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MEDICAL DISORDERS SERIES

Volume 1: CODEBOOK FOR ADULTS AT  
ENROLLMENT AND EXIT

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**HEALTH INSURANCE EXPERIMENT**

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THE **RAND**  
CORPORATION



## PREFACE

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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## 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 Fitchburg, Massachusetts; and Georgetown County and Charleston, South Carolina.<sup>1</sup> 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).<sup>2</sup>

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

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<sup>1</sup>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.

<sup>2</sup>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*<sup>3</sup>), of which 7,700 were ultimately enrolled.<sup>4</sup> 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.<sup>5</sup> 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.<sup>6</sup> 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.

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<sup>3</sup>This and other distinctive HIE terms are defined in the Glossary at the end of this document.

<sup>4</sup>Of the remaining 16,640 persons, the 15,411 who did not enroll are called *baseline-only participants*; the other 1,229 are part of the adjunct enrollee group defined below.

<sup>5</sup>Note that "insured" in HIE 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.

<sup>6</sup>Subject also to slight oversampling of low-income families in Dayton, Massachusetts, and South Carolina.

- Those with family incomes over \$25,000 (1973 dollars).
- Those institutionalized (jail, long-term hospital).
- Veterans with service-connected disabilities.
- Those in the military and their dependents.<sup>7</sup>

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.<sup>8</sup>

### **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-O. 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).

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<sup>7</sup>Details of HIE eligibility requirements are in Lorraine Glasquin and Marie E. Brown, *Rules of Operation for the RAND Health Insurance Study*, The RAND Corporation, R-1602-HEW, May 1977, Sec. II.

<sup>8</sup>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).<sup>9</sup>
- 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.<sup>10</sup> 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:

<i>Plan</i>	<i>Percentage of Family Income</i>	<i>Dollar Limit</i>
B-D	5, 10, or 15	1000/750 <sup>11</sup>
E-G	5, 10, or 15	1000
H-J	5, 10, or 15	1000/750
K-M	5, 10, or 15	1000
N	--	150 per individual; 450 per family

<sup>9</sup>During 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.

<sup>10</sup>During the experiment's first year in Dayton, expenditures for outpatient mental health care did not apply toward the ceiling.

<sup>11</sup>In 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 1976. 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 O. 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-O (including the HMO experimental group) were said to be HIE-insured; the HMO control group was termed HMO-insured.

#### **Services Provided**

Plans A-O 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.<sup>12</sup>

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.

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<sup>12</sup>Calculation of the maximum difference is described in Appendix A.



Table 1

HIE ENROLLMENT PERIODS

Site	Number of Enrollees <sup>1</sup>	1974	1975	1976	1977	1978	1979	1980	1981	1982
Dayton	1137	Nov.								Feb.
3-year	533									Feb.
5-year	604									
Seattle	3112		Jan.							Sept.
3-year	1500									Sept.
5-year	1612									
Fitchburg	723		July							Oct.
3-year	547									Oct.
5-year	176									
Franklin Co.	889		July							Oct.
3-year	649									Oct.
5-year	240									
Charleston	779		Nov.							Feb.
3-year <sup>2</sup>	571					Nov.				
5-year	208									
Georgetown Co.	1060		Nov.							Feb.
3-year <sup>3</sup>	800					Nov.				
5-year	260									
Total	7700									

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.

<sup>1</sup>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.

<sup>2</sup>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.

<sup>3</sup>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

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

- Administered as a separate questionnaire only in Dayton; part of baseline questionnaire in the other sites.
- When "parent" appears in this column, a parent was asked to provide data for children 13 and younger.
- "Exit" refers to normal departure from the experiment after completing the assigned enrollment period, three or five years. Those who "attrited," or voluntarily left the experiment early, received an "attrition" MHQ that was identical to the exit MHQ.
- 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 2 (cont.)

Instrument	Topics Covered	Data Collected		
		How	When	From
7. Health care questionnaire, 3 versions by age group: 0-4 years 5-13 years 14+ years	Health status, attitudes, habits (subset of MHQ)	Administered by self or parent	Each anniversary of enrollment except at exit	Insured enrollees
8. Annual income report	Amount and sources of family income, taxes paid	Self-administered	Annually (April)	Head of insured family
9. Periodic employment report	Wages, hours worked, family payments for care of children or elderly, government program benefits received	Self-administered	Semiannually	Enrollees (head and family members 16 and older)
10. Assets and debts questionnaire	Family assets and liabilities	Self-administered	Exit	Head of insured family
11. Knowledge of coverage questionnaire	Details of HIE insurance plan	Self-administered	Specified intervals [5]	Insured enrollees
12. Insurance abstraction	Details of selected insurance policies	Abstraction	At time of knowledge of coverage questionnaire	Insurance company brochures
13. Chronic condition questionnaire	Status of condition, correctness of diagnosis, adequacy of treatment	Physician interview	At exit medical screening examination	Sample of insured enrollees found to have certain chronic conditions [6]
14. Evaluation questionnaire	Perceptions and attitudes about HIE and health care system	Self-administered	Exit	Head of insured family
15. Health notice	Use of medical or dental services	Administered by self or parent	Biweekly during preenrollment phase (South Carolina); 6 months-1 year after exit (other sites)	Preenrollees (South Carolina), insured enrollees who have exited (other sites)

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 those 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 2 (cont.)

Instrument	Topics Covered	Data Collected		
		How	When	From
16. Medical expense report (MER)--fee-for-service claim form, 4 types: Doctors' services and supplies Dental care Hospital and extended care Pharmacy	Each use of medical or dental service, drugs, and equipment; reason or diagnosis; treatment	Administered by self or parent	Time of occurrence	Insured enrollees and providers/suppliers
17. Services rendered report (SERR)--HMO equivalent of MER [7], 2 types: Doctors' services and supplies Hospital and extended care	Each use of medical service provided by HMO; reason or diagnosis; treatment	Abstraction	Annually to cover entire previous year	HMO records for insured enrollees in HMO experimental and control groups
18. Factor price survey	Wages and benefits of selected hospital personnel [8], average daily inpatient population	Phone and mail	Semiannually	Sample of local hospitals
19. Consumer price index	Prices of selected nonmedical products in the six HIE sites	Phone and inspection	Semiannually	Sample of local retailers
20. Physician capacity utilization survey (PCUTS)	Availability of services [9]	Phone	Annually	Sample of local physicians [10]
21. Dentist capacity utilization survey (DCUTS)	Similar to PCUTS	Phone	Annually	Sample of local dentists [11]
22. Insurance preference questionnaire	Willingness to pay higher premium to reduce out-of-pocket expense limit	Self-administered	Exit	Head of insured family

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 technicians, licensed professional nurses, nursing aides, kitchen helpers, general stenographers, 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 Georgetown 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.<sup>13</sup> 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.

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<sup>13</sup>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<sup>14</sup> (Statistical Analysis System) and character formats, and an index of character-format variables.<sup>15</sup>

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.

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<sup>14</sup>A registered trademark of the SAS Institute Inc.

<sup>15</sup>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 (AMEDIS) file, presented in this Note, is composed of selected data gathered from HIE participants, aged 14 to 61,<sup>1</sup> 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<sup>2</sup> of the following 17 adult disorders:<sup>3</sup>

Acne	Hypertension
Anemia	Joint disorders
Angina pectoris	Kidney disease and urinary tract
Chronic obstructive	infection
airway disease	Peptic ulcer disease
Congestive heart failure	Sleeping pill and tranquilizer
Diabetes mellitus	use
Hay fever	Surgical conditions <sup>4</sup>
Hearing loss	Thyroid disease
Hypercholesterolemia	Vision impairments

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

<sup>2</sup>The 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.

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

<sup>4</sup>Hernias, varicose veins, hemorrhoids, and tonsil/adenoid 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.<sup>5</sup> 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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<sup>5</sup>The 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.<sup>6</sup>

Table 3 shows the sample distribution by site.

Table 3  
SAMPLE DISTRIBUTION BY SITE FOR  
ADULT MEDICAL DISORDERS DATA

Site	Number of Respondents*
Dayton	867
Seattle	2435
Massachusetts	1213
South Carolina	1356
Total	5871

\*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.<sup>7</sup> Those reports used only the results of the *enrollment*

<sup>6</sup>Adults 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.

<sup>7</sup>R-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 childrens' 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<sup>8</sup> 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.<sup>9</sup>

### 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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<sup>8</sup>Terms 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 *attrited*; 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.

<sup>9</sup>All data collected through the MHQs are being released as separate files for public use (items MH1A/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 MHQB 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 Preenrollment 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.<sup>10</sup> Nevertheless, analysts should note wording differences when comparing Dayton enrollment data with Dayton exit data and all nonDayton data.<sup>11</sup> 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.<sup>12</sup>

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<sup>10</sup>Each instance of such recoding is noted in the codebook, Sec. IV.

<sup>11</sup>Enrollment and exit questions at all other sites correspond with the Dayton exit questions. Further, users of this codebook should note that *nonDayton* in all cases means *all other sites*.

<sup>12</sup>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.<sup>13</sup> 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 HIE 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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<sup>13</sup>Lisa Hahn Smith et al., *The Health Insurance Study Screening Examination Procedures Manual*, The RAND Corporation, R-2101-HEW, September 1978.

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 MHQ 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<sup>1</sup> 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 MHQ. Other revisions can be assumed to be minor.

#### ACNE

Data on acne were obtained from the MHQs 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

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<sup>1</sup>R-2262-HHS and R-2723-HHS, as noted above.

reading, both the presence/absence of acne *and* its severity was recorded. A modified version of either the Pillsbury scale<sup>2</sup> of the National Center for Health Statistics or the Cook et al.<sup>3</sup> 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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<sup>2</sup>D. M. Pillsbury, W. B. Shelley, and A. M. Kligman, *Dermatology*, W. B. Saunders Company, Philadelphia, 1961.

<sup>3</sup>C. H. Cook, R. L. Centner, and S. E. Michaels, "An Acne Grading Method Using Photographic Standards," *Archives of Dermatology*, Vol. 115, 1979, pp. 571-575.

## 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 HIE 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.<sup>4</sup> The presence of angina and the degree of resulting impairment are indicated by the variable ANGIROSE.

During both the enrollment and exit screening examinations, persons meeting the following criteria were given a *resting*, 12-channel electrocardiogram (ECG):<sup>5</sup>

- 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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<sup>4</sup>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.

<sup>5</sup>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.<sup>6</sup> 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, HIE 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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<sup>6</sup>The abnormality codes used are reproduced in Smith et al., op. cit., pp. 360-361.

seven abnormalities. The following derived variables were thus constructed:

<i>Variable</i>	<i>Abnormality</i>	<i>HIE Code</i>	
		<i>Enrollment</i>	<i>Exit</i>
ECG1	Intraventricular conduction	2000-2199	8, 62-66
ECG2	ST-segment or T-wave abnormality	4150-4162	88, 91, 117, 95-100, 102-110
ECG3	Ventricular enlargement	5100-5129	67-74, 76-80
ECG4	Infarction (except subendocardial and atrial)	5310-5374	41-59
ECG5	Atrial fibrillation	1240-1249	4-6
ECG6	Ventricular dysrhythmias	1400-1450	16
ECG7	Artificial pacemaker dysrhythmias	6200-6299	1

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

<i>Abnormality</i>	<i>HIE Code</i>
Left bundle branch block (intraventricular conduction)	2120
ST-segment changes	4150-4152
T-wave changes	4160-4162
Infarction (except subendocardial and atrial)	5310-5374

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<sup>7</sup>H. A. Blackburn et al., "The Electrocardiogram in Population Studies," *Circulation*, Vol. 21, 1960, pp. 1160-1175.

## CHRONIC OBSTRUCTIVE AIRWAY DISEASE

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

The MHQ 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.<sup>8</sup> 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 MHQ 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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<sup>8</sup>World Health Organization, *International Collaborative Study of Medical Care Utilization, Vol. 2: Questionnaire*, Coordinating Committee for the International Collaborative Study of Medical Care Utilization, Baltimore, Maryland, 1970.

and pressure saturated with water vapor. Maximal mid-expiratory flow rate (MMEFR) 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.<sup>9</sup>

### 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.<sup>10</sup> 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.

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<sup>9</sup>R. J. Knudson, et al., "The Maximal Expiratory Flow-Volume Curve. Normal Standards, Variability, and Effects of Age," *American Review of Respiratory Disease*, Vol. 113, 1976, pp. 587-600.

<sup>10</sup>G. A. Rose and H. Blackburn, *Cardiovascular Survey Methods*, World Health Organization Monograph Series 56, World Health Organization, Geneva, p. 25, 1968.

## DIABETES MELLITUS

Derived variables for diabetes were created from MHQ data and screening exam data. The diabetes battery, which appeared on MHQ 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 MHQs only. The hay fever battery, which appeared on MHQ 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 MHQ, 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 HAYFMHQ in the codebook for a specific example.)

## HEARING LOSS

Data on hearing loss were gathered from the MHQs 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 MHQs. The hearing loss battery, which appeared on MHQ 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.<sup>11</sup> Those questions were ordered according to increasing levels of loudness necessary to hear and understand sound, conforming to criteria necessary for Guttman scalogram analysis. When compared with audiometric data, the scale levels were found to correspond well with the threshold hearing levels of the better ear.

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<sup>11</sup>National Center for Health Statistics, *Development and Evaluation of an Expanded Hearing Loss Scale Questionnaire*, U.S. Department of Health, Education, and Welfare, Public Health Service, Rockville, Maryland, DHEW Publication 1000, Series 2, No. 37, 1970.

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 MHQs and the screening exam. The cholesterol battery, which appeared on MHQ 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 MHQ 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 Simoes.<sup>12</sup> 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 25 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 arthrocircameter 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.

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<sup>12</sup>A. W. Musser and C. Ortigoza, "Automated Determination of Uric Acid by the Hydroxylamine Method," *Technical Bulletin of the Registry of Medical Technologists*, Vol. 36, 1966, pp. 21-25.

## 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;<sup>13</sup> at exit of the Dayton three-year sample, the BUN level was determined by the urease method<sup>14</sup> 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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<sup>13</sup>W. H. Marsh, B. Fingerhut, and H. Miller, "Automated and Manual Direct Methods for the Determination of Blood Urea," *Clinical Chemistry*, Vol. 11, 1965, pp. 624-627.

<sup>14</sup>A. Kaplan, "Urea Nitrogen and Urinary Ammonia Determination," in S. Meites (ed.), *Standard Methods of Clinical Chemistry*, Vol. 5, Academic Press Inc., New York, 1965; and A. Chaney and E. Marbach, "Modified Reagents for Determination of Urea and Ammonia," *Clinical Chemistry*, Vol. 8, 1962, pp. 130-132.

## PEPTIC ULCER DISEASE AND DYSPEPSIA

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.<sup>15</sup> 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.<sup>16</sup> In this codebook, names of variables derived from questions in the sleeping pill battery

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<sup>15</sup>Difficulties in testing methods prevented the use of urine screening examinations, as had been projected at the outset of the experiment.

<sup>16</sup>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 PILLFREQ, 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 MHQs for all conditions. Screening exam data were obtained on varicose veins only.

The MHQ contained separate but similar batteries on three surgically correctable conditions--hernias, varicose veins, and hemorrhoids. The batteries, which appeared on MHQ 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/adenoid 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.<sup>1</sup> 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. AMEDIS 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

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<sup>1</sup>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.<sup>2</sup>

VARIABLE SITE		SITE				
		AMEDIS; HEADER				
Site		VALUE	FREQ	CUM FREQ	%	CUM %
CODES						
1 - Dayton, Ohio		1	867	867	14.77	14.77
2 - Seattle, Washington		2	2935	3302	41.48	56.24
3 - Fitchburg, Massachusetts		3	556	3858	9.47	65.71
4 - Franklin County, Massachusetts		4	657	4515	11.19	76.90
5 - Charleston, South Carolina		5	584	5099	9.95	86.85
6 - Georgetown County, South Carolina		6	772	5871	13.15	100.00
SITE identifies the participant's place of residence at enrollment.						

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.

<sup>2</sup>Tests 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.<sup>3</sup> 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.

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<sup>3</sup>For an explanation of SAS rules, see *SAS User's Guide: Basics*, SAS Institute Inc., Cary, North Carolina, 1982.

## SPECIAL VARIABLES

### Header Variables

Each record in the AMEDIS file begins with five identifying variables: FILENAME, PERSON, ENRTERM, 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. ENRTERM 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).<sup>4</sup> 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, PEGFLAG, and OUTAREAX. MHQA and MHQAX indicate whether a

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<sup>4</sup>"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 MHQBX 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 1978. 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

FILENAME	VALUE	FREQ	CUM FREQ	%	CUM %
	DHADAA	5871	5871	100.00	100.00

VARIABLE	FILENAME	AMEDIS; HEADER
Name of file		
DHADAA		
FILENAME is a unique 6-character code that identifies this file as the Adult Medical Disorder File (AMEDIS).		

VARIABLE	PERSON	AMEDIS; HEADER
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=Fitchburg; F=Franklin County; G=Charleston; H=Georgetown County.		

VARIABLE	SITE	AMFDIS; HEADER
Site		
CODES		
1	Dayton, Ohio	
2	Seattle, Washington	
3	Fitchburg, Massachusetts	
4	Franklin County, Massachusetts	
5	Charleston, South Carolina	
6	Georgetown County, South Carolina	
SITE identifies the participant's place of residence at enrollment.		

SITE	VALUE	FREQ	CUM FREQ	%	CUM %
	1	867	867	14.77	14.77
	2	2435	3302	41.48	56.24
	3	556	3858	9.47	65.71
	4	657	4515	11.19	76.90
	5	584	5099	9.95	86.85
	6	772	5871	13.15	100.00

VARIABLE	INSTAT	AMEDIS; HEADER
Insurance status		
CODES		
1	Ever insured	
2	Ever assigned to IIMO control group	
3	Never insured	
INSTAT describes the participant's insurance status in the Health Insurance Experiment.		

INSTAT	VALUE	FREQ	CUM FREQ	%	CUM %
	1	5269	5269	89.75	89.75
	2	602	5871	10.25	100.00

VARIABLE	ENRTERM	AMEDIS; HEADER
Enrollment term		
CODES		
3 - 3 years		
5 - 5 years		
ENRTERM distinguishes the participants who accepted 3-year and 5-year terms of enrollment. Source for this variable is the Document Accountability File.		

ENRTERM	VALUE	FREQ	CUM FREQ	%	CUM %
	3	3419	3419	58.24	58.24
	5	2452	5871	41.77	100.00

VARIABLE	MHQA	AMEDIS
MHQA indicator at enrollment		
CODES		
0 - No MHQA		
1 - MHQA present		
MHQA indicates whether or not the participant took the MHQA at enrollment.		

MHQA	VALUE	FREQ	CUM FREQ	%	CUM %
	0	687	687	100.00	100.00
	1	5184	5871	100.00	100.00



VARIABLE	MHQAX	AMEDIS
MHQA indicator at exit		
CODES		
	0 - No MHQA	
	1 - MHQA present	
MHQAX indicates whether or not the participant took the MHQA at exit.		

MHQAX VALUE	FREQ	CUM FREQ	%	CUM %
0	751	5120	100.00	100.00
1	5120			

VARIABLE	MHQB	AMEDIS
MHQB indicator at enrollment		
CODES		
	0 - No MHQB	
	1 - MHQB present	
MHQB indicates whether or not the participant took the MHQB at exit.		

MHQB VALUE	FREQ	CUM FREQ	%	CUM %
0	936	4935	100.00	100.00
1	4935			

VARIABLE	MHQBX	AMEDIS
MHQB indicator at exit		
CODES		
1 - No MHQB		
1 - MHQB present		
MHQB indicates whether or not the participant took the MHQB at exit.		

MHQBX	VALUE	FREQ	CUM FREQ	%	CUM %
1	5116	755	5116	100.00	100.00

VARIABLE	SCREENED	AMEDIS
Screening exam indicator at enrollment		
CODES		
1 - No screening exam		
1 - Took screening exam		
SCREENED indicates whether or not the participant took the screening exam at enrollment.		

SCREENED	VALUE	FREQ	CUM FREQ	%	CUM %
1	2903	2968	2903	100.00	100.00

VARIABLE	SCREENDX	AMEDIS
Screening exam indicator at exit		
CODES		
1 - No screening exam		
1 - Took screening exam		
SCREENDX indicates whether or not the participant took the screening exam at exit.		

SCREENDX	VALUE	FREQ	CUM FREQ	%	CUM %
1	5076	795	5076	100.00	100.00

VARIABLE	OUTAREAX	AMEDIS
Out-of-area screening examination indicator at exit		
CODES		
; - 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.

VARIABLE	PEGFLAG	AMEDIS
Replacement PEG indicator		
CODES		
; - Not a replacement PEG		
1 - Replacement PEG		
PEGFLAG indicates whether or not the participant was a		
replacement PEG.		

OUTAREAX	VALUE	FREQ	CUM FREQ	%	CUM %
	1	5580	291	100.00	100.00

PEGFLAG	VALUE	FREQ	CUM FREQ	%	CUM %
	1	5648	223	100.00	100.00

-----  
ACNE

VARIABLE	ACNESTAT	AMEDIS ACNE
Acne status from facial skin photograph at enrollment		
CODES		
1 - Missing		
2 - Acne present		
3 - No photograph taken (i.e., no acne)		
4 - Photograph not read due to administrative errors or camera problems		
5 - Not at screening exam		
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.		

# INPUT VARIABLES

DEI7120 (Screening exam) Interpretation of acne skin photograph by physician  
 1 - Acne present  
 2 - Acne not present  
 3 - Questionable

DEI7121 (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.)

ACNESTAT VALUE	FREQ	CUM FREQ	%	CUM %
1	1145	437	9.25	9.25
2	437	472	0.74	9.99
3	35	2880	50.95	60.94
4	2408	2903	0.49	61.43
5	23	4726	38.57	100.00
	1823			

VARIABLE ACNESTAT (cont.)

CONSTRUCTION

```

IF DE17120 = 1
  THEN ACNESTAT = 1;
IF DE17120 = 2 OR DE17120 = 3
  THEN ACNESTAT = 2;
IF DE17120 = 4 AND DE17121 = 2
  THEN ACNESTAT = 3;
IF DE17120 = 5 AND ACNESTAT \= 3 AND SCREENED = 1
  THEN ACNESTAT = 4;
IF MHQB = 1 AND SCREENED \= 1
  THEN ACNESTAT = 5;

```

ACNESTAT	VALUE	FREQ	CUM FREQ	%	CUM %
1	1	742	699	13.63	13.63
2	2	699	978	5.44	19.07
3	3	279	4718	72.92	91.99
4	4	3740	4750	0.62	92.61
5	5	32	5129	7.39	100.00

VARIABLE ACNESTAT AMEDIS ACNE

Acne status from facial skin photograph at exit

CODES

- 1 - Missing
- 2 - Acne present
- 3 - Not present in photograph
- 4 - No photograph taken (i.e., no acne)
- 5 - Photograph not read due to administrative errors or camera problems
- 6 - Not at screening exam

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

DE17120 (Screening exam) Interpretation of Acne Skin Photograph by Physician  
 1 - Acne present  
 2 - Acne not present  
 3 - Questionable

(cont.)

```

VARIABLE ACNESTAX (cont.)
INPUT VARIABLES (cont.)

DE13031 {Screening exam} Acne skin photograph completion
        code
        1 - Photograph taken
        2 - Photograph not taken
MHQBX   MIQB indicator at exit
INAREA  (Temporary variable) Inarea screening exam
        indicator
        1 - Took inarea screening exam
  
```

CONSTRUCTION

```

IF DE17120 = 1
  THEN ACNESTAX = 1;
IF DE17120 = 2 OR DE17120 = 3
  THEN ACNESTAX = 2;
IF DE17120 = 4 AND DE13031 = 2
  THEN ACNESTAX = 3;
IF DE17120 = 5 AND ACNESTAX \= 3 AND INAREA = 1
  THEN ACNESTAX = 4;
IF MHQBX = 1 AND INAREA \= 1
  THEN ACNESTAX = 5;
  
```

ACNEBIN VALUE	FREQ	CUM FREQ	%	CUM %
1	2991	437	15.17	15.17
2	2443	2880	84.83	100.00

VARIABLE	ACNEBIN	AMEDIS ACNE
Binary acne status from screening photo at enrollment		
CODES		
1 - Not classifiable or missing		
2 - Acne present		
3 - 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;
  
```

ACNEBINX VALUE	FREQ	CUM FREQ	%	CUM %
1	1153	699	14.82	14.82
2	4019	4718	85.18	100.00

VARIABLE	ACNEBINX	AMEDIS ACNE
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 ACNESTAX.		

INPUT VARIABLE

ACNESTAX Acne status from facial skin photograph at exit

CONSTRUCTION

```

IF ACNESTAX = 1
  THEN ACNEBINX = 1;
IF ACNESTAX = 2 OR ACNESTAX = 3
  THEN ACNEBINX = 2;
  
```

VARIABLE	ACNESEV	AMEDIS ACNE
Severity of acne at enrollment		
CODES		
.	Missing, no photo taken	
0	No acne	
1	1 Comedo/papule	
2	Extensive comedos/papules	
3	Pustules	
4	Inflammatory cysts	
ACNESEV indicates the severity of acne at enrollment as graded by a dermatologist.		
INPUT VARIABLE		
DE115017	(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 = DE115017;		
ACNESEV	VALUE	FREQ
.	0	5414
1	1	83
2	2	36
3	3	182
4	4	121
		35
		5414
		83
		119
		301
		422
		457
		18.16
		7.88
		39.83
		26.48
		7.66
		100.00
		18.16
		26.04
		65.86
		92.34
		100.00



ACNESEVX VALUE	FREQ	CUM FREQ	%	CUM %
.	5150	.	.	.
B	18	.	.	.
C	2	.	.	.
0	31	31	4.42	4.42
1	39	70	5.56	9.99
2	303	373	43.22	53.21
3	284	657	40.51	93.72
4	44	701	6.28	100.00

VARIABLE	ACNESEVX	AMEDIS ACNE
Severity of acne at exit		
CODES		
.	- Missing, no photo taken	
B	- Photo should have been read but wasn't	
C	- Photo unreadable	
0	- No acne	
1	- 1 Comedo/papule	
2	- Extensive comedos/papules	
3	- Pustules	
4	- Inflammatory cysts	
ACNESEVX indicates the severity of acne at exit as graded by a dermatologist.		

NOTE: ACNESEVX was coded as a special missing 'B' or 'C' on an individual case by case basis.

#### INPUT VARIABLE

DE115017 (Screening exam) Acne graded by a dermatologist  
 0 - No acne  
 1 - 1 Comedo/papule  
 2 - Extensive comedos/papules  
 3 - Pustules  
 4 - Inflammatory cysts

#### CONSTRUCTION

ACNESEVX = DE115017;

ACNEIMP	FREQ	CUM FREQ	%	CUM %
0	941	4110	83.37	83.37
1	820	4930	16.63	100.00

VARIABLE	ACNEIMP	AMEDIS ACNE
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.		

#### INPUT VARIABLES

DEI4394 (MQB) In the last 12 months, have you had trouble with pimples on your face?  
 DEI4409 (MQB) During the past 3 months, how much pain has your acne or have your pimples caused you?  
 DEI4410 (MQB) During the past 3 months, how much has your acne or have your pimples worried or concerned you?  
 DEI4411 (MQB) During the past 3 months, did problems with the way your acne or pimples look cause you to miss or avoid conversation with people?  
 DEI4409 (Temporary variable) Rescales DEI4409 so that 1 = no impact, no pain; 4 = a great deal of pain  
 DEI4410 (Temporary variable) Rescales DEI4410 so that 1 = no impact, no worry; 4 = a great deal of worry  
 DEI4411 (Temporary variable) Rescales DEI4411 so that 1 = no impact, don't avoid conversation; 4 = avoid conversation most of the time.

#### CONSTRUCTION

DEI4409 = 5 - DEI4409;  
 DEI4410 = 5 - DEI4410;  
 DEI4411 = 5 - DEI4411;  
 ACNEIMP = 0;  
 IF (DEI4409 > 1) OR (DEI4410 > 1) OR (DEI4411 > 1)  
 THEN ACNEIMP = 1;  
 IF DEI4394 = . THEN ACNEIMP = .;

ACNE IMPX	FREQ	CUM FREQ	%	CUM %
0	757	4339	84.85	84.85
1	4339	5114	15.15	100.00
775				

VARIABLE	ACNE IMPX	AMEDIS ACNE
Impact of acne status at exit		
CODES		
0 - Missing		
1 - No impact		
2 - Some impact		
ACNE IMPX indicates whether acne caused any pain, worry/concern, or activity restrictions.		

# INPUT VARIABLES

DEI4394 (MHQB) In the last 12 months, have you had trouble with pimples on your face?

DEI4409 (MHQB) During the past 3 months, how much pain has your acne or have your pimples caused you?

DEI4410 (MHQB) During the past 3 months, how much has your acne or have your pimples worried or concerned you?

DEI4411 (MHQB) During the past 3 months, did problems with the way your acne or pimples look cause you to miss or avoid conversation with people?

DEI4409 (Temporary variable) Rescales DEI4409 so that 1 = no impact, no pain; 4 = a great deal of pain

DEI4410 (Temporary variable) Rescales DEI4410 so that 1 = no impact, no worry; 4 = a great deal of worry

DEI4411 (Temporary variable) Rescales DEI4411 so that 1 = no impact, don't avoid conversation; 4 = avoid conversation most of the time.

# CONSTRUCTION

DEI4409 = 5 - DEI4409;

DEI4410 = 5 - DEI4410;

DEI4411 = 5 - DEI4411;

ACNE IMPX = 0;

IF (DEI4409 > 1) OR (DEI4410 > 1) OR (DEI4411 > 1) THEN ACNE IMPX = 1;

IF DEI4394 = . THEN ACNE IMPX = .;

ANEMIA

VARIABLE	ANEMHGB	AMEDIS ANEMIA
Hemoglobin value at enrollment		
CODES		
. = No screening exam or hemoglobin missing		
A = Replacement PEG		
Range of test results = 7.4 to 19.2 g/100 ml		
ANEMHGB is the hemoglobin test result measured during the enrollment 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  
 DE17471 (NonDayton - Screening exam) Repeat hemoglobin test  
 DE12196 (Dayton - Screening exam) Repeat hemoglobin test

#### CONSTRUCTION

```

ANEMHGB = DE17470;

IF DE12196 \= .
  THEN ANEMHGB = DE12196;
IF DE17471 \= .
  THEN ANEMHGB = DE17471;

ANEMHGB = ANEMHGB/10;

(For Replacement PEGs only)

ANEMHGB = A;
  
```

#### ANEMHGB

NUMBER OF OBSERVATIONS 2857  
 NUMBER OF MISSING 3014  
 MTAN 13.83  
 MEDIAN 13.80  
 MINIMUM VALUE 7.40  
 MAXIMUM VALUE 19.20  
 STANDARD DEVIATION 1.34  
 COEFFICIENT OF VARIATION 9.72  
 SKEWNESS -0.08  
 KURTOSIS 0.09

ANEMHGBX

NUMBER OF OBSERVATIONS	4915
NUMBER OF MISSING	956
MEAN	14.46
MEDIAN	14.50
MINIMUM VALUE	5.20
MAXIMUM VALUE	19.20
STANDARD DEVIATION	1.39
COEFFICIENT OF VARIATION	9.64
SKEWNESS	-0.17
KURTOSIS	0.60

VARIABLE	ANEMHGBX	AMEDIS ANEMIA
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;
  
```

ANEMHGBA	VALUE	FREQ	CUM FREQ	%	CUM %
.	.	2745	.	.	.
1	1	223	115	3.96	3.96
2	2	115	2857	94.45	98.42
4	4	2742	2903	1.59	100.00

VARIABLE	ANEMHGBA	AMEDIS ANEMIA
Anemia status based on hemoglobin result at enrollment; adjusted for age, sex, and pregnancy		
CODES		
. - Did not take screening exam 1 - Replacement PEG 1 - Male over 17 and ANEMHGB < 13.0; male 13-17 and ANEMHGB < 12.5; female, not pregnant and ANEMHGB < 11.5; or female, pregnant and ANEMHGB < 10.0 2 - Male over 17 and ANEMHGB >= 13.0; male 13-17 and ANEMHGB >= 12.5; female, not pregnant and ANEMHGB >= 11.5; or female, pregnant and ANEMHGB >= 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 (ANEMHGB) 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  
 SEXR (Temporary variable) Sex recoded, 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

(cont.)

VARIABLE ANEMHGBA (cont.)

CONSTRUCTION

(Note: AGE and SEXR determine normal ranges)

```
IF (SEX = 1) AND (AGE >= 18) AND (0 < ANEMHGB < 13.0)
  THEN ANEMHGBA = 1;
IF (SEX = 1) AND (AGE >= 18) AND (ANEMHGB >= 13.0)
  THEN ANEMHGBA = 2;
IF (SEX = 1) AND (AGE <= 17) AND (0 < ANEMHGB < 12.5)
  THEN ANEMHGBA = 1;
IF (SEX = 1) AND (AGE <= 17) AND (ANEMHGB >= 12.5)
  THEN ANEMHGBA = 2;
IF (SEX = 2) AND (0 < ANEMHGB < 11.5)
  THEN ANEMHGBA = 1;
IF (SEX = 2) AND (ANEMHGB >= 11.5)
  THEN ANEMHGBA = 2;
IF (SEX = 3) AND (0 < ANEMHGB < 10.0)
  THEN ANEMHGBA = 1;
IF (SEX = 3) AND (ANEMHGB >= 10.0)
  THEN ANEMHGBA = 2;
IF (SEX = . OR AGE = .) AND (ANEMHGB \= .)
  THEN ANEMHGBA = 3;
IF SCREENED = 1 AND ANEMHGB = .
  THEN ANEMHGBA = 4;
```

(For Replacement PLCs only)

ANEMHGBA = A;

VARIABLE	ANMHGBX	AMEDIS ANEMIA
Anemia status based on hemoglobin result at exit; adjusted for age, sex, and pregnancy		
CODES		
1 - Did not take screening exam		
1 - Male over 17 and ANEMHGBX < 13.0; male 13-17 and ANEMHGBX < 12.5; female, not pregnant and ANEMHGBX < 11.5; or female, pregnant and ANEMHGBX < 10.0		
2 - Male over 17 and ANEMHGBX >= 13.0; male 13-17 and ANEMHGBX >= 12.5; female, not pregnant and ANEMHGBX >= 11.5; or female, pregnant and ANEMHGBX >= 10.0		
3 - Missing sex or age data		
4 - Missing hemoglobin data		
ANMHGBX categorizes a person as being anemic or not based on the hemoglobin level (ANFMHGBX) measured during the exit screening examination. ANMHGBX is adjusted for age, sex, and pregnancy.		

NOTE: No respondents were assigned a value of 3.

#### INPUT VARIABLES

AGE Age of participant  
ANFMHGBX Hemoglobin test result  
SEX (Temporary variable) Sex recorded, 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

(cont.)

ANMHGBX VALUE	FREQ	CUM FREQ	%	CUM %
1	795	80	1.58	1.58
2	80	4915	95.25	96.83
4	4835	5076	3.17	100.00
	161			



VARIABLE ANMHGBX (cont.)

CONSTRUCTION

(Note: AGE and SEXR determine normal ranges)

```

IF (SEXR = 1) AND (AGE >= 18) AND (0 < ANMHGBX < 13.0)
  THEN ANMHGBX = 1;
IF (SEXR = 1) AND (AGE >= 18) AND (ANMHGBX >= 13.0)
  THEN ANMHGBX = 2;
IF (SEXR = 1) AND (AGE <= 17.999) AND (0 < ANMHGBX < 12.5)
  THEN ANMHGBX = 1;
IF (SEXR = 1) AND (AGE <= 17.999) AND (ANMHGBX >= 12.5)
  THEN ANMHGBX = 2;
IF (SEXR = 0) AND (0 < ANMHGBX < 11.5)
  THEN ANMHGBX = 1;
IF (SEXR = 0) AND (ANMHGBX >= 11.5)
  THEN ANMHGBX = 2;
IF (SEXR = 3) AND (0 < ANMHGBX < 10.0)
  THEN ANMHGBX = 1;
IF (SEXR = 3) AND (ANMHGBX >= 10.0)
  THEN ANMHGBX = 2;
IF (SEXR < 0 OR AGE = .) AND (ANMHGBX >= 0)
  THEN ANMHGBX = 3;
IF SCRTENDX = 1 AND ANMHGBX < 0
  THEN ANMHGBX = 4;

```

ANEMMHQ VALUE	FREQ	CUM FREQ	%	CUM %
0	923	.	.	.
1	13	.	.	.
2	191	191	3.87	3.87
3	76	267	1.54	5.41
4	527	794	10.68	16.09
	4141	4935	83.91	100.00

VARIABLE	ANEMMHQ	AMEDIS ANEMIA
Anemia status based on MHQ responses at enrollment		
CODES		
0 - No MHQB		
1 - No MHQB, for Replacement PEGs only		
1 - Previously diagnosed as anemic, or currently taking iron or blood transfusions		
2 - Previously diagnosed as anemic, on diet or vitamins		
3 - Previously diagnosed as anemic, no treatment		
4 - Not previously diagnosed as anemic		
5 - Missed trigger question (DE14315 or DE19042)		
ANEMMHQ indicates anemia status based on MHQ responses.		
(cont.)		

VARIABLE ANEMMHQ (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 (NonDayton - 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 DO;

IF DE14321 = 1 OR DE14323 = 1  
 THEN ANEMMHQ = 1;  
 ELSE IF DE14320 = 1 OR DE14322 = 1  
 THEN ANEMMHQ = 2;  
 ELSE ANEMMHQ = 3;  
 END;

IF (DE14315 = 3 OR DE19042 = 2)  
 THEN ANEMMHQ = 4;  
 IF MHQB = 1 AND SITE = '1' AND DE14315 = .  
 THEN ANEMMHQ = 5;  
 IF MHQB = 1 AND SITE \= '1' AND DE19042 = .  
 THEN ANEMMHQ = 5;  
 IF MHQB = . THEN ANEMMHQ = .;

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

IF MHQB < 0 THEN ANEMMHQ = B; )

ANENMHQX VALUE	FREQ	CUM FREQ	%	CUM %
0	585	.	.	.
1	170	156	3.05	3.05
2	156	231	1.47	4.52
3	75	231	1.47	4.52
4	487	718	9.52	14.03
5	4395	5113	85.91	99.94
	3	5116	0.06	100.00

VARIABLE	ANENMHQX	AMEDIS ANEMIA
Anemia status based on MHQ responses at exit		
CODES		
0 - Missing relevant MHQ question(s) 1 - No MHQB 2 - Previously diagnosed as anemic, taking iron or transfusions now 3 - Previously diagnosed as anemic, on diet or vitamins 4 - Previously diagnosed as anemic, no treatment 5 - Not previously diagnosed as anemic 6 - Missed trigger question (DE19042)		
ANENMHQX indicates anemia status based on MHQ responses.		

#### INPUT VARIABLES

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 (MHQB) Has a doctor ever said that you had anemia or low blood?  
 MHQBX MHQB indicator at exit

#### CONSTRUCTION

```

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

(cont.)

VARIABLE ANEMMHQX (cont.)

CONSTRUCTION (cont.)

```
IF DE19042 = 2  
  THEN ANEMMHQX = 4;  
IF MHQBX = 1 AND DE19042 < 0  
  THEN ANEMMHQX = 5;  
IF MHQBX < 0  
  THEN ANEMMHQX = B;
```

ANEMSTAT	VALUE	FREQ	CUM FREQ	%	CUM %
.	.	677	.	.	.
A	A	223	13	0.26	0.26
11	11	13	16	0.06	0.32
12	12	3	18	0.36	0.68
13	13	18	34	1.63	2.31
14	14	81	115	1.85	4.16
21	21	92	207	0.76	4.93
22	22	38	245	5.55	10.48
23	23	276	521	46.97	57.45
24	24	2335	2856	0.02	57.47
26	26	1	2857	1.67	59.14
31	31	83	2940	0.66	59.81
32	32	33	2973	4.16	63.97
33	33	207	3180	30.18	94.15
34	34	1500	4680	4.93	99.08
36	36	245	4925	0.93	100.00
99	99	46	4971		

VARIABLE	ANEMSTAT	ANEMIS ANEMIA
Anemia status based on hemoglobin level and MHQ responses at enrollment		
CODES		
.	Missing	
A	Replacement PEG	
11	Low hemoglobin; taking iron pills or blood transfusions	
12	Low hemoglobin; on special diet or taking vitamin pills or shots for anemia	
13	Low hemoglobin; previously diagnosed as anemic, but no treatment within past 12 months	
14	Low hemoglobin; not previously diagnosed as anemic	
15	Low hemoglobin; did not answer DE14315 or DE19042	
16	Low hemoglobin; did not complete MHQB	
21	Hemoglobin ok; taking iron pills or blood transfusions	
22	Hemoglobin ok; on special diet or taking vitamin pills or shots for anemia	
23	Hemoglobin ok; previously diagnosed as anemic, but no treatment within past 12 months	
24	Hemoglobin ok; not previously diagnosed as anemic	
25	Hemoglobin ok; did not answer DE14315 or DE19042	
26	Hemoglobin ok; did not complete MHQB	
31	Not screened; taking iron pills or blood transfusions	
32	Not screened; on special diet or taking vitamin pills or shots for anemia	
33	Not screened; previously diagnosed as anemic, but no treatment within past 12 months	
34	Not screened; not previously diagnosed as anemic	
35	Not screened; did not answer DE14315 or DE19042	
36	Not screened; did not complete MHQB	
98	Missing sex or age data	
99	Missing hemoglobin data	
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

1	IF ANEMHGBA =	1	AND ANEMHHQ =	1	THEN ANENSTAT =	11;
1	IF ANEMHGBA =	1	AND ANEMHHQ =	2	THEN ANENSTAT =	12;
1	IF ANEMHGBA =	1	AND ANEMHHQ =	3	THEN ANENSTAT =	13;
1	IF ANEMHGBA =	1	AND ANