<th>ANGINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
<td>FREQ</td>
</tr>
<tr>
<td>.</td>
<td>3148</td>
<td>.</td>
</tr>
<tr>
<td>0</td>
<td>2044</td>
<td>2344</td>
</tr>
<tr>
<td>1</td>
<td>343</td>
<td>268</td>
</tr>
<tr>
<td>2</td>
<td>35</td>
<td>272</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>2723</td>
</tr>
</tbody>
</table>

Number of abnormalities noted on ECG at exit

CODES

. = No usable electrocardiogram
0 = No abnormality noted
1 = One abnormality noted
2 = Two abnormalities noted
3 = Three abnormalities noted

ECGSUMX indicates the number of abnormalities noted on respondent's ECG.

INPUT VARIABLES

ECG1X  Intraventricular conduction abnormality noted on ECG
ECG2X  ST segment or T wave abnormality noted on ECG
ECG3X  Ventricular enlargement noted on ECG
ECG4X  Infarction noted on ECG
ECG5X  Atrial fibrillation noted on ECG
ECG6X  Ventricular dysrhythmia noted on ECG
ECG7X  Artificial pacemaker noted on ECG

CONSTRUCTION

ECGSUMX = SUM(ECG1X, ECG2X, ECG3X, ECG4X, ECG5X, ECG6X, ECG7X);
VARIABLE: MINNECG

Presence or absence of ECG abnormality by Minnesota criteria at enrollment

CODES

0 = No usable electrocardiogram
R = Replacement ECG
1 = At least one ECG abnormality by Minnesota criteria

MINNECG indicates whether respondent's electrocardiogram showed evidence of abnormality according to Minnesota criteria.

INPUT VARIABLES

DE17333 [Screening exam] ECG completion code
DE17335 [Screening exam] ECG interpretation 1
DE17336 [Screening exam] ECG interpretation 2
DE17337 [Screening exam] ECG interpretation 3
DE17338 [Screening exam] ECG interpretation 4
DE17339 [Screening exam] ECG interpretation 5

CONSTRUCTION

IF DE17333 = 1
THEN DG;

IF 5310 <= DE17335 <= 5374 OR 5310 <= DE17336 <= 5374 OR
5310 <= DE17337 <= 5374 OR 5310 <= DE17338 <= 5374 OR
5310 <= DE17339 <= 5374 OR
4150 <= DE17335 <= 4152 OR 4150 <= DE17336 <= 4152 OR
4150 <= DE17337 <= 4152 OR 4150 <= DE17338 <= 4152 OR
4150 <= DE17339 <= 4152 OR
4160 <= DE17335 <= 4162 OR 4160 <= DE17336 <= 4162 OR
4160 <= DE17337 <= 4162 OR 4160 <= DE17338 <= 4162 OR
4160 <= DE17339 <= 4162 OR

{cont.}
VARIABLE MINNECG

CONSTRUCTION

DE17335 = 2120 OR DE17336 = 2120 OR DE17337 = 2120 OR DE17338 = 2120 OR DE17339 = 2120

THEN MINNECG = 1;
ELSE MINNECG = 0;
END;

[For Replacement PEGs only]

MINNECG = R;

<table>
<thead>
<tr>
<th>VARIABLE: MINNECG</th>
<th>AMEDIS</th>
<th>ANGINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence or absence of ECG abnormality by Minnesota criteria at exit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CODES

. = No usable electrocardiogram
0 = No ECG abnormality by Minnesota criteria
1 = At least one ECG abnormality by Minnesota criteria

MINNECG indicates whether respondent's electrocardiogram showed evidence of abnormality according to Minnesota criteria.

INPUT VARIABLES

DE13034 (Screening exam) ECG completion code
DE17335 (Screening exam) ECG interpretation 1
DE17336 (Screening exam) ECG interpretation 2
DE17337 (Screening exam) ECG interpretation 3
DE17338 (Screening exam) ECG interpretation 4
DE17339 (Screening exam) ECG interpretation 5

(cont.)
VARIABLE MINNECGX (cont.)

CONSTRUCTION

IF DE 3034 = 1
THEN DO;

IF 41 <= DE17335 <= 59 OR 41 <= DE17336 <= 59 OR
41 <= DE17337 <= 59 OR 41 <= DE17338 <= 59 OR
41 <= DE17339 <= 59 OR

DE17335 = 88 OR DE17335 = 91 OR DE17335 = 92 OR
DE17335 = 117 OR DE17335 = 88 OR DE17336 = 91 OR
DE17335 - 95 OR DE17336 = 117 OR DE17337 = 88 OR
DE17337 = 91 OR DE17337 = 95 OR DE17337 = 117 OR
DE17337 = 95 OR DE17337 = 92 OR
DE17338 = 117 OR DE17339 = 88 OR DE17339 = 91 OR
DE17339 = 95 OR DE17339 = 117 OR

96 <= DE17335 <= 100 OR 102 <= DE17335 <= 110 OR
96 <= DE17336 <= 100 OR 102 <= DE17336 <= 110 OR
96 <= DE17337 <= 100 OR 102 <= DE17337 <= 110 OR
96 <= DE17338 <= 100 OR 102 <= DE17338 <= 110 OR
96 <= DE17339 <= 100 OR 102 <= DE17339 <= 110 OR

DE17335 = 64 OR DE17336 = 64 OR DE17336 = 64 OR
DE17338 = 64 OR DE17339 = 64

THEN MINNECGX = 1;
ELSE MINNECGX = 0;

END;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ANGIROC</th>
<th>MILDIS ANGINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probabilty of angina pectoris by Rose scoring method at enrolment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVIS</td>
<td>Missing</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>No angina pectoris</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Probable angina pectoris</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Angina pectoris with mild impairment</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Angina pectoris with moderate impairment</td>
<td></td>
</tr>
</tbody>
</table>

ANGIROSE indicates the probability of angina pectoris according to the Rose scoring method and estimates the degree of resulting impairment.

### INPUT VARIABLES

D:13758 {MHQ8} Have you had pain, discomfort, heaviness, or pressure in your chest in the past 12 months?

D:13759 {MHQ8} Have you had any discomfort, heaviness, or pressure in your chest during the past 12 months?

D:13760 {MHQ8} Do you get this feeling in your chest when you walk uphill or hurry?

D:13761 {MHQ8} What do you usually do when you get this feeling in your chest while walking?

D:13762 {MHQ8} If you stand still, what happens to this feeling in your chest?

D:13763 {MHQ8} If you get this feeling in your chest while walking, do you usually place a nitroglycerine pill (small white pill) under your tongue?

D:13764 {MHQ8} Do you get pain in the upper or middle chest?

D:13765 {MHQ8} Do you get pain in the lower chest?

D:13766 {MHQ8} Do you get pain in left chest?

D:13767 {MHQ8} Do you get pain in the left arm?

D:13768 {MHQ8} When you get this feeling in your chest while walking, do you usually place a nitroglycerine, Cardizem or Isordil pill under your tongue? If so, is your pain relieved within 10 minutes?

(cont.)
VARIABLE ANGIROSE (cont.)

INPUT VARIABLES (cont.)

DE19021  (M90) When you get this feeling in your chest while walking, do you usually take a Sorbitrate pill or a similar pill that you chew? If so, is your pain relieved within 10 minutes?

DE19022  (M90) Where do you usually get this pain?

ANGITRIC Presence or absence of chest pain, discomfort, heaviness, or pressure

PILL  (Non) Dayton - Temporary variable) Pain pill consumption and effect
  1 - Elimination of chest pain or discomfort while walking, after taking medicine
  2 - No pill taken or some or no relief after taking medicine

L3C  (Dayton - Temporary variable) Location of chest pain
  1 - Pain in upper, middle or lower chest or in left chest and left arm
  2 - Pain in left chest or left arm but not both
  3 - Location of pain unspecified

AGE  Respondent's age at enrollment

CONSTRUCTION

(Construct ANGIROSE)

(Dayton)

IF ANGIROSE > 0
  THEN DG;

  IF DE13759 = 2
    THEN ANGIROSE = 1;
  ELSE IF DE13759 = 2
    THEN ANGIROSE = 1;
  ELSE IF (DE13759 = 9 OR DE13759 = 5) AND
    (DE13760 = 2 OR DE13760 = 9 OR DE13760 < 0)
    THEN ANGIROSE = 1;
  ELSE IF DE13761 = 3 OR DE13761 < 0
    THEN ANGIROSE = 1;

(cont.)
VARIABLE ANGIROSE (cont.)

CONSTRUCTION (cont.)

ELSE IF DE13762 = 2 OR DE13762 = 3 OR
DE13762 = 0 OR DE13762 = 9 OR
DE13762 < 0
THEN DO;
  IF DE13763 = 3
  THEN ANGIROSE = 2;
  ELSE IF LOG = 1
  THEN ANGIROSE = 2;
  ELSE ANGIROSE = 1;
END;
ELSE IF LOG = 2 OR LOG = 3
THEN ANGIROSE = 2;
ELSE IF DE13762 = 1
THEN ANGIROSE = 4;
ELSE ANGIROSE = 3;
END;

(NonDayton)

IF ANGITRIC > 0
THEN DO;
  IF DE13756 = 2
  THEN ANGIROSE = 1;
  ELSE IF DE13756 = 2 OR DE13799 =
  THEN ANGIROSE = 1;
  ELSE IF DE13761 = 3 OR DE13761 < 0
  THEN ANGIROSE = 1;
  ELSE IF DE13762 = 4 OR DE13762 < 0
  THEN DO;
    IF PILL = 2 OR PILL < 0
    THEN IF DE15002 = 1
    THEN ANGIROSE = 1;
    ELSE ANGIROSE = 2;
  END;
ELSE IF DE10022 = 3
  THEN ANGIROSE = 2;
ELSE IF DE13760 = 1
  THEN ANGIROSE = 4;
ELSE ANGIROSE = 3;
END;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ANGROSEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
</tr>
<tr>
<td>1</td>
<td>761</td>
</tr>
<tr>
<td>2</td>
<td>96</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
</tr>
</tbody>
</table>

**ANGROSEX** indicates probability of angina pectoris according to Rose scoring method and estimates degree of resulting impairment. It also describes respondent's use of anti-anginal medicine.

**INPUT VARIABLES**

- **DE13758** (MHQOB) Have you had any discomfort, heaviness, or pressure in your chest during the past 12 months?
- **DE13759** (MHQOB) Do you get this feeling in your chest when you walk uphill or hurry?
- **DE13760** (MHQOB) Do you get this feeling in your chest when you walk at an ordinary pace on level ground?
- **DE13761** (MHQOB) What do you usually do when you get this feeling in your chest while walking?
- **DE13762** (MHQOB) If you stand still, what happens to this feeling in your chest?
- **DE19022** (MHQOB) Where do you usually get this pain?

**ANGIRAIX** Presence or absence of chest pain, discomfort, heaviness, or pressure

**PILLX** (Temporary variable) Pain pill consumption and effect

1 - Elimination of chest pain or discomfort while walking, after taking medicine
2 - No pill taken or some or no relief after taking medicine

(cont.)
VARIABLE ANGROSEX (cont.)

CONSTRUCTION

IF ANGTRIG < 1
THEN DO:
  IF DE13758 = 2
  THEN ANGROSEX = 1;
  ELSE IF DEI3759 = 2 OR DEI3759 =
  THEN ANGROSEX = 1;
  ELSE IF DEI3761 = 3 OR DEI3761 < 0
  THEN ANGROSEX = 1;
  ELSE IF (DEI3762 = 2 OR DEI3762 = 3 OR
  DEI3762 < 0)
  THEN IF PILUX = 2 OR PILUX < 0
  THEN IF DEI9022 <= 3
  THEN ANGROSEX = 1;
  ELSE ANGROSEX = 2;
  ELSE IF DEI9022 <= 3
  THEN ANGROSEX = 2;
  ELSE IF DEI3760 = 1
  THEN ANGROSEX = 4;
  ELSE ANGROSEX = 3;
END;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>ANGSTAT</th>
<th>AMEDIS</th>
<th>ANGINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
<td>FREQ</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>704</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>5110</td>
<td>5110</td>
<td>98.90</td>
</tr>
<tr>
<td>3</td>
<td>44</td>
<td>5154</td>
<td>0.85</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>5160</td>
<td>0.12</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>5167</td>
<td>0.14</td>
</tr>
</tbody>
</table>

VARIABLE ANGSTAT

Probability of angina pectoris by Rose scoring method and previous medical diagnosis at enrollment

CODES

., = Missing response (values . or M for ANGTRIG)
1. = Angina not present
2. = Angina present by Rose scoring method only
3. = Angina present by physician diagnosis only
4. = Angina present by both Rose scoring method and physician diagnosis

ANGSTAT links results of Rose scoring method and previous medical diagnosis to indicate probability of angina pectoris.

(cont.)
VARIABLE ANGISTAT (cont.)

INPUT VARIABLES

DE13771 [MQD]: Has a doctor ever said you have angina?
ANGIPOSE: Probability of angina pectoris by Rose scoring method at enrollment
ANGITRIG: Presence or absence of chest pain, discomfort, or pressure
AGE: Age of participant at enrollment

CONSTRUCTION

IF ANGITRIG = 1 OR ANGITRIG = 2
THEN DO;

   IF ANGIPOSE > 2 AND AGE >= 35 AND DE13771 = 1
   THEN ANGISTAT = 4;
   ELSE IF ANGIPOSE = 2 OR
   (ANGIPOSE > 2 AND AGE < 35) AND
   DE13771 = 1
   THEN ANGISTAT = 3;
   ELSE IF (ANGIPOSE > 2 AND AGE >= 35) AND
   DE13771 \= 1
   THEN ANGISTAT = 2;
   ELSE ANGISTAT = 1;

END;
### VARIABLE ANGSTAX

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5055</td>
<td>5055</td>
<td>98.92</td>
<td>98.92</td>
</tr>
<tr>
<td>2</td>
<td>29</td>
<td>5084</td>
<td>0.57</td>
<td>99.49</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
<td>5098</td>
<td>0.27</td>
<td>99.77</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>5110</td>
<td>0.24</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**CODES**

- **1** = Missing response (values . or M for ANGSTAX)
- **2** = Angina present by Rose scoring method only
- **3** = Angina present by physician diagnosis only
- **4** = Angina present by both Rose scoring method and physician diagnosis

**ANGSTAX** links results of Rose scoring method and previous medical diagnosis to indicate probability of angina pectoris.

### INPUT VARIABLES

- **DE13771** (MMGB): Has a doctor ever said you have angina?
- **ANGTRIGX**: Presence or absence of chest pain, discomfort, heaviness, or pressure
- **ANGROSEX**: Probability of angina pectoris by Rose scoring method at exit
- **AGEX**: Age of participant at exit

### CONSTRUCTION

```plaintext
IF ANGTRIGX = 1 OR ANGTRIGX = 2
    THEN DO;
    IF ANGROSEX > 2 AND AGEX >= 35 AND DE13771 = 1
        THEN ANGSTAX = 4;
    ELSE IF ANGROSEX = 2 OR
        (ANGROSEX > 2 AND AGEX < 35) AND
        DE13771 = 1
        THEN ANGSTAX = 3;
    ELSE IF (ANGROSEX > 2 AND AGEX >= 35) AND
        DE13771 = 1
        THEN ANGSTAX = 2;
    ELSE ANGSTAX = 1;
END;
```
VARIABLE ANGIBIN

Presence of angina pectoris at enrollment

CODES

.  =  Missing response (values . or M for ANGISTRIC)
0  =  No angina pectoris
1  =  Angina pectoris

ANGIBIN indicates the presence of angina pectoris according to Rose scoring method and/or previous medical diagnosis.

INPUT VARIABLE

ANGISTAT  Probability of angina pectoris by Rose scoring method and previous diagnosis

CONSTRUCTION

IF ANGISTAT = 1 THEN ANGIBIN = 0;
IF ANGISTAT > 1 THEN ANGIBIN = 1;
### VARIABLE ANGIBIKX

Presence of angina pectoris at exit

**CODES**

- `0`: Missing response (values ., or M for ANGTRIGX)
- `1`: No angina pectoris
- `2`: Angina pectoris

ANGIBIKX indicates the presence of angina pectoris according to Rose scoring method and/or previous medical diagnosis.

### INPUT VARIABLE

**ANGISTAX**

Probability of angina pectoris by Rose scoring method and previous diagnosis

**CONSTRUCTION**

```
IF ANGISTAX = 1 THEN ANGIBIKX = 0;
IF ANGISTAX > 1 THEN ANGIBIKX = 1;
```

### VARIABLE ANGIMP

Impact of angina at enrollment

**CODES**

- `0`: Missing, includes those with no angina
- `1`: No impact
- `2`: Some impact

ANGIMP indicates whether angina (chest pain or heart trouble) caused any pain, worry, activity restrictions, or days in bed.

(cont.)
VARIABLE ANGIMP (cont.1)

INPUT VARIABLES

DE13773 [Dayton - MHQA; NonDayton - MHOB] During the past 3 months, how much pain has your chest pain or heart trouble caused you?

DE13774 [Dayton - MHQA; NonDayton - MHOB] During the past 3 months, how much has your chest pain or heart trouble worried or concerned you?

DE13775 [Dayton - MHQA; NonDayton - MHOB] During the past 3 months, how much of the time has your chest pain or heart trouble kept you from doing the kinds of things other people your age do?

DE13776 [Dayton - MHQA; NonDayton - MHOB] During the past 30 days, how many days has your chest pain or heart trouble kept you in bed all day or most of the day?

CONSTRUCTION

1: DE13773 = 4 OR DE13774 = 4 OR DE13775 = 5 OR DE13776 = 0
   THEN ANGIMP = 0;

1: 1 <= DE13775 <= 3 OR 1 <= DE13774 <= 3 OR
   1 <= DE13773 <= 4 OR DE13776 > 0
   THEN ANGIMP = 1;
**VARIABLE ANGIMPX**

**AMELIS**

**ANGINA**

Impact of angina at exit

**CODES**

. = Missing, includes those with no angina
0 = No impact
1 = Some impact

ANGIMPX indicates whether angina (chest pain or heart trouble) caused any pain, worry, activity restrictions, or days in bed.

**INPUT VARIABLES**

DE13773 (MHQ3) During the past 3 months, how much pain has your chest pain or heart trouble caused you?

DE13774 (MHQB) During the past 3 months, how much has your chest pain or heart trouble worried or concerned you?

DE13775 (MHQ3) During the past 3 months, how much of the time has your chest pain or heart trouble kept you from doing the kinds of things other people your age do?

DE13776 (MHQ5) During the past 30 days, how many days has your chest pain or heart trouble kept you in bed all day or most of the day?

**CONSTRUCTION**

1: DE13773 = 4 OR DE13774 = 4 OR DE13775 = 5 OR DE13776 = 0 THEN ANGIMPX = 0;

1: 1 <= DE13773 <= 3 OR 1 <= DE13774 <= 3 OR 1 <= DE13775 <= 4 OR DE13776 > 0 THEN ANGIMPX = 1;
CHRONIC OBSTRUCTIVE AIRWAY DISEASE
(COAD)

VARIABLE BESTFEV1

Highest of three FEV1's at enrollment

CODES
. - Missing
R - Did not complete screening exam and/or spirometry exam

Range of values - 54 to 802 liters

FEV1 is the Forced Expiratory Volume in one second. This measures how much air is expelled in the first second of exhalation. As part of the screening exam each person was asked to take a deep breath and expel as much air as possible. Everyone was given three tries. BESTFEV1 is the highest of the three FEV1's.

BESTFEV1

NUMBER OF OBSERVATIONS 7884
NUMBER OF MISSING 2987
MEAN 333.64
MEDIAN 333.00
MINIMUM VALUE 54.00
MAXIMUM VALUE 802.00
STANDARD DEVIATION 101.86
COEFFICIENT OF VARIATION 29.63
SKEWNESS 0.37
KURTOSIS 0.21

INPUT VARIABLES

DE17360 (Screening exam) FEV1 test - first try
DE17366 (Screening exam) FEV1 test - second try
DE17368 (Screening exam) FEV1 test - third try
DE17379 (Screening exam) Spirometry completion code
. - No screening exam
1 - Yes
2 - No or not applicable
3 - Refused
4 - Patient unable to comprehend
5 - Administrative problem
6 - Equipment Failure
7 - Uncooperative enrollee
8 - Enrollee unable to comply
9 - Additional data required

[cont.]
VARIABLE BESTFEV1 (cont.)

CONSTRUCTION

IF DE17379 <= 1 THEN BESTFEV1 = R;
ELSE BESTFEV1 = MAX(DE17360, DE17364, DE17368);

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>BESTFEV1X</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEDIS</td>
<td></td>
</tr>
<tr>
<td>CODED</td>
<td></td>
</tr>
<tr>
<td>Highest of three FEV1's at exit</td>
<td></td>
</tr>
<tr>
<td><strong>CODES</strong></td>
<td></td>
</tr>
<tr>
<td>. - Missing</td>
<td></td>
</tr>
<tr>
<td>C - Not screened</td>
<td></td>
</tr>
<tr>
<td>Range of values - 45 to 666 liters</td>
<td></td>
</tr>
<tr>
<td>FEV1 is the Forced Expiratory Volume in one second. This measures how much air is expelled in the first second of exhalation. As part of the screening exam each person was asked to take a deep breath and expel as much air as possible. Everyone was given three tries. BESTFEV1X is the highest of the three FEV1's.</td>
<td></td>
</tr>
</tbody>
</table>

INPUT VARIABLES

DE17360 (Screening exam) FEV1 test - first try
DE17364 (Screening exam) FEV1 test - second try
DE17368 (Screening exam) FEV1 test - third try
SCREENOX Screening exam indicator at exit

CONSTRUCTION

BESTFEV1X = MAX(DE17360, DE17364, DE17368);

IF SCREENOX = 1 THEN BESTFEV1X = C;
Highest of three FVC's at enrollment

CODES
- Missing
- R = did not complete screening exam and/or spirometry exam

Range of values = 86 to 98.1 liters

FVC is the Forced Vital Capacity. This is a measure of the volume of all the air expelled. As part of the screening exam each person was asked to take a deep breath and expel as much air as possible. Everyone was given three tries. BESTFVC is the highest of the three FVC's.

INPUT VARIABLES
DE17359 (Screening exam) FVC test - first try
DE17361 (Screening exam) FVC test - second try
DE17367 (Screening exam) FVC test - third try
DE17379 (Screening exam) Spirometry completion code
- 0 - No screening exam
  1 - Yes
  2 - No or not applicable
  3 - Refused
  4 - Patient unable to comprehend
  5 - Administrative problem
  6 - Equipment failure
  7 - Uncooperative enrollee
  8 - Enrollee unable to comply
  9 - Additional data required

CONSTRUCTION
IF DE17379 = 0 THEN BESTFVC = R;
ELSE BESTFVC = MAX(DE17359,DE17361,DE17367);
Highest of three FVC's at exit

CODES

- Missing
- C - Not screened
  Range of values = 92 to 931 liters

FVC is the Forced Vital Capacity. This is a measure of the volume of all the air expelled. As part of the screening exam each person was asked to take a deep breath and expel as much air as possible. Everyone was given three tries. BESTFVCX is the highest of the three FVC's.

INPUT VARIABLES

DE17359 (Screening exam) FVC test - first try
DE17363 (Screening exam) FVC test - second try
DE17367 (Screening exam) FVC test - third try
SCREENX Screening exam indicator at exit

CONSTRUCTION

BESTFVCX = MAX(DE17359, DE17363, DE17367);

IF SCREENX = . THEN BESTFVCX = 0;
VARIABLE BSIPRFEV

Highest of three PRFEV's at enrollment

CODES

R - Did not complete screening exam and/or spirometry exam
Range of values = 33 to 99 percent

PRFEV is the amount of air expelled in the first second
(FEV1) divided by the total amount of air expelled (FVC).
Normally people without airway disease expel about 80% of
the FVC in the first second. These PRFEV's were computed.
BSIPRFEV is the maximum of these PRFEV's.

INPUT VARIABLES

DE17361 (Screening exam) FEV1/FVC in % - first try
DE17369 (Screening exam) FEV1/FVC in % - second try
DE17369 (Screening exam) FEV1/FVC in % - third try
DE17379 (Screening exam) Spirometry completion code
  1 - No screening exam
  2 - No or not applicable
  3 - Refused
  4 - Patient unable to comprehend
  5 - Administrative problem
  6 - Equipment Failure
  7 - Uncooperative enrollee
  8 - Enrollee unable to comply
  9 - Additional data required

CONSTRUCTION

IF DE17379 <= 1 THEN BSIPRFEV = R;
ELSE BSIPRFEV = MAX(DE17361,DE17369,DE17369);
Highest of three PREDV's at exit

CODES
. = Missing
C = Not screened

Range of values = 22.5 to 100 percent

PREDV is the amount of air expelled in the first second (FEV1) divided by the total amount of air expelled (FVC).
Normally people without airway disease expel about 80% of the FVC in the first second. Three PREDV's were computed.
BSTPRFXV is the maximum of these PREDV's.

INPUT VARIABLES

DE17361 (Screening exam) FEV1/FVC in % - first try
DE17365 (Screening exam) FEV1/FVC in % - second try
DE17369 (Screening exam) FEV1/FVC in % - third try
DE114479 (Screening exam) FEV1/FVC in % - first try
DE114480 (Screening exam) FEV1/FVC in % - second try
DE114481 (Screening exam) FEV1/FVC in % - third try

ENRTERM Enrollment term - distinguishes those who accepted 3-year or 5-year enrollment
5 - 3 year enrollment
5 - 5 year enrollment

SITE Participant's place of residence at enrollment

SCREENX Screening exam indicator at exit

CONSTRUCTION

IF SITE = 1 OR ((SITE = 2 OR SITE = 5 OR SITE = 6) AND ENRTERM = 3) THEN BSTPRFXV = MAX(DE17361, DE17365, DE17369); ELSE BSTPRFXV = MAX(DE114479, DE114480, DE114481);

IF SCREENX = . THEN BSTPRFXV = C;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CIGSTAT</th>
<th>AMEDIS</th>
<th>LOAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarette smoking status at enrollment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>. - Missing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Never smoked cigarettes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 - Ex-cigarette smoker</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 - Current cigarette smoker</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIGSTAT indicates the smoking status of each enrollee at enrollment.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Constructions are different for Dayton and NonDayton due to different skip patterns used.

INPUT VARIABLES

DE13807 (MHOA) Have you ever smoked cigarettes fairly regularly?
DE13810 (MHOA) Do you smoke cigarettes now?

CONSTRUCTION

{Dayton}

IF DE13807 = 2 THEN CIGSTAT = 1;
IF DE13807 = 1 AND DE13810 = 2 THEN CIGSTAT = 2;
IF DE13807 = 1 AND DE13810 = ? THEN CIGSTAT = 3;

{NonDayton}

IF DE13807 = 2 AND DE13810 = 2 THEN CIGSTAT = 1;
IF DE13807 = 1 AND DE13810 = 2 THEN CIGSTAT = 2;
IF DE13810 = 1 THEN CIGSTAT = 3;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CIGSTAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMMISD</td>
<td>LOAD</td>
</tr>
<tr>
<td>Cigarette smoking status at exit</td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
</tr>
<tr>
<td>.</td>
<td>Missing</td>
</tr>
<tr>
<td>A</td>
<td>No MHQA</td>
</tr>
<tr>
<td>1</td>
<td>Never smoked cigarettes</td>
</tr>
<tr>
<td>2</td>
<td>Ex-Cigarette smoker</td>
</tr>
<tr>
<td>3</td>
<td>Current cigarette smoker</td>
</tr>
</tbody>
</table>

**CIGSTAX indicates the current smoking status of each enrollee.**

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ %</th>
<th>%</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>.</td>
<td>621</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>166</td>
<td>2476</td>
<td>48.70</td>
<td>48.70</td>
</tr>
<tr>
<td>2</td>
<td>939</td>
<td>3415</td>
<td>16.47</td>
<td>67.17</td>
</tr>
<tr>
<td>3</td>
<td>1609</td>
<td>5084</td>
<td>32.83</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**INPUT VARIABLES**

DEI3807 [MHQA] Have you ever smoked cigarettes fairly regularly?

DEI3810 [MHQA] Do you smoke cigarettes now?

MHQAX [MHQA indicator at exit]

**CONSTRUCTION**

IF DEI3807 = 2 AND DEI3810 = 2 THEN CIGSTAX = 1;
IF DEI3807 = 1 AND DEI3810 = 2 THEN CIGSTAX = 2;
IF DEI3810 = 1 THEN CIGSTAX = 3;
IF MHQAX = . THEN CIGSTAX = A;
VARIABLE PACKYR

AMEDIS COAD

Number of packyears for current cigarette smokers at enrollment

CODES

. = Missing
-3 = Never smoked cigarettes
-2 = Ex-cigarette smoker

Range = 0.0 to 107.5 packyears

PACKYR summarizes the smoking habits of current smokers. It is measured in packyears (the number of packs smoked per day times the number of years the person smoked regularly).

INPUT VARIABLES

DE13807 {MHQA} Have you ever smoked cigarettes fairly regularly?
DE13808 {Dayton - MHQA} During how many years have you smoked regularly?
DE13810 {MHQA} Do you smoke cigarettes now?
DE13812 {MHQA} On the average, about how many packs of cigarettes a day do you currently smoke?
DE13823 {NonDayton - MHQA} During how many years have you smoked cigarettes regularly?
CIGPKDAY {Temporary variable} Number of packs of cigarettes smoked a day
YKSMOKED {Temporary variable} Number of years smoked regularly

CONSTRUCTION

(Construct CIGPKDAY)

CIGPKDAY = DE13812;

IF DE13812 = 2 THEN CIGPKDAY = 1;
IF DE13812 = 3 THEN CIGPKDAY = 2;
IF DE13812 = 4 THEN CIGPKDAY = 2.5;

(cont.)
VARIABLE PACKYR (cont.)

CONSTRUCTION (cont.)

(Constructor YRSMOKE)

{Dayton}

YRSMOKE = DE13808;
IF 0 <= DE13808 <= 2 THEN YRSMOKE = 1;
IF 2 <= DE13808 <= 5 THEN YRSMOKE = 3.5;
IF 6 <= DE13808 <= 10 THEN YRSMOKE = 8;
IF 11 <= DE13808 <= 15 THEN YRSMOKE = 13;
IF 16 <= DE13808 <= 20 THEN YRSMOKE = 18;
IF 21 <= DE13808 <= 25 THEN YRSMOKE = 23;
IF 26 <= DE13808 <= 30 THEN YRSMOKE = 28;
IF 31 <= DE13808 <= 35 THEN YRSMOKE = 33;
IF 36 <= DE13808 <= 40 THEN YRSMOKE = 38;
IF 40 < DE13808 THEN YRSMOKE = 43;

{NonDayton}

YRSMOKE = DE18823;
IF DE18823 = 2 THEN YRSMOKE = 3.5;
IF DE18823 = 3 THEN YRSMOKE = 8;
IF DE18823 = 4 THEN YRSMOKE = 13;
IF DE18823 = 5 THEN YRSMOKE = 18;
IF DE18823 = 6 THEN YRSMOKE = 23;
IF DE18823 = 7 THEN YRSMOKE = 28;
IF DE18823 = 8 THEN YRSMOKE = 33;
IF DE18823 = 9 THEN YRSMOKE = 38;
IF DE18823 = 9 THEN YRSMOKE = 43;

{Construct PACKYR }

PACKYR = CIGPDAY = YRSMOKE;

{Dayton}

if DE13807 = 2 then PACKYR = -3;
if DE13807 = 1 and DE13810 = 2 then PACKYR = -2;

(cont.)
**VARIABLE PACKYR**

**CONSTRUCTION**

(NonDayton)

IF DE13807 = 2 AND DE13810 = 2 THEN PACKYR = -3;
IF DE13807 = 1 AND DE13810 = 2 THEN PACKYR = -2;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>PACKYR</th>
<th>AMEDIS</th>
<th>GOAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of packyears for current cigarette smokers at exit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Missing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A - No packyears</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-3 - Never smoked cigarettes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range = 0.5 to 10.75 packyears</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PACKYR shows the smoking habits of current smokers. It is measured in packyears (the number of packs smoked per day times the number of years the person smoked regularly).</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INPUT VARIABLES**

DE13807 - Have you ever smoked cigarettes fairly regularly?
DE13810 - Do you smoke cigarettes now?
DE13812 - On the average, about how many packs of cigarettes a day do you currently smoke?
DE13823 - During how many years have you smoked cigarettes regularly?
CIGPKDAY - Number of packs of cigarettes smoked a day
YRSMOKE - Number of years smoked regularly
MHQAX - MHQA indicator at exit

(continued)
VARIABLE PACKYR (cont.)

CONSTRUCTION

{Construct CIGPKDAY}

CIGPKDAY = DE13812;
IF DE13812 = 1 THEN CIGPKDAY = .50;
IF DE13812 = 2 THEN CIGPKDAY = 1;
IF DE13812 = 3 THEN CIGPKDAY = 2;
IF DE13812 = 4 THEN CIGPKDAY = 2.5;

{Construct YRSMOKE}

YRSMOKE = DE18023;
IF DE18023 = 2 THEN YRSMOKE = 3.5;
IF DE18023 = 3 THEN YRSMOKE = 8;
IF DE18023 = 4 THEN YRSMOKE = 13;
IF DE18023 = 5 THEN YRSMOKE = 18;
IF DE18023 = 6 THEN YRSMOKE = 23;
IF DE18023 = 7 THEN YRSMOKE = 28;
IF DE18023 = 8 THEN YRSMOKE = 33;
IF DE18023 = 9 THEN YRSMOKE = 38;
IF DE18023 = 0 THEN YRSMOKE = 43;

{Construct PACKYR}

PACKYR = CIGPKDAY * YRSMOKE;
IF DE13817 = 2 AND DE13810 = 2 THEN PACKYR = -3;
IF DE13817 = 1 AND DE13810 = 2 THEN PACKYR = -2;
IF DE13807 = . AND DE13810 = 2 THEN PACKYR = .;
IF DE13810 < 0 THEN PACKYR = DE13810;
IF MHQAX = . THEN PACKYR = A;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>PHLEGOM</th>
<th>AMEDIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VALUE</td>
<td>FREQ</td>
</tr>
<tr>
<td>Brochitis status variable at enrollment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.</td>
<td>677</td>
<td>.</td>
</tr>
<tr>
<td>Q</td>
<td>14</td>
<td>.</td>
</tr>
<tr>
<td>X</td>
<td>19</td>
<td>.</td>
</tr>
<tr>
<td>0</td>
<td>4556</td>
<td>4556</td>
</tr>
<tr>
<td>1</td>
<td>476</td>
<td>5031</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>5148</td>
</tr>
<tr>
<td>3</td>
<td>13</td>
<td>5161</td>
</tr>
</tbody>
</table>

PHLEGOM summarizes the Medical History Questionnaire questions regarding bronchitis symptoms. It is based on the presence of phlegm, doctor diagnosis, and the prescription and/or use of therapy for bronchitis or emphysema.

NOTE: The wording for some of the following questions differ for Dayton. See NHQA for Dayton for the actual questions.

**INPUT VARIABLES**

**DE13777** (Dayton - NHQA; NonDayton - MQGB) Was a doctor ever told you that you had (chronic) bronchitis or emphysema?

**DE13779** (Dayton - NHQA; NonDayton - MQGB) During the past 12 months, have you brought up any phlegm (thick spit) from your chest first thing in the morning?

**DE13780** (Dayton - NHQA; NonDayton - MQGB) During the past 12 months, have you brought up any phlegm (thick spit) from your chest first thing in the morning?

**DE13787** (Dayton - NHQA) Do you bring up phlegm on most days for at least 3 months of the year?

**DE13791** (Dayton - NHQA; NonDayton - MQGB) In the past 12 months, has a doctor prescribed any breathing exercises or postural drainage for your chronic bronchitis, emphysema, or phlegm? (cont.)
VARIABLE PHLEGH (cont.)

INPUT VARIABLES (cont.)

DE13792 [Dayton - MHOA; NonDayton - MHOB] In the past 12 months, has a doctor prescribed any kind of machine to help your breathing for your chronic bronchitis, emphysema, or phlegm?

DE13797 [Dayton - MHOA; NonDayton - MHOB] Whether or not a doctor prescribed them, are you currently doing any breathing exercises or postural drainage for your chronic bronchitis, emphysema, or phlegm?

DE13798 [Dayton - MHOA; NonDayton - MHOB] Whether or not a doctor prescribed them, are you currently using any kind of machine to help your breathing for your chronic bronchitis, emphysema, or phlegm?

DE19027 [NonDayton - MHOB] During the past year, were there at least 3 months when you brought up phlegm (thick spit) on most days?

CONSTRUCTION

IF DE13779 = 2 OR DE13780 = 2 THEN PHLEGH = 0;
IF DE19027 = 1 OR DE13787 = 1 THEN PHLEGH = 1;
IF DE13777 = 1 AND (DE13797 = 1 OR DE13798 = 1 OR DE13791 = 1 OR DE13792 = 1) AND PHLEGH = 0 THEN PHLEGH = 2;
IF (DE13797 = 1 OR DE13798 = 1 OR DE13791 = 1 OR DE13792 = 1) AND DE13777 = 2 AND PHLEGH = 0 THEN PHLEGH = 3;
IF DE13777 < 0 THEN PHLEGH = 0;
IF (DE13777 > 0 AND DE19027 = .) OR (DE13777 > 0 AND DE13787 = .) THEN PHLEGH = X;
PHLEGMX

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4626</td>
<td>4626</td>
<td>90.87</td>
<td>90.87</td>
</tr>
<tr>
<td>1</td>
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<td>8.67</td>
<td>99.53</td>
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<td>2</td>
<td>15</td>
<td>5072</td>
<td>0.30</td>
<td>99.83</td>
</tr>
<tr>
<td>3</td>
<td>19</td>
<td>5091</td>
<td>0.37</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**INPUT VARIABLES**

DE13777 (MHQB) Has a doctor ever told you that you had (chronic) bronchitis or emphysema?
DE13791 (MHQB) In the past 12 months, has a doctor prescribed any breathing exercises or postural drainage for your chronic bronchitis, emphysema, or phlegm?
DE13792 (MHQB) In the past 12 months, has a doctor prescribed any kind of machine to help your breathing for your chronic bronchitis, emphysema, or phlegm?
DE13797 (MHQB) Whether or not a doctor prescribed them, are you currently doing any breathing exercises or postural drainage for your chronic bronchitis, emphysema, or phlegm?
DE13798 (MHQB) Whether or not a doctor prescribed them, are you currently using any kind of machine to help your breathing for your chronic bronchitis, emphysema, or phlegm?

(continued)
VARIABLE PHLEGMX (cont.)

INPUT VARIABLES (cont.):

DE19027 (NHIS) During the past year, were there at least 3 months when you brought up phlegm (thick spit) on most days?

CONSTRUCTION

IF DE19027 = 1 THEN PHLEGMX = 1;
IF 1 <= DE13797 <= 3 AND (DE13797 = 1 OR DE13798 = 1 OR DE13791 = 1 OR DE13792 = 1) AND PHLEGMX = 0 THEN PHLEGMX = 2;
IF (DE13797 = 1 OR DE13798 = 1 OR DE13791 = 1 OR DE13792 = 1) AND DE13777 = 4 AND PHLEGMX = 0 THEN PHLEGMX = 3;
IF DE13777 <= 0 THEN PHLEGMX = 0;
IF DE13777 > 0 AND DE19027 = 1 THEN PHLEGMX = P;

VARIABLE PERPRED

Percent of predicted FEV1 at enrollment

CODES

- Missing
0 - Outliers
K - Did not complete screening exam and/or spirometry exam
Range of values - 18 to 197 percent

PERPRED indicates the ratio of the highest actual FEV1 compared to the predicted FEV1 based on the participant's age, sex, and height, expressed as a percentage.

INPUT VARIABLES

DE17379 (Screening exam) Spirometry completion code

- No screening exam
1 - Yes
2 - No or not applicable
3 - Refused
4 - Patient unable to comprehend
5 - Administrative problem
6 - Equipment failure
7 - Uncooperative enrollee
8 - Enrollee unable to comply
9 - Additional data required
VARIABLE PERPRED (cont.)

INPUT VARIABLES (cont.)

PREDIV1  Highest of three FEV1's
SCRAGE  (Temporary variable): Age from screening exam
SCRGEX  (Temporary variable): Sex from screening exam
1 = Male
2 = Female
SCHRGT  (Temporary variable): Height in inches from screening exam
PREDIVL1 (Temporary variable): Predicted FEV1 based on age, sex, and height

CONSTRUCTION:

{Construct PREDIV1}

IF SCRSEX = 1
THEN DO;
  IF 0 <= SCRAGE < 25
   THEN PREDIV1 = 100 * (-4.808 + (SCRAGE*.045) + (SCHRGT*.046));
  IF SCRAGE >= 25
   THEN PREDIV1 = 100 * (-4.203 + (SCRAGE[-.027]) + (SCHRGT*.052));
END;

IF SCRSEX = 2
THEN DO;
  IF 0 <= SCRAGE < 20
   THEN PREDIV1 = 100 * (-2.703 + (SCRAGE*.035) + (SCHRGT*.027));
  IF SCRAGE >= 20
   THEN PREDIV1 = 100 * (-.994 + (SCRAGE[-.021]) + (SCHRGT*.027));
END;
PERPRED = (BESTFEVI/PREDFEVI) * 100;
IF PERPRED >= 210 THEN PERPRED = 210;
IF 0 <= PERPRED < 10 THEN PERPRED = 0;
IF DEL/PRED < 1 THEN PERPRED = R;

VARIABLE PERPREDX

Percent of predicted FEV1 at exit

CODES
.
. = Missing
C = Not screened

Range of values - 18 to 165 percent

PERPREDX indicates the ratio of the highest actual FEV1 compared to the predicted FEV1 based on the participant's age, sex, and height, expressed as a percentage.

INPUT VARIABLES

BESTFEV1 Highest of three FEV1's
SClage (Temporary variable): Age from screening exam
Sorum (Temporary variable): Sex from screening exam
1 = Male
2 = Female
VARIABLE PERPREDX (cont.)

INPUT VARIABLES (cont.)

SCRHGT (Temporary variable): Height in inches from screening exam
PREDFEV1 (Temporary variable): Predicted FEV1 based on age, sex, and height
SCREENDX Screening exam indicator at exit

CONSTRUCTION

(Construct PREDFEV1)

IF SCRESEX = 1
    THEN DO;
        IF 0 <= SCRAGE < 25
            THEN PREDFEV1 = 100 * 
                (1.608 + (SCRAGE^0.045) + [SCRHGT^0.046]);
        IF SCRAGE >= 25
            THEN PREDFEV1 = 100 * 
                (1.203 + (SCRAGE^0.027) + [SCRHGT^0.052]);
    END;

IF SCRESEX = 2
    THEN DO;
        IF 0 <= SCRAGE < 20
            THEN PREDFEV1 = 100 * 
                (2.703 + (SCRAGE^0.085) + [SCRHGT^0.027]);
        IF SCRAGE >= 20
            THEN PREDFEV1 = 100 * 
                (1.794 + (SCRAGE^0.021) + [SCRHGT^0.027]);
    END;

(Construct PERPREDX)

PERPREDX = (BSLFEV1X/PREDFEV1) * 100;

IF SCREENDX = . THEN PERPREDX = 0;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>OBSTRUCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEDIS</td>
<td>COAD</td>
</tr>
<tr>
<td>Normal lung function obstructed at enrollment</td>
<td></td>
</tr>
</tbody>
</table>

**CODES**
- . - Missing
- K - Missing PBPRE
- R - Did not complete screening exam and/or spirometry exam
- 0 - Not obstructed
- 1 - Obstructed

**OBSTRUCT** combines the results of the percent actual FEV1 divided by predicted FEV1 (PBPRED) and the BSEPFEV in indicate whether each respondent has obstructed or unobstructed lung function.

**INPUT VARIABLES**

DE17379  (Screening exam) Spirometry completion code  
- . - No screening exam  
- 1 - Yes  
- 2 - No or not applicable  
- 3 - Refused  
- 4 - Patient unable to comprehend  
- 5 - Administrative problem  
- 6 - Equipment failure  
- 7 - Uncooperative enrollee  
- 8 - Enrollee unable to comply  
- 9 - Additional data required  

BSEPFEV Highest of three FEV1's  
PERPRED Highest actual FEV1 over predicted FEV1

**CONSTRUCTION**

IF (0 <= PERPRED < 75 AND 0 < BSEPFEV < 80 )  
THEN OBSTRUCT = 1;  
IF PERPRED < 0 AND BSEPFEV > 0 THEN OBSTRUCT = K;  
IF DE17379 = 1 THEN OBSTRUCT = R;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>OBSTRUCKX</th>
<th>AMEDIS</th>
<th>GOAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal lung function obstructed at exit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CODES**

- . = Missing
- C = Not screened
- E = Missing PFRPREDX
- O = Missing BSTPRFX
- R = Missing both PERPREDX and BSTPRFX
- G = Not obstructed
- I = Obstructed

OBSTRUCK combines the results of the percent actual FEV1 divided by predicted FEV1 (PERPREDX) and the BSTPRFX to indicate whether each respondent has obstructed or unobstructed lung function.

**INPUT VARIABLES**

- BSTPRFX = Highest of three PFEV’s
- PFREDX = Highest actual FEV1 over predicted FEV1
- SCREENDX = Screening exam indicator at exit

**CONSTRUCTION**

IF (0 < PERPREDX < 75 AND 0 < BSTPRFX < 80) THEN OBSTRUCK = I;
IF PERPREDX < 0 AND BSTPRFX > 0 THEN OBSTRUCK = E;
IF BSTPRFX < 0 AND PERPREDX > 0 THEN OBSTRUCK = G;
IF BSTPRFX < 0 AND PERPREDX < 0 THEN OBSTRUCK = R;
IF SCREENDX = . THEN OBSTRUCK = C;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>AIRWAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEDIS</td>
<td>COMM</td>
</tr>
<tr>
<td>COAD</td>
<td></td>
</tr>
</tbody>
</table>

Overall COAD diagnosis at enrollment

CODES
- Missing
- C - Missing PCKYR
- Q - Missing OBSTRUCT
- P - Missing PHLOG
- R - Did not complete screening exam and/or spirometry exam
- S - Missing SUBSCALE
- X - Missing XPKYR
- 0 - No disease
- 1 - Probable obstructive pulmonary disease
- 2 - Chronic obstructive airway
- 3 - Chronic bronchitis

AIRWAY combines the results of several derived variables from Congestive Heart Failure as well as from Chronic Obstructive Airway Disease. The purpose of this variable is to summarize all symptoms and assign each participant into a disease category.

INPUT VARIABLES

DL13807 (MMQA) Have you ever smoked cigarettes fairly regularly?
DL13808 (Dayton - MMQA) During how many years have you smoked regularly?
DE13809 (Dayton - MMQA) During those years that you smoked regularly, on the average, how many packs a day did you smoke?
DE13810 (MMQA) Do you smoke cigarettes now?
DE17379 (Screening exam) Spirometry completion code
- 0 - No screening exam
- 1 - Yes
- 2 - No or not applicable
- 3 - Refused
- 4 - Patient unable to comprehend
- 5 - Administrative problem
- 6 - Equipment failure
- 7 - Uncooperative enrollee
- 8 - Enrollee unable to comply
- 9 - Additional data required

(cont.)
VARIABLE AIRWAY (cont.)

INPUT VARIABLES (cont.)

DE18825  [NonDayton - MHOA] During how many years did you
              smoke cigarettes regularly?
DE18826  [NonDayton - MHOA] On the average, about how many
              packs a day did you used to smoke?
CHF_IND  Congestive heart failure disease status - for
              construction see CHF documentation
PACKYR  Number of packyears for current cigarette smokers
OBSTRUCT Normal lung function obstructed
PHLEGH  Bronchitis status variable
SUBSCALE  Shortness of breath scale - for construction see
           CHF documentation
XPKYR  [Temporary variable]: Number of packyears for
       ex-cigarette smokers
       -4 - Current smoker
       -3 - Never smoked cigarettes
EXCIGDAY  [Temporary variable]: Number of packs smoked for
         ex-cigarettes smokers
XYRHMKD  [Temporary variable]: Number of years smoked for
         ex-cigarettes smokers

CONSTRUCTION

{Construct EXCIGDAY}

EXCIGDAY = .;

{Dayton}

EXCIGDAY = DE13809;
IF DE13809 = 1 THEN EXCIGDAY = 0.5;
IF DE13809 = 2 THEN EXCIGDAY = 1;
IF DE13809 = 3 THEN EXCIGDAY = 2;
IF DE13809 = 4 THEN EXCIGDAY = 2.5;

{NonDayton}

EXCIGDAY = DE18826;
IF DE18826 = 1 THEN EXCIGDAY = 0.5;
IF DE18826 = 2 THEN EXCIGDAY = 1;
IF DE18826 = 3 THEN EXCIGDAY = 2;
IF DE18826 = 4 THEN EXCIGDAY = 2.5;

{cont.}
VARAIBLE AIRWAY (cont.)
CONSTRUCTION (cont.)

{Construct XYSMOKD}
XYSMOKD = .

{Dayton}
XYSMOKD = DE13808;
IF 0 <= DE13808 <= 2 THEN XYSMOKD = 1;
IF 2 <= DE13808 <= 5 THEN XYSMOKD = 3.5;
IF 6 <= DE13808 <= 10 THEN XYSMOKD = 6;
IF 11 <= DE13808 <= 15 THEN XYSMOKD = 13;
IF 16 <= DE13808 <= 20 THEN XYSMOKD = 16;
IF 21 <= DE13808 <= 25 THEN XYSMOKD = 23;
IF 26 <= DE13808 <= 30 THEN XYSMOKD = 28;
IF 31 <= DE13808 <= 35 THEN XYSMOKD = 33;
IF 36 <= DE13808 <= 40 THEN XYSMOKD = 38;
IF 40 < DE13808 THEN XYSMOKD = 43;

{NonDayton}
XYSMOKD = DE18825;
IF DE18825 = 2 THEN XYSMOKD = 1.5;
IF DE18825 = 3 THEN XYSMOKD = 6;
IF DE18825 = 4 THEN XYSMOKD = 13;
IF DE18825 = 5 THEN XYSMOKD = 18;
IF DE18825 = 6 THEN XYSMOKD = 23;
IF DE18825 = 7 THEN XYSMOKD = 28;
IF DE18825 = 8 THEN XYSMOKD = 33;
IF DE18825 = 9 THEN XYSMOKD = 38;
IF DE18825 = 0 THEN XYSMOKD = 43;

{Construct XPKYR}
IF DE13810 = 2 AND DE13807 = 1
  THEN XPKYR = EXCIGDAY * XYSMOKD;

{Dayton}
IF DE13807 = 1 AND DE13810 = 1 THEN XPKYR = -4;
IF DE13807 = 2 THEN XPKYR = -3;
(cont.)
VARIABLE AIRWAY (cont.)

CONSTRUCTION (cont.)

(NonDayton)

IF DE13810 = 1 THEN XPVYR = -4;
IF DE13807 = 2 AND DE13810 = 2 THEN XPVYR = -3;

(Construct AIRWAY)

IF 0 < PHLEG < 3 THEN AIRWAY = 3;
IF OBSTRUCT = 1 THEN AIRWAY = 1;
IF 0 < PHLEG < 3 AND OBSTRUCT = 1 THEN AIRWAY = 2;
IF OBSTRUCT = 1 AND SOBSCLL >= 1 AND
    [PACKYR >= 15 OR XPKYR >= 15] AND
    0 <= CHF.IND <= 3
THEN AIRWAY = 2;
IF [SOBSCLL = M OR SOBSCLL = 0 OR
     SOBSCLL = 1 OR SOBSCLL = .]
THEN AIRWAY = 5;
IF XPVYR < -3 THEN AIRWAY = 6;
IF XPVYR < -3 THEN AIRWAY = X;
IF PHLEG < 8 AND OBSTRUCT >= 0 THEN AIRWAY = F;
IF PHLEG >= 0 AND OBSTRUCT < 0 THEN AIRWAY = G;
IF PHLEG < 0 AND OBSTRUCT < 0 THEN AIRWAY = H;
IF DE173/9 < 1 THEN AIRWAY = R;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>AIRWAYX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AMEDIS</td>
</tr>
<tr>
<td></td>
<td>COAD</td>
</tr>
</tbody>
</table>

Overall COAD diagnosis at exit

CODES

. = Missing
C = Not screened
I = Missing SOSPICAL
U = Missing PACKYR
V = Missing XPKRY
W = Missing PILECMX
Y = Missing OBSTRUCX
Z = Missing PLELCM and OBSTRUCX

- No disease
1 = Probable obstructive pulmonary disease
2 = Chronic obstructive airway
3 = Chronic bronchitis

AIRWAYX combines the results of several derived variables from Congestive Heart Failure as well as from Chronic Obstruction Airway Disease. The purpose of this variable is to summarize all the symptoms and assign each participant into a disease category.

INPUT VARIABLES

PACKYR = Number of packyears of current cigarette smokers
OBSTRUCX = Normal lung function obstructed
PILECMX = Bronchitis status variable
SOSPICAL = Shortness of breath scale - for construction see CHF tracer documentation
XPKRY = Number or packyears for ex-cigarette smokers
-4 = Current smoker
-3 = Never smoked cigarettes
-2 = Former smokers
EXCICDAX = Number of packs smoked for ex-cigarette smokers
XSYSMORD = Number of years smoked for ex-cigarette smokers
CHF_IND = Congestive heart failure disease status - for construction see CHF tracer documentation
SCREENAX = Screening exam indicator at exit

(cont.)
VARIABLE AIRWAYX (cont.)

CONSTRUCTION

{Construct AIRWAYX}

IF SCRENUM = . THEN AIRWAYX = C;
IF 0 < PHLECMX < 3 THEN AIRWAYX = 3;
IF OBSTRUCX = 1 THEN AIRWAYX = 1;
IF 0 < PHLECMX < 3 AND OBSTRUCX = 1 THEN AIRWAYX = 2;
IF OBSTRUCX = 1 AND SUBSCALX >= 1 AND
   (PACKYX < .15 OR XPKYR .82 .15) AND 0 <= CHF_INF <= 3
   THEN AIRWAYX = 2;
IF {SUBSCALX = M OR SUBSCALX = 0 OR
   SUBSCALX = 1 OR SUBSCALX = .} 
   THEN AIRWAYX = 1;
IF PACKYX <= 1 THEN AIRWAYX = 5;
IF XPKYR <= -3 THEN AIRWAYX = V;
IF PHLECMX < 0 AND OBSTRUCX >= 0 THEN AIRWAYX = V;
IF PHLECMX < 0 AND OBSTRUCX < 0 THEN AIRWAYX = Z;

<table>
<thead>
<tr>
<th>COADDIN</th>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>COADDIN</td>
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<td></td>
</tr>
<tr>
<td>Binary COAD status at enrollment</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Missing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - Did not complete screening exam and/or spirometry exam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Chronic obstructive airway disease or chronic bronchitis or probable obstructive pulmonary disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 - No chronic obstructive airway disease or chronic bronchitis or probable obstructive pulmonary disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

COADDIN is a recode of AIRWAY.

(cont.)
VARIABLE COADBIN (cont.)

INPUT VARIABLES

AIRWAY Overall disease diagnosis
DE1739 {Screening exam} Spirometry completion code
  1 = No screening exam
  2 = No or not applicable
  3 = Refused
  4 = Patient unable to comprehend
  5 = Administrative problem
  6 = Equipment failure
  7 = Uncooperative enrollee
  8 = Enrollee unable to comply
  9 = Additional data required

CONSTRUCTION

COADBIN = 2;
  IF 1 < AIRWAY THEN COADBIN = 1;
  IF AIRWAY = 0 THEN COADBIN = .;
  IF DE1739 >= 1 THEN COADBIN = R;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>COADBIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEDIS</td>
<td></td>
</tr>
<tr>
<td>COAD</td>
<td></td>
</tr>
</tbody>
</table>

VARIABLE COADBINX

Binary COAD status at exit

CODES

. = Missing
C = Not screened
1 = Chronic obstructive airway disease or chronic bronchitis or probable obstructive pulmonary disease
2 = No chronic obstructive airway disease or chronic bronchitis or probable obstructive pulmonary disease

COADBINX is a recode of AIRWAYX.

(cont.)
VARIABLE COADDINX (cont.)

INPUT VARIABLES

AIRWAYX Overall disease diagnosis
SCREENDX Screening exam indicator at exit

CONSTRUCTION

COADDINX = 2;
IF 1 < AIRWAYX THEN COADDINX = 1;
IF AIRWAYX = 0 THEN COADDINX = .;
IF SCREENDX = . THEN COADDINX = 0;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>COADIMP</th>
<th>ARRSIS</th>
<th>COAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of chronic obstructive airway disease at enrollment</td>
<td>4626</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CODES

. - Missing, includes those without bronchitis, phlegm, or emphysema
0 - No impact
1 - Some impact

COADIMP indicates whether bronchitis, phlegm, or emphysema caused any pain, worry/concern, activity restrictions, or days in bed.

INPUT VARIABLES

DE13802 (Dayton - MHOA; NonDayton - MHOB) During the past 3 months, how much pain has your bronchitis, phlegm, or emphysema caused you?
DE13803 (Dayton - MHOA; NonDayton - MHOB) During the past 3 months, how much has your bronchitis, phlegm, or emphysema worried or concerned you?
DE13804 (Dayton - MHOA; NonDayton - MHOB) During the past 3 months, how often has your bronchitis, phlegm, or emphysema kept you from doing the kinds of activities other people your age do?

(cont.)
VARIABLE COADIMPX (cont.)

INPUT VARIABLES (cont.)

DE13805 (Dayton - MHQA; NonDayton - MHQB) During the past 30 days, how many days has your bronchitis, phlegm, or emphysema kept you in bed all or most of the day?

CONSTRUCTION

IF 1 <= DE13802 < 4 OR 1 <= DE13803 < 4 OR
1 <= DE13804 < 5 OR 0 < DE13805
THEN COADIMP = 1;
ELSE IF DE13802 <= 0 AND DE13803 <= 0 AND
DE13804 <= 0 AND DE13805 < 0
THEN COADIMP = .;
ELSE COADIMP = 0;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>COADIMPX</th>
<th>AMEDIS</th>
<th>LOAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of chronic obstructive airway disease at exit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>. - Missing, includes those without bronchitis, phlegm, or emphysema</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - No impact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Some impact</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

COADIMPX indicates whether bronchitis, phlegm, or emphysema caused any pain, worry/concern, activity restrictions, or days in bed.

INPUT VARIABLES

DE13802 (MHQA) During the past 3 months, how much pain has your bronchitis, phlegm, or emphysema caused you?

DE138113 (MHQB) During the past 3 months, how much has your bronchitis, phlegm, or emphysema worried or concerned you?

(cont.)
VARIABLE COADIMPX (cont.)

INPUT VARIABLES (cont.)

DE13804 (M1Q8) During the past 3 months, how often has your bronchitis, phlegm, or emphysema kept you from doing the kinds of activities other people your age do?

DE13805 (M1Q8) During the past 30 days, how many days has your bronchitis phlegm, or emphysema kept you in bed all or most of the day?

CONSTRUCTION

IF 1 <= DE13802 <= 4 OR 1 <= DE13803 <= 4 OR 1 <= DE13804 <= 5 OR 0 <= DE13805
THEN COADIMPX = 1;
ELSE IF DE13802 <= 0 AND DE13803 <= 0 AND DE13804 <= 0 AND DE13805 <= 0
THEN COADIMPX = .;
ELSE COADIMPX = 0;
CONGESTIVE HEART FAILURE TRAJECTORY CONDITION (CHF)

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CHF_SOB</th>
<th>AMEDIS CHF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator of shortness of breath or a diagnosis of heart failure at enrollment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.</td>
<td>Missing</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>The participant missed answering 5 or more questions in the shortness of breath or enlarged heart battery</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Respondent has experienced shortness of breath or has received a diagnosis of heart failure from a physician</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Respondent has not experienced shortness of breath and has not received a diagnosis of heart failure from a physician</td>
<td></td>
</tr>
</tbody>
</table>

CHF_SOB indicates whether the participant had felt shortness of breath or had received a diagnosis of heart failure in the 12 months prior to completing the MHO. Due to the complicated trigger skip in the NonDayton documents, some of the enrollees did not answer correctly. Therefore, the variable is based on response patterns to DE19003, DE19004, and DE19005 for NonDayton. For Dayton participants, DE13743 was used.

INPUT VARIABLES

DE13743 {Dayton - MHOA) During the past 12 months, have you ever felt short of breath or has the doctor ever told you that you had heart failure? |
DE13744 {Dayton - MHOA; NonDayton - MHOB} In the past 3 months, did you ever wake up at night so short of breath that you had to sit on the side of the bed or get up for relief? |
DE13745 {Dayton - MHOA; NonDayton - MHOB} In the past 3 months, have you been troubled by shortness of breath when you hurried or walked uphill? |
DE13746 {Dayton - MHOA; NonDayton - MHOB} In the past 3 months, have you been short of breath when you walked with persons your own age on level ground? (cont.)
VARIABLE: CHF_SOB (cont.)

INPUT VARIABLES (cont.)

DE13747 [Dayton - MHQA; NonDayton - MHQA] In the past 3 months, have you had to stop because of shortness of breath when you walked at your own pace on level ground?

DE13748 [Dayton - MHQA; NonDayton - MHQA] In the past 3 months, have you been bothered by shortness of breath when you bathed or dressed yourself?

DE13749 [Dayton - MHQA] Has a doctor ever said that you had a weak heart or heart failure?

DE13750 [Dayton - MHQA; NonDayton - MHQA] Thinking of the past 3 months, did your ankles ever swell during the day enough to make your shoes feel tight?

DE13752 [Dayton - MHQA; NonDayton - MHQA] In the last 3 months, did you sleep on more than one pillow because of a problem with shortness of breath?

DE13753 [Dayton - MHQA] Do you currently take diuretic (or fluid) pills which have been prescribed by a doctor?

DE13754 [Dayton - MHQA] During the past 3 months, how much pain has your shortness of breath or heart failure caused you?

DE13755 [Dayton - MHQA] During the past 3 months, how much has your shortness of breath or heart failure worried or concerned you?

DE13756 [Dayton - MHQA] During the past 3 months, how often has your shortness of breath or heart failure kept you from doing the kinds of activities other people your age do?

DE13757 [Dayton - MHQA] During the past 30 days, how many days has your shortness of breath or heart failure kept you in bed all or most of the day?

DE19003 [NonDayton - MHQA] During the past 12 months, have you ever felt short of breath?

DE19004 [NonDayton - MHQA] Has a doctor ever told you that you had an enlarged heart or heart failure?

DE19005 [NonDayton - MHQA] Has a doctor ever told you that you had an enlarged heart or heart failure?

DE19007 [NonDayton - MHQA] When was the last time you saw a doctor about your shortness of breath, enlarged heart or heart failure?

DE19008 [NonDayton - MHQA] Has a doctor ever prescribed diuretic (fluid or water) pills for your condition?

DE19009 [NonDayton - MHQA] During the past 3 months, how much pain has your shortness of breath, enlarged heart or heart failure caused you?

DE19010 [NonDayton - MHQA] During the past 3 months, how much has your shortness of breath or heart failure worried or concerned you?

(cont.)
VARIABLE CHF_SOB (cont.)

INPUT VARIABLES (cont.)

DE19071 (NonDayton - MIQBB) During the past 3 months, how much of the time has your shortness of breath or heart failure kept you from doing the kinds of things other people your age do?

DE19072 (NonDayton - MIQBB) During the past 30 days, how many days has your shortness of breath, enlarged heart, or heart failure kept you in bed all day or most of the day?

MISS_IND (temporary variable): Number of missed questions in shortness of breath or heart failure battery.

CONSTRUCTION

{Construct MISS_IND}

{Dayton}

MISS_IND = 0;

IF DE13744 = , THEN MISS_IND = MISS_IND + 1;
IF DE13755 = , THEN MISS_IND = MISS_IND + 1;
IF DE13756 = , THEN MISS_IND = MISS_IND + 1;
IF DE13747 = , THEN MISS_IND = MISS_IND + 1;
IF DE13748 = , THEN MISS_IND = MISS_IND + 1;
IF DE13757 = , THEN MISS_IND = MISS_IND + 1;
IF DE13759 = , THEN MISS_IND = MISS_IND + 1;
IF DE13750 = , THEN MISS_IND = MISS_IND + 1;
IF DE13752 = , THEN MISS_IND = MISS_IND + 1;
IF DE13753 = , THEN MISS_IND = MISS_IND + 1;
IF DE13754 = , THEN MISS_IND = MISS_IND + 1;
IF DE13755 = , THEN MISS_IND = MISS_IND + 1;
IF DE13756 = , THEN MISS_IND = MISS_IND + 1;
IF DE13757 = , THEN MISS_IND = MISS_IND + 1;

{NonDayton}

MISS_IND = 0;

IF DE13744 = , THEN MISS_IND = MISS_IND + 1;
IF DE13755 = , THEN MISS_IND = MISS_IND + 1;
IF DE13756 = , THEN MISS_IND = MISS_IND + 1;
IF DE13747 = , THEN MISS_IND = MISS_IND + 1;
IF DE13748 = , THEN MISS_IND = MISS_IND + 1;
IF DE13757 = , THEN MISS_IND = MISS_IND + 1;
IF DE13759 = , THEN MISS_IND = MISS_IND + 1;
IF DE13750 = , THEN MISS_IND = MISS_IND + 1;
IF DE13752 = , THEN MISS_IND = MISS_IND + 1;
IF DE13753 = , THEN MISS_IND = MISS_IND + 1;
IF DE13754 = , THEN MISS_IND = MISS_IND + 1;
IF DE13755 = , THEN MISS_IND = MISS_IND + 1;
IF DE13756 = , THEN MISS_IND = MISS_IND + 1;
IF DE13757 = , THEN MISS_IND = MISS_IND + 1;

{cont.}
VARIABLE CHF_SOB (cont.)

CONSTRUCTION (cont.)

IF DE19009 = . THEN MISS_IND = MISS_IND + 1;
IF DE19010 = . THEN MISS_IND = MISS_IND + 1;
IF DE19011 = . THEN MISS_IND = MISS_IND + 1;
IF DE19012 = . THEN MISS_IND = MISS_IND + 1;

{Construct CHF_SOB}

{Dayton}

CHF_SOB = DE13743;

{NonDayton}

IF DE19003 = 1
  THEN DO;
    CHF_SOB = 1;
  END;
ELSE IF DE19003 = 2 AND DE19005 = .
  THEN DO;
    CHF_SOB = DE19004;
  END;
ELSE CHF_SOB = MIN(DE19004, DE19005);

{Assign missing values}

IF CHF_SOB = 1 AND MISS_IND >= 9 THEN CHF_SOB = 0;
**VARIABLE**  CHF_SOBX

**AMEDIS**  CHF

**Indicator of shortness of breath or a diagnosis of heart failure at exit**

**CODES**

- **0** - The participant missed answering 9 or more questions in the shortness of breath or enlarged heart battery
- **1** - Respondent has experienced shortness of breath or has been troubled by shortness of breath when you hurried or walked uphill?
- **2** - Respondent has not experienced shortness of breath and has not received a diagnosis of heart failure from a physician

**CHF SOBX** indicates whether the participant had felt short of breath or had received a diagnosis of heart failure in the 12 months prior to completing the MMQ.

**INPUT VARIABLES**

DE13744  [MHQ3] In the past 3 months, did you ever wake up at night so short of breath that you had to sit on the side of the bed or get up for relief?

DE13745  [MHQ8] In the past 3 months, have you been troubled by shortness of breath when you hurried or walked uphill?

DE13746  [MHQ8] In the past 3 months, have you been short of breath when you walked with persons your own age on level ground?

DE13747  [MHQ8] In the past 3 months, have you had to stop walking because of shortness of breath when you walked at your own pace on level ground?

DE13748  [MHQ8] In the past 3 months, have you been bothered by shortness of breath when you bathed or dressed yourself?

DE13750  [MHQ8] Thinking of the past 3 months, did your ankles ever swell during the day enough to make your shoes feel tight?

DE13752  [MHQ8] In the last 3 months, did you sleep on more than one pillow because of a problem with shortness of breath?

(cont.)
VARIABLE CLIF_SYM (cont.)

INPUT VARIABLES (cont.)

DE19003 (MQ9) During the past 12 months, have you ever felt short of breath?
DE19004 (MQ9) Has a doctor ever told you that you had an enlarged heart or heart failure?
DE19005 (MQ9) Has a doctor ever told you that you had an enlarged heart or heart failure?
DE19007 (MQ9) When was the last time you saw a doctor about your shortness of breath, enlarged heart or heart failure?
DE19008 (MQ9) Has a doctor ever prescribed diuretic (fluid or water) pills for your condition?
DE19009 (MQ9) During the past 3 months, how much pain has your shortness of breath, enlarged heart or heart failure caused you?
DE19010 (MQ9) During the past 3 months, how much has your shortness of breath or heart failure caused you to be concerned?
DE19011 (MQ9) During the past 3 months, how much of the time was your shortness of breath or heart failure keeping you from doing things that others your age or your age do?
DE19012 (MQ9) During the past 30 days, how many days was your shortness of breath, enlarged heart, or heart failure keeping you in bed all day or most of the day?

MISS_IND (Temporary variable): Number of missed questions in shortness of breath or heart failure battery

CONSTRUCTION

(Construct MISS_IND)

MISS_IND = 0;

IF DE19004 = . THEN MISS_IND = MISS_IND + 1;
IF DE19004 = . THEN MISS_IND = MISS_IND + 1;
IF DE19005 = . THEN MISS_IND = MISS_IND + 1;
IF DE19006 = . THEN MISS_IND = MISS_IND + 1;
IF DE19007 = . THEN MISS_IND = MISS_IND + 1;
IF DE19008 = . THEN MISS_IND = MISS_IND + 1;
IF DE19009 = . THEN MISS_IND = MISS_IND + 1;
IF DE19010 = . THEN MISS_IND = MISS_IND + 1;
IF DE19011 = . THEN MISS_IND = MISS_IND + 1;
IF DE19012 = . THEN MISS_IND = MISS_IND + 1;

{cont.}
VARIABLE CHF_SOBX (cont.)

CONSTRUCTION (cont.)

(Construct CHF_SOBX)

\[
\begin{align*}
&\text{IF DE19003 = 1 THEN CHF_SOBX = 1;} \\
&\text{ELSE IF DE19003 = 2 AND DE19005 = .} \\
&\hspace{1cm} \text{THEN CHF_SOBX = DE19004;} \\
&\text{ELSE CHF_SOBX = MIN(DE19004,DE19005);} \\
\end{align*}
\]

(Assign missing values)

\[
\begin{align*}
&\text{IF CHF_SOBX = 1 AND MISS_IND >= 9 THEN CHF_SOBX = 0;} \\
\end{align*}
\]
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<thead>
<tr>
<th>VARIABLE</th>
<th>CHFPATN</th>
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<th>CHF</th>
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(cont.)
VARIABLE CHFATIN (cont.)

CHFATIN provides a summary measure of 4 specific activities that may make the respondent short of breath. The logical hierarchy of activities was not always selected by the respondent (i.e., it was possible for a respondent to indicate that they became short of breath while walking on level ground, but not while going up hill).

INPUT VARIABLES

DE13745  (Dayton - MHQA; NonDayton - MHQB) In the past 3 months, have you been troubled by shortness of breath when you hurried or walked uphill?

DE13746  (Dayton - MHQA; NonDayton - MHQB) In the past 3 months, have you been short of breath when you walked with persons your own age on level ground?

DE13747  (Dayton - MHQA; NonDayton - MHQB) In the past 3 months, have you had to stop because of shortness of breath when you walked at your own pace on level ground?

DE13748  (Dayton - MHQA; NonDayton - MHQB) In the past 3 months, have you been bothered by shortness of breath when you bathed or dressed yourself?

CHF_SOB  Indicator of shortness of breath or a diagnosis of heart failure at enrollment

SITE  Respondents place of residence at enrollment

MHQA  MHQA indicator at enrollment

MHQB  MHQB indicator at enrollment

MISS_IND (Temporary variable): Number of missed questions in shortness of breath or heart failure battery

NDE13745  (Temporary variable): Indicator variable based on DE13745

NDE13746  (Temporary variable): Indicator variable based on DE13746

NDE13747  (Temporary variable): Indicator variable based on DE13747

NDE13748  (Temporary variable): Indicator variable based on DE13748
VARIABLE CHFPAT1N (cont.)

CONSTRUCTION
{for construction of MISS_IND see construction of CHF_SOB above}
{Construct NDE13745, NDE13746, NDE13747, NDE13748}

IF CHF_SOB = 1 AND MISS_IND < 9 AND
(DE13745 = 1, OR DE13746 = 1, OR DE13747 = 1, OR DE13748 = 1)
THEN DO;

IF DE13745 = 1, THEN DE13745 = 0;
IF DE13746 = 1, THEN DE13746 = 0;
IF DE13747 = 1, THEN DE13747 = 0;
IF DE13748 = 1, THEN DE13748 = 0;
END;

IF (CHF_SOB = 1 AND MISS_IND <=9 ) OR
(DE13745 > 0 AND DE13746 > 0 AND DE13747 > 0 AND DE13748 > 0)
THEN DO:

NDE13745 = 1 IF (DE13745 = 1 OR DE13745 = 9);
ELSE NDE13745 = 0;
NDE13746 = 1 IF (DE13746 = 1 OR DE13746 = 9);
ELSE NDE13746 = 0;
NDE13747 = 1 IF (DE13747 = 1 OR DE13747 = 9);
ELSE NDE13747 = 0;
NDE13748 = 1 IF (DE13748 = 1);
ELSE NDE13748 = 0;
END;

{Construct CHFPAT1N}

IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 0 AND NDE13748 = 0
THEN CHFPAT1N = 1;
ELSE IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 0
AND NDE13748 = 1
THEN CHFPAT1N = 2;
ELSE IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 1
AND NDE13748 = 0
THEN CHFPAT1N = 3;
ELSE IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 1
AND NDE13748 = 1
THEN CHFPAT1N = 4;

{cont.}
VARIABLE CHFPATTN (cont.)

CONSTRUCTION (cont.)

ELSE IF NDF13745 = 0 AND NDE13746 = 1 AND NDE13747 = 0 AND NDE13748 = 0
THEN CHFPATTN = 5;

ELSE IF NDE13745 = 0 AND NDE13746 = 1 AND NDE13747 = 0 AND NDE13748 = 1
THEN CHFPATTN = 6;

ELSE IF NDF13745 = 0 AND NDE13746 = 1 AND NDE13747 = 1 AND NDE13748 = 0
THEN CHFPATTN = 7;

ELSE IF NDF13745 = 0 AND NDE13746 = 1 AND NDE13747 = 1 AND NDE13748 = 1
THEN CHFPATTN = 8;

ELSE IF NDE13745 = 1 AND NDE13746 = 0 AND NDE13747 = 0 AND NDE13748 = 0
THEN CHFPATTN = 9;

ELSE IF NDE13745 = 1 AND NDE13746 = 0 AND NDE13747 = 0 AND NDE13748 = 1
THEN CHFPATTN = 10;

ELSE IF NDE13745 = 1 AND NDE13746 = 0 AND NDE13747 = 1 AND NDE13748 = 0
THEN CHFPATTN = 11;

ELSE IF NDE13745 = 1 AND NDE13746 = 0 AND NDE13747 = 1 AND NDE13748 = 1
THEN CHFPATTN = 12;

ELSE IF NDF13745 = 1 AND NDE13746 = 1 AND NDE13747 = 0 AND NDE13748 = 0
THEN CHFPATTN = 13;

ELSE IF NDF13745 = 1 AND NDE13746 = 1 AND NDE13747 = 0 AND NDE13748 = 1
THEN CHFPATTN = 14;

ELSE IF NDF13745 = 1 AND NDE13746 = 1 AND NDE13747 = 1 AND NDE13748 = 0
THEN CHFPATTN = 15;

(cont.)
VARIABLE CHFPATN (cont.)

CONSTRUCTION (cont.)

ELSE IF ND13745 = 1 AND ND13746 = 1 AND ND13747 = 1 AND 
ND13748 = 1 
THEN CHFPATN = 16;

{Assign missing values}

IF CHF_SOB = . AND 
{((SITE = 1 AND MHQ = 1) OR (SITE \= 1 AND MHQ = 1)) 
THEN CHFPATN = 1;
IF SITE \= 1 AND MHQ = . 
THEN CHFPATN = M;
IF CHF_SOB = 1 AND MHQ = . AND HC >= 9 
THEN CHFPATN = C;
IF CHF_SOB = 2 THEN CHFPATN = S;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CHF PATRX</th>
<th>AMEDIS</th>
<th>GHI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortness of breath pattern at exit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CODES**

- M: Missing
- 1: No shortness of breath
- 2: Shortness of breath when bathing and dressing
- 3: Shortness of breath when walking on level ground at own pace
- 4: Shortness of breath when walking on level ground at own pace, and when bathing and dressing
- 5: Shortness of breath when walking on level ground with peers
- 6: Shortness of breath when walking on level ground with peers, and when bathing and dressing
- 7: Shortness of breath when walking on level ground with peers, or at own pace, and when bathing and dressing
- 8: Shortness of breath when hurrying or walking uphill
- 9: Shortness of breath when hurrying or walking uphill, and when bathing and dressing
- 10: Shortness of breath when hurrying or walking uphill, and when walking on level ground at own pace
- 11: Shortness of breath when hurrying or walking uphill, and when walking on level ground with peers, and when bathing and dressing
- 12: Shortness of breath when hurrying or walking uphill, when walking on level ground with peers, and when bathing and dressing
- 13: Shortness of breath when hurrying or walking uphill, when walking on level ground with peers, and at own pace
- 14: Shortness of breath when hurrying or walking uphill, when walking on level ground with peers, and at own pace, and when bathing and dressing
- 15: Shortness of breath when hurrying or walking uphill, when walking on level ground with peers, and at own pace, and when bathing and dressing
- 16: Shortness of breath when hurrying or walking uphill, when walking on level ground with peers, and at own pace, and when bathing and dressing

(cont.)
VARIABLE CHFPATNX (cont.)

CHF PATNX provides a summary measure of 4 specific activities that may make the respondent short of breath. The logical hierarchy of activities was not always selected by the respondent [i.e., it was possible for a respondent to indicate that they became short of breath while walking on level ground, but not while going up hill].

INPUT VARIABLES

DE13745 (MHQ) In the past 3 months, have you been troubled by shortness of breath when you hurried or walked uphill?

DE13746 (MHQ) In the past 3 months, have you been short of breath when you walked with persons your own age on level ground?

DE13747 (MHQ) In the past 3 months, have you had to stop because of shortness of breath when you walked at your own pace on level ground?

DE13748 (MHQ) In the past 3 months, have you been bothered by shortness of breath when you bathed or dressed yourself?

CHF SBX Indicator of shortness of breath or a diagnosis of heart failure at exit

MHQX MHQ indicator at exit

MISS_IND (Temporary variable): Number of missed questions in shortness of breath or heart failure battery

NDE13745 (Temporary variable): Indicator variable based on DE13745

NDE13746 (Temporary variable): Indicator variable based on DE13746

NDE13747 (Temporary variable): Indicator variable based on DE13747

NDE13748 (Temporary variable): Indicator variable based on DE13748

CONSTRUCTION

(For construction of MISS_IND see construction of CHF SBX above)

(cont.)
VARIANIF CHF PatN (cont.)

CONSTRUCTION (cont.)

{Construct NDE13745, NDE13746, NDE13747, NDE13748}

IF CHF_SOBX = 1 AND MISS_IND < 9 AND
   (DE13745 = 1 OR DE13746 = 0 OR DE13747 = 0 OR DE1374B = 0)
THEN DO;
   IF DE13745 = 1 THEN DE13745 = 0;
   IF DE13746 = 0 THEN DE13746 = 0;
   IF DE13747 = 0 THEN DE13747 = 0;
   IF DE1374B = 0 THEN DE1374B = 0;
END;

IF (CHF_SOBX = 1 AND MISS_IND <= 9) OR
   (DE13745 > 0 AND DE13746 > 0 AND DE13747 > 0 AND DE1374B > 0)
THEN DO;
   NDE13745 = 1 IF (DE13745 = 1 OR DE13745 = 9);
   ELSE NDE13745 = 0;
   NDE13746 = 1 IF (DE13746 = 1 OR DE13746 = 9);
   ELSE NDE13746 = 0;
   NDE13747 = 1 IF (DE13747 = 1 OR DE13747 = 9);
   ELSE NDE13747 = 0;
   NDE1374B = 1 IF (DE1374B = 1);
   ELSE NDE1374B = 0;
END;

{Construct CHF PatN}

IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 0 AND
   NDE13748 = 0
   THEN CHF PatN = 1;
ELSE IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 0 AND
   NDE13748 = 1
   THEN CHF PatN = 2;
ELSE IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 1 AND
   NDE13748 = 0
   THEN CHF PatN = 3;
ELSE IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 1 AND
   NDE13748 = 1
   THEN CHF PatN = 4;
{cont.}
VARIABLE CHIPATNX (cont.)

CONSTRUCTION (cont.)

ELSE IF NDE13745 = 0 AND NDE13746 = 1 AND NDE13747 = 0 AND NDE13748 = 0
THEN CHIPATNX = 9;

ELSE IF NDE13745 = 0 AND NDE13746 = 1 AND NDE13747 = 0 AND NDE13748 = 1
THEN CHIPATNX = 6;

ELSE IF NDE13745 = 0 AND NDE13746 = 1 AND NDE13747 = 1 AND NDE13748 = 0
THEN CHIPATNX = 7;

ELSE IF NDE13745 = 0 AND NDE13746 = 1 AND NDE13747 = 1 AND NDE13748 = 1
THEN CHIPATNX = 8;

ELSE IF NDE13745 = 1 AND NDE13746 = 0 AND NDE13747 = 0 AND NDE13748 = 0
THEN CHIPATNX = 9;

ELSE IF NDE13745 = 1 AND NDE13746 = 0 AND NDE13747 = 0 AND NDE13748 = 1
THEN CHIPATNX = 10;

ELSE IF NDE13745 = 1 AND NDE13746 = 0 AND NDE13747 = 1 AND NDE13748 = 0
THEN CHIPATNX = 11;

ELSE IF NDE13745 = 1 AND NDE13746 = 0 AND NDE13747 = 1 AND NDE13748 = 1
THEN CHIPATNX = 12;

ELSE IF NDE13745 = 1 AND NDE13746 = 1 AND NDE13747 = 0 AND NDE13748 = 0
THEN CHIPATNX = 13;

ELSE IF NDE13745 = 1 AND NDE13746 = 1 AND NDE13747 = 0 AND NDE13748 = 1
THEN CHIPATNX = 14;

ELSE IF NDE13745 = 1 AND NDE13746 = 1 AND NDE13747 = 1 AND NDE13748 = 0
THEN CHIPATNX = 15;

ELSE IF NDE13745 = 1 AND NDE13746 = 1 AND NDE13747 = 1 AND NDE13748 = 1
THEN CHIPATNX = 16;

(cont.)
VARIABLE CHFPATNX (cont.)

CONSTRUCTION (cont.)

[Assign missing values]

IF CHF_SOBX = . AND MHQBX = 1
THEN CHFPATNX = 1;
IF MHQBX = . THEN CHFPATNX = M;
IF CHF_SOBX = 1 AND MISS_IND > .9
THEN CHFPATNX = 0;
IF CHF_SOBX = 2 THEN CHFPATNX = S;

VARIABLE SOBSSCALE

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<th>FREQ</th>
<th>CUM FREQ</th>
<th>%</th>
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VARIABLE SOBSSCALE

AMEDIS CHF

Shortness of breath scale at enrollment

CODES

0 = Missing
1 = Missed CHF_SOB and MHQ present
2 = MHQ present (NonDayton only)
3 = The participant missed answering 9 or more questions in
   the shortness of breath or enlarged heart battery
4 = Shortness of breath not present, battery skipped
   Range of values = 0 to 4 (0 = no dyspnea, 1 or 2 = minimal
dyspnea, 3 or 4 = clinically significant dyspnea)

SOBSSCALE is derived from CHFPATNX and indicates the severity
of shortness of breath. The logical hierarchy of activities
was not always selected by the respondent. Higher scores
indicate more severe shortness of breath.

INPUT VARIABLES

CHFPATNX Shortness of breath pattern
CHF_SOB Indicator of shortness of breath or a diagnosis
of heart failure at enrollment
MHQA MHQA indicator at enrollment
MHQB MHQB indicator at enrollment

(cont.)
VARIABLE SUBSCALE (cont.)

INPUT VARIABLES (cont.)

MISS_IND (Temporary variable): Number of missed questions in
shortness of breath or heart failure battery
SITE Respondent's place of residence at enrollment

CONSTRUCTION

(for construction of MISS_IND see construction of CHF_SOB above.)

(Construct SUBSCALE)

IF CHFPATTN = 1 OR CHFPATTN = 2 OR CHFPATTN = 3
THEN SUBSCALE = 0;
ELSE IF CHFPATTN = 5 OR CHFPATTN = 9 OR CHFPATTN = 10
THEN SUBSCALE = 1;
ELSE IF CHFPATTN = 6 OR CHFPATTN = 11 OR CHFPATTN = 13 OR CHFPATTN = 14
THEN SUBSCALE = 2;
ELSE IF CHFPATTN = 8 OR CHFPATTN = 12 OR CHFPATTN = 15
THEN SUBSCALE = 3;
ELSE IF CHFPATTN = 16 THEN SUBSCALE = 4;

[Assign missing values]

IF CHF_SOB = . AND
   (SITE = 1 AND MHQA = 1) OR
   (SITE = 1 AND MHQB = 1)
THEN SUBSCALE = 1;
IF SITE = 1 AND MHOB = . THEN SUBSCALE = N;
IF CHF_SOB = 1 AND MISS_IND >= 9 THEN SUBSCALE = 0;
IF CHF_SOB = 2 THEN SUBSCALE = 5;

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<th>CHF</th>
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<tr>
<td>M - MHBQ missing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D - The participant missed answering 9 or more questions in the shortness of breath or enlarged heart battery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S - Shortness of breath not present, battery skipped</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range of values - 0 to 4 (0 = no dyspnea, 1 or 2 = minimal dyspnea, 3 or 4 = clinically significant dyspnea)</td>
<td></td>
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</tbody>
</table>

SOBSCALX is derived from CHFPATNX and indicates the severity of shortness of breath. The logical hierarchy of activities was not always selected by the respondent. Higher scores indicate more severe shortness of breath.

<table>
<thead>
<tr>
<th>INPUT VARIABLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHFPATNX Shortness of breath pattern</td>
</tr>
<tr>
<td>CHF_SOBX Indicator of shortness of breath or a diagnosis of heart failure at exit</td>
</tr>
<tr>
<td>MHBQX MHBQ indicator at exit</td>
</tr>
<tr>
<td>MISS_IND [Temporary variable]: Number of missed questions in shortness of breath or heart failure battery</td>
</tr>
</tbody>
</table>

CONSTRUCTION

(For construction of MISS_IND see construction of CHF_SOB above)

(Construct SOBSCALX)

```
IF CHFPATNX = 1 OR CHFPATNX = 2 OR CHFPATNX = 3
THEN SOBSCALX = 0;
ELSE IF CHFPATNX = 5 OR CHFPATNX = 7 OR CHFPATNX = 9
THEN SOBSCALX = 1;
```
VARIABLE SOBSCALX (cont.)
CONSTRUCTION (cont.)

ELSE IF CHFPATNX = 9 OR CHFPATNX = 6 OR CHFPATNX = 7 OR CHFPATNX = 11 OR CHFPATNX = 13 OR CHFPATNX = 14 THEN SOBSCALX = 2;
ELSE IF CHFPATNX = 8 OR CHFPATNX = 12 OR CHFPATNX = 15 THEN SOBSCALX = 3;
ELSE IF CHFPATNX = 16 THEN SOBSCALX = 4;

{Assign missing values}

IF CHF SOBX = . AND MHQBX = 1 THEN SOBSCALX = 1;
IF MHQBX = . THEN SOBSCALX = M;
IF CHF SOBX = 1 AND MISS IND >= 9 THEN SOBSCALX = 0;
IF CHF SOBX = 9 THEN SOBSCALX = S;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CHF_MHQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEDIS</td>
<td>CHF</td>
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CHF status indicator at enrollment

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<tr>
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<td>0.59</td>
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CHF_MHQ indicates the presence of congestive heart failure based on the response pattern for the battery of CHF questions and several additional questions about medication.
VARIABLE CIF_MHQ (cont.)

INPUT VARIABLES

DE13724 (Dayton only - MHQA) Are you currently taking any of these heart medicines: digitalis, digitalis

DE13744 (Dayton - MHQA; NonDayton - MHQB) In the past 3

DE13749 (Dayton only - MHQA) Has a doctor ever said that

DE13751 (Dayton - MHQA; NonDayton - MHQB) When your ankles

DE13752 (Dayton - MHQA; NonDayton - MHQB) In the last 3

DE13753 (Dayton - MHQA; NonDayton - MHQB) Do you currently

DE19004 (NonDayton only - MHQB) Has a doctor ever told you

DE19005 (NonDayton - MHQB) Has a doctor ever told you that

DE19014 (NonDayton - MHQB) Are you currently taking any of

AGE (Temporary variable): Age at time of enrollment

CHF1IND1-9 (Temporary variables): Possible congestive heart

CHF4IND1-9 (Temporary variables): Probable congestive heart

CHF_SOB Indicator of shortness of breath or a diagnosis

MHQA MHQA indicator at enrollment

MHQB MHQB indicator at enrollment

MISS_IND (Temporary variable): Number of missed questions

NDE19004 (Temporary variable): Combines Dayton DE13719

NDE19014 (Temporary variable): Combines Dayton DE13724

SDBSCALE Shortness of breath scale at enrollment

SITE Respondent's place of residence at enrollment

[cont.]
VARIABLE CHF_INDQ (cont.)

CONSTRUCTION (cont.)

IF SUBSCALE = 3 AND DE13751 = 1
THEN CHF3IND8 = '1';

IF SUBSCALE <= 3 AND (DE13744 = 1 OR DE13752 = 1)
THEN CHF3IND7 = '1';

IF SUBSCALE = 4 AND NDE191004 = 1
THEN CHF3IND8 = '1';

END;

(Construct CHF4IND1-CHF4IND9)

IF CHF_SOB = 1
THEN DO;
    CHF4IND1 = '0';
    CHF4IND2 = '0';
    CHF4IND3 = '0';
    CHF4IND4 = '1';
    CHF4IND5 = '0';
    CHF4IND6 = '0';
    CHF4IND7 = '0';
    CHF4IND8 = '0';
    CHF4IND9 = '0';
    IF NDE19014 = 1 AND DE13751 = 1 AND
        (DE13744 = 1 OR DE13752 = 1)
    THEN CHF4IND1 = '1';
    IF NDE19014 = 1 AND NDE191004 = 1 AND DE13753 = 1
    THEN CHF4IND2 = '1';
    IF NDE19014 = 1 AND NDE191004 = 1 AND DE13753 = 1
    THEN CHF4IND4 = '1';
    IF DE13752 = 1 AND NDE191004 = 1 OR DE13751 = 1 OR
        (DE13744 = 1 OR DE13752 = 1)
    THEN CHF4IND8 = '1';
    IF 0 <= SUBSCALE <= 2 AND
        (NDE19014 = 1 OR DE13751 = 1 OR DE13753 = 1) AND
        (DE13744 = 1 OR DE13752 = 1)
    THEN CHF4IND5 = '1';

(continuation)
VARIABLE CHF_MHQ (cont.)

CONSTRUCTION (cont.)

IF SOBSVE = 3 AND (NOE19014 = 1 OR DE13753 = 1)
  THEN CHF41ND8 = '1';

IF SOBSVE = 3 AND DE13751 = 1 AND
  (DE13744 = 1 OR NOE19004 = 1 OR DE13752 = 1)
  THEN CHF41ND7 = '1';

IF SOBSVE >= 3 AND NOE19004 = 1 AND
  (DE13744 = 1 OR DE13752 = 1)
  THEN CHF41ND6 = '1';

IF SOBSVE = 4 AND
  (NOE19014 = 1 OR DE13751 = 1 OR DE13753 = 1)
  THEN CHF41ND5 = '1';

END;

(Construct CHF_MHQ)

IF CHF_SO3 = 2 THEN CHF_MHQ = 1;

IF CHF_SO3 = 1
  THEN DO;
    IF CHF31ND1 = '1' OR CHF31ND2 = '1' OR CHF31ND3 = '1' OR
      CHF31ND4 = '1' OR CHF31ND5 = '1' OR
      CHF31ND7 = '1' OR CHF31ND8 = '1'
      THEN CHF_MHQ = 3;

    IF CHF41ND1 = '1' OR CHF41ND2 = '1' OR CHF41ND3 = '1' OR
      CHF41ND4 = '1' OR CHF41ND5 = '1' OR
      CHF41ND6 = '1' OR
      CHF41ND7 = '1' OR CHF41ND8 = '1'
      THEN CHF_MHQ = 4;

    IF CHF_MHQ = 4 AND AGE < 30
      THEN DO;
        CHF_MHQ = 3;
      . END;

    IF CHF_MHQ <= 3 AND CHF_MHQ <= 4
      THEN CHF_MHQ = 2;

  END;

END; (cont.)
VARIABLE: CHF_MHQ (cont.)
CONSTRUCTION (cont.)

{Assign special missing values}

IF CHF_SOB = . AND
    (((SITE = 1 AND MHQB = 1) OR
      (SITE \= 1 AND MHQB = 1))
  THEN CHF_MHQ = 1;
IF SITE \= 1 AND MHQB = . THEN CHF_MHQ = M;
IF CHF_SOB = 1 AND MISS_IND \= 9 THEN CHF_MHQ = 0;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CHF_MHQ</th>
</tr>
</thead>
<tbody>
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</table>

CHF_MHQ indicates the presence of congestive heart failure based on the response pattern for the battery of CHF questions and several additional questions about medication.

INPUT VARIABLES

DE13744 {MHQB} In the past 3 months, did you ever wake up at night so short of breath that you had to sit on the side of the bed or get up for relief?
DE13751 {MHQB} When your ankles swelled during the day, were they usually still swollen the next morning?
DE13752 {MHQB} In the last 3 months, did you ever sleep on more than one pillow because of a problem with shortness of breath?

{cont.}
VARIABLES CHF_MHQX (cont.)

INPUT VARIABLES (cont.)

DE13753 (NHQB) Do you currently take diuretic (or fluid) pills which have been prescribed by a doctor?

DE19004 (NHQB) Has a doctor ever told you that you had an enlarged heart or heart failure?

DE19005 (NHQB) Has a doctor ever told you that you had an enlarged heart or heart failure?

DE19014 (NHQB) Are you currently taking any of these heart medicines: digitalis, digibals leaf, digitoxin, digoxin or lanoxin?

AGE (Temporary variable): Age at time of enrollment

CHF3IND1-8 (Temporary variables): Possible congestive heart failure indicators

CHF4IND1-9 (Temporary variables): Probable congestive heart failure indicators

CHF5SOBX Indicator of shortness of breath or a diagnosis of heart failure at exit

NHQBX NHQB indicator at exit

MISS_IND (Temporary variable): Number of missed questions

IN shortness of breath or heart failure battery

DE1G9004 (Temporary variable): Combines Dayton DE13749 and NonDayton DE19004 and DE19005

SOBSCLAX Shortness of breath scale at exit

CONSTRUCTION

(For construction of MISS_IND see construction of CHF5SOBX above)

(Construct DE1G9004)

\[ DE1G9004 = \min(DH19004, DE19005); \]

(Construct CHF3IND1=CHF3IND8)

IF CHF5SOBX = 1

THEN DO:

CHF3IND1='Q';
CHF3IND2='Q';
CHF3IND3='Q';
CHF3IND4='Q';
CHF3IND5='Q';
CHF3IND6='Q';
CHF3IND7='Q';
CHF3IND8='Q';

(cont.)
| VARIABLE CHF_MH2X (cont.) |
| CONSTRUCTION (cont.) |

IF DF13744 = 1 AND DE13752 = 1  
THEN CHF3IND1 = '1';

IF (S0SCALX = 0 OR S0SCALX = 1) AND DE1C9004 = 1 AND 
(DE13744 = 1 OR DF13752 = 1)  
THEN CHF3IND2 = '1';

IF 0 <= S0SCALX <= 2 AND DE13751 = 1 AND DE13753 = 1  
THEN CHF3IND3 = '1';

IF 0 <= S0SCALX <= 2 AND DE19014 = 1 AND DE13753 = 1  
THEN CHF3IND4 = '1';

IF 0 <= S0SCALX <= 2 AND DE1C9004 = 1 AND 
(DE119014 = 1 OR DF13744 = 1 OR DE13751 = 1 OR 
DF13752 = 1 OR DE19553 = 1)  
THEN CHF3IND5 = '1';

IF S0SCALX = 3 AND DE13751 = 1  
THEN CHF3IND6 = '1';

IF S0SCALX >= 3 AND (DF13744 = 1 OR DE13752 = 1)  
THEN CHF3IND7 = '1';

IF S0SCALX = 4 AND DE1C9004 = 1  
THEN CHF3IND8 = '1';

END;

(Construct CHF4IND1-CHF4IND9)

IF CHF SOBY=1  
THEN DD;
   CHF4IND1='0';
   CHF4IND2='0';
   CHF4IND3='0';
   CHF4IND4='0';
   CHF4IND5='0';
   CHF4IND6='0';
   CHF4IND7='0';
   CHF4IND8='0';
   CHF4IND9='0';

   (cont.)
VARIABLE CHF_MH0X (cont.)

CONSTRUCTION (cont.)

IF DE19014 = 1 AND DE13751 = 1 AND
   (DE13744 = 1 OR DE13752 = 1)
   THEN CHF4IND1 = '1';

IF DE19014 = 1 AND DE19004 = 1 AND DE13753 = 1
   THEN CHF4IND2 = '1';

IF DE19004 = 1 AND (DE19014 = 1 OR DE13751 = 1 OR
   DE13753 = 1) AND (DE13744 = 1 OR DE13752 = 1)
   THEN CHF4IND3 = '1';

IF DE13753 = 1 AND (DE19014 = 1 OR DE13751 = 1) AND
   (DE13744 = 1 OR DE13752 = 1)
   THEN CHF4IND4 = '1';

IF 0 <= SUBSCALX <= 2 AND (DE19014 = 1 OR
   DE13751 = 1 OR DE13753 = 1) AND
   (DE13744 = 1 OR DE13752 = 1)
   THEN CHF4IND5 = '1';

IF SUBSCALX = 3 AND (DE19014 = 1 OR DE13753 = 1)
   THEN CHF4IND6 = '1';

IF SUBSCALX = 3 AND DE13751 = 1 AND
   (DE13744 = 1 OR DE19004 = 1 OR DE13752 = 1)
   THEN CHF4IND7 = '1';

IF SUBSCALX >= 3 AND DE19004 = 1 AND
   (DE13744 = 1 OR DE13752 = 1)
   THEN CHF4IND8 = '1';

IF SUBSCALX = 4 AND (DE19014 = 1 OR DE13751 = 1 OR
   DE13753 = 1)
   THEN CHF4IND9 = '1';

END;

{Construct CHF_MH0X}

IF CHF_SUBX = 2 THEN CHF_MH0X = 1;
VARIABLE CHF_MHQX (cont.)

CONSTRUCTION (cont.)

IF CHF_SQBX = 1
THEN DO;

   IF CHF3IND1 = '1' OR CHF3IND2 = '1' OR
      CHF3IND3 = '1' OR CHF3IND4 = '1' OR
      CHF3IND5 = '1' OR CHF3IND6 = '1' OR
      CHF3IND7 = '1' OR CHF3IND8 = '1'
      THEN CHF_MHQX = 3;

   IF CHF4IND1 = '1' OR CHF4IND2 = '1' OR
      CHF4IND3 = '1' OR CHF4IND4 = '1' OR
      CHF4IND5 = '1' OR CHF4IND6 = '1' OR
      CHF4IND7 = '1' OR CHF4IND8 = '1'
      THEN CHF_MHQX = 4;

   IF CHF_MHQX = 4 AND AGE < 30
      THEN DO;
         CHF_MHQX = 3;
      END;

END;

IF CHF_MHQX \= 3 AND CHF_MHQX \= 4 THEN CHF_MHQX = 2;

(Assign special missing values)

   IF CHF_SQBX = . AND MHOQX = 1
      THEN CHF_MHQX = 1;
   IF MHOQX = . THEN CHF_MHQX = M;
   IF CHF_SQBX = 1 AND MISSIND >= 9 THEN
      CHF_MHQX = 0;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CHF_IMP</th>
<th>AMEDIS</th>
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</table>

**CHF_IMP** indicates whether congestive heart problems have caused concern or worry, pain, restricted activity, or bed days.

**INPUT VARIABLES**

- **DE13754** (Dayton - MHOA) During the past 3 months, how much pain has your shortness of breath or heart failure caused you?
- **DE13755** (Dayton - MHOA) During the past 3 months, how much has your shortness of breath or heart failure worried or concerned you?
- **DE13756** (Dayton - MHOA) During the past 3 months, how often has your shortness of breath or heart failure kept you from doing the kinds of activities other people your age do?
- **DE13757** (Dayton - MHOA) During the past 30 days, how many days has your shortness of breath or heart failure kept you in bed all or most of the day?
- **DE19009** (NonDayton - MHOA) During the past 3 months, how much pain has your shortness of breath, enlarged heart, or heart failure caused you?
- **DE19010** (NonDayton - MHOA) During the past 3 months, how much has your shortness of breath, enlarged heart, or heart failure worried or concerned you?
- **DE19011** (NonDayton - MHOA) During the past 3 months, how much of the time has your shortness of breath, enlarged heart, or heart failure kept you from doing the kinds of things other people your age do?

*cont.*
VARIABLE CHF_IMP (cont.)

INPUT VARIABLES (cont.)

DC19012  {NonDayton - MHOB} During the past 30 days, how many days has your shortness of breath, enlarged heart, or heart failure kept you in bed all day or most of the day?
NDE19009 {Temporary variable} Combines DE13754 and DE19009
NDE19010 {Temporary variable} Combines DE13755 and DE19010
NDE19011 {Temporary variable} Combines DE13756 and DE19011
NDE19012 {Temporary variable} Combines DE13757 and DE19012
MISS_IND {Temporary variable} Number of missed questions in shortness of breath or heart failure battery

CHF_SOB Indicator of shortness of breath or a diagnosis of heart failure at enrollment
MMQA MMQA indicator at enrollment
MHQB MHQB indicator at enrollment
STK Participant's place of residence at enrollment

CONSTRUCTION

{for construction of MISS_IND see construction of CHF_SOB above}

{Construct NDE19009, NDE19010, NDE19011, NDE19012}

{Dayton}

NDE19009 = DE13754;
NDE19010 = DE13755;
NDE19011 = DE13756;
NDE19012 = DE13757;

{NonDayton}

NDE19009 = DE19009;
NDE19010 = DE19010;
NDE19011 = DE19011;
NDE19012 = DE19012;

{Construction of CHF_IMP}

IF NDE19009 = 4 OR NDE19010 = 4 OR NDE19011 = 5 OR NDE19012 = 0 THEN CHF_IMP = 0;
IF 1<=NDE19009<=3 OR 1<=NDE19010<=3 OR 1<=NDE19011<=4 OR NDE19012=0 THEN CHF_IMP = 1;

{cont.}
VARIABLE CHF_IMP (cont.)

CONSTRUCTION (cont.)

IF CHF_SOB = 1 AND MISS_INQ < 9 THEN CHF_IMP = 0;
IF CHF_SOB = 2 THEN CHF_IMP = 8;
IF CHF_SOB = . AND ((SITE = 1 AND MIHQ = 1) OR
(SITE = 1 AND MIHQ = 1)) THEN CHF_IMP = 1;

VARIABLE CHF_IMP

Impact of congestive heart failure at exit

CHF

VALUES

0 - Missing
1 - The participant missed answering 9 or more questions in
the Shortness of breath or enlarged heart battery
2 - Took the MIHQ, but CHF_SOB missing
3 - Respondent skipped CHF battery
4 - No impact
5 - Some impact

CHF_IMP indicates whether congestive heart problems have
caused concern or worry, pain, restricted activity, or bed
days.

INPUT VARIABLES

DL19009 (MIHQ) During the past 3 months, how much pain has
your shortness of breath, enlarged heart, or heart
failure caused you?

DE19016 (MIHQ) During the past 3 months, how much has your
shortness of breath, enlarged heart, or heart
failure worried or concerned you?

DE19011 (MIHQ) During the past 3 months, how much of the time
has your shortness of breath, enlarged heart, or
heart failure kept you from doing the kinds of
things other people your age do?

DE19012 (MIHQ) During the past 30 days, how many days has
your shortness of breath, enlarged heart, or heart
failure kept you in bed all day or most of the day?

(cons.)
VARIABLE CHF_IMP (cont.)

INPUT VARIABLES (cont.)

MISS_IND (Temporary variable): Number of missed questions in
shortness of breath or heart failure battery
CHF_SOBX Indicator of shortness of breath or a diagnosis
of heart failure at exit
MIQAX MIQA indicator at exit
MIQBX MIQA indicator at exit
SITF Participant’s place of residence at enrollment

CONSTRUCTION

(For construction of MISS_IND see construction of CHF_SOBX above)

(Construct CHF_IMP)

IF DE19009 = 4 OR DE19010 = 4 OR DE19011 = 5 OR
DE19012 = 6 THEN CHF_IMP = 0;

IF 1 <= DE19009 <= 3 OR 1 <= DE19010 <= 3 OR 1 <= DE19011 <= 4 OR
DE19012 = 6 THEN CHF_IMP = 1;

IF CHF_SOBX = 1 AND MISS_IND > 0 THEN CHF_IMP = 0;
IF CHF_SOBX = 2 THEN CHF_IMP = 5;
IF CHF_SOBX = 3 AND (SITF = 1 AND MIQAX = 11 OR
(SITF \= 1 AND MIQBX = 11))
THEN CHF_IMP = 1;
### DIABM1Q

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<th>CUMPCT</th>
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<td>98.88</td>
</tr>
</tbody>
</table>

Diabetes status based on the NHQ at enrollment

- **.** = Missing
- **B** = No NHQ, for Replacement PEGs only
- **C** = No NHQ
- **0** = No diabetes present
- **1** = Believes to have diabetes, doctor did not confirm
- **2** = Doctor confirmed diabetes, but not taking medication
- **3** = Doctor confirmed diabetes, taking medication

**DIABM1Q** indicates whether respondent has diabetes or pre-diabetes as self-reported or as diagnosed by a physician in the medical history questionnaire.

### INPUT VARIABLES

- **DE11423** (MMGB) Do you have any reason to think that you may have diabetes or pre-diabetes, sometimes called sugar diabetes or sugar disease?
- **DE11424** (Dayton - MMGB) Did a doctor tell you that you had diabetes or pre-diabetes?
- **DE11426** (MMGB) Do you take insulin?
- **DE11427** (MMGB) Do you take any medicine by mouth for diabetes or pre-diabetes?
- **DE119044** (MMGB) Has a doctor ever said to you that you had diabetes or pre-diabetes?
- **DEIXH24** (Temporary variable) Used to combine DE119044 and DE11424
- **MMGB** MMGB indicator at enrollment
- **SITE** Respondent's place of residence at enrollment

### CONSTRUCTION

**Construct DEIXH24**

```
IF SITE = 1
  THEN DEIXH24 = DE11424;
```

(cont.)
VARIABLE DIABMHQ (cont.)
CONSTRUCTION (cont.)

IF SITE \( \neq 1 \)
   THEN DE1X424 = DE19944;

(Construct DIABMHQ)

IF DE14423 = 2;
   THEN DIABMHQ = D;
IF DE14423 = 1 AND DE1X424 \( \neq 1 \)
   THEN DIABMHQ = 1;
IF DE14423 = 1 AND DE1X424 = 1 AND
   [DE14426 \( \neq 0 \) OR DE14427 \( \neq 1 \)]
   THEN DIABMHQ = 2;
IF DE14423 = 1 AND DE1X424 = 1 AND
   [DE14426 \( = 0 \) OR DE14427 = 1]
   THEN DIABMHQ = 3;
IF MHQB = ., THEN DIABMHQ = C;

(For replacement flags)

IF MHQB = ., THEN DIABMHQ = B;

<table>
<thead>
<tr>
<th>VARIABLE DIABMHQ</th>
<th>AMEDIS DIABETES</th>
</tr>
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</table>

<table>
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</table>

Diabetes status based on the MQ at exit

CODES

. - Missing
B - No MHQB
0 - No diabetes present
1 - Believes to have diabetes, doctor did not confirm
2 - Doctor confirmed diabetes, but not taking medication
3 - Doctor confirmed diabetes, taking medication

DIABMHQ indicates whether respondent has diabetes or prediabetes as self-reported or as diagnosed by a physician in the medical history questionnaire.

(Cont.)
VARIABLE DIABMHQX (cont.)

INPUT VARIABLES

DE14423 (MHQB) Do you have any reason to think that you may have diabetes or pre-diabetes, sometimes called sugar diabetes or sugar disease?
DE14424 (Dayton - MHQB) Did a doctor tell you that you had diabetes or pre-diabetes?
DE14426 (MHQB) Do you take insulin?
DE14427 (MHQB) Do you take any medicine by mouth for diabetes or pre-diabetes?
DE19044 (NomDayton - MHQB) Has a doctor ever said to you that you had diabetes or pre-diabetes?
MHQBX MHQB indicator at exit

CONSTRUCTION

IF DE14423 = 2 THEN DIABMHQX = 0;
IF DE14423 = 1 AND DE19044 /= 1 THEN DIABMHQX = 1;
IF DE14423 = 1 AND DE19044 = 1 AND
(DE14426 = 1 AND DE14427 = 1)
THEN DIABMHQX = 2;
IF DE14423 = 1 AND DE19044 = 1 AND
(DE14426 = 1 OR DE14427 = 1)
THEN DIABMHQX = 3;
IF MHQBX = 1 THEN DIABMHQX = 6;


### Blood Glucose Test Results at Enrollment

| VARIABLE | GLUCOSE
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AMEDIS</td>
</tr>
<tr>
<td></td>
<td>DIABETES</td>
</tr>
</tbody>
</table>

Blood glucose test results at enrollment.

**CODES**

- . - Missing
- D - No screening exam

Range of values = 19.5 to 392.1 mg/dl

Blood glucose measure from the screening exam. When a test result fell outside a predetermined range of normal, the test was repeated and the result of the second test was used.

#### INPUT VARIABLES

DE17400 (Screening exam) first glucose test
DE17481 (Dayton - Screening exam) second glucose test
DE15883 (NonDayton - Screening exam) second glucose test
SCREENED Screening exam indicator at enrollment

#### CONSTRUCTION

**{Dayton}**

GLUCOSE = DE17400;
IF DE17400 > 0 THEN GLUCOSE = DE17481;
IF SCREENED = . THEN GLUCOSE = D;

**{NonDayton}**

GLUCOSE = DE17400;
IF DE15883 > 0 THEN GLUCOSE = DE15883;
GLUCOSE = (0.9 * GLUCOSE) - 7.5;
IF SCREENED = . THEN GLUCOSE = D;

**Note:** Different tests were performed at the Dayton and NonDayton sites. Adjustments were made to the NonDayton test results to make them comparable to Dayton.

### GLUCOSE

<table>
<thead>
<tr>
<th>NUMBER OF OBSERVATIONS</th>
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<tr>
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<td>KURTOSIS</td>
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</table>
**VARIABLE CLUCOSEX**

**AMEDIS**

Blood glucose test results at exit

**DIABETES**

**CODES**

- . - Missing
- 0 - Not screened

Range of values = 32 to 473 mg/dl

Blood glucose measure from the screening exam. When a test result fell outside a predetermined range of normal, the test was repeated and the result of the second test was used.

**INPUT VARIABLES**

DE13084 (Screening exam) First blood glucose test

DE13085 (Screening exam) Second blood glucose test

SCREENX Screening exam indicator at exit

**CONSTRUCTION**

GLUCOSEX = DE13084;

IF DE13085 > 0 THEN GLUCOSEX = DE13085;

IF SCREENX = . THEN GLUCOSEX = 0;

**GLUCOSEX**

NUMBER OF OBSERVATIONS 4922

NUMBER OF MISSING 992

MEAN 233.16

MIDIAN 190.00

MINIMUM VALUE 32.00

MAXIMUM VALUE 473.00

STANDARD DEVIATION 25.12

COEFFICIENT OF VARIATION 24.02

SKEWNESS 7.67

KURTOSIS 84.33
VARIABLE DIABSE

Glucose status at enrollment

CODES

.  = Missing
0  = No screening exam
1  = Normal glucose level
2  = Elevated glucose level

DIABSE is a blood glucose level indicator derived from the screening examination laboratory test results.

INPUT VARIABLES

GLUCOSE  Blood glucose test results
SCREENED  Screening exam indicator at enrollment

CONSTRUCTION

IF GLUCOSE <= .  THEN DIABSE = 0;
IF 160 <= GLUCOSE <= 199 THEN DIABSE = 1;
IF 199 < GLUCOSE THEN DIABSE = 2;
IF SCREENED = .  THEN DIABSE = 0;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DIABSEX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AMEDIS</td>
</tr>
<tr>
<td></td>
<td>DIABETES</td>
</tr>
</tbody>
</table>

Glucose status at exit

**CODES**

- . - Missing
- 0 - Not screened
- 1 - Normal glucose level
- 2 - Elevated glucose level

DIABSEX is a blood glucose level indicator derived from the screening examination laboratory test results.

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
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<td>4957</td>
<td>0.15</td>
<td>95.70</td>
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</table>

**INPUT VARIABLES**

- GLUCOSEX: Blood glucose test results
- SCREENX: Screening exam indicator at exit

**CONSTRUCTION**

```plaintext
IF GLUCOSEX >= 0 THEN DIABSEX = 0;
IF 160 <= GLUCOSEX < 199 THEN DIABSEX = 1;
IF 199 < GLUCOSEX THEN DIABSEX = 2;
IF SCREENX < 0 THEN DIABSEX = 0;
```
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DIABSTAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEDIS</td>
<td>DIABETS</td>
</tr>
</tbody>
</table>

Diabetes status based on NHQ and screening exam at enrollment

**CODES**

- **-** Missing
- **0** - Not diabetic or did not answer NHQ
- **1** - Diabetic, well-controlled with insulin or oral agents (60-199)
- **2** - Diabetic, not well-controlled with insulin or oral agents (>60, >200)
- **3** - Diabetic, (160-199) and previous physician diagnosis, no medications
- **4** - Diabetic, (>200) no medications

**DIABSTAT** indicates the diabetes condition status by correlating glucose (2 hours after glucose load) laboratory test results with self-reported information from the enrollment NHQ.

**INPUT VARIABLES**

- **DE14424** (Dayton - NHQ): Did a doctor tell you that you had diabetes or pre-diabetes?
- **DE14426** (NHQ): Do you take insulin?
- **DE14427** (NHQ): Do you take any medicine by mouth for diabetes or pre-diabetes?
- **DE19044** (Non-Dayton - NHQ): Has a doctor ever said to you that you had diabetes or pre-diabetes?

**GLUCOSE** Glucose test result

**DE1X4424** (Temporary variable) Combines DE19044 and DE14424

**SITE** Respondent's place of residence at enrollment

**CONSTRUCTION**

{Construct DE1X4424}

```r
IF SITE = 1
    THEN DE1X4424 = DE14424;
IF SITE = 1
    THEN DE1X4424 = DE19044;
```
VARIABLE DIABSTAT (cont.)

CONSTRUCTION (cont.)

{Construct DIABSTAT}

1) GLUCOSE <= 0;
   THEN DIABSTAT = 0;
1F (DE14426 = 1 OR DE14427 = 1) AND 60 <= GLUCOSE <= 199
   THEN DIABSTAT = 1;
1F (DE14426 = 1 OR DE14427 = 1) AND
   (U <= GLUCOSE < 60 OR 199 < GLUCOSE)
   THEN DIABSTAT = 2;
1F (DE14426 <= 1 AND DE14427 <= 1) AND
   DE114429 = 1 AND 160 <= GLUCOSE <= 199
   THEN DIABSTAT = 3;
1F (DE14426 <= 1 AND DE14427 <= 1) AND 199 < GLUCOSE
   THEN DIABSTAT = 4;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DIABSTAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEDIS</td>
<td>DIABETES</td>
</tr>
</tbody>
</table>

Diabetes status based on the NHQ and screening exam at exit

CODES

1 - Missing
2 - Not diabetic or did not answer NHQ
3 - Diabetic, well-controlled with insulin or oral agents (11-192)
4 - Diabetic, not well-controlled with insulin or oral agents (<50, >200)
5 - Diabetic, (160-199) and previous physician diagnosis, no medications
6 - Diabetic, (200+) no medications
7 - Diabetic, (160-199) and no previous physician diagnosis, no medications

DIABSTAX indicates the diabetes condition status by correlating glucose (at least 2 hours after eating) laboratory test results with self-reported information from the exit NHQ.

INPUT VARIABLES

DE14426 (NHQ) Do you take insulin?
DE14427 (NHQ) Do you take any medicine by mouth for diabetes or pre-diabetes?
DE19044 (NHQ) Has a doctor ever said to you that you had diabetes or pre-diabetes?
GLUCOSEX Glucose test result

CONSTRUCTION

IF GLUCOSEX >= 0
THEN DIABSTAX = 0;
IF (DE14426 = 1 OR DE14427 = 1) AND 50 <= GLUCOSEX <= 199
THEN DIABSTAX = 1;
IF (DE14426 = 1 OR DE14427 = 1) AND
(0 <= GLUCOSEX < 50 OR 199 < GLUCOSEX)
THEN DIABSTAX = 2;
(continue)
VARIABLE DIASTAX (cont.)

CONSTRUCTION (cont.)

IF (DE14426 > 1 AND DE14427 > 1) AND DE19044 = 1 AND
   (160 < GLUCOSE <= 199)
   THEN DIASTAX = 3;
IF (DE14426 < 1 AND DE14427 = 1) AND 199 < GLUCOSE
   THEN DIASTAX = 4;
IF (DE14426 > 1 AND DE14427 = 1) AND DE19044 = 1 AND
   160 < GLUCOSE <= 199
   THEN DIASTAX = 5;

VARIABLE INSULIN

Taking insulin at enrollment

CODES

. - Missing
B - No MMBR, for Replacement PEGs only
C - No PEGs
K - Missing initial trigger [DE14423];
   Replacement PEGs only
L - Answered no to initial trigger, skipped battery;
   Replacement PEGs only
M - Missed internal trigger [DE19044];
   Replacement PEGs only
N - Answered no to internal trigger, skipped battery;
   Replacement PEGs only
S - Answered no to initial trigger [DE14423] or no to
   internal trigger [DE14424 or DE19044], skipped battery
1 - Yes
2 - No

INSULIN indicates whether or not the respondent was taking
insulin at enrollment.

INPUT VARIABLES

DE14423 (HHR) Do you have any reason to think that you
have diabetes or prediabetes, sometimes
called sugar diabetes or sugar disease?

(cont.)
VARIABLE INSULIN (cont.)

INPUT VARIABLES (cont.)

DE14426  (MQQ5)  Did a doctor or nurse tell you that you had diabetes or pre-diabetes?
DE19044  (MQQ6 - NonWayton)  Has a doctor ever said to you that you had diabetes or pre-diabetes?
DE14426  (MQQ6)  Do you take insulin?
MQQ5  MQQ indicator at enrollment
SITE  Respondent's place of residence at enrollment

CONSTRUCTION

INSULIN = DE14426;
IF MQQ5 = . THEN INSULIN = C;
IF DE14426 = 2 THEN INSULIN = S;
IF (SITE = 1 AND DE14426 = 2) OR (SITE = 1 AND DE19044 = 2)
THEN INSULIN = S;

(for Replacement PEGs only)

IF MQQ5 = . THEN INSULIN = N;
IF DE14426 = . THEN INSULIN = K;
IF DE14426 = 2 THEN INSULIN = L;
IF DE19044 = . THEN INSULIN = M;
IF DE19044 = 2 THEN INSULIN = N;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>INSULINX</th>
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<tbody>
<tr>
<td></td>
<td>ARIDIS</td>
</tr>
<tr>
<td></td>
<td>DIABETES</td>
</tr>
</tbody>
</table>

**Taking insulin at exit**

**CODES**

- . = Missing
- B = No
- K = Missing initial trigger question (DE14423)
- L = Answered no to initial trigger, skipped battery
- M = Missed internal trigger (DE10044)
- N = Answered no to internal trigger, skipped battery
- 1 = Yes
- 2 = No

**INSULINX** indicates whether or not the respondent was taking insulin at exit.

**INPUT VARIABLES**

- **DE14423** (M03B): Do you have any reason to think that you may have diabetes or pre-diabetes, sometimes called sugar diabetes or sugar disease?
- **DE10044** (M00C): Has a doctor ever said to you that you had diabetes or pre-diabetes?
- **DE14426** (M06B): Do you take insulin?
- **M06B** (M06B): MHQ indicator at exit

**CONSTRUCTION**

```plaintext
INSULINX = DE14426;
IF M06B = . THEN INSULINX = B;
IF DE14423 = . THEN INSULINX = K;
IF DE14423 = 2 THEN INSULINX = L;
IF DE10044 = . THEN INSULINX = N;
IF DE10044 = 2 THEN INSULINX = N;
```

**INSULINX**

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<th>FREQ</th>
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<tr>
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<td>170</td>
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<td>100.00</td>
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</table>
**DIABMED indicates whether or not the respondent was taking any medicine by mouth for diabetes or pre-diabetes.**

**INPUT VARIABLES**

DIEM423 (MHQB) Do you have any reason to think that you may have diabetes or pre-diabetes, sometimes called sugar diabetes or sugar disease?

DIEM424 (MHQB) Did a doctor or nurse tell you that you had diabetes or pre-diabetes?

DIEM427 (MHQB) Do you take any medicines by mouth for diabetes or pre-diabetes?

DIEM944 (MHQB - NonDayton) Has a doctor ever said to you that you had diabetes or pre-diabetes?

MHQB MHQB indicator at enrollment

SITE Respondent's place of residence at enrollment

**CONSTRUCTION**

DIABMED = DIEM427;

IF MHQB = . THEN DIABMED = C;

IF DIEM423 = 2 THEN DIABMED = S;

(cont.)
VARIABLE DIABMED (cont.)

CONSTRUCTION (cont.)

IF (SITE = 1 AND DE14424 = 2) OR (SITE=1 AND DE19044=2)
THEN DIABMED = S;

(for Replacement PEGs only)

IF MHQ8 = S, THEN DIABMED = B;
IF DE14423 = 1, THEN DIABMED = K;
IF DE14423 = 2 THEN DIABMED = T;
IF DE19044 = 2 THEN DIABMED = N;

<table>
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<tr>
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<tbody>
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<td></td>
<td>DIABETES</td>
</tr>
</tbody>
</table>

Taking medication by mouth for diabetes at exit

- Missing
K - No MHQ8
L - Missing initial trigger question (DE14423)
M - Missed internal trigger (DE19044)
N - Answered no to internal trigger, skipped battery
1 - Yes
2 - No

DIABMEDX indicates whether or not the respondent was taking any medicine by mouth for diabetes or pre-diabetes.

INPUT VARIABLES

DE14423 (MHQ8): Do you have any reason to think that you may have diabetes or pre-diabetes, sometimes called sugar diabetes or sugar disease?
DE19044 (MHQ8): Has a doctor ever said to you that you had diabetes or pre-diabetes?
DE14427 (MHQ8): Do you take any medicines by mouth for diabetes or pre-diabetes?
MHQ8X: MHQ8 indicator at exit

[cont.]
VARIABLE DIABMEDX (cont.)

CONSTRUCTION

DIABMEDX = DE14427;
 IF XHGBX = , THEN DIABMEDX = B;
 IF DE14425 = , THEN DIABMEDX = A;
 IF DE14425 = 2 THEN DIABMEDX = L;
 IF DE19044 = , THEN DIABMEDX = M;
 IF DE19044 = 2 THEN DIABMEDX = N;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DIABMEDX</th>
<th>AMEDIS</th>
<th>DIABIMP</th>
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<td>CODES</td>
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<tr>
<td>. - Missing, includes those without diabetes</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>B - No HGB, for Replacement PES only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C - No HGB, except Replacement PES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - No impact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Some impact</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

DIABIMP indicates whether diabetes caused any pain, worry/concern, activity restrictions, or days in bed.

INPUT VARIABLES

DE14441 (HGB) During the past 3 months, how much pain has your diabetes or pre-diabetes caused you?
DE14442 (HGB) During the past 3 months, how much has your diabetes or pre-diabetes worried or concerned you?
DE14443 (HGB) During the past 3 months, how much of the time has your diabetes or pre-diabetes kept you from doing the kinds of things other people your age do?
DE14444 (HGB) During the past 30 days, how many days has your diabetes or pre-diabetes kept you in bed all day or most of the day?
HGB - HGB indicator at enrollment
VARIABLE DIABIMP (cont.)

CONSTRUCTION

IF DE14441 = 4 OR DE14442 = 4 OR DE14443 = 5 OR DE14444 = 6
THEN DIABIMP = 6;
IF (1 <= DE14441 <= 3) OR (1 <= DE14442 <= 3) OR
(1 <= DE14443 <= 4) OR DE14444 > 0
THEN DIABIMP = 1;
IF MHGB = 5, THEN DIABIMP = C;
(For Replacement PEGs only)
IF MHGB = 6, THEN DIABIMP = B;

<table>
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<th>VARIABLE: DIABIMPX</th>
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<th>CUM %</th>
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<td></td>
<td>4</td>
<td>109</td>
<td>238</td>
<td>100.00</td>
</tr>
</tbody>
</table>

DIABIMPX indicates whether diabetes caused any pain, worry/concern, activity restrictions, or days in bed.

INPUT VARIABLES

DE14441 (RE73) During the past 3 months, how much pain has your diabetes or pre-diabetes caused you?
DE14442 (RE75) During the past 3 months, how much has your diabetes or pre-diabetes worried or concerned you?
VARIABLE DIABIMPX (cont.)

INPUT VARIABLES (cont.)

DEF043 (MHO8) During the past 3 months, how much of the time have your diabetes or pre-diabetes kept you from doing the kinds of things other people your age do?

DEF044 (MHO8) During the past 30 days, how many days has your diabetes or pre-diabetes kept you in bed all day or most of the day?

MHO03 MHO Indicator at exit

CONSTRUCTION

IF DEF041 = 1 OR DEF042 = 4 OR DEF043 = 5 OR DEF044 = 0
THEN DIABIMPX = 0;
IF [1 <= DEF041 <= 3] OR [1 <= DEF042 <= 4] OR
[1 <= DEF043 <= 4] OR DEF044 > 0
THEN DIABIMPX = 1;
IF MHO03 = . THEN DIABIMPX = 0;
### HAYFEVER

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>AMENDIS HAYFEVER</th>
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</table>

**Hay fever status at enrollment**

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<tr>
<th>VALUE</th>
<th>FREQ</th>
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</table>

**CODES**

1. Missing DL14226 (Dayton) or DL15325 (nonDayton)
2. MHQ-B not completed
3. Missing the trigger question (DL14219)
4. Bothered by hay fever in last 12 months; took shots or prescribed medication
5. Bothered by hay fever in last 12 months; taking prescribed medication, no shots
6. Bothered by hay fever in last 12 months; not taking shots or prescribed medication
7. Bothered by hay fever in last 12 months; taking non-prescribed medication
8. Bothered by hay fever in last 12 months; taking non-prescribed medication; taking non-prescribed medication
9. Bothered by hay fever in last 12 months; treatment unknown
10. Not bothered by hay fever in last 12 months; taking shots or prescribed medication
11. Not bothered by hay fever in last 12 months; no shots; taking prescribed medication
12. Not bothered by hay fever in last 12 months; no shots; taking non-prescribed medication
13. Not bothered by hay fever in last 12 months; not taking shots, prescribed medication, or non-prescribed medication
14. Not bothered by hay fever in last 12 months; no treatment
15. Never had hay fever

**HAYFMQ** combines whether the respondent was bothered by hay fever or other plant allergies in the 12 months prior to completing the MHQ, with MHQ responses concerning treatment of hay fever.

(cont.)
INPUT VARIABLES

DE4219  (Dayton - MHQ): Have you ever had hay fever?

DE4221  (Dayton - MHQ): In the last 12 months did you get shots to help prevent hay fever?

DE4222  (Dayton - MHQ): In the last 12 months has the doctor prescribed any medicine to help prevent the symptoms?

DE4223  (Dayton - MHQ): Do you actually take medicine for the hay fever?

DE4224  (Dayton - MHQ): During the past 12 months, in how many weeks were you bothered by hay fever?

DE15318  (NonDayton - MHQ): Have you ever had hay fever or other allergies to plants and grasses?

DE15320  (NonDayton - MHQ): In the last 12 months did you get any shots to help prevent hay fever or other plant allergies?

DE15321  (NonDayton - MHQ): In the last 12 months has a doctor prescribed any medicine to help prevent the symptoms of hay fever or other plant allergies?

DE15322  (NonDayton - MHQ): Do you actually take medicine for the hay fever or other plant allergies?

DE15325  (NonDayton - MHQ): During the past 12 months, how many weeks or months were you bothered by hay fever or other plant allergies?

DE1C4226  (Temporary variable): Combines Dayton DE1C4226 and NonDayton DE1C525 to reflect endpoints.

DE1C4219  (Temporary variable): Combines Dayton DE1C4219 and NonDayton DE1C515.

DE1C4221  (Temporary variable): Combines Dayton DE1C4221 and NonDayton DE1C520.

DE1C4222  (Temporary variable): Combines Dayton DE1C4222 and NonDayton DE1C521.

DE1C4223  (Temporary variable): Combines Dayton DE1C4223 and NonDayton DE1C522.

BOTHERED  (Temporary variable): Bothered by hay fever

M - MHQ has completed
Q - Missing DE1H425 (Dayton) or DE1C525 (NonDayton)
T - Missing the trigger question (DE1C4219)
0 - No
1 - Yes

MHQ  MHQ indicator at enrollment
VAR I AM E HAYMHQ (cont.)

CONSTRUCTION

(Construct DEIC4226)

{Dayton}

IF DEIC4226 >= 0 THEN
  IF DEIC4226 = 99 THEN DEIC4226 = 0;
  ELSE IF 16 <= DEIC4226 < 24 THEN DEIC4226 = 16;
  ELSE IF 4 <= DEIC4226 < 8 THEN DEIC4226 = 4;
  ELSE IF 2 <= DEIC4226 < 4 THEN DEIC4226 = 2;
  ELSE IF 0 < DEIC4226 < 2 THEN DEIC4226 = 0;
ELSE DEIC4226 = 39;

{NonDayton}

IF DEIC325 >= 0 THEN
  IF DEIC325 = 1 THEN DEIC4226 = 0;
  ELSE IF DEIC325 = 2 THEN DEIC4226 = 1;
  ELSE IF DEIC325 = 3 THEN DEIC4226 = 3;
  ELSE IF DEIC325 = 4 THEN DEIC4226 = 6;
  ELSE IF DEIC325 = 5 THEN DEIC4226 = 12;
  ELSE IF DEIC325 = 6 THEN DEIC4226 = 20;
  ELSE IF DEIC325 = 7 THEN DEIC4226 = 39;

{Construct BOTHERED}

IF NULL = . THEN BOTHERED = M;
IF DEIC4219 = . THEN BOTHERED = T;
IF DEIC4221 = . THEN BOTHERED = T;
IF DEIC4226 >= 0 THEN
  IF DEIC4226 = 0 THEN BOTHERED = 0;
  ELSE BOTHERED = 1;

{NOTE: See construction of HAYMHQ which follows to see
how BOTHERED is assigned a value of Q)

(Construct DEIC4219, DEIC4221, DEIC4222, DEIC4223)

{Dayton}

DEIC4219 = DEIC4219;
DEIC4221 = DEIC4221;
DEIC4222 = DEIC4222;
DEIC4223 = DEIC4223;

(cont.)
VARIABLE HAYFMHQ (cont.)

CONSTRUCTION (cont.)

{NonDayton}

DE1C4219 = DE15318;
DE1C4221 = DE15320;
DE1C4222 = DE15321;
DE1C4223 = DE15322;

{Construct HAYFMHQ}

IF MBQQ = 1 THEN
  IF DE1C4219 = 1 THEN
    IF BOTHERED = 1 THEN
      IF DE1C4221 = 2 AND DE1C4222 = 2 AND DE1C4223 = 3
        THEN HAYFMHQ = 4;
        ELSE IF DE1C4221 = 1 OR DE1C4222 = 1
          THEN HAYFMHQ = 1;
        ELSE IF DE1C4221 = 2 AND DE1C4222 = 2 AND DE1C4223 = 1
          THEN HAYFMHQ = 2;
        ELSE IF DE1C4222 = 2
          THEN HAYFMHQ = 5;
        ELSE HAYFMHQ = 8.1;
    ELSE IF BOTHERED = 0 THEN
      IF DE1C4221 = 2 AND DE1C4222 = 2 AND DE1C4223 = 3
        THEN HAYFMHQ = 6;
      ELSE IF DE1C4221 = 1 OR DE1C4222 = 1
        THEN HAYFMHQ = 5;
      ELSE IF DE1C4221 = 2 AND DE1C4222 = 2 AND
        DE1C4223 = 1
        THEN HAYFMHQ = 6;
      ELSE IF DE1C4222 = 2
        THEN HAYFMHQ = 7;
      ELSE HAYFMHQ = 8.1;
    ELSE IF BOTHERED = 0 THEN
      THEN BOTHERED = 0;
    ELSE;
  ELSE IF DE1C4219 = 2 THEN HAYFMHQ = 9;
  ELSE HAYFMHQ = 11;
ELSE HAYFMHQ = 11;
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<th>AMEDIS</th>
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**HAYFHVXK** combines whether the respondent was bothered by hay fever or other plant allergies in the 12 months prior to completing the MIQ, with MIQ responses concerning treatment of hay fever.

**INPUT VARIABLES**

**DE15318** (MiQ8) Have you ever had hay fever or other allergies to plants and grasses? (cont.)
VARIABLE: HHFMONX (cont.)

INPUT VARIABLES (cont.)

DE15320 (MHOB) In the past 12 months did you get any shots to help prevent hay fever or other plant allergies?

DE15321 (MHOB) In the past 12 months has a doctor prescribed any medicine to help prevent the symptoms of hay fever or other plant allergies?

DE15322 (MHOB) Do you actually take any medicine for the hay fever or other plant allergies?

DE15325 (MHOB) During the past 12 months, how many weeks or months were you bothered by hay fever or other plant allergies?

DE15325 (Temporary variable) Recoding of DE15325 to reflect the midpoint of the responses.

BORERED (Temporary variable) Bothered by hay fever

1 - Never had hay fever
2 - MHOB not completed
3 - Missing DE15325
4 - Missing the trigger question (DE15318)
5 - No
6 - Yes

MHOBX MHOB indicator at exit

CONSTRUCTION

(Construct DE15325)

IF DE15325 >= 0 THEN
  IF DE15325 = 1 THEN DE15325 = 0;
  ELSE IF DE15325 = 2 THEN DE15325 = 1;
  ELSE IF DE15325 = 3 THEN DE15325 = 3;
  ELSE IF DE15325 = 4 THEN DE15325 = 6;
  ELSE IF DE15325 = 5 THEN DE15325 = 12;
  ELSE IF DE15325 = 6 THEN DE15325 = 24;
  ELSE IF DE15325 = 7 THEN DE15325 = 39;

(Construct BOTHERED)

IF MHOBX = 1 THEN BOTHERED = 1;
IF DE15325 = . THEN BOTHERED = 1;
IF DE15318 = . THEN BOTHERED = T;
IF DE15325 = 0 THEN BOTHERED = 0;
ELSE BOTHERED = 1;

(continues)
VARIABLE HAYFMHQX (cont.)

CONSTRUCTION (cont.)

(NOTE: See construction of HAYFMHQ which follows to see
how BOTHERED is assigned a value of Q)

Construct HAYFMHQ

IF HAYM = 1 THEN
  IF DE1531B = 1 THEN
    IF BOTHERED = 1 THEN
      IF DE15320 = 2 AND DE15321 = 2 AND DE15322 = 3
        THEN HAYFMHQX = 4;
      ELSE IF DE15320 = 1 OR DE15321 = 1
        THEN HAYFMHQX = 1;
      ELSE IF DE15320 = 2 AND DE15321 = 2 AND DE15322 = 1
        THEN HAYFMHQX = 2;
      ELSE IF DE1532 = 2
        THEN HAYFMHQX = 3;
      ELSE HAYFMHQX = 4.1;
    ELSE IF BOTHERED = 0 THEN
      IF DE15320 = 2 AND DE15321 = 2 AND DE15322 = 3
        THEN HAYFMHQX = 0;
      ELSE IF DE15320 = 1 OR DE15321 = 1
        THEN HAYFMHQX = 5;
      ELSE IF DE15320 = 2 AND
        DE15321 = 2 AND DE15322 = 1
        THEN HAYFMHQX = 6;
      ELSE IF DE1532 = 2
        THEN HAYFMHQX = 7;
      ELSE HAYFMHQX = 8.1;
    ELSE IF BOTHERED = 1 THEN
      BOTHERED = Q;
    ELSE:
      IF DE1531B = 2 THEN HAYFMHQX = 9;
      ELSE HAYFMHQX = T;
      ELSE HAYFMHQX = M;
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<tr>
<th>VARIABLE</th>
<th>HAYSTAT2</th>
</tr>
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<tbody>
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<td>AMTDIS</td>
<td>HAY FEVER</td>
</tr>
</tbody>
</table>

A recoding of HAYFMHQ at enrollment

**CODES**

- **.** - Missing DE14226 (Dayton) or DE15325 (nonDayton)
- **C** - Not bothered by hay fever, don't know treatment
- **M** - HMQ not completed
- **1** - Current hay fever: bothered by hay fever in last 12 months, with or without treatment (shots, prescribed or nonprescribed medication), or not bothered and was taking treatment
- **2** - Past hay fever: not bothered by hay fever in last 12 months and did not take shots, prescribed or nonprescribed medication
- **9** - Has never had hay fever

**HAYSTAT2** recodes the first nine responses in HAYFMHQ into three major categories in order to distinguish respondents with current hay fever, no current hay fever, and those who have never had hay fever.

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**INPUT VARIABLE**

HAYFMHQ  Hay fever status

**CONSTRUCTION**

```r
IF 1 <= HAYFMHQ <= 3 THEN HAYSTAT2 = 1;
ELSE IF HAYFMHQ = 6 THEN HAYSTAT2 = 2;
ELSE IF HAYFMHQ = 8.1 THEN HAYSTAT2 = 9;
ELSE HAYSTAT2 = HAYFMHQ;
```
VARIABLE HAYSTA2X

A recoding of HAYFHMHGX at exit

CODES

.  - Missing DE15325
C  - Not bothered by hay fever, don't know treatment
M  - NYGB not completed
1  - Missing the trigger question (DE15318)
   - Current hay fever: bothered by hay fever in last 12 months, with or without treatment (shots, prescribed or nonprescribed medication), or not bothered and was taking treatment
   - Past hay fever: not bothered by hay fever in last 12 months and did not take shots, prescribed or nonprescribed medication
9  - Has never had hay fever

HAYSTA2X records the first nine responses in HAYFHMHGX into three major categories in order to distinguish respondents with current hay fever, no current hay fever, and those who have never had hay fever.

INPUT VARIABLE

HAYFHMHGX Hay fever status

CONSTRUCTION

IF 1 <= HAYFHMHGX <= 7 THEN HAYSTA2X = 1;
ELSE IF HAYFHMHGX = 8 THEN HAYSTA2X = 2;
ELSE IF HAYFHMHGX = 9.1 THEN HAYSTA2X = 0;
ELSE HAYSTA2X = HAYFHMHGX;
### HAYCURR

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<tr>
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</table>

#### Codes
- **-** Missing
- **M** - MHQD not completed
- **T** - Missing the trigger question (DEI4219)
- **W** - Missing DEI4226 (Dayton) or DEI5325 (nonDayton) and bothered or taking current treatment
- **X** - Missing DEI4226 (Dayton) or DEI5325 (nonDayton) and not bothered or taking current treatment, or never had hay fever
- **G** - No (Not bothered and no treatment within last 12 months, or never had hay fever)
- **1** - Yes (Bothered or taking current treatment)

HAYCURR indicates current prevalence of hay fever by separating respondents who have been bothered by or taken treatment for hay fever in the last 12 months from all other respondents.

### INPUT VARIABLES
- **DEI4219** (Dayton - MHQD) Have you ever had hay fever?
- **DEI4221** (Dayton - MHQD) In the last 12 months did you get shots to help prevent hay fever?
- **DEI4222** (Dayton - MHQD) In the last 12 months has the doctor prescribed any medicine to help prevent the symptoms?
- **DEI4223** (Dayton - MHQD) Do you actually take medicine for the hay fever?
- **DEI4226** (Dayton - MHQD) During the past 12 months, in how many weeks were you bothered by hay fever?
- **DEI5318** (NonDayton - MHQD) Have you ever had hay fever or other allergies to plants and grasses?
- **DEI5320** (NonDayton - MHQD) In the past 12 months did you get any shots to help prevent hay fever or other plant allergies?
- **DEI5321** (NonDayton - MHQD) In the past 12 months has a doctor prescribed any medicine to help prevent the symptoms of hay fever or other plant allergies? (cont.)
VARIABLE HAYCURR (cont.)

INPUT VARIABLES (cont.)

DE15322 (NonDayton - MHQB) Do you actually take any medicine for the hay fever or other plant allergies?

DE15325 (NonDayton - MHQB) During the past 12 months, how many weeks or months were you bothered by hay fever or other plant allergies?

BOthered (Temporary variable): Bothered by hay fever

1 - Never had hay fever
2 - MHQB not completed
3 - Missing DE1A226 [Dayton]
4 - DE15325 (NonDayton)
5 - Missing the trigger question (DE1A4219)
6 - NS
7 - Yes

MHQB MHQB indicator at enrollment

CONSTRUCTION

{For construction of DE1A4226, DE1A4219, DE1A4221, DE1A4222, DE1A5223, and BOTHERED see construction of HAYFEBQ above}
**VARIABLE: HAYFEVER**

**AMEDIT**

**HAY FEVER**

Current prevalence of hay fever at exit

**CODES**

- Missing
- M - MHQR not completed
- R - Missing the trigger question (DE15318)
- W - Missing DE15320 and bothered by or taking current treatment
- X - Missing DE15320 and not bothered by or taking current treatment, or never had hay fever
- O - No (Not bothered and no treatment within last 12 months, or never had hay fever)
- 1 - Yes (Bothered or taking current treatment)

**HAYFEVER** indicates current prevalence of hay fever by separating respondents who have been bothered by or taken treatment for hay fever in the last 12 months from all other respondents.

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**INPUT VARIABLES**

- **DE15318** (MHQR): Have you ever had hay fever or other allergies to plants and grasses?
- **DE15320** (MHQR): In the past 12 months did you get any shots to help prevent hay fever or other plant allergies?
- **DE15321** (MHQR): In the past 12 months has a doctor prescribed any medicines to help prevent the symptoms of hay fever or other plant allergies?
- **DE15322** (MHQR): Do you actually take any medicine for the hay fever or other plant allergies?
- **DE15325** (MHQR): During the past 12 months, how many weeks or months were you bothered by hay fever or other plant allergies?

**BOThERED** (Temporary variable): Bothered by hay fever

- Never had hay fever
- M - MHQR not completed
- R - Missing DE15320
- W - Missing DE15320 and bothered by or taking current treatment
- O - No
- 1 - Yes

**MHQBX** (MHQR indicator at exit)
VARIABLE HAYFCURX (cont.)

CONSTRUCTION

(For construction of BOTHERED see construction of HAY/MNOX above)

(Construct HAYFCURX)

IF MHOBX = . THEN HAYFCURX = M;
IF DE15318 = 1 THEN HAYFCURX = T;
IF DE15318 = 1 THEN
  IF (DE15320 = 1 OR DE15321 = 1 OR DE15322 = 1 OR
  DE15322 = 2) OR BOTHERED = 1
  THEN HAYFCURX = 1;
ELSE HAYFCURX = 0;
ELSE IF DE15318 = 2 THEN HAYFCURX = 0;
IF BOTHERED = Q THEN
  IF HAYFCURX = 1 THEN HAYFCURX = W;
ELSE HAYFCURX = X;


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Hay fever severity score at enrollment

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<th>CODES</th>
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</table>
| . - MHOB not completed or never had hay fever or answered "not bothered" to DE14226
| Range of values: 0 - 3999 |

HAYSORE is a measure of hay fever severity calculated by multiplying the percentage of time activity was restricted by the number of weeks during which the respondent was bothered by hay fever.

INPUT VARIABLES

DE14226 (Dayton - MHOB) During the past 12 months, in how many weeks were you bothered by hay fever?

(cont.)
VARIABLE HAYSORE (cont.)

INPUT VARIABLES (cont.)

DE14227 {Dayton = MI08} During the weeks when you were bothered by hay fever, how often did your hay fever keep you from doing the kinds of activities other people your age do?

DE15326 {NonDayton = MI08} During the past 12 months, how many weeks or months were you bothered by hay fever or other plant allergies?

DE15326 {NonDayton = MI08} During the weeks when you were bothered by hay fever or other plant allergies, how much of the time did it keep you from doing the kinds of things that other people your age do?

DE10426 {Temporary variable: Combines Dayton DE14226 and NonDayton DE15326.}

DE10427 {Temporary variable: Combines Dayton DE14227 and NonDayton DE15326.}

TIME {Temporary variable: Percent of time activity was restricted by hay fever.}

CONSTRUCTION

{Construct DE10427}

{Dayton}

DE10427 = DE14227;

{NonDayton}

DE10427 = DE15326;

{Construct TIME}

IF DE10427 >= 0 THEN
  IF DE10427 = 1 THEN TIME = 100;
  ELSE IF DE10427 = 2 THEN TIME = 75;
  ELSE IF DE10427 = 3 THEN TIME = 50;
  ELSE IF DE10427 = 4 THEN TIME = 10;
  ELSE IF DE10427 = 5 THEN TIME = 0;

{For construction of DE10426 see construction of HAY3M00 above}

{Construct HAYSORE}

HAYSORE = DE10426*TIME;
Hay fever severity score at exit

**CODES**

- "HAYF not completed or never had hay fever or answered"
- "not bothered" to DE15325

**NAYSOR** (Hay fever severity) = a measure of hay fever severity calculated by multiplying the percentage of time activity was restricted by the number of weeks during which the respondent was bothered by hay fever.

**INPUT VARIABLES**

- **DE15325** (% HAYF) During the past 12 months, how many weeks or months were you bothered by hay fever or other plant allergies?
- **DE15326** (% HAYF) During the weeks when you were bothered by hay fever or other plant allergies, how much of the time did it keep you from doing the kinds of things that other people your age do?
- **DE1C5325** (Temporary variable) Recoding of DE15325 to reflect the midpoint of the response.
- **TIME** (Temporary variable) Percent of time activity was restricted by hay fever.

**CONSTRUCTION**

(For construction of DE1C5325, see NAYSORX above)

(Construct TIME)

```plaintext
IF DE15326 = 0 THEN
    IF DE15326 = 1 THEN TIME = 10;
    ELSE IF DE15326 = 2 THEN TIME = 15; TIME = 20;
    ELSE IF DE15326 = 3 THEN TIME = 25; TIME = 30;
    ELSE IF DE15326 = 4 THEN TIME = 35; TIME = 40;
    ELSE IF DE15326 = 5 THEN TIME = 45;
    ELSE TIME = 50;
```

(cont.)
VARIABLE HAYSCORX (cont.)
CONSTRUCTION (cont.)
[Construct HAYSCORX]
HAYSCORX = DE15325*TIME;

<table>
<thead>
<tr>
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<th>HAYFIMP</th>
<th>AMEDIS</th>
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<td>, - Missing</td>
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<td>S</td>
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<tr>
<td>M - No M00B</td>
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<tr>
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<td>T</td>
<td>T0</td>
</tr>
<tr>
<td>S - Answered no to trigger, DE14219 or DE15318, skipped battery</td>
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<tr>
<td>I</td>
<td>G</td>
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<td>1 - Some impact</td>
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HAYFIMP indicates whether hay fever caused any pain, worry/concern, activity restrictions, or stay in bed.

INPUT VARIABLES

- DE14219 [Dayton - MHQ8] Have you ever had hay fever?
- DE14224 [Dayton - MHQ8] During the last 12 months, how much pain has your hay fever caused?
- DE14225 [Dayton - MHQ8] During the last 12 months, how much has your hay fever worried or concerned you?
- DE14227 [Dayton - MHQ8] During the weeks you were bothered by hay fever, how often did your hay fever keep you from doing the kinds of activities other people your age do?
- DE14228 [Dayton - MHQ8] During the last 12 months, how many days has your hay fever kept you in bed all or most of the day?
- DE15318 [Non-Dayton - MHQ8] Have you ever had hay fever or other allergies to plants and grasses?
- DE15320 [Non-Dayton - MHQ8] During the past 12 months, how much pain or distress has your hay fever or other plant allergies caused you?

(cont.)
VARIABLE HAYFEMP (cont.)

INPUT VARIABLES (cont.)

DEI5326 [NonDayton - MHGB]: During the past 12 months, how much has your hay fever or other plant allergies worried or concerned you?

DEI5326 [NonDayton - MHGB]: During the weeks when you were bothered by hay fever or other plant allergies, how much of the time did it keep you from doing the kinds of things that other people your age do?

DEI5327 [NonDayton - MHGB]: During the past 12 months, how many days has your hay fever or other plant allergies kept you in bed all or most of the day?

DEI4219 [Temporary variable]: Combines Dayton DEI4219 and NonDayton DEI5318

DEI4224 [Temporary variable]: Combines Dayton DEI4224 and NonDayton DEI5323

DEI4225 [Temporary variable]: Combines Dayton DEI4225 and NonDayton DEI5324

DEI4227 [Temporary variable]: Combines Dayton DEI4227 and NonDayton DEI5326

DEI4228 [Temporary variable]: Combines Dayton DEI4228 and NonDayton DEI5327

MHGB MHGB indicator at enrollment

CONSTRUCTION

(Construct DEI4219, DEI4224, DEI4225, DEI4227, DEI4228)

{Dayton}

DEI4219 = DEI4219;
DEI4224 = DEI4224;
DEI4225 = DEI4225;
DEI4227 = DEI4227;
DEI4228 = DEI4228;

{NonDayton}

DEI4219 = DEI5318;
DEI4224 = DEI5323;
DEI4225 = DEI5324;
DEI4227 = DEI5326;
DEI4228 = DEI5327;

{cont.)
VARIABLE HAYFIMP (cont.)

CONSTRUCTION (cont.)

(Construct HAYFIMP)

IF MHQB = . THEN HAYFIMP = N;
IF DEIC4219 = 2 THEN HAYFIMP = S;
IF DEIC4219 = . THEN HAYFIMP = T;
IF DEIC4224 = 4 OR DEIC4225 = 4 OR
  DEIC4227 = 5 OR DEIC4228 = 0
  THEN HAYFIMP = 0;
IF 1 <= DEIC4224 <= 3 OR 1 <= DEIC4225 <= 3 OR
  1 <= DEIC4227 <= 4 OR DEIC4228 > 0
  THEN HAYFIMP = 1;

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HAYFIMPX indicates whether hay fever caused any pain, worry/concern, activity restrictions, or day in bed.

INPUT VARIABLES

DE15318 (MHQB) Have you ever had hay fever or other allergies to plants and grasses?
DE15323 (MHQB) During the past 12 months, how much pain or distress has your hay fever or other plant allergies caused you?
DE15324 (MHQB) During the past 12 months, how much has your hay fever or other plant allergies worried or concerned you?

(Cont.)
VARIABLE HAYFIMPX (cont.)

INPUT VARIABLES (cont.)

DE15326 (NHQI) During the weeks when you were bothered by hay fever or other plant allergies, how much of the time did it keep you from doing the kinds of things that other people your age do?

DE15327 (NHQI) During the past 12 months, how many days has your hay fever or other plant allergies kept you in bed all or most of the day?

MHQBX NHQI indicator at exit

CONSTRUCTION

IF MHQBX = 1, THEN HAYFIMPX = M;
IF DE15326 = 1, THEN HAYFIMPX = 1;
IF DE15327 = 2 THEN HAYFIMPX = 2;
IF DE15323 = 4 OR DE15324 = 4 OR DE15325 = 5 OR DE15327 = 0
   THEN HAYFIMPX = 0;
IF 1 <= DE15323 <= 3 OR 1 <= DE15324 <= 3 OR
   1 <= DE15325 <= 4 OR DE15327 > 0
   THEN HAYFIMPX = 1;
HEARING LOSS CONDITION

VARIABLE HEARAVRT

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</table>

HEARAVRT is the average hearing threshold level for the right ear, based on measurements taken at three different frequencies during the enrollment screening exams.

INPUT VARIABLES

DE17402 (Screening exam) Air conduction threshold at 500 Hz
DE17406 (Screening exam) Air conduction threshold at 1000 Hz
DE17410 (Screening exam) Air conduction threshold at 2000 Hz
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

IF SCREENED = 1
THEN HEARAVRT = (DE17402 + DE17406 + DE17410) / 3;

IF SCREENED = 0, THEN HEARAVRT = R;
### VARIABLE HEARAVRX

**Definition:**
Average hearing threshold level for the right ear at exit.

**Codes:**
- `-`: Missing
- `R`: Not screened

**Range of Values:** 0 to 75 dB

**Note:** HEARAVRX is the average hearing threshold level for the right ear based on measurements taken at three different frequencies during the exit screening exam.

### Input Variables

- **DE17402**: (Screening exam) Air conduction threshold at 500 Hz
- **DE17405**: (Screening exam) Air conduction threshold at 1000 Hz
- **DE17410**: (Screening exam) Air conduction threshold at 2000 Hz
- **SCREENDX**: Screening exam indicator at exit

### Construction

1. **IF SCREENDX = 1**
   **THEN HEARAVRX = (DE17402 + DE17405 + DE17410) / 3;**

2. **IF SCREENDX = .**
   **THEN HEARAVRX = R;**

### Data Table

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<th>FREQ</th>
<th>%</th>
<th>%</th>
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### HEARAVRX

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VARIABLE HEARAVLX

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HEARAVLX is the average hearing threshold level for the left ear based on measurements taken at three different frequencies during the enrollment screening exam.

INPUT VARIABLES

- DE17404: Air conduction threshold at 500 Hz
- DE17408: Air conduction threshold at 1000 Hz
- DE17412: Air conduction threshold at 2000 Hz
- SCREENED: Screening exam indicator at enrollment

CONSTRUCTION

IF SCREENED = 1
THEN HEARAVLX = (DE17404 + DE17408 + DE17412) / 3;

IF SCREENED = 0, THEN HEARAVLX = R;
### VARIABLE HEARAVLT (cont.)

#### HEARAVLT

**Average hearing threshold level for the left ear at exit.**

**CODES**

- **R**: Missing
- **-**: Not screened

**Range of Values**: 0 to 75 dB

**HEARAVLT** is the average hearing threshold level for the left ear based on measurements taken at three different frequencies during the exit screening exam.

<table>
<thead>
<tr>
<th>VALUE</th>
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### VARIABLE HEARAVLX

**Average hearing threshold level for the left ear at exit by AMEDIS.**

**HEARAVLX** is the average hearing threshold level for the left ear based on measurements taken at three different frequencies during the exit screening exam.

<table>
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### INPUT VARIABLES

- **DEI4106** (Screening exam) Air conduction threshold at 500 Hz
- **DEI4108** (Screening exam) Air conduction threshold at 1000 Hz
- **DEI4112** (Screening exam) Air conduction threshold at 2000 Hz
- **SCREENAVLX** Screening exam indicator at exit

(Cont.)
CONSTRUCTION

IF SCREENNOX = 1
THEN HEARAVLX = (DE17404 + DE17408 + DE17412) / 3;

IF SCREENNOX = 0, THEN HEARAVLX = R:

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<tr>
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**VARIABLE T2000RT**

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**VARIABLE T2000RT** is the hearing threshold level at 2000 Hz for the right ear at enrollment.

**CODES**

- Missing
- R - Not screened

Range of Values - 0 to 100 dB

**INPUT VARIABLES**

- HEARAVLX Average threshold for right ear
- CE17404 (Screening exam) Air conduction threshold at 2000 Hz
- SCREENED Screening exam indicator at enrollment

(continued)
CONSTRUCTION

IF SCREENED = 1
    THEN IF HEARAVRX \<= .
        THEN T2000RT = DE17410;

IF SCREENED = , THEN T2000RT = R;

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VARIABLE: T2000RTX

Hearing threshold level at 2000 Hz for the right ear at exit

CODES

. = Missing

R = Not screened

Range of Values = 0 to 75 dB

T2000RTX is the hearing threshold level for the right ear based on a measurement taken at 2000 Hz during the exit screening exam.

INPUT VARIABLES

HEARAVRX: Average threshold for right ear
DE17410: (Screening exam) Air conduction threshold at 2000 Hz
SCREENIDX: Screening exam indicator at exit

CONSTRUCTION

IF SCREENIDX = 1
    THEN IF HEARAVRX \<= .
        THEN T2000RTX = DE17410;

IF SCREENIDX = , THEN T2000RTX = R;
**VARIABLE T2000LT**

Hearing threshold level at 2000 Hz for the left ear at enrollment.

**CODES**

- `.` - Missing
- `R` - Not screened

Range of Values = 0 to 115 dB

T2000LT is the hearing threshold level for the left ear based on a measurement taken at 2000 Hz during the enrollment screening exam.

**INPUT VARIABLES**

- HEARAVLT: Average threshold for left ear
- DF17412: [Screening exam] Air conduction threshold at 2000 Hz
- SCREENED: Screening exam indicator at enrollment

**CONSTRUCTION**

```
IF SCREENED = 1 THEN IF HEARAVLT < 1 THEN T2000LT = DF17412;

IF SCREENED = 1 THEN T2000LT = R;
```

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<th>%</th>
<th>% CUM</th>
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VARIABLE T2000LTX

HEARING LOSS

Hearing threshold level at 2000 Hz for the left ear at exit

CODES
.
- Missing
R = Not screened
Range of Values = 0 to 75 dB

T2000LTX is the hearing threshold level for the left ear based on a measurement taken at 2000 Hz during the exit screening exam.

INPUT VARIABLES

Hearable Average threshold for left ear
DE17412 (Screening exam) Air conduction threshold at 2000 Hz
SCREENOX Screening exam indicator at exit

CONSTRUCTION

IF SCREENDX = 1
    THEN IF HEARAVLX \= ;
    THEN T2000LTX = DE17412;

IF SCREENDX = , THEN T2000LTX = R;
**VARIABLE: HEARSTAT**

**HEARING LOSS**

Hearing status level at enrollment based on both ears

**CODES**
- **R** = Not screened
- **1.1** = B < 25, T2 < 25, W < 25
- **1.2** = B < 25, T2 < 25, W ≥ 25
- **1.3** = B < 25, T2 ≥ 25, W < 25
- **1.4** = B < 25, T2 ≥ 25, W ≥ 25
- **2** = 25 < B < 40
- **3** = 41 ≤ B ≤ 55
- **4** = B > 55

**NOTE**: B = better; T2 = T2000B; W = worse

**INPUT VARIABLES**

- **BETTER** (Temporary variable) Average threshold for better ear
- **T2000B** (Temporary variable) Better ear threshold at 2000 Hz
- **WORSE** (Temporary variable) Average threshold for worse ear
- **HEARAVLT** Average threshold for left ear
- **T2000L** Hearing threshold level at 2000 Hz for the left ear
- **SREENED** Screening exam indicator at enrollment

**CONSTRUCTION**

**Construct BETTER**

IF SCREENED = 1
THEN BETTER = MIN(HEARAVLT, HEARAVRT);

(cont.)
VARIABLE HEARSTAT (cont.)
CONSTRUCTION (cont.)

{Construct T2000B and WORSE}

IF HEARAVLT = HEARAVRT
THEN DO;

IF T2000LT = T2000RT
THEN DO;
    T2000B = T2000RT;
    WORSE = HEARAVRT;
END;

ELSE IF T2000LT < T2000RT
THEN DO;
    T2000B = T2000LT;
    WORSE = HEARAVRT;
END;

ELSE IF T2000LT > T2000RT
THEN DO;
    T2000B = T2000RT;
    WORSE = HEARAVLT;
END;

END;

IF HEARAVLT \= HEARAVRT
THEN IF BETTER = HEARAVLT
THEN DO;
    WORSE = HEARAVRT;
    T2000B = T2000LT;
END;

ELSE DO;
    WORSE = HEARAVLT;
    T2000B = T2000LT;
END;

{Construct HEARSTAT}

IF SCREENED = 1
THEN DO;

IF 0 <= BETTER <= 25 AND 0 <= T2000B <= 25 AND
0 <= WORSE <= 25
THEN HEARSTAT = 1.1;

( cont.)
VARABLE HEARSTAT (cont.)

CONSTRUCTION (cont.)

IF D <= BETTER <= 25 AND D <= T2000B <= 25 AND
   WORSE > 25
   THEN HEARSTAT = 1.2;
IF D <= BETTER <= 75 AND T2000B > 25 AND
   D <= WORSE <= 25
   THEN HEARSTAT = 1.3;
IF D <= BETTER <= 25 AND T2000B > 25 AND WORSE > 25
   THEN HEARSTAT = 1.4;
IF 25 < BETTER <= 40 THEN HEARSTAT = 2;
IF 41 <= BETTER <= 50 THEN HEARSTAT = 3;
IF BETTER > 50 THEN HEARSTAT = 4;
END;

IF SCREENED = . THEN HEARSTAT = R;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HEARSTAT</th>
<th>AWEDIS</th>
<th>HEARING LOSS</th>
</tr>
</thead>
</table>

Hearing status level at exit based on both ears

CODES*

. - Missing
R - Not screened
1.1 - B <= 25, T2 <= 25, W <= 25
1.2 - B <= 25, T2 <= 25, W > 25
1.3 - B <= 25, T2 > 25, W <= 25
1.4 - B <= 25, T2 > 25, W > 25
2 - 25 < B <= 40
3 - 41 <= B <= 55
4 - B > 55

HEARSTAT summarizes hearing level based on average thresholds for both ears, with additional attention to the better ear's threshold at 2000 Hz. Higher number indicates worse hearing.

*NOTE: B = BETTER; T2 = T2000B; W = WORST

(ceb.)
VARIABLES

INPUT VARIABLES

BETTER  (Temporary variable) Average threshold for better ear
T200OB  (Temporary variable) Better ear threshold at 2000 Hz
WORSE   (Temporary variable) Average threshold for worse ear
HEARAVLX Average threshold for left ear
T2000LTX Hearing threshold level at 2000 Hz for the left ear
T2000RNX Hearing threshold level at 2000 Hz for the right ear
SCREENX Screening exam indicator at exit

CONSTRUCTION

(Construct BETTER)

IF SCREENX = 1
   THEN BETTLX = MIN(HEARAVLX, HEARAVRX);

(Construct T2000B and WORSE)

IF HEARAVLX = HEARAVRX
   THEN DO;
      IF T2000LTX = T2000RTX
         THEN DO;
            T200OB = T2000BIX;
            WORSE = HEARAVRX;
         END;
      ELSE IF T2000LTX < T2000RTX
         THEN DO;
            T200OB = T2000LTX;
            WORSE = HEARAVRX;
         END;
      ELSE IF T2000LTX > T2000RTX
         THEN DO;
            T200OB = T2000RTX;
            WORSE = HEARAVLX;
         END;
   END;

[cont.]
VARIABLE HEARSTAX (cont.)

CONSTRUCTION (cont.)

IF HEARAVLX \leq HEARAVRX
    THEN IF BETTER = HEARAVLX
          THEN DO:
            WORSE = HEARAVRX;
            T2000B = T2000BLTX;
            END;
          ELSE DO:
            WORSE = HEARAVLX;
            T2000B = T2000BXLTX;
            END;

[Construct HEARSTAX]

IF SCREENBX = 1
    THEN DO:

        IF 0 <= BETTER <= 25 AND 0 <= T2000B <= 25 AND
           0 <= WORSE <= 25
           THEN HEARSTAX = 1.1;
        IF 0 <= BETTER <= 25 AND 0 <= T2000B <= 25 AND
           WORSE > 25
           THEN HEARSTAX = 1.2;
        IF 0 <= BETTER <= 25 AND T2000B > 25 AND
           0 <= WORSE <= 25
           THEN HEARSTAX = 1.3;
        IF 0 <= BETTER <= 25 AND T2000B > 25 AND WORSE > 25
           THEN HEARSTAX = 1.4;
        IF 25 < BETTER <= 40 THEN HEARSTAX = 2;
        IF 41 <= BETTER <= 55 THEN HEARSTAX = 3;
        IF BETTER > 56 THEN HEARSTAX = 4;
        END;

    IF SCREENBX = 0 THEN HEARSTAX = 0;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HRSTATRT</th>
<th>AMEDIS</th>
<th>HEARING LOSS</th>
</tr>
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<td>16</td>
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</tbody>
</table>

*NOTE: RT = HEARAVRT; T2 = T2000RT; LT = HEARAVLT.*

**INPUT VARIABLES**

- HEARAVRT (Screening exam) Average threshold for right ear
- HEARAVLT (Screening exam) Average threshold for left ear
- T2000RT (Screening exam) Right ear threshold at 2000 Hz
- SCREENED (Screening exam) Indicator at enrollment

**CONSTRUCTION**

1. IF SCREENED = 1 THEN DO;
   1. IF 0 <= HEARAVRT <= 25 AND 0 <= T2000RT <= 25 AND 0 <= HEARAVLT <= 25 THEN HRSTATRT = 1.1;
   1. IF 0 <= HEARAVRT <= 25 AND 0 <= T2000RT <= 25 AND HEARAVLT > 25 THEN HRSTATRT = 1.2;

[cont.]
VARIABLE HRSTARTX (cont.)

CONSTRUCTION (cont.)

\[ \begin{align*}
\text{IF } & O < \text{ HEARAVRT } \leq 25 \text{ AND } 12000RT > 25 \text{ AND } \\
& 0 < \text{ HEARAVLT } \leq 25 \text{ THEN HRSTARTX = 1.3; } \\
\text{IF } & O < \text{ HEARAVRT } \leq 25 \text{ AND } 12000RT > 25 \text{ AND } \\
& \text{HEARAVLT > 25 } \text{ THEN HRSTARTX = 1.3; } \\
\text{IF } & 25 < \text{ HEARAVRT } \leq 40 \text{ THEN HRSTARTX = 2; } \\
\text{IF } & 41 < \text{ HEARAVRT } \leq 55 \text{ THEN HRSTARTX = 3; } \\
\text{IF } & \text{HEARAVRT > 55 THEN HRSTARTX = 4; } \\
\text{END; } \\
\text{IF SCREENED = 0 THEN HRSTARTX = 0; }
\end{align*} \]

<table>
<thead>
<tr>
<th>VARIABLE</th>
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<th>AMEDIS HEARING LOSS</th>
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</table>

HRSTARTX defines hearing level for the right ear based on a measurement taken at 2000 Hz (12000RT). If the right ear's average threshold is normal (< 25 dB), then the left ear's threshold is also taken into account.

*NOTE: RT = HEARAVRT; T2 = T2000RT; LT = HEARAVLT.*
VARIABLE HRSTARTX (cont.)

INPUT VARIABLES

HEARAVRX (screening exam) Average threshold for right ear
HEARAVLX (screening exam) Average threshold for left ear
T2000RTX (screening exam) Right ear threshold at 2000 Hz
SCREENDX Screening exam indicator at exit

CONSTRUCTION

IF SCREENDX=1
THEN DO;

 IF 0 < HEARAVRX <= 25 AND 0 < T2000RTX <= 25 AND
     0 < HEARAVLX <= 25
 THEN HRSTARTX = 1.1;
 IF 0 < HEARAVRX <= 25 AND 0 < T2000RTX <= 25 AND
     HEARAVLX > 25
 THEN HRSTARTX = 1.2;
 IF 0 < HEARAVRX <= 25 AND T2000RTX > 25 AND
     0 < HEARAVLX <= 25
 THEN HRSTARTX = 1.3;
 IF 0 < HEARAVRX <= 25 AND T2000RTX > 25 AND
     HEARAVLX > 25
 THEN HRSTARTX = 1.4;
 IF 25 < HEARAVRX <= 40
 THEN HRSTARTX = 2;
 IF 40 < HEARAVRX <= 55
 THEN HRSTARTX = 3;
 IF HEARAVRX > 55
 THEN HRSTARTX = 4;

END;

IF SCREENDX = 1 THEN HRSTARTX = E;
<table>
<thead>
<tr>
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<th>APEDIS</th>
<th>HEARING LOSS</th>
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<td>%</td>
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</tr>
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</table>

HRSTATLT defines the hearing level for the left ear based on a measurement taken at 2000 Hz (T2000). If the left ear's average threshold is normal (< 25 dB), then the right ear's threshold is also taken into account.

*NOTE: LT = HEARAVLT; T2 = T2000LT; RT = HEARAVRT.

INPUT VARIABLES

HEARAVLT (Screening exam) Average threshold for right ear
HEARAVLT (Screening exam) Average threshold for left ear
T2000LT (Screening exam) Left ear threshold at 2000 Hz
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

IF SCREENED=1 THEN DO;
    IF 0 <= HEARAVLT <= 25 AND 0 <= T2000LT <= 25 AND
       0 <= HEARAVRT <= 25
    THEN HRSTATLT = 1.1;
    IF 0 <= HEARAVLT <= 25 AND T2000LT <= 25 AND
       HEARAVRT > 25
    THEN HRSTATLT = 1.2;

[cont.]
VARIABLE HRSTATLTX (cont.)

CONSTRUCTION (cont.)

IF O <= HEARAVLT <= 25 AND T2000LT > 25 AND
O <= HEARAVRT < 25
THEN HRSTATLTX = 1.3;
IF O <= HEARAVLT <= 25 AND T2000LT > 25 AND
O <= HEARAVRT <= 25
THEN HRSTATLTX = 1.4;
IF O <= HEARAVLT <= 40 THEN HRSTATLTX = 2;
IF O <= HEARAVLT <= 55 THEN HRSTATLTX = 3;
IF O <= HEARAVLT <= 56 THEN HRSTATLTX = 4;
END;

IF SCREENED = . THEN HRSTATLTX = K;

<table>
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<th>HRSTATLTX</th>
<th>AMELDIS HEARING LOSS</th>
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<td>FREQ %</td>
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<tr>
<td>4</td>
<td>28</td>
<td>4739</td>
</tr>
</tbody>
</table>

HRSTATLTX defines the hearing level for the left ear based on a measurement taken at 2000 Hz (T2000). If the left ear's average threshold is normal (<25 dB), then the right ear's threshold is also taken into account.

*NOTE: LT = HEARAVLT; T2 = T2000LTX; RT = HEARAVRX.
VARIABLE HRSTALT1X (cont.)

INPUT VARIABLES

NEARAVRX [Screening exam] Average threshold for right ear
NEARAVLX [Screening exam] Average threshold for left ear
T2000LTX [Screening exam] Left ear threshold at 2000 Hz
SCREENX [Screening exam] Indicator at exit

CONSTRUCTION

IF SCREENX = 1 THEN DO:
    IF 0 <= NEARAVLX <= 25 AND 0 <= T2000LTX <= 25 AND
       0 <= NEARAVRX <= 25
       THEN HRSTALT1X = 1.1;
    IF 0 <= NEARAVLX <= 25 AND 0 <= T2000LTX <= 25 AND
       NEARAVRX > 25
       THEN HRSTALT1X = 1.2;
    IF 0 <= NEARAVLX <= 25 AND T2000LTX > 25 AND
       0 <= NEARAVRX <= 25
       THEN HRSTALT1X = 1.3;
    IF 0 <= NEARAVLX <= 25 AND T2000LTX > 25 AND
       NEARAVRX > 25
       THEN HRSTALT1X = 1.4;
    IF 25 < NEARAVLX <= 40 THEN HRSTALT1X = 2;
    IF 41 <= NEARAVLX <= 55 THEN HRSTALT1X = 3;
    IF NEARAVLX > 56 THEN HRSTALT1X = 4;
END;

IF SCREENX = . THEN HRSTALT1X = R;
VARIABLE: HEARBIN

HEARING LOSS

Binarny hearing status of better ear at enrollment

CODES

. - Missing
R - No screening exam
0 - No hearing loss
1 - Some hearing loss

HEARBIN indicates whether there is any hearing loss for the better ear based on average thresholds measured.

INPUT VARIABLES

HEARAVRT (Screening exam) Average threshold for right ear
HEARAVLT (Screening exam) Average threshold for left ear
BETTER (Temporary variable) Average threshold for better ear
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

{Construct BETTER}

BETTER = MIN(HEARAVLT, HEARAVRT);

{Construct HEARBIN}

IF SCREENED = 1
  THEN DO;
    IF 0 <= BETTER <= 25 THEN HEARBIN = 0;
    IF BETTER > 25 THEN HEARBIN = 1;
  END;
 IF SCREENED = . THEN HEARBIN = R;
<table>
<thead>
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<th>VARIABLE</th>
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</thead>
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<table>
<thead>
<tr>
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<th>CUM %</th>
<th>CUM %</th>
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</table>

Binary hearing status of better ear at exit

CODES

- Missing
- No screening exam
- No hearing loss
- Some hearing loss

HEARBINX indicates whether there is any hearing loss for the better ear based on average thresholds measured.

**INPUT VARIABLES**

- HEARAVRX (Screening exam) Average threshold for right ear
- HEARAVLX (Screening exam) Average threshold for left ear
- BETTER (Temporary variable) Average threshold for better ear
- SCREENDX Screening exam indicator at exit

**CONSTRUCTION**

**[Construct BETTER]**

```
BETTER = MIN(HEARAVLX, HEARAVRX);
```

**[Construct HEARBINX]**

```
IF SCREENDX = 1 THEN DD;
   IF 0 <= BETTER <= 25 THEN HEARBINX = 0;
   IF BETTER > 25 THEN HEARBINX = 1;
END;

IF SCREENDX = . THEN HEARBINX = R;
```
VARIABLE: \texttt{HSTAT41}

**AMDIS**

**HEARING LOSS**

Hearing status at enrollment, defining loss as starting at $\geq 41$ dB

**CODES**

- \texttt{.} = Missing
- \texttt{R} = No screening exam
- \texttt{0} = No hearing loss
- \texttt{1} = Moderate to severe hearing loss

\texttt{HSTAT41} indicates whether there is any hearing loss for the better ear at $41$ dB or above.

<table>
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<th>FREQ</th>
<th>%</th>
<th>%</th>
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**NOTE:** Those with mild hearing loss at 26 to 40 dB are classified as missing for this variable. To separate this group out of the missing category use the variable \texttt{HSTAT1}.

**INPUT VARIABLES**

- \texttt{HEARAVRT} Average threshold for right ear
- \texttt{HEARAVLT} Average threshold for left ear
- \texttt{BETTER} Temporary variable. Average threshold for the better ear.
- \texttt{SCREENED} Screening exam indicator at enrollment

**CONSTRUCTION**

\{(Construct BETTER)\}

\[
BETTER = \text{MIN}\{\text{HEARAVLT}, \text{HEARAVRT}\};
\]

{cont.}
VARIABLE HRSTAT41 (cont.)

CONSTRUCTION (cont.)

(Construct HRSTAT41)

  IF SCREENED = 1
  THEN DO;
    IF 0 <= BETTER <= 25 THEN HRSTAT41 = 0;
    IF BETTER >= 41 THEN HRSTAT41 = 1;
  END;

  IF SCREENED = . THEN HRSTAT41 = R;

---

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VALUE</th>
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<th>CUM FREQ</th>
<th>%</th>
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NOTE: Those with mild hearing loss at 26 to 40 db are classified as missing for this variable. To separate this group out of the missing category use the variable NEARSTAT.

INPUT VARIABLES
- NEARAVRX Average threshold for right ear
- NEARAVLX Average threshold for left ear
- BETTER (Temporary variable) Average threshold for the better ear
- SCREENDX Screening exam indicator at exit

(cont.)
VARIABLE MISTA41X (cont.)

CONSTRUCTION

{Construct BETTER}

\[ \text{BETTER} = \min(\text{HEARAVLX}, \text{HEARAVRX}); \]

{Construct MISTA41X}

\text{IF SCREENIX} = 1
\begin{align*}
& \text{THEN DO;} \\
& \text{IF } 0 \leq \text{BETTER} \leq 25 \text{ THEN MISTA41X} = 0; \\
& \text{IF BETTER} \geq 41 \text{ THEN MISTA41X} = 1; \\
& \text{END}; \\
& \text{IF SCREENIX} = 0, \text{ THEN MISTA41X} = 0;
\end{align*}

<table>
<thead>
<tr>
<th>VARIABLE: MISTA41X</th>
<th>AMBIDIS.HEARING LOSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of hearing problems at enrollment</td>
<td></td>
</tr>
</tbody>
</table>

CODES

- Missing
- N - No M2O
- S - Skipped battery, no hearing problems
- O - No impact
- I - Some impact

MISTA41X indicates whether hearing problems have caused concern or worry, or restricted activity.

<table>
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<th>CUM %</th>
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<td>32</td>
<td>28.83</td>
<td>28.83</td>
</tr>
<tr>
<td>I</td>
<td>79</td>
<td>111</td>
<td>71.17</td>
<td>100.00</td>
</tr>
</tbody>
</table>

INPUT VARIABLES

DL14230 (Dayton - MHOB) Do you have trouble hearing with one or both ears without a hearing aid?
DL14240 (MHOB) During the past 3 months, how much of the time has your hearing problem kept you from doing the kinds of things other people your age do? (cont.)
VARIABLE HEARING (cont.)

INPUT VARIABLES (cont.)

DE14241 (M108): During the past 3 months, how much has your hearing problem worried or concerned you?

DE15300 (M123): Can you usually hear and understand what a person says, without seeing his face and without a hearing aid, if he whispers to you across a quiet room?

DE15301 (M108-123): Can you usually hear and understand what a person says, without seeing his face and without a hearing aid, if he talks to you in a normal voice from across a quiet room?

MHQ8 MHQ8 indicator at enrollment

CONSTRUCTION

IF DE14240 = 5 OR DE14241 = 4
THEN HEARIMP = 0;

IF 1 <= DE14240 <= 4 OR 1 <= DE14241 <= 3
THEN HEARIMP = 1;

IF DE14230 = 2 OR DE15300 = 1 OR DE15301 = 1
THEN HEARIMP = 5;

IF MHQ8 = 1, THEN HEARIMP = N;

243
**VARIABLE** | **NEARIMPX**
---|---
**AMEDIS** | **HEARING LOSS**
Impact of hearing problems at exit

**CODES**
- . = Missing
- M = No MHO
- S = Skipped battery, no hearing problems
- 0 = No impact
- 1 = Some impact

NEARIMPX indicates whether hearing problems have caused concern or worry, or restricted activity.

**INPUT VARIABLES**

DE14240 (MHO) During the past 3 months, how much of the time has your hearing problem kept you from doing the kinds of things other people your age do?

DE14241 (MHO) During the past 3 months, how much has your hearing problem worried or concerned you?

DE15300 (MHO) Can you usually hear and understand what a person says, without seeing his face and without a hearing aid, if he whispers to you across a quiet room?

DE15301 (MHO) Can you usually hear and understand what a person says, without seeing his face and without a hearing aid, if he talks to you in a normal voice from across a quiet room?

**MHOSX** MHO indicator at exit

**CONSTRUCTION**

IF DE14240 = 5 OR DE14241 = 4 THEN NEARIMPX = 0;
IF 1 <= DE14240 <= 4 OR 1 <= DE14241 <= 3 THEN NEARIMPX = 1;
IF DE15300 = 1 OR DE15301 = 1 THEN NEARIMPX = S;
IF MHO = . THEN NEARIMPX = M;
VARIABLE CHOLEST

Blood cholesterol measurement at enrollment

CODES

. = Missing DE17484 and DE17485
M = No screening exam
Range of values = 51 to 500 mg/dl

CHOLEST is the blood cholesterol measurement taken at the enrollment screening examination. If the first test result was abnormal, a repeat test was done and the repeat measurement was used.

INPUT VARIABLES

DE17484 [Screening exam] Cholesterol 1st measure
DE17485 [Screening exam] Cholesterol repeat measure
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

CHOLEST = DE17484;
IF DE17485 \= .
   THEN CHOLEST = DE17485:
IF SCREENED = .
   THEN CHOLEST = M;
VARIABLE CHOLESX

AMDIS

HYPERCHOLESTEROLEMIA

Blood cholesterol measurement at exit

CODES

. = Missing DE17484 and DE17485
1 = No screening exam
Range of values = 80 to 055 mg/dl

CHOLESX is the blood cholesterol measurement taken at the exit screening examination. If the first test result was abnormal, a repeat test was done and the repeat measurement was used.

INPUT VARIABLES

DE17484 (Screening exam) Cholesterol 1st measure
DE17485 (Screening exam) Cholesterol repeat measure
SCREENX Screening exam indicator at exit

CONSTRUCTION

CHOLESX = DE17484;
IF DE17485 = . AND DE17485 = E
THEN CHOLESX = DE17485;
IF SCREENX = .
THEN CHOLESX = E;

CHOLESX

NUMBER OF OBSERVATIONS 4915
NUMBER OF MISSING 956
MEAN 192.43
MEDIAN 191.00
MINIMUM VALUE 80.00
MAXIMUM VALUE 855.00
STANDARD DEVIATION 45.97
COEFFICIENT OF VARIATION 23.96
SKEWNESS 1.146
KURTOSIS 10.31
Hypercholesterolemia status based on the NHQ at enrollment

**CODES**
- **A** - No NHQ
- **0** - No hypercholesterolemia ever present
- **1** - Yes, doctor said hypercholesterolemia, not taking prescribed medications
- **2** - Yes, doctor said hypercholesterolemia, taking prescribed medications

CHOLNHQ indicates hypercholesterolemia status based on NHQ responses.

**INPUT VARIABLES**
- DE14340 (NHQ) Has a doctor ever said you have high blood cholesterol?
- DE14343 (NHQ) Are you currently taking medicine for high cholesterol?
- NHQ6 NHQ6 Indicator at enrollment

**CONSTRUCTION**

<p>| IF DE14340 = 2; THEN CHOLNHQ= 0; |
| IF DE14340 = 1 AND DE14343 = 1 THEN CHOLNHQ= 1; |
| IF DE14340 = 1 AND DE14343 = 1 THEN CHOLNHQ= 2; |
| IF NHQ6 = . THEN CHOLNHQ= A; |</p>
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CHOLMHQX</th>
<th>AMEDIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYPERCOLESTEROLEMIA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypercholesterolemia status based on the MHQ at exit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>. - Missing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - No hypercholesterolemia ever present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Yes, doctor said hypercholesterolemia, not taking prescribed medications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 - Yes, doctor said hypercholesterolemia, taking prescribed medications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHOLMHQX indicates hypercholesterolemia status based on MHQ responses.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM FREQ</th>
<th>%</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>758</td>
<td>95.46</td>
<td>95.46</td>
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<tr>
<td>0</td>
<td>4932</td>
<td>4932</td>
<td>6.37</td>
<td>6.37</td>
</tr>
<tr>
<td>1</td>
<td>169</td>
<td>5101</td>
<td>2.07</td>
<td>2.07</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>5113</td>
<td>0.24</td>
<td>0.24</td>
</tr>
</tbody>
</table>

INPUT VARIABLES

DE14340 [MHQ5] Has a doctor ever said you have high blood cholesterol?

DE14343 [MHQ5] Are you currently taking medicine for high cholesterol?

CONSTRUCTION

IF DE14340 = 2
THEN CHOLMHQX = 0;
IF DE14340 = 1 AND DE14343 <= 1
THEN CHOLMHQX = 1;
IF DE14340 = 1 AND DE14343 = 1
THEN CHOLMHQX = 2;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHOLSTAT</td>
<td>. - Missing</td>
</tr>
<tr>
<td></td>
<td>1 - Taking cholesterol-lowering drugs</td>
</tr>
<tr>
<td></td>
<td>2 - Cholesterol over 299, taking no drugs</td>
</tr>
<tr>
<td></td>
<td>3 - Cholesterol 260-299, taking no drugs, has had diagnosis</td>
</tr>
<tr>
<td></td>
<td>4 - Cholesterol 260-299, no drugs, no diagnosis but on a special diet</td>
</tr>
<tr>
<td></td>
<td>5 - Cholesterol 260-299, no drugs, no diagnosis, not on a special diet</td>
</tr>
<tr>
<td></td>
<td>6 - Cholesterol under 260, no drugs</td>
</tr>
<tr>
<td></td>
<td>7 - All other respondents</td>
</tr>
</tbody>
</table>

CHOLSTAT assigns a status value to each respondent based on cholesterol level, current treatment, and reported previous diagnosis.

### INPUT VARIABLES

- DI14340 (MIQB) Has a doctor ever said you have high blood cholesterol?
- DI14343 (MIQB) Are you currently taking medicine for high cholesterol?
- DI13699 (MIQB) Are you on a special diet for high cholesterol?
- DI13704 (MIQB) What kind of low fat or cholesterol diet is it?

**CHOLEST** Blood cholesterol measurement

<table>
<thead>
<tr>
<th>Temporary variable: Cholesterol indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - less than 260 (normal)</td>
</tr>
<tr>
<td>1 - 260-299 (borderline elevated)</td>
</tr>
<tr>
<td>2 - 300 or more (elevated)</td>
</tr>
</tbody>
</table>

(Cont.)
VARIABLE CHOLSTAT (cont.)

CONSTRUCTION

{Construct SE)

IF 0 < CHOLEST < 200
    THEN SE = 0;
ELSE IF 200 <= CHOLEST < 300
    THEN SE = 1;
ELSE IF CHOLEST >= 300
    THEN SE = 2;
ELSE IF SCREENED = 1
    THEN SE = N;

{Construct CHOLSTAT)

IF DEH1343 = 1
    THEN CHOLSTAT = 1;
ELSE IF SE = 2
    THEN CHOLSTAT = 2;
ELSE IF SE = 1 AND DEH1340 = 1
    THEN CHOLSTAT = 3;
ELSE IF SE = 1 AND (DE13599 = 1 OR DE13705 = 1)
    THEN CHOLSTAT = 4;
ELSE IF SE = 1
    THEN CHOLSTAT = 5;
ELSE IF SE = 0
    THEN CHOLSTAT = 6;
ELSE CHOLSTAT = 7;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CHOLSTAX</th>
<th>AMEDIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYPERCHOLESTEROLEMIA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cholesterol status indicator at exit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Missing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 - Taking cholesterol-lowering drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 - Cholesterol over 300, taking no drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 - Cholesterol 260-299, taking no drugs, has had diagnosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - Cholesterol 260-299, no drugs, no diagnosis but on a special diet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 - Cholesterol under 260, no drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 - Not screened or cholesterol value missing, no drugs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CHOLSTAX assigns a status value to each respondent based on cholesterol level, current treatment, and reported previous diagnosis.

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>%</th>
<th>FREQ</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>585</td>
<td>0.23</td>
<td>12</td>
<td>0.23</td>
</tr>
<tr>
<td>2</td>
<td>133</td>
<td>2.52</td>
<td>149</td>
<td>2.74</td>
</tr>
<tr>
<td>3</td>
<td>31</td>
<td>0.59</td>
<td>176</td>
<td>3.33</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>0.13</td>
<td>183</td>
<td>3.45</td>
</tr>
<tr>
<td>5</td>
<td>235</td>
<td>4.45</td>
<td>418</td>
<td>7.91</td>
</tr>
<tr>
<td>6</td>
<td>4915</td>
<td>85.07</td>
<td>5285</td>
<td>100.00</td>
</tr>
<tr>
<td>7</td>
<td>371</td>
<td>7.02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INPUT VARIABLES

DE13173 [Screening exam] Has a doctor ever said you have high blood cholesterol?
1 - No
2 - Yes

DE13699 [HMQ3] Are you on a special diet for high cholesterol?
DE13694 [HMQ3] What kind of low fat or cholesterol diet is it?
DE14340 [HMQ3] Has a doctor ever said you have high blood cholesterol?
DE14343 [HMQ3] Are you currently taking medicine for high cholesterol?
DE13699 [HMQ3] Are you on a special diet for high cholesterol?
DE13704 [HMQ3] What kind of low fat or cholesterol diet is it?

DOCSAIDX [Temporary variable] High cholesterol reported by doctor
1 - Missing
2 - Yes
2 - No

(cont.)
VARIABLE CHOLSTAX (cont.)

INPUT VARIABLES (cont.)

CHOLESTX  Blood cholesterol measurement
SCREMMX  Temporary variable: Cholesterol indicator
   : = Missing CHOLESTX
   E = Missing screening exam
   0 = Less than 260 (normal)
   1 = 260 to 299 (borderline elevated)
   2 = 300 or more (elevated)

CONSTRUCTION

{Construct SCREMMX}

IF SCREENDX = .
THEN SCREMMX = E;
IF 0 < CHOLESTX < 260
THEN SCREMMX = 0;
ELSE IF 260 <= CHOLESTX < 300
THEN SCREMMX = 1;
ELSE IF CHOLESTX >= 300
THEN SCREMMX = 2;

{Construct DOCSAIDX}

IF DEI4340 = 1 OR ((DEI4340 = . OR DEI4340 = A)
AND DEI3173 = 2)
THEN DOCSAIDX = 1;
ELSE IF DEI4340 = 2 OR ((DEI4340 = . OR DEI4340 = A)
AND DEI3173 = 1)
THEN DOCSAIDX = 2;

{Construct CHOLSTAX}

IF DEI4343 = 1
THEN CHOLSTAX = 1;
ELSE IF SCREMMX = 2
THEN CHOLSTAX = 2;
ELSE IF SCREMMX = 1 AND DOCSAIDX = 1
THEN CHOLSTAX = 3;
ELSE IF SCREMMX = 1 AND (DEI3699 = 1 OR DEI3704 = 1)
THEN CHOLSTAX = 4;
ELSE IF SCREMMX = 1
THEN CHOLSTAX = 5;
ELSE IF SCREMMX = 0
THEN CHOLSTAX = 6;
ELSE CHOLSTAX = 7;
### Variable Codes

**CHOLDIET**

- **VARIABLE**: CHOLDIET
- **ANEDIS**: HYPERCHOLESTEROLEMIA

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ %</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5176</td>
<td>195</td>
<td>28.06</td>
</tr>
<tr>
<td>2</td>
<td>500</td>
<td>695</td>
<td>71.94</td>
</tr>
</tbody>
</table>

**Codes**
- 1: Missing, includes those without high cholesterol
- 2: Yes
- 3: No

CHOLDIET indicates whether respondent is on a low-fat or low-cholesterol diet for hypercholesterolemia.

### Input Variables

- **DE13699** (MB08): Are you on a special diet for high cholesterol?
- **DE13704** (MB08): What kind of low-fat or cholesterol diet is it?

### Construction

```plaintext
IF DE13699 = 2 OR DE13704 = 2
THEN CHOLDIET = 2;
IF DE13699 = 1 OR DE13704 = 1
THEN CHOLDIET = 1;
```
VARIABLE CHOLDIEX

HYPERCHOLESTEROLEMIA

Special diet indicator at exit

CODES

1 - Missing, includes those without high cholesterol
2 - Yes
3 - No

CHOLDIEX indicates whether respondent is on a low fat or low cholesterol diet for hypercholesterolemia.

INPUT VARIABLES

DE13699 (MHQ): Are you on a special diet for high cholesterol?
DE13704 (MHQ): What kind of low fat or cholesterol diet is it?

CONSTRUCTION

IF DE13699 = 2 OR DE13704 = 2
   THEN CHOLDIEX = 2;
IF DE13699 = 1 OR DE13704 = 1
   THEN CHOLDIEX = 1;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CHOLIMP</th>
<th>AMEDIS</th>
<th>HYPERCHOLESTEROLEMIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
<td>FREQ</td>
<td>%</td>
</tr>
<tr>
<td>.</td>
<td>5679</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>A</td>
<td>229</td>
<td>66</td>
<td>36.16%</td>
</tr>
<tr>
<td>0</td>
<td>84</td>
<td>66</td>
<td>63.16%</td>
</tr>
<tr>
<td>1</td>
<td>49</td>
<td>133</td>
<td>36.84%</td>
</tr>
</tbody>
</table>

Codes:
- . = Missing, includes those without hypercholesterolemia
- A = No MHQB
- 0 = No impact
- 1 = Some impact

CHOLIMP indicates whether hypercholesterolemia caused any worry/concern, or activity restrictions.

Input Variables:
- DE14345 (MHQB) During the past 3 months, how much has your high cholesterol worried or concerned you?
- DE14346 (MHQB) During the past 3 months, how much of the time has high cholesterol kept you from doing the kinds of things other people your age do?
- MHQB MHQB indicator at enrollment

Construction:
- IF DE14345 = 4 OR DE14346 = 5 THEN CHOLIMP = 0;
- IF 1 <= DE14345 <= 3 OR 1 <= DE14346 <= 4
  THEN CHOLIMP = 1;
- IF MHQB = . THEN CHOLIMP = A;
VARIABLE CHOLIMPX AMEDIS
HYPERCHOLESTEROLEMIA

Impact of hypercholesterolemia at exit

CODES

. = Missing, includes those without hypercholesterolemia
0 = No impact
1 = Some impact

CHOLIMPX indicates whether hypercholesterolemia caused any worry/concern, or activity restrictions.

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>.</td>
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<td>0.00</td>
<td>0.00</td>
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<tr>
<td>0</td>
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<td>64.09</td>
<td>64.09</td>
</tr>
<tr>
<td>1</td>
<td>85</td>
<td>181</td>
<td>35.91</td>
<td>100.00</td>
</tr>
</tbody>
</table>

INPUT VARIABLES

DE14345 (NOOB) During the past 3 months, how much has your high cholesterol worried or concerned you?

DE14346 (NOOB) During the past 3 months, how much of the time has high cholesterol kept you from doing the kinds of things other people your age do?

CONSTRUCTION

IF DE14345 = 4 OR DE14346 = 5 THEN CHOLIMPX = 0;
IF 1 <= DE14345 <= 3 OR 1 <= DE14346 <= 4
    THEN CHOLIMPX = 1;
HYPERTENSION

VARIABLE SYSTOL

Systolic blood pressure measurement at enrollment

CODES

. - Missing DE17077 and DE17079
D - No screening exam
Range of values = 82 to 230 mm Hg

SYSTOL represents the result of the systolic blood pressure measurements [sitting] that were performed as part of the enrollment screening exam.

If the systolic blood pressure was greater than or equal to 140, or the diastolic blood pressure was greater than or equal to 90, a second measurement was made and the second measurement was used.

INPUT VARIABLES

DE17077 (Screening exam) First systolic blood pressure reading - sitting
DE17079 (Screening exam) Retest systolic blood pressure reading - sitting
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

IF SCREENED = 1 THEN SYSTOL = D;
IF SCREENED = 0 THEN DO:

SYSTOL = DE17077;
IF DE17079 <= 90 THEN SYSTOL = DE17079;

END;
VARIABLE SYSTOLX

Systolic blood pressure measurement at exit

CODES

. = Missing DE17077 and DE17079
D = No screening exam
Range of values = 72 to 232 mm Hg

SYSTOLX represents the result of the systolic blood pressure measurements (sitting) that were performed as part of the exit screening exam.

If the systolic blood pressure was greater than or equal to 140, or the diastolic blood pressure was greater than or equal to 90, a second measurement was made and the second measurement was used.

NOTE: This variable uses out-of-area exam data; DE17079 was not on the out-of-area file.

INPUT VARIABLES

DE17077 (Screening exam) First systolic blood pressure reading - sitting
DE17079 (Screening exam) Retest systolic blood pressure reading - sitting
SCREENDX Screening exam indicator at exit

CONSTRUCTION

IF SCREENDX = . THEN SYSTOLX = D;
IF SCREENDX \= .
THEN DO;
SYSTOLX = DE17077;
if DE17079 \= . THEN SYSTOLX = DE17079;
END;
VARIABLE DIASTOL AMEDIS HYPERTENSION

Diastolic blood pressure measurement at enrollment

CODES

- Missing DE17080 and DE17082
- D = No screening exam

Range of values - 1 to 134 mm Hg

DIASTOL represents the result of the diastolic blood pressure measurements (sitting) that were performed as part of the enrollment screening exam.

If the systolic blood pressure was greater than or equal to 140, or the diastolic blood pressure was greater than or equal to 90, a second measurement was made and the second measurement was used.

INPUT VARIABLES

DE17080 (Screening exam) First diastolic blood pressure reading - sitting
DE17082 (Screening exam) Retest diastolic blood pressure reading - sitting
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

IF SCREENED = . THEN DIASTOL = D;
IF SCREENED \= .
    THEN DO;
        DIASTOL = DE17080;
        IF DE17082 \= . THEN DIASTOL = DE17082;
END;
VARIABLE DIASTOLX
AMEDYS
HYPERTENSION

Diastolic blood pressure measurement at exit

CODES:
. - Missing DE17080 and DE17082
D - No screening exam
Range of values = 40 to 136 mm Hg

DIASTOLX represents the result of the diastolic blood pressure measurements (sitting) that were performed as part of the exit screening exam.

If the systolic blood pressure was greater than or equal to 140, or the diastolic blood pressure was greater than or equal to 90, a second measurement was made and the second measurement was used.

NOTE: This variable uses out-of-area exam data; DE17082 was not on the out-of-area file.

INPUT VARIABLES
DE17080 (Screening exam) first diastolic blood pressure reading - sitting
DE17082 (Screening exam) retest diastolic blood pressure reading - sitting
SCREENDX Screening exam indicator at exit

CONSTRUCTION:
IF SCREENDX = . THEN DIASTOLX = D;
IF SCREENDX = . THEN DO;
DIASTOLX = DE17080;
IF DE17082 = . THEN DIASTOLX = DE17082;
END;
HYPERTENSION

VARIABLE: HYPERTENSION

Hypertension disease status at enrollment

CODES

- Missing
- No screening exam
- Normal blood pressure (less than 140/90), does not take medications now
- Mildly elevated blood pressure (systolic: 140-159, or diastolic: 90-94), does not take medications, condition not previously mentioned by doctor
- Normal blood pressure, but takes medications
- Mildly elevated blood pressure, takes medications, condition not previously mentioned by doctor
- Mildly elevated blood pressure, takes medications, condition previously mentioned by doctor
- Moderate or severe hypertension (systolic: 160 or higher, or diastolic: 95 or higher), does not take medications
- Moderate or severe hypertension, takes medications

HYPESTAT indicates the severity of hypertension by combining blood pressure readings with responses to NHQ questions about previous doctor diagnosis and use of antihypertensive medications.

NOTE: No respondents were assigned a value of 0.

INPUT VARIABLES

DEI3872  (NHQ): Has a doctor ever said you had high blood pressure?
DEI7016  (Screening exam): Are you now taking pills or medicine for high blood pressure?

SYSTOL  Systolic blood pressure measurement
DIASTOL  Diastolic blood pressure measurement
SCREENED  Screening exam indicator at enrollment

(cont.)
VARIABLE HYPESTAT (cont.)

CONSTRUCTION

IF SCREENED = . THEN HYPESTAT = 0;
IF (0 < SYS < 140) AND (0 < DIA < 90) AND (DE17016 = 2)
THEN HYPESTAT = 1;
IF (0 < SYS < 140) AND (0 < DIA < 90) AND (DE17016 = 1)
THEN HYPESTAT = 2;
IF (Systol >= 140 OR DIASTOL >= 90) AND (SYS < 160 AND DIA < 95) AND (DE13872 = 2) AND (DE17016 = 2)
THEN HYPESTAT = 3;
IF (Systol >= 140 OR DIASTOL >= 90) AND (SYS < 160 AND DIA < 95) AND (DE13872 = 2) AND (DE17016 = 1)
THEN HYPESTAT = 4;
IF (Systol >= 140 OR DIASTOL >= 90) AND (SYS < 160 AND DIA < 95) AND (DE13872 = 1) AND (DE17016 = 2)
THEN HYPESTAT = 5;
IF (Systol >= 150 OR DIASTOL >= 90) AND (SYS < 160 AND DIA < 95) AND (DE13872 = 1) AND (DE17016 = 1)
THEN HYPESTAT = 6;
IF (Systol >= 160 OR DIASTOL >= 95) AND DE17016 = 2
THEN HYPESTAT = 7;
IF (Systol >= 160 OR DIASTOL >= 95) AND DE17016 = 1
THEN HYPESTAT = 8;
### Hypertension Disease Status at Exit

#### CODES

1. **Missing**
2. **No screening exam**
3. **Normal blood pressure (less than 140/90), does not take medications now**
4. **Mildly elevated blood pressure (systolic: 140-159, or diastolic: 95 or higher), does not take medications, condition not previously mentioned by doctor**
5. **Mildly elevated blood pressure, takes medications, condition not previously mentioned by doctor**
6. **Moderate to severe hypertension (systolic: 160 or higher, or diastolic: 95 or higher), does not take medications**
7. **Moderate to severe hypertension, takes medications**

**HYPESTAX** indicates the severity of hypertension by combining blood pressure readings with responses to MOH questions about previous doctor diagnosis and use of antihypertensive medications.

NOTE: No respondents were assigned a value of 4.

### Input Variables

- **DEI3174** (Screening exam) Have you ever been told by a doctor that you had high blood pressure?
- **DEI3872** (MOHQ) Has a doctor ever said that you had high blood pressure?
- **DEI3177** (Screening exam) Are you now taking pills or medicine for high blood pressure?
- **DEI3876** (MOHQ) Are you taking the pills or medicine now?
- **SYSTOLK** Systolic blood pressure measurement
VARIABLE HYPESTAX (cont.)

INPUT VARIABLES (cont.)

DIASTOLX Diastolic blood pressure measurement
NOWDRUGX (Temporary variable): Taking high blood pressure medication at exit
  . = missing
  0 = No
  1 = Yes

DCGSADIX (Temporary variable): Hypertension at exit according to doctor
  . = missing
  0 = No
  1 = Yes

SCREENDX Screening exam indicator at exit

CONSTRUCTION

(Construct DCGSADIX)

DCGSADIX = .;

IF DE13872 = 1 OR (DE13872 = . AND DE13174 = 2)
  THEN DCGSADIX = 1;
ELSE IF DE13872 = 2 OR (DE13872 = . AND DE13174 = 1)
  THEN DCGSADIX = 0;

(Construct NOWDRUGX)

NOWDRUGX = .;

IF DE13876 > 1 OR (DE13872 = 2 OR DE13875 = 2) OR
  (DE13876 = . AND DE13175 = 1)
  THEN NOWDRUGX = 0;
ELSE IF DE13876 = 1 OR (DE13876 = . AND DE13175 = 2)
  THEN NOWDRUGX = 1;

(Construct HYPESTAX)

IF SCREENDX = . THEN HYPESTAX = 0;
IF (0 < SYSTOLX < 140) AND (0 < DIASTOLX < 90) AND
  (NOWDRUGX = 0)
  THEN HYPESTAX = 1;
IF (0 < SYSTOLX < 140) AND (0 < DIASTOLX < 90) AND
  (NOWDRUGX = 1)
  THEN HYPESTAX = 2;
IF (0 < SYSTOLX < 140) AND (0 < DIASTOLX < 90) AND
  (NOWDRUGX = 1)
  THEN HYPESTAX = 3;
VARIABLE HYPERTAX (cont.)

CONSTRUCTION (cont.)

IF ( (SYSTOLX >= 140 OR DIASTOLX >= 90) AND
( (SYSTOLX < 160 AND DIASTOLX < 95) AND
( (DOCSEX = 0) AND (NOWDRUGX = 0) ) ) )
THEN HYPERTAX = 2;
IF ( (SYSTOLX >= 140 OR DIASTOLX >= 90) AND
( (SYSTOLX < 160 AND DIASTOLX < 95) AND
( (DOCSEX = 0) AND (NOWDRUGX = 1) ) ) )
THEN HYPERTAX = 4;
IF ( (SYSTOLX >= 140 OR DIASTOLX >= 90) AND
( (SYSTOLX < 160 AND DIASTOLX < 95) AND
( (DOCSEX = 1) AND (NOWDRUGX = 0) ) ) )
THEN HYPERTAX = 5;
IF ( (SYSTOLX >= 140 OR DIASTOLX >= 90) AND
( (SYSTOLX < 160 AND DIASTOLX < 95) AND
( (DOCSEX = 1) AND (NOWDRUGX = 1) ) ) )
THEN HYPERTAX = 6;
IF ( (SYSTOLX >= 160 OR DIASTOLX >= 90) AND
( (SYSTOLX < 160 AND DIASTOLX < 95) AND
( (DOCSEX = 1) AND (NOWDRUGX = 0) ) ) )
THEN HYPERTAX = 7;
IF ( (SYSTOLX >= 160 OR DIASTOLX >= 90) AND
( (SYSTOLX < 160 AND DIASTOLX < 95) AND
( (DOCSEX = 1) AND (NOWDRUGX = 1) ) ) )
THEN HYPERTAX = 8;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEDIS</td>
<td></td>
</tr>
<tr>
<td>HYPERTAX</td>
<td></td>
</tr>
</tbody>
</table>

Binary hypertensive status at enrollment

CODES

. = Missing
0 = No screening exam
1 = Normotensive (normal)
2 = Hypertensive

HBP is derived from HYPSTAT and defines whether the diagnostic label of hypertensive was supported at the time of the enrollment screening exam.
VARIABLE HBPX (cont.)

INPUT VARIABLES

<table>
<thead>
<tr>
<th>HYPESTAT</th>
<th>Hypertension disease status</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCREENED</td>
<td>Screening exam indicator at enrollment</td>
</tr>
</tbody>
</table>

CONSTRUCTION

(Note: No respondents were assigned a value of HYPESTAT=4 and so it is not included in this code)

IF SCREENED = . THEN HBP = 0;
IF HYPESTAT = 1 OR HYPESTAT = 2
   THEN HBP = 0;
IF HYPESTAT = 3 OR HYPESTAT = 5 OR
   HYPESTAT = 6 OR HYPESTAT = 7 OR HYPESTAT = 8
   THEN HBP = 1;

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>609</td>
<td>.</td>
<td>.</td>
<td>.</td>
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</tr>
<tr>
<td>1</td>
<td>210</td>
<td>4311</td>
<td>85.33</td>
<td>85.33</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>741</td>
<td>5052</td>
<td>14.67</td>
<td>100.00</td>
<td></td>
</tr>
</tbody>
</table>

HBPX is derived from HYPESTAT and indicates whether the diagnostic label of hypertension was supported at the time of the exit screening exam.

VARIABLE HYPESTAT (cont.)

INPUT VARIABLES

<table>
<thead>
<tr>
<th>HYPESTAT</th>
<th>Hypertension disease status</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCREENED</td>
<td>Screening exam indicator at exit</td>
</tr>
</tbody>
</table>

(cont.)
VARIABLE HBPX (cont.)

CONSTRUCTION

[Note: No respondents were assigned a value of HYPESTAT = 4 and so it is not included in this code]

IF SCREENED = 0, THEN HYPESTAT = 0;
IF HYPESTAT = 1 OR HYPESTAT = 2
THEN HBPX = 0;
IF HYPESTAT = 3 OR HYPESTAT = 5 OR
HYPESTAT = 8 OR HYPESTAT = 7 OR HYPESTAT = 8
THEN HBPX = 1;

VARIABLE HYPENCHS

<table>
<thead>
<tr>
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<th>FREQ</th>
<th>%</th>
<th>%</th>
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</thead>
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<tr>
<td>.</td>
<td>689</td>
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<td>.</td>
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<tr>
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<td>89.62</td>
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<td>1</td>
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</tr>
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</table>

Enrollment hypertension status as defined by NCES

CODES

. = Missing
D = No screening exam
0 = Normal or mildly elevated blood pressure (systolic: less than 160, and diastolic less than 95), and not currently taking hypertension medication
1 = Hypertension definitely present (systolic: 160 or higher, or diastolic: 95 or higher), and/or currently taking hypertension medication

HYPENCHS assigns a hypertension status as defined by the National Center for Health Statistics (NCES).

INPUT VARIABLES

HYPESTAT Hypertension disease status
SCREENED Screening exam indicator at enrollment

(cont.)
VARIABLE HYPENSCHS (cont.)

CONSTRUCTION

(Note: No respondents were assigned a value of HYPESTAT=4 and so it is not included in this code)

IF SCREENED = , THEN HYPENSCHS = 0;
IF HYPESTAT = 1 OR HYPESTAT = 2 OR HYPESTAT = 5
THEN HYPENSCHS = 0;
IF HYPESTAT = 3 OR HYPESTAT = 6 OR
HYPESTAT = 7 OR HYPESTAT = 8
THEN HYPENSCHS = 1;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HYPENSCHS</th>
<th>AMPERIS HYPERTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exit hypertension status as defined by NHHS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CODES

- . = Missing
- 0 = No screening exam
- 0 = Normal or mildly elevated blood pressure (systolic: less than 160, and diastolic less than 95), and not currently taking hypertension medication
- 1 = Hypertension definitely present (systolic: 160 or higher, or diastolic: 95 or higher), and/or currently taking hypertension medication

HYPENSCHS assigns a hypertension status as defined by the National Center for Health Statistics (NHHS)

INPUT VARIABLES

HYPESTAT: Hypertension disease status
SCREENOX: Screening exam indicator at exit

(cont.)
CONSTRUCTION

NOTE: No respondents were assigned a value of HYPESTAX=4 and so it is not included in this code.

IF SCREENX = 1, THEN HYPESTAX = 0;
IF HYPESTAX = 1 OR HYPESTAX = 2 OR HYPESTAX = 5
THEN HYPCHS = 0;
IF HYPESTAX = 3 OR HYPESTAX = 6 OR
HYPESTAX = 7 OR HYPESTAX = 8
THEN HYPCHS = 1;

VARIABLE HYPEMHO

ANEDIS

HYPERTENSION

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM FREQ</th>
<th>%</th>
<th>CUM %</th>
</tr>
</thead>
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<tr>
<td>.</td>
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<td>457</td>
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<td>100</td>
</tr>
<tr>
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<td>4454</td>
<td>4454</td>
<td>86.92</td>
<td>86.92</td>
</tr>
<tr>
<td>2</td>
<td>185</td>
<td>4639</td>
<td>3.97</td>
<td>89.89</td>
</tr>
<tr>
<td>3</td>
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<td>4</td>
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<td>4.86</td>
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</tr>
</tbody>
</table>

VARIABLE HYPEMHO

Enrollment hypertension evaluation from NHQ

CODES

1. - Missing
2. - Never been told by doctor that he has high blood pressure
3. - Doctor has said respondent is hypertensive, or has prescribed medications in the past
4. - Respondent is currently taking prescribed antihypertension medications

HYPEMHO indicates doctor's previous evaluation of hypertension, and current use of prescribed antihypertensive medication.

INPUT VARIABLES

DE13572 (Dayton - NHQ; NoDayton - NHQR) Did a doctor ever say that you had high blood pressure?
DE13574 (Dayton - NHQ; NoDayton - NHQR) Did the doctor say that you had high blood pressure, or did he say that just one time? (cont.)
VARIABLE HYPMHOX (cont.)

INPUT VARIABLES (cont.)

DE13875 [Dayton - MHQA; NonDayton - MHQB] Has a doctor prescribed pills or medicine for your high blood pressure?
DE13876 [Dayton - MHQA; NonDayton - MHQB] Are you taking the pills or medicine now?
MHQA = MHQA indicator at enrollment
MHQB = MHQB indicator at enrollment

CONSTRUCTION

IF (DE13870 > 0) THEN HYPMHOX = 3 - DE13870;
IF (DE13870 = 1 OR DE13875 = 1) THEN HYPMHOX = 3;
IF (DE13876 = 1) THEN HYPMHOX = 4;
IF MHQA = . THEN HYPMHOX = 6;
IF MHQB = . THEN HYPMHOX = 6;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HYPMHOX</th>
<th>AMEDIS</th>
<th>HYPERTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exit hypertension evaluation from MHQ</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CODES

- Missing
- 1 - Never been told by doctor that he has high blood pressure
- 2 - Doctor has said respondent is hypertensive
- 3 - Doctor has said more than once that respondent is hypertensive, and has prescribed medications in the past
- 4 - Respondent is currently taking prescribed antihypertension medications

HYPMHOX indicates doctor's previous evaluation of hypertension, and current use of prescribed antihypertensive medication.

(No additional content provided in the image)
VARIABLE HYPESQ (cont.)

INPUT VARIABLES

DE13872 (MHQB) Has a doctor ever said that you had high blood pressure?
DE13874 (MHQB) Did the doctor say more than one time that you had high blood pressure, or did he say that just one time?
DE13875 (MHQB) Has a doctor ever prescribed pills or medicine for your high blood pressure?
DE13876 (MHQB) Are you taking the pills or medicine now?

CONSTRUCTION

IF (DE13872 > 0) THEN HYPESQ = 3 - DE13872;
IF (DE13874 = 1 ON DE13875 = 1) THEN HYPESQ = 3;
IF (DE13876 = 1) THEN HYPESQ = 4;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HYPESQ</th>
<th>AMEDS</th>
<th>HYPERTENSION</th>
</tr>
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<tbody>
<tr>
<td>USE OF MEDICATION AT ENROLLMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>. - Missing, includes those without hypertension</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - Respondent has hypertension and a currently elevated blood pressure, but does not take medication for hypertension</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Respondent has hypertension and takes medication for high blood pressure; current blood pressure may be normal or elevated</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HYPESQ indicates whether hypertensive respondent takes antihypertensive medications.

INPUT VARIABLES

HYPESTAT Hypertension disease status

(cont.)
VARIABLE HYPERMED (cont.)

CONSTRUCTION

[Note: No respondents were assigned a value of HYPESTAT=4 and so it is not included in this code]

IF HYPESTAT = 3 OR HYPESTAT = 6 OR HYPESTAT = 8
    THEN HYPERMED = 1;
IF HYPESTAT = 5 OR HYPESTAT = 7
    THEN HYPERMED = 0;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HYPERMEDX</th>
<th>AMPLIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>HYPERTENSION</td>
</tr>
<tr>
<td>Use of medications at exit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - Missing, includes those without hypertension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - Respondent has hypertension and takes medication for high blood pressure; current blood pressure may be normal or elevated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYPERMEDX indicates whether hypertensive respondent takes antihypertensive medication.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM</th>
<th>%</th>
<th>CUM</th>
</tr>
</thead>
<tbody>
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<td>371</td>
<td>50.07</td>
<td>50.07</td>
</tr>
<tr>
<td>1</td>
<td>370</td>
<td>741</td>
<td>49.93</td>
<td>100.00</td>
</tr>
</tbody>
</table>

INPUT VARIABLES

HYPESTATX Hypertension disease status

CONSTRUCTION

[Note: No respondents were assigned a value of HYPESTAT=4 and so it is not included in this code]

IF HYPESTATX = 3 OR HYPESTATX = 6 OR HYPESTATX = 8
    THEN HYPERMEDX = 1;
IF HYPESTATX = 5 OR HYPESTATX = 7
    THEN HYPERMEDX = 0;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HYPERIMP</th>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYPERTENSION</td>
<td>HYPERIMP</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>impact of hypertension at enrollment</td>
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<td></td>
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</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>. = Missing, includes those without hypertension</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 = No impact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = Same impact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYPERIMP indicates whether hypertension caused any pain, worry/concern, or activity restrictions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INPUT VARIABLES

DE13881 (Dayton - MIAQ, NonDayton - MIQ) During the past 3 months, how much pain has your high blood pressure caused you?

DE13882 (Dayton - MIAQ, NonDayton - MIQ) During the past 3 months, how much has your high blood pressure worried or concerned you?

DE13883 (Dayton - MIAQ, NonDayton - MIQ) During the past 3 months, how much of the time has your high blood pressure kept you from doing the kinds of things other people your age do?

CONSTRUCTION

IF DE13881 = 4 OR DE13882 = 4 OR DE13883 = 5 THEN HYPERIMP = 0;

IF (1 <= DE13881 <= 3) OR (1 <= DE13882 <= 3) OR (1 <= DE13883 <= 4) THEN HYPERIMP = 1;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HYPEIMPX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of hypertension at exit</td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
</tr>
<tr>
<td>0 - Missing, includes those without hypertension</td>
<td></td>
</tr>
<tr>
<td>1 - No impact</td>
<td></td>
</tr>
<tr>
<td>2 - Some impact</td>
<td></td>
</tr>
<tr>
<td>HYPEIMPX indicates whether hypertension caused any pain, worry/concern, or activity restrictions.</td>
<td></td>
</tr>
</tbody>
</table>

**INPUT VARIABLES**

DE13881 (MH08): During the past 3 months, how much pain has your high blood pressure caused you?
DE13882 (MH09): During the past 3 months, how much has your high blood pressure worried or concerned you?
DE13883 (MH08): During the past 3 months, how much of the time has your high blood pressure kept you from doing the kinds of things other people your age do?

**CONSTRUCTION**

IF 1 <= DE13881 <= 3 OR 1 <= DE13882 <= 3 OR 1 <= DE13883 <= 4 THEN HYPEIMPX = 1;
ELSE IF DE13881 <= 0 AND DE13882 <= 0 AND DE13883 <= 0 THEN HYPEIMPX = 0;
ELSE IF DE13881 = 4 OR DE13882 = 4 OR DE13883 = 5 THEN HYPEIMPX = 0;
### Joint Disorders

#### VARIABLE: JOINNHQ

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>%</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
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<td>93.05</td>
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<tr>
<td>5</td>
<td>5171</td>
<td>6.93</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Intermittent joint disorder status by history alone at enrollment.**

**CODES:**

- M: Missing
- 1: Did not take the MHQ
- 2: Skipped trigger question, DL13725
- 3: Other skip error, cannot classify
- 4: No joint disorder
- 5: Gout
- 6: Acute joint disorder
- 7: Chronic joint disorder, mild
- 8: Chronic joint disorder, moderate

**JOINNHQ** indicates a diagnostic classification of joint conditions based only on responses to the MHQ questions about joint symptoms or signs, or a physician's diagnosis of gout.

### Input Variables

**DE13725** (Dayton - MHQA; NonDayton - MHQB) During the past 12 months, have you had any pain, acheing, swelling or stiffness in your joints? For example, your fingers, hip, knees? Do not count problems due to injury.

**DE13726** (Dayton - MHQA; NonDayton - MHQB) Have you had pain or acheing in any of your joints on most days for as long as a month?

**DE13727** (Dayton - MHQA; NonDayton - MHQB) Have you had swelling of a joint, and pain when it was touched, on most days for as long as a month?

**DE13728** (Dayton - MHQA; NonDayton - MHQB) Have you had stiffness in joints and muscles when first getting out of the bed on most mornings for as long as a month?

(cont.)
VARIABLE JOINMHQ (cont.)

INPUT VARIABLES (cont.)

DE13729 (Dayton - MHQA; NonDayton - MHQB) Have you had stiffness in joints or muscles when first getting up or bad, which lasted as long as 15 minutes?

DE13737 (Dayton - MHQA) Has a doctor ever said that you have gout?

DE18996 (NonDayton - MHQB) Has a doctor ever said that you have gout or high uric acid level?

CHRONIC (Temporary variable) indicator of number of symptoms related to joint disorders

SITE Respondent's place of residence at enrollment

MHQA MHQA indicator at enrollment

MHQB MHQB indicator at enrollment

CONSTRUCTION

[Note: This variable is based on the response to the first question (DE13725) regarding joint symptoms. The acute and chronic conditions were constructed by counting the sum of positive responses to pain (DE13726), swelling (DE13728) and stiffness (DE13728 and DE13729) using the temporary variable CHRONIC.]

IF SITE = 1 AND MHQA = .
  THEN JOINMHQ = 0;
ELSE IF SITE \\= 1 AND MHQB = .
  THEN JOINMHQ = 0;
ELSE IF DE13725 = .
  THEN JOINMHQ = 1;
ELSE IF DE13725 = 2
  THEN JOINMHQ = 1;
ELSE IF DE13725 = 3
  THEN JOINMHQ = 1;
ELSE IF DE13725 = 4
  THEN DO;
        IF DE13727 = 1 OR DE13796 = 1
          THEN JOINMHQ = 2;
        ELSE DO;
          CHRONIC = 0;
        IF DE13726 = 1
          THEN CHRONIC = CHRONIC + 1;
        IF DE13727 = 1
          THEN CHRONIC = CHRONIC + 1;
      (cont.)
VARIABLE JOINMHOX (cont.)

CONSTRUCTION (cont.)

IF DE13725 = 1 OR DE13725 = 2
  THEN CHRONIC = CHRONIC + 1;
IF CHRONIC = 0
  THEN JOINMHOX = 3;
ELSE IF CHRONIC = 1
  THEN JOINMHOX = 4;
ELSE IF CHRONIC > 1
  THEN JOINMHOX = 5;
ELSE JOINMHOX = X;
END;

VARAIBLE JOINMHOX

VALUE   FREQ   CUMFREQ  %   CUMCUM

./.     585     .     .     .
0       170     .     .     .
1       3867    3343  75.53  75.53
2       76      463   1.99  77.52
3       313     4625  6.28  83.80
4       427     4692  8.35  92.15
5       430     4733  8.41  100.00

CODES
.
- Missing
0
- No MHOQ
S
- Skipped trigger question, DE13725
X
- Other skip error, cannot classify
1
- No joint disorder
2
- Gout
3
- Acute joint disorder
4
- Chronic joint disorder, mild
5
- Chronic joint disorder, moderate

JOINMHOX indicates a diagnostic classification of joint conditions based only on responses to the MHOQ questions about joint symptoms or signs, or a physician's diagnosis of gout.

INPUT VARIABLES

DE13725 (MHOQ) During the past 12 months, have you had any pain, aching, swelling or stiffness in your joints? For example, your fingers, hip, knee? Do not count problems due to injury.

(cont.)
VARIABLE JOINNHQX (cont.)

INPUT VARIABLES (cont.)

DF13726 (MHQB) Have you had pain or aching in any of your joints on most days for as long as a month?

DF13727 (MHQB) Have you had swelling of a joint, and pain when it was touched, on most days for as long as a month?

DF13728 (MHQB) Have you had stiffness in joints and muscles when first getting out of the bed on most mornings for as long as a month?

DF13729 (MHQB) Have you had stiffness in joints or muscles when first getting out of bed, which lasted as long as 15 minutes?

DF18996 (MHQB) Has a doctor ever said that you have gout or high uric acid level?

CHRONIC (Temporary variable) Indicator of number of symptoms related to joint disorders

MHQBX MHQB indicator at exit

CONSTRUCTION

(Note: This variable is based on the response to the first questions (DF13726) regarding joint symptoms. The acute and chronic conditions were constructed by counting the sum of positive responses to pain (DF13725), swelling (DF13727) and stiffness (DF13728 and DF13729) using the temporary variable CHRONIC.)

IF MHQB = 1 THEN JOINNHQX = 1;
ELSE IF DF13725 = 1 THEN JOINNHQX = 1;
ELSE IF DF13725 = 2 THEN JOINNHQX = 1;
ELSE IF DF13725 = 3 THEN JOINNHQX = 1;
ELSE IF DF13725 = 4 THEN JOINNHQX = 1;
ELSE IF MJ18994 = 1 THEN JOINNHQX = 1;
ELSE JOINNHQX = 0;

CHRONIC = 0;

IF DF13726 = 1 THEN CHRONIC = CHRONIC + 1;

(cont.)
VARIABLE JOINHMQX (cont.)
CONSTRUCTION (cont.)

IF DE13727 = 1
  THEN CHRONIC = CHRONIC + 1;
IF DE13728 = 1 OR DE13729 = 1
  THEN CHRONIC = CHRONIC + 1;
IF CHRONIC = 0
  THEN JOINHMQX = 3;
ELSE IF CHRONIC = 1
  THEN JOINHMQX = 4;
ELSE IF CHRONIC > 1
  THEN JOINHMQX = 5;
ELSE JOINHMQX = X;
END;

VARIABLE COUTMDES                      AMEDIS
                                    JOINT DISORDERS
Currently taking medicine for gout at enrollment
CODES
  . - Missing or does not take medicine for gout
  1 - Takes medicine for gout
COUTMDES designates those people who were taking medicine for gout or high uric acid levels at enrollment.

VARIABLES
DE13738 (Dayton - MHQA) Are you currently taking colchicine, allopurinol (zyloprim), or benemid for your gout or high uric acid level?
DE18997 (NonDayton - MHQA) Are you currently taking any of these medications for your gout or high uric acid level—colchicine, allopurinol, zyloprim, benemid, or colbenemid?

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>5851</td>
<td>20</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>
CONSTRUCTION

IF DE13738 = 1 OR DE18997 = 1
THEN GOUTMED = 1;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>GOUTMEDX</th>
<th>AMEDIS</th>
<th>JOINT DISORDERS</th>
</tr>
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<tr>
<td>VALUE</td>
<td>FREQ</td>
<td>FREQ</td>
<td>%</td>
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<tr>
<td>.</td>
<td>643</td>
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<tr>
<td>B</td>
<td>120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3867</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>1168</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>16</td>
<td>18</td>
<td>100.00</td>
</tr>
</tbody>
</table>

GOUTMEDX designates those people who were taking medicine for gout or high uric acid levels at exit.

INPUT VARIABLES

DE13725 [MHQ7] During the past 12 months, have you had any pain, aching, swelling or stiffness in your joints? For example, your fingers, hip, knee? Do not count problems due to injury.

DE18996 [MHQ8] Has a doctor ever said that you have gout or high uric acid level?

DE18997 [MHQ9] Are you currently taking any of these medications for your gout or high uric acid level--colchicine, allopurinol, zyloric, benmid, or colimonad?

MHQ8X [MRUB indicator at exit]
VARIABLE GOUTMEDX (cont.)

CONSTRUCTION

IF DE18997 = 1
   THEN GOUTMEDX = 1;

(Assign special missings)

IF DE13725 = 2 THEN GOUTMEDX = T;
IF DE13725 = . THEN GOUTMEDX = S;
IF DE18996 = 2 THEN GOUTMEDX = V;
IF DE18996 = . THEN GOUTMEDX = U;
IF MHQBX = . THEN GOUTMEDX = B;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>JNLIMIT</th>
<th>AMEDIS</th>
<th>JOINT DISORDERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility limitation at enrollment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CODES

, = Missing or joint mobility is not limited
1 = Limited joint mobility

JNLIMIT indicates whether there were any limitations of personal mobility at enrollment, measured with five MHQ questions about activities of daily living.

INPUT VARIABLES

DE13730 (Dayton - MHQA; NonDayton - MHQB) Can you walk up and down stairs without help?
DE13731 (Dayton - MHQA; NonDayton - MHQB) Can you get into and out of a car without help?
DE13732 (Dayton - MHQA; NonDayton - MHQB) Can you bathe yourself without help?
DE13733 (Dayton - MHQA; NonDayton - MHQB) Can you feed yourself without help?
DE13734 (Dayton - MHQA; NonDayton - MHQB) Can you get into bed without help?

(continues)
VARIABLE JNLIMIT (cont.)

CONSTRUCTION
IF DE13730 = 2 OR DE13731 = 2 OR
DE13732 = 2 OR DE13733 = 2 OR
DE13734 = 2
THEN JNLIMIT = 1;

VARIABLE JNLIMITX AMEDIS

<table>
<thead>
<tr>
<th>VALUE</th>
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<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>.</td>
<td>1805</td>
<td>.</td>
<td>.</td>
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</tr>
<tr>
<td>B</td>
<td>170</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>S</td>
<td>3867</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>1</td>
<td>26</td>
<td>26</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

JNLIMITX indicates whether there were any limitations of personal mobility at exit, measured with five MHQ questions about activities of daily living.

INPUT VARIABLES

DE13725 (MHQ8) During the past 12 months, have you had any pain, ache, swelling or stiffness in your joints? For example, your fingers, hip, knee? Do not count problems due to injury.
DE13730 (MHQ8) Can you walk up and down stairs without help?
DE13731 (MHQ8) Can you get into and out of a car without help?
DE13732 (MHQ8) Can you bathe yourself without help?
DE13733 (MHQ8) Can you feed yourself without help?
DE13734 (MHQ8) Can you get into bed without help?
MHQ8X MHQ8 indicator at exit

(cont.)
VARIABLE JNLIMITX (cont.)

CONSTRUCTION

IF DE13725 = 2 THEN JNLIMITX = T;
IF DE13725 = 1 THEN JNLIMITX = S;
IF MHQBX = . THEN JNLIMITX = B;
IF DE13730 = 2 OR DE13731 = 2 OR
DE13732 = 2 OR DE13733 = 2 OR
DE13734 = 2
THEN JNLIMITX = 1;

VARIABLE URICACID

Serum Uric Acid (mg/dl) at enrollment

CODES

. - Missing
U - Uric acid test not done
Range of values - 0.4 to 10.4 mg/dl

URICACID represents the results from the uric acid test.
This test was done as part of the enrollment screening exam.

NOTE: The repeat test results were used if the first test was abnormal. The result was divided by 10.

INPUT VARIABLES

DE17462 [Screening exam] Uric acid level measure
DE17463 [Screening exam] Repeat uric acid level measure, done if first level is abnormal
SCREENED. Screening exam indicator at enrollment

CONSTRUCTION

IF SCREENED = 1
THEN DO;

(continues)
VARIABLE URICACID (cont.)

CONSTRUCTION (cont.)

IF DE17482 > 0
THEN URICACID = DE17482/10;
ELSE IF DE17482 > 0
THEN URICACID = DE17482/10;
ELSE IF DE17482 = 0
THEN URICACID = 0;
END;

VARIABLE URICACDX

<table>
<thead>
<tr>
<th>AMEDIS</th>
<th>JOINT DISORDERS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SERUM URIC ACID (mg/dl) AT EXIT</td>
</tr>
</tbody>
</table>

CODES

- missing
- C = not screened
- U = uric acid test not done

Range of Values - 1.0 to 15.8 mg/dl

URICACDX represents the results from the uric acid test. This test was done as part of the exit screening exam.

NOTE: The repeat test results were used if the first test was abnormal. The result was divided by 10.

INPUT VARIABLES

DE17482  (Screening exam) Uric acid level measure
DE17483  (Screening exam) Repeat uric acid level measure, done if first level is abnormal
SCREENDX  Screening exam indicator at exit
VARIABLE URICACDX (cont.)

CONSTRUCTION

IF SCREENDX = 1
THEN DO;
  IF DE17483 > 0
    THEN URICACDX = DE17483/10;
  ELSE IF DE17482 > 0
    THEN URICACDX = DE17482/10;
  ELSE IF DE17482 = .
    THEN URICACDX = 0;
END;

IF SCREENDX = . THEN URICACDX = 0;
### VARIABLE JOINRF

**latex fixation slide test for rheumatoid factor at enrollment**

**CODES**

- Missing
- R = Test not done
- 1 = Positive
- 2 = Negative

JOINRF represents the results from the latex fixation slide test. The test was done as part of the enrollment screening exam.

### INPUT VARIABLES

- **DE17508 (Screening exam) Latex fixation test**
  - 1 = Positive
  - 2 = Negative
  - 3 = Not done
- **SCREENED Screening exam indicator at enrollment**

### CONSTRUCTION

(Repeat rheumatoid factor measurements were done on participants originally tested, but none of the repeated measurements changed from the original result. Therefore the original test was used.)

```plaintext
IF SCREENED=1
  THEN DO;
    IF DE17508 = . OR DE17508 = 3
      THEN JOINRF = R;
  ELSE JOINRF = DE17508;
  END;
```

### TABLE

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
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<th>%</th>
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<tr>
<td>R</td>
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<td>1</td>
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<tr>
<td>2</td>
<td>614</td>
<td>654</td>
<td>93.88</td>
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</table>
VARIABLE JOINRX

AMDIS

JOINT DISORDERS

Latex fixation slide test for rheumatoid factor at exit

CODES

. - Missing
C - Not screened
R - Test not done
1 - Positive
2 - Negative

JOINRX represents the results from the latex fixation slide test. The test was done as part of the exit screening exam.

INPUT VARIABLES

DE13143 (Screening exam) Latex fixation test
1 - Negative
2 - Positive
SCREEN decision Screening exam indicator at exit

CONSTRUCTION

(Repeat rheumatoid factor measurements were done on participants originally tested, but none of the repeated measurements changed from the original result. Therefore the original test was used.)

IF SCREENX = . THEN JOINRX = C;
IF SCREENX = 1
THEN DO;
IF DE13143=0 THEN JOINRX = R;
ELSE JOINRX = DE13143;
END;
IF JOINRX = 1 THEN JOINRX = 2;
ELSE IF JOINRX = 2 THEN JOINRX = 1;
**JOIN SIZE**

<table>
<thead>
<tr>
<th>NUMBER OF OBSERVATIONS</th>
<th>651</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF MISSING</td>
<td>5220</td>
</tr>
<tr>
<td>MEAN</td>
<td>60.85</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>59.90</td>
</tr>
<tr>
<td>MINIMUM VALUE</td>
<td>47.50</td>
</tr>
<tr>
<td>MAXIMUM VALUE</td>
<td>91.50</td>
</tr>
<tr>
<td>STANDARD DEVIATION</td>
<td>6.70</td>
</tr>
<tr>
<td>COEFFICIENT OF VARIATION</td>
<td>11.01</td>
</tr>
<tr>
<td>SKEWNESS</td>
<td>1.14</td>
</tr>
<tr>
<td>KURTOSIS</td>
<td>1.74</td>
</tr>
</tbody>
</table>

**NOTE:** In Dayton, the two worst and the one most normal appearing middle joint (proximal interphalangeal or PIP) on each hand was measured. In NonDayton sites the PIP joint of all ten fingers was measured.

**INPUT VARIABLES**

- DE12713 (NonDayton - Screening exam) Right thumb
- DE12710 (NonDayton - Screening exam) Right index finger
- DE12711 (NonDayton - Screening exam) Right middle finger
- DE12712 (NonDayton - Screening exam) Right ring finger
- DE12713 (NonDayton - Screening exam) Right little finger
- DE12714 (NonDayton - Screening exam) Left thumb
- DE12715 (NonDayton - Screening exam) Left index finger
- DE12716 (NonDayton - Screening exam) Left middle finger
- DE12717 (NonDayton - Screening exam) Left ring finger
- DE12718 (NonDayton - Screening exam) Left little finger
- DE12719 (NonDayton - Screening exam) First measure of worst PIP joint on the right hand
- DE12720 (Dayton - Screening exam) First measure of worst PIP joint on the right hand
- DE12721 (Dayton - Screening exam) Repeat measure of worst PIP joint on the right hand
- DE12723 (Dayton - Screening exam) First measure of 2nd worst PIP joint on the right hand
- DE12724 (Dayton - Screening exam) Repeat measure of 2nd worst PIP joint on the right hand
- DE12726 (Dayton - Screening exam) First measure of worst PIP joint on the left hand
- DE12727 (Dayton - Screening exam) Repeat measure of worst PIP joint on the left hand

(cont.)
VARIABLE JOINSIZE (cont.)

INPUT VARIABLES (cont.)

DC17279 (Dayton - Screening exam) First measure of 2nd worst PIP joint on the left hand
DC17290 (Dayton - Screening exam) Repeat measure of 2nd worst PIP joint on the left hand
DC17282 (Dayton - Screening exam) First measure for most normal PIP joint on right hand
DC17283 (Dayton - Screening exam) Repeat measure for most normal PIP joint on right hand
DC17285 (Dayton - Screening exam) First measure for most normal PIP joint on left hand
DC17286 (Dayton - Screening exam) Repeat measure for most normal PIP joint on left hand

CONSTRUCTION

(Note: The items were summed and averaged for Dayton and the NonDayton sites as described below.)

(Dayton)

JOINSIZE = DC17279 + DC17271 + DC17273 +
DC17274 + DC17276 + DC17277 +
DC17279 + DC17280 + DC17282 +
DC17283 + DC17285 + DC17286;
IF JOINSIZE > 0
  THEN JOINSIZE = ROUND((JOINSIZE/12),.1);

(NonDayton)

JOINSIZE = DC12713 + DC12770 + DC12771 +
DC12772 + DC12773 + DC12774 +
DC12775 + DC12776 + DC12777 +
DC12778 + DC12779;
IF JOINSIZE > 0
  THEN JOINSIZE = ROUND((JOINSIZE/11),.1);
IF JOINSIZE = 0, THEN JOINSIZE = J;
VARIABLE JOINSIZX

Average joint size at exit

CODES
- 0 = Missing
- 1 = Not screened
- 2 = Joint size measure not done

Range of values = 44.3 to 76.1 mm

JOINSIZX represents the average joint size for each participant.

INPUT VARIABLES

DE12713 (Screening exam) Right thumb
DE12770 (Screening exam) Right index finger
DE12771 (Screening exam) Right middle finger
DE12772 (Screening exam) Right ring finger
DE12773 (Screening exam) Right little finger
DE12774 (Screening exam) Left thumb
DE12775 (Screening exam) Left index finger
DE12776 (Screening exam) Left middle finger
DE12777 (Screening exam) Left ring finger
DE12778 (Screening exam) Left little finger
SCREEND Screen exam indicator at exit

CONSTRUCTION

(Note: The items were summed and averaged as described below.)

JOINSIZX = DE12713 + DE12770 + DE12771 +
DE12772 + DE12773 + DE12774 +
DE12775 + DE12776 + DE12777 +
DE12778 + DE12779;

IF JOINSIZX > 0,
THEN JOINSIZX = ROUND((JOINSIZX/11),.01);

IF JOINSIZX = 0, THEN JOINSIZX = .;

IF SCREEND = 0, THEN JOINSIZX = 0;
VARIABLE JOWNWK

Number of seconds required to walk 50 feet at enrollment

CODES

. = Missing
Range of values = 2.0 to 99.9 seconds

JOINWALK indicates the number of seconds it took to walk 50 feet. If the person needed a cane or another person's assistance to walk, the person was tested with such assistance.

INPUT VARIABLES

DE17298 (Screening exam) Time in tenths of a second, for 50 foot walk
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

IF SCREENED = 1
THEN DO;

IF DE17298 > 0
THEN JOINWALK = DE17298 / 10;

END;

JOINWALK

NUMBER OF OBSERVATIONS 654
NUMBER OF MISSING 217
MEAN 8.79
MEDIAN 8.40
MINIMUM VALUE 2.00
MAXIMUM VALUE 99.90
STANDARD DEVIATION 3.95
COEFFICIENT OF VARIATION 44.87
SKEWNESS 19.60
KURTOSIS 436.45
VARIABLE JOINWLXX

JOINWLXX indicates the number of seconds it took to walk 50 feet at exit. If the person needed a cane or another person's assistance to walk, the person was tested with such assistance.

CODES
.
= Missing

Range of values = 0.0 to 99.9 seconds

José's mean walking time was 4.58 seconds with a standard deviation of 4.95.

INPUT VARIABLES

DE17288 (Screening exam) Time in tenths of a second, for 50 foot walk
SCREENX Screening exam indicator at exit

CONSTRUCTION

IF SCREENX = 1
THEN DO;

IF DE17288 > 0
THEN JOINWLXX = DE17288 / 10;

END;
VARIABLE JOINGRIP

Grip strength at enrollment

CODES

- Missing
Range of values = 80 to 250 mm Hg

JOINGRIP measures the best grip strength of the weaker hand based on three trials. The maximum possible value was 250 mm Hg.

INPUT VARIABLES

DE17262 (Screening exam) Grip strength right hand 1st try
DE17263 (Screening exam) Grip strength left hand 1st try
DE17264 (Screening exam) Grip strength right hand 2nd try
DE17265 (Screening exam) Grip strength left hand 2nd try
DE17266 (Screening exam) Grip strength right hand 3rd try
DE17267 (Screening exam) Grip strength left hand 3rd try
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

[Construct JOINGRIP]

IF SCREENED = 1
THEN DO:

JOINGRIP = MIN(MAX(DE17263,DE17265,DE17267),
MAX(DE17262,DE17264,DE17266));

END;
VARIABLE JOINGRP

JOINT DISORDERS

Grip strength at exit

CODES

. - Missing
C - Not screened
R - Grip test was not done

Range of values - 60 to 250 mm Hg

JOINGRP measures the best grip strength of the weaker hand based on three tries. The maximum possible value was 250 mm Hg.

INPUT VARIABLES

DE17262 (Screening exam) Grip strength right hand 1st try
DE17263 (Screening exam) Grip strength left hand 1st try
DE17264 (Screening exam) Grip strength right hand 2nd try
DE17265 (Screening exam) Grip strength left hand 2nd try
DE17266 (Screening exam) Grip strength right hand 3rd try
DE17267 (Screening exam) Grip strength left hand 3rd try
SCREENDX Screening exam indicator at exit

CONSTRUCTION

[Construct JOINGRP]

IF SCREENDX = 1
THEN DO;

JOINGRP = MIN(MIN(DE17262,DE17263,DE17267),
MIN(DE17264,DE17265,DE17266));

END;

IF JOINGRP = ,
THEN JOINGRP = R;

IF SCREENDX = , THEN JOINGRP = C;
**JOINT DISORDERS**

**VARIABLE** JOINTIMP

**AMEDIS**

**JOINT DISORDERS**

Impact of joint disorders at enrollment

**CODES**

- 0: Missing, includes those without a joint disorder
- 1: No impact
- 2: Some impact

JOINTIMP indicates whether joint disorders caused pain, worry/concern, activity restrictions, or days in bed.

**INPUT VARIABLES**

- DE13739: During the past 3 months, how much pain has the trouble with your joints caused you?
- DE13740: During the past 3 months, how much has the trouble with your joints worried or concerned you?
- DE13741: During the past 3 months, how often has the trouble with your joints kept you from doing the kinds of activities other people your age do?
- DE13742: During the past 30 days, how many days has the trouble with your joints kept you in bed all or most of the day?
- DE18999: During the past 3 months, how much pain has the trouble with your joints caused you?
- DE19000: During the past 3 months, how much has the trouble with your joints or muscles worried or concerned you?
- DE19001: During the past 3 months, how much of the time has the trouble with your joints or muscles kept you from doing the kinds of things other people your age do?
- DE19002: During the past 30 days, how many days has the trouble with your joints or muscles kept you in bed all or most of the day?

**PAIN** (Temporary variable) Pain during past 3 months

**WORRY** (Temporary variable) Worry during past 3 months

**ACTIVITY** (Temporary variable) Activity restriction during past 3 months

**BEDDAYS** (Temporary variable) Days in bed in past 30 days (cont.)
VARIABLE JOINIMP (cont.)

CONSTRUCTION
{Construct PAIN, WORRY, ACTIVITY and BEDDAYS}
(Dayton)

    PAIN = DE13739;
    WORRY = DE13740;
    ACTIVITY = DE13741;
    BEDDAYS = DE13742;

(NonDayton)

    PAIN = DE16997;
    WORRY = DE19000;
    ACTIVITY = DE19001;
    BEDDAYS = DE19002;

{Construct JOINIMP}

    IF 1 <= PAIN <= 3 OR 1 <= WORRY <= 3 OR
    1 <= ACTIVITY <= 4 OR BEDDAYS > 0
    THEN JOINIMP = 1;
    ELSE IF PAIN = , AND WORRY = , AND
    ACTIVITY = , AND BEDDAYS = ,
    THEN JOINIMP = .;
    ELSE JOINIMP = 0;
**JOINTMPX** indicates whether joint disorders caused pain, worry/concern, activity restrictions, or days in bed.

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>170</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>3867</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>63</td>
<td>63</td>
<td>5.06</td>
<td>5.06</td>
</tr>
<tr>
<td>1</td>
<td>1182</td>
<td>1245</td>
<td>94.94</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**VALUES**

- **B** - No pain
- **S** - Missing
- **D** - Missed trigger question, DE13725
- **T** - No joint disorders, skipped out of battery
- **1** - No impact
- **0** - Some impact

**VARIABLES**

- **DE13725** (MIQ8) During the past 12 months, have you had any pain, aching, swelling, or stiffness in your joints? For example, your fingers, hip, knee. Do not count problems due to injury.
- **DE18999** (MIQ8) During the past 3 months, how much pain has the trouble with your joints or muscles caused you?
- **DE19000** (MIQ8) During the past 3 months, how much has the trouble with your joints or muscles worried or concerned you?
- **DE19001** (MIQ8) During the past 3 months, how much of the time has the trouble with your joints or muscles kept you from doing the kinds of things other people your age do?
- **DE19002** (MIQ8) During the past 30 days, how many days has the trouble with your joints or muscles kept you in bed all day or most of the day?
- **PAIN** (Temporary variable) Pain during past 3 months
- **WORRY** (Temporary variable) Worry during past 3 months
- **ACTIVITY** (Temporary variable) Activity restriction during past 3 months
- **BLHDAYS** (Temporary variable) Days in bed in past 30 days
- **MIQ8X** MIQ8 indicator at exit

(cont.)
VARIABLE JOINIMPX (cont.)

CONSTRUCTION

{Construct PAIN, WORRY, ACTIVITY and BEDDAYS}

PAIN = DE19009;
WORRY = DE19000;
ACTIVITY = DE19001;
BEDDAYS = DE19002;

{Construct JOINIMPX}

IF 1 <= PAIN <= 3 OR 1 <= WORRY <= 3 OR
   1 <= ACTIVITY <= 4 OR BEDDAYS > 0
   THEN JOINIMPX = 1;
ELSE IF PAIN = . AND WORRY = . AND
   ACTIVITY = . AND BEDDAYS = .
   THEN JOINIMPX = .;
ELSE JOINIMPX = 0;

{Assign special missings}

IF MHQX = . THEN JOINIMPX = B;
IF DE13725 = . THEN JOINIMPX = S;
IF DE13725 = 2 THEN JOINIMPX = T;
# Kidney Problems/Urinary Tract Infections (UTI)

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>KIDNBUN</th>
<th>AMEDIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>KIDNEY PROBLEMS/UTI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blood urea nitrogen (BUN) measure at enrollment</td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td>- Missing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Range of Values - 4 to 50 mg/dl</td>
<td></td>
</tr>
</tbody>
</table>

KIDNBUN indicates the result of the BUN test. If results of the test were abnormal, the test was repeated and the result of the repeat test was used.

## Input Variables:

- DE12785 [Screening exam] First BUN measure
- DE12786 [Screening exam] Repeat BUN measure, if result was abnormal

- SITE Participant's place of residence at enrollment

## Construction

(Note: Dayton BUNs were recorded to the tenth decimal place; the following code adjusts Dayton values to make them comparable to all non-Dayton sites).

```plaintext
IF SITE = 1
THEN DU;

DE12785 = DE12785/10;
DE12786 = DE12786/10;
END;
```

(Construct KIDNBUN)

```plaintext
KIDNBUN = DE12785;
IF DE12786 <= . THEN KIDNBUN = DE12786;
```
BLOOD UREA NITROGEN (BUN) measure at exit

CODES

C = Missing
C = No screening exam
Range of Values = 3 to 80 mg/dl

KIDNEX indicates the result of the BUN test. If results of the test were abnormal, the test was repeated and the result of the repeat test was used.

INPUT VARIABLES

DE12785 [Screening exam] First BUN measure
DE12786 [Screening exam] Repeat BUN measure, if result was abnormal
SCREENEX Screening exam indicator at exit

CONSTRUCTION

KIDNEX = DE12785;
IF DE12786 <= 5 THEN KIDNEX = DE12786;
IF SCREENEX = . THEN KIDNEX = C;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VALUE</th>
<th>FREQ</th>
<th>PCT</th>
<th>CUM</th>
<th>CUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIDN_UC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urine culture result at enrollment</td>
<td>1</td>
<td>2994</td>
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<td>0.94</td>
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<td></td>
</tr>
<tr>
<td>. - Missing</td>
<td>3</td>
<td>806</td>
<td>26.02</td>
<td>32.22</td>
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</tr>
<tr>
<td>1 - Pathogenic infection</td>
<td>4</td>
<td>611</td>
<td>22.28</td>
<td>54.50</td>
<td></td>
</tr>
<tr>
<td>2 - Nonpathogenic infection</td>
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<td>1309</td>
<td>45.50</td>
<td>100.00</td>
<td></td>
</tr>
</tbody>
</table>

KIDN_UC is derived from the results of the urine culture test performed for females.

INPUT VARIABLES

DE17510 [Screening exam] Urine culture test result
1 - Positive
2 - Negative
3 - Not done

DE17511 [Screening exam] Urine culture test result, number of organisms,
1 - Less than 100,000 organisms
2 - More than 100,000 organisms

DE17512 [Screening exam] Urine culture test result, organism code
10 - Escherichia coli
21 - Enterobacter cloacae
22 - Enterobacter aerogenes
23 - Enterobacter hafniae
24 - Enterobacter agglomerans
30 - Klebsiella pneumoniae
41 - Proteus mirabilis
42 - Proteus vulgaris
43 - Proteus rettgeri
44 - Proteus morganii
51 - Serratia marcescens
52 - Serratia liquifaciens
53 - Serratia rubidaea
61 - Pseudomonas aeruginosa
62 - Nersilia

(cont.)
VARIABLE KIDN_UC (cont.)

INPUT VARIARIFS (cont.)

63 - Mima polymorphans
64 - Other gram-negative
71 - Staphylococcus aureus
72 - Streptococcus faecalis-enterococcus
   (Group B)
73 - Streptococcus pyogenes
74 - Streptococcus (Group B)
75 - Diplococcus pneumoniae
76 - Other gram-positive
81 - Candida albicans
91 - Candida species - not albicans
92 - Staphylococcus epidermidis
93 - Diphtheroids
94 - Streptococcus anhemolyticus
95 - Lactobacillus
96 - Micrococcus
97 - Streptococcus viridans
98 - Other contaminant

DEI7513 (Sorooning exam) Urine culture test result.
organism code
(Same organism codes as DEI7512)

CONSTRUCTION

IF DEI7510 = 2
THEN KIDN_UC = 4;
IF DEI7510 = 3
THEN KIDN_UC = 5;
IF DEI7510 = 1 AND DEI7511 = 1
THEN KIDN_UC = 3;
IF DEI7510 = 1 AND DEI7511 = 2 AND
   (0 < DEI7512 < 89 OR 0 < DEI7513 < 89)
THEN KIDN_UC = 1;
IF DEI7510 = 1 AND DEI7511 = 2 AND NOT
   (0 < DEI7512 < 89 OR 0 < DEI7513 < 89)
THEN KIDN_UC = 2;


<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>KIDN_UCX</th>
<th>AMELIS</th>
<th>KIDNEY PROBLEMS/UTI</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
<td>FREQ</td>
<td>%</td>
</tr>
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<td>0.44</td>
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<td>147</td>
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</tr>
<tr>
<td></td>
<td>2339</td>
<td>2586</td>
<td>93.36</td>
</tr>
</tbody>
</table>

Urine culture result at exit

CGUIC

1 = Missing
2 = Not screened
0 = Growth > 100,000 for out of area people (organism not specified)
1 = Pathogenic infection
2 = Nonpathogenic infection
3 = Growth less than 100,000 (organism not identified by lab)
4 = No growth

KIDN_UCX is derived from the results of the urine culture test performed for females.

INPUT VARIABLES

DE13126 Urine culture - first quantity

0 = Not given
1 = No growth
2 = Less than 10,000/ml
3 = 10,000 - 100,000/ml
4 = Greater than 100,000/ml

DE13127 Urine culture - first species

0 = Species not identified
1 = Proteus mirabilis
2 = Escherichia coli
3 = Gram positive cocci
4 = Staphylococcus epidermidis
5 = Group D streptococcus
6 = Staphylococcus aureus
7 = Klebsiella pneumoniae
8 = Yeast
9 = Gram negative rods
10 = Lactobacillus
DE13128 Urine culture - second quantity

0 = Not given
1 = No growth
2 = Less than 10,000/ml
3 = 10,000 - 100,000/ml
4 = Greater than 100,000/ml

(continues...
VARIABLE KIDN_UCX (cont.)

INPUT VARIABLES (cont.)

DEI129 Urine culture - second species
0 = Species not identified
1 = Proteus mirabilis
2 = Escherichia coli
3 = Gram positive cocci
4 = Staphylococcus epidermidis
5 = Group D streptococcus
6 = Staphylococcus aureus
7 = Klebsiella pneumoniae
8 = Yeast
9 = Gram negative rods
10 = Lactobacilli

DEI130 Urine culture - third quantity
0 = Not given
1 = No growth
2 = Less than 10,000/ml
3 = 10,000 - 100,000/ml
4 = Greater than 100,000/ml

DEI131 Urine culture - third species
0 = Species not identified
1 = Proteus mirabilis
2 = Escherichia coli
3 = Gram positive cocci
4 = Staphylococcus epidermidis
5 = Group D streptococcus
6 = Staphylococcus aureus
7 = Klebsiella pneumoniae
8 = Yeast
9 = Gram negative rods
10 = Lactobacilli

DEI10082 Urine culture - with colony count
1 = No growth to 100,000/ml
2 = Greater than 100,000/ml
9 = Contaminated specimen

DEI2538 Urine culture - with colony count
1 = No growth
2 = Less than 10,000/ml
3 = 10,000 - 49,999/ml
4 = 50,000 - 99,999/ml
5 = 100,000/ml or greater

SITE Participant's place of residence at enrollment

FNTERM Enrollment term

OUTAREA Temporary variable Out of area screening exam indicator
1 = Took out of area screening exam
(cont.)
VARIABLE KIDN_UCX (cont.)

CONSTRUCTION

IF SITE = 2 AND ENRTERM = 3
   THEN DO;
      IF DE13126 = 1 THEN KIDN_UCX = 4;
      ELSE IF 2 <= DE13126 <= 3 THEN KIDN_UCX = 3;
      ELSE IF (DE13126 = 4 AND (1 <= DE13127 <= 3 OR
         5 <= DE13127 <= 7 OR DE13127 = 9)) OR
         (DE13128 = 4 AND (1 <= DE13129 <= 3 OR
         5 <= DE13129 <= 7 OR DE13129 = 9)) OR
         (DE13130 = 4 AND (1 <= DE13131 <= 3 OR
         5 <= DE13131 <= 7 OR DE13131 = 9))
      THEN KIDN_UCX = 1;
      ELSE IF (DE13126 = 4 AND (DE13127 = 4 OR DE13127 = 8 OR
         DE13127 = 10)) OR
         (DE13128 = 4 AND (DE13129 = 4 OR DE13129 = 8 OR
         DE13129 = 10)) OR
         (DE13130 = 4 AND (DE13131 = 4 OR DE13131 = 8 OR
         DE13131 = 10))
      THEN KIDN_UCX = 2;
   END;

IF NOT (SITE = 1 AND ENRTERM = 5)
   THEN DO;
      IF DE130082 = 1 THEN UC = 4;
      ELSE IF DE100082 = 2 AND ((1 <= DE13127 <= 3 OR
         5 <= DE13127 <= 7 OR DE13127 = 9) OR
         (1 <= DE13129 <= 3 OR 5 <= DE13129 <= 7 OR
         DE13129 = 9))
      THEN KIDN_UCX = 1;
      ELSE IF DE100082 = 2 AND ((DE13127 = 4 OR DE13127 = 8 OR
         DE13127 = 10) OR
         (DE13129 = 4 OR DE13129 = 8 OR DE13129 = 10))
      THEN KIDN_UCX = 2;
      ELSE IF DE100082 = 9 THEN KIDN_UCX = 2;
   END;

{cont.}
VARIABLE KIDN_UCX (cont.)
CONSTRUCTION (cont.)
IF OUTAREA = 1
THEN DO;
  IF DE112530 = 1 THEN KIDN_UCX = 4;
  IF 2 <= DE112530 <= 4 THEN KIDN_UCX = 3;
  IF DE112530 = 5 THEN KIDN_UCX = 0;
END;

VARIABLE KIDNPILL

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
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<td>88.83</td>
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<tr>
<td>128</td>
<td>125</td>
<td>1119</td>
<td>11.17</td>
<td>100.00</td>
</tr>
</tbody>
</table>

KIDNPILL indicates whether or not the respondent is currently taking prescribed medication for a bladder or urine infection based on M1Q questions. This variable applies only to females. Males are included as missing.

INPUT VARIABLES
DE14329 (MHUB) Have you ever had a kidney, bladder, or urine infection?
DE15013 (NonDayton - MHUB) Have you ever had a kidney, bladder, or urine infection?
DE14329 (Temporary variable) Combines DE14329 and DE15013
DE14333 (MHUB) Do you currently take any pill or other medicines for kidney, bladder or urine infection, whether or not a doctor prescribed them? (cont.)
VARIABLE KIDNPILL (cont.)

INPUT VARIABLES (cont.)

MHQB     MHB indicator at enrollment
SEX      (Temporary variable) Sex of participant
         1 = Male
         2 = Female

CONSTRUCTION

(Note: DE14329 and DE15013 are recoded to create DE144329.
DE14329 takes on the minimum non-missing value between
DE14329 and DE15013. Yes takes priority over no.)

DE104329 = MIN(DE14329, DE15013);

[Construct KIDNPILL]

IF SEX = 2 AND DE144329 = 1 AND DE14333 = 1
   THEN KIDNPILL = 1;
IF SEX = 2 AND DE144329 = 1 AND (DE14333 = 2 OR DE14333 = 3)
   THEN KIDNPILL = 2;
IF SEX = 2 AND DE144329 = 1 AND DE14333 = .
   THEN KIDNPILL = 128;
IF MHQB = . THEN KIDNPILL = 0;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>KIDNPI LX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AMEDIS</td>
</tr>
<tr>
<td></td>
<td>KIDNEY PROBLEMS/UTI</td>
</tr>
<tr>
<td></td>
<td>Currently taking prescribed medication for bladder or urine infection at exit</td>
</tr>
<tr>
<td>CODES</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Missing</td>
</tr>
<tr>
<td>2</td>
<td>No MHQB</td>
</tr>
<tr>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>128</td>
<td>Status of taking medication unknown, DE14333 missing</td>
</tr>
</tbody>
</table>

KIDNPI LX indicates whether or not the respondent is currently taking prescribed medication for a bladder or urine infection based on MHQB questions. This only applies for females. Males are included as missings.

INPUT VARIABLES

DE14329 [MHQB] Have you ever had a kidney, bladder, or urine infection?
DE15013 [MHQB] Have you ever had a kidney, bladder, or urine infection?
DE14329 (Temporary variable) Combines DE14329 and DE15013
DE14333 [MHQB] Do you currently take any pills or other medicines for kidney, bladder or urine infection, whether or not a doctor prescribed them?
MHQBX [MHQB indicator at exit]
SEX [Temporary variable]
 1 = Male
 2 = Female

CONSTRUCTION

(Note: DE14329 and DE15013 are recoded to create DE14329.
DE14329 takes on the minimum non-missing value between DE14329 and DE15013. Yes takes priority over no.)

DE14329 = MIN(DE14329, DE15013);

(cont.)
VARIABLE KIDNPI LX (cont.)

CONSTRUCTION (cont.)

(Construct KIDNPI LX)

IF SEX = 2 AND DE144320 = 1 AND DE14333 = 1
  THEN KIDNPI LX = 1;
IF SEX = 2 AND DE144320 = 1 AND (DE14333 = 2 OR DE14333 = 3)
  THEN KIDNPI LX = 2;
IF SEX = 2 AND DE144320 = 1 AND DE14333 =
  THEN KIDNPI LX = 2;
IF NHQBX = . THEN KIDNPI LX = 8;
### VARIABLE: KIDSTAT

**KIDNEY PROBLEMS/UTI**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
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<td>100.00</td>
<td></td>
</tr>
</tbody>
</table>

- **CODES:**
  - **Missing**
  - **10** - Females with a history of urinary tract infection and who have a positive culture, presumed to be asymptomatic cases
  - **10.1** - Females who claim to currently have a urinary tract infection, have a positive culture, not taking medications for UTI
  - **11** - Females who have a positive culture, taking prescribed medications for UTI
  - **11.1** - Females who have a negative culture, taking prescribed medications for UTI
  - **12** - Females who are pregnant and have had a kidney, bladder, or urine infection at some time, regardless of urine culture result
  - **12.1** - Females who are pregnant and did not report having had a kidney, bladder, or urine infection at some time, regardless of urine culture result
  - **13** - Females with no history of UTI and negative culture
  - **14** - Females with a history of UTI, negative culture, not taking medications for UTI
  - **19** - Females who were screened but culture was lost, not done or not reported
  - **22** - Females not screened, UTI status unknown
  - **25** - Males not in algorithm for analysis

**KIDSTAT** indicates the kidney, bladder or urine infection status for females based on data from the enrollment MIQ and the dipstick urinalysis, microscopic urinalysis, and urine culture test results.

**INPUT VARIABLES:**

DE14329   (M928)   Have you ever had a kidney, bladder, or urine infection?

DE15013   (M928)   Have you ever had a kidney, bladder, or urine infection?
VARIABLE KIDNSTAT (cont.)

INPUT VARIABLES (cont.)

DEI4329 Combines DEI4329 and DEI5013
DEI4331 (Yes) Do you currently have a kidney, bladder or
urinary infection? For example: cystitis or
pyelonephritis?
DEI4333 (Yes) Do you currently take any pills or other
medicines for kidney, bladder or urinary infection,
whether or not a doctor prescribed them?
DEI7026 (Screening exam) Are you pregnant?
KIDNPILL Currently taking medication for bladder or urine
infection
SEX (temporary variable) Sex of participant
1 - Male
2 - Female
KIDNP (Urine culture test result)
NPCURNAV (Temporary variable) Distinguishes those females
taking no prescription pills or missing this
response from those who have UTI or not, or those
missing this UTI classification.
1 - Females who are taking no prescription pills or
missing this response, but say they currently
have a UTI
2 - Female enrollee says no or missing on
prescription pills and no current UTI
128 - Females in the battery and answered no or
missing to the prescription pills question
and missing on current infection question
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

[Note: DEI4329 and DEI5013 are recoded to create DEI4329.
DEI4329 takes on the minimum non-missing value between
DEI4329 and DEI5013. Yes takes priority over no.]

DEI4329 = MIN(DEI4329, DEI5013);

[Construct NPCURNAV]

IF SEX = 2 AND (KIDNPILL = 2 OR KIDNPILL = 128) AND DEI4331 = 1
THEN NPCURNAV = 1;
IF SEX = 2 AND (KIDNPILL = 2 OR KIDNPILL = 128) AND DEI4331 = 2
THEN NPCURNAV = 2;
IF SEX = 2 AND (KIDNPILL = 2 OR KIDNPILL = 128) AND DEI4331 = .
THEN NPCURNAV = 128;
{cont.}
VARIABLE KIDNSTAT (cont.)

CONSTRUCTION (cont.)

(Construct KIDNSTAT)

IF SEX = 1
   THEN KIDNSTAT = 25;
IF SEX = 2 AND SCREENED = 1
   THEN KIDNSTAT = 22;
IF SEX = 2 AND SCREENED = 1 AND (KIDR_UC = 5 OR KIDN_UC = 1)
   THEN KIDNSTAT = 21;
IF SEX = 2 AND DE17026 = 2 AND KIDN_UC = 1
   THEN KIDNSTAT = 14;
IF SEX = 2 AND DE17026 = 2 AND 1 < KIDN_UC < 5
   THEN KIDNSTAT = 13;
IF KIDNPILL = 1 AND KIDN_UC = 1
   THEN KIDNSTAT = 11;
IF KIDNPILL = 1 AND 1 < KIDN_UC < 5
   THEN KIDNSTAT = 11.1;
IF NP2CURHAV = 1 AND KIDN_UC = 1
   THEN KIDNSTAT = 10.1;
IF NP2CURHAV = 1 AND 1 < KIDN_UC < 5
   THEN KIDNSTAT = 15;
IF (NP2CURHAV = 2 OR NP2CURHAV = 128) AND KIDN_UC = 1
   THEN KIDNSTAT = 10;
IF (NP2CURHAV = 2 OR NP2CURHAV = 128) AND 1 < KIDN_UC < 5
   THEN KIDNSTAT = 19;
IF SEX = 2 AND DE17026 = 1 AND DE17329 = 1 AND
   (KIDNSTAT = 14 OR KIDNSTAT = 11 OR KIDNSTAT = 11.1 OR KIDNSTAT = 10.1 OR KIDNSTAT = 10)
   THEN KIDNSTAT = 12;
IF SEX = 2 AND DE17026 = 1 AND
   (DE17329 = 2 OR DE17329 = 1)
   THEN KIDNSTAT = 14 OR KIDNSTAT = 11 OR KIDNSTAT = 10.1 OR KIDNSTAT = 10;
   THEN KIDNSTAT = 12.1;

(Construct KIDNSTAT for Replacement PEGs)

(Note: No screening exam data for this group, therefore, status assigned either '25' or '22' or 'missing'.)

IF SEX = 1
   THEN KIDNSTAT = 25;
IF SEX = 0 AND SCREENED = 1
   THEN KIDNSTAT = 22;
### Urinary Tract Infection Status at Exit

**CODES:**
- Missing
- Females with history of urinary tract infection and who have a positive culture, presumed to be asymptomatic cases
- Females who claim to currently have a urinary tract infection, have a positive culture, not taking medications for UTI
- Females who have a positive culture, taking prescribed medications for UTI
- Females who are pregnant and have had a kidney, bladder, or urine infection at some time, regardless of urine culture result
- Females who are pregnant and did not report having had a kidney, bladder, or urine infection at some time, regardless of urine culture result
- Females with no history of UTI and negative culture
- Females with no history of UTI and positive culture
- Females with a history of UTI, negative culture, not taking medications for UTI
- Females who were screened but culture was lost, not done or not reported
- Females not screened, UTI status unknown
- Males not in algorithm for analysis

**KIDNXTAX** indicates the kidney, bladder or urine infection status for females based on data from the exit MBO and the dipstick urinalysis, microscopic urinalysis, and urine culture test results.

<table>
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<tr>
<th>VARIABLE</th>
<th>KIDNXTAX</th>
<th>AMEDIS</th>
<th>KIDNEY PROBLEMS/UTI</th>
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**INPUT VARIABLES**

DE13388 (Screening exam) Are you pregnant or suspect you may be pregnant?
- 1 - No
- 2 - Yes
(Cont.)
VARIABLE KIDNSTAX (cont.)

INPUT VARIABLES (cont.)

DE14329 (MHQ8) Have you ever had a kidney, bladder, or urinary infection?
DE15013 (MHQ8) Have you ever had a kidney, bladder, or urinary infection?
DE1C4329 Combines DE14329 and DE15013
DE14331 (MHQ8) Do you currently have a kidney, bladder or urinary infection? For example: cystitis or pyelonephritis?
DE14333 (MHQ8) Do you currently take any pills or other medicines for kidney, bladder or urinary infection, whether or not a doctor prescribed them?
KIDNPILX Currently taking medication for bladder or urine infection
SEX (Temporary variable) Sex of participant
1 = Male
2 = Female
KIDR_UCX Urine culture test results
NPCURHAV (Temporary variable) Distinguishes those females taking no prescription pills or missing this response from those who have UI or not, or those missing this UI classification.
1 = Females who are taking no prescription pills or missing this response, but say they currently have a UTI
2 = Female answers no or missing on prescription pills and no current UTI.
126 = Females in the battery and answered no or missing to the prescription pills question and missing on current infection question
SOFRENEX Screening exam indicator at exit

CONSTRUCTION

(Note: DE14329 and DE15013 are recoded to create DE1C4329.
DE1C4329 takes on the minimum non-missing value between DE14329 and DE15013. Yes takes priority over no.)

DE1C4329 = MIN(DE14329, DE15013);

{Construct NPCURHAV}

IF SEX = 2 AND (KIDNPILX = 2 OR KIDNPILX = 126) AND DE14331 = 1
THEN NPCURHAV = 1;
IF SEX = 2 AND (KIDNPILX = 2 OR KIDNPILX = 126) AND DE14331 = 2
THEN NPCURHAV = 2;
IF SEX = 2 AND (KIDNPILX = 2 OR KIDNPILX = 126) AND DE14331 = .
THEN NPCURHAV = 126;

(cont.)
VARIABLE KIDNSTAX (cont.)

CONSTRUCTION (cont.)

{Construct KIDNSTAX}

IF SEX = 1
    THEN KIDNSTAX = 25;
IF SEX = 2 AND SCREENUX = 1
    THEN KIDNSTAX = 27;
IF SEX = 2 AND SCREENUX = 2 AND SCREENY = 1 AND (KIDN_UCX = 0 OR KIDN_UCX = 6 OR KIDN_UCX = 5 OR KIDN_UCX = 7)
    THEN KIDNSTAX = 21;
IF SEX = 2 AND DEI3188 = 2 AND KIDN_UCX = 1
    THEN KIDNSTAX = 14;
IF SEX = 2 AND DEI3188 = 2 AND 1 < KIDN_UCX < 5
    THEN KIDNSTAX = 13;
IF KIDNPILX = 1 AND KIDN_UCX = 1
    THEN KIDNSTAX = 11;
IF KIDNPILX = 1 AND 1 < KIDN_UCX < 5
    THEN KIDNSTAX = 11.1;
IF NPCURHAY = 1 AND KIDN_UCX = 1
    THEN KIDNSTAX = 10.1;
IF NPCURHAY = 1 AND 1 < KIDN_UCX < 5
    THEN KIDNSTAX = 10;
IF NPCURHAY = 2 OR NPCURHAY = 128 AND KIDN_UCX = 1
    THEN KIDNSTAX = 10;
IF NPCURHAY = 2 OR NPCURHAY = 128 AND 1 < KIDN_UCX < 5
    THEN KIDNSTAX = 10;
IFセックス = 2 AND DE3188 = 2 AND DEIC329 = 1 AND
    {KIDNSTAX = 14 OR KIDNSTAX = 11 OR KIDNSTAX = 11.1 OR
    KIDNSTAX = 10.1 OR KIDNSTAX = 10}
    THEN KIDNSTAX = 12;
IF SEX = 2 AND DE3188 = 2 AND
    {DEIC329 = 2 OR DEIC329 = 1 OR DEIC329 = .1 AND
    KIDNSTAX = 14 OR KIDNSTAX = 11 OR KIDNSTAX = 10.1
    OR KIDNSTAX = 10}
    THEN KIDNSTAX = 12.1;
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Binary indicator of urinary tract infection at enrollment

**CODES**

- 0 = Missing
- 1 = No urinary tract infection
- 2 = Yes, urinary tract infection

**KIDNBIN**

KIDNBin is derived from KIDNSTAT to create a binary indicator of the presence (positive culture or under treatment) or absence of a urinary tract infection, based on the NHQ and screening exam. Applies only to females.

**INPUT VARIABLES**

- DEI4329 (NHQ3) Have you ever had a kidney, bladder, or urine infection?
- DEI5013 (NHQ3) Have you ever had a kidney, bladder, or urine infection?
- DF144329 Combines DEI4329 and DEI5013
- KIDNSTAT Urinary tract infection status at enrollment

**CONSTRUCTION**

```plaintext
DEI4329 = MIN(DEI4329, DEI5013);

IF (KIDNSTAT = 10 OR KIDNSTAT = 10.1 OR KIDNSTAT = 11
    OR KIDNSTAT = 11.1 OR KIDNSTAT = 12 OR KIDNSTAT = 12.1
    OR KIDNSTAT = 14) AND DEI4329 = 1
THEN KIDNBIN = 1;

IF (KIDNSTAT = 13 OR KIDNSTAT = 19) AND DEI4329 = 1
THEN KIDNBIN = 0;
```

;
**VARIABLE** KIDNBINX

AMEDIS

KIDNEY PROBLEMS/UTI

**Binary indicator of urinary tract infection at exit**

**VALUES**

- Missing
- 0 - No urinary tract infection
- 1 - Yes, urinary tract infection

KIDNBINX recodes KIDNSTAX to create a binary indicator of the presence [positive culture or under treatment] or absence of a urinary tract infection, based on the MHO and screening exam. Applies only to females.

**INPUT VARIABLES**

DE14329 (MHOB) Have you ever had a kidney, bladder, or urine infection?

DE15013 (MHOB) Have you ever had a kidney, bladder, or urine infection?

DE14329 Combine DE14329 and DE15013

KIDNSTAX Urinary tract infection status at exit

**CONSTRUCTION**

DE14329 = MIN(DE14329,DE15013);

IF [KIDNSTAX = 10 OR KIDNSTAX = 10.1 OR KIDNSTAX = 11
    OR KIDNSTAX = 11.1 OR KIDNSTAX = 12 OR KIDNSTAX = 12.1
    OR KIDNSTAX = 14] AND DE14329 <= 1
    THEN KIDNBINX = 1;

IF [KIDNSTAX = 13 OR KIDNSTAX = 19] AND DE14329 <= 1
    THEN KIDNBINX = 0;
**KIDNIMP**

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**VARIABLE: KIDNIMP**

Impact of kidney, bladder or urine infection at enrollment

**CODES**

- 4 = Missing, includes those not entering battery
- 3 = Replacement PEG = NO MIBS
- 0 = No Impact
- 1 = Some Impact

**KIDNIMP** summarizes the responses from the MIBS as to whether or not a kidney, bladder or urine infection has caused pain, worry, concern, or curtailment of activities during the past 3 months or kept the participant bedridden in the past 30 days.

**INPUT VARIABLES**

- **DE14335** (MIBS) During the past 3 months how much pain has your kidney, bladder, or urine infection caused you?

- **DE14336** (MIBS) During the past 3 months how much has your kidney, bladder, or urine infection worried or concerned you?

- **DE14337** (MIBS) During the past 3 months, how much of the time has your kidney, bladder, or urine infection kept you from doing the kinds of things other people your age do?

- **DE14338** (MIBS) During the past 30 days, how many days has your kidney, bladder, or urine infection kept you in bed all or most of the day?

- **DE1X4335** (Temporary variable) Recodes DE14335

- **DE1X4336** (Temporary variable) Recodes DE14336

- **DE1X4337** (Temporary variable) Recodes DE14337

**MQB** MQB indicator at enrollment

**CONSTRUCTION**

(Construct DE1X4335, DE1X4336, DE1X4337)

(Note: Recodes DE14335, DE14336, and DE14337 so that greatest impact receives the highest score.)
VARIABLE KIDNIMP (cont.)

CONSTRUCTION (cont.)

DEI4335 = 5 - DEI4335;
DEI4336 = 5 - DEI4336;
DEI4337 = 6 - DEI4337;

(Construct KIDNIMP)

IF DEI4335 > 1 OR DEI4336 > 1 OR
DEI4337 > 1 OR DEI4338 > 0
THEN KIDNIMP = 1;
IF DEI4335 = 1 AND DEI4336 = 1 AND
DEI4337 = 1 AND DEI4338 = 0
THEN KIDNIMP = 0;

(For Replacement PLGs only)

IF NHQ8 = . THEN KIDNIMP = 0;

---

VARIABLE KIDNIMPX

ACEDIS

KIDNEY PROBLEMS/UTI

Impact of kidney, bladder or urine infection
at exit

CODES

. - Missing, includes those not entering the battery
8 - No NHQ
0 - No impact
1 - Some impact

KIDNIMPX summarizes the responses from the NHQ as to whether or not a kidney, bladder or urine infection has caused pain, worry, concern, or curtailment of activities during the past 3 months or kept the participant bedridden in the past 30 days.

(cont.)
VARIABLE KIDNIMP (cont.)

INPUT VARIABLES

DE14335  (OHGB) During the past 3 months how much pain has your kidney, bladder, or urine infection caused you?
DE14336  (OHGB) During the past 3 months how much has your kidney, bladder, or urine infection worried or concerned you?
DE14337  (OHGB) During the past 3 months, how much of the time has your kidney, bladder, or urine infection kept you from doing the kinds of things other people your age do?
DE14338  (OHGB) During the past 30 days, how many days has your kidney, bladder, or urine infection kept you in bed all or most of the day?
DE1X4335  (Temporary variable) Recodes DE14335
DE1X4336  (Temporary variable) Recodes DE14336
DE1X4337  (Temporary variable) Recodes DE14337
MHQBX   MHQ indicator at exit

CONSTRUCTION

Construct: DE1XN335, DE1X4336, DE1X4337

(Note: Recodes DE14335, DE14336, and DE14337 so that greatest impact receives the highest score.)

DE1X4335 = 5 - DE14335;
DE1X4336 = 5 - DE14336;
DE1X4337 = 6 - DE14337;

Construct: KIDNIMPX

IF DE1X4335 > 1 OR DE1X4336 > 1 OR DE1X4337 > 1 OR DE14338 > 0
THEN KIDNIMPX = 1;
IF DE1X4335 = 1 AND DE1X4336 = 1 AND
DE1X4337 = 1 AND DE14338 = 0
THEN KIDNIMPX = 0;
IF MHQBX = . THEN KIDNIMPX = B;
PEPTIC ULCER DISEASE

VARIABLE      NEWSTATD AMELDIS ULGCR

Ulcer status classification at enrollment

CODES:

. - Missing
a - HNQB not taken, PFG replacements only
b - MD or X-ray confirmed and reports using antacids daily
20 - MD or X-ray confirmed and meets ONE_B, ONE_B2, or
ONE_C criteria (see input variables below for
definition of ONE_B, ONE_B2, and ONE_C)
30 - MD or X-ray confirmed, trigger yes, does not use
antacids daily and does not meet ONE_B, ONE_B2, or
ONE_C criteria (trigger refers to DE13859, see input
variables below)
40 - MD or X-ray confirmed but said no to trigger
50 - MD or X-ray confirmed but skipped trigger question
60 - Meets ONE_B or ONE_B2 criteria, not confirmed by X-ray
70 - Meets ONE_C criteria, not confirmed by X-ray
80 - Dyspepsia three days in one week
90 - Occasional dyspepsia
100 - Said no to trigger, and no ulcer indicated
110 - Trigger missing

NEWSTATD divides participants into eleven classifications
of ulcer status based on use of antacids, ulcer symptoms,
and reported X-ray confirmation.

INPUT VARIABLES

DE13859: [Dayton - HNQB; NonDayton - HNQB] In the last 3
months, have you ever been troubled with episodes
(attacks) of stomach pain or stomach ache?

(continues)
DE13896 (Dayton - MDA; NonDayton - MOB) In the past 3 months, have you had these pains for as many as 3 days?

DE13890 (Dayton - MDA; NonDayton - MOB) Has a doctor ever said that you had a peptic ulcer, stomach ulcer, or duodenal ulcer (ulcer of the small bowel)?

ONE_A (Temporary variable) Ulcer symptom classification
- Group 1: Confirmation by MD or x-ray
  1 - Has been confirmed by a doctor and an x-ray
  2 - Has not been confirmed that participant has an ulcer
  3 - Don't know, participant did not answer
  4 - Has been confirmed by a doctor that participant has an ulcer but was not confirmed by an x-ray

ONE_B (Temporary variable) Ulcer symptom classification
- Group 2: Episodes of stomach pains, occurring three days a week or more hours after eating, relieved by milk or food
  1 - Yes, have these ulcer symptoms
  2 - No, do not have these ulcer symptoms
  3 - Don't know, skipped one of the necessary questions

ONE_B2 (Temporary variable) Ulcer symptom classification
- Group 3: Episodes of stomach pain occurring three days a week 1/2 or 1 hour after eating, relieved by milk or food
  1 - Yes, have these ulcer symptoms
  2 - No, do not have these ulcer symptoms
  3 - Don't know, skipped one of the necessary questions

ONE_C (Temporary variable) Ulcer symptom classification
- Group 4: Episodes of stomach pain occurring three days a week which awaken participant at night
  1 - Yes, have these ulcer symptoms
  2 - No, do not have these ulcer symptoms
  3 - Don't know, skipped one of the necessary questions

4 - Respondent did not complete ulcer battery
(cont.)

NEWSTADIX divides participants into eleven classifications of ulcer status based on use of antacids, ulcer symptoms, and reported x-ray confirmation.

INPUT VARIABLES

DE13855 (MHQB) In the last 3 months, have you ever been troubled with episodes (attacks) of stomach pain or stomach ache?

DE13866 (MHQB) In the past 3 months, have you had these pains for as many as 3 days?

DE13890 (MHQB) Has a doctor ever said that you had a peptic ulcer, stomach ulcer, or duodenal ulcer (ulcer of the small bowel)?

ONE_A (temporaty variable) Ulcer symptom classification

Group 1: Confirmation by MD or X-ray
1 - has been confirmed by a doctor and an x-ray
2 - has not been confirmed that participant has an ulcer
(cont.)
VARIABLE NEWSTDX (cont.)

INPUT VARIABLES (cont.)

3 - Don't know, participant did not answer
4 - Has been confirmed by a doctor that participant has an ulcer but, was not confirmed by an x-ray

ONE_B (Temporary variable) Ulcer symptom classification
Group 2: Episodes of stomach pains, occurring three days a week 2 or more hours after eating, relieved by milk or food
1 - Yes, have these ulcer symptoms
2 - No, do not have these ulcer symptoms
3 - Don't know, skipped one of the necessary questions
4 - Respondent did not complete ulcer battery

ONE_B2 (Temporary variable) Ulcer symptom classification
Group 3: Episodes of stomach pain occurring three days a week 1/2 or 1 hour after eating, relieved by milk or food
1 - Yes, have these ulcer symptoms
2 - No, do not have these ulcer symptoms
3 - Don't know, skipped one of the necessary questions
4 - Respondent did not complete ulcer battery

ONE_C (Temporary variable) Ulcer symptom classification
Group 4: Episodes of stomach pain occurring three days a week which awaken participant at night
1 - Yes, have these ulcer symptoms
2 - No, do not have these ulcer symptoms
3 - Don't know, skipped one of the necessary questions
4 - Respondent did not complete ulcer battery

ANACDALY (Temporary variable) Takes antacids daily
1 - Yes, participant uses antacids at least once a day
2 - No, participant does not use antacids at least once a day

MHQBX MHQB indicator at exit

CONSTRUCTION

IF MHQBX = 1 THEN NEWSTDX = B;
IF ONE_A = 1 AND ANACDALY = 1
    THEN NEWSTDX = 10;
ELSE IF ONE_A = 1 AND ONE_B = 1
    THEN NEWSTDX = 20;

(continuation)
VARIABLE NEWSTADX (cont.)
CONSTRUCTION (cont.)

ELSE IF ONE_A = 1 AND ONE_B2 = 1
   THEN NEWSTADX = 20;
ELSE IF ONE_A = 1 AND ONE_C = 1
   THEN NEWSTADX = 20;
ELSE IF ONE_A = 1 AND DE13885 = 1
   THEN NEWSTADX = 30;
ELSE IF ONE_A = 1 AND DE13885 = 2
   THEN NEWSTADX = 40;
ELSE IF ONE_A = 1 AND DE13885 = 3
   THEN NEWSTADX = 50;
ELSE IF ONE_B = 1
   THEN NEWSTADX = 60;
ELSE IF ONE_B2 = 1
   THEN NEWSTADX = 60;
ELSE IF ONE_C = 1
   THEN NEWSTADX = 70;
ELSE IF DE13885 = 1 AND DE13886 = 1
   THEN NEWSTADX = 80;
ELSE IF DE13885 = 1
   THEN NEWSTADX = 90;
ELSE IF DE13885 = 2 OR (DE13890 = 2 AND DE13885 = 1)
   THEN NEWSTADX = 100;
ELSE IF DE13885 = 1
   THEN NEWSTADX = 110;
VARIABLE DYSPEPS

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Ulcer status classification at enrollment

DYSPEPS indicates the presence of current dyspepsia, not indicative of ulcer, for the participant, based on NEWSTATD.

INPUT VARIABLES

NEWSTATD Ulcer status classification at enrollment
NHQB NHQB indicator at enrollment

CONSTRUCTION

IF 80 <= NEWSTATD <= 90
THEN DYSPEPS = 1;
ELSE IF NEWSTATD = 110
THEN DYSPEPS = 0;
ELSE DYSPEPS = 0;

{For Replacement PEGs}

IF NHQB <= 7 THEN DYSPEPS = 0;
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Current dyspepsia at exit

CODES

- . = Missing
- B = H2QB not taken
- Q = Not assignable
- 0 = No current dyspepsia
- 1 = Has current dyspepsia

DYSPEPSK indicates the presence of current dyspepsia, not indicative of ulcer, for the participant.

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INPUT VARIABLES

NEWSTADAX  Uler status classification at exit
MMOX  H2QB indicator at exit

CONSTRUCTION

IF 80 <= NEWSTADAX <= 90
THEN DYSPEPSK = 1;
ELSE IF NEWSTADAX = 110
THEN DYSPEPSK = Q;
ELSE DYSPEPSK = 0;
ELSE IF MMOX \leq 1 THEN DYSPEPSK = B;
**VARIABLE** | ULCEMHQ | AMEDIS
---|---|---
**Ulcer status indicator at enrollment**

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**ULCEMHQ** is the disease status indicator for ulcers at enrollment. Participants are assigned to one of nine categories based on their respective combinations of responses to MHQ questions about symptoms, physician diagnosis, and reported x-ray results.

**INPUT VARIABLES**

**DE13885** (Dayton - MHQA; NonDayton - MHQB) In the last 3 months, have you ever been troubled with episodes (attacks) of stomach pain or stomach ache?

**DE13886** (Dayton - MHQA; NonDayton - MHQB) In the past 3 months, have you had these pains for as many as 3 days in one week?

**DE13887** (Dayton - MHQA) How soon do these episodes (attacks) usually come on after eating?

**DE13888** (Dayton - MHQA; NonDayton - MHQB) Are these pains relieved by taking milk or food?

**DE13889** (Dayton - MHQA; NonDayton - MHQB) Have the pains ever awakened you at night? (cont.)
VARIABLE ULCEMHQ (cont.)

INPUT VARIABLES (cont.)

DE13860 [Dayton = MHQA; NonDayton = MHQB] Have you ever been told by a doctor that you had an ulcer in your stomach or duodenum (small bowel)?

DE13861 [Dayton = MHQA; NonDayton = MHQB] Did the doctor confirm this ulcer with an upper G.I. series or钡ium swallow x-ray examination (swallowing white liquid medicine while x-rays are being taken)? (By "confirm" we mean did the doctor say for sure that you had an ulcer?)

DE13862 [Dayton = MHQA] Are you currently taking antacids such as tablets (like Tums) or white liquid medicine (like Maalox or Gelusil) at least once a day?

DE19033 [NonDayton = MHQB] When do these attacks or episodes usually come on?

DE19034 [NonDayton = MHQB] How often do you take antacids such as tablets (like Tums) or white liquid medicine (like Maalox or Gelusil)?

SITE Participant's place of residence at enrollment

MHQB MHQB indicator at enrollment

CONSTRUCTION

IF [DE13860 = 2 OR DE13862 < 0] AND DE13865 = 2
THEN ULCEMHQ = 4;
ELSE IF (DE13860 = 1 AND DE13861 = 2 OR DE13861 = 3 OR DE13861 = 6 OR DE13861 < 0) AND DE13865 = 2
THEN ULCEMHQ = 4;
ELSE IF DE13860 = 1 AND DE13860 = 1 AND DE13865 = 1 AND
{{SITE = 1 AND DE13862 = 1} OR
(SITE = 1 AND DE19034 = 5 OR DE19034 = 6))
THEN ULCEMHQ = 1.1;
ELSE IF DE13865 = 2 AND DE13890 = 1 AND DE13891 = 1
THEN ULCEMHQ = 1.4;
ELSE IF DE13865 = 1 AND DE13866 = 1 AND DE13866 = 1 AND
{{SITE = 1 AND DE13867 = 2 OR DE13867 = 3} OR
(SITE = 1 AND DE19034 = 5 OR DE19034 = 4)}
THEN DO;

(cont.)
VARIABLE ULCERHQ (cont.)

CONSTRUCTION (cont.)

IF \( \{D13890 = 1 \land (D13891 = 2 \lor D13891 = 3 \lor D13891 = 8 \lor D13891 < 0)\} \lor D13891 = 2 \lor D13890 = . \)
THEN ULCERHQ = 2.1;
END;

ELSE IF D13891 = 1 AND D13886 = 1 AND D13888 = 1 AND D13889 = 1 AND \((\{SITE = 1 \land (D13887 = 1 \lor D13887 = 4)\} \lor (\{SITE = 1 \land (D19033 = 1 \lor D19033 = 2 \lor D19033 = 5 \lor D19033 < 0)\}) \lor D13891 < 0 \lor D13891 = 8 \lor D13891 = 3}) \)
THEN ULCERHQ = 2.2;
END;

ELSE IF \( \{D13890 = \_ \lor D13890 = .\} \land D13885 = 1 \land D13886 = 1 \land \{\{SITE = 1 \land (D13887 = 1 \lor D13887 = 4 \lor D13887 < 0)\} \lor (\{SITE = 1 \land (D19033 = 1 \lor D19033 = 2 \lor D19033 = 5 \lor D19033 < 0)\}) \land D13889 = 2 \)
THEN ULCERHQ = 2.1;
ELSE IF D13891 = 1 AND \( (D13891 = 2 \lor D13891 = 3 \lor D13891 < 0 \lor D13891 = 8) \land D13885 = 1 \land D13886 = 1 \land D13888 = 1 \land (\{SITE = 1 \land (D13887 = 1 \lor D13887 = 4 \lor D13887 < 0)\} \lor (\{SITE = 1 \land (D19033 = 1 \lor D19033 = 2 \lor D19033 = 5 \lor D19033 < 0)\}) \land D13889 = 2 \)
THEN ULCERHQ = 2.1;
(cont.)
VARIABLE ULGEMHQ (cont.)

CONSTRUCTION (cont.)

ELSE IF (DE13890 = 2 OR DE13890 < 0) AND
    DE13885 = 1 AND DE13886 = 1 AND
    (DE13888 = 2 OR DE13888 < 0)
    THEN ULGEMHQ = 3.1;

ELSE IF DE13890 = 1 AND
    (DE13891 = 2 OR DE13891 = 3 OR
    DE13891 < 0 OR DE13891 = 8) AND
    DE13885 = 1 AND DE13886 = 1 AND
    (DE13888 = 2 OR DE13888 < 0)
    THEN ULGEMHQ = 3.1;

ELSE IF DE13890 \= 1 AND DE13885 = 1 AND DE13886 = 2
    THEN ULGEMHQ = 3.2;

ELSE IF DE13890 = 1 AND DE13891 \= 1 AND
    DE13885 = 1 AND DE13886 = 2
    THEN ULGEMHQ = 3.2;

    IF DE13890 = 1 AND DE13891 = 1 AND DE13885 = 1 AND
    (SITE = 1 AND DE13882 = 2) OR
    (SITE \= 1 AND 1 \< DE19034 \< 4)
    THEN DO;

        IF DE13886 = 1 AND DE13888 = 1 AND
        ((SITE = 1 AND DE13887 = 1) OR
        (SITE \= 1 AND DE19033 = 3 OR
        DE19033 = 4) OR
        (SITE = 1 AND DE13887 \= 1) OR
        (SITE \= 1 AND DE19033 \= 3 AND
        DE19033 \= 4) AND DE13889 = 1)
        THEN ULGEMHQ = 1.2;
    ELSE ULGEMHQ = 1.3;

END;

{For Replacement PEGs}

IF NHQB = 'x', THEN ULGEMHQ = 0;
VARIABLE: ULCEMHQX

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ULCEMHQX is the disease status indicator for ulcers at exit. Respondents are assigned to one of nine categories based on their respective combinations of responses to MHQ questions about symptoms, physician diagnosis, and reported x-ray results.

INPUT VARIABLES

DE13885 (MHQ8) In the last 3 months, have you ever been troubled with episodes (attacks) of stomach pain or stomach ache?
DE13886 (MHQ8) In the past 3 months, have you had these pain(s) for as many as 3 days in one week?
DE13888 (MHQ8) Are these pains relieved by taking milk or food?
DE13889 (MHQ8) Have the pains ever awakened you at night?
DE13890 (MHQ8) Have you ever been told by a doctor that you had an ulcer in your stomach or duodenum (small bowel)?

(cont.)
VARIABLE ULCEMHMQX (cont.)

INPUT VARIABLES (cont.)

DE13891 (MNGS) Did the doctor confirm this ulcer with an upper G.I. series or barium swallow x-ray examination (swallowing white liquid medicine while x-rays are being taken)? (By "confirm" we mean did the doctor say for sure that you had an ulcer?)

DE19033 (MNGS) When do these attacks or episodes usually come on?

DE1294N (MNGS) How often do you take antacids such as tablets (like Tums) or white liquid medicine (like Maalox or Gelusil)?
VARIAEULCEMHQX (cont.)

CONSTRUCTION (cont.)

\[
\text{IF (DEI3890 = 2 OR DEI3890 = .) OR}
\text{(DEI3890 = 1 AND}
\text{DEI3891 = 2 OR DEI3891 < 0 OR}
\text{DEI3891 = 8 OR DEI3891 = 3))}
\text{THEN ULCEMHQX = 2.2;}
\]

\[
\text{END;}
\]

\[
\text{ELSE IF (DEI3890 = 2 OR DEI3890 = .) AND}
\text{DEI3885 = 1 AND DEI3886 = 1 AND DEI3888 = 1 AND}
\text{(DEI9033 = 1 OR DEI9033 = 2 OR}
\text{DEI9033 = 5 OR DEI9033 < 0) AND DEI3889 = 2}
\text{THEN ULCEMHQX = 3.1;}
\]

\[
\text{ELSE IF DEI3890 = 1 AND}
\text{(DEI3891 = 2 OR DEI3891 = 3 OR}
\text{DEI3891 < 0 OR DEI3891 = 8) AND}
\text{DEI3885 = 1 AND DEI3886 = 1 AND DEI3888 = 1 AND}
\text{(DEI9033 = 1 OR DEI9033 = 2 OR}
\text{DEI9033 = 5 OR DEI9033 < 0) AND DEI3889 = 2}
\text{THEN ULCEMHQX = 3.1;}
\]

\[
\text{ELSE IF (DEI3890 = 2 OR DEI3890 < 0) AND}
\text{(DEI3885 = 1 AND DEI3886 = 1) AND}
\text{(DEI3888 = 2 OR DEI3888 < 0) AND}
\text{DEI3891 = 1 AND}
\text{(DEI3891 = 2 OR DEI3891 = 3 OR}
\text{DEI3891 < 0 OR DEI3891 = 8) AND}
\text{DEI3885 = 1 AND DEI3886 = 1 AND DEI3888 = 1 AND}
\text{(DEI9033 = 1 OR DEI9033 = 2 OR}
\text{DEI9033 = 5 OR DEI9033 < 0) AND DEI3889 = 2}
\text{THEN ULCEMHQX = 3.1;}
\]

\[
\text{ELSE IF DEI3890 \leq 1 AND DEI3885 = 1 AND DEI3886 = 2}
\text{AND DEI3891 = 1 AND DEI3891 < 1 AND}
\text{DEI3885 = 1 AND DEI3886 = 2}
\text{THEN ULCEMHQX = 3.2;}
\]

\[
\text{ELSE IF DEI3890 = 1 AND DEI3891 \leq 1 AND}
\text{DEI3885 = 1 AND DEI3886 = 2}
\text{THEN ULCEMHQX = 3.2;}
\]

\[
\text{IF DEI3890 = 1 AND (DEI3891 = 1 AND}
\text{DEI3885 = 1 AND 1 <= DEI9034 <= 4)
\text{THEN DO;}
\]

{cont.}
VARIABLE ULCEMHQR (cont.)

CONSTRUCTION (cont.)

IF DE13866 = 1 AND DE13868 = 1 AND  
((DE19033 = 3 OR DE19033 = 4) OR  
((DE19033 <= 3 AND DE19033 <= 4) AND  
DE13859 = 1))  
THEN ULCEMHQR = 1.2;  
ELSE ULCEMHQR = 1.3;  
END;

IF MHQBX = . THEN ULCEMHQR = B;

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ULCEMHQR is the collapsed disease status indicator for ulcers based on ULCEMHQ.

INPUT VARIABLES

ULCETEMP [Temporary variable]  
1 - Physician diagnosis of ulcer confirmed by x-ray, currently taking antacids or has current or had ulcer symptoms in the last 3 months  
2 - Stomach ache 3 or more days a week, more than 1/2 hour after eating or severe enough to awaken at night, and relieved by milk or food

DYSPTFMP [Temporary variable]  
1 - Frequent dyspepsia  
2 - Occasional dyspepsia

ULCEMIHQ Ulcer disease status indicator at enrollment
VARIABLE ULCEMHQ (cont.)

CONSTRUCTION

(Construct ULCETEMP)

IF ULCEMHQ = 1.1 OR ULCEMHQ = 1.2 OR ULCEMHQ = 1.3
THEN ULCETEMP = 1;
ELSE IF ULCEMHQ = 2.1 OR ULCEMHQ = 2.2
THEN ULCETEMP = 2;

(Construct DYSPTEMP)

IF ULCEMHQ = 3.1
THEN DYSPTEMP = 1;
ELSE IF ULCEMHQ = 3.2
THEN DYSPTEMP = 2;

(Construct ULCEMHQQ)

IF ULCETEMP = .
THEN ULCEMHQQ = 1;
ELSE IF DYSPTEMP = .
AND ULCEMHQ = 2;
ELSE IF ULCEMHQ = 2.4
THEN ULCEMHQQ = 3;
ELSE IF ULCEMHQ = 4
THEN ULCEMHQQ = 4;
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ULCMHQRX is the collapsed disease status indicator for ulcers based on ULCERHX.

INPUT VARIABLES

ULCETEMP (Temporary variable)
1 - Physician diagnosis of ulcer confirmed by x-ray, currently taking antacids or has current or has had ulcer symptoms in the last 3 months
2 - Stomach ache 1 or more days a week, more than 1/2 hour after eating or severe enough to awaken at night, and relieved by milk or food

DYSPTEMP (Temporary variable)
1 - Frequent dyspepsia
2 - Occasional dyspepsia

ULCMHQRX Ulcer disease status indicator at exit

CONSTRUCTION

(Construct ULCETEMP)

IF ULCEMHQX = 1.1 OR ULCEMHQX = 1.2 OR ULCMHQX = 1.3
THEN ULCETEMP = 1;
ELSE IF ULCEMH = 2.1 OR ULCEMH = 2.2
THEN ULCETEMP = 2;

(Construct DYSPTEMP)

IF ULCEMHQX = 3.1
THEN DYSPTEMP = 1;
ELSE IF ULCEMHQX = 3.2
THEN DYSPTEMP = 2;

(Cont.)
VARIABLE ULCEIMRX (cont.)

CONSTRUCTION (cont.)

{Construct ULCEIMRX}

IF ULCETEMP > .
    THEN ULCEIMRX = 1;
ELSE IF DYSPTEM > .
    THEN ULCEIMRX = 2;
ELSE IF ULCEIMRX = 1.4
    THEN ULCEIMRX = 3;
ELSE IF ULCEIMRX = 4
    THEN ULCEIMRX = 4;

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CODES

.  - Missing, includes those with no ulcer disease or stomach problems
0  - No MGID
1  - Some impact

ULCEIMRX indicates whether stomach problems, or ulcer disease caused any pain, worry/concern, activity restrictions, or days in bed.

INPUT VARIABLES

DE13894  (MQ:8)  During the past 3 months, how much pain has stomach trouble caused you?
DE13895  (MQ:8)  During the past 3 months, how much has stomach trouble worried or concerned you?
VARIABLE ULCEIMP (cont.)

INPUT VARIABLES (cont.)

DEI3896 (MHOB) During the past 3 months, how often has stomach trouble kept you from doing the kinds of activities other people your age do?

DEI3897 (MHOB) During the past 30 days, how many days has stomach trouble kept you in bed all or most of the day?

MHOB MHOB indicator at enrollment

CONSTRUCTION

IF MHOB = . THEN ULCEIMP = 8;
IF DEI3894 = 4 OR DEI3895 = 4 OR DEI3896 = 5 OR DEI3897 = 0
THEN ULCEIMP = 0;
IF 1 <= DEI3894 <= 3 OR 1 <= DEI3895 <= 3 OR 1 <= DEI3896 <= 4 OR DEI3897 > 0
THEN ULCEIMP = 1;

VARIABLE ULCEIMPK

AMEDIS ULCER

Impact of stomach problems or ulcer disease at exit

GOODS

. - Missing, includes those with no ulcer disease or stomach problems
B - No MHOB
0 - No impact
1 - Some Impact

ULCEIMPK indicates whether stomach problems, or ulcer disease caused any pain, worry/concern, activity restrictions, or days in bed.

ULCEIMPK

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(cont.)
VARIABLE ULCEIMPX (cont.)

INPUT VARIABLES

DE13894 (MHOB)  During the past 3 months, how much pain has stomach trouble caused you?
DE13895 (MHOB)  During the past 3 months, how much has stomach trouble worried or concerned you?
DE13896 (MHOB)  During the past 3 months, how often has stomach trouble kept you from doing the kinds of activities other people your age do?
DE13897 (MHOB)  During the past 30 days, how many days has stomach trouble kept you in bed all or most of the day?
MHQBX  MHOB indicator at exit

CONSTRUCTION

IF MHQBX = . THEN ULCEIMPX = 8;
IF DE13894 = 4 OR DE13895 = 4 OR DE13896 = 5 OR DE13897 = 0
   THEN ULCEIMPX = 0;
IF 1 <= DE13894 <= 3 OR 1 <= DE13895 <= 3 OR 1 <= DE13896 <= 4 OR DE13897 > 0
   THEN ULCEIMPX = 1;
### Variable: PILLFREQ

**Description:** Frequency of sleeping pill use at enrollment

**Codes:**
- M - Missing
- D - Not currently using sleeping pills (Dayton)
- # - NHQB not completed (nonDayton)
- V - DE13851 missing (Dayton) or DE19075 missing (nonDayton)
- 1 - Every night
- 2 - A few times a week
- 3 - A few times a month
- 4 - Once a month or less

PILLFREQ indicates the frequency of prescribed sleeping pill use.

### Input Variables

- **DE13851**: (Dayton - NHQB) Are you currently using sleeping pills which are prescribed by a doctor?
- **DE19075**: (NonDayton - NHQB) During the past three months, have you used any sleeping pills prescribed by a doctor?
- **DE19076**: (NonDayton - NHQB) About how often do you take these sleeping pills? (Of those prescribed and used within last 3 months.)

**Construction**

```
IF DE13851 = . THEN PILLFREQ = V;
ELSE IF DE13851 = 1
  THEN PILLFREQ = D;
ELSE IF DE13851 = 2
  THEN PILLFREQ = 4;
```
VARIABLE PILFFREQ (cont.)

CONSTRUCTION (cont.)

ELSE IF DE13351 = 3
    THEN PILFFREQ = 3;
ELSE IF DE13351 = 4
    THEN PILFFREQ = 2;
ELSE IF DE13351 = 5
    THEN PILFFREQ = 1;

{Nondayton}

IF DE19075 = . THEN DE19076 = V;
IF DE19075 = 2 THEN DE19076 = S;
IF MHQ8 = . THEN DE19076 = M;
PILFFREQ = DE19076;

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<tr>
<td>VALUE</td>
<td>FREQ</td>
</tr>
<tr>
<td>.</td>
<td>585</td>
</tr>
<tr>
<td>M</td>
<td>170</td>
</tr>
<tr>
<td>S</td>
<td>4991</td>
</tr>
<tr>
<td>V</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>31</td>
</tr>
<tr>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>31</td>
</tr>
</tbody>
</table>

PILFFREQ indicates the frequency of prescribed sleeping pill use.

INPUT VARIABLES

DE19075 (MHQ8) During the past three months, have you used any sleeping pills prescribed by a doctor? (cont.)
VARIABLE PILFREQX (cont.)

INPUT VARIABLES (cont.)

DE19076 (NHQB) About how often do you take these sleeping pills? (Of those prescribed and used within the last 3 months).

MHQBX NHQB indicator at exit

CONSTRUCTION

IF DE19075 = . THEN DE19076 = V;
IF DE19075 = 2 THEN DE19076 = S;
IF MHQBX = . THEN DE19076 = W;

PILFREQ = DE19076;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>PILUSE</th>
<th>AMEDIS</th>
<th>PILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VALUE</td>
<td>FREQ</td>
<td>CUM</td>
</tr>
<tr>
<td>Level of sleeping pill use at enrollment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- . Missing, includes those with no pill use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - High use (every night)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 - Medium use (a few times a week or month)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 - Low use (once a month or less)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PILUSE recodes PILFREQ into 3 levels of use.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INPUT VARIABLES

PILLFREQ Frequency of sleeping pill use at enrollment

CONSTRUCTION

PILUSE = . ;
IF PILFREQ = 1 THEN PILUSE = 1;
ELSE IF PILFREQ = 2 OR PILFREQ = 3 THEN PILUSE = 2;
ELSE IF PILFREQ = 4 THEN PILUSE = 3;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>PILLUSEX AMEDIS PILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>FREQ</td>
</tr>
<tr>
<td>.</td>
<td>5748</td>
</tr>
<tr>
<td>1</td>
<td>31</td>
</tr>
<tr>
<td>2</td>
<td>61</td>
</tr>
<tr>
<td>3</td>
<td>31</td>
</tr>
</tbody>
</table>

Level of sleeping pill use at exit

**CODES**

- . = Missing, includes those with no pill use
- 1 = High use (every night)
- 2 = Medium use (a few times a week or month)
- 3 = Low use (once a month or less)

PILLUSEX recodes PILLFREQ into 3 levels of use.

**INPUT VARIABLES**

PILLFREQX Frequency of sleeping pill use at exit

**CONSTRUCTION**

```plaintext
 IF PILLFREQX = 1 THEN PILLUSEX = 1;
 ELSE IF PILLFREQX = 2 OR PILLFREQX = 3
      THEN PILLUSEX = 2;
 ELSE IF PILLFREQX = 4
      THEN PILLUSEX = 3;
```
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>PILLIMP</th>
<th>AMEDIS PILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of sleeping pill use at enrollment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CODES
- Missing
- A - Dayton participants
- S - No pill use, skipped out of battery
- 0 - No impact
- 1 - Some impact

PILLIMP indicates whether sleeping pill use caused any worry/concern, activity restrictions, or days in bed.

NOTE: In Dayton, only one impact question was asked; therefore, Dayton respondents are assigned a special missing for this variable.

INPUT VARIABLES

DE13852 (NonDayton - MHOB) During the past 3 months, how much has your use of sleeping pills worried or concerned you?

DE19077 (NonDayton - MHOB) During the past 3 months, how much of the time has your use of sleeping pills kept you from doing the kinds of things other people your age do?

DE19078 (NonDayton - MHOB) During the past 3 months, how many days has your use of sleeping pills kept you in bed all day or most of the day?

CONSTRUCTION

(Dayton)

PILLIMP = A;

(cont.)
**VARIABLE PILLIMP** (cont.)

CONSTRUCTION (cont.)

(NonDayton)

IF (0 < DE13852 < 4) OR (0 < DE19077 < 5) OR (0 < DE19078)
THEN PILLIMP = 1;
ELSE IF (DE13852 = 4 AND DE19077 = 5 AND DE19078 = 0)
THEN PILLIMP = 0;
ELSE PILLIMP = 5;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>PILLIMPX</th>
<th>ANEDIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
<td>FREQ</td>
</tr>
<tr>
<td>.</td>
<td>585</td>
<td>.</td>
</tr>
<tr>
<td>$</td>
<td>5163</td>
<td>.</td>
</tr>
<tr>
<td>0</td>
<td>80</td>
<td>88</td>
</tr>
<tr>
<td>1</td>
<td>35</td>
<td>123</td>
</tr>
</tbody>
</table>

- **Impact of sleeping pill use at exit**

- **CODES**
  - $ - No pill use, skipped out of battery
  - 0 - No impact
  - 1 - Some impact

PILLIMPX indicates whether sleeping pill use caused any worry/concern, activity restrictions, or days in bed.

**INPUT VARIABLES**

DE13852 (MHQ8) During the past 3 months, how much has your use of sleeping pills worried or concerned you?

DE19077 (MHQ9) During the past 3 months, how much of the time has your use of sleeping pills kept you from doing the kinds of things other people your age do?

DE19078 (MHQ9) During the past 3 months, how many days has your use of sleeping pills kept you in bed all day or most of the day?

**CONSTRUCTION**

IF (0 < DE13852 < 4) OR (0 < DE19077 < 5) OR (0 < DE19078)
THEN PILLIMPX = 1;
ELSE IF (DE13852 = 4 AND DE19077 = 5 AND DE19078 = 0)
THEN PILLIMPX = 0;
ELSE PILLIMPX = 5;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>TRANFREQ</th>
<th>AMEDIS PILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FREQ</td>
<td>CUM</td>
</tr>
<tr>
<td>.</td>
<td>679</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>4666</td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>115</td>
<td>115</td>
</tr>
<tr>
<td>2</td>
<td>78</td>
<td>193</td>
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<tr>
<td>3</td>
<td>78</td>
<td>271</td>
</tr>
<tr>
<td>4</td>
<td>111</td>
<td>388</td>
</tr>
<tr>
<td>5</td>
<td>75</td>
<td>463</td>
</tr>
</tbody>
</table>

Frequency of tranquilizer use at enrollment

<table>
<thead>
<tr>
<th>CODES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>.</td>
<td>Missing</td>
</tr>
<tr>
<td>E</td>
<td>Not currently using tranquilizers, but has prescription (Dayton)</td>
</tr>
<tr>
<td>M</td>
<td>MHQA not completed (NonDayton)</td>
</tr>
<tr>
<td>T</td>
<td>&quot;No&quot; to tranquilizer trigger question</td>
</tr>
<tr>
<td>U</td>
<td>Missed tranquilizer trigger question</td>
</tr>
<tr>
<td>1</td>
<td>Twice a day or more</td>
</tr>
<tr>
<td>2</td>
<td>Once a day</td>
</tr>
<tr>
<td>3</td>
<td>A few times a week</td>
</tr>
<tr>
<td>4</td>
<td>A few times a month</td>
</tr>
<tr>
<td>5</td>
<td>Once a month or less</td>
</tr>
</tbody>
</table>

TRANFREQ indicates the frequency of prescribed tranquilizer or sedative use.

**INPUT VARIABLES**

DE13854 (Dayton - MHQA) Are you currently using tranquilizers or sedatives that were prescribed by a doctor?

DE19080 (NonDayton - MHQA) About how often do you take these tranquilizers, sedatives, or nerve pills? (If those prescribed and used within last 3 months.)

SITE Respondent's place of residence at enrollment

MHQB MHQB indicator at enrollment

**CONSTRUCTION**

(Note: Special missings 'T' and 'U' were assigned to DE13854 or DE19080 prior to the following code.)

(Cont.)

```plaintext
IF DE13854 = T THEN TRANFREQ = T;
ELSE IF DE13854 = 0 THEN TRANFREQ = 0;
ELSE IF DE13854 = 1 THEN TRANFREQ = 1;
ELSE IF DE13854 = 2 THEN TRANFREQ = 2;
ELSE IF DE13854 = 3 THEN TRANFREQ = 3;
ELSE IF DE13854 = 4 THEN TRANFREQ = 4;

(Cont.)
```
VARIABLE TRANFREQ (cont.)

CONSTRUCTION (cont.)

ELSE IF DE13854 = 4 THEN TRANFREQ = 3;
ELSE IF DE13854 = 5 THEN TRANFREQ = 2;
ELSE IF DE13854 = 6 THEN TRANFREQ = 1;

{NonDayton}

IF MIQB = . THEN DE19080 = M;
TRANFREQ = DE19080;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>TRANFREQ</th>
</tr>
</thead>
</table>
| AMEDIS \ n
| PILLS |

Frequency of tranquilizer use at exit

**CODES**

- . - Missing
- M - MIQB not completed
- T - "No" to tranquilizer trigger question
- U - Missed tranquilizer trigger question
- 1 - Twice a day or more
- 2 - Once a day
- 3 - A few times a week
- 4 - A few times a month
- 5 - Once a month or less

TRANFREQ indicates the frequency of prescribed tranquilizer or sedative use.

INPUT VARIABLES

DE19080 (MIQB) About how often do you take these tranquilizers, sedatives, or nerve pills? (Of those prescribed and used within last 3 months.)

NHQBX NHQB indicator at exit

{cont.}
VARIABLE TRNFREQ (cont.)

CONSTRUCTION
(Note: Special missings 'I' and 'U' were assigned to DE19080 prior to the following code.)

IF MIQBX = . THEN DE19080 = M;
TRNFREQ = DE19080;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>TRANQUSE</th>
<th>AMEDIS FILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VALUE</td>
<td>FREQ</td>
</tr>
<tr>
<td>Level of tranquilizer use at enrollment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.</td>
<td>5408</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>193</td>
<td>193</td>
</tr>
<tr>
<td>2</td>
<td>195</td>
<td>388</td>
</tr>
<tr>
<td>3</td>
<td>73</td>
<td>463</td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.</td>
<td>Missing, includes those with no tranquilizer use</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>High use (once a day or more)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Medium use (a few times a week or month)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Low use (once a month or less)</td>
<td></td>
</tr>
<tr>
<td>TRANQUSE recodes TRNFREQ into 3 levels of use.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INPUT VARIABLES
TRANFREQ Frequency of tranquilizer use at enrollment

CONSTRUCTION
IF TRANFREQ = 1 OR TRANFREQ = 2
THEN TRANQUSE = 1;
ELSE IF TRANFREQ = 3 OR TRANFREQ = 4
THEN TRANQUSE = 2;
ELSE IF TRANFREQ = 5 THEN TRANQUSE = 3;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>TRANUSEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
</tr>
<tr>
<td>1</td>
<td>168</td>
</tr>
<tr>
<td>2</td>
<td>118</td>
</tr>
<tr>
<td>3</td>
<td>61</td>
</tr>
</tbody>
</table>

**CODES**
- 0 - Missing, includes those with no tranquilizer use
- 1 - High use (once a day or more)
- 2 - Medium use (a few times a week or month)
- 3 - Low use (once a month or less)

TRANUSEX recodes TRNFREQ into 3 levels of use.

**INPUT VARIABLES**

TRNFREQX  Frequency of tranquilizer use at exit

**CONSTRUCTION**

```plaintext
IF TRNFREQX = 1 OR TRNFREQX = 2 THEN TRANUSEX = 1;
ELSE IF TRNFREQX = 3 OR TRNFREQX = 4 THEN TRANUSEX = 2;
ELSE IF TRNFREQX = 5 THEN TRANUSEX = 3;
```
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>TRANQIMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
</tr>
<tr>
<td>.</td>
<td>677</td>
</tr>
<tr>
<td>A</td>
<td>775</td>
</tr>
<tr>
<td>T</td>
<td>4036</td>
</tr>
<tr>
<td>0</td>
<td>257</td>
</tr>
<tr>
<td>1</td>
<td>126</td>
</tr>
</tbody>
</table>

TRANQIMP indicates whether tranquilizer use caused any worry/concern, activity restrictions, or days in bed.

NOTE: In Dayton, only one impact question was asked; therefore, Dayton respondents are assigned a special missing for this variable.

INPUT VARIABLES

DE13855 (NonDayton - MHQB) During the past 3 months, how much has your use of tranquilizers, sedatives, or nerve pills worried or concerned you?

DE19081 (NonDayton - MHQB) During the past 3 months, how much of the time has your use of tranquilizers, sedatives, or nerve pills kept you from doing the kinds of things other people your age do?

DE19082 (NonDayton - MHQB) During the past 30 days, how many days has your use of tranquilizers, sedatives, or nerve pills kept you in bed all day or most of the day?

CONSTRUCTION

[Dayton]

TRANQIMP = A;

(cont.)
VARIABLE TRANIMP (cont.)

CONSTRUCTION (cont.)

(NonDayton)

IF (0 < DE13855 < 4) OR (0 < DE19081 < 5) OR (0 < DE19082)
THEN TRANIMP = 1;
ELSE IF (DE13855 = 4 AND DE19081 = 5 AND DE19082 = 0)
THEN TRANIMP = 0;
ELSE TRANIMP = 1;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>TRANIMPX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AMEDIS/PILLS</td>
</tr>
<tr>
<td>Impact of tranquilizer use at exit</td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
</tr>
<tr>
<td>- Missing</td>
<td></td>
</tr>
<tr>
<td>0 - No tranquilizer use, skipped out of battery</td>
<td></td>
</tr>
<tr>
<td>1 - No impact</td>
<td></td>
</tr>
<tr>
<td>2 - Some impact</td>
<td></td>
</tr>
</tbody>
</table>

TRANIMPX indicates whether tranquilizer use caused any worry/concern, activity restrictions, or days in bed.

INPUT VARIABLES

DE13855 (MHQ8) During the past 3 months, how much has your use of tranquilizers, sedatives, or nerve pills worried or concerned you?

DE19081 (MHQ8) During the past 3 months, how much of the time has your use of tranquilizers, sedatives, or nerve pills kept you from doing the kinds of things other people your age do?

DE19082 (MHQ8) During the past 30 days, how many days has your use of tranquilizers, sedatives, or nerve pills kept you in bed all day or most of the day?

(cont.)
VARIABLE TRANIMPX (cont.)

CONSTRUCTION
IF (0 < DE13855 < 4) OR (0 < DE19081 < 5) OR (0 < DE19082)
THEN TRANIMPX = 1;
ELSE IF (DE13855 = 4 AND DE19081 = 5 AND DE19082 = 0)
THEN TRANIMPX = 0;
ELSE TRANIMPX = 7;

VARIABLE RELXUSE

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>691</td>
<td>13</td>
<td>1.41</td>
<td>1.41</td>
</tr>
<tr>
<td>2</td>
<td>343</td>
<td>73</td>
<td>1.14</td>
<td>2.55</td>
</tr>
<tr>
<td>3</td>
<td>436</td>
<td>568</td>
<td>8.42</td>
<td>10.97</td>
</tr>
<tr>
<td>4</td>
<td>4612</td>
<td>5180</td>
<td>89.04</td>
<td>100.00</td>
</tr>
</tbody>
</table>

CODES

1 - Missing
2 - Use both
3 - Use sleeping pills only
4 - Use tranquilizers only

RELXUSE summarizes use of prescribed sleeping pills and/or tranquilizers.

INPUT VARIABLES

DE13851 (Dayton - MHQA) Are you currently using sleeping pills which are prescribed by a doctor?
DE13854 (Dayton - MHQA) Are you currently using tranquilizers or sedatives that were prescribed by a doctor?
DE19075 (NonDayton - MHQB) During the past three months, have you used any sleeping pills prescribed by a doctor?
DE19079 (NonDayton - MHQB) During the past three months, have you used any tranquilizers, sedatives, or nerve pills which were prescribed by a doctor?
BINPILLS (Temporary variable) Current sleeping pill use at enrollment
1 - Use
0 - Do not use
. - Missing

SITE Respondent's place of residence at enrollment (cont.)
VARIABLE RELXUSE (cont.)

CONSTRUCTION

(Construct BINPILLS)

    IF SITE = 1
      THEN DO;
        IF DE13851 = 1 THEN BINPILLS = 0;
        ELSE IF 2 <= DE13851 <= 5
          THEN BINPILLS = 1;
        ELSE BINPILLS = DE13851;
      END;

    IF SITE \= 1
      THEN DO:
        IF DE19075 = 2 THEN BINPILLS = 0;
        ELSE IF DE19075 = 1 THEN BINPILLS = 1;
        ELSE BINPILLS = DE19075;
      END;

(Construct RELXUSE)

    IF BINPILLS = 1 AND (2 <= DE13854 <= 6 OR DE19079 = 1)
      THEN RELXUSE = 1;
    ELSE IF BINPILLS = 1 THEN RELXUSE=2;
    ELSE IF BINPILLS \= 1 AND
      (2 <= DE13854 <= 6 OR DE19079 = 1)
      THEN RELXUSE = 3;
    ELSE IF BINPILLS \= 1 AND (DE13854 = 1 OR DE19079 = 2)
      THEN RELXUSE = 4;
    ELSE RELXUSE=.;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>RELXUSEX</th>
<th>AMEDIS</th>
<th>PILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined sleeping pill and tranquilizer use at exit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>. - Missing</td>
<td>1</td>
<td>769</td>
<td></td>
</tr>
<tr>
<td>1 - Use both</td>
<td>2</td>
<td>46</td>
<td>1.51</td>
</tr>
<tr>
<td>2 - Use sleeping pills only</td>
<td>3</td>
<td>271</td>
<td>0.90</td>
</tr>
<tr>
<td>3 - Use tranquilizers only</td>
<td>4</td>
<td>4708</td>
<td>5.31</td>
</tr>
<tr>
<td>4 - Use neither</td>
<td></td>
<td>5102</td>
<td>7.72</td>
</tr>
<tr>
<td>RELXUSEX summarizes use of prescribed sleeping pills and/or tranquilizers.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INPUT VARIABLES**

DE19075 (MHQ8) During the past three months, have you used any sleeping pills prescribed by a doctor?

DE19079 (MHQ8) During the past three months have you used any tranquilizers, sedatives, or nerve pills which were prescribed by a doctor?

BINPILL (Temporary variable) Current sleeping pill use

- Missing
- Do not use
- Use

**CONSTRUCTION**

(Construct BINPILL)

IF DE19075 = 2 THEN BINPILL = 0;
ELSE IF DE19075 = 1 THEN BINPILL = 1;
ELSE BINPILL = DE19075;

(Construct RELXUSEX)

IF BINPILL = 1 AND DE19079 = 1
THEN RELXUSEX = 1;
ELSE IF BINPILL = 1
THEN RELXUSEX = 2;

(cont.)
VARIABLE RELXUSEX (cont.)

CONSTRUCTION (cont.)

ELSE IF BINPILL \- 1 AND DE19079 = 1
THEN RELXUSEX = 3;
ELSEIF BINPILL \- 1 AND DE19079 = 2
THEN RELXUSEX = 4;
ELSE RELXUSEX = .;

-----------
SURGICAL CONDITIONS
-----------

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HEMTRIG</th>
<th>AMEDIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURGICAL CONDITIONS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had hemorrhoids during 12 months prior to enrollment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td>M 259</td>
<td>.</td>
</tr>
<tr>
<td>. - Missing</td>
<td>1 725</td>
<td>14.70</td>
</tr>
<tr>
<td>1 - Yes</td>
<td>2 4268</td>
<td>85.30</td>
</tr>
<tr>
<td>2 - No</td>
<td></td>
<td>100.00</td>
</tr>
</tbody>
</table>

HEMTRIG indicates whether or not the respondent had hemorrhoids in the 12 months prior to enrollment based on responses to the MHQ.

INPUT VARIABLES

DE14415 (MHQB) Have you had hemorrhoids (piles) within the past 12 months?
MHQB MHQB indicator at enrollment

(cont.)
VARIABLE HEMTRIG (cont.)

CONSTRUCTION

IF MHQB = . THEN DE14415 = M;
HEMTRIG = DE14415;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HEMTRGX</th>
<th>AMEDIS</th>
<th>SURGICAL CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
<td>FREQ</td>
<td>%</td>
</tr>
<tr>
<td>.</td>
<td>589</td>
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</tr>
<tr>
<td>M</td>
<td>170</td>
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<tr>
<td>1</td>
<td>735</td>
<td>735</td>
<td>14.3%</td>
</tr>
<tr>
<td>2</td>
<td>4377</td>
<td>5112</td>
<td>85.62%</td>
</tr>
</tbody>
</table>

CODES

. - Missing
M - No MHQB
1 - Yes
2 - No

HEMTRGX indicates whether or not the respondent had hemorrhoids in the 12 months prior to exit based on responses to the MHQ.

INPUT VARIABLES

DE14415 (MHQB) Have you had hemorrhoids (piles) within the past 12 months?
MHQBX MHQB indicator at exit

CONSTRUCTION

IF MHQBX = . THEN DE14415 = M;
HEMTRGX = DE14415;
TABLE 3.27

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM</th>
<th>%</th>
<th>CUM</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEMRSUP</td>
<td>.</td>
<td>627</td>
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<td>725</td>
<td>76.55</td>
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</tr>
</tbody>
</table>

NOTE: No special missings were assigned for the Replacement PEOs; for this group all missings are grouped under .

INPUT VARIABLES

DE14415 (MHQ) Have you had hemorrhoids (piles) within the past 12 months?
DE14417 (Dayton - MHQ) In the last 3 months, have you taken any rectal suppositories for hemorrhoids (piles)?
DE19053 (NonDayton - MHQ) In the last 3 months have you taken any rectal suppositories for your piles or hemorrhoids?
MHQ MHQ Indicator at enrollment
SITE Participant's place of residence at enrollment

CONSTRUCTION

IF MHQ = .
THEN DO;
  DE14417=M;
  DE19053=M;
END;

(cont.)
VARIABLE HEMRSUP (cont.)

CONSTRUCTION (cont.)

IF DE14415 = 2
   THEN DO;
      DE14417=S;
      DE19053=S;
      END;

IF DE14415 = .
   THEN DO;
      DE14417=T;
      DE19053=T;
      END;

IF SITE = 1
   THEN HEMRSUP = DE14417;
ELSE IF SITE \= 1
   THEN HEMRSUP = DE19053;

<table>
<thead>
<tr>
<th>VARIABLE HEMRSUPX</th>
<th>AMEDIS SURGICAL CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Took suppositories for hemorrhoids at exit</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>. - Missing</td>
</tr>
<tr>
<td>M - Did not take MHQ8</td>
</tr>
<tr>
<td>S - Answered no to initial trigger question, skipped out of battery</td>
</tr>
<tr>
<td>T - Missing initial trigger question, DE14415</td>
</tr>
<tr>
<td>1 - Yes</td>
</tr>
<tr>
<td>2 - No</td>
</tr>
</tbody>
</table>

HEMRSUPX indicates whether the respondent had taken any rectal suppositories in the past 3 months for the purpose of relieving pain caused by hemorrhoids or piles.

INPUT VARIABLES

DE14415 (MHQ8) Have you had hemorrhoids (piles) within the past 12 months?

(continued)
VARIABLE HEMRSUPX (cont.)

INPUT VARIABLES (cont.)

DEI9053 (MNQB) In the past 3 months have you taken any rectal suppositories for your piles or hemorrhoids?
MNQBX MNQB indicator at exit

CONSTRUCTION

IF MNQBX = . THEN DEI9053 = M;
IF DEI4415 = 2 THEN DEI9053 = S;
IF DEI4419 = . THEN DEI9053 = T;
HEMRSUPX = DEI9053;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HEMRSITZ</th>
<th>AMEDSC</th>
<th>SURGICAL CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
<td>FREQ</td>
<td>%</td>
</tr>
<tr>
<td>.</td>
<td>680</td>
<td>.</td>
<td>.</td>
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<tr>
<td>M</td>
<td>259</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>S</td>
<td>4208</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>T</td>
<td>2</td>
<td>.</td>
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<td>1</td>
<td>123</td>
<td>123</td>
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<tr>
<td>2</td>
<td>999</td>
<td>722</td>
<td>82.96</td>
</tr>
</tbody>
</table>

HEMRSITZ indicates whether the respondent had taken any sitzbaths in the past 3 months for the purpose of relieving pain caused by hemorrhoids or piles.

INPUT VARIABLES

DEI4415 (MNQB) Have you had hemorrhoids (piles) within the past 12 months?
DEI4419 (Dayton - MNQB) In the last 3 months, have you used sitzbaths (hot baths) because of hemorrhoids (piles)?

(cont.)
VARIABLE HEMRSITZ (cont.)

INPUT VARIABLES (cont.)

DE19054 (NonDayton = MHQB) In the past 3 months, have you taken any sitzbaths (hot baths) because of your piles or hemorrhoids?

MHQB MHQB indicator at enrollment
SITE Participant's place of residence at enrollment

CONSTRUCTION

IF MHQB = .
THEN DO;
   DE14419=M;
   DE19054=M;
END;

IF DE14415 = 2
THEN DO;
   DE14419=S;
   DE19054=S;
END;

IF DE14415 = 1
THEN DO;
   DE14419=T;
   DE19054=T;
END;

IF SITE = 1
THEN HEMRSITZ = DE14419;
IF SITE .= 1
THEN HEMRSITZ = DE19054;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HEMRSLIZX</th>
<th>AMEDIS SURGICAL CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Took sitzbaths for hemorrhoids at exit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CODES**

- . = Missing
- M = Did not take MIQ8
- $ = Answered no to initial trigger question, skipped out of battery
- 1 = Missing initial trigger question, DE14415
- 2 = Yes
- T = No

**HEMRSLIZX** indicates whether the respondent had taken any sitzbaths in the past 3 months for the purpose of relieving pain caused by hemorrhoids or piles.

**INPUT VARIABLES**

- DE14415 [MIQ8]. Have you had hemorrhoids (piles) within the past 12 months?
- DE19054 [MIQ8]. In the past 3 months, have you taken any sitzbaths (hot baths) because of your piles or hemorrhoids?
- MIQ8X. MIQ8 indicator at exit

**CONSTRUCTION**

```
IF MIQ8X = . THEN DE19054 = M;
IF DE14415 = 2 THEN DE19054 = S;
IF DE14415 = . THEN DE19054 = I;
HEMRSLIZX = DE19054;
```
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HEMMED</th>
<th>AMEDIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SURGICAL CONDITIONS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doctor prescribed treatment for hemorrhoids at enrollment</td>
</tr>
</tbody>
</table>

CODES

- **M** - Did not take MHQB
- **S** - Answered no to initial trigger question, skipped out of battery
- **T** - Missing initial trigger question, DE14415
- **Z** - All other missing

1 - Doctor prescribed suppositories or sitz baths
2 - Doctor did not prescribe suppositories or sitz baths
3 - Never saw a doctor regarding treatment (NonDayton)

HEMMED indicates whether a doctor prescribed suppositories or sitz baths for hemorrhoids or piles in the past 12 months.

**INPUT VARIABLES**

- **DE14415 (MHQB)** - Have you had hemorrhoids (piles) within the past 12 months?
- **DE14416 (MHQB)** - During the past 12 months, has a doctor prescribed rectal suppositories for your hemorrhoids (piles)?
- **DE14418 (MHQB)** - During the past 12 months, has a doctor prescribed sitz baths (hot baths) because of hemorrhoids (piles)?
- **DE19050 (NonDayton - MHQB)** - Have you ever seen a doctor about your piles or hemorrhoids?
- **MHQB** - MHQB indicator at exit

**CONSTRUCTION**

(Note: Special missings (M, S, T) were assigned to DE14416 before constructing HEMMED.)

```plaintext
IF MHQB = M:
    THEN HEMMED = M;
ELSE IF DE14415 = 2:
    THEN HEMMED = S;
ELSE IF DE14415 = .:
    THEN HEMMED = T;
{cont.}
```
VARIABLE HEMRMED (cont.)

CONSTRUCTION (cont.)

ELSE IF DE14416 = 1 OR DE14418 = 1
THEN HEMRMED = 1;
ELSE IF DE14416 = 2 AND DE14418 = 3
THEN HEMRMED = 2;
ELSE IF SITE \= 1 AND DE19050 \= 1
THEN HEMRMED = 3;
ELSE IF DE14416 = 1 OR DE14416 = S OR
DE14416 = M
THEN HEMRMED = DE14416;
ELSE HEMRMED = Z;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HEMRMEDX</th>
<th>AMFDIS</th>
<th>SURGICAL CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>FREQ</td>
<td>FREQ</td>
<td>%</td>
</tr>
<tr>
<td>.</td>
<td>585</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>M</td>
<td>170</td>
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<td>.</td>
</tr>
<tr>
<td>S</td>
<td>437</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>T</td>
<td>4</td>
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</tr>
<tr>
<td>1</td>
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<td>147</td>
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<tr>
<td>3</td>
<td>739</td>
<td>1060</td>
<td>55.78</td>
</tr>
</tbody>
</table>

CODES

. - Missing
M - Did not take MHOB
S - Answered no to initial trigger question, skipped out of battery
1 - Missing initial trigger question, DE14415
2 - All other missings
3 - Doctor prescribed suppositories or sitz baths
4 - Doctor did not prescribe suppositories or sitz baths
5 - Never saw a doctor regarding treatment (Not ayson)

HEMRMEDX indicates whether a doctor prescribed suppositories or sitz baths for hemorrhoids or piles in the past 12 months.

INPUT VARIABLES

DE14415 (MHOB) Have you had hemorrhoids (piles) within the past 12 months?
DE14416 (MHOB) During the past 12 months, has a doctor prescribed rectal suppositories for your hemorrhoids (piles)?

(cont.)
VARIABLE HEMRMEDX (cont.)

INPUT VARIABLES (cont.)

DE14418 (MMQB) During the past 12 months, has a doctor prescribed sitzbaths (hot baths) because of hemorrhoids (piles)?
DE19050 (MMQB - Numbayon = MMQB) Have you ever seen a doctor about your piles or hemorrhoids?
MHQBX MHQB indicator at exit

CONSTRUCTION

(Note: Special missing [M,S,T] were assigned to DE14416 before constructing HEMRMED.)

IF MHQBX = .
  THEN HEMRMEDX = M;
ELSE IF DE14415 = 2
  THEN HEMRMEDX = S;
ELSE IF DE14415 = 1
  THEN HEMRMEDX = T;
ELSE IF DE14416 = 1 OR DE14418 = 1
  THEN HEMRMEDX = 1;
ELSE IF DE14416 = 2 AND DE14418 = 2
  THEN HEMRMEDX = 2;
ELSE IF DE19050 = 1
  THEN HEMRMEDX = 3;
ELSE IF DE14416 = T OR DE14416 = S OR
  DE14416 = M
  THEN HEMRMEDX = DE14416;
ELSE HEMRMEDX = Z;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HEMRHIQ</th>
<th>AMEDIS</th>
<th>SURGICAL CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VALUE</td>
<td>FREQ</td>
<td>FREQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hemorrhoid status based on the NHQ at enrollment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>259</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>4208</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td>T</td>
<td>2</td>
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</tr>
<tr>
<td></td>
<td>J</td>
<td>74</td>
<td>74</td>
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<td>6</td>
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<td>724</td>
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</tbody>
</table>

HEMRHIQ assigned each patient a hemorrhoid status based on whether a participant took any hemorrhoid therapy and whether or not it was prescribed by a doctor.

INPUT VARIABLES

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEMRMED</td>
<td>Doctor prescribed treatment for hemorrhoids at enrollment</td>
</tr>
<tr>
<td>HEMRSUP</td>
<td>Has taken suppositories for hemorrhoids at enrollment</td>
</tr>
<tr>
<td>HEMRSITZ</td>
<td>Has taken sitz baths for hemorrhoids at enrollment</td>
</tr>
</tbody>
</table>

TAKEN (Temporary variable) Respondent has taken treatment for hemorrhoids

1 - Has taken treatment for hemorrhoids
2 - Has not taken treatment for hemorrhoids

CONSTRUCTION

(Construct TAKEN)

IF HEMRSUP = T OR HEMRSUP = M OR HEMRSUP = S
THEN TAKEN = HEMRSUP;
ELSE IF HEMRSITZ = 1 OR HEMRSUP = 1
THEN TAKEN = 1;
VARIABLE HEMRHMQ (cont.)

CONSTRUCTION (cont.)

\[
\text{ELSE IF HEMRSTMZ = 2 AND HEMRSMUP = 2}
\]
\[
\text{THEN TAKEN = 2;}
\]
\[
\text{ELSE TAKEN = Z;}
\]

(Construct HEMRMRHQ)

\[
\text{IF HEMRMRHQ = 1 AND TAKEN = 1}
\]
\[
\text{THEN HEMRMRHQ = 1;}
\]
\[
\text{ELSE IF HEMRMRHQ = 1 AND TAKEN = 2}
\]
\[
\text{THEN HEMRMRHQ = 2;}
\]
\[
\text{ELSE IF HEMRMRHQ = 2 AND TAKEN = 1}
\]
\[
\text{THEN HEMRMRHQ = 3;}
\]
\[
\text{ELSE IF HEMRMRHQ = 2 AND TAKEN = 2}
\]
\[
\text{THEN HEMRMRHQ = 4;}
\]
\[
\text{ELSE IF HEMRMRHQ = 3 AND TAKEN = 1}
\]
\[
\text{THEN HEMRMRHQ = 5;}
\]
\[
\text{ELSE IF HEMRMRHQ = 3 AND TAKEN = 2}
\]
\[
\text{THEN HEMRMRHQ = 6;}
\]
\[
\text{ELSE HEMRMRHQ = HEMRMR;}
\]

(Construct HEMRMRHQ, for replacement PEGs only)

\[
\text{IF HEMRMRHQ = 1 AND TAKEN = 1}
\]
\[
\text{THEN HEMRMRHQ = 1;}
\]
\[
\text{ELSE IF HEMRMRHQ = 1 AND TAKEN = 2}
\]
\[
\text{THEN HEMRMRHQ = 2;}
\]
\[
\text{ELSE IF HEMRMRHQ = 2 AND TAKEN = 1}
\]
\[
\text{THEN HEMRMRHQ = 3;}
\]
\[
\text{ELSE IF HEMRMRHQ = 2 AND TAKEN = 2}
\]
\[
\text{THEN HEMRMRHQ = 4;}
\]
\[
\text{ELSE IF HEMRMRHQ = 3 AND TAKEN = 1}
\]
\[
\text{THEN HEMRMRHQ = 5;}
\]
\[
\text{ELSE IF HEMRMRHQ = 3 AND TAKEN = 2}
\]
\[
\text{THEN HEMRMRHQ = 6;}
\]
\[
\text{ELSE IF HEMRMR < 0}
\]
\[
\text{THEN HEMRMRHQ = HEMRMR;}
\]
\[
\text{ELSE IF TAKEN < 0}
\]
\[
\text{THEN HEMRMRHQ = TAKEN;}
\]
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<tr>
<th>VARIABLE</th>
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<th>ANORESIS</th>
<th>SURGICAL CONDITIONS</th>
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<tbody>
<tr>
<td>Hemorrhoid status based on the MHIQ at exit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>- Missing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M - Did not take MHIQ</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S - Answered no to initial trigger question, skipped out of battery</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T - Missing initial trigger question, D=14415</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Z - All other missing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 - Doctor prescribed therapy, patient took therapy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 - Doctor prescribed therapy but none was taken</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 - Therapy not prescribed by doctor, but therapy was taken</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 - Therapy not prescribed by doctor, and none was taken</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 - Therapy taken; did not see a doctor regarding therapy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 - Therapy not taken; did not see a doctor regarding therapy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HEMRMQHQ assigned each patient a hemorrhoid status based on whether a participant took any hemorrhoid therapy and whether or not it was prescribed by a doctor.

**INPUT VARIABLES**

HEMRMEX - Doctor prescribed treatment for hemorrhoids at exit
HEMRSUPX - Has taken suppositories for hemorrhoids at exit
HEMRSIZX - Has taken sitz baths for hemorrhoids at exit
TAKEN - (Temporary variable) Respondent has taken treatment for hemorrhoids
1 - Has taken treatment for hemorrhoids
2 - Has not taken treatment for hemorrhoids

**CONSTRUCTION**

{Construct TAKEN}

If HEMRSUPX = T or HEMRSUPX = M or HEMRSUPX = S
Then TAKEN = HEMRSUPX;
Else if HEMRSIZX = 1 or HEMRSUPX = 1
Then TAKEN = 1;
Else if HEMRSIZX = 2 and HEMRSUPX = 2
Then TAKEN = 2;
Else TAKEN = Z;

(cont.)
VARIABLE HEMRHOX (cont.)

CONSTRUCTION (cont.)

(Construct HEMRHOX)

IF HEMRMD = 1 AND TAKEN = 1
THEN HEMRHOX = 1;
ELSE IF HEMRMD = 1 AND TAKEN = 2
THEN HEMRHOX = 2;
ELSE IF HEMRMD = 2 AND TAKEN = 1
THEN HEMRHOX = 3;
ELSE IF HEMRMD = 2 AND TAKEN = 2
THEN HEMRHOX = 4;
ELSE IF HEMRMD = 3 AND TAKEN = 1
THEN HEMRHOX = 5;
ELSE IF HEMRMD = 3 AND TAKEN = 2
THEN HEMRHOX = 6;
ELSE IF HEMRMD < 0
THEN HEMRHOX = HEMRMDX;
ELSE IF TAKEN < 0
THEN HEMRHOX = TAKEN;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HEMRIMP</th>
<th>AMEDIS SURGICAL CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact from hemorrhoids at enrollment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.  = Missing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M  = Did not take NHQ8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S  = Answered no to initial trigger question, skipped out of battery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T  = Missing initial trigger question, DE14415</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0  = No impact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1  = Some impact</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HEMRIMP indicates whether hemorrhoids caused any pain, worry/concern, activity restrictions, or days in bed.

**NOTE:** The question on worry/concern due to hemorrhoids was not asked in Dayton at enrollment.

**INPUT VARIABLES**

DE14415 (NHQ8) Have you had hemorrhoids (piles) within the past 12 months?

DE14420 (NHQ8) During the past 3 months, how much pain have your piles or hemorrhoids caused you?

DE14421 (NHQ8) During the past 3 months, how much of the time have your piles or hemorrhoids kept you from doing the kinds of things other people your age do?

DE14422 (NHQ8) During the past 30 days, how many days have your piles or hemorrhoids kept you in bed all day or most of the day?

DE19055 (NHQ8 - NonDayton) During the past 3 months, how much have your piles or hemorrhoids worried or concerned you?

NHQ8 NHQ8 indicator at enrollment

(cont.)
VARIABLE HEMRIMP (cont.)

CONSTRUCTION

(Dayton)

IF $0 < \text{DE14420} < 4$ OR $0 < \text{DE14421} < 5$ OR $\text{DE14422} > 0$
THEN HEMRIMP = 1;
ELSE IF $\text{DE14420} < 0$ AND $\text{DE14421} < 0$ AND $\text{DE14422} < 0$
THEN HEMRIMP = .;
ELSE HEMRIMP = 0;

IF MHOB = . THEN HEMRIMP = M;
IF DE14415 = 2 THEN HEMRIMP = 5;
IF DE14415 = . THEN HEMRIMP = 1;

(NonDayton)

IF $0 < \text{DE14420} < 4$ OR $0 < \text{DE14052} < 4$ OR $0 < \text{DE14421} < 5$ OR $\text{DE14422} > 0$
THEN HEMRIMP = 1;
ELSE IF $\text{DE14420} < 0$ AND $\text{DE14052} < 0$ AND $\text{DE14421} < 0$ AND $\text{DE14422} < 0$
THEN HEMRIMP = .;
ELSE HEMRIMP = 0;

IF MHOB = . THEN HEMRIMP = M;
IF DE14415 = 2 THEN HEMRIMP = 5;
IF DE14415 = . THEN HEMRIMP = 1;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HEMRIMPX</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURGICAL CONDITIONS</td>
<td></td>
</tr>
<tr>
<td>Impact of hemorrhoids at exit</td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
</tr>
<tr>
<td>.</td>
<td>Missing</td>
</tr>
<tr>
<td>M</td>
<td>Did not take MIQB</td>
</tr>
<tr>
<td>S</td>
<td>Answered no to initial trigger question, skipped out of battery</td>
</tr>
<tr>
<td>T</td>
<td>Missing initial trigger question, DE14415</td>
</tr>
<tr>
<td>O</td>
<td>No impact</td>
</tr>
<tr>
<td>1</td>
<td>Some impact</td>
</tr>
<tr>
<td>HEMRIMPX indicates whether hemorrhoids caused any pain, worry/concern, activity restrictions, or days in bed.</td>
<td></td>
</tr>
</tbody>
</table>

## Input Variables

<table>
<thead>
<tr>
<th>DE14415 [MIQB]</th>
<th>Have you had hemorrhoids (piles) within the past 12 months?</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE14420 [MIQB]</td>
<td>During the past 3 months, how much pain have your hemorrhoids (piles) caused you?</td>
</tr>
<tr>
<td>DE14421 [MIQB]</td>
<td>During the past 3 months, how often have your hemorrhoids (piles) kept you from doing the kinds of activities other people your age do?</td>
</tr>
<tr>
<td>DE14422 [MIQB]</td>
<td>During the past 30 days, how many days have your hemorrhoids (piles) kept you in bed all or most of the day?</td>
</tr>
<tr>
<td>DE19055 [MIQB]</td>
<td>During the past 3 months, how much have your piles or hemorrhoids worried or concerned you?</td>
</tr>
</tbody>
</table>

## Construction

| IF 0 < DE14420 < 4 OR 0 < DE19055 < 4 OR 0 < DE14421 < 5 OR DE14422 > 0 THEN HEMRIMPX = 1; |
| ELSE IF DE14420 < 0 AND DE19055 < 0 AND DE14421 < 0 AND DE14422 < 0 THEN HEMRIMPX = 2; |
| ELSE HEMRIMPX = 0; |

(Cont.)
VARIABLE HEMRIMPX (cont.)

CONSTRUCTION (cont.)

IF MHQBX = . THEN HEMRIMPX = M;
IF DEI4383 = 2 THEN HEMRIMPX = S;
IF DEI4383 = . THEN HEMRIMPX = T;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VEINTRIG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AMEDIS</td>
</tr>
<tr>
<td></td>
<td>VALUE</td>
</tr>
<tr>
<td></td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

VEINTRIG indicates whether or not the respondent had varicose veins in the 12 months prior to enrollment based on responses to the MHQ.

INPUT VARIABLES

DEI4383 (MHQB) During the past 12 months, have you noticed varicose veins in your legs?
MHQB MHQB indicator at enrollment

CONSTRUCTION

IF MHQB = . THEN DEI4383 = M;
VEINTRIG = DI4383;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VEINTROX</th>
<th>AMEDIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SURGICAL CONDITIONS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Had varicose veins during 12 months prior to exit</td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td>- Missing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M - No MHQ</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 - Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 - No</td>
<td></td>
</tr>
</tbody>
</table>

VEINTROX indicates whether or not the respondent had varicose veins in the 12 months prior to exit, based on responses to the MHQ.

**INPUT VARIABLES**

DE14383 (MHQ8) During the past 12 months, have you noticed varicose veins in your legs?

MHQ8X MHQ8 indicator at exit

**CONSTRUCTION**

IF MHQ8X = . THEN DE14383 = M;

VEINTROX = DE14383;
VARIABLE VEINWORS  AMEDIS  SURGICAL CONDITIONS

Severity of varicose veins at enrollment

CODES

.  = Missing
C  = Did not take screening exam
J  = Missing responses to DE17382 and DE17383
Q  = Women under 20 with no varicose vein exam
R  = Man who had no varicose vein exam
W  = Bad response to trigger
1  = Absent
2  = Spider angiomata
3  = Minimal
4  = Moderate
5  = Severe

VEINWORS indicates the severity of varicose veins in the worst of the two legs. During the screening exam for varicose veins, each leg was given a severity score from 1 to 5.

INPUT VARIABLES

DE17380 (Screening exam) Is the examinee female and 20 years old or older?
1  = Yes
2  = No

DE17381 (Screening exam) Is examinee male and does he claim to have or have had varicose veins?
1  = Yes
2  = No

DE17382 (Screening exam) Severity of varicose veins in the right leg
1  = Absent
2  = Spider angiomata
3  = Minimal
4  = Moderate
5  = Severe

(cont.)
VARIANIF VEINWORS (cont.)

INPUT VARIABLES (cont.)

0E17383  (Screening exam) Severity of varicose veins in the left leg
   1 - Absent
   2 - Spider angiomata
   3 - Minimal
   4 - Moderate
   5 - Severe
SCREENED  Screening exam indicator at enrollment
   1 - Male
   2 - Female

CONSTRUCTION

(Note: VEINWORS was assigned a value of W by reviewing responses to exceptional cases individually.)

IF SCREENED = .
   THEN VEINWORS = C;
IF SEX = 2 AND DE17380 = 2
   THEN VEINWORS = Q;
IF SEX = 1 AND DE17381 = 2
   THEN VEINWORS = R;
IF DE17382 = . OR DE17383 = .
   THEN DO;
      IF DE17382 = .
         THEN VEINWORS = DE17382;
      IF DE17383 = .
         THEN VEINWORS = DE17383;
      IF DE17382 = . AND DE17383 = .
         THEN VEINWORS = J;
END;
IF DE17382 >= 1 AND DE17383 >= 1
   THEN DO;
      IF DE17382 >= DE17383
         THEN VEINWORS = DE17382;
      ELSE VEINWORS = DE17383;
   END;
VEINWORX

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>.</td>
<td>795</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Z</td>
<td>2836</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>1</td>
<td>910</td>
<td>910</td>
<td>90.63</td>
<td>90.63</td>
</tr>
<tr>
<td>2</td>
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<tr>
<td>3</td>
<td>412</td>
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<td>4</td>
<td>205</td>
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<td>9.15</td>
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<tr>
<td>5</td>
<td>175</td>
<td>2240</td>
<td>7.81</td>
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</tr>
</tbody>
</table>

VEINWORX indicates the severity of varicose veins in the worst of the two legs. During the screening exam for varicose veins, each leg was given a severity score from 1 to 5.

INPUT VARIABLES

DE17382 (Screening exam) Severity of varicose veins in the right leg
1 = Absent
2 = Spider angiomata
3 = Minimal
4 = Moderate
5 = Severe

DE17383 (Screening exam) Severity of varicose veins in the left leg
1 = Absent
2 = Spider angiomata
3 = Minimal
4 = Moderate
5 = Severe

CONSTRUCTION

IF DE17382 = . OR DE17383 = .
THEN DO;
   IF DE17382 <= .
THEN VEINWORK = DE17382;
   {cont.}
VARIABLE VEINWORX (cont.)

CONSTRUCTION (cont.)

IF DE17383 \leq .
    THEN VEINWORX = DE17383;
IF DE17382 = .
    THEN VEINWORX = Z;
END;
IF DE17382 >= 1 AND DE17383 >= 1
    THEN 00;
IF DE17382 >= DE17383
    THEN VEINWORX = DE17382;
ELSE VEINWORX = DE17383;
END;

<table>
<thead>
<tr>
<th>VARIABLE VEINWORX</th>
<th>AMEDIS SURGICAL CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
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<td>.</td>
<td>677</td>
</tr>
<tr>
<td>C</td>
<td>2291</td>
</tr>
<tr>
<td>J</td>
<td>10</td>
</tr>
<tr>
<td>Q</td>
<td>254</td>
</tr>
<tr>
<td>R</td>
<td>1252</td>
</tr>
<tr>
<td>W</td>
<td>5</td>
</tr>
</tbody>
</table>

- Missing
- Did not take screening exam
- Missing responses to DE17382 and DE17383
- Women under 20 with no varicose vein exam
- Men who had no varicose vein exam
- Bad response to trigger
- 1 to 5 - range in .5 increments, the lowest meaning absent and the highest severe

VEINWORX is the average of the severity scores for the right and left legs. During the screening exam for varicose veins, each leg was given a severity score of 1 to 5.
VARIABLE VEINAVER (cont.)

INPUT VARIABLES

DE17380 (Screening exam) Is the examinee female and 20 years old or older?
1 = Yes
2 = No

DE17381 (Screening exam) Is examinee male and does he claim to have or have had varicose veins?
1 = Yes
2 = No

DE17382 (Screening exam) Severity of varicose veins in the right leg
1 = Absent
2 = Spider angioma
3 = Minimal
4 = Moderate
5 = Severe

DE17383 (Screening exam) Severity of varicose veins in the left leg
1 = Absent
2 = Spider angioma
3 = Minimal
4 = Moderate
5 = Severe

SCREENED Screening exam indicator at enrollment
1 = Male
2 = Female

CONSTRUCTION

{Note: VEINAVER was assigned a value of W by reviewing responses to exceptional cases individually.}

IF SCREENED = 1
THEN VEINAVER = W;
IF SFX = 2 AND DE17380 = 2
THEN VEINAVER = W;
IF SFX = 1 AND DE17381 = 2
THEN VEINAVER = W;
IF DE17382 = . OR DE17383 = .
THEN DO;

IF DE17382 = .
THEN VEINAVER = DE17382;
ELSE IF DE17383 = .
THEN VEINAVER = DE17383;

{cont.}
VARIABLE VEINAVE (cont.)
CONSTRUCTION (cont.)
ELSE IF DE17382 = 1 AND DE17383 = 1
THEN VEINAVE = J;
END;
ELSE IF DE17382 >= 1 AND DE17383 = 1
THEN VEINAVE = (DE17382 + DE17383) / 2;

<table>
<thead>
<tr>
<th>VARIABLE VEINAVEX</th>
<th>AMEDIS SURGICAL CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average leg score for varicose veins at exit</td>
<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
</tr>
<tr>
<td>. - Missing</td>
<td></td>
</tr>
<tr>
<td>Z - Missing DE17382 and DE17383</td>
<td></td>
</tr>
<tr>
<td>1 to 5 - range in .5 increments, the lowest meaning absent and the highest severe</td>
<td></td>
</tr>
<tr>
<td>VEINAVEX is the average of the severity scores for the right and left legs. During the screening exam for varicose veins, each leg was given a severity score of 1 to 5.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM FREQ</th>
<th>%</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>910</td>
<td>910</td>
<td>40.63</td>
<td>40.63</td>
</tr>
<tr>
<td>2</td>
<td>476</td>
<td>1376</td>
<td>21.25</td>
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<td>2.5</td>
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<tr>
<td>5</td>
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</tr>
</tbody>
</table>

INPUT VARIABLES

DE17382 (Screening exam) Severity of varicose veins in the right leg
1 - Absent
2 - Spider angioma
3 - Minimal
4 - Moderate
5 - Severe

DE17383 (Screening exam) Severity of varicose veins in the left leg
1 - Absent
2 - Spider angioma
3 - Minimal
4 - Moderate
5 - Severe

(cont.)
VARIABLE VEINAVEX (cont.)

CONSTRUCTION

IF DE17382 = , OR DE17383 = ,
THEN DO;

IF DE17382 \= .
THEN VEINAVEX = DE17382;
ELSE IF DE17383 \= .
THEN VEINAVEX = DE17383;
ELSE IF DE17382 = , AND DE17383 = ,
THEN VEINAVEX = 2;

END;

ELSE IF DE17382 >= 1 AND DE17383 >= 1
THEN VEINAVEX = (DE17382 + DE17383) / 2;

---

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VEIN_SE</th>
<th>AMEDIS SURGICAL CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
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<td>FREQ</td>
</tr>
<tr>
<td>.</td>
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<td>J</td>
<td>40</td>
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</tr>
<tr>
<td>Q</td>
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<tr>
<td>R</td>
<td>1252</td>
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</tr>
<tr>
<td>W</td>
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<tr>
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</tbody>
</table>

VEIN SE: Binary varicose veins status indicator at enrollment

CODES

. - Missing
C - Did not take screening exam
J - Missing responses to DE17382 and DE17383
Q - Women under 20 with no varicose vein exam
R - Men who had no varicose vein exam
W - Bad response to trigger
1 - Varicose veins present
2 - No varicose veins

VEIN SE discriminates between those people who have varicose veins and those who do not.

{cont.}
VARIABLE VEIN_SE (cont.)

INPUT VARIABLES

VEINWORS  Severity of varicose veins at enrollment

CONSTRUCTION

IF VEINWORS >= 3
    THEN VEIN_SF = 1;
ELSE IF VEINWORS = 1 OR VEINWORS = 2
    THEN VEIN_SF = 2;
ELSE VEIN_SF = VEINWORS;

<table>
<thead>
<tr>
<th>VARIABLE VEIN_SEX</th>
<th>AMEDIS SURGICAL CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1</td>
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</tr>
<tr>
<td>2</td>
<td>1448</td>
</tr>
</tbody>
</table>

Binary varicose veins status indicator at exit

CODES

- Missing
- Z = Missing DE17382 and DE17383
- 1 = Varicose veins present
- 2 = No varicose veins

VEIN_SEX discriminates between those people who have varicose veins and those who do not.

INPUT VARIABLES

VEINWORX  Severity of varicose veins at exit (cont.)
VARIABLE VEINSEX (cont.)

CONSTRUCTION

IF VEINWORTH >= 3
    THEN VEINSEX = 1;
ELSE IF VEINWORTH = 1 OR VEINWORTH = 2
    THEN VEINSEX = 2;
ELSE VEINSEX = VEINWORTH;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VEINMDRC</th>
<th>AMHDIS</th>
<th>SURGICAL CONDITIONS</th>
</tr>
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<td>VALUE</td>
<td>FREQ</td>
<td>FREQ</td>
<td>%</td>
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<tr>
<td>P</td>
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</tr>
</tbody>
</table>

VEINMDRC indicates whether a physician recommended keeping your feet up during the day and/or wearing support stockings because of varicose veins.

INPUT VARIABLES

DE14383 (MMQB) During the past 12 months, have you noticed varicose veins in your legs?

DE14385 (MMQB) In the past 12 months, has a doctor told you to keep your feet up during the day because of varicose veins?

DE14386 (MMQB) In the past 12 months, has a doctor told you to wear support stockings (elastic hose) because of varicose veins?

MMQB MMQB indicator at enrollment

(cont.)
VARIABLE VEINMORC (cont.)

CONSTRUCTION

IF DE14385 = .
  THEN DO;
    DE14385 = T;
    DE14386 = T;
  END;

IF DE14383 = 2
  THEN DO;
    DE14385 = S;
    DE14386 = S;
  END;

IF MHQ8 = .
  THEN DO;
    DE14385 = M;
    DE14386 = M;
  END;

IF DE14385 < 0
  THEN VEINMORC = DE14385;
ELSE IF DE14385 = 1 OR DE14386 = 1
    THEN VEINMORC = 1;
ELSE IF DE14385 = 2 AND DE14386 = 2
    THEN VEINMORC = 2;
ELSE VEINMORC = 2;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VEINMORX</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURGICAL CONDITIONS</td>
<td>AMEDS</td>
</tr>
</tbody>
</table>

Physician recommended therapy for varicose veins at exit.

<table>
<thead>
<tr>
<th>CODES</th>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM FREQ</th>
<th>%</th>
<th>CUM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
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<tr>
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</tbody>
</table>

**VEINMORX** indicates whether a physician recommended keeping your feet up during the day and/or wearing support stockings because of varicose veins.

**INPUT VARIABLES**

- **DE14383** (MHQB): During the past 12 months, have you noticed varicose veins in your legs?
- **DE14385** (MHQB): In the past 12 months, has a doctor told you to keep your feet up during the day because of varicose veins?
- **DE14386** (MHQB): In the past 12 months, has a doctor told you to wear support stockings (elastic hose) because of varicose veins?
- **MHQBX** MHQB indicator at exit.

**CONSTRUCTION**

```plaintext
IF DE14383 = . THEN DO:
  DE14385 = 1;
  DE14386 = T;
END;
```

(cont.)
VARIABLE VEINMDRX (cont.)

CONSTRUCTION (cont.)

IF DEI4383 = 2
THEN DO;
  DEI4385 = S;
  DEI4386 = S;
END;

IF MNDRX = .
THEN DO;
  DEI4385 = M;
  DEI4386 = M;
END;

IF DEI4385 < 0
THEN VEINMDRX = DEI4385;
ELSE IF DEI4385 = 1 OR DEI4386 = 1
   THEN VEINMDRX = 1;
ELSE IF DEI4385 = 2 AND DEI4386 = 2
   THEN VEINMDRX = 2;
   ELSE VEINMDRX = Z;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VEINMDRX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>SURGICAL CONDITIONS</td>
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<th>FREQ</th>
<th>%</th>
<th>CUM</th>
<th>%</th>
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<tr>
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<tr>
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<tr>
<td>T</td>
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</tbody>
</table>

VEINMDRX indicates whether the participant kept his feet up during the day and/or wore support stockings because of varicose veins, at the time of enrollment, whether or not a physician told him to do so.

VARIABLE VEINLHER

ANEDIS

SURGICAL CONDITIONS

Patient took therapy for varicose veins at enrollment.

CODES

. = Missing
M = No MQ8
S = Skipped out of varicose vein battery
T = Missed varicose vein trigger question
Z = Missing responses to DEI4387 AND DEI4388
1 = Yes, patient took therapy
2 = No, patient did not take therapy

VEINLHER indicates whether the participant kept his feet up during the day and/or wore support stockings because of varicose veins, at the time of enrollment, whether or not a physician told him to do so.

(cont.)
VARIABLE VEINHER (cont.)

INPUT VARIABLES

DE14383 (MIQB) During the past 12 months, have you noticed varicose veins in your legs?
DE14384 (MIQB) Do you currently keep your feet up during the day because of varicose veins?
DE14388 (MIQB) Do you currently wear support stockings (elastic hose) because of varicose veins?
MIQB MIQB indicator at enrollment

CONSTRUCTION

IF DE14383 = . THEN DO;
DE14387 = T;
DE14388 = T;
END;

IF DE14383 = 2 THEN DO;
DE14387 = S;
DE14388 = S;
END;

IF MIQB = . THEN DO;
DE14387 = M;
DE14388 = M;
END;

IF DE14387 < 6 THEN VEINHER = DE14387;
ELSE IF 1 <= DE14387 <= 3 OR 1 <= DE14388 <= 3 THEN VEINHER = 1;
ELSE IF DE14387 = 4 AND DE14388 = 4 THEN VEINHER = 2;
ELSE VEINHER = 2;
### VARIABLE VEINTHRX

**SURGICAL CONDITIONS**

- **Value**
  - .: 585
  - M: 170
  - S: 4455
  - 1: 5
  - 2: 1
  - 1: 203
  - 2: 452

**Value**

- .: Missing
- M: No
- S: Skipped
- T: Missed
- Z: Missing

**Codes**

- .: Missing
- M: No
- S: Skipped
- T: Missed
- Z: Missing

**VEINTHRX** indicates whether the participant kept his feet up during the day and/or wore support stockings because of varicose veins at exit, whether or not a physician told him to do so.

### INPUT VARIABLES

- **DEI4383 (MIQB)** During the past 12 months, have you noticed varicose veins in your legs?
- **DEI4387 (MIQB)** Do you currently keep your feet up during the day because of varicose veins?
- **DEI4388 (MIQB)** Do you currently wear support stockings (elastic hose) because of varicose veins?
- **MIQBX** MIQB indicator at exit

### CONSTRUCTION

```
IF DEI4383 = .
THEN DO:
    DEI4387 = T;
    DEI4388 = T;
    END;

IF DEI4383 = 2
THEN DO:
    DEI4387 = S;
    DEI4388 = S;
    END;
```

{cont.}
VARIABLE VEINIMP (cont.)

CONSTRUCTION (cont.)

IF MHQB = ,
   THEN DO;
      DE14387 = M;
      DE14388 = M;
      END;

IF DE14387 < 0
   THEN VEINIMP = DE14387;
   ELSE IF 1 <= DE14387 <= 3 OR 1 <= DE14388 <= 3
      THEN VEINIMP = 1;
   ELSE IF DE14387 - 6 AND DE14388 - 4
      THEN VEINIMP = 2;
   ELSE VEINIMP = 2;

VARIABLE VEINIMP

ANL/DIS SURGICAL CONDITIONS

Impact of varicose veins at enrollment

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
</tr>
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<tr>
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<tr>
<td>M</td>
<td>259</td>
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<td>.</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>4293</td>
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<td>.</td>
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</tr>
<tr>
<td>0</td>
<td>341</td>
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<td>1</td>
<td>298</td>
<td>639</td>
<td>46.64</td>
<td>100.00</td>
</tr>
</tbody>
</table>

CODES

. - Missing
M - No MHQB
S - Skipped out of varicose vein battery
0 - No impact
1 - Some impact

VEINIMP indicates whether varicose veins caused any pain, worry/concern, activity restrictions, or days in bed.

INPUT VARIABLES

DE14383 (MHQB) During the past 12 months, have you noticed varicose veins in your legs?
DE14390 (MHQB) During the past 3 months, how much pain have your varicose veins caused you? (cont.)
VARIABLE VEINIMP (cont.)

INPUT VARIABLES (cont.)

DE14391 (MHO8 – Dayton) During the past 3 months, how much have your varicose veins worried or concerned you?
DE14392 (MHO8 – Dayton) During the past 3 months, how often have varicose veins kept you from doing the kinds of activities other people your age do?
DE14393 (MHO8) During the past 30 days, how many days have your varicose veins kept you in bed all or most of the day?
DE19059 (MHO8 – NonDayton) During the past 3 months, how much have your varicose veins worried or concerned you?
DE19060 (MHO8 – NonDayton) In the past 3 months, how much of the time have your varicose veins kept you from doing the kinds of things other people your age do?
WORRY (Temporary variable) Worry due to varicose veins
ACTIVRES (Temporary variable) Restricted activity due to varicose veins
MHO8 MHO8 indicator at enrollment

CONSTRUCTION

(Construct WORRY and ACTIVRES)

(Dayton)

WORRY = DE14391;
ACTIVRES = DE14392;

(NonDayton)

IF 2 <= DE19059 <= 3 THEN WORRY = 2;
IF DE19059 = 4 THEN WORRY = 3;
IF DE19059 = 5 THEN WORRY = 4;
IF DE19059 = 1 THEN WORRY = 1;

ACTIVRES = DE19060;

(Construct VEINIMP)

IF 1 <= DE14390 < 4 OR 1 <= WORRY < 4 OR
1 <= ACTIVRES < 5 OR DE14393 > 0
THEN VEINIMP = 1;

(cont.)
VARIABLE VEINIMP (cont.)

CONSTRUCTION (cont.)

ELSE IF DE14390 < 0 AND WORRY < 0 AND
ACTIVES < 0 AND DE14393 < 0
THEN VEINIMP = .;
ELSE VEINIMP = 0;

IF MIQ0 = . THEN VEINIMP = M;
IF DE14383 = 2 THEN VEINIMP = S;

---

VARIABLE VEINIMPX

Surgical Conditions

<table>
<thead>
<tr>
<th>VALUE</th>
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<th>FREQ</th>
<th>%</th>
<th>CUM</th>
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<tr>
<td>M</td>
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<td>S</td>
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</table>

VEINIMPX indicates whether varicose veins caused any pain, worry/concern, activity restrictions, or days in bed.

---

INPUT VARIABLES

DE14383 (M028) During the past 12 months, have you noticed varicose veins in your legs?
DE14390 (M028) During the past 3 months, how much pain have your varicose veins caused you?
DE14393 (M028) During the past 30 days, how many days have your varicose veins kept you in bed all or most of the day?
DE19059 (M028) During the past 3 months, how much have your varicose veins worried or concerned you?
DE19060 (M028) In the past 3 months, how much of the time have your varicose veins worried you from doing the kinds of things other people your age do?
WORRY (temporary variable) Recodes NonDayton DE19059 (cont.)
VARIABLES (cont.)

INPUT VARIABLES (cont.)

ACTIVRES (Temporary variable) Recodes NonDayton DE19060
MHOBX  MHOB indicator at exit

CONSTRUCTION

{Construct WORRY and ACTIVRES}

IF 2 <= DE19059 <= 3 THEN WORRY = 2;
ELSE IF DE19059 = 4 THEN WORRY = 3;
ELSE IF DE19059 = 5 THEN WORRY = 4;
ELSE IF DE19059 = 1 THEN WORRY = 1;
ELSE WORRY = DE19059;

ACTIVRES = DE19060;

{Construct VENIMPX}

IF 1 <= DE14390 <= 4 OR 1 <= WORRY < 4 OR
1 <= ACTIVRES < 5 OR DE14393 > 0
THEN VENIMPX = 1;
ELSE IF DE14390 < 0 AND WORRY < 0 AND
ACTIVRES < 0 AND DE14393 < 0
THEN VENIMPX = 1;
ELSE VENIMPX = 0;

IF MHOBX = 1, THEN VENIMPX = M;
IF DE14383 = 2 THEN VENIMPX = S;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HRNATRIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURGICAL CONDITIONS</td>
<td>AMEDIS</td>
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<tr>
<td>Had a hernia within the 12 months prior to enrollment</td>
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<tr>
<td>CODES</td>
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<tr>
<td>. = Missing</td>
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</tr>
<tr>
<td>M = No MHQ</td>
<td></td>
</tr>
<tr>
<td>1 = Yes</td>
<td></td>
</tr>
<tr>
<td>2 = No</td>
<td></td>
</tr>
</tbody>
</table>

HRNATRIG indicates whether or not the respondent had a hernia within the 12 months prior to enrollment, based on responses to the MHQ.

<table>
<thead>
<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM FREQ</th>
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<td>4929</td>
<td>98.62</td>
<td>100.00</td>
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</table>

INPUT VARIABLES

DE14260 (MHQ) Have you had a hernia within the past 12 months?
MHQB MHQB indicator at enrollment

CONSTRUCTION

IF MHQB = . THEN DE14260 = M;
HRNATRIG = DE14260;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HRNAIRGX</th>
<th>ANEDIS</th>
<th>SURGICAL CONDITIONS</th>
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<tr>
<td>CODES</td>
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</tr>
<tr>
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<td>M - No NHQ</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>1 - Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 - No</td>
<td></td>
<td></td>
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</tbody>
</table>

HRNAIRGX indicates whether or not the respondent had a hernia during the 12 months prior to exit based on responses to the NHQ.

**INPUT VARIABLES**

DE14260 (NHQ) Have you had a hernia within the past 12 months?

MIQSBX NHQ Indicator at exit

**CONSTRUCTION**

1. IF MIQSBX = , THEN DE14260 = M;
2. HRNAIRGX = DE14260;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HRNAPREV</th>
<th>AMEDIS SURGICAL CONDITIONS</th>
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<tbody>
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<td>FREQ</td>
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<tr>
<td>M</td>
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</tr>
<tr>
<td>Z</td>
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<tr>
<td>2</td>
<td>4603</td>
<td>4924</td>
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</tbody>
</table>

CODES
- Missing
- M - No MIIOB
- Z - Missing responses to DEI4259 AND DEI4260
- 1 - Yes
- 2 - No

HRNAPREV determines whether the respondent has had a hernia in the past 12 months or has ever had a hernia operation.

INPUT VARIABLES
- DEI4259 (MIIOB) Have you ever had an operation for a hernia, rupture, or herniated navel?
- DEI4260 (MIIOB) Have you had a hernia within the past 12 months?

CONSTRUCTION
(Note: Special missing (M) was assigned to DEI4259 and DEI4260 before constructing HRNAPREV.)

IF DEI4259 = M AND DEI4260 = M THEN HRNAPREV = M;
ELSE IF DEI4259 = 1 OR DEI4260 = 1 THEN HRNAPREV = 1;
ELSE IF DEI4259 = 2 AND DEI4260 = 2 THEN HRNAPREV = 2;
ELSE HRNAPREV = Z;
VARIABLE: HRNAPRVX

SURGICAL CONDITIONS

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<th>FREQ</th>
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<td>93.31</td>
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</tbody>
</table>

**CODES**

- . = Missing
- M = No Hernia
- Z = Missing responses to DE14259 AND DE14260
- 1 = Yes
- 2 = No

HRNAPRVX determines whether the respondent has had a hernia in the past 12 months or has ever had a hernia operation.

**INPUT VARIABLES**

DE14259 (HMQB) Have you ever had an operation for a hernia, rupture, or herniated navel?

DE14260 (HMQB) Have you had a hernia within the past 12 months?

**CONSTRUCTION**

(Note: Special missing (M) was assigned to DE14259 and DE14260 before constructing HRNAPRVX.)

IF DE14259 = M AND DE14260 = M
THEN HRNAPRVX = M;
ELSE IF DE14259 = 1 OR DE14260 = 1
THEN HRNAPRVX = 1;
ELSE IF DE14259 = 2 AND DE14260 = 2
THEN HRNAPRVX = 2;
ELSE HRNAPRVX = Z;
<table>
<thead>
<tr>
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<th>HRNASTAT</th>
<th>AMEDIS SURGICAL CONDITIONS</th>
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</thead>
<tbody>
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<td>FREQ</td>
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</tr>
<tr>
<td>- No MHQB</td>
<td>M</td>
<td>759</td>
</tr>
<tr>
<td>- Missing responses to DE14259 AND DE14260</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>- Current hernia, never had hernia surgery</td>
<td>1</td>
<td>49</td>
</tr>
<tr>
<td>- Current hernia and had surgery</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>- Surgery performed in the past, no hernia currently</td>
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</tr>
<tr>
<td>- Never had a hernia or surgery for a hernia</td>
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<td>4603</td>
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</table>

HRNASTAT defines the participant's hernia status at enrollment based on responses to the MHQB.

INPUT VARIABLES

DE14259 (MHQB) Have you ever had an operation for a hernia, rupture, or herniated navel?
DE14260 (MHQB) Have you had a hernia within the past 12 months?
DE19056 (MHQB - NonDayton) During the past 12 months, did a doctor recommend that you have an operation to repair the hernia, rupture, or herniated navel?
MHQB MHQB indicator at enrollment

CONSTRUCTION

(NonDayton)

IF MHQB
THEN HRNASTAT = M;
ELSE IF DE14260 = 1 AND DE14259 = 1
THEN HRNASTAT = 2;
ELSE IF DE14260 = 1 AND DE14259 = 2
THEN HRNASTAT = 1;
ELSE IF DE14260 = 2 AND DE14259 = 1
THEN HRNASTAT = 3;
ELSE IF DE14260 = 2 AND DE14259 = 2
THEN HRNASTAT = 4;
ELSE HRNASTAT = Z;

(cont.)
VARIAFLE HRRNSTAT (cont.)

CONSTRUCTION (cont.)

[NonDayton]

IF MNOB = 0;
     THEN HRRNSTAT = M;
ELSE IF DE14260 = 1 AND DE14259 = 1
     THEN HRRNSTAT = 2;
ELSE IF DE14260 = 1 AND DE14259 = 2
     THEN HRRNSTAT = 1;
ELSE IF DE14260 = 2 AND DE14259 = 1
     THEN HRRNSTAT = 3;
ELSE IF DE14260 = 2 AND DE14259 = 2
     THEN HRRNSTAT = 4;
ELSE HRRNSTAT = Z;
IF DE14259 = 2 AND DE19056 = 1 AND DE14260 = 1
     THEN HRRNSTAT = 2;

NOTE: A person could have conflicting answers between DE14259 and DE19056. In cases where there is contradictory information, any indication that a person has had surgery will qualify him for HRRNSTAT = 2.
**VARIABLE** | **HRNASTAX** | **APENDIS** | **SURGICAL CONDITIONS**
---|---|---|---
Hernia status at exit

**CODES**
- .: Missing
- M: No hernia
- 1: Current hernia, never had hernia surgery
- 2: Current hernia and had surgery
- 3: Surgery performed in the past, no hernia currently
- 4: Never had a hernia or surgery for a hernia

**HRNASTAX** defines the participant’s hernia status at enrollment based on responses to the MHQ.

**INPUT VARIABLES**
- DE14259 (MHQB): Have you ever had an operation for a hernia, rupture, or herniated navel?
- DE14260 (MHQB): Have you had a hernia within the past 12 months?
- DE19056 (MHQB - NonDayton): During the past 12 months, did a doctor recommend that you have an operation to repair the hernia, rupture, or herniated navel?
- MHQBX: MHQB indicator at exit

**CONSTRUCTION**

```plaintext
IF MHQBX = .
    THEN HRNASTAX = M;
ELSE IF DE14260 = 1 AND DE14259 = 1
    THEN HRNASTAX = 2;
ELSE IF DE14260 = 1 AND DE14259 = 2
    THEN HRNASTAX = 1;
ELSE IF DE14260 = 2 AND DE14259 = 1
    THEN HRNASTAX = 3;
ELSE IF DE14260 = 2 AND DE14259 = 2
    THEN HRNASTAX = 4;
ELSE HRNASTAX = 2;
IF DE14259 = 2 AND DE19056 - 1 AND DE14260 = 1
    THEN HRNASTAX = 2;
```

(cont.)
VARIABLE HRNASTAX (cont.)

NOTE: A person could have conflicting answers between DE14259 and DE19956. In cases where there is contradictory information, any indication that a person has had surgery will qualify him for HRNASTAX = 2.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>HRNAIMP</th>
<th>AMIDIS</th>
<th>SURGICAL CONDITIONS</th>
</tr>
</thead>
<tbody>
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<td>FREQ</td>
</tr>
<tr>
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<tr>
<td>M - No MHQB</td>
<td>259</td>
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<tr>
<td>S - Answered no to trigger question, skipped out of battery</td>
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<tr>
<td>0 - No impact</td>
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<tr>
<td>1 - Some impact</td>
<td>51</td>
<td>68</td>
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</tr>
</tbody>
</table>

**HRNAINP indicates whether a hernia, rupture, or herniated navel caused any pain, worry/concern, activity restrictions, or days in bed.**

**INPUT VARIABLES**

- **DE14260 (MHQB)** Have you had a hernia within the past 12 months?
- **DE14261 (MHQB)** During the past 3 months, how much pain has your hernia, rupture, or herniated navel caused you?
- **DE14262 (MHQB)** During the past 3 months, how much has your hernia, rupture, or herniated navel worried or concerned you?
- **DE14263 (MHQB)** During the past 3 months, how often has your hernia, rupture, or herniated navel kept you from doing the kinds of activities other people your age do?
- **DE14264 (MHQB)** During the past 30 days, how many days has your hernia, rupture, or herniated navel kept you in bed all or most of the day?
- **MHQB** MHQB indicator at enrollment (cont.)
VARIABLE HRNAIMP (cont.)

CONSTRUCTION

IF MHQB = .
   THEN DO:
      DE14261 = M;
      DE14262 = M;
      DE14263 = M;
      DE14264 = M;
      END;
   IF DE14260 = 2
      THEN DO:
         DE14261 = S;
         DE14262 = S;
         DE14263 = S;
         DE14264 = S;
         END;
   IF 1 <= DE14261 < 4 OR 1 <= DE14262 < 4 OR
      1 <= DE14263 < 5 OR DE14264 > 0
      THEN HRNAIMP = 1;
   ELSE IF DE14261 < 0 AND DE14262 < 0 AND
          DE14263 < 0 AND DE14264 < 0
          THEN HRNAIMP = .;
      ELSE HRNAIMP = 0;
   IF MHQB = . THEN HRNAIMP = M;
   IF DE14260 = 2 THEN HRNAIMP = S;
### VARIABLE HRNAIMPX

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<thead>
<tr>
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<th>%</th>
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**Impact of hernia at exit**

**CODES**
- . - Missing
- M - No MIHQB
- S - Answered no to trigger question, skipped out of battery
- 0 - No impact
- 1 - Some impact

**HRNAIMPX** indicates whether a hernia, rupture, or herniated navel caused any pain, worry/concern, activity restrictions, or days in bed.

### INPUT VARIABLES

- DE14260 (MIHQB) Have you had a hernia within the past 12 months?
- DE14261 (MIHQB) During the past 3 months, how much pain has your hernia, rupture, or herniated navel caused you?
- DE14262 (MIHQB) During the past 3 months, how much has your hernia, rupture, or herniated navel worried or concerned you?
- DE14263 (MIHQB) During the past 3 months, how often has your hernia, rupture, or herniated navel kept you from doing the kinds of activities other people your age do?
- DE14264 (MIHQB) During the past 30 days, how many days has your hernia, rupture, or herniated navel kept you in bed all or most of the day?
- MIHQBx MHQB indicator at exit

### CONSTRUCTION

```r
IF MIHQBx = .
  THEN DO;
  DE14261 = M;
  DE14262 = M;
  DE14263 = M;
  DE14264 = M;
END;
```

(cont.)
VARIABLE HRNAIMPX (cont.)

CONSTRUCTION (cont.)

IF DE14260 = 2
    THEN DO;
        DE14261 = S;
        DE14262 = S;
        DE14263 = S;
        DE14264 = S;
        END;

    IF 1 <= DE14261 < 4 OR 1 <= DE14262 < 4 OR
       1 <= DE14263 < 5 OR DE14264 > 0
       THEN HRNAIMPX = 1;
    ELSE IF DE14261 < 0 AND DE14262 < 0 AND
           DE14263 < 0 AND DE14264 < 0
           THEN HRNAIMPX = .;
           ELSE HRNAIMPX = 0;

    IF MHQBX = . THEN HRNAIMPX = M;
    IF DE14260 = 2 THEN HRNAIMPX = S;
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<tr>
<th>VARIABLE</th>
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<th>VALUE</th>
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<th>CUM</th>
<th>%</th>
<th>CUM</th>
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TONSEXAM identifies the results of the tonsil exam done during the enrollment screening exam. The tonsils were examined for size.

INPUT VARIABLES

DE17053 (Screening exam - Dayton) Age of examinee
DE17087 (Screening exam - NonDayton) Is examinee less than 20 years old?
1 = Yes
2 = No
DE17089 (Dayton - Screening exam) Results of tonsil exam
1 = Absent
2 = Normal
3 = Minimally enlarged
4 = Moderately enlarged
5 = Touching midline
DE12185 (NonDayton - Screening exam) Results of tonsil exam
1 = Absent
2 = Normal
3 = Minimally enlarged
4 = Moderately enlarged
5 = Touching midline
SCREENED Screening exam indicator at enrollment (cont.)
VARIABLE TONSEXAM (cont.)

CONSTRUCTION

[Dayton]
    IF SCREENED = . THEN DE17089 = C;
    IF DE17053 = 20 THEN DE17089 = C;
    IF DE17053 = . THEN DE17089 = H;
    IF DE17089 >= 0
    THEN TONSEXAM = DE17089 + 1;
    ELSE TONSEXAM = DE17089;

[NonDayton]
    IF SCREENED = . THEN DE12185 = C;
    IF DE17087 = 2 THEN DE12185 = C;
    IF DE17087 = . THEN DE12185 = H;
    TONSEXAM = DE12185;

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<td>3</td>
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Results of the tonsils exam at exit

CODES

- Missing
- Did not take screening exam
- Absent
- Normal
- Minimally enlarged
- Moderately enlarged
- Touching midline

TONSEXAM identifies the results of the tonsil exam done during the exit screening exam. The tonsils were examined for size.
VARIABLE TONGEXM (cont.)

INPUT VARIABLES

DE12815 (Screening exam) Results of tonsil exam
1 = Absent
2 = Normal
3 = Minimally enlarged
4 = Moderately enlarged
5 = Touching midline
SCREEENX Screening exam indicator at exit

CONSTRUCTION

IF SCREEENX = , THEN DE12815 = C;
TONSEXM = DE12815;

<table>
<thead>
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<th>TONGEXM</th>
<th>ANEDIS</th>
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<tr>
<td></td>
<td>FREQ</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>CUM %</td>
<td></td>
</tr>
</tbody>
</table>

- C - Did not take screening exam
- H - Missing value for age
- G - Tonsil exam was not performed (age greater than or equal to 20)
- O - No enlargement of tonsils
- 1 - Enlargement of tonsils

TOSTHAT is an indicator which determines whether the respondent has enlarged tonsils or not.

INPUT VARIABLES

DE16053 (Screening exam - Dayton) Age of examinee
DE17057 (Screening exam - NonDayton) Is examinee less than 20 years old?
1 = Yes
2 = No

(cont.)
VARIABLE TONSTAT (cont.)

INPUT VARIABLES (cont.)

TONSEXAM  Results of tonsils exam
SCREENED  Screening exam indicator at enrollment

CONSTRUCTION

{Dayton}

IF SCREENED = . THEN TONSTAT = C;
IF DE17053 >= 20 THEN TONSTAT = G;
IF DE17053 = . THEN TONSTAT = H;

IF 3 <= TONSEXAM <= 5
    THEN TONSTAT = 1;
ELSE IF 1 <= TONSEXAM <= 2
    THEN TONSTAT = 0;

{NonDayton}

IF SCREENED = . THEN TONSTAT = C;
IF DE17087 = 2 THEN TONSTAT = G;
IF DE17087 = . THEN TONSTAT = H;

IF 3 <= TONSEXAM <= 5
    THEN TONSTAT = 1;
ELSE IF 1 <= TONSEXAM <= 2
    THEN TONSTAT = 0;
VARIABLES

TONSTATX

Tonsils status indicator at exit

CODES

. - Missing
C - Did not take screening exam
0 - No enlargement of tonsils
1 - Enlargement of tonsils

TONSTATX is an indicator which determines whether the respondent has enlarged tonsils or not.

INPUT VARIABLES

TONSEXMX  Results of tonsils exam
SCREENMX  Screening exam indicator at exit

CONSTRUCTION

IF 3 <= TONSEXMX <= 5
    THEN TONSTATX = 1;
ELSE IF 1 <= TONSEXMX <= 2
    THEN TONSTATX = 0;
ELSE TONSTATX = TONSEXMX;

IF SCREENMX = ., THEN TONSTATX = C;

<table>
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<tr>
<th>VALUE</th>
<th>FREQ</th>
<th>CUM FREQ</th>
<th>%</th>
<th>CUM %</th>
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THYROID CONDITION

<table>
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<tr>
<th>VARIABLE</th>
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</thead>
<tbody>
<tr>
<td>AMEDIS</td>
<td>THYROID CONDITION</td>
</tr>
</tbody>
</table>

Total serum thyroxine (T4) measure at enrollment

CODES
- Missing
- Did not take screening exam

Range of thyroxine test results - 0 to 20.2 mcg/100 ml

THYR_T4 represents the results of the total serum thyroxine test which was performed as part of the enrollment screening exam. If the T4 was abnormally high or low, the laboratory repeated the analysis, and the result of the repeat analysis is used.

THYR_T4

NUMBER OF OBSERVATIONS: 2855
NUMBER OF MISSING: 3616
MEAN: 7.49
MEDIAN: 7.30
MINIMUM VALUE: 0.90
MAXIMUM VALUE: 20.70
STANDARD DEVIATION: 2.10
COEFFICIENT OF VARIATION: 27.96
SKEWNESS: 0.74
KURTOSIS: 1.78

INPUT VARIABLES

DE12788 (NonDayton - Screening exam) 1st measure serum thyroxine test
DE12891 (NonDayton - Screening exam) Repeat measure serum thyroxine test
DE17496 (Dayton - Screening exam) 1st measure serum thyroxine test
DE17497 (Dayton - Screening exam) Repeat measure serum thyroxine test
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

(Dayton)

THYR_T4 = DE17496;
IF DE17497 > 0 THEN THYR_T4 = DE17497;
ELSE IF SCREENED = . THEN THYR_T4 = $E$;
VARIABLE THYR_T4 (cont.)
CONSTRUCTION (cont.)
(NonDayton)

THYR_T4 = DE12788;
IF DE12991 == 0
  THEN THYR_T4 = DE12991;
ELSE IF SCREENED = .
  THEN THYR_T4 = F;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>AMEDIS</th>
</tr>
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<tr>
<td>THYR_T4X</td>
<td>Total serum thyroxine (T4) measured at exit</td>
</tr>
<tr>
<td>CODES</td>
<td>Did not take screening exam</td>
</tr>
<tr>
<td></td>
<td>Range of thyroxine test results = 0.9 to 41.6 mcg/100 ml</td>
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THYR_T4X represents the results of the serum thyroxine test which was performed as part of the exit screening exam. If the T4 was abnormally high or low, the laboratory repeated the analysis, and the result of the repeat analysis is used.

INPUT VARIABLES
DE12788 (Screening exam) 1st measure serum thyroxine test
DE12991 (Screening exam) Repeat measure serum thyroxine test
SCREENDX Screening exam indicator at exit

CONSTRUCTION
THYR_T4X = DE12788;
IF DE12991 == 0
  THEN THYR_T4X = DE12991;
ELSE IF SCREENDX = .
  THEN THYR_T4X = C;
VARIABLE THYR_T7

THYROID CONDITION

T7 measure (or free T4 index) at enrollment—NonDayton only

CODES

. = Missing
E = Did not take screening exam
Range of values = 0.5 to 34 mcg/dl

THYR_T7 represents the 'free T4 index' or T7 which was calculated from the resin T3 uptake test. The resin T3 uptake (RT3U) test was performed if the THYR T4 was abnormally high; if the examinee was taking hormones, thyroid medication, or birth control pills; or if the examinee was pregnant.

NOTE: Resin T3 uptake (RT3U) was not measured at Dayton enrollment.

INPUT VARIABLES

DE12995 (NonDayton—Screening exam) 1st measure T7 test
DE12995 (NonDayton—Screening exam) Repeat measure T7 test
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

(NonDayton)

THYR_T7 = DE12994;
IF DE12995 = 0 THEN THYR_T7 = DE12995;
IF SCREENED = 1
THEN THYR_T7 = E;
THYR_T7X

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<tr>
<td>T7 measure (or free T4 index) at exit</td>
<td></td>
</tr>
</tbody>
</table>

**CODES**

- - Missing
- C = Did not take screening exam
- Range of values = 0.5 to 17.3 mcg/dl

THYR_T7X represents the 'free T4 index' or T7 which was calculated from the resin T3 uptake test. The resin T3 uptake (RT3U) test was performed if the THYR_T4X was abnormally high; if the examinee was taking hormones, thyroid medication, or birth control pills; or if the examinee was pregnant.

**INPUT VARIABLES**

DE12994  (Screening exam)  1st measure T7 test
DE12995  (Screening exam)  Repeat measure T7 test
SCREENEX Screening exam indicator at exit

**CONSTRUCTION**

THYR_T7X = DE12994:
IF DE12995 >= 0
   THEN THYR_T7X = DE12995;
IF SCREENEX = .
   THEN THYR_T7X = C;

THYR_T7X

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THYR SE

VARIABLE THYR SE

THYROID CONDITION

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THYR_SE combines the results of six screening exam questions and two sets of serum thyroxine tests to create a thyroid status indicator.

THYROID DISEASE STATUS BASED ON SCREENING EXAM DATA AT ENROLLMENT

CODES

. - Missing
E - No screening exam
1 - Elevated, no thyroid medications
2 - Depressed, no thyroid medications
3 - Elevated, with thyroid medications
4 - Normal, with thyroid medications
5 - Depressed, with thyroid medications
6 - Daytime elevated, pregnant or use birth control pills
7 - Normal, no thyroid medications

INPUT VARIABLES

DE17006 (Screening exam) Are you now taking any pills or medicine for thyroid trouble?
1 - Yes
2 - No

DE17025 (Screening exam) Are you now taking birth control pills?
1 - Yes
2 - No

DE17026 (Screening exam) Are you pregnant now?
1 - Yes
2 - No

DE17447 (Screening exam) Examined receiving thyroid medications?
1 - Yes
2 - No

DE17448 (Screening exam) Examined on birth control pills?
1 - Yes
2 - No

DE17449 (Screening exam) Examined pregnant?
1 - Yes
2 - No

(cont.)
VARIABLE THYR_SE (cont.)

INPUT VARIABLES (cont.)

THYR_T4  Total serum thyroxine measure at enrollment
THYR_T7  T7 measure at enrollment
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

{Dayton}

IF THYR_T4 >= 0
  THEN THYR_SE = 7;
IF THYR_T4 > 9.0
  THEN THYR_SE = 1;
IF THYR_SE = 1 AND (DE17025 = 1 OR DE17026 = 1
  OR DE17448 = 1 OR DE17449 = 1)
  THEN THYR_SE = 6;
IF THYR_SE = 1 AND (DE17006 = 1 OR DE17447 = 1)
  THEN THYR_SE = 3;
IF 0 <= THYR_T4 <= 2.0
  THEN THYR_SE = 2;
IF THYR_SE = 2 AND (DE17006 = 1 OR DE17447 = 1)
  THEN THYR_SE = 5;
IF THYR_SE = 7 AND (DE17006 = 1 OR DE17447 = 1)
  THEN THYR_SE = 4;
IF SCREENED = .
  THEN THYR_SE = 1;

{NonDayton}

IF THYR_T4 >= 0
  THEN THYR_SE = 7;
IF SITE = 2
  THEN DG;
  IF THYR_T7 >= 15.0
    THEN THYR_SE = 1;
  IF 0 <= THYR_T7 < 2.0
    THEN THYR_SE = 2;
END;

{cont.}
VARIABLE THYR_SE (cont.)

CONSTRUCTION (cont.)

ELSE IF SITE = 3 OR SITE = 4
    THEN DO;
        IF THYR_T7 > 3.5
            THEN THYR_SE = 1;
        IF 0 <= THYR_T7 < 0.7
            THEN THYR_SE = 2;
    END;
ELSE DO;
    IF THYR_T7 > 4.3
        THEN THYR_SE = 1;
    IF 0 <= THYR_T7 < 0.7
        THEN THYR_SE = 2;
    END;

IF THYR_SE = 1 AND (DE17006 = 1 OR DE17447 = 1)
    THEN THYR_SE = 3;
IF THYR_SE = 2 AND (DE17006 = 1 OR DE17447 = 1)
    THEN THYR_SE = 5;
IF THYR_SE = 7 AND (DE17006 = 1 OR DE17447 = 1)
    THEN THYR_SE = 4;
IF SCREENED = 1
    THEN THYR_SE = 6;
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<td>8</td>
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</tbody>
</table>

**TNYR_SEX**

The table above shows the codes for thyroid disease status based on screening exam data at exit. The codes are as follows:

- **.**: Missing
- **0**: No screening exam
- **1**: Normal, no thyroid medications
- **2**: Normal, with thyroid medications
- **3**: Hyperthyroid (elevated), no thyroid medications
- **4**: Hyperthyroid (elevated), with thyroid medications
- **5**: Definite hypothyroid (low T7, high TSH), no medication
- **6**: Probable hypothyroid (low T7, no TSH), no medication
- **7**: Possible hypothyroid (low T7, normal TSH), no medication
- **8**: Definite hypothyroid (low T7, high TSH), with medication
- **9**: Probable hypothyroid (low T7, no TSH), with medication
- **10**: Possible hypothyroid (low T7, normal TSH), with medication

**TNYR_SEX** combines the results of screening exam questions and two sets of serum thyroxine tests to create a thyroid status indicator.

**INPUT VARIABLES**

- **DE13167**: [Screening exam] Are you now taking any pills or medicine for thyroid trouble?
  - **1**: No
  - **2**: Yes
- **DE1100B3**: [Screening exam] Thyroid stimulating hormone (TSH) test if T7 is less than 1.9
- **DE112257**: [Out-of-area screening exam] Free thyroxine index or T7-Normal range minimum
- **DE112258**: [Out-of-area screening exam] Free thyroxine index or T7-Normal range maximum
- **ENRTERM**: Term of enrollment
- **TNYR_T4X**: Total serum thyroxine measure at exit
- **TNYR_T7X**: T7 measure at exit

(cont.)
VARIABLE THYR_SEX (cont.)

INPUT VARIABLES (cont.)

OUTAREA Out-of-area screening exam indicator at exit
SCREENDX Screening exam indicator at exit
SITE Respondent's place of residence at enrollment

CONSTRUCTION

IF THYR_TFX >= 0
THEN THYR_SEX = 1;
IF SITE = 3 AND ENRTERM = 3
THEN DO;
    IF THYR_TFX > 5.0
        THEN THYR_SEX = 3;
    ELSE IF 0 <= THYR_TFX < 0.9
        THEN THYR_SEX = 6;
END;

IF SITE = 1 AND ENRTERM <= 3
OR (SITE = 2 AND ENRTERM = 3) OR
((SITE = 3 OR SITE = 4) AND ENRTERM = 3)
THEN DO;
    IF THYR_TFX > 6.0
        THEN THYR_SEX = 3;
    ELSE IF 0 <= THYR_TFX < 1.5
        THEN DO;
            IF DE110083 > 10
                THEN THYR_SEX = 5;
            ELSE IF DE110083 < 0
                THEN THYR_SEX = 6;
            ELSE IF 0 <= DE110083 <= 10
                THEN THYR_SEX = 7;
        END;
END;

END;

(cont.)
VARIABLE THYR Sexo (cont.)

CONSTRUCTION (cont.)

IF (SITE = 1 AND ENRTERM = 3) OR
   ((SITE = 5 OR SITE = 6) AND ENRTERM = 3)
   THEN DO;

   IF THYR_T7X > 5.5
       THEN THYR Sexo = 3;
   ELSE IF 0 <= THYR_T7X < 1.7
       THEN DO;

       IF DE110083 > 10
           THEN THYR Sexo = 5;
       ELSE IF DE110083 < 0
           THEN THYR Sexo = 6;
       ELSE IF 0 <= DE110083 <= 10
           THEN THYR Sexo = 7;

   END;

END;

IF OUTAREA > 0 AND DE112557 >= 0 AND DE112558 >= 0
   THEN DO;

   IF THYR_T7X > (.16 * DE112558)
       THEN THYR Sexo = 3;
   ELSE IF 0 <= THYR_T7X < (.80 * DE112557)
       THEN THYR Sexo = 6;

END;

IF THYR Sexo = 1 AND DE13167 = 2
   THEN THYR Sexo = 2;
IF THYR Sexo = 3 AND DE13167 = 2
   THEN THYR Sexo = 4;
IF THYR Sexo = 5 AND DE13167 = 2
   THEN THYR Sexo = 8;
IF THYR Sexo = 6 AND DE13167 = 2
   THEN THYR Sexo = 9;
IF THYR Sexo = 7 AND DE13167 = 2
   THEN THYR Sexo = 10;
IF SCREENED = .
   THEN THYR Sexo = 6;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>THYR_MED</th>
<th>AMEDIS</th>
<th>THYROID_CONDITION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Taking medication for thyroid condition at enrollment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CODES**

- . - No screening exam or missing
- 1 - Use thyroid medications
- 2 - Do not use thyroid medications

**THYR_MED** indicates whether the participant was taking any thyroid medication at the enrollment screening exam.

**INPUT VARIABLES**

DE17006  {Screening exam} Are you now taking any pills or medicine for thyroid trouble?
1 - Yes
2 - No

DE17447  {Screening exam} Examinee receiving thyroid medications?
1 - Yes
2 - No

**CONSTRUCTION**

- IF DE17006 = 2 OR DE17447 = 2
  THEN THYR_MED = 2;
- IF DE17006 = 1 OR DE17447 = 1
  THEN THYR_MED = 1;

<table>
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<th>FREQ</th>
<th>%</th>
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<td>Taking medication for thyroid condition at exit</td>
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<tr>
<td>CODES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- No screening exam or missing</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Use thyroid medications</td>
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<td></td>
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<tr>
<td>- Do not use thyroid medications</td>
<td>864</td>
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</table>

THYRMEDX indicates whether the participant was taking any thyroid medication at the exit screening exam.

INPUT VARIABLE

DE13167 (Screening exam) Are you now taking any pills or medicine for thyroid trouble?
1 - No |
2 - Yes |

CONSTRUCTION

IF DE13167 = 2
THEN THYRMEDX = 1;
ELSE IF DE13167 = 1
THEN THYRMEDX = 2;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>THYRSTAT</th>
<th>AMEDIS</th>
<th>THYROID CONDITION</th>
</tr>
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<td>Thyroid disease status based on screening exam and MKQ data at enrollment</td>
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</tr>
<tr>
<td>1</td>
<td>- Normal</td>
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</tr>
<tr>
<td>2</td>
<td>- Hyperthyroid</td>
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</tr>
<tr>
<td>3</td>
<td>- Hypothyroid</td>
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</table>

THYRSTAT combines the status variable that was derived from screening exam data (THYR_SE) and data from the MKQ.

INPUT VARIABLES

DE14369 (HIQB) Has a doctor ever said you had goiter or thyroid trouble?
DE14374 (Dayton - HIQB) Are you currently taking any medicine for your thyroid trouble?
DE18995 (NonDayton - HIQB) Are you currently taking any medicine for your thyroid trouble?
THYR_SE Thyroid disease status from the screening exam
MHQ (Temporary variable) Thyroid disease status from the MKQ document
S = Skipped out of thyroid battery
1 = Hyperthyroid with medications
2 = Hypothyroid with medications
3 = Medications, not sure for what thyroid problem
4 = All others, no medications
MHQB MHQB indicator at enrollment

CONSTRUCTION

(Construct MHQ)

IF DE14369 = 0 AND DE14369 < 2 THEN MHQ = 4;
IF DE14369 = 2 THEN MHQ = 5;
IF DE14374 = 1 THEN MHQ = 1;
IF DE14374 = 2 THEN MHQ = 2;
IF DE18995 = 1 THEN MHQ = 1;
IF DE18995 = 2 THEN MHQ = 2;

(cont.)
VARIABLE THYRSTAT (cont.)

CONSTRUCTION (cont.)

IF DE18995 = 3 THEN MHQ = 3;
IF DE18995 = . THEN MHQ = 8;

{Construct THYRSTAT}

IF THYR_SE >= 0 AND (MHQ >= 0 OR MHQ = 5)
THEN THYRSTAT = 1;
IF (THYR_SE = 1 OR THYR_SE = 3) OR MHQ = 1
THEN THYRSTAT = 2;
IF (THYR_SE = 2 OR THYR_SE = 5) OR MHQ = 2
THEN THYRSTAT = 3;
IF (THYR_SE = 1 OR THYR_SE = 3) OR MHQ = 3
THEN THYRSTAT = 4;
IF (THYR_SE = 2 OR THYR_SE = 5) OR MHQ = 3
THEN THYRSTAT = 5;
IF THYR_SE < 0 OR (MHQ < 0 AND MHQ <= 5)
THEN THYRSTAT = .;

<table>
<thead>
<tr>
<th>VARIABLE THYRSTAT</th>
<th>AMEDIS</th>
<th>THYROID CONDITION</th>
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</thead>
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</table>

THYRSTAT combines the status variable that was derived from screening exam data (THYR_SEX) and data from the MHQ.

INPUT VARIABLES

DE14369 (MHQ) Has a doctor ever said you had goiter or thyroid trouble?

(continues)
VARIABLE THYRSTAX (cont.)

INPUT VARIABLES (cont.)

DE18995 (MHQB) Are you currently taking any medicine for your thyroid trouble?

THYR_SEX Thyroid disease status from the screening exam at exit

MHQ (Temporary variable) Thyroid disease status from the MHQ document
B = Did not take MHQB
L = Skipped out of thyroid battery
1 = Hyperthyroid with medications
2 = Hypothyroid with medications
3 = Medications, not sure for what thyroid problem
4 = All others, no medications

MHQBX MHQB indicator at exit

CONSTRUCTION

(Construct MHQ)

IF DE14360 = 1 THEN MHQ = 4;
IF DE14360 = 2 THEN MHQ = L;
IF DE18995 = 1 THEN MHQ = 1;
IF DE18995 = 2 THEN MHQ = 2;
IF DE18995 = 3 THEN MHQ = 3;
IF MHQBX = . THEN MHQ = B;

(Construct THYRSTAX)

IF THYR_SEX >= 0 AND (MHQ >= 0 OR MHQ = L)
THEN THYRSTAX = 1;
IF (THYR_SEX = 3 OR THYR_SEX = 4) OR MHQ = 1
THEN THYRSTAX = 2;
IF 5 <= THYR_SEX <= 10 OR MHQ = 2
THEN THYRSTAX = 3;
IF (THYR_SEX < 0 OR (MHQ < 0 AND MHQ <= L))
THEN THYRSTAX = .;
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<tr>
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**NOTE:** This test was only performed at exit, not enrollment. It was also not performed in Dayton at exit for the 3-year enrollees.

**INPUT VARIABLES**

- **DE110083** (Screening exam) Thyroid stimulating hormone measurement
- **SITE** Participant's place of residence at enrollment
- **ERTERM** Participant's term of enrollment (3 or 5 year)
- **SCREENEX** Screening exam indicator at exit

**CONSTRUCTION**

```
IF SCREENEX = . THEN DE110083 = C;
IF SITE = 1 AND ERETERM = 3 THEN DE110083 = E;
THYRTSHX = DE110083;
```
VARIABLE  THYRIMP
THYROID CONDITION
Impact of thyroid disease at enrollment

CODES
. - Missing, includes those with no thyroid disease
0 - No impact
1 - Some impact

THYRIMP indicates whether thyroid disease has any impact due to pain, worry/concern, activity restriction, or days in bed.

<table>
<thead>
<tr>
<th>VARIABLE</th>
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INPUT VARIABLES

DE14375 (MHQB) During the past 3 months, how much pain has your goiter or thyroid trouble caused you?
DE14376 (MHQB) During the past 3 months, how much has your goiter or thyroid trouble worried or concerned you?
DE14377 (MHQB) During the past 3 months, how much of the time has your goiter or thyroid trouble kept you from doing the kinds of things that other people your age do?
DE14378 (MHQB) During the past 30 days, how many days has your goiter or thyroid trouble kept you in bed all day or most of the day?

CONSTRUCTION

IF DE14375 = 4 OR DE14376 = 4 OR DE14377 = 5 OR DE14378 = 0 THEN THYRIMP = 0;
IF 1 <= DE14375 <= 3 OR 1 <= DE14376 <= 3 OR 1 <= DE14377 <= 4 OR DE14378 > 0 THEN THYRIMP = 1;
### VARIABLE THYRMFX

**THYROID CONDITION**

- **Impact of thyroid disease at exit**

**CODES**

- . - Missing, includes those with no thyroid disease
- 0 - No impact
- 1 - Some impact

**THYRMFX** indicates whether thyroid disease has any impact due to pain, worry/concern, activity restriction, or days in bed.

### INPUT VARIABLES

- **DF14375 (MHQB)** During the past 3 months, how much pain has your goiter or thyroid trouble caused you?
- **DF14376 (MHQB)** During the past 3 months, how much has your goiter or thyroid trouble worried or concerned you?
- **DF14377 (MHQB)** During the past 3 months, how much of the time has your goiter or thyroid trouble kept you from doing the kinds of things that other people your age do?
- **DF14378 (MHQB)** During the past 30 days, how many days has your goiter or thyroid trouble kept you in bed all day or most of the day?

### CONSTRUCTION

```
IF DF14375 = 4 OR DF14376 = 4 OR
DF14377 = 5 OR DF14378 = 0
THEN THYRMFX = 0;
IF 1 <= DF14375 <= 3 OR 1 <= DF14376 <= 3 OR
2 <= DF14377 <= 4 OR DF14378 > 0
THEN THYRMFX = 1;
```
VSCORRECT

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VSCORRECT summarizes the results of the pinhole acuity test. Each adult with impaired functional far vision was given a pinhole acuity test. This test indicates whether it is possible to improve a person's vision with more appropriate corrective lenses.

INPUT VARIABLES

DE17093 (Screening exam) Right eye distance vision with glasses
DE17094 (Screening exam) Left eye distance vision with glasses
DE17095 (Screening exam) Right eye distance vision without glasses
DE17096 (Screening exam) Left eye distance vision without glasses
DE17101 (Screening exam) Right eye pinhole acuity (cont.)
VARIABLE VSCORRECT (cont.)

INPUT VARIABLES (cont.)

DE17102 (Screening exam) Left eye pinhole acuity
LTFUNF (Temporary variable) Functional far vision left eye
LIMPROVE (Temporary variable) Left eye improvement
  A - Not screened
  E - Missing functional far vision measurement, left eye
  L - Missing left eye pinhole test
  N - Perfect Vision
RTFUNF (Temporary variable) Functional far vision right eye
RIMPROVE (Temporary variable) Right eye improvement
  A - Not screened
  E - Missing functional far vision measurement, right eye
  K - Missing right eye pinhole test
  N - Perfect vision
SUMPROVE (Temporary variable) Sum of right and left eye
  pinhole improvement
  A - Not screened
  E - Missing functional far vision measurement, right eye or left eye
  M - Missing either right eye or left eye pinhole test
  N - Perfect vision
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

{Construct LTFUNF and LIMPROVE}

IF DE17094 <= 0 AND DE17094 < DE17096
  THEN LTFUNF = DE17094;
ELSE IF DE17094 = 0 AND DE17094 <= 0
  THEN LTFUNF = DE17094;
ELSE IF DE17096 = 0
  THEN LTFUNF = DE17096;
ELSE IF DE17096 = 0
  THEN LTFUNF = DE17096;

IF SCREENED = .
  THEN LIMPROVE = A;
ELSE IF LTFUNF =
  THEN LIMPROVE = E;
ELSE IF LTFUNF > 20 AND DE17102 = .
  THEN LIMPROVE = L;
ELSE IF LTFUNF <= 20
  THEN LIMPROVE = N;

{cont.}
VAR

VARIABLE VSCORRECT (cont.)

CONSTRUCTION (cont.)

ELSE IF LTFUN < DE17102
    THEN LIMPROVE = 0;
ELSE IF (DE17102 <= . AND LTFUN <= .) AND
        (LTFUN => DE17102)
    THEN LIMPROVE = LTFUN - DE17102;

{Construct RTFUN and RIMPROVE}

IF DE17093 <= . AND 0 < DE17093 < DE17095
    THEN RTFUN = DE17093;
ELSE IF DE17095 = . AND DE17093 <= .
    THEN RTFUN = DE17093;
ELSE RTFUN = DE17095;

IF SCREENED = 0 THEN RIMPROVE = A;
ELSE IF RTFUN = 0
    THEN RIMPROVE = E;
ELSE IF RTFUN > 20 AND DE17101 = .
    THEN RIMPROVE = K;
ELSE IF RTFUN <= 20
    THEN RIMPROVE = N;
ELSE IF RTFUN < DE17101
    THEN RIMPROVE = O;
ELSE IF (DE17101 <= . AND RTFUN <= .) AND
        (RTFUN => DE17101)
    THEN RIMPROVE = RTFUN - DE17101;

{Construct SUMPROVE}

IF SCREENED = . THEN SUMPROVE = A;
ELSE IF RIMPROVE = E OR LIMPROVE = E
    THEN SUMPROVE = E;
ELSE IF RIMPROVE = K OR LIMPROVE = L
    THEN SUMPROVE = M;
ELSE IF RIMPROVE = N AND LIMPROVE = N
    THEN SUMPROVE = N;
ELSE IF RIMPROVE = N AND LIMPROVE >= 0
    THEN SUMPROVE = LIMPROVE;
ELSE IF LIMPROVE = N AND RIMPROVE >= 0
    THEN SUMPROVE = RIMPROVE;

{cont.}
VARIABLE VSCORRECT (cont.)

CONSTRUCTION (cont.)

ELSE IF RIMPROVE >= 0 AND LIMPROVE >= 0
  THEN SUMPROVE = RIMPROVE + LIMPROVE;

{Construct VSCORRECT}

IF SCREENED = 0
  THEN VSCORRECT = A;
ELSE IF SUMPROVE = 0
  THEN VSCORRECT = E;
ELSE IF (20 < RTFUNF AND DEL7101 = .)
  AND (20 < LITUNF AND DEL7102 = .)
  THEN VSCORRECT = M;
ELSE IF 20 < RTFUNF AND DEL7101 = .
  THEN VSCORRECT = K;
ELSE IF 20 < LITUNF AND DEL7102 = .
  THEN VSCORRECT = L;
ELSE IF 0 < SUMPROVE
  THEN VSCORRECT = 1;
ELSE IF SUMPROVE = 0
  THEN VSCORRECT = 2;
ELSE IF LITUNF <= 20 AND RTFUNF <= 20
  THEN VSCORRECT = 6;
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VSCORECX</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODES</td>
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<tr>
<td>PINHOLE acuity test for correctable far vision at exit</td>
<td></td>
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<tr>
<td>CODES</td>
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<tr>
<td>.</td>
<td>Missing</td>
</tr>
<tr>
<td>A</td>
<td>Not screened</td>
</tr>
<tr>
<td>E</td>
<td>Missing functional far vision measurement for left or right eye</td>
</tr>
<tr>
<td>K</td>
<td>Missing right pinhole test</td>
</tr>
<tr>
<td>L</td>
<td>Missing left pinhole test</td>
</tr>
<tr>
<td>M</td>
<td>Missing both pinhole tests</td>
</tr>
<tr>
<td>1</td>
<td>Possibility of improvement</td>
</tr>
<tr>
<td>2</td>
<td>No possibility of improvement</td>
</tr>
<tr>
<td>6</td>
<td>Perfect functional vision (No pinhole test)</td>
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</tbody>
</table>

VSCORECX summarizes the results of the pinhole acuity test. Each adult with impaired functional far vision was given a pinhole acuity test. This test indicates whether it is possible to improve a person's vision with more appropriate corrective lenses.

INPUT VARIABLES

DE17093 (Screening exam) Right eye distance vision with glasses
DE17094 (Screening exam) Left eye distance vision with glasses
DE17095 (Screening exam) Right eye distance vision without glasses
DE17096 (Screening exam) Left eye distance vision without glasses
DE17101 (Screening exam) Right eye pinhole acuity
DE17102 (Screening exam) Left eye pinhole acuity
LITFVN (Temporary variable) Functional far vision left eye
LIMPROVE (Temporary variable) left eye improvement
A - Not screened
E - Missing functional far vision measurement, left eye
L - Missing left eye pinhole test
N - Perfect vision
RTFVN (Temporary variable) Functional far vision right eye

(cont.)
VARIABLE VSCONRX (cont.)

INPUT VARIABLES (cont.)

RIMPROVE (Temporary variable) Right eye improvement
A = Not screened
E = Missing functional far vision measurement, right eye
K = Missing right eye pinhole test
N = Perfect vision

SUMPROVE (Temporary variable) Sum of right and left eye pinhole improvement
A = Not screened
E = Missing functional far vision measurement, right eye or left eye
M = Missing either right eye or left eye pinhole test
N = Perfect vision

SCREENRX Screening exam indicator at exit

CONSTRUCTION

(Construct LTFUNF and LIMPROVE)

IF DE17094 \leq . AND 0 < DE17094 < DE17096
THEN LTFUNF = DE17094;
ELSE IF DE17006 = . AND DE17094 \leq .
THEN LTFUNF = DE17094;
ELSE LTFUNF = DE17096;

IF SCREENRX = . THEN LIMPROVE = A;
ELSE IF LTFUNF = .
THEN LIMPROVE = E;
ELSE IF LTFUNF > 20 AND DE17102 = .
THEN LIMPROVE = L;
ELSE IF LTFUNF \leq 20
THEN LIMPROVE = N;
ELSE IF LTFUNF < DE17102
THEN LIMPROVE = O;
ELSE IF (DE17102 \leq . AND LTFUNF \leq .) AND
(LTFUNF \geq DE17102)
THEN LIMPROVE = LTFUNF - DE17102;

{cont.}
VARIABLE VSCORRGCX (cont.)

CONSTRUCTION (cont.)

{Construct RTFUNF and RIMPROVE}

IF DE17003 != . AND 0 < DE17093 < DE17095
    THEN RTFUNF = DE17093;
ELSE IF DE17095 = . AND DE17093 != .
    THEN RTFUNF = DE17093;
ELSE RTFUNF = DE17095;

IF SCREENX = . THEN RIMPROVE = A;
ELSE IF RTFUNF = F
    THEN RIMPROVE = E;
ELSE IF RTFUNF > 20 AND DE17101 = .
    THEN RIMPROVE = K;
ELSE IF RTFUNF < 20
    THEN RIMPROVE = N;
ELSE IF RTFUNF = DE17101
    THEN RIMPROVE = 0;
ELSE IF (DE17101 = . AND RTFUNF = .) AND
    (RTFUNF => DE17101)
    THEN RIMPROVE = RTFUNF = DE17101;

{Construct SUMPROVE}

IF SCREENX = . THEN SUMPROVE = A;
ELSE IF RIMPROVE = E OR LIMPROVE = E
    THEN SUMPROVE = F;
ELSE IF RIMPROVE = K OR LIMPROVE = L
    THEN SUMPROVE = M;
ELSE IF RIMPROVE = N AND LIMPROVE = N
    THEN SUMPROVE = N;
ELSE IF RIMPROVE = N AND LIMPROVE >= 0
    THEN SUMPROVE = LIMPROVE;
ELSE IF LIMPROVE = N AND RIMPROVE >= 0
    THEN SUMPROVE = RIMPROVE;
ELSE IF RIMPROVE => 0 AND LIMPROVE => 0
    THEN SUMPROVE = RIMPROVE + LIMPROVE;

{Construct VSCORRGCX}

IF SCREENX = . THEN VSCORRGCX = A;
ELSE IF SUMPROVE = E
    THEN VSCORRGCX = F;
ELSE IF (20 < RTFUNF AND DE17101 = .) AND
    (20 < LTFUNF AND DE17102 = .)
    THEN VSCORRGCX = M;

{cont.}
VARIABLE VSCORRCX (cont.)

CONSTRUCTION (cont.)

ELSE IF 20 < RIFUN AND DE17101 = .
THEN VSCORRCX = 4;
ELSE IF 20 < LTFUN AND DE17102 = .
THEN VSCORRCX = 4;
ELSE IF 0 < SUMPROVE
THEN VSCORRCX = 1;
ELSE IF SUMPROVE = 0
THEN VSCORRCX = 2;
ELSE IF LIFUN <= 20 AND RIFUN <= 20
THEN VSCORRCX = 6;

<table>
<thead>
<tr>
<th>VARIABLE VISINAIF</th>
<th>VALUE</th>
<th>FREQ</th>
<th>CUMFREQ</th>
</tr>
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<tr>
<td>. - Missing</td>
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<td>1457</td>
<td>1459</td>
</tr>
<tr>
<td>A - No screening exam</td>
<td>29</td>
<td>253</td>
<td>1712</td>
</tr>
<tr>
<td>E - Missing values in DE17095 or DE17096</td>
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<td>1910</td>
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<td>Range for far vision - 15/20 to 250/20</td>
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<td></td>
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</tbody>
</table>

INPUT VARIABLES

DE17095 (Screening exam) Right eye distance vision without glasses
DE17096 (Screening exam) Left eye distance vision without glasses
SCREENED Screening exam indicator at enrollment

{cont.}
VARIABLE VISNATFX (cont.)

CONSTRUCTION

IF SCREENED = .
    THEN DO:
        DE17095 - A;
        DE17096 - A;
        END;
IF DE17095 = . OR DE17096 = .
    THEN VISNATFX = E;
ELSE IF DE17095 < DE17096
    THEN VISNATFX = DE17095;
ELSE IF DE17095 > DE17096
    THEN VISNATFX = DE17096;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VISNATFX</th>
<th>AMEDISVISION</th>
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<tbody>
<tr>
<td>Best natural far vision at exit</td>
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<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>. - Missing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A - No screening exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E - Missing values in DE17095 or DE17096</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range for far vision = 10/20 to 999/20</td>
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</tr>
<tr>
<td>VISNATFX is a measure of the best natural far vision for the participant, natural meaning without corrective lenses.</td>
<td></td>
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</tbody>
</table>

INPUT VARIABLES

DE17095 (Screening exam) Right eye distance vision without glasses
DE17096 (Screening exam) Left eye distance vision without glasses
SCREENEX Screening exam indicator at exit

(cont.)
VARIABLE VISNATFX (cont.)

CONSTRUCTION

IF SCREENX = ,
THEN DO;
  DE17095-A;
  DE17096-A;
END;

IF DE17095 = , OR DE17096 = ,
THEN VISNATFX = E;
ELSE IF DE17095 <= DE17096
  THEN VISNATFX = DE17095;
ELSE IF DE17095 > DE17096
  THEN VISNATFX = DE17096;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VISNATNX</th>
<th>AMEDIS VISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best natural near vision at enrollment</td>
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<td></td>
</tr>
<tr>
<td>CODES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.  - Missing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A  - No screening exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E  - Missing values in DE17099 or DE17100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range for near vision - 13/20 to 200/20</td>
<td></td>
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</tr>
<tr>
<td>VISNATNX is a measure of the best near natural vision for the participant, natural meaning without corrective lenses.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INPUT VARIABLES

DE17099 (Screening exam) Right eye near vision without glasses
DE17100 (Screening exam) Left eye near vision without glasses
SCREENED Screening exam indicator at enrollment

(cont.)
VARIABLE VISNATNX (cont.)

CONSTRUCTION

IF SCREENED = .
THEN DO;
   DE17099-A;
   DE17100-A;
END;
IF DE17099 = . OR DE17100 = .
THEN VISNATNX = E;
ELSE IF DE17099 <= DE17100
THEN VISNATNX = DE17099;
ELSE IF DE17099 > DE17100
THEN VISNATNX = DE17100;

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>AMEDIS VISION</th>
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<tr>
<td>Best natural near vision at exit</td>
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<td>.</td>
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<td>CODES</td>
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<tr>
<td>. - Missing</td>
<td></td>
</tr>
<tr>
<td>A - No screening exam</td>
<td></td>
</tr>
<tr>
<td>E - Missing values in DE17099 or DE17100</td>
<td></td>
</tr>
<tr>
<td>Range for near vision - 15/20 to 400/20</td>
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</tbody>
</table>

VISNATNX is a measure of the best near natural vision for the participant, natural meaning without corrective lenses.

INPUT VARIABLES

DE17099 (Screening exam) Right eye near vision without glasses
DE17100 (Screening exam) Left eye near vision without glasses
SCREENEX Screenning exam indicator at exit
VARIABLE VISNATNX (cont.)

CONSTRUCTION

IF SCREENX = .
    THEN UD;
    DE17099=A;
    DE17100=A;
    END;

IF DE17099 = ., OR DE17100 = .,
    THEN VISNATNX = E;

ELSE IF DE17099 <= DE17100
    THEN VISNATNX = DE17099;

ELSE IF DE17099 > DE17100
    THEN VISNATNX = DE17100;
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<thead>
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<th>VARIABLE</th>
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<th>AMEDIS VISION</th>
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</tr>
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<tr>
<td>.</td>
<td>-</td>
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<td>-</td>
<td>4</td>
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<td>.</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>.</td>
<td>-</td>
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</tr>
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<td>-</td>
<td>7</td>
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<td>9</td>
</tr>
<tr>
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</tbody>
</table>

Each adult's far functional vision (vision with corrective lenses, if normally worn) was tested at the time of the screening exam. VISBLFF codes the best line (on the eye chart) that the person can see with his or her better eye.

**INPUT VARIABLES**

- **DE17093**: Screening exam) Right eye distance vision with glasses
- **DE17094**: Screening exam) Left eye distance vision with glasses
- **BESTFUNF**: (Temporary variable) Best functional far vision for the better eye
  - Range = 15 to 250
- **VISINATF**: Best natural far vision
- **SCREENED**: Screening exam indicator at enrollment

**CONSTRUCTION**

```{Construct BESTFUNF}

IF SCREENED = . THEN BESTFUNF = A;
IF VISINATF = E
    THEN BESTFUNF = E;
```

(cont.)
VARIABLE VISINAFF (cont.)

CONSTRUCTION (cont.)

IF (DE17093 = . AND DE17094 = .)
THEN BESTUNF = E;
ELSE IF (DE17093 \= . AND DE17094 = .)
THEN BESTUNF = DE17093;
ELSE IF (DE17093 \= . AND DE17094 \= .)
THEN BESTUNF = DE17094;
ELSE IF (DE17093 \= . AND DE17094 \= .)
THEN DO;

IF DE17093 <= DE17094
THEN BESTUNF = DE17093;
ELSE IF DE17093 > DE17094
THEN BESTUNF = DE17094;
END;

END;

IF VISINAFF \= E
THEN DO;

IF (DE17093 = . AND DE17094 = .)
THEN BESTUNF = VISINAFF;
ELSE IF (DE17093 \= . AND DE17094 = .) AND
DE17093 <= VISINAFF
THEN BESTUNF = DE17093;
ELSE IF (DE17093 \= . AND DE17094 = .) AND
DE17093 > VISINAFF
THEN BESTUNF = VISINAFF;
ELSE IF (DE17093 \= . AND DE17094 \= .) AND
DE17094 <= VISINAFF
THEN BESTUNF = DE17094;
ELSE IF (DE17093 \= . AND DE17094 \= .) AND
DE17094 > VISINAFF
THEN BESTUNF = VISINAFF;
ELSE IF (DE17093 <= DE17094 AND
DE17093 = VISINAFF)
THEN BESTUNF = DE17093;
ELSE IF DE17093 > DE17094 AND
DE17094 <= VISINAFF
THEN BESTUNF = DE17094;
END;
ELSE BESTUNF = VISINAFF;

END;

{cont.}
VARIABLE VISIBLFLF (cont.)

CONSTRUCTION (cont.)

[Construct VISIBLFLF]

IF BESTUNF = A THEN VISIBLFLF = A;
ELSE IF BESTUNF = E
    THEN VISIBLFLF = E;
ELSE IF 0 < BESTUNF < 20
    THEN VISIBLFLF = 1;
ELSE IF 20 <= BESTUNF < 25
    THEN VISIBLFLF = 2;
ELSE IF 25 <= BESTUNF < 30
    THEN VISIBLFLF = 3;
ELSE IF 30 <= BESTUNF < 40
    THEN VISIBLFLF = 4;
ELSE IF 40 <= BESTUNF < 50
    THEN VISIBLFLF = 5;
ELSE IF 50 <= BESTUNF < 60
    THEN VISIBLFLF = 6;
ELSE IF 60 <= BESTUNF < 70
    THEN VISIBLFLF = 7;
ELSE IF 70 <= BESTUNF < 80
    THEN VISIBLFLF = 8;
ELSE IF 80 <= BESTUNF <= 100
    THEN VISIBLFLF = 9;
ELSE IF 100 < BESTUNF
    THEN VISIBLFLF = 10;
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<tr>
<th>VARIABLE</th>
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<table>
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<th>FREQ</th>
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</table>

Each adult's far functional vision (vision with corrective lenses, if normally worn) was tested at the time of the screening exam. VISBLFFFX codes the best line (on the eye chart) that the person can see with his or her better eye.

INPUT VARIABLES

DE17093 (Screening exam) Right eye distance vision with glasses
DE17094 (Screening exam) Left eye distance vision with glasses
BESTFUNF (Temporary variable) Best functional far vision for the better eye
Range - 15 to 250
VISNHATFX Best natural far vision at exit
SCREENOX Screening exam indicator at exit

{cont.}
CONSTRUCTION

(Construct BESTFACT)

IF SCREENDX = ., THEN BESTFACT = A;
IF VISNATFX = E
THEN DO;

IF (DF17093 = ., AND DE17094 = .)
THEN BESTFACT = E;
ELSE IF (DF17093 \=- , AND DE17094 = .)
THEN BESTFACT = DE17093;
ELSE IF (DE17093 = ., AND DE17094 \=- .)
THEN BESTFACT = DE17094;
ELSE IF (DE17093 \=- ., AND DE17094 \=- .)
THEN DO;

IF DE17093 <= DE17094
THEN BESTFACT = DE17093;
ELSE IF DE17093 > DE17094
THEN BESTFACT = DE17094;
END;

END;

IF VISNATFX \=- E
THEN DO;

IF (DE17093 = ., AND DE17094 = .)
THEN BESTFACT = VISNATFX;
ELSE IF (DF17093 = ., AND DE17094 = .) AND
DE17093 <= VISNATFX
THEN BESTFACT = DE17093;
ELSE IF (DF17093 \=- , AND DE17094 = .) AND
DE17093 > VISNATFX
THEN BESTFACT = VISNATFX;
ELSE IF (DE17093 = ., AND DE17094 \=- .) AND
DE17094 <= VISNATFX
THEN BESTFACT = DE17094;
ELSE IF (DE17093 = ., AND DE17094 \=- .) AND
DE17094 > VISNATFX
THEN BESTFACT = VISNATFX;
ELSE IF (DF17093 \=- ., AND DE17094 \=- .)
THEN DO;

(cont.)
VARIABLE VISBLFFX (cont.)

CONSTRUCTION (cont.)

IF DE17093 <= DE17094 AND
   DE17093 <= VISNATFX
   THEN BESTUNF = DE17093;
ELSE IF DE17093 > DE17094 AND
   DE17094 <= VISNATFX
   THEN BESTUNF = DE17094;
ELSE BESTUNF = VISNATFX;
END;

(Construct VISBLFFX)

IF BESTUNF = A THEN VISBLFFX = A;
ELSE IF BESTUNF = E
   THEN VISBLFFX = E;
ELSE IF 0 <= BESTUNF < 20
   THEN VISBLFFX = 1;
ELSE IF 20 <= BESTUNF < 25
   THEN VISBLFFX = 2;
ELSE IF 25 <= BESTUNF < 30
   THEN VISBLFFX = 3;
ELSE IF 30 <= BESTUNF < 40
   THEN VISBLFFX = 4;
ELSE IF 40 <= BESTUNF < 50
   THEN VISBLFFX = 5;
ELSE IF 50 <= BESTUNF < 60
   THEN VISBLFFX = 6;
ELSE IF 60 <= BESTUNF < 70
   THEN VISBLFFX = 7;
ELSE IF 70 <= BESTUNF < 80
   THEN VISBLFFX = 8;
ELSE IF 80 <= BESTUNF < 100
   THEN VISBLFFX = 9;
ELSE IF 100 < BESTUNF
   THEN VISBLFFX = 10;
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</tbody>
</table>

CODES

- Missing
- A - No screening exam
- E - Missing responses to DE17097 and DE17098
- 1 - 20/15 vision
- 2 - 20/20 vision
- 3 - 20/25 vision
- 4 - 20/30 vision
- 5 - 20/40 vision
- 6 - 20/50 vision
- 7 - 20/60 vision
- 8 - 20/70 vision
- 9 - 20/100 vision
- 10 - 20/100+ vision

Each adult's near functional vision (vision with corrective lenses, if normally worn) was tested at the time of the screening exam. VISIBLN codes the best line that the person can see with his or her better eye.

**INPUT VARIABLES**

- DE17097 (Screening exam) Right eye near vision with glasses
- DE17098 (Screening exam) Left eye near vision with glasses
- BESTFUNN (Temporary variable) Best functional near vision Range: 13 to 800
- VISINATN Best natural near vision at enrollment
- SCREENED Screening exam indicator at enrollment

**CONSTRUCTION**

(Construct BESTFUNN)

```
IF SCREENED = . THEN BESTFUNN = A;
IF VISINATN = E
    THEN DO;
    THEN VISINATN = SCREENED;
```

(cont.)
VARIABLE VISIBLFN (cont.)

CONSTRUCTION (cont.)

IF (DE17097 = . AND DE17098 = .)
THEN BESTFNN = F;
ELSE IF (DE17097 \= . AND DE17098 = .)
THEN BESTFNN = DE17097;
ELSE IF (DE17097 = . AND DE17098 \= .)
THEN BESTFNN = DE17098;
ELSE IF (DE17097 \= . AND DE17098 \= .)
THEN DO;

IF DE17097 <= DE17098
THEN BESTFNN = DE17097;
ELSE IF DE17097 > DE17098
THEN BESTFNN = DE17098;
END;

END;

IF VISINATN \= E
THEN DO;

IF (DE17097 = . AND DE17098 = .)
THEN BESTFNN = VISINATN;
ELSE IF (DE17097 \= . AND DE17098 = .)
AND DE17097 <= VISINATN
THEN BESTFNN = DE17097;
ELSE IF (DE17097 \= . AND DE17098 = .)
AND DE17097 > VISINATN
THEN BESTFNN = VISINATN;
ELSE IF (DE17097 = . AND DE17098 \= .)
AND DE17099 <= VISINATN
THEN BESTFNN = DE17099;
ELSE IF (DE17097 = . AND DE17098 \= .)
AND DE17099 > VISINATN
THEN BESTFNN = VISINATN;
ELSE IF (DE17097 = . AND DE17098 \= .)
THEN DO;

IF DE17097 <= DE17098 AND
DE17099 <= VISINATN
THEN BESTFNN = DE17097;
ELSE IF DE17097 > DE17098 AND
DE17099 <= VISINATN
THEN BESTFNN = DE17098;
ELSE BESTFNN = VISINATN;

END;

END;  

(cont.)
IF BESTFURN = A THEN VISIBLFN = A;
ELSE IF BESTFURN = E
    THEN VISIBLFN = E;
ELSE IF 0 <= BESTFURN < 20
    THEN VISIBLFN = 1;
ELSE IF 20 <= BESTFURN < 25
    THEN VISIBLFN = 2;
ELSE IF 25 <= BESTFURN < 30
    THEN VISIBLFN = 3;
ELSE IF 30 <= BESTFURN < 40
    THEN VISIBLFN = 4;
ELSE IF 40 <= BESTFURN < 50
    THEN VISIBLFN = 5;
ELSE IF 50 <= BESTFURN < 60
    THEN VISIBLFN = 6;
ELSE IF 60 <= BESTFURN < 70
    THEN VISIBLFN = 7;
ELSE IF 70 <= BESTFURN < 80
    THEN VISIBLFN = 8;
ELSE IF 80 <= BESTFURN <= 100
    THEN VISIBLFN = 9;
ELSE IF 100 < BESTFURN
    THEN VISIBLFN = 10;
### VISBLFNX

<table>
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<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
<th>%</th>
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Each adult's near functional vision (vision with corrective lenses if any are normally worn) was tested at the time of the screening exam. VISBLFNX codes the best line that the person can see with his or her better eye.

### INPUT VARIABLES

- DE17097 (Screening exam) Right eye near vision with glasses
- DE17098 (Screening exam) Left eye near vision with glasses
- BESTFUNN (temporary variable) Best functional near vision Range: 1 to 800
- VISNATNX Best natural near vision at exit
- SCREENNX Screening exam indicator at exit

### CONSTRUCTION

(Construct BESTFUNN)

```
IF SCREENNX = . THEN BESTFUNN = A;
IF VISNATNX = E
    THEN BESTFUNN = E;
```

(cont.)
VARIABLE VISNATNX (cont.)

CONSTRUCTION (cont.)

IF (DEF1097 = . AND DE17098 = .)
    THEN BESTFVPN = 1;
ELSE IF (DEF1097 <= . AND DE17098 = .)
    THEN BESTFVPN = DE17097;
ELSE IF (DEF1097 = . AND DE17098 <= .)
    THEN BESTFVPN = DE17098;
ELSE IF (DEF1097 = . AND DE17098 <= .)
    THEN DO;
    IF DE17097 <= DE17098
        THEN BESTFVPN = DE17097;
    ELSE IF DE17097 > DE17098
        THEN BESTFVPN = DE17098;
    END;
END;

IF VISNATNX /= E
    THEN DO;
    IF (DEF1097 = . AND DE17098 = .)
        THEN BESTFVPN = VISNATNX;
    ELSE IF (DEF1097 <= . AND DE17098 = .) AND
             DE17097 <= VISNATNX
        THEN BESTFVPN = DE17097;
    ELSE IF (DEF1097 = . AND DE17098 = .) AND
             DE17097 > VISNATNX
        THEN BESTFVPN = VISNATNX;
    ELSE IF (DEF1097 = . AND DE17098 <= .) AND
             DE17098 <= VISNATNX
        THEN BESTFVPN = DE17098;
    ELSE IF (DEF1097 = . AND DE17098 <= .) AND
             DE17098 > VISNATNX
        THEN BESTFVPN = VISNATNX;
    ELSE IF (DEF1097 = . AND DE17098 <= .)
        THEN DO;
        IF DE17097 <= DE17098 AND
            DE17097 <= VISNATNX
            THEN BESTFVPN = DE17097;
        ELSE IF DE17097 > DE17098 AND
            DE17098 <= VISNATNX
            THEN BESTFVPN = DE17098;
        ELSE BESTFVPN = VISNATNX;
        END;
    END;
END;
VARIABLE VISBLFNX (cont.)

CONSTRUCTION (cont.)

(Construct VISBLFNX)

IF BESTFURN = A THEN VISBLFNX = A;
ELSE IF BESTFURN = E
THEN VISBLFNX = E;
ELSE IF 0 < BESTFURN < 20
THEN VISBLFNX = 1;
ELSE IF 20 <= BESTFURN < 25
THEN VISBLFNX = 2;
ELSE IF 25 <= BESTFURN < 30
THEN VISBLFNX = 3;
ELSE IF 30 <= BESTFURN < 40
THEN VISBLFNX = 4;
ELSE IF 40 <= BESTFURN < 50
THEN VISBLFNX = 5;
ELSE IF 50 <= BESTFURN < 60
THEN VISBLFNX = 6;
ELSE IF 60 <= BESTFURN < 70
THEN VISBLFNX = 7;
ELSE IF 70 <= BESTFURN < 80
THEN VISBLFNX = 8;
ELSE IF 80 <= BESTFURN <= 100
THEN VISBLFNX = 9;
ELSE IF 100 < BESTFURN
THEN VISBLFNX = 10;
<table>
<thead>
<tr>
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<th>VISCLAUC</th>
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<tr>
<td></td>
<td>AMEDIS</td>
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<td>VISION</td>
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**Glaucoma status at enrollment**

<table>
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<th>%</th>
<th>CUM</th>
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<td>0.04</td>
<td>99.94</td>
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<td>8</td>
<td>4929</td>
<td>0.16</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**VISCLAUC** defines the participants' glaucoma status at enrollment based on responses to the MHQ.

**INPUT VARIABLES**

DEI4359 (MHQB) Has a doctor ever said you have glaucoma (increased pressure in the eye)?

DEI4361 (MHQB) During the past 12 months, has a doctor prescribed any eye drops for glaucoma (increased pressure in the eye)?

DEI4362 (MHQB) During the past 12 months, has a doctor prescribed any pills for glaucoma (increased pressure in the eye)?

DEI4363 (MHQB) Are you currently taking any eye drops for glaucoma (increased pressure in the eye)?

DEI4364 (MHQB) Are you currently taking any pills for glaucoma (increased pressure in the eye)?

MHQB MHQB indicator at enrollment

**CONSTRUCTION**

IF MHQB = . THEN VISCLAUC = B;
IF DEI4359 = . THEN VISCLAUC = D;
IF DEI4359 = 2 THEN VISCLAUC = 1;
IF DEI4359 = 1 THEN 00;

(cont.)
VARIABLE VISGLAUX (cont.)

CONSTRUCTION (cont.)

IF DE14363 = 1 OR DE14364 = 1
THEN VISGLAUX = 5;
ELSE IF DE14361 = 1 OR DE14362 = 1
THEN VISGLAUX = 3;
ELSE VISGLAUX = 2;
END;

IF DE14359 = 1
THEN 00;

IF DE14363 = 1 AND DE14361 = 2
THEN VISGLAUX = 4;
ELSE IF DE14364 = 1 AND DE14362 = 2
THEN VISGLAUX = 4;
END;

VARIABLE VISGLAUX

<table>
<thead>
<tr>
<th>CODE</th>
<th>AMBLY</th>
<th>DIS</th>
<th>VISION</th>
</tr>
</thead>
</table>

Glaucome status at exit

CODES

1 - Missing
2 - No MIQEB
3 - Missing response to DE14359
4 - Never diagnosed as having glaucoma
5 - Diagnosed, but no treatment for glaucoma
6 - Doctor prescribed medication for glaucoma in past 12 months
7 - Currently taking medication, but doctor did not prescribe medication during the past 12 months
8 - Currently taking medication for glaucoma

VISGLAUX defines the participants' glaucoma status at exit based on responses to the MIQEB.
VARIABLE VISGLAUX (cont.)

INPUT VARIABLES

DEI4359 (MHQB) Has a doctor ever said you have glaucoma (increased pressure in the eye)?
DEI4361 (MHQB) During the past 12 months, has a doctor prescribed eye drops for glaucoma (increased pressure in the eye)?
DEI4362 (MHQB) During the past 12 months, has a doctor prescribed any pills for glaucoma (increased pressure in the eye)?
DEI4363 (MHQB) Are you currently taking any eye drops for glaucoma (increased pressure in the eye)?
DEI4364 (MHQB) Are you currently taking any pills for glaucoma (increased pressure in the eye)?

MHQBX MHQB indicator at exit

CONSTRUCTION

IF MHQBX = 1, THEN VISGLAUX = 8;
IF DEI4359 = 1, THEN VISGLAUX = 0;
IF DEI4359 = 2 THEN VISGLAUX = 7;
IF DEI4359 = 1
  THEN DO;
    IF DEI4363 = 1 OR DEI4364 = 1
      THEN VISGLAUX = 5;
    ELSE IF DEI4361 = 1 OR DEI4362 = 1
               THEN VISGLAUX = 3;
               ELSE VISGLAUX = 2;
  END;
IF DEI4359 = 1
  THEN DO;
    IF DEI4363 = 1 AND DEI4361 = 2
      THEN VISGLAUX = 4;
    IF DEI4364 = 1 AND DEI4362 = 2
      THEN VISGLAUX = 4;
  END;
### Impact of vision at enrollment for Dayton

<table>
<thead>
<tr>
<th>CODES</th>
<th>VALUE</th>
<th>FREQ</th>
<th>FREQ</th>
<th>%</th>
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<tr>
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<td>162</td>
<td>529</td>
<td>30.62</td>
<td>100.00</td>
<td></td>
</tr>
</tbody>
</table>

**VISIMPD** indicates whether vision impairment caused worry/concern or activity restrictions at enrollment for Dayton.

### Input Variables

- **DE14356 (MHQD)**: During the past 3 months, how much have eye-sight problems worried or concerned you?
- **DE14357 (MHQD)**: During the past 3 months, how often have eye-sight problems kept you from doing the kinds of activities other people your age do?
- **MHQD**: MHQD indicator at enrollment
- **SITE**: Respondent’s place of residence at enrollment

### Construction

```plaintext
IF SITE NE 1 THEN VISIMPD=F;
IF SITE=1 THEN DO;
   IF MHQD = . THEN VISIMPD = B;
   ELSE IF DE14356 = 4 AND DE14357 = 5
      THEN VISIMPD = 0;
   ELSE IF 1 <= DE14356 <= 3 OR 1 <= DE14357 <= 4
      THEN VISIMPD = 1;
END;
```
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>VISIMPND</th>
<th>AMEDIS VISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of vision at enrollment for NonDayton</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CODES**

- . = Missing
- 0 = Dayton respondents
- 1 = No impact
- 2 = Some impact

**VISIMPND** indicates whether vision impairment caused worry/concern, activity restrictions, or pain at enrollment for NonDayton sites.

**INPUT VARIABLES**

- DE14356 (MIGB): During the past 3 months, how much have eyesight problems worried or concerned you?
- DE14357 (MIGB): During the past 3 months, how often have eyesight problems kept you from doing the kinds of activities other people your age do?
- DE18983 (MIGB = NonDayton): During the past 3 months, how much pain have your eyes caused you?
- MIGB: MIGB indicator at enrollment
- SITE: Respondent's place of residence at enrollment

**CONSTRUCTION**

IF SITE=1 THEN VISIMPND=F;
IF SITE NE 1 THEN DO;
IF MIGB = . THEN VISIMPND = B;
ELSIF (DE14356 = 4 AND DE14357 = 5 AND DE18983 = 4) THEN VISIMPND = 1;
ELSE IF 1 <= DE14356 <= 3 OR 1 <= DE14357 <= 4 OR 1 <= DE18983 <= 3 THEN VISIMPND = 1;
END;
VARIABLE VISIMPX

Impact of vision at exit

CODES

- Missing
- 0 - No MHOE
- 1 - No impact
- 2 - Some impact

VISIMPX indicates whether vision impairment caused worry/concern, activity restrictions, or pain.

INPUT VARIABLES

DE14356 (MHOE) During the past 3 months, how much have eyesight problems worried or concerned you?

DE14357 (MHOE) During the past 3 months, how often have eyesight problems kept you from doing the kinds of activities other people your age do?

DE18083 (MHOE) During the past 3 months, how much pain have your eyes caused you?

MHOE8X MHOE indicator at exit

CONSTRUCTION

IF MHOE8X = 2 THEN VISIMPX = 1;
ELSE IF DE14356 = 4 AND DE14357 = 5 AND DE18083 = 4 THEN VISIMPX = 2;
ELSE IF 1 <= DE14356 <= 3 OR 1 <= DE14357 <= 4 OR 1 <= DE18083 <= 3 THEN VISIMPX = 3;
ELSE IF DE14356 <= 3 OR 1 <= DE14357 <= 4 OR 1 <= DE18083 <= 3 THEN VISIMPX = 1;
ELSE VISIMPX = 0;
Appendix A

PARTICIPATION INCENTIVE PAYMENTS

HIE-insured families were paid a participation incentive (PI) if their HIE plans could conceivably impose a greater financial burden than their existing health insurance policies. Calculated yearly, the PI consisted of (1) an amount calculated to be the maximum difference between what the family would have to pay for health care under its HIE insurance plan and what it would have paid under its existing insurance plan, unless (2) the premium a family paid to maintain its existing insurance exceeded the maximum difference. In that case, the family was paid an amount equal to the premium payment.

The calculation of item 1 ignored the family's actual medical expenses. To illustrate, consider family X whose HIE plan specified 95 percent coinsurance up to a maximum out-of-pocket expenditure of $450, above which care was free. Family X's existing insurance specified a $100 deductible, above which the family had to pay 20 percent coinsurance. Under its HIE policy, the family had to spend $473.68 for medical services (with the 5 percent reimbursement) to reach the $450 out-of-pocket maximum. For the same charge under its existing insurance, the family would have paid $100 (the deductible) plus 20 percent of the amount between $100 and $473.68. The maximum difference was thus $473.68 - 100 - 0.2 ($473.68 - 100) = 298.94. Family X was entitled to $298.94 per year for that portion of its participation incentive.

The total PI could not exceed the MDE specified in the family's HIE plan unless the family's share of its insurance premium exceeded the MDE. For example, if family X paid an insurance premium of $300, its

\[1\]
\[2\]Participation incentive payments were not offered to families receiving free care (plan A, described on p. 3) who had no premium to pay, families who had no health insurance before the experiment, and families whose other policies had equal or less generous terms, under all circumstances, than their HIE plan.

In HIE terminology, maximum out-of-pocket expenditure is called "maximum dollar expenditure," or MDE.
total PI entitlement was $450, not $598.94 (300 + 298.94). If the family paid a premium of $600, its PI was $600 because the premium exceeded the MDE of $450. On the other hand, a family who had a high MDE in its HIE plan and an existing insurance policy with 0 percent coinsurance, no deductible, and an employer-paid premium was entitled to the full MDE amount. The purpose of PI payments was to ensure that a family was no worse off financially by participating in the experiment—whether because of the cost of its insurance premium or the "worse" terms of its HIE insurance plan compared with its existing policy.  

As encouragement for families to complete their assigned enrollment terms, a portion of the family's annual PI was withheld until the last year of the term. The family received its full annual PI that last year, and the amount previously withheld was paid as part of a completion bonus when the family completed the physical screening examination and medical health questionnaire at exit.  

To measure enrollees' responsiveness to PI payments, a subset of families received their full annual PI in the next-to-last, as well as the last, year of their term. That "super PI bonus" was offered to 44.4 percent of the families assigned to insurance plans requiring 95 percent coinsurance, the highest rate (plans K-N, described on pp. 5-4). Super PI

<table>
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<tr>
<td>Seattle</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Fitchburg</td>
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<td>25</td>
</tr>
<tr>
<td>Franklin Co.</td>
<td>33.3</td>
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<tr>
<td>Charleston</td>
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<td>20</td>
</tr>
<tr>
<td>Georgetown Co.</td>
<td>33.3</td>
<td>20</td>
</tr>
</tbody>
</table>

If the discounted PI was not enough to reimburse the cost of the family's insurance premium, however, the family received the full amount of its premium. The difference between the premium and the discounted PI was then subtracted from the withheld amount.

The rest of the completion bonus was the largest annual PI to which the family had been entitled during its enrollment (minus the withheld amount) or $120, whichever was greater.
Appendix B
HIE DATA FILES

This appendix identifies the data files that the HIE has either issued or expects to issue, grouped in topical series. As a tape of each file is issued, a companion codebook is published as a RAND Note. One Note may contain the codebooks for several files. In addition to issuing files and codebooks, HIE staff will prepare a user's guide to provide assistance in understanding and using the HIE database for analysis.

The list below cites codebooks for the files that have been issued, and file names for those not yet issued. At this time it is impossible to predict exact issue dates for future files and codebooks. This preliminary list is to alert prospective users to the variety of subject matter covered by the HIE database and to the existence of related files that should be used together.

Before ordering a file or codebook, be sure to verify its availability with the RAND Publications Department, using the reference numbers cited below (e.g., MS3).

ISSUED TO DATE

Master Sample Series


Aggregated Claims Series

ISSUED TO DATE (cont.)


AC2. FFS outpatient visits
AC3. FFS inpatient visits
AC4. FFS dental visits


AC5. FFS treatment episodes
AC6. FFS annual episode counts


AC8. HMO and Seattle FFS outpatient visits
AC9. HMO and Seattle FFS inpatient visits


Claims Line-Item Series


L11. FFS data: hospital inpatient services
L12. FFS data: inpatient physician procedures billed by institutions
L13. FFS data: drugs prescribed by physicians
L14. FFS data: supplies prescribed by physicians
L15. FFS data: services rendered by physicians
L16. FFS data: drugs sold by physicians
L17. FFS data: supplies sold by physicians
L18. FFS data: injections administered by physicians
L19. FFS data: outpatient services billed by institutions
L20. FFS data: services rendered by dentists
L21. FFS data: drugs prescribed by dentists
L22. FFS data: drugs purchased
L23. FFS data: supplies purchased from pharmacies
L24. FFS data: supplies purchased from nonpharmacy suppliers
ISSUED TO DATE (cont.)


LI15. Seattle HMO data: hospital inpatient services
LI16. Seattle HMO data: inpatient physician services
LI17. Seattle HMO data: drugs prescribed by physicians
LI18. Seattle HMO data: supplies prescribed by physicians
LI19. Seattle HMO data: services rendered by physicians
LI20. Seattle HMO data: drugs dispensed by physicians
LI21. Seattle HMO data: supplies dispensed by physicians
LI22. Seattle HMO data: injections administered by physicians
LI23. Seattle HMO data: outpatient services provided by institutions
LI24. Seattle HMO data: drugs dispensed
LI25. Seattle HMO data: supplies dispensed


LI26. Seattle FFS data for HMO comparison: hospital inpatient services
LI27. Seattle FFS data for HMO comparison: inpatient physician procedures billed by institutions
LI28. Seattle FFS data for HMO comparison: outpatient services rendered by physicians
LI29. Seattle FFS data for HMO comparison: injections administered by physicians

HIE Reference Series


Health Status and Attitude Series


HS1. Adults at enrollment and exit
HS2. Children at enrollment and exit
ISSUED TO DATE (cont.)

Medical History Questionnaire Series


  MH1A. Dayton adults at enrollment, Form A
  MH2A. NonDayton adults at enrollment, Form A
  MH3A. Adults at exit, Form A


  MH1B. Dayton adults at enrollment, Form B
  MH2B. NonDayton adults at enrollment, Form B
  MH3B. Adults at exit, Form B


  MH4A. Dayton children at enrollment, Form A
  MH4B. Dayton children at enrollment, Form B
  MH5A. NonDayton children at enrollment, Form A
  MH5B. NonDayton children at enrollment, Form B
  MH6A. Children at exit, Form A
  MH6B. Children at exit, Form B


  MH7A. Dayton infants at enrollment, Form A
  MH7B. Dayton infants at enrollment, Form B
  MH8A. NonDayton infants at enrollment, Form A
  MH8B. NonDayton infants at enrollment, Form B
  MH9A. Infants at exit, Form A
  MH9B. Infants at exit, Form B

Insurance Preference

ISSUED TO DATE (cont.)

Medical Disorders Series

Dental Examinations

TO BE ISSUED

Master Sample Series
MS3. Supplemental data file

HIE Reference Series
RF2. Providers cited in HIE data
RF3. User's guide to HIE data

Medical Disorders Series
MD2. Infant and child medical disorders at enrollment and exit
Appendix C

RELEVANT RAND HIE PUBLICATIONS ON ADULT MEDICAL DISORDERS

Conceptualization and Measurement of Physiologic Health for Adults:


Conceptualization and Measurement of Health for Adults:


Appendix D
DISORDER-SPECIFIC QUESTIONNAIRE BATTERIES
FOR DAYTON ENROLLMENT AND SUBSEQUENT REVISED VERSION

The revised version of each battery precedes the original Dayton version and identifies the questionnaire variables in enlarged DEI numbers in the column to the right of the questions.

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PIMPLES AND ACNE BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

PIMPLES OR ACNE

48. IN THE PAST 12 MONTHS, HAVE YOU HAD TROUBLE WITH PIMPLES ON YOUR FACE?

Yes ......................................................... 1  — Answer 49
No ............................................................. 2 — Go to 50

49. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT THE PIMPLES?

(Circle one)

Within the past 3 months ............................................. 1
3 - 8 months ago ..................................................... 2 — Answer 50-51
7 - 12 months ago ..................................................... 3
More than 1 year ago ................................................... 4 — Go to 52,
Never saw a doctor for pimples ........................................ 5 — next page

50. IN THE PAST 12 MONTHS, HAS A DOCTOR SAID THAT YOU HAD ACNE?

Yes ................................................................. 1
No ................................................................. 2

51. IN THE PAST 12 MONTHS, DID A DOCTOR PRESCRIBE ANY OF THESE TREATMENTS FOR PIMPLES OR ACNE? (Circle one number on each line.)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. X-ray treatments</td>
<td>1</td>
</tr>
<tr>
<td>B. Ultra-violet light treatments</td>
<td>1</td>
</tr>
<tr>
<td>C. Special soaps</td>
<td>1</td>
</tr>
<tr>
<td>D. Special diet</td>
<td>1</td>
</tr>
<tr>
<td>E. Having pimples popped</td>
<td>1</td>
</tr>
<tr>
<td>F. Antibiotics, such as Tetacycline (TET-re-SC-leen)</td>
<td>1</td>
</tr>
<tr>
<td>G. Injections into pimple cysts</td>
<td>1</td>
</tr>
<tr>
<td>H. Other medicines</td>
<td>1</td>
</tr>
</tbody>
</table>

52. WHETHER OR NOT A DOCTOR PRESCRIBED THEM, DO YOU CURRENTLY USE ANY OF THESE TREATMENTS FOR PIMPLES?
(Circle one number on each line.)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. X-ray treatments</td>
<td>1</td>
</tr>
<tr>
<td>B. Ultra-violet light treatments</td>
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<td>G. Injections into pimple cysts</td>
<td>1</td>
</tr>
<tr>
<td>H. Other medicines</td>
<td>1</td>
</tr>
</tbody>
</table>

53. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR ACNE OR PIMPLES CAUSED YOU?
(Circle one)

| A great deal of pain | 1 |
| Some pain | 2 |
| A little pain | 3 |
| No pain at all | 4 |

54. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR ACNE OR PIMPLES WORRIED OR CONCERNED YOU?
(Circle one)

| A great deal | 1 |
| Somewhat | 2 |
| A little | 3 |
| Not at all | 4 |

55. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAVE PROBLEMS WITH THE WAY YOUR PIMPLES OR ACNE LOOK CAUSED YOU TO AVOID CONVERSATION WITH PEOPLE?
(Circle one)

| Most of the time | 1 |
| Some of the time | 2 |
| A little of the time | 3 |
| None of the time | 4 |
ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE
DAYTON

### PIMPLES OR ACNE

123. IN THE LAST 12 MONTHS, HAVE YOU HAD TROUBLE WITH PIMPLES ON YOU FACE?

- **NO** ........................................ 2 — (GO to q. 122, page 29)
- **YES** ........................................ 1 — (GO to q. 124)

124. IN THE LAST 12 MONTHS, HAS A DOCTOR SAID THAT YOU HAD ACNE?

- **Yes** ........................................ 1
- **No** ........................................ 2

125. IN THE LAST 12 MONTHS, HAVE YOU SEEN A DOCTOR ABOUT THE PIMPLES?

- **No** ........................................ 2 — (GO to q. 127)
- **Yes** ........................................ 1 — (GO to q. 126)

126. IN THE LAST 12 MONTHS, DID THE DOCTOR PRESCRIBE ANY OF THESE TREATMENTS FOR PIMPLES? CIRCLE YES OR NO FOR EACH.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-ray treatments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ultra-violet light treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special soaps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special diet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Having pimples popped by doctor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other medicines</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

129. WHETHER OR NOT THE DOCTOR PRESCRIBED THEM, DO YOU CURRENTLY USE ANY OF THESE TREATMENTS FOR PIMPLES? CIRCLE YES OR NO FOR EACH.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-ray treatments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ultra-violet light treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special soaps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Having pimples popped</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other medicines</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

129. DURING THE LAST 3 MONTHS, HOW MUCH PAIN HAS YOUR ACNE OR HAVE YOUR PIMPLES CAUSED YOU?

(Circle one.)

- A lot ................................ 1
- Some ................................ 2
- A little ........................... 3
- None at all ......................... 4

130. DURING THE LAST 3 MONTHS, HOW MUCH HAS YOUR ACNE OR HAVE YOUR PIMPLES CAUSED YOU TO WORRY OR BE CONCERNED?

(Circle one.)

- A lot ................................ 1
- Somewhat ............................ 2
- A little ............................ 3
- None at all ......................... 4

131. IN THE LAST 3 MONTHS, DID PROBLEMS WITH THE WAY YOUR ACNE OR PIMPLES LOOK CAUSE YOU TO MISS OR AVOID CONVERSATION WITH PEOPLE?

(Circle one.)

- Most of the time .................. 1
- Some of the time ................. 2
- A little of the time ............ 3
- None of the time ................ 4
ANEMIA BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

182. HAS A DOCTOR EVER SAID THAT YOU HAD ANEMIA (a-NEE-mee) OR LOW BLOOD?

Yes ........................................ 1 — Answer 186

No ........................................ 2 — Go to 172.

183. IN THE PAST 12 MONTHS, HAS A DOCTOR PRESCRIBED ANY OF THESE TREATMENTS FOR YOUR ANEMIA? (Circle one number on each line.)

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Special diet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Iron pills or shots</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Vitamin pills or shots</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Blood transfusions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

184. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT YOUR ANEMIA?

(Circle one)

- Within past 3 months ........... 1
- 3 - 6 months ago ............... 2
- 7 - 12 months ago ............... 3
- More than 1 year ago ............ 4

185. DURING THE PAST 2 MONTHS, HOW MUCH HAS YOUR ANEMIA WORRIED OR CONCERNED YOU?

(Circle one)

- A great deal ...................... 1
- Somewhat .......................... 2
- A little ........................... 3
- Not at all ........................ 4

186. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR ANEMIA KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO?

(Circle one)

- All of the time ................... 1
- Most of the time .................. 2
- Some of the time .................. 3
- A little of the time .............. 4
- None of the time ................. 5

187. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS YOUR ANEMIA KEPT YOU IN BED ALL OR MOST OF THE DAY? (If none, write in "0").

_______ days in bed last month

\^Used in all HIS sites except Dayton at enrollment and in all sites upon exit. Revisions incorporated in this version were based on experience with the initial Dayton battery.
56. HAS A DOCTOR TOLD YOU THAT YOU CURRENTLY HAVE ANEMIA (SOMETIMES CALLED LOW BLOOD) OR ARE YOU CURRENTLY UNDER TREATMENT FOR IT? ("ANEMIA" PRONOUNCED "A NEE ME A").

- NO/1 DO NOT HAVE ANEMIA (LOW BLOOD) 3 (GO TO Q 52, PAGE 16)
- YES, I HAVE IT OR AM CURRENTLY UNDER TREATMENT FOR IT 1
- YES, I HAD IT, BUT IT IS NOW CURED 2 (GO TO Q 57)

57. In the past 12 months, has a doctor prescribed any of these treatments for your anemia? CIRCLE YES OR NO FOR EACH.

- Special diet
  - Yes 1
  - No 2

- Iron pills or shots
  - Yes 1
  - No 2

- Vitamin pills or shots
  - Yes 1
  - No 2

- Blood transfusions
  - Yes 1
  - No 2

58. Do you currently take any of the following treatments for anemia, whether or not a doctor prescribed them? CIRCLE YES OR NO FOR EACH.

- Special diet
  - Yes 1
  - No 2

- Iron pills or shots
  - Yes 1
  - No 2

- Vitamin pills or shots
  - Yes 1
  - No 2

- Blood transfusions
  - Yes 1
  - No 2

59. Are you currently under a doctor's care or supervision for your anemia?

- Yes 1
- No 2

60. During the past 3 months, how much has your anemia worried or concerned you?

(Circle one.)

- A lot 1
- Somewhat 2
- A little 3
- Not at all 4

61. During the past 3 months, how often has anemia kept you from doing the kinds of activities other people your age do?

(Circle one.)

- All of the time 1
- Most of the time 2
- Some of the time 3
- A little of the time 4
- None of the time 5

62. During the past 30 days, how many days has your anemia kept you in bed all or most of the day? (IF NO DAYS IN BED, WRITE IN "0").

____ Days in bed
CHEST PAIN BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

Chest Pain, Discomfort, Heaviness or Pressure

99. HAVE YOU HAD CHEST PAIN IN THE PAST 12 MONTHS? (Do not include pain due to a cold or to an accident or injury.)

Yes .......................................................... 1 - Go to 100
No .......................................................... 2 - Answer 99-A

99-A. HAVE YOU HAD ANY DISCOMFORT, HEAVINESS OR PRESSURE IN YOUR CHEST DURING THE PAST 12 MONTHS? (Not caused by a cold or by an accident or injury.)

Yes .................................................................. 1 - Answer 100
No .................................................................. 2 - Go to 111, page 27

100. HOW OFTEN DO YOU GET THIS FEELING IN YOUR CHEST?

(Circle one)

Almost every day ........................................... 1
A few times a week ........................................... 2
About once a week ......................................... 3
A few times a month ....................................... 4
About once a month ...................................... 5
Less than once a month ................................. 6

101. DO YOU GET THIS FEELING IN YOUR CHEST WHEN YOU WALK UPHILL OR HURRY?

Yes .......................................................... 1 - Answer 101-A-8
No .................................................................. 2 - Go to 102, next page

101-A. DO YOU GET THIS FEELING IN YOUR CHEST WHEN YOU WALK AT AN ORDINARY PACE ON LEVEL GROUND?

Yes .......................................................... 1
No .................................................................. 2

101-B. WHAT DO YOU USUALLY DO WHEN YOU GET THIS FEELING IN YOUR CHEST WHILE WALKING?

(Circle one)

Stop for a while ............................................ 1
Slow down .................................................. 2
Continue at same pace .............................. 3

101-C. IF YOU STAND STILL, WHAT HAPPENS TO THIS FEELING IN YOUR CHEST?

(Circle one)

It goes away in less than 10 minutes ............ 1
It goes away in 10 to 30 minutes ............... 2
It lasts more than 30 minutes .................. 3
I don't stand still ....................................... 4

101-D. WHEN YOU GET THIS FEELING IN YOUR CHEST WHILE WALKING, DO YOU USUALLY PLACE A NITROGLYCERINE (nitro-glycerin) CANDIDATE OR ISORDIL PILL UNDER YOUR TONGUE?

(Circle one)

Yes, and pain gone within 10 minutes .......... 1
Yes, and some relief of pain within 10 minutes . 2
Yes, but no relief of pain within 10 minutes ... 3
No, do not place any pill under tongue ....... 4

101-E. WHEN YOU GET THIS FEELING IN YOUR CHEST WHILE WALKING, DO YOU USUALLY TAKE A SORBITRATE PILL (OR A SIMILAR PILL) THAT YOU CHEW?

(Circle one)

Yes, and pain gone within 10 minutes .......... 1
Yes, and some relief of pain within 10 minutes . 2
Yes, but no relief of pain within 10 minutes ... 3
No, do not chew any pill .............................. 4

102. WHERE DO YOU USUALLY GET THIS PAIN?

Please circle the number that best describes where you usually get this pain:

(Circle one)

Left side of chest ................................. 1
Right side of chest ............................. 2
Middle of chest ................................. 3
Neck .................................................. 4
Left arm ......................................... 5
Right arm ..................................... 6

*Used at all 112 sites except Dayton at enrollment and in all sites upon exit. Revisions incorporated in this version were based on experience with the initial Dayton battery.
103. WHEN WAS THE LAST TIME YOU SAW A DOCTOR FOR THIS CHEST PAIN?

<table>
<thead>
<tr>
<th>Within past 3 months</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - 6 months ago</td>
<td>2</td>
</tr>
<tr>
<td>7 - 12 months ago</td>
<td>3</td>
</tr>
<tr>
<td>More than 1 year ago</td>
<td>4</td>
</tr>
</tbody>
</table>

104. HAS A DOCTOR EVER SAID THAT YOU HAD A HEART ATTACK?

| Yes | 1 |
| No  | 2 |

105. HAS A DOCTOR EVER SAID THAT YOU HAVE ANGINA? (Ang-Jina or Ang-ina)

| Yes | 1 |
| No  | 2 |

106-A. DURING THE PAST 12 MONTHS, DID YOU EVER PLACE A NITROGLYCERINE (Note: GLASS-er-in), CADILLAC, OR GORDONI PILL UNDER YOUR TONGUE FOR YOUR CHEST PAIN?

| Yes, and it helped | 1 |
| Yes, but it did not help | 2 |
| No, did not place any pill under tongue | 3 |

106-B. DURING THE PAST 12 MONTHS, DID YOU EVER TAKE A SORBIRATE PILL (OR A SIMILAR PILL) THAT YOU CHewed FOR YOUR CHEST PAIN?

| Yes, and it helped | 1 |
| Yes, but it did not help | 2 |
| No, did not chew any pill | 3 |

107. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR CHEST PAIN OR HEART TROUBLE CAUSED YOU?

| A great deal of pain | 1 |
| Some pain | 2 |
| A little pain | 3 |
| No pain at all | 4 |

108. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR CHEST PAIN OR HEART TROUBLE WORRIED OR CONCERED YOU?

| A great deal | 1 |
| Somewhat | 2 |
| A little | 3 |
| Not at all | 4 |

109. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR CHEST PAIN OR HEART TROUBLE KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO?

| All of the time | 1 |
| Most of the time | 2 |
| Some of the time | 3 |
| A little of the time | 4 |
| None of the time | 5 |

110. DURING THE PAST 30 DAYS, HOW MANY DAYS WAS YOUR CHEST PAIN OR HEART TROUBLE KEPT YOU IN BED ALL DAY OR MOST OF THE DAY? (If none, write in "0")

______ days in bed last month
ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE.
DAYTON

CHEST PAIN, DISCOMFORT, HEAVINESS OR PRESSURE

81. HAVE YOU HAD PAIN, DISCOMFORT, HEAVINESS OR PRESSURE IN YOUR CHEST in the PAST 12 MONTHS?

NO .................................. 2  —— (GO to Q. 98, page 18)
YES .................................. 1  —— (GO to Q. 27)

82. Do you get this feeling in your chest when you walk upstairs or hurry?

(Circle one)

No .................................. 2  —— (GO to Q. 57, next page)
Yes .................................. 1

Do not walk upstairs or hurry .................................. 9

83. Do you get this feeling in your chest when you walk at an ordinary pace on the level?

(Circle one)

Yes .................................. 1
No .................................. 2

Do not walk on level .................................. 9

84. What do you usually do when you get this feeling in your chest while walking?

(Circle one)

Stop .................................. 1
Slow down .................................. 2
Continue at same pace .................................. 3

85. If you stand still, what happens to this feeling in your chest?

(Circle one)

Goes away in less than 10 minutes .................................. 1
Goes away in 10 to 30 minutes .................................. 2
Lasts over 30 minutes .................................. 3
Don't stand still .................................. 9
Don't know .................................. 8

86. If you get this feeling in your chest while walking, do you usually place a nitroglycerin pill under your tongue?

("Nitroglycerin" pronounced "Ny-truh GLY-uh-ryn"

(Circle one)

Take pill - relief of pain in 10 minutes .................................. 1
Take pill - some relief of pain in 10 minutes .................................. 2
Take pill - relief of pain within 10 minutes .................................. 3
Do not take pill .................................. 4

87. Where do you get this pain?

(Circle one for each)

Upper or middle chest (1 on picture) .................................. 1
Lower chest (2 on picture) .................................. 2
Left chest (3 on picture) .................................. 1
Left arm (4 on picture) .................................. 2
Someplace else .................................. 7

88. Are you currently under a doctor's care or supervision for this chest pain?

Yes .................................. 1
No .................................. 2

89. Has a doctor ever said you had a heart attack?

Yes .................................. 1
No .................................. 2

90. Has a doctor ever said that you have angina?

("Angina" pronounced "An-guh-nuh" or "AH-nuh-nuh")

(Circle one)

Yes .................................. 1
No .................................. 2
Don't know .................................. 8

91. In the last 12 months, did you take a nitroglycerin pill under your tongue for the chest pain?

("Nitroglycerin" pronounced "Ny-truh GLY-uh-ryn"

(Circle one)

Yes, and it helped .................................. 1
Yes, but it did not help .................................. 2
No, I never took a pill under my tongue .................................. 3
92. During the past 3 months, how much pain has your chest pain or heart trouble caused you?
   (Circle one)
   A lot ........................................ 1
   Some .................................... 2
   A little .................................. 3
   None at all ................................. 4

93. During the past 3 months, how much has your chest pain or heart trouble worried or concerned you?
   (Circle one)
   A lot ........................................ 1
   Somewhat .................................. 2
   A little .................................. 3
   Not at all .................................. 4

94. During the past 3 months, how often has your chest pain or heart trouble kept you from doing the kinds of activities other people your age do?
   (Circle one)
   All of the time ............................. 1
   Most of the time ............................ 2
   Some of the time ........................... 3
   A little of the time ........................ 4
   None of the time ............................ 5

95. During the past 30 days, how many days has your chest pain or heart trouble kept you in bed all or most of the day? (If NO DAYS IN BED, WRITE IN "0")
   ______ Days in bed
BRONCHITIS BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

CHRONIC BRONCHITIS, EMPHYSEMA, PHLEGM

111. HAS A DOCTOR EVER TOLD YOU THAT YOU HAD CHRONIC BRONCHITIS (bron-KY-tis) OR EMPHYSEMA (em-FAY-sm-uh)?

Yes .................................................. 1
No ................................................... 2

111-A. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT THE CHRONIC BRONCHITIS OR EMPHYSEMA?

(Circle one)

Within past 3 months ................................ 1
3 - 6 months ago .................................. 2
7 - 12 months ago .................................. 3
More than 1 year ago ............................. 4

111-B. DURING THE PAST 12 MONTHS, HAVE YOU BROUGHT UP ANY PHLEGM (THICK SPIT) FROM YOUR CHEST THE FIRST THING IN THE MORNING?

Yes .................................................. 1
No ................................................... 2

112. DURING THE PAST 12 MONTHS, HAVE YOU BROUGHT UP ANY PHLEGM (THICK SPIT) FROM YOUR CHEST THE FIRST THING IN THE MORNING?

Yes .................................................. 1
No ................................................... 2

113. DURING THE YEAR BEFORE THAT, WERE THERE AT LEAST 3 MONTHS WHEN YOU BROUGHT UP PHLEGM (THICK SPIT) ON MOST DAYS?

Yes .................................................. 1
No ................................................... 2

114. USUALLY, WHAT COLOR IS THE PHLEGM (THICK SPIT)?

(Circle one)

Green .................................................. 1
Yellow .................................................. 2
Brown .................................................. 3
Clear or colorless .................................. 4
Blood-streaked .................................... 5

115. DO YOU BRING UP PHLEGM (THICK SPIT) AT OTHER TIMES OF THE DAY BEYOND THE FIRST THING IN THE MORNING?

(Circle one)

No, only in morning ................................ 1
Yes, during the day, but not at night .......... 2
Yes, at night, but not during the day .......... 3
Yes, both at night and during the day ........ 4

116. ABOUT HOW MUCH PHLEGM (THICK SPIT) WOULD YOU SAY YOU BRING UP ON AN AVERAGE DAY WHEN YOU HAVE THIS PROBLEM?

(Circle one)

1 tablespoon or less ................................ 1
2 - 3 tablespoons .................................. 2
Quarter cup (4 tablespoons) ...................... 3
More than a quarter, to half cup ............. 4
More than half cup ................................ 5

117. ARE YOU CURRENTLY BRINGING UP PHLEGM (THICK SPIT)?

Yes .................................................. 1
No ................................................... 2

118. HAVE YOU EVER SEEN A DOCTOR ABOUT THIS PHLEGM (THICK SPIT)?

Yes .................................................. 1
No ................................................... 2

118-A. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT THIS PROBLEM?

(Circle one)

Within past 3 months ................................ 1
3 - 6 months ago .................................. 2
7 - 12 months ago ................................. 3
More than 1 year ago ............................ 4

1 Used at all HIS sites except Dayton at enrollment and in all sites upon exit. Revisions incorporated in this version were based on experience with the initial Dayton battery.
119. IN THE PAST 12 MONTHS, HAS A DOCTOR PRESCRIBED ANY OF THESE TREATMENTS FOR YOUR CHRONIC BRONCHITIS, EMPYSEMA, OR PHLEGM? (Circle one number on each line.)

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Breathing exercises or postural drainage</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>B. Any kind of machine to help your breathing</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>C. Smoke less or stop smoking</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>D. Get regular checkups of this condition</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>E. Slow down, or reduce your activity</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

120. WHETHER OR NOT A DOCTOR PRESCRIBED THEM, ARE YOU CURRENTLY DOING ANY OF THESE THINGS FOR YOUR CHRONIC BRONCHITIS, EMPYSEMA, OR PHLEGM? (Circle one number on each line.)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Breathing exercises or postural drainage</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>B. Using any kind of machine to help your breathing</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>C. Not smoking or smoking less</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>D. Getting regular checkups of this condition</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>E. Reducing or slowing down your activity</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

121. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR CHRONIC BRONCHITIS, EMPYSEMA, OR PHLEGM CAUSED YOU? (Circle one)

- A great deal of pain ............................. 1
- Some pain ........................................ 2
- A little pain ..................................... 3
- No pain at all .................................... 4

122. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR CHRONIC BRONCHITIS, EMPYSEMA, OR PHLEGM WORRIED OR CONCERNS YOU? (Circle one)

- A great deal ..................................... 1
- Somewhat .......................................... 2
- A little ........................................... 3
- Not at all ........................................ 4

123. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR CHRONIC BRONCHITIS, EMPYSEMA, OR PHLEGM KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO? (Circle one)

- All of the time .................................. 1
- Most of the time ................................ 2
- Some of the time ................................ 3
- A little of the time ............................. 4
- None of the time ................................ 5
98. HAS A DOCTOR EVER TOLD YOU THAT YOU HAD BRONCHITIS OR EMPHYSEMA? (Circle one)
(Bronchitis pronounced “Brong-ki-tis”) (Emphysema pronounced “Em-fish ma”)
NO .............................. 2 — (GO to q. 99)
YES ................................ 1 — (GO to q. 97)

97. Are you currently under a doctor’s care or supervision for the bronchitis or emphysema?
Yes ............................................................................ 1
No ................................................................................... 2

96. During the past 12 months, have you had any phlegm (thick spit) from your chest first thing in the morning?
(Phlegm pronounced “Flem”)
Yes ............................. 1 — (GO to q. 104, next page)
No ......................................................... 2 — (GO to q. 112, page 21)

99. DURING THE LAST 12 MONTHS, HAVE YOU HAD ANY PHLEGM (THICK SPIT) FROM YOUR CHEST FIRST THING IN THE MORNING?
NO ................................. 2 — (GO to q. 114, page 21)
YES ........................................ 1 — (GO to q. 160)

100. When do you have this phlegm? (ANSWER YES OR NO FOR EACH TIME.)
(Circle one for each.)

Winter?
Yes .................. 1
No .................. 2

Summer?
Yes .................. 1
No .................. 2

Other times?
Yes .................. 1
No .................. 2

101. At what time of year do you bring up the most phlegm?
(Circle one)

Winter ................. 1
Summer ............... 2
No difference between winter and summer .... 3

102. Usually, what color is the phlegm?
(Circle one)

Green ...................... 1
Yellow .................... 2
Clear ....................... 3
Blood streaked ............ 4

103. Do you bring up phlegm at other times besides morning?
(Circle one)
No - morning only .... 1
Yes - during the day .... 2
Yes - at night ........... 3
Yes - both during the day and at night .... 4

104. Do you bring up phlegm on most days for at least 3 months of the year?
Yes .................. 1
No .................. 2

105. Are you currently bringing up phlegm?
Yes .................. 1
No .................. 2

106. Are you currently under a doctor’s care or supervision for this problem?
Yes .................. 1 — (GO to q. 108, next page)
No .................. 2 — (GO to q. 107)

107. Have you ever seen a doctor about the phlegm?
No .................. 2 — (GO to q. 110, next page)
Yes .................. 1 — (GO to q. 118)

108. In the last 12 months, did a doctor prescribe any of these treatments for your bronchitis, phlegm, or emphysema? CIRCLE YES OR NO FOR EACH.
(Circle one for each.)

Do breathing exercises or perform physical exercise Yes ............... 1
No .................. 2

Use a breathing machine Yes ............... 1
No .................. 2

Avoid or decrease smoking Yes ............... 1
No .................. 2

Get regular checkups Yes ............... 1
No .................. 2

Get tons of rest Yes ............... 1
No .................. 2

Decrease (slow down) activity Yes ............... 1
No .................. 2
109. Whether or not a doctor prescribed them, do you do any of these for your bronchitis, phlegm, or emphysema? Circle YES or NO for each.

<table>
<thead>
<tr>
<th>Action</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do breathing exercises or posture drainage?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use a breathing machine?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoid or decrease smoking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get regular checkups?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decrease (slow down) activity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

110. During the past 2 months, how much pain has your bronchitis, phlegm, or emphysema caused you?

(Circle one)

<table>
<thead>
<tr>
<th>Amount</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot</td>
<td>1</td>
</tr>
<tr>
<td>Some</td>
<td>2</td>
</tr>
<tr>
<td>A little</td>
<td>3</td>
</tr>
<tr>
<td>None at all</td>
<td>4</td>
</tr>
</tbody>
</table>

111. During the past 3 months, how much has your bronchitis, phlegm, or emphysema worried or concerned you?

(Circle one)

<table>
<thead>
<tr>
<th>Amount</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot</td>
<td>1</td>
</tr>
<tr>
<td>Somewhat</td>
<td>2</td>
</tr>
<tr>
<td>A little</td>
<td>3</td>
</tr>
<tr>
<td>Not at all</td>
<td>4</td>
</tr>
</tbody>
</table>

112. During the past 3 months, how often has your bronchitis, phlegm, or emphysema kept you from doing the kinds of activities other people your age do?

(Circle one)

<table>
<thead>
<tr>
<th>Frequency</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All of the time</td>
<td>1</td>
</tr>
<tr>
<td>Most of the time</td>
<td>2</td>
</tr>
<tr>
<td>Some of the time</td>
<td>3</td>
</tr>
<tr>
<td>A little of the time</td>
<td>4</td>
</tr>
<tr>
<td>None of the time</td>
<td>5</td>
</tr>
</tbody>
</table>

113. During the past 30 days, how many days has your bronchitis, phlegm, or emphysema kept you in bed all or most of the day? (If NO DAYS IN BED, WRITE IN "0")

Days in bed
SMOKING BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

37. DO YOU SMOKE CIGARS OR A PIPE NOW?
   Yes ....................................................... 1
   No ....................................................... 2

38. DO YOU SMOKE CIGARETTES NOW?
   Yes ....................................................... 1 —Answer 38-A-B-C
   No ....................................................... 2 —Go to 39-
   next page

38-A. DURING HOW MANY YEARS HAVE YOU SMOKED CIGARETTES REGULARLY?
   (Circle one)
   Less than 1 year ....................................... 1
   2 - 5 years ............................................. 2
   6 - 10 years ........................................... 3
   11 - 15 years ......................................... 4
   16 - 20 years ......................................... 5
   21 - 25 years ......................................... 6
   26 - 30 years ......................................... 7
   31 - 35 years ......................................... 8
   36 - 40 years ......................................... 9
   More than 40 years .................................. 0

38-B. ON THE AVERAGE, ABOUT HOW MANY PACKS A DAY DO YOU SMOKE NOW?
   (Circle one)
   Less than 1 pack a day ............................... 1
   About 1 pack a day .................................. 2
   About 2 packs a day ................................ 3
   More than 2 packs a day ............................ 4

38-C. HAS A DOCTOR EVER TOLD YOU TO STOP OR CUT DOWN ON YOUR SMOKING?
   Yes ....................................................... 1 —Go to 40-
   No ....................................................... 2 —page 19

39. HAVE YOU EVER SMOKED CIGARETTES FAIRLY REGULARLY?
   Yes ....................................................... 1
   No ....................................................... 2 —Go to 40-
   next page

39-A. DURING HOW MANY YEARS DID YOU SMOKE CIGARETTES REGULARLY?
   (Circle one)
   Less than 2 years ...................................... 1
   2 - 5 years ............................................. 2
   6 - 10 years .......................................... 3
   11 - 15 years ........................................ 4
   16 - 20 years ........................................ 5
   21 - 25 years ........................................ 6
   26 - 30 years ........................................ 7
   31 - 35 years ........................................ 8
   36 - 40 years ........................................ 9
   More than 40 years ................................ 0

39-B. ON THE AVERAGE, ABOUT HOW MANY PACKS A DAY DID YOU USE TO SMOKE?
   (Circle one)
   Less than 1 pack a day ............................... 1
   About 1 pack a day .................................. 2
   About 2 packs a day ................................ 3
   More than 2 packs a day ............................ 4

39-C. HOW LONG HAS IT BEEN SINCE YOU SMOKED CIGARETTES REGULARLY?
   (Circle one)
   5 months or less ..................................... 1
   6 months to 1 year .................................. 2
   More than 1 year to 2 years ...................... 3
   More than 2 years to 5 years .................... 4
   More than 5 years .................................. 5

39-D. DID A DOCTOR EVER TELL YOU TO STOP OR CUT DOWN ON YOUR SMOKING?
   Yes ....................................................... 1
   No ....................................................... 2

Used at all HJS sites except Dayton at enrollment and in all sites upon exit. Revisions incorporated in this version were based on experience with the initial Dayton battery.
114. DO YOU SMOKE CIGARS OR A PIPE NOW?

YES ......... 1
NO ............ 2

115. HAVE YOU EVER SMOKED CIGARETTES FAIRLY REGULARLY?

NO ......... 2 (GO to q. 122, page 73)
YES ............ 1 (GO to q. 116, next page)

116. During how many years have you smoked regularly?

______ Years

117. During those years that you smoked regularly, on the average, how many packs a day did you smoke?

(Circle one)

- Less than 1/4 pack a day ........... 1
- About 1 pack a day ............ 3
- About 2 packs a day ........... 3
- About 3 or more packs a day ........... 4

118. Do you smoke cigarettes now?

Yes ............ 1 (GO to q. 120)
No ............ 2 (GO to q. 119)

119. How long has it been since you smoked fairly regularly?

______ Years (GO to q. 121)

120. On the average, about how many packs of cigarettes a day do you currently smoke?

(Circle one)

- Less than 1/4 pack a day ........... 1
- About 1 pack a day ............ 2
- About 2 packs a day ........... 3
- About 3 or more packs a day ........... 4

121. Has a doctor ever told you to stop smoking?

Yes ............ 1
No ............ 2
SHORTNESS-OF-BREATH BATTERY
FROM THE MEDICAL HISTORY QUESTIONNAIRE

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

SHORTNESS OF BREATH OR ENLARGED HEART

74. DURING THE PAST 12 MONTHS, HAVE YOU EVER FELT SHORT OF BREATH?
   Yes .............................................. 1 — Answer 74-A
   No .............................................. 2 — Go to 75

74-A. HAS A DOCTOR EVER TOLD YOU THAT YOU HAD AN ENLARGED HEART OR HEART FAILURE?
   Yes .............................................. 1 — Go to 76
   No .............................................. 2 — Go to 77

75. HAS A DOCTOR EVER TOLD YOU THAT YOU HAD AN ENLARGED HEART OR HEART FAILURE?
   Yes .............................................. 1 — Answer 75-G
   No .............................................. 2 — Go to 77

76-A. DURING THE PAST 3 MONTHS, HAVE YOU BEEN TROUBLED BY SHORTNESS OF BREATH WHEN YOU HURRIED OR WALKED UPHILL?
   Yes .............................................. 1
   No .............................................. 2

76-B. DURING THE PAST 3 MONTHS, HAVE YOU BEEN SHORT OF BREATH WHEN YOU WALKED WITH PERFUSING YOUR OWN AGE ON LEVEL GROUND?
   Yes .............................................. 1
   No .............................................. 2

76-C. IN THE PAST 3 MONTHS, HAVE YOU HAD TO STOP, BECAUSE OF SHORTNESS OF BREATH, WHEN YOU WALKED AT YOUR OWN PACE ON LEVEL GROUND?
   Yes .............................................. 1
   No .............................................. 2

76-D. IN THE PAST 3 MONTHS, HAVE YOU BEEN BOTHERED BY SHORTNESS OF BREATH WHEN YOU BATHED OR DRESSED YOURSELF?
   Yes .............................................. 1 — Answer 76-E
   No .............................................. 2 — Go to 76

76-E. IN THE PAST 3 MONTHS, DID YOU EVER WAKE UP AT NIGHT SO SHORT OF BREATH THAT YOU HAD TO SIT ON THE SIDE OF THE BED OR GET UP FOR RELIEF?
   Yes .............................................. 1
   No .............................................. 2

76-F. DURING THE PAST 3 MONTHS, DID YOU EVER SLEEP ON MORE THAN ONE PILLOW BECAUSE OF A PROBLEM WITH SHORTNESS OF BREATH?
   Yes .............................................. 1 — Answer 76-G
   No .............................................. 2 — Go to 77

76-G. HOW MANY PILLOWS DO YOU USUALLY USE?
   (Circle one)
   Two .............................................. 1
   Three ........................................... 2
   Four or more ................................... 3

77. THINKING OF THE PAST 3 MONTHS, DID YOUR ANKLES EVER SWELL DURING THE DAY ENOUGH TO MAKE YOUR SHOES FEEL TIGHT?
   Yes .............................................. 1 — Answer 77-A
   No .............................................. 2 — Go to 78

77-A. WHEN THIS HAPPENED, WERE THEY USUALLY STILL SWOLLEN THE NEXT MORNING?
   Yes .............................................. 1
   No .............................................. 2

78. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT YOUR SHORTNESS OF BREATH, ENLARGED HEART OR HEART FAILURE?
   (Circle one)
   Within past 3 months ................................ 1
   3 - 6 months ago ................................... 2
   7 - 12 months ago .................................. 3
   More than 1 year ago ................................ 4
   Never saw doctor about this ........................ 5

79. HAS A DOCTOR EVER PRESCRIBED DIURETIC (FLUID OR WATER) PILLS FOR YOUR CONDITION?
   Yes .............................................. 1 — Answer 79-A
   No .............................................. 2 — Go to 80

Used at all 345 sites except Dayton at enrollment and in all sites upon exit. Revisions incorporated in this version were based on experience with the initial Dayton battery.
79-A. DO YOU CURRENTLY TAKE DIURETIC PILLS?

Yes ........................................... 1
No ........................................... 2

80. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR SHORTNESS OF BREATH, ENLARGED HEART, OR HEART FAILURE CAUSED YOU?

(Circle one)
A great deal of pain ................................ 1
Some pain ........................................... 2
A little pain .......................................... 3
No pain at all ........................................ 4

81. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR SHORTNESS OF BREATH, ENLARGED HEART, OR HEART FAILURE WORRIED OR CONCERNED YOU?

(Circle one)
A great deal ........................................ 1
Somewhat .......................................... 2
A little .............................................. 3
None at all .......................................... 4

82. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR SHORTNESS OF BREATH, ENLARGED HEART, OR HEART FAILURE KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO?

(Circle one)
All of the time .................................... 1
Most of the time ................................... 2
Some of the time .................................. 3
A little of the time ................................ 4
None of the time .................................. 5

83. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS YOUR SHORTNESS OF BREATH, ENLARGED HEART, OR HEART FAILURE KEPT YOU IN BED ALL DAY OR MOST OF THE DAY? (If none, write in "0").

_______ days in bed last month

<table>
<thead>
<tr>
<th>84. HAVE YOU EVER TAKEN ANY OF THESE HEART MEDICINES?</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIGITALIS (D)-HAL (hs)</td>
</tr>
<tr>
<td>DIGITALIS LEAF</td>
</tr>
<tr>
<td>DIGITOXIN (D)-70X-ml</td>
</tr>
<tr>
<td>DIGITOXIN (D)-OX-ing</td>
</tr>
<tr>
<td>LANOXIN (Lan-ox-in)</td>
</tr>
</tbody>
</table>

Yes, have taken one or more of these .................. 1 —Answer 84-A
No, never taken any of these .............................. 2 —Go to 85.

84-A. ARE YOU CURRENTLY TAKING ANY OF THESE HEART MEDICINES?

— DIGITALIS, DIGITALIS LEAF, DIGITOXIN, DIGITOXIN, OR LANOXIN.

Yes ............................................... 1
No .................................................. 2
65. **DURING THE PAST 12 MONTHS, HAVE YOU EVER FELT SHORT OF BREATH OR HAS THE DOCTOR EVER TOLD YOU THAT YOU HAD HEART FAILURE?**

<table>
<thead>
<tr>
<th>YES</th>
<th>1</th>
<th>(GO TO QUESTION 15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>2</td>
<td>(GO TO QUESTION 67)</td>
</tr>
</tbody>
</table>

66. **IN THE PAST 3 MONTHS, DID YOU EVER WAKE UP AT NIGHT SO SHORT OF BREATH THAT YOU HAD TO SIT ON THE SIDE OF THE BED OR GET UP FOR RELIEF?**

<table>
<thead>
<tr>
<th>YES</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>2</td>
</tr>
</tbody>
</table>

67. **IN THE PAST 3 MONTHS, HAVE YOU BEEN TROUBLED BY SHORTNESS OF BREATH WHEN YOU WALKED OR WALKED UPHILL?**

(Circle one)

<table>
<thead>
<tr>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

68. **IN THE PAST 3 MONTHS, HAVE YOU BEEN SHORT OF BREATH WHEN YOU WALKED WITH THE PACE OF YOUR OWN AGE ON LEVEL GROUND?**

(Circle one)

<table>
<thead>
<tr>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

69. **IN THE PAST 3 MONTHS, HAVE YOU HAD TO STOP BECAUSE OF SHORTNESS OF BREATH WHEN YOU WALKED AT YOUR OWN PACE ON LEVEL GROUND?**

(Circle one)

<table>
<thead>
<tr>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

70. **IN THE PAST 3 MONTHS, HAVE YOU BEEN BOtherED BY SHORTNESS OF BREATH WHEN YOU BATHED OR DRESSED YOURSELF?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

71. **HAS A DOCTOR EVER SAID THAT YOU HAD A WEAK HEART OR HEART FAILURE?**

<table>
<thead>
<tr>
<th>YES</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>2</td>
</tr>
</tbody>
</table>

72. **THINKING OF THE PAST 3 MONTHS, DID YOUR ANKLES EVER SWELL DURING THE DAY ENOUGH TO MAKE YOUR SHOES FEEL TIGHT?**

<table>
<thead>
<tr>
<th>No</th>
<th>2</th>
<th>(GO TO QUESTION 74)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td>(GO TO QUESTION 75)</td>
</tr>
</tbody>
</table>

73. **WHEN THIS HAPPENED, WERE THEY USUALLY STILL SWollen THE NEXT MORNING?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

74. **IN THE LAST 3 MONTHS, DID YOU SLEEP ON MORE THAN ONE PILLOW BECAUSE OF A PROBLEM WITH SHORTNESS OF BREATH?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

75. **DO YOU CURRENTLY TAKE DIURETICS (OR FLUID) PILLS WHICH HAVE BEEN PRESCRIBED BY YOUR DOCTOR?**

(0). "Diuretic" pronounced "De-yur-ET-ik"

(Circle one)

<table>
<thead>
<tr>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

76. **DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR SHORTNESS OF BREATH OR HEART FAILURE CAUSED YOU?**

(Circle one)

<table>
<thead>
<tr>
<th>A lot</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some</td>
<td>2</td>
</tr>
<tr>
<td>A little</td>
<td>3</td>
</tr>
<tr>
<td>None</td>
<td>4</td>
</tr>
</tbody>
</table>

77. **DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR SHORTNESS OF BREATH OR HEART FAILURE WORRIED OR CONCERNED YOU?**

(Circle one)

<table>
<thead>
<tr>
<th>A lot</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somewhat</td>
<td>2</td>
</tr>
<tr>
<td>A little</td>
<td>3</td>
</tr>
<tr>
<td>None</td>
<td>4</td>
</tr>
</tbody>
</table>

78. **DURING THE PAST 3 MONTHS, HOW OFTEN HAS YOUR SHORTNESS OF BREATH OR HEART FAILURE KEPT YOU FROM DOING THE KINDS OF ACTIVITIES OTHER PEOPLE YOUR AGE DO?**

(Circle one)

<table>
<thead>
<tr>
<th>All of the time</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most of the time</td>
<td>2</td>
</tr>
<tr>
<td>Some of the time</td>
<td>3</td>
</tr>
<tr>
<td>A little of the time</td>
<td>4</td>
</tr>
<tr>
<td>None of the time</td>
<td>5</td>
</tr>
</tbody>
</table>

79. **HOW MANY DAYS DOES YOUR SHORTNESS OF BREATH OR HEART FAILURE KEEP YOU IN BED ALL OR MOST OF THE DAY? (IF NO DAYS IN BED, WRITE IN "0")

________ Days in bed
57. HAVE YOU EVER TAKEN ANY OF THESE HEART MEDICINES: DIGITALIS, DIGITALIS LEAF, DIGITOXIN, OR DIGOXIN?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>35 next page</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YES</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

58. Are you currently taking any of these heart medicines: digitalis, digitalis leaf, digitoxin, or digoxin?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
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</tbody>
</table>
# DIABETES BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

**ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE**

## DIABETES, PRE-DIABETES

172. DO YOU HAVE ANY REASON TO THINK THAT YOU MAY HAVE DIABETES OR PRE-DIABETES, SOMETIMES CALLED SUGAR DIABETES OR SUGAR DISEASE?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

173. HAS A DOCTOR EVER SAID TO YOU THAT YOU HAD DIABETES OR PRE-DIABETES?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

174. WHEN WAS THE LAST TIME YOU SAW A DOCTOR OR NURSE FOR YOUR DIABETES OR PRE-DIABETES? (Circle one)

<table>
<thead>
<tr>
<th>Within past 2 months</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - 9 months ago</td>
<td>2</td>
</tr>
<tr>
<td>7 - 12 months ago</td>
<td>3</td>
</tr>
<tr>
<td>More than 1 year ago</td>
<td>4</td>
</tr>
</tbody>
</table>

175. DO YOU TAKE INSULIN?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

---

176. DO YOU TAKE ANY MEDICINES BY MOUTH FOR DIABETES OR PRE-DIABETES?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

177. HAS A DOCTOR OR NURSE TOLD YOU TO CHECK YOUR URINE FOR SUGAR?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

178. HOW OFTEN DID THE DOCTOR OR NURSE TELL YOU TO CHECK YOUR URINE?

(Circle one)

<table>
<thead>
<tr>
<th>Less than once a week</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once a week</td>
<td>2</td>
</tr>
<tr>
<td>Every other day</td>
<td>3</td>
</tr>
<tr>
<td>Every day</td>
<td>4</td>
</tr>
<tr>
<td>2 or more times a day</td>
<td>5</td>
</tr>
</tbody>
</table>

179. IN THE PAST 30 DAYS, HOW MANY DAYS DID YOU ACTUALLY CHECK YOUR URINE AT LEAST ONCE?

(Circle one)

<table>
<thead>
<tr>
<th>None</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2 days</td>
<td>2</td>
</tr>
<tr>
<td>3 - 5 days</td>
<td>3</td>
</tr>
<tr>
<td>6 - 10 days</td>
<td>4</td>
</tr>
<tr>
<td>11 - 20 days</td>
<td>5</td>
</tr>
<tr>
<td>21 - 30 days</td>
<td>6</td>
</tr>
</tbody>
</table>

180. HAS A DOCTOR OR NURSE EVER TOLD YOU TO DO ANY OF THESE THINGS BECAUSE OF DIABETES OR PRE-DIABETES? (Circle one number on each line)

<table>
<thead>
<tr>
<th>A. Keep your feet clean</th>
<th>1 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Cut your toenails straight across and not too short</td>
<td>1 2</td>
</tr>
<tr>
<td>C. Do not walk barefoot</td>
<td>1 2</td>
</tr>
<tr>
<td>D. Do not wear tight hose supporters</td>
<td>1 2</td>
</tr>
<tr>
<td>E. Watch your weight because of diabetes or pre-diabetes</td>
<td>1 2</td>
</tr>
</tbody>
</table>

---

11 Used in all HIS sites except Dayton at enrollment and in all sites upon exit. Revisions incorporated in this version were based on experience with the initial Dayton battery.
181. DO YOU ACTUALLY DO ANY OF THESE THINGS FOR DIABETES OR PRE-DIABETES, WHETHER OR NOT A DOCTOR TOLD YOU TO? (Circle one number on each line.)

A. Keep your feet clean
   Yes 1 No 2

B. Cut your toenails straight across and not too short
   1 2

C. Do not walk barefoot
   1 2

D. Do not wear tight hose supporters
   1 2

E. Watch your weight because of diabetes or pre-diabetes
   1 2

182. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR DIABETES OR PRE-DIABETES CAUSED YOU? (Circle one)

A great deal of pain
   1

Some pain
   2

A little pain
   3

No pain at all
   4

183. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR DIABETES OR PRE-DIABETES WORRIED OR CONCERNED YOU? (Circle one)

A great deal
   1

Somewhat
   2

A little
   3

Not at all
   4

184. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR DIABETES OR PRE-DIABETES KEPT YOU FROM DOING THE KINDS OF THINGS THAT OTHER PEOPLE YOUR AGE DO? (Circle one)

All of the time
   1

Most of the time
   2

Some of the time
   3

A little of the time
   4

None of the time
   5

185. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS YOUR DIABETES OR PRE-DIABETES KEPT YOU IN BED ALL OR MOST OF THE DAY? (If none, write in "0")

___ days in bed last month

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE,
DAYTON

143. DO YOU HAVE ANY REASON TO THINK THAT YOU MAY HAVE DIABETES OR PRE-DIABETES, SOMETIMES CALLED SUGAR DIABETES OR SUGAR DISEASE?

NO 2 (GO to q. 157)

YES 1 (GO to q. 144)

144. Did a doctor or nurse tell you that you had diabetes or pre-diabetes?

No 2 (GO to q. 157)

Yes 1 (GO to q. 145)

145. Are you currently under a doctor's or nurse's care or supervision for your diabetes or pre-diabetes?

Yes 1

No 2

146. Do you take insulin?

Yes 1

No 2

147. Do you take any medicine by mouth for diabetes or pre-diabetes?

Yes 1

No 2

148. Has a doctor or nurse told you to check your urine for sugar?

No 2 (GO to q. 151)

Yes 1 (GO to q. 149)

149. How often did the doctor or nurse tell you to check your urine? (Circle one.)

Never 1

Less than once a week 2

Once a week 3

Every other day 4

Every day 5

2 or more times a day 6
150. In the last 30 days, how many times have you actually checked it? (IF NONE, WRITE IN “0”)

Times

<table>
<thead>
<tr>
<th>Keep your feet clean</th>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cut your toenails straight across and not too short</th>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do not walk barefoot</th>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do not wear tight hose supporters</th>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Watch your weight because of diabetes</th>
<th>Yes</th>
<th>1</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>2</td>
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</table>

154. During the past 3 months, how much has your diabetes or pre-diabetes worried or concerned you?

(Circle one)

<table>
<thead>
<tr>
<th>A lot</th>
<th>Somewhat</th>
<th>A little</th>
<th>Not at all</th>
</tr>
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<tr>
<td></td>
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</table>

155. During the past 3 months, how often has your diabetes or pre-diabetes kept you from doing the kinds of activities other people your age do?

(Circle one)

<table>
<thead>
<tr>
<th>All of the time</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>A little of the time</th>
<th>None of the time</th>
</tr>
</thead>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

156. During the past 30 days, how many days has your diabetes or pre-diabetes kept you in bed all or most of the day? (IF NO DAYS IN BED, WRITE IN “0”)

Days in bed

A lot | Some | A little | None at all |
<table>
<thead>
<tr>
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<th></th>
<th></th>
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**HAY FEVER BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE**

**ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE**

### Hay Fever or Other Plant Allergies

27. **Have you ever had hay fever or other allergies to plants and grasses?**
   - Yes ........................................ 1 — Answer 28
   - No ........................................... 2 — Go to 37.

28. **When was the last time you saw a doctor about your hay fever or other plant allergies?**
   (Circle one)
   - Within past 3 months .................. 1
   - 3 - 6 months ago ....................... 2
   - 7 - 12 months ago ..................... 3
   - More than 1 year ago ................. 4
   - Never saw doctor about this .......... 5

29. **In the past 12 months, did you get any shots to help prevent hay fever or other plant allergies?**
   - Yes ........................................ 1
   - No .......................................... 2

30. **In the past 12 months, has a doctor prescribed any medicine to help prevent the symptoms of hay fever or other plant allergies?**
   - Yes ........................................ 1
   - No .......................................... 2

31. **Do you actually take any medicine for the hay fever or other plant allergies?**
   (Circle one)
   - Yes, prescribed by doctor .......... 1
   - Yes, but not prescribed by doctor .. 2
   - No, don't take any .................... 3

---

### Additional Questions

32. **During the Past 12 Months, How Much Pain or Distress Has Your Hay Fever or Other Plant Allergies Caused You?**
   (Circle one)
   - A great deal of pain .................. 1
   - Some pain ................................ 2
   - A little pain ............................ 3
   - No pain at all ........................... 4

33. **During the Past 12 Months, How Much Has Your Hay Fever or Other Plant Allergies Worried or Concerned You?**
   (Circle one)
   - A great deal ............................ 1
   - Somewhat ................................. 2
   - A little .................................. 3
   - Not at all ................................ 4

34. **During the Past 12 Months, How Many Weeks or Months Were You Bothered By Hay Fever or Other Plant Allergies?**
   (Circle one)
   - Not bothered at all in past 12 months .......... 1 — Go to 37.
   - Less than 2 weeks of the time ........... 1
   - 2 weeks but less than 1 month ............. 2
   - 1 month but less than 2 months .......... 3
   - 2 months but less than 4 months ........... 4
   - 4 months but less than 6 months .......... 5
   - 6 months or more ....................... 6
   - Answer 35 ................................ 7

35. **During the Weeks When You Were Bothered By Hay Fever or Other Plant Allergies, How Much of the Time Did It Keep You From Doing the Kinds of Things That Other People Your Age Do?**
   (Circle one)
   - All of the time .......................... 1
   - Most of the time ........................ 2
   - Some of the time ........................ 3
   - A little of the time .................... 4
   - None of the time ........................ 5

---

36. **During the Past 12 Months, How Many Days Has Your Hay Fever or Other Plant Allergies Kept You In Bed All or Most of the Day? (If none, write in "0.")**

   ____ days in bed last year
1. HAVE YOU EVER HAD HAY FEVER?  
   NO  ......................................... 2  — (GO to q. 11, next page)  
   YES ............................................ 1

2. Have you been under a doctor's care or supervision for it in the past 12 months?  
   Yes ........................................... 1  
   No ............................................ 2

3. In the last 12 months, did you get shots to help prevent hay fever?  
   Yes ........................................... 1  
   No ............................................ 2

4. In the last 12 months, has the doctor prescribed any medicine to help prevent the symptoms?  
   Yes ........................................... 1  
   No ............................................ 2

5. Do you actually take any medicine for the hay fever?  
   (Circle one.)  
   Yes, prescribed by doctor ........................................... 1  
   Yes, but not prescribed by doctor ..................................... 2  
   No ................................................................... 3

6. During the last 12 months, how much pain has your hay fever caused you?  
   (Circle one.)  
   A lot .................................................................. 1  
   Some .................................................................. 2  
   A little .................................................................. 3  
   None at all .............................................................. 4

7. During the last 12 months, how much has your hay fever worried or concerned you?  
   (Circle one.)  
   A lot .................................................................. 1  
   Somewhat ............................................................. 2  
   A little .................................................................. 3  
   Not at all .............................................................. 4

8. During the past 12 months, in how many weeks were you bothered by hay fever? (WRITE IN NUMBER OF WEEKS OR CIRCLE “99” IF NOT BOTH.)  
   Not bothered in last 12 months .................................. 99  — (GO to q. 11)  
   Weeks .................................................................... (GO to q. 9)

9. During the weeks when you were bothered by hay fever, how often did your hay fever keep you from doing the kinds of activities other people your age do? (IN THE LAST 12 MONTHS)  
   (Circle one.)  
   All of the time ......................................................... 1  
   Most of the time ....................................................... 2  
   Some of the time ....................................................... 3  
   A little of the time ..................................................... 4  
   None of the time ....................................................... 5

10. During the last 12 months, how many days has your hay fever kept you in bed all or most of the day? (IF NO DAYS IN BED, WRITE IN “0”.)  
    Days in bed ................................................................
17. HAVE YOU EVER HAD AN EAR INJURY? IF YES, WHICH EAR?  
(Circle one)  
Yes, injury to right ear  ........................................ 1  
Yes, injury to left ear  .......................................... 2  
Yes, injury to both ears  ......................................... 3  
No, never had ear injury ........................................... 4  

18. HAVE YOU EVER HAD EAR SURGERY? IF YES, WHICH EAR?  
(Circle one)  
Yes, right ear surgery ............................................. 1  
Yes, left ear surgery .............................................. 2  
Yes, surgery both ears ............................................ 3  
No, never had ear surgery ......................................... 4  

19. HAVE YOU EVER HAD YOUR HEARING TESTED?  
(Circle one)  
Yes, by a doctor .................................................. 1  
Yes, by someone else .............................................. 2  
No ........................................................................ 3 —Go to 20-A, below  

19-A. WHEN WAS THE LAST TIME YOU HAD YOUR HEARING TESTED?  
(Circle one)  
Within the past 12 months ....................................... 1  
1 to 2 years ago ..................................................... 2  
More than 2, but less than 5 years ago ...................... 3  
5 or more years ago ............................................... 4  

---

20-A. CAN YOU USUALLY HEAR AND UNDERSTAND WHAT A PERSON SAYS, WITHOUT SEEING HIS FACE AND WITHOUT A HEARING AID, IF HE WHISPERS TO YOU FROM ACROSS A QUIET ROOM?  
Yes ................................................................. 1 —Go to 27, page 10  
No .......................................................................... 2 —Answer 20-B, next page  

20-B. CAN YOU USUALLY HEAR AND UNDERSTAND WHAT A PERSON SAYS, WITHOUT SEEING HIS FACE AND WITHOUT A HEARING AID, IF HE TALKS TO YOU IN A NORMAL VOICE FROM ACROSS A QUIET ROOM?  
Yes ................................................................. 1 —Go to 27, page 10  
No .......................................................................... 2 —Answer 20-C  

20-C. CAN YOU USUALLY HEAR AND UNDERSTAND WHAT A PERSON SAYS, WITHOUT SEEING HIS FACE AND WITHOUT A HEARING AID, IF HE SHOUTS TO YOU FROM ACROSS A QUIET ROOM?  
Yes ................................................................. 1 —Go to 21, below  
No .......................................................................... 2 —Answer 20-D  

20-D. CAN YOU USUALLY HEAR AND UNDERSTAND WHAT A PERSON SAYS WITHOUT A HEARING AID IF HE SPEAKS LOUDLY INTO YOUR BETTER EAR?  
Yes ................................................................. 1 —Go to 21, below  
No .......................................................................... 2 —Answer 20-E  

20-E. CAN YOU USUALLY TELL THE SOUND OF SPEECH FROM OTHER SOUNDS AND NOISES WITHOUT A HEARING AID?  
Yes ................................................................. 1 —Go to 21, below  
No .......................................................................... 2 —Answer 20-F  

20-F. CAN YOU USUALLY TELL ONE KIND OF NOISE FROM ANOTHER WITHOUT A HEARING AID?  
Yes ................................................................. 1 —Go to 21, below  
No .......................................................................... 2 —Answer 20-G  

20-G. CAN YOU HEAR LOUD NOISES WITHOUT A HEARING AID?  
Yes ................................................................. 1  
No .......................................................................... 2
21. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT YOUR HEARING PROBLEM?
   (Circle one)
   Within past 3 months ........................................ 1
   3 - 6 months ago ............................................. 2
   7 - 12 months ago ........................................... 3
   More than 1 year ago ......................................... 4
   Never saw doctor about this .............................. 5

22. HOW WOULD YOU DESCRIBE YOUR HEARING IN YOUR LEFT EAR, WITHOUT A HEARING AID?
   (Circle one)
   No problem hearing ........................................... 1
   A little problem ............................................... 2
   A major problem .............................................. 3
   Deaf in left ear ............................................... 4

23. HOW WOULD YOU DESCRIBE YOUR HEARING IN YOUR RIGHT EAR, WITHOUT A HEARING AID?
   (Circle one)
   No problem hearing ........................................... 1
   A little problem ............................................... 2
   A major problem .............................................. 3
   Deaf in right ear ............................................. 4

24. HAVE YOU EVER USED A HEARING AID?
   (Circle one)
   Yes, prescribed by doctor .................................. 1
   Yes, but not prescribed by doctor ......................... 2
   No .................................................................. 3
   Answer 24-A-B-C

24-A. IN WHICH EAR HAVE YOU USED A HEARING AID?
   (Circle one)
   Left ear ......................................................... 1
   Right ear ....................................................... 2
   Both ears ....................................................... 3

24-B. WITH A HEARING AID, HOW WELL CAN YOU HEAR, COMPARED TO MOST PERSONS YOUR AGE?
   (Circle one)
   Better than most ................................................ 1
   About the same as most ...................................... 2
   Not as well as most ............................................ 3

24-C. DO YOU WEAR A HEARING AID NOW?
   (Circle one)
   Yes, prescribed by a doctor ................................ 1
   Yes, not prescribed by doctor ............................. 2
   No, do not wear a hearing aid now ....................... 3

25. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR HEARING PROBLEM WORRIED OR CONCERNED YOU?
   (Circle one)
   A great deal .................................................... 1
   Somewhat ....................................................... 2
   A little .......................................................... 3
   Not at all ....................................................... 4

26. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR HEARING PROBLEM KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO?
   (Circle one)
   All of the time ................................................. 1
   Most of the time ............................................... 2
   Some of the time .............................................. 3
   A little of the time .......................................... 4
   None of the time ............................................. 5
ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE,
DAYTON

HEARING

11. HAVE YOU EVER HAD YOUR HEARING TESTED?  
(Circle one.)
YES .................................................................................. 1
NO ................................................................................... 2
DON'T KNOW ..................................................................... 8

12. DO YOU HAVE TROUBLE HEARING WITH ONE OR BOTH EARS WITHOUT A HEARING AID?  
(Circle one.)
NO ................................................................. 2 (GO to q. 24, page 4)
YES ................................................................. 1 (GO to q. 13)

13. Are you now under the care or supervision of a doctor for this hearing problem?  
Yes ................................................................. 1
No ................................................................. 2

14. How often do you usually have your hearing tested?  
(Circle one.)
Every 6 months ................................................... 1
Every year ......................................................... 2
Every 2 years ..................................................... 3
Less often ......................................................... 4
Never had hearing tested ...................................... 5

15. How would you describe your hearing in your left ear without a hearing aid?  
(Circle one.)
No problem in hearing ........................................... 1
A little problem .................................................... 2
A major problem .................................................. 3
Deaf in left ear ..................................................... 4

16. How would you describe your hearing in your right ear without a hearing aid?  
(Circle one.)
No problem in hearing ........................................... 1
A little problem .................................................... 2
A major problem .................................................. 3
Deaf in right ear ..................................................... 4

17. Have you ever used a hearing aid?  
No ................................................................. 2 (GO to q. 20)
Yes ................................................................. 1 (GO to q. 18)

18. Which ear?  
(Circle one.)
Left ear ......................................................... 1
Right ear ......................................................... 2
Both ears ......................................................... 3

19. With a hearing aid, how well can you hear compared to most people your age?  
(Circle one.)
Better than most ................................................ 1
About the same as most ...................................... 2
Worse than most ................................................ 3

20. Has a doctor prescribed a hearing aid for you?  
Yes ................................................................. 1
No ................................................................. 2

21. Do you wear a hearing aid now?  
(Circle one.)
Yes, prescribed by doctor ...................................... 1
Yes, but not prescribed by doctor .......................... 2
No ................................................................. 3

22. During the past 3 months, how often has your hearing problem kept you from doing the kinds of activities other people your age do?  
(Circle one.)
All of the time ................................................... 1
Most of the time .................................................. 2
Some of the time .................................................. 3
A little of the time ............................................... 4
None of the time ................................................ 5

23. During the past 3 months, how much has your hearing problem worried or concerned you?  
(Circle one.)
A lot ............................................................... 1
Somewhat ........................................................ 2
A little ............................................................. 3
Not at all .......................................................... 4
CHOLESTEROL AND DIET BATTERIES FROM THE MEDICAL HISTORY QUESTIONNAIRE

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

CHOLESTEROL

157. HAVE YOU EVER HAD A BLOOD CHOLESTEROL TEST (non-LESS-TRY-ANY)?
(Circle one)

Yes ........................................... 1
No ............................................. 2
Don't know ................................... 3

158. HAS A DOCTOR EVER SAID YOU HAVE HIGH BLOOD CHOLESTEROL?

Yes ........................................... 1 — Answer 159
No ............................................. 2 — Go to 160

159. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT YOUR HIGH CHOLESTEROL?
(Circle one)

Within past 3 months .......................... 1
3 - 12 months ago ......................... 2
7 - 12 months ago ......................... 3
More than 1 year ago .................... 4

160. HAS A DOCTOR EVER PRESCRIBED ANY MEDICINE FOR YOUR HIGH CHOLESTEROL?

Yes ........................................... 1
No ............................................. 2

161. ARE YOU CURRENTLY TAKING ANY MEDICINE FOR HIGH CHOLESTEROL?
(Circle one)

Yes, prescribed by a doctor .................. 1
Yes, not prescribed by a doctor ............. 2
No, I don't take any medicines for cholesterol .... 3

EATING HABITS AND DIET

25. ARE YOU ON ANY KIND OF SPECIAL DIET — EITHER TO loose weight, or FOR REASONS OF HEALTH?

Yes ........................................... 1 — Answer 25.
A B C D E
No ............................................. 2 — Go to 26.
next page

25-A. WHY ARE YOU ON A SPECIAL DIET? (Circle one number on each line)

<table>
<thead>
<tr>
<th>To lose weight</th>
<th>Diabetes</th>
<th>Kidney failure</th>
<th>Ulcers</th>
<th>High cholesterol</th>
<th>Heart trouble or high blood pressure</th>
<th>Pregnancy</th>
<th>Some other reason</th>
<th>What?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

1Used at all HHS sites except Dayton at enrollment and in all sites upon exit. Revisions incorporated in this version were based on experience with the initial Dayton battery.
25-B. WHAT KIND OF DIET IS IT? (Circle one number on each line.)

<table>
<thead>
<tr>
<th>Diet Type</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low calorie</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Low fat or cholesterol</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Low protein</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Low salt</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Low carbohydrate</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Blend diet</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Some other</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>What?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

25-C. WAS THIS DIET ORDERED BY A DOCTOR, NURSE, CLINIC, OR DIETICIAN?

<table>
<thead>
<tr>
<th>Answer</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

25-D. HOW CAREFULLY DO YOU FOLLOW YOUR DIET? DO YOU FOLLOW IT...

<table>
<thead>
<tr>
<th>Carefulness</th>
<th>(Circle one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of the time</td>
<td>1</td>
</tr>
<tr>
<td>Most of the time</td>
<td>2</td>
</tr>
<tr>
<td>Some of the time</td>
<td>3</td>
</tr>
<tr>
<td>A little of the time</td>
<td>4</td>
</tr>
<tr>
<td>None of the time</td>
<td>5</td>
</tr>
</tbody>
</table>

25-E. HOW MUCH BoTHER IS THIS DIET? DOES IT BoTHER YOU...

<table>
<thead>
<tr>
<th>Boother</th>
<th>(Circle one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A great deal</td>
<td>1</td>
</tr>
<tr>
<td>Somewhat</td>
<td>2</td>
</tr>
<tr>
<td>A little</td>
<td>3</td>
</tr>
<tr>
<td>Not at all</td>
<td>4</td>
</tr>
</tbody>
</table>

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

DAYTON

74. HAVE YOU EVER HAD A BLOOD ChOLESTEROL TEST? ("Cholesterol" pronounced "ko-LE-strahl")

<table>
<thead>
<tr>
<th>Answer</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>1</td>
</tr>
<tr>
<td>NO</td>
<td>2</td>
</tr>
<tr>
<td>DON'T KNOW</td>
<td>3</td>
</tr>
</tbody>
</table>

75. HAS A DOCTOR EVER SAID YOU HAVE HIGH BLOOD CHOLESTEROL?

<table>
<thead>
<tr>
<th>Answer</th>
<th>(GO to q. 76)</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>1</td>
</tr>
<tr>
<td>NO</td>
<td>2</td>
</tr>
</tbody>
</table>

76. Are you currently under the care or supervision of a doctor for your high cholesterol?

<table>
<thead>
<tr>
<th>Answer</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>1</td>
</tr>
<tr>
<td>NO</td>
<td>2</td>
</tr>
</tbody>
</table>

77. Has a doctor ever prescribed medicine for your high cholesterol?

<table>
<thead>
<tr>
<th>Answer</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>1</td>
</tr>
<tr>
<td>NO</td>
<td>2</td>
</tr>
</tbody>
</table>

78. Are you currently taking any medicine for high cholesterol?

<table>
<thead>
<tr>
<th>Answer</th>
<th>(Circle one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, prescribed by doctor</td>
<td>1</td>
</tr>
<tr>
<td>Yes, but not prescribed by doctor</td>
<td>2</td>
</tr>
<tr>
<td>No, I don't take any drugs for cholesterol</td>
<td>3</td>
</tr>
</tbody>
</table>

79. Do you think your cholesterol has been high, normal, or low in the past 2 months?

<table>
<thead>
<tr>
<th>Cholesterol</th>
<th>(Circle one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>1</td>
</tr>
<tr>
<td>Normal</td>
<td>2</td>
</tr>
<tr>
<td>Low</td>
<td>3</td>
</tr>
</tbody>
</table>

80. During the past 3 months, how much did your high cholesterol worried or concern you?

<table>
<thead>
<tr>
<th>Answer</th>
<th>(Circle one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot</td>
<td>1</td>
</tr>
<tr>
<td>Somewhat</td>
<td>2</td>
</tr>
<tr>
<td>A little</td>
<td>3</td>
</tr>
<tr>
<td>Not at all</td>
<td>4</td>
</tr>
</tbody>
</table>
### 37. Are you on a special diet?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>2 (Go to q. 42, page 6)</td>
</tr>
<tr>
<td>YES</td>
<td>1 (Go to q. 39)</td>
</tr>
</tbody>
</table>

### 38. What is the diet for? Answer 'Yes' or 'No' for each reason.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>To lose weight</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Diabetes</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Kidney failure</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Ulcers</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Allergias</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>High cholesterol</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Heart trouble or high blood pressure</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Pregnancy (If you are male) circle 1 for &quot;Male - does not apply.&quot;)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

### 40. Was this diet ordered by a doctor, nurse, diet, or dietitian?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

### 41. In general, do you follow your diet?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All of the time</td>
<td>1</td>
</tr>
<tr>
<td>Most of the time</td>
<td>2</td>
</tr>
<tr>
<td>Some of the time</td>
<td>3</td>
</tr>
<tr>
<td>A little of the time</td>
<td>4</td>
</tr>
<tr>
<td>None of the time</td>
<td>5</td>
</tr>
</tbody>
</table>
BLOOD PRESSURE BATTERY
FROM THE MEDICAL HISTORY
QUESTIONNAIRE

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

BLOOD PRESSURE

85. HAVE YOU EVER HAD YOUR BLOOD PRESSURE CHECKED?
   Yes ........................................... 1  —Answer 85-A
   No ............................................ 2  —Go to 86

85-A. WHEN DID YOU LAST HAVE YOUR BLOOD PRESSURE CHECKED?
   (Circle one)
   Within past 5 months .......................... 1
   7 - 12 months ago ......................... 2
   1 - 2 years ago ............................ 3
   3 - 5 years ago ............................ 4
   More than 5 years ago .................... 5

86. HAS A DOCTOR EVER SAID THAT YOU HAD HIGH BLOOD PRESSURE?
   Yes ........................................... 1  —Answer 87
   No ............................................ 2  —Go to 90, page 28

87. HOW LONG AGO DID THE DOCTOR FIRST SAY THAT YOU HAD
   HIGH BLOOD PRESSURE?  
   (Circle one)
   Within past 5 months ........................................... 1
   7 - 12 months ago ........................................... 2
   1 - 2 years ago ........................................... 3
   3 - 5 years ago ........................................... 4
   More than 5 years ago ...................................... 5

88. DID THE DOCTOR SAY MORE THAN ONE TIME THAT YOU HAD
   HIGH BLOOD PRESSURE, OR DID HE SAY THAT JUST ONE TIME?
   More than one time ........................................... 1
   Only one time ............................................ 2

89. HAS A DOCTOR EVER PRESCRIBED PILLS OR MEDICINE FOR YOUR
   HIGH BLOOD PRESSURE?
   Yes ........................................... 1  —Answer 89-A
   No ............................................ 2  —Go to 90

89-A. ARE YOU TAKING THE PILLS OR MEDICINE NOW?
   (Circle one)
   Yes, taking now ........................................... 1
   No, I decided to stop .................................. 2
   No, doctor told me to stop .......................... 3
   No, never took pills or medicine ................. 4

90. AS FAR AS YOU KNOW, IS YOUR BLOOD PRESSURE CURRENTLY
   HIGH, OR IS IT NORMAL NOW?
   It is high now ........................................... 1
   It is normal now ....................................... 2

* Used at all HIS sites except Dayton at enrollment and in all sites upon exit. Revisions incorporated in this version were based on experience with the initial Dayton battery.
91. A. HOW OFTEN DO YOU ADD SALT TO YOUR FOOD AT THE TABLE?
   (Circle one)
   Often .................................................. 1
   Sometimes .............................................. 2
   Once in a while ...................................... 3
   Never .................................................... 4

91. B. HOW OFTEN IS SALT ADDED TO YOUR FOOD IN COOKING?
   (Circle one)
   Often .................................................. 1
   Sometimes .............................................. 2
   Once in a while ...................................... 3
   Never .................................................... 4

92. DID A DOCTOR EVER TELL YOU TO EAT LESS SALT BECAUSE OF YOUR HIGH BLOOD PRESSURE?
   Yes ..................................................... 1
   No ......................................................... 2

93. BECAUSE OF YOUR HIGH BLOOD PRESSURE, ARE YOU CURRENTLY ON A WEIGHT-LOSSING DIET?
   Yes ...................................................... 1
   No ......................................................... 2

94. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT YOUR HIGH BLOOD PRESSURE?
   (Circle one)
   Within past 3 months ................................ 1
   3 - 6 months ago ...................................... 2
   7 - 12 months ago .................................... 3
   More than 1 year ago ................................. 4

95. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR HIGH BLOOD PRESSURE CAUSED YOU?
   (Circle one)
   A great deal of pain ................................... 1
   Some pain .............................................. 2
   A little pain .......................................... 3
   No pain at all ........................................ 4

96. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR HIGH BLOOD PRESSURE WORRIED OR CONCERNED YOU?
   (Circle one)
   A great deal ........................................... 1
   Somewhat .............................................. 2
   A little ................................................ 3
   Not at all ............................................. 4

97. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR HIGH BLOOD PRESSURE KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO?
   (Circle one)
   All of the time ....................................... 1
   Most of the time .................................... 2
   Some of the time .................................... 3
   A little of the time .................................. 4
   None of the time .................................... 5

98. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS YOUR HIGH BLOOD PRESSURE KEPT YOU IN BED ALL DAY OR MOST OF THE DAY? (If none, write in "N")
   _______ days in bed last month
recipients represented all sites and both terms of enrollment except Dayton enrollees assigned to three-year terms, who had already begun their next-to-last year when super PI was instituted. Within the 95 percent coinsurance plans, super PI recipients were chosen using the "finite selection model." That model was developed by RAND to assign enrollees to experimental insurance plans so that, across plans, families resembled each other in 24 health and socioeconomic characteristics.

---

1.8. HAVE YOU EVER HAD YOUR BLOOD PRESSURE CHECKED?

<table>
<thead>
<tr>
<th>Circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
</tr>
<tr>
<td>YES</td>
</tr>
</tbody>
</table>

159. When did you last have your blood pressure checked?

<table>
<thead>
<tr>
<th>Circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the last 6 months</td>
</tr>
<tr>
<td>7-12 months ago</td>
</tr>
<tr>
<td>1-2 years ago</td>
</tr>
<tr>
<td>3-5 years ago</td>
</tr>
<tr>
<td>More than 5 years ago</td>
</tr>
</tbody>
</table>

170. Did the person who checked your blood pressure tell you anything about it?

<table>
<thead>
<tr>
<th>Circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

171. HAVE YOU EVER BEEN TOLD BY A DOCTOR THAT YOU HAD HIGH BLOOD PRESSURE?

<table>
<thead>
<tr>
<th>Circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
</tr>
<tr>
<td>YES</td>
</tr>
</tbody>
</table>

172. How long ago were you first told this?

<table>
<thead>
<tr>
<th>Circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the last 6 months</td>
</tr>
<tr>
<td>7-12 months ago</td>
</tr>
<tr>
<td>1-2 years ago</td>
</tr>
<tr>
<td>3-5 years ago</td>
</tr>
<tr>
<td>6-10 years ago</td>
</tr>
<tr>
<td>More than 10 years ago</td>
</tr>
</tbody>
</table>

180. During the past 3 months, how much pain has your high blood pressure caused you?

<table>
<thead>
<tr>
<th>Circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot</td>
</tr>
<tr>
<td>Some</td>
</tr>
<tr>
<td>A little</td>
</tr>
<tr>
<td>None at all</td>
</tr>
</tbody>
</table>

181. During the past 3 months, how much has your high blood pressure worried or concerned you?

<table>
<thead>
<tr>
<th>Circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot</td>
</tr>
<tr>
<td>Somewhat</td>
</tr>
<tr>
<td>A little</td>
</tr>
<tr>
<td>Not at all</td>
</tr>
</tbody>
</table>

182. During the past 3 months, how often has your high blood pressure kept you from doing the kinds of activities other people your age do?

<table>
<thead>
<tr>
<th>Circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of the time</td>
</tr>
<tr>
<td>Most of the time</td>
</tr>
<tr>
<td>Some of the time</td>
</tr>
<tr>
<td>A little of the time</td>
</tr>
<tr>
<td>None of the time</td>
</tr>
</tbody>
</table>

183. During the past 30 days, how many days has your high blood pressure kept you in bed all or most of the day? (If no days in bed, write in "0")

_____ Days in bed
173. Have you been told that your blood pressure was high more than one time, or were you told that only one time?
   More than 1 time ................. 1
   Only 1 time .................. 2

174. Has a doctor prescribed pills or medicine for your high blood pressure?
   No ................................ 2 — (GO to q 176)
   Yes ................................ 1 — (GO to q 178)

175. Are you still taking the pills or medicine now?
   (Circle one)
   Yes ................................ 1
   No, I decided to stop ............... 2
   No, doctor told me to stop ........ 3

176. As far as you know, is your blood pressure currently high or normal?
   High ................................ 1
   Normal ............................ 2

177. How often would you say your food is salted, either in cooking or at the table?
    (Circle one)
    Often ............................ 1
    Sometimes ....................... 2
    Once in a while .................. 3
    Never ............................. 4

178. Did a doctor tell you to eat less salt because of your blood pressure?
   Yes ................................ 1
   No ................................ 2

179. Because of your blood pressure are you currently on a weight losing diet?
   Yes ................................ 1
   No ................................ 2
JOINT PROBLEMS BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

INFORMATION MEDICAL HISTORY QUESTIONNAIRE

64. DURING THE PAST 12 MONTHS, HAVE YOU HAD ANY PAIN, ACHING, SWELLING, OR STIFFNESS IN YOUR JOINTS—FOR EXAMPLE, YOUR FINGERS, HIP OR KNEE? (DO NOT COUNT PROBLEMS CAUSED BY AN INJURY.)

Yes ................................................. 1 — Answer 64-A, B
No .................................................... 2 — Go to 74, page 21

64-A. HAVE YOU HAD PAIN OR ACHING IN ANY OF YOUR JOINTS ON MOST DAYS FOR A LONG AS A MONTH?

Yes .................................................... 1
No .................................................... 2

64-B. HAVE YOU HAD SWELLING OF A JOINT, AND PAIN WHEN IT WAS TOUCHED, ON MOST DAYS FOR AS LONG AS A MONTH?

Yes .................................................... 1
No .................................................... 2

64-C. HAVE YOU HAD STEPPNESS IN JOINTS OR MUSCLES WHEN FIRST GETTING OUT OF BED ON MOST MORNINGS FOR AS LONG AS A MONTH?

Yes .................................................... 1
No .................................................... 2

64-D. HAVE YOU HAD STEPPNESS IN JOINTS OR MUSCLES WHEN FIRST GETTING OUT OF BED, WHICH LASTED AS LONG AS 15 MINUTES?

Yes .................................................... 1
No .................................................... 2

65. CAN YOU DO THE FOLLOWING THINGS WITHOUT THE HELP OF ANOTHER PERSON OR ANY SPECIAL DEVICE? (CIRCLE ONE NUMBER ON EACH LINE.)

A. Walk up and down stairs without help ...................................................... 1
B. Get into and out of a car without help ...................................................... 1
C. Bathe yourself without help .......................................................................... 1
D. Feed yourself without help ........................................................................... 1
E. Get into bed without help ............................................................................. 1

66. HOW MANY ASPIRINS, OR PILLS CONTAINING ASPIRIN, DO YOU USUALLY TAKE FOR THE PROBLEMS WITH YOUR JOINTS OR MUSCLES? (CIRCLE ONE)

None ............................................................................................................. 1
Less than 1 a day ............................................................................................. 2
1 - 3 a day ..................................................................................................... 3
4 - 12 a day .................................................................................................... 4
More than 12 a day ......................................................................................... 5

67. HAS A DOCTOR EVER SAID THAT YOU HAVE RHEUMATISM (RAU-may-ex-em) OR ARTHRITIS (AR-thryt-is)?

Yes ............................................................ 1
No ............................................................ 2

68. HAS A DOCTOR EVER SAID THAT YOU HAVE GOUT OR HIGH URIC ACID LEVEL?

Yes ............................................................ 1 — Answer 68-A
No ............................................................ 2 — Go to 69

68-A. ARE YOU CURRENTLY TAKING ANY OF THESE MEDICATIONS FOR YOUR GOUT OR HIGH URIC ACID LEVEL?

COLCICIN (COLE-ky-sin) ALLOPURINOL (AL-o-PUR-in-ol) ZYLOPRA (ZET-oh-prah) BENEMID (BEN-em-ehd) COLCENEMID (COLE-ken-em-ehd) Yes, one or more of these ............................................. 1
No, not taking any of these ............................................................................. 2

69. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT YOUR PROBLEMS WITH YOUR JOINTS OR MUSCLES? (CIRCLE ONE)

Within past 3 months ...................................................................................... 1
3 - 6 months ago ............................................................................................. 2
7 - 12 months ago ........................................................................................... 3
More than 1 year ago ...................................................................................... 4
70. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS THE TROUBLE WITH YOUR JOINTS OR MUSCLES CAUSED YOU?

(Circle one)

A great deal of pain ........................................ 1
Some pain .................................................. 2
A little pain ............................................... 3
No pain at all ............................................. 4

71. DURING THE PAST 3 MONTHS, HOW MUCH HAS THE TROUBLE WITH YOUR JOINTS OR MUSCLES WORRIED OR CONCERNED YOU?

(Circle one)

A great deal ................................................ 1
Somewhat .................................................. 2
A little ....................................................... 3
Not at all ................................................... 4

72. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS THE TROUBLE WITH YOUR JOINTS OR MUSCLES KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO?

(Circle one)

All of the time ............................................ 1
Most of the time ......................................... 2
Some of the time ......................................... 3
A little of the time ...................................... 4
None of the time ......................................... 5

73. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS THE TROUBLE WITH YOUR JOINTS OR MUSCLES KEPT YOU IN BED ALL DAY OR MOST OF THE DAY (if none, write in "0")

_________ days in bed last month
ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE
DAYTON

55. **DURING THE PAST 12 MONTHS HAVE YOU HAD PAIN, ACHEING, SWELLING OR STIFFNESS IN YOUR JOINTS? FOR EXAMPLE: YOUR FINGERS, HIP, KNEE? (DO NOT COUNT PROBLEMS DUE TO INJURY)***

NO: ................................ 2  (GO TO p. 66, page 12)

YES: ................................ 1  (GO TO p. 56)

56. Have you had any of these problems in the last 12 months? Answer “Yes” or “No” for each problem.

   a. Pain or acheing in any of your joints on most days for at least one month?
      
      Yes: .......................... 1  (GO TO next page below)
      No: ............................ 2  

   b. Swelling at a joint with pain present when the joint was touched on most days for at least one month?

      Yes: .......................... 1  (GO TO p. 57)
      No: ............................ 2  

   c. Stiffness in the joints and muscles when first getting out of bed in the morning on most mornings for at least one month?

      Yes: .......................... 1  (GO TO p. 57)
      No: ............................ 2  

   d. Stiffness in the joints and muscles when first getting out of bed in the morning which lasted for at least 15 minutes?

      Yes: .......................... 1  
      No: ............................ 2  

57. Can you do these things without the help of another person or a special device? Answer “Yes” or “No” for each thing.

   (Circle one for each.)

   a. Walk up and down stairs without help?
      
      Yes: .......................... 1  
      No: ............................ 2  

   b. Get into and out of a car without help?

      Yes: .......................... 1  
      No: ............................ 2  

   c. Bathe yourself without help?

      Yes: .......................... 1  
      No: ............................ 2  

   d. Feed yourself without help?

      Yes: .......................... 1  
      No: ............................ 2  

   e. Get into bed without help?

      Yes: .......................... 1  
      No: ............................ 2  

   f. Has a doctor ever said you have rheumatism or arthritis?

      (“Rheumatism” pronounced “ROO-may-uh-sim”)
      (“Arthritis” pronounced “AR-thri-sis”)

      Yes: .......................... 1
      No: ............................ 2

59. **How many aspirins do you usually take for the problems with your joints or in your muscles?**

(Circle one.)

   None ................................ 1
   Less than 1 a day .................. 2
   1 - 3 a day ........................ 3
   4 - 12 a day ......................... 4
   13 or more a day ................... 5

60. Has a doctor ever said that you have gout?

   No: ................................ 2  (GO TO p. 62)
   Yes: ................................ 1  (GO TO p. 61)

61. Are you currently taking colchicine, allopurinol (Zyloprim), or benemid for your gout or high uric acid levels?

   (“Colchicine” pronounced “COH-kih-sin-eh”)
   (“Allopurinol” pronounced “Al-lop-uh-ree-nool”)
   (“Zyloprim” pronounced “ZEE-low-prim”)
   (“Benemid” pronounced “BEN-uh-mid”)

   Yes: ................................ 1
   No: .................................. 2

62. During the past 3 months how much pain has the trouble with your joints caused you?

   (Circle one.)

   A lot: ................................ 1
   Some: ................................ 2
   A little: ............................ 3
   None of all: ........................ 4

63. During the past 3 months, how much has the trouble with your joints worried you or concerned you?

   (Circle one.)

   A lot: ................................ 1
   Somewhat: .......................... 2
   A little: ............................ 3
   Not at all: .......................... 4

64. During the past 3 months, how often has the trouble with your joints kept you from doing the kind of activities other people your age do?

   (Circle one.)

   All of the time: ..................... 1
   Most of the time: ................. 2
   Some of the time: .................. 3
   A little of the time: .............. 4
   None of the time: ................. 5

65. During the past 33 days, how many days has the trouble with your joints kept you in bed all or most of the day? (IF NO DAYS IN BED, WRITE IN “0”.)

   Days in bed
**BURSITIS QUESTION**

as it appeared on the
ENROLLMENT AND EXIT MEDICAL HISTORY QUESTIONNAIRE

for all sites except Dayton, Ohio

(In Dayton it appeared on the first annual Health Questionnaire instead
of on the Enrollment Medical History Questionnaire.)

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**OTHER ILLNESSES**

285. **AS FAR AS YOU KNOW, DURING THE PAST 12 MONTHS, HAVE YOU HAD ANY OF THE FOLLOWING CONDITIONS?**

IF YES, DID YOU SEE A DOCTOR ABOUT IT DURING THE PAST 12 MONTHS?

**PLEASE CIRCLE ONE NUMBER ON EACH LINE:**

1. You have not had the condition at all in the past 12 months
2. You have had it, but have not seen a doctor about it in the past 12 months
3. You have had it and you have seen a doctor about it in the past 12 months

<table>
<thead>
<tr>
<th>Condition</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Bursitis</td>
<td></td>
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<tr>
<td>B. Arteriosclerosis, hardening of the arteries</td>
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<tr>
<td>C. Allergies</td>
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<tr>
<td>D. Frequent digestive upset, stomach trouble, or intestinal trouble</td>
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<tr>
<td>E. Chronic hepatitis or yellow jaundice</td>
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<tr>
<td>F. Chronic gall bladder trouble or gallstones</td>
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<tr>
<td>G. Phlebitis (thrombophlebitis)</td>
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<tr>
<td>H. Any back pain or infection</td>
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<tr>
<td>I. Women only: Any disease of the uterus or ovary</td>
<td></td>
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<td></td>
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<tr>
<td>J. Women only: Any lumps in your breasts</td>
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</tbody>
</table>
URINARY TRACT INFECTION BATTERY
FROM THE MEDICAL HISTORY QUESTIONNAIRE

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

KIDNEY DISEASE, OR KIDNEY, BLADDER, URINE INFECTION

147. DID A DOCTOR EVER SAY YOU HAD KIDNEY DISEASE?
Yes .................................................. 1 — Answer 147-A
No .................................................. 2 — Go to 148

147-A. HAVE YOU EVER HAD A KIDNEY, BLADDER, OR URINE INFECTION?
Yes .................................................. 1 — Answer 147-B
No .................................................. 2 — Go to 148, below

147-B. HOW MANY TIMES ALTOGETHER?
(Circle one)

Once .................................................. 1
Twice .................................................. 2
3 - 5 times ............................................. 3 — Go to 149,
6 - 10 times ........................................... 4 — Below
More than 10 times ................................. 5

148. HAVE YOU EVER HAD A KIDNEY, BLADDER, OR URINE INFECTION?
Yes .................................................. 1 — Answer 148-A
No .................................................. 2 — Go to 149, page 47

148-A. HOW MANY TIMES ALTOGETHER?
(Circle one)

Once .................................................. 1
Twice .................................................. 2
3 - 5 times ............................................. 3
6 - 10 times ........................................... 4
More than 10 times ................................. 5

149. DO YOU CURRENTLY HAVE A KIDNEY, BLADDER, OR URINE INFECTION? FOR EXAMPLE, CYSTITIS (si-TISH-iss) OR PYELONEPHRITIS (pye-lo-nef-RI-tis)
Yes .................................................. 1
No .................................................. 2

150. IN THE PAST 12 MONTHS, HAS A DOCTOR PRESCRIBED ANY PILLS OR MEDICINES FOR A KIDNEY, BLADDER, OR URINE INFECTION?
Yes .................................................. 1
No .................................................. 2

151. DO YOU CURRENTLY TAKE ANY PILLS OR OTHER MEDICINES FOR KIDNEY, BLADDER OR URINE INFECTION, WHETHER OR NOT A DOCTOR PRESCRIBED THEM?
(Circle one)

Yes, those prescribed .................................. 1
Yes but not prescribed .................................. 2
No .................................................. 3

152. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT A KIDNEY, BLADDER, OR URINE INFECTION?
(Circle one)

Within past 3 months .................................. 1
3 - 6 months ago ...................................... 2
7 - 12 months ago ..................................... 3
More than 1 year ago ................................... 4
Never saw doctor about this .................................. 5

153. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR KIDNEY, BLADDER, OR URINE INFECTION CAUSED YOU?
(Circle one)

A great deal of pain .................................. 1
Some pain ............................................ 2
A little pain .......................................... 3
No pain at all .......................................... 4

154. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR KIDNEY, BLADDER, OR URINE INFECTION WORRIED OR CONCERNED YOU?
(Circle one)

A great deal .......................................... 1
Somewhat ............................................. 2
A little ................................................. 3
Not at all .............................................. 4

155. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR KIDNEY, BLADDER, OR URINE INFECTION KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO?
(Circle one)

All of the time ...................................... 1
Most of the time .................................... 2
Some of the time .................................... 3
A little of the time .................................. 4
None of the time .................................... 5

156. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS YOUR KIDNEY, BLADDER, OR URINE INFECTION KEPT YOU IN BED ALL OR MOST OF THE DAY? (If none, write in '0')

_______ days in bed last month

1Carded at all NIS sites except Dayton at enrollment and in all sites upon exit. Revisions incorporated in this version were based on experience with the initial Dayton battery.
ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE
DAYTON

KIDNEY DISEASE

63. DID A DOCTOR EVER SAY YOU HAD KIDNEY DISEASE?
YES ____________________________________________ 1
NO ___________________________________________ 2

64. HAVE YOU EVER HAD A KIDNEY, BLADDER OR URINE INFECTION?
NO ___________________________________________ 2 (GO to q. 74, page 18)
YES ________________________________________ 1 (GO to q. 65)

65. How many times altogether?
(Circle one)
1 _________________________________________ 1
2 ________________________________________ 2
3 _________________________________________ 3
4 _________________________________________ 4
5 or more __________________________________ 5

66. Do you currently have a kidney, bladder or urine infection? (For example, "cystitis, pyelonephritis"
(\"Cystitis\" pronounced \"Sis-EE-tis\")
("Pyelonephritis\" pronounced \"Pe-lee-ah-nuh-FRY-tis\")
NO _________________________________________ 2 (GO to q. 70, next page)
YES ______________________________________ 1 (GO to q. 67)

67. In the past 12 months, has a doctor prescribed any pills or medicine for a kidney, bladder, or urine infection?
Yes _________________________________________ 1
No _________________________________________ 2

68. Do you currently take any pills or medicine for kidney, bladder, or urine infection, whether prescribed by a doctor or not?
(Circle one)
Yes, those prescribed ___________________________________________ 1
Yes, but not those prescribed ______________________________________ 2
No _________________________________________ 3

69. Are you currently under a doctor's care or supervision for your kidney, bladder or urine infection?
Yes _________________________________________ 1
No _________________________________________ 2

70. During the past 3 months, how much pain has your kidney, bladder or urine infection caused you?
(Circle one)
A lot ______________________________________ 1
Some ______________________________________ 2
A little ____________________________________ 3
None at all __________________________________ 4

71. During the past 3 months, how much has your kidney, bladder or urine infection worried you or concerned you?
(Circle one)
A lot ______________________________________ 1
Somewhat __________________________________ 2
A little ____________________________________ 3
None at all __________________________________ 4

72. During the past 3 months, how often has your kidney, bladder or urine infection kept you from doing the kinds of activities other people your age do?
(Circle one)
All of the time __________________________________ 1
Most of the time __________________________________ 2
Some of the time __________________________________ 3
A little of the time __________________________________ 4
None of the time __________________________________ 5

73. During the past 30 days, how many days has your kidney, bladder or urine infection kept you in bed all or most of the day? (IF NO DAYS IN BED, WRITE IN \"0\")
______ Days in bed
ULCER BATTERIES FROM THE MEDICAL HISTORY QUESTIONNAIRE

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

STOMACH PAIN OR ACNE

132. IN THE PAST 3 MONTHS, HAVE YOU BEEN TROUBLED BY EPISODES OR ATTACKS OF STOMACH PAIN OR STOMACH ACNE (OTHER THAN THAT CAUSED BY OVEREATING)?

Yes .............................................................................. 1 —Answer 133
No .................................................................................. 2 —Go to 140.

3965

133. IN THE PAST 3 MONTHS, HAVE YOU HAD THESE PAINS FOR AS MANY AS 3 DAYS IN ONE WEEK?

Yes .............................................................................. 1
No .................................................................................. 2

3966

134. WHEN DO THESE ATTACKS OR EPISODES USUALLY COME ON? (Circle one)

Just before eating ...................................................... 1
Right after eating ....................................................... 2
1 to 1 hour after eating .......................................... 3
More than 1 hour after eating ................................. 4
Not related to eating .................................................. 5

3033

135. ARE THESE PAINS RELIEVED BY TAKING MILK OR FOOD?

Yes .............................................................................. 1
No .................................................................................. 2

3896

136. HAVE THESE PAINS EVER AWAKENED YOU AT NIGHT?

Yes .............................................................................. 1
No .................................................................................. 2

3689

137. HOW OFTEN DO YOU TAKE ANTACIDS SUCH AS TABLETS (LIKE TUMS) OR WHITE LIQUID MEDICINE (LIKE MAALOX OR DELUGIL)?

(Circle one)

Do not take antacids ............................................. 1
Once a month or less ............................................. 2
Several (2 - 5) times a month .............................. 3
Several (6 - 10) times a week ......................... 4
Once a day ............................................................ 5
More than once a day ......................................... 6

3935

138. HOW OFTEN DO YOU TAKE ASPIRIN, OR MEDICINES LIKE ASPIRIN, FOR RELIEF OF STOMACH PAIN?

(Circle one)

Do not take aspirin ............................................. 1
Once a month or less ............................................. 2
Several (2 - 5) times a month .............................. 3
Several (6 - 10) times a week ......................... 4
Once a day ............................................................ 5
More than once a day ......................................... 6

3035

139. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT YOUR STOMACH PAIN?

(Circle one)

Within past 3 months ....................................... 1
3 - 6 months ago .................................................. 2
7 - 12 months ago ................................................ 3
More than 1 year ago .......................................... 4
Never saw a doctor about this ........................... 5 —Go to 140.

9036

140. DID A DOCTOR EVER PRESCRIBE ANY KIND OF MEDICINE FOR YOUR STOMACH PAIN?

Yes .............................................................................. 1
No .................................................................................. 2

8037

141. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR STOMACH TROUBLE CAUSED YOU?

(Circle one)

A great deal of pain ............................................. 1
Some pain ............................................................ 2
A little pain ............................................................ 3
No pain at all .......................................................... 4

8994

142. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR STOMACH TROUBLE WORRIED OR CONCERNED YOU?

(Circle one)

A great deal .......................................................... 1
Somewhat .............................................................. 2
A little ................................................................. 3
Not at all ............................................................... 4

8995

Used at all HIS sites except Dayton at enrollment and at all sites upon exit. Revisions incorporated in this version were based on experience with the initial Dayton battery.
143. During the past 2 months, how much of the time has stomach trouble kept you from doing the kinds of things other people your age do? (Circle one)
   All of the time ........................................ 1
   Most of the time ....................................... 2
   Some of the time ........................................ 3
   A little of the time .................................... 4
   None of the time ....................................... 5

144. During the past 30 days, how many days has stomach trouble kept you in bed all day or most of the day? (If none, write in "0").
   ________ days in bed last month

145. Has a doctor ever said that you had an ulcer in your stomach or duodenum (small bowel)? (Duodenum pronounced "doo-oh-dee-num")
   Yes ....................................................... 1 — Answer 146
   No .......................................................... 2 — Go to 147
   next page

146. Did the doctor confirm this ulcer with an upper G.I. series or barium-swallow X-ray examination (swallowing white liquid medicine while X-rays are being taken)? By "Confirm" we mean did the doctor say for sure that you had an ulcer. (Circle one)
   Yes ....................................................... 1
   No .......................................................... 2
   Don't know ............................................. 3
ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE
DAYTON

STOMACH PAIN OR STOMACH ACHÉ

184. IN THE LAST 3 MONTHS, HAVE YOU EVER BEEN TROUBLED WITH EPISODES (ATTACKS) OF STOMACH PAIN OR STOMACH ACHÉ?

NO 2 (GO TO p. 189)

YES 1 (GO TO p. 185)

185. In the last 3 months, have you ever had these pains for as many as 3 days in one week?

Yes 1

No 2

186. How soon do these episodes (attacks) usually come on after eating?

Right after eating 1

1/2 to 1 hour after eating 2

2 or more hours after eating 3

Not related to eating 4

187. Are they relieved by taking milk or bread?

Yes 1

No 2

188. Have they ever awakened you at night?

Yes 1

No 2

189. HAVE YOU EVER BEEN TOLD BY A DOCTOR THAT YOU HAD AN ULCER IN YOUR STOMACH OR DUODENUM (SMALL BOWEL)?

("Duodenum" pronounced "Du-o-DEE-um")

NO 2 (GO TO p. 191, NEXT PAGE)

YES 1 (GO TO p. 190)

190. Did the doctor confirm this ulcer with an upper GI series or barium swallow x-ray examination (swallowing white liquid medicine while X-rays are being taken)? (By "confirm" we mean did the doctor say for sure that you had an ulcer.)

Yes 1

No 2

Don't know 8

191. ARE YOU CURRENTLY TAKING ANTACIDS SUCH AS TABLETS (LIKE TUMS) OR WHITE LIQUID MEDICINE (LIKE MAALOX OR GELUSIL) AT LEAST ONCE A DAY?

YES 1

NO 2
SLEEPING PILLS AND TRANQUILIZERS
BATTERIES FROM THE MEDICAL
HISTORY QUESTIONNAIRES

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

SLEEPING PILLS, TRANQUILIZERS, SEDATIVES

240. DURING THE PAST 3 MONTHS, HAVE YOU USED ANY SLEEPING PILLS PRESCRIBED BY A DOCTOR?

Yes ........................................... 1 — Answer 240-A-B
No ........................................... 2 — Go to 241, next page

240-A. ABOUT HOW OFTEN DO YOU TAKE THESE SLEEPING PILLS?
(Circle one)

Every night .................................. 1
A few times a week ......................... 2
A few times a month ....................... 3
Once a month or less ....................... 4

240-B. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR USE OF SLEEPING PILLS WORRIED OR CONCERNED YOU?
(Circle one)

A great deal ................................ 1
Somewhat .................................. 2
A little ..................................... 3
Not at all .................................. 4

240-C. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR USE OF SLEEPING PILLS KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO?
(Circle one)

All of the time ............................. 1
Most of the time ........................... 2
Some of the time .......................... 3
A little of the time ......................... 4
None of the time .......................... 5

240-D. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS YOUR USE OF SLEEPING PILLS KEPT YOU IN BED ALL DAY OR MOST OF THE DAY? (If none, write in "0.")

______ days in bed last month

241. DURING THE PAST 3 MONTHS, HAVE YOU USED ANY TRANQUILIZERS, SEDATIVES, OR NERVE PILLS WHICH WERE PRESCRIBED BY A DOCTOR?

Yes ........................................... 1 — Answer 241-A-B
No ........................................... 2 — Go to 242, next page

241-A. ABOUT HOW OFTEN DO YOU TAKE THESE TRANQUILIZERS, SEDATIVES, OR NERVE PILLS?
(Circle one)

Twice a day or more ........................ 1
Once a day .................................. 2
A few times a week ........................ 3
A few times a month ....................... 4
Once a month or less ....................... 5

241-B. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR USE OF TRANQUILIZERS, SEDATIVES, OR NERVE PILLS WORRIED OR CONCERNED YOU?
(Circle one)

A great deal ................................ 1
Somewhat .................................. 2
A little ..................................... 3
Not at all .................................. 4

241-C. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR USE OF TRANQUILIZERS, SEDATIVES, OR NERVE PILLS KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO?
(Circle one)

All of the time ............................. 1
Most of the time ........................... 2
Some of the time .......................... 3
A little of the time ......................... 4
None of the time .......................... 5

241-D. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS YOUR USE OF TRANQUILIZERS, SEDATIVES, OR NERVE PILLS KEPT YOU IN BED ALL DAY OR MOST OF THE DAY? (If none, write in "0.")

______ days in bed last month

3rd ed, used at all HIS sites except Dayton at enrollment and in all sites upon exit. Revisions incorporated in this version were based on experience with the initial Skyline battery.
154. HAS A DOCTOR EVER PRESCRIBED SLEEPING PILLS FOR YOU?

YES 1
NO 2

155. ARE YOU CURRENTLY USING SLEEPING PILLS WHICH ARE PRESCRIBED BY A DOCTOR?

(Circle one.)

NO 1
ONCE A MONTH OR LESS 2
A FEW TIMES A MONTH 3
A FEW TIMES A WEEK 4
EVERY NIGHT 5

156. During the past 3 months, how much has your use of sleeping pills worried, upset or concerned you?

(Circle one.)

A lot 1
Somewhat 2
A little 3
Not at all 4
Do not take sleeping pills 5

157. HAS A DOCTOR PRESCRIBED TRANQUILIZERS OR SEDATIVES FOR YOU IN THE LAST 12 MONTHS?

(' Tranquilizers' pronounced 'TRAN-kwel-eye-zers')

NO 2 — (GO to q. 155, next page)
YES 1 — (GO to q. 158)

158. Are you currently using tranquilizers or sedatives which were prescribed by a doctor?

(Circle one.)

No 1 — (GO to q. 159, next page)

Once a month or less 2
A few times a month 3
A few times a week 4
Every day 5
Twice a day or more 6
DISEASE-SPECIFIC BATTERIES FROM THE MEDICAL HISTORY QUESTIONNAIRE

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

204. HAVE YOU EVER HAD AN OPERATION FOR A HERNIA, RUPTURE, OR HERNIATED NAVEL? (HERNIA is pronounced "HER-nia").

Yes ............................................. 1
No ............................................. 2

205. HAVE YOU HAD A HERNIA WITHIN THE PAST 12 MONTHS?

Yes ............................................. 1 —Answer 206
No ............................................. 2 —Go to 212.

206. DURING THE PAST 12 MONTHS, DID A DOCTOR RECOMMEND THAT YOU HAVE AN OPERATION TO REPAIR THE HERNIA, RUPTURE, OR HERNIATED NAVEL?

(Circle one)

Yes and I had an operation ............................................. 1
Yes and I plan to have an operation ............................................. 2
Yes, but I do not plan to have an operation ............................................. 3
No, doctor never recommended it ............................................. 4

207. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT THE HERNIA, RUPTURE, OR HERNIATED NAVEL?

(Circle one)

Within past 3 months ............................................. 1
3 - 6 months ago ............................................. 2
7 - 12 months ago ............................................. 3
More than 1 year ago ............................................. 4
Never saw doctor about this ............................................. 5

208. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR HERNIA, RUPTURE, OR HERNIATED NAVEL CAUSED YOU?

(Circle one)

A great deal of pain ............................................. 1
Some pain ............................................. 2
A little pain ............................................. 3
No pain at all ............................................. 4

209. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR HERNIA, RUPTURE, OR HERNIATED NAVEL WORRIED OR CONCERNED YOU?

(Circle one)

A great deal ............................................. 1
Somewhat ............................................. 2
A little ............................................. 3
Not at all ............................................. 4

210. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR HERNIA, RUPTURE, OR HERNIATED NAVEL KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO?

All of the time ............................................. 1
Most of the time ............................................. 2
Some of the time ............................................. 3
A little of the time ............................................. 4
None of the time ............................................. 5

211. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS YOUR HERNIA, RUPTURE, OR HERNIATED NAVEL KEPT YOU IN BED ALL OR MOST OF THE DAY? (If none, write in "0")

____ days in bed last month

212. HAVE YOU EVER HAD SURGERY FOR VARICOSE VEINS (OWEEN VEINS ON THE LEGS)?

Yes ............................................. 1
No ............................................. 2

213. DURING THE PAST 12 MONTHS, HAVE YOU NOTICEA VARICOSE VEINS IN YOUR LEGS?

Yes ............................................. 1 —Answer 214
No ............................................. 2 —Go to 224.

214. IN THE PAST 12 MONTHS, DID YOU AVOID WEARING SHORTS BECAUSE OF VARICOSE VEINS?

Yes ............................................. 1
No ............................................. 2

215. IN THE PAST 12 MONTHS, HAS A DOCTOR TOLD YOU TO KEEP YOUR FEET UP DURING THE DAY BECAUSE OF VARICOSE VEINS?

Yes ............................................. 1
No ............................................. 2

216. IN THE PAST 12 MONTHS, HAS A DOCTOR TOLD YOU TO WEAR SUPPORT STOCKINGS (ELASTIC MOSE) BECAUSE OF VARICOSE VEINS?

Yes ............................................. 1
No ............................................. 2

1Used at all HHS sites except Dayton at enrollment and in all sites upon exit. Revisions incorporated in this version were based on experience with the initial Dayton battery.
217. DO YOU CURRENTLY KEEP YOUR FEET UP DURING THE DAY BECAUSE OF VARICOSE VEINS? (Circle one)  
Yes, most of the time .............................................. 1  
Yes, sometimes ....................................................... 2  
Yes, a little of the time ............................................. 3  
No ........................................................................ 4  

218. DO YOU CURRENTLY WEAR SUPPORT STOCKINGS (ELASTIC HOSE) BECAUSE OF VARICOSE VEINS? (Circle one)  
Yes, most of the time .............................................. 1  
Yes, sometimes ....................................................... 2  
Yes, a little of the time ............................................. 3  
No ........................................................................ 4  

219. DURING THE PAST 12 MONTHS, DID A DOCTOR RECOMMEND THAT YOU HAVE AN OPERATION FOR VARICOSE VEINS? (Circle one)  
Yes and I had an operation ...................................... 1  
Yes, and I plan to have an operation ......................... 2  
Yes, but I do not plan to have an operation ............... 3  
No, doctor never recommended ................................. 4  

220. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAVE YOUR VARICOSE VEINS CAUSED YOU? (Circle one)  
A great deal of pain .................................................... 1  
Some pain .................................................................. 2  
A little pain .................................................................. 3  
No pain at all ................................................................ 4  

221. DURING THE PAST 3 MONTHS, HOW MUCH HAVE YOUR VARICOSE VEINS WORRIED OR CONCERNED YOU? (Circle one)  
A great deal ............................................................... 1  
Most of the time ...................................................... 2  
Some of the time ....................................................... 3  
A little of the time ..................................................... 4  
None of the time ....................................................... 5  

222. IN THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAVE YOUR VARICOSE VEINS KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO? (Circle one)  
All of the time ......................................................... 1  
Most of the time ...................................................... 2  
Some of the time ....................................................... 3  
A little of the time ..................................................... 4  
None of the time ....................................................... 5  

223. DURING THE PAST 30 DAYS, HOW MANY DAYS HAVE YOUR VARICOSE VEINS KEPT YOU IN BED ALL OR MOST OF THE DAY? (If none, write in "0")  
______ days in bed last month
**ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE, DAYTON**

**Hernia**

41. HAVE YOU EVER HAD AN OPERATION FOR HERNIA?  
("Hernia" pronounced "HER-nee-uh")  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

42. Have you had a hernia within the past 12 months?  

- No: [ ]  
- Yes: [ ]

43. During the past 6 months, how much pain has your hernia caused you?  

<table>
<thead>
<tr>
<th>A lot</th>
<th>Some</th>
<th>A little</th>
<th>None at all</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

44. During the past 6 months, how much has your hernia worried or concerned you?  

<table>
<thead>
<tr>
<th>A lot</th>
<th>Some</th>
<th>A little</th>
<th>None at all</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

45. During the past 6 months, how often has your hernia kept you from doing the kinds of physical activities other people your age do?  

<table>
<thead>
<tr>
<th>All of the time</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>A little of the time</th>
<th>None of the time</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

46. During the past 28 days, how many days has your hernia kept you in bed all or most of the day? (If NO DAYS IN BED, WRITE IN "0".)  

<table>
<thead>
<tr>
<th>Days in bed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

47. Are you now scheduled for an operation for hernia?  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**Surgery**

47. HAVE YOU EVER HAD GALL BLADDER SURGERY?  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

48. HAVE YOU EVER HAD YOUR TONSILS AND/OR ADENOIDs REMOVED?  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**Varicose Veins**

111. HAVE YOU EVER HAD SURGERY FOR VARICOSE VEINS?  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
117. HAVE YOU NOTICED VARICOSE VEINS IN YOUR LEGS WITHIN THE LAST 12 MONTHS?
   NO ............................... 2 — (GO to Q 173, page 27)
   YES .................................. 1 — (GO to Q 173)

118. In the last 12 months, did you avoid wearing shoes because of varicose veins?
   Yes ..................................... 1
   No ....................................... 2

119. In the last 12 months, has a doctor told you to keep your feet up during the day because of varicose veins?
   Yes ..................................... 1
   No ....................................... 2

120. In the last 12 months, has a doctor told you to wear support stockings (elastic hose) because of varicose veins?
   Yes ..................................... 1
   No ....................................... 2

121. Do you currently keep your feet up during the day because of varicose veins?
   (Circle one)
   Most of the time .............. 1
   Sometimes ............................ 2
   A little of the time ............. 3
   Never ................................. 4

122. Do you currently wear support stockings because of varicose veins?
   (Circle one)
   Most of the time .............. 1
   Sometimes ............................ 2
   A little of the time ............. 3
   Never ................................. 4

123. Are you scheduled for surgery for varicose veins?
   Yes ..................................... 1
   No ....................................... 2

124. During the past 3 months, how much pain have your varicose veins caused you?
   (Circle one)
   A lot ................................... 1
   Some ................................... 2
   A little ................................ 3
   None at all .............................. 4

125. During the past 3 months, how much have your varicose veins worried or concerned you?
   (Circle one)
   A lot ................................... 1
   Somewhat .............................. 2
   A little ................................ 3
   None at all .............................. 4

126. During the past 3 months, how often have varicose veins kept you from doing the kinds of activities other people your age do?
   (Circle one)
   All of the time .............. 1
   Most of the time .............. 2
   Some of the time ............. 3
   A little of the time ............ 4
   None of the time .............. 5

127. During the past 30 days, how many days have your varicose veins kept you from being up all or most of the day? (If NO DAYS IN BED, WRITE IN "0")
   _______ Days in bed

HEMORRHOIDS (PILES)

135. HAVE YOU HAD HEMORRHOIDS (PILES) WITHIN THE PAST 12 MONTHS?
   ("HEMORRHOIDS" PRONOUNCED "HEE-MAW-RHOYES")
   NO ..................................... 2 — (GO to Q 173, page 27)
   YES ..................................... 1 — (GO to Q 173)

136. During the past 12 months, has a doctor prescribed rectal suppositories for your hemorrhoids (piles)?
   ("Suppositories" pronounced "SOO-paw-ruh-tees")
   Yes ..................................... 1
   No ....................................... 2

137. During the past 12 months, has a doctor prescribed sitz baths (hot baths) or because of hemorrhoids (piles)?
   Yes ..................................... 1
   No ....................................... 2

138. In the last 3 months, have you taken rectal suppositories for hemorrhoids (piles)?
   Yes ..................................... 1
   No ....................................... 2

139. In the last 3 months, have you used sitz baths (hot baths) because of hemorrhoids (piles)?
   Yes ..................................... 1
   No ....................................... 2

140. During the past 3 months, how much pain have your hemorrhoids (piles) caused you?
   (Circle one)
   A lot ................................... 1
   Some ................................... 2
   A little ................................ 3
   None at all .............................. 4
141. During the past 3 months, how often have your household members been doing the kinds of activities other people your age do?

(Circle one.)

All of the time .......... 1
Most of the time ........ 2
Some of the time ....... 3
A little of the time ..... 4
None of the time ....... 5

142. During the past 30 days, how many days have you been in bed all or most of the day? (If NO DAYS IN BED, WRITE IN "0".)

____ Days in bed

---

**SURGERY**

341. HAVE YOU EVER HAD GALL BLADDER SURGERY?

<table>
<thead>
<tr>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>

344. HAVE YOU EVER HAD YOUR TONSILS AND/OR ADENOIDs REMOVED?

<table>
<thead>
<tr>
<th>Yes</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2</td>
</tr>
</tbody>
</table>
THYROID BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

INROLLMENT MEDICAL HISTORY QUESTIONNAIRE

GOITER OR THYROID TROUBLE

56. HAS A DOCTOR EVER SAID YOU HAD GOITER (GOY-iter) OR THYROID TROUBLE?
   Yes .................................................. 1  — Answer 57
   No .................................................. 2 — Go to 54.

57. HAS A DOCTOR EVER PRESCRIBED ANY OF THESE TREATMENTS FOR YOUR GOITER OR THYROID TROUBLE? (Circle one number on each line.)

   A. Medicine........................................... 1  2
   B. An operation .................................... 1  2
   C. Radiation ....................................... 1  2

58. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT YOUR GOITER OR THYROID TROUBLE?
   (Circle one)
   Within past 5 months ................................. 1
   3 - 8 months ago .................................. 2
   7 - 12 months ago ................................ 3
   More than 1 year ago ............................... 4

59. ARE YOU CURRENTLY TAKING ANY MEDICINE FOR YOUR THYROID TROUBLE?
   (Circle one)
   Yes, for overactive thyroid .......................... 1
   Yes, for underactive thyroid ........................ 2
   Yes, but not sure for what .......................... 3
   No, not taking anything ............................ 4

60. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR GOITER OR THYROID TROUBLE CAUSED YOU? (Circle one)
   A great deal ....................................... 1
   Some pain ......................................... 2
   A little pain ..................................... 3
   No pain at all .................................... 4

61. DURING THE PAST 3 MONTHS, HOW MUCH WAS YOUR GOITER OR THYROID TROUBLE WORRIED OR CONCERNED YOU? (Circle one)
   A great deal ....................................... 1
   Somewhat ......................................... 2
   A little ............................................ 3
   Not at all ......................................... 4

62. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR GOITER OR THYROID TROUBLE KEPT YOU FROM DOING THE KINDS OF THINGS THAT OTHER PEOPLE YOUR AGE DO? (Circle one)
   All of the time .................................... 1
   Most of the time .................................. 2
   Some of the time .................................. 3
   A little of the time ................................ 4
   None of the time .................................. 5

63. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS YOUR GOITER OR THYROID TROUBLE KEPT YOU IN BED ALL DAY OR MOST OF THE DAYS? (If none, write in "0")

   ____ days in bed last month

"Used at all HHS sites except Dayton at enrollment and in all sites upon exit. Revisions incorporated in this version were based on experience with the initial Dayton battery."
100. HAS A DOCTOR EVER SAID THAT YOU HAD GOITER OR THYROID TROUBLE? ("GOITER" PRONOUNCED "GOY-TER")

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>(GO TO q. 101)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

101. Has a doctor ever prescribed any of these treatments for goiter or thyroid trouble? CIRCLE YES OR NO FOR EACH.

<table>
<thead>
<tr>
<th>Medicines</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surgery</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Radiation</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

102. Are you currently under a doctor's care or supervision for goiter or thyroid trouble?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

103. Are you currently taking any medicine for your thyroid trouble? (Circle one)

<table>
<thead>
<tr>
<th>Yes, for hypoactive thyroid</th>
<th>Yes, for hyperactive thyroid</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

104. During the past 3 months, how much pain has your goiter or thyroid trouble caused you? (Circle one)

<table>
<thead>
<tr>
<th>A lot</th>
<th>Some</th>
<th>A little</th>
<th>None at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

105. During the past 3 months, how much has your goiter or thyroid trouble worried or concerned you? (Circle one)

<table>
<thead>
<tr>
<th>A lot</th>
<th>Somewhat</th>
<th>A little</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

106. During the past 2 months, how often has your goiter or thyroid trouble kept you from doing the kinds of activities other people your age do? (Circle one)

<table>
<thead>
<tr>
<th>All of the time</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>A little of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

107. During the past 30 days, how many days has your goiter or thyroid trouble kept you in bed all or most of the day? (IF NO DAYS IN BED, WRITE IN "0").

| Days in bed |
EYESIGHT AND GLAUCOMA BATTERIES
FROM THE MEDICAL HISTORY QUESTIONNAIRE

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE, FORM B
ALL SITES EXCEPT DAYTON

EYESIGHT

1. HAVE YOU EVER HAD YOUR EYESIGHT TESTED BY A DOCTOR?
   Yes ............................................. 1 — Answer 2-A-0-0-C
   No .................................................. 2 — Go to 2.
   next page

1-A. WHEN WAS THE LAST TIME YOU HAD YOUR EYES TESTED BY A DOCTOR?
   (Circle one)
   Within the past 12 months ..................... 1
   1 to 2 years ago .................................. 2
   More than 2, but less than 5 years ago ...... 3
   5 or more years ago .............................. 4

1-B. WAS THIS EYE TEST NEEDED FOR WORK, SCHOOL, CAMP, INSURANCE OR SOME REASON LIKE THAT?
   Yes ................................................ 1
   No .................................................. 2

1-C. HAS A DOCTOR, OR EYE DOCTOR, EVER PRESCRIBED GLASSES OR CONTACT LENSES FOR YOU?
   Yes ................................................ 1
   No .................................................. 2

2. DO YOU CURRENTLY WEAR GLASSES OR CONTACT LENSES TO IMPROVE YOUR EYESIGHT?
   (Circle one)
   Yes, prescribed by doctor ..................... 1 — Answer 2-A-0-0-C
   Yes, but not prescribed ........................ 2
   No, don't wear glasses .......................... 3 — Go to 3

2-A. DO YOU WEAR THESE ALL THE TIME OR ONLY SOMETIMES?
   All the time .................................... 1
   Only sometimes ................................. 2
   next page

2-B. DO YOU WEAR THEM FOR READING AND CLOSE WORK, OR FOR SEEING THINGS AT A DISTANCE, OR FOR BOTH?
   (Circle one)
   For reading and close work .................... 1
   For seeing at a distance ....................... 2
   For both purposes ............................. 3

2-C. WITH GLASSES OR CONTACT LENSES, HOW WELL CAN YOU SEE, AS COMPARED WITH MOST PERSONS YOUR AGE?
   (Circle one)
   Better than most ................................ 1
   About the same as most ....................... 2
   Not as well as most ............................ 3

3. WITHOUT GLASSES, CAN YOU READ ORDINARY NEWSPRINT?
   Yes ............................................... 1
   No ............................................... 2

4. WITHOUT GLASSES, CAN YOU RECOGNIZE A FRIEND ACROSS THE STREET?
   Yes ............................................... 1
   No ............................................... 2

5. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAVE YOUR EYES CAUSED YOU?
   (Circle one)
   A great deal of pain ........................... 1
   Some pain ...................................... 2
   A little pain .................................. 3
   No pain at all ................................. 4

6. DURING THE PAST 3 MONTHS, HOW MUCH HAVE EYESIGHT PROBLEMS WORRIED OR CONCERNED YOU?
   (Circle one)
   A great deal .................................. 1
   Somewhat ..................................... 2
   A little ....................................... 3
   Not at all .................................... 4

7. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAVE EYESIGHT PROBLEMS KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO?
   (Circle one)
   All of the time ................................ 1
   None of the time ............................ 2
   Some of the time ............................. 3
   A little of the time .......................... 4
   None of the time .............................. 5
8. IN THE PAST 5 YEARS, HAVE YOU EVER HAD YOUR EYES CHECKED FOR GLAUCOMA (INCREASED PRESSURE IN THE EYE)?
   (GLAUCOMA pronounced "gloe" (eyes with cow) - NO-name)
   Yes ........................................ 1
   No ........................................ 2

9. HAS A DOCTOR EVER SAID YOU HAVE GLAUCOMA (INCREASED PRESSURE IN THE EYE)?
   Yes ........................................ 1
   No ........................................ 2

10. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT GLAUCOMA (INCREASED PRESSURE IN THE EYE)?
    (Circle one)
    Within past 3 months .......................... 1
    3 - 6 months ago .............................. 2
    7 - 12 months ago ........................... 3
    More than 1 year ago ....................... 4

11. DURING THE PAST 12 MONTHS, HAS A DOCTOR PRESCRIBED ANY OF THE FOLLOWING MEDICINES FOR GLAUCOMA (INCREASED PRESSURE IN THE EYE)? (Circle one number on each line)
    A. Eye Drops .................................. 1
    B. Pills .................................... 2

12. ARE YOU CURRENTLY TAKING ANY OF THE FOLLOWING MEDICINES FOR GLAUCOMA (INCREASED PRESSURE IN THE EYE)? (Circle one number on each line)
    A. Eye Drops .................................. 1
    B. Pills .................................... 2

13. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR GLAUCOMA (INCREASED PRESSURE IN THE EYE) CAUSED YOU?
    (Circle one)
    A great deal .................................. 1
    Some pain ................................... 2
    A little pain ................................ 3
    No pain at all ................................ 4

14. DURING THE PAST 3 MONTHS, HOW MUCH DID YOUR GLAUCOMA (INCREASED PRESSURE IN THE EYE) WORRY YOU?
    (Circle one)
    A great deal .................................. 1
    Somewhat .................................... 2
    A little ....................................... 3
    Not at all .................................... 4

15. DURING THE PAST 3 MONTHS, HOW MUCH OF THE TIME HAS YOUR GLAUCOMA (INCREASED PRESSURE IN THE EYE) KEPT YOU FROM DOING THE KINDS OF THINGS OTHER PEOPLE YOUR AGE DO?
    (Circle one)
    All of the time ................................ 1
    Most of the time ................................ 2
    Some of the time ............................. 3
    A little of the time .......................... 4
    None of the time ................................ 5

16. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS YOUR GLAUCOMA (INCREASED PRESSURE IN THE EYE) KEPT YOU IN BED ALL OR MOST OF THE DAY? (If none, write in "0")
    Days in bed last month ..................
ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE, FORM A

DAYTON

147. WHEN DID YOU MOST RECENTLY HAVE YOUR EYES TESTED FOR VISION? (Circle one:)
NEVER .......................................................... 1 — (GO TO 146) next page
5 OR MORE YEARS AGO .......................... 2
MORE THAN 2 BUT LESS THAN 5 .............. 3 — (GO TO 146)
1 TO 2 YEARS AGO .......................... 4
WITHIN THE PAST 12 MONTHS .............. 5

148. Was this test needed for work, school, camp, insurance, or some other reason like that?
   YES ........................................ 1
   NO ........................................ 2

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE, FORM B

DAYTON

82. HAVE YOU EVER HAD YOUR EYESIGHT CHECKED?
   NO ........................................ 2 — (GO TO 84)
   YES ........................................ 1 — (GO TO 83)

83. Were glasses or contact lenses prescribed?
   YES ........................................ 1
   NO ........................................ 2

84. DO YOU WEAR GLASSES OR CONTACT LENSES?
   (Circle one:)
   NO ........................................ 3 — (GO TO 86 next page)
   YES, BUT NOT PRESCRIBED .......... 2 — (GO TO 85 next page)
   YES, PRESCRIBED .................. 1 — (GO TO 85 next page)

85. When do you wear them? CIRCLE YES OR NO FOR EACH ANSWER.
   All the time
      YES ........................................ 1
      NO ........................................ 2
   Reading or close work
      YES ........................................ 1
      NO ........................................ 2
   Seeing things at a distance
      YES ........................................ 1
      NO ........................................ 2

86. With glasses or contact lenses, how well can you see compared to most other people your age?
   (Circle one:)
      Better than most ........................ 1
      About the same as most ............ 2
      Not as well as most ................... 3

87. WITHOUT GLASSES, CAN YOU READ NEWSPRINT?
   YES ........................................ 1
   NO ........................................ 2

88. WITHOUT GLASSES, CAN YOU RECOGNIZE A FRIEND ACROSS THE STREET?
   YES ........................................ 1
   NO ........................................ 2

89. DURING THE PAST 2 MONTHS, HOW MUCH HAVE EYESIGHT PROBLEMS WORRIED OR CONCERNED YOU?
   (Circle one:)
      A LOT ....................................... 1
      SOMEWHAT ................................ 2
      A LITTLE .................................. 3
      NOT AT ALL ............................... 4
90. During the past 3 months, how often have eyesight problems kept you from doing the kinds of activities other people your age do? (Circle one)

ALL OF THE TIME ........................................... 1
MOST OF THE TIME ......................................... 2
SOME OF THE TIME .......................................... 3
A LITTLE OF THE TIME ..................................... 4
NONE OF THE TIME ......................................... 5

91. In the last 5 years, have you ever had your eyes checked for glaucoma (increased pressure in the eye)? ("Glaucoma" pronounced "Glah-co-ma")

YES .............................................................. 1
NO ............................................................... 2

92. Has a doctor ever said you have glaucoma (increased pressure in the eye)?

NO ............................................................... 2 (Go to q. 93, next page)
YES .............................................................. 1 (Go to q. 93)

93. Are you currently under the care or supervision of a doctor for glaucoma (increased pressure in the eye)?

Yes ............................................................... 1
No ............................................................... 2

94. During the past 12 months, has a doctor prescribed any of the following medicines for glaucoma (increased pressure in the eye)? CIRCLE YES OR NO FOR EACH.

Eye drops

Yes ............................................................... 1
No ............................................................... 2

Pills

Yes ............................................................... 1
No ............................................................... 2

95. Are you currently taking any of the following medicines for glaucoma (increased pressure in the eye)? CIRCLE YES OR NO FOR EACH.

Eye drops

Yes ............................................................... 1
No ............................................................... 2

Pills

Yes ............................................................... 1
No ............................................................... 2

96. During the past 3 months, how much pain has your glaucoma (increased pressure in the eye) caused you? (Circle one)

A lot ........................................................... 1
Some .......................................................... 2
A little ........................................................ 3
None at all ................................................... 4

97. During the past 3 months, how much has your glaucoma (increased pressure in the eye) worried or concerned you? (Circle one)

A lot ........................................................... 1
Somewhat .................................................... 2
A little ........................................................ 3
Not at all ...................................................... 4

98. During the past 3 months, how often has your glaucoma (increased pressure in the eye) kept you from doing the kinds of activities other people your age do?

(Circle one)

All of the time ........................................ 1
Most of the time ....................................... 2
Some of the time ....................................... 3
A little of the time .................................... 4
None of the time ....................................... 5

99. During the past 30 days, how many days has your glaucoma (increased pressure in the eye) kept you in bed all or most of the day? (If NO DAYS IN BED, WRITE IN "0").

______ Days in bed
## Appendix E
### NORMAL RANGES FOR AMELSA LABORATORY TESTS

<table>
<thead>
<tr>
<th>Lab Tests</th>
<th>Dayton</th>
<th>Seattle</th>
<th>Massachusetts and South Carolina</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14-18 gm/dl--Male</td>
<td>14-17 gm/dl--Male</td>
<td>14-17 gm/dl--Male</td>
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<td>12-15 gm/dl--Female</td>
</tr>
<tr>
<td>3-yr exit</td>
<td>11.0-17.0 gm/dl</td>
<td>14-16 gm/dl--Male</td>
<td>14-16 gm/dl--Male</td>
</tr>
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### Normal Ranges for Amedis Laboratory Tests

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<th>Massachusetts and South Carolina*</th>
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<td><strong>BUN</strong></td>
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<td>5-yr exit: 5-26 mg/dL</td>
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<td><strong>Total thyroxine</strong></td>
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<td><strong>T4 (by RIA)</strong></td>
<td>3-yr exit: 4.5-12.5 mcg/dL</td>
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<td>(5.5-11.5 mcg/dL)</td>
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<td>(5.5-11.5 mcg/dL)</td>
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<td><strong>T3</strong></td>
<td>Enrollment: Test not done</td>
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*For Massachusetts and South Carolina the range given for 3-year exit reflects the test done for 3 year exit in Massachusetts only. The range for 5-year exit includes Massachusetts 5-year exit and South Carolina 3- and 5-year exit.
Appendix F
FILE DICTIONARY

This appendix describes the character version of the adult medical disorders file in technical terms. Basic identifying data are followed by lists showing the location, length, and type of each variable.

Table F.1
ADULT MEDICAL DISORDERS FILE: BASIC IDENTIFYING DATA

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Table F.2

ADULT MEDICAL DISORDERS FILE: LISTING BY ALPHABETIC ORDER

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See Note on last page of Appendix.
### Table F.2 (cont.)

**ADULT MEDICAL DISORDERS FILE: LISTING BY ALPHABETIC ORDER**

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Table F.3

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NOTE: "Type" refers to whether the variable values are alphanumeric (A) or integer (I), or fixed-decimal (F). For fixed-decimal variables, the placement of the decimal point is shown in the "Length" column; the number to the right of the dot "." tells the number of digits to the right of the decimal point (e.g., 8.2 means the numbers will be written "nnnn.nn"). Missing values are written differently for each variable type: A = bbbbbbb, I = bbbbbbb, F8.1 = bbbbbbb.b, F8.2 = bbbbbbb.b, and F8.3 = bbbbbbb ("b" meaning blank). To obtain the appropriate positive and missing values, read all values as alphanumeric, then convert "I" data to integers and "F" data to the specified floating-point format.
## Appendix G

### ALPHABETIC LISTING OF VARIABLES ON AMEDIS FILE

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<td>Uninsured member of insured family/household or member of Dayton control group. Not part of sample in adult medical disorders file.</td>
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<td>Adult</td>
<td>Enrollee in experiment who was between 14 and 61 years of age at enrollment, or who had reached 14 years of age or older at exit.</td>
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<td>AMEDIS</td>
<td>Adult Medical Disorders File (file name).</td>
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<td>Attrition</td>
<td>Departure from experiment by voluntary withdrawal before completion of assigned enrollment term. Compare &quot;exit&quot; and &quot;termination.&quot;</td>
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<td>Period during which experimental subjects were selected. HIE staff drew representative sample of potential enrollees from areawide probability sample of dwelling units in each site. Each family that joined experiment was assigned to one of 15 health insurance plans; HMO control group did not participate in baseline process.</td>
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<td>Baseline-only participant</td>
<td>Person who was considered for enrollment at beginning of experiment in given site, but who did not enroll. Not part of sample in adult medical disorders file.</td>
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<tr>
<td>Baseline participant</td>
<td>Person considered for enrollment at beginning of experiment in given site. May or may not have enrolled, either remaining baseline-only participant or becoming enrollee.</td>
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<td>Enrollee in experiment who was under 14 years of age at enrollment, or who was born during experiment.</td>
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<tr>
<td>Contract year</td>
<td>One-year portion of enrollee's assigned enrollment term, three or five years. Reckoned for administrative purposes from date on which family signed enrollment contract. First contract year began on enrollment date, second contract year began on first anniversary of enrollment, and so on.</td>
</tr>
</tbody>
</table>
Dayton control group

Group of 669 uninsured enrollees who participated in experiment from November 1974 to February 1976. Formed to compare community's use of health services with use by insured Dayton enrollees. Members retained own insurance but were asked to complete same questionnaires as insured enrollees. Group was discontinued because complete data on members appeared unobtainable. Not part of sample in adult medical disorders file.

DEI

Data element indicator. Every element (primary variable) in all HIE data files was assigned unique alphanumeric identifier composed of prefix DEI followed by three or four digits, e.g., DEI1234. Each DEI number in the AMEDIS file represents a single question on the data collection instrument. In other files, DEI numbers also represent individual items of information from, for example, administrative forms.

Derived variable

Variables derived from raw data obtained during experiment. Compare "primary variable."

Enrollee

Insured or uninsured person whose family/household signed enrollment contract with HIE. Any of the following: HIE-insured enrollee, HMO-insured enrollee, adjunct enrollee, member of Dayton control group.

Enrollment

Formal admission into experiment. Enrollment dates varied by site, ranging from November 1974 in Dayton to November 1978 in Charleston and Georgetown County. Nearly all enrollees filled out MHQ and random subsample took medical screening examination.

Enrollment variable

Constructed from MHQ data obtained at enrollment. Enrollment variables precede exit variables in codebooks.

Exit

Departure from experiment after completion of assigned enrollment term, three or five years. Compare "attrition" and "termination."

Exit variable

Constructed from MHQ data obtained at exit. Exit variables follow enrollment variables in codebooks and are denoted by X at end of variable name--e.g., ACONSTAT and ACONSTAT for enrollment and exit, respectively.

Experimental insurance plan

One of 16 plans under which health care costs of HIE enrollees were insured. Fifteen were health insurance plans with varying coinsurance rates and out-of-pocket expenditure limits and were in both FFS and HMO delivery systems. Sixteenth was HMO control group.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFS</td>
<td>Fee for service, referring to fees charged for medical and dental services by providers in private economic sector.</td>
</tr>
<tr>
<td>GHC</td>
<td>Group Health Cooperative of Puget Sound--Seattle HMO that participated in experiment.</td>
</tr>
<tr>
<td>HIE</td>
<td>Health Insurance Experiment.</td>
</tr>
<tr>
<td>HIEI</td>
<td>Health insurance Experiment Instrument. Each separately administered version of any data collection instrument was given unique HIEI number.</td>
</tr>
<tr>
<td>HIE-insured</td>
<td>Enrollee assigned to experimental health insurance plan paid by HIE (plans A-O, described on pp. 3-4). HIE-insured enrollees include members of OMO experimental group. Compare &quot;HMO-insured.&quot;</td>
</tr>
<tr>
<td>HMO</td>
<td>Health maintenance organization. HMO that participated in experiment was Group Health Cooperative of Puget Sound.</td>
</tr>
<tr>
<td>HMO control group</td>
<td>Seattle enrollees drawn at random from existing HMO members who met HIE eligibility criteria. HIE did not pay insurance premiums for those enrollees.</td>
</tr>
<tr>
<td>HMO experimental group</td>
<td>Seattle enrollees experimentally transferred to HMO from FFS delivery system. HIE did pay insurance premiums for those enrollees.</td>
</tr>
<tr>
<td>HMO-insured</td>
<td>Member of HMO control group. Compare &quot;HIE-insured.&quot;</td>
</tr>
<tr>
<td>Insured</td>
<td>Either HIE-insured or HMO-insured enrollee. Compare &quot;uninsured.&quot;</td>
</tr>
<tr>
<td>Item nonresponse</td>
<td>Answer to individual question on any HIE questionnaire missing because participant skipped question accidentally. Distinguished from questions left unanswered because of skip pattern.</td>
</tr>
<tr>
<td>MDE</td>
<td>Maximum dollar expenditure. Maximum out-of-pocket expense to be paid by HIE-insured family before health care became free. Amount depended on family's assigned health insurance plan.</td>
</tr>
<tr>
<td>Medical screening examination</td>
<td>Physical examination administered to randomly selected subsample of enrollees at enrollment and to all at exit. Produced data on general physiologic health.</td>
</tr>
<tr>
<td>MHQ</td>
<td>Medical history questionnaire. Elicited information on enrollee's health status, attitudes toward health care, health habits, and specific medical disorders. Completed</td>
</tr>
</tbody>
</table>
by nearly all enrollees at both enrollment and exit. Administered in two parts: MHQ Form A asked for relatively subjective evaluations, whereas MHQ Form B asked for relatively objective information. First administered at enrollment in Dayton; subsequently revised to clarify questions and obtain more precise answers. Revised questionnaire administered at exit in Dayton and at both enrollment and exit in all other sites.

Missing value
Value assigned to any participant for whom given variable was not constructed. Represented by "." in SAS-format file and by blank in character-format file.

NonDayton
All sites other than Dayton, Ohio. Refers to Seattle, Washington; Fitchburg and Franklin County, Massachusetts; and Charleston and Georgetown County, South Carolina. See "site."

Participant
Any person with record in any HIE data file. Participant group comprises baseline-only participants as well as all types of enrollees.

PEG
Preenrollment group. Composed of persons who participated in preenrollment phase in South Carolina and who may or may not have formally enrolled in experiment.

Primary variable
Original information element in HIE data file; unmanipulated raw data. Compare "derived variable."

Provider
Any person, institution, or organization who provided health services, drugs, or supplies to enrollee.

Replacement PEG
Persons in the South Carolina three-year group who replaced members of the preenrollment group (PEGs) who had decided to drop out of the study and did not formally enroll in the experiment.

SAS
Statistical Analysis System. HIE files contain data in both SAS and character formats.

Site
One of six locations (city or county) in which Health Insurance Experiment was conducted between November 1974 and February 1982.

Termination
Involuntary departure from experiment. Cancellation of enrollment because of permanent ineligibility or failure to fulfill obligations required for participation. Compare "attrition" and "exit."

Uninsured
Neither HIE-insured nor HMO-insured enrollee. May have been either adjunct enrollee or member of Dayton control group. Uninsured persons did not necessarily lack health insurance; they were uninsured only with respect to HIE insurance plans. Compare "insured."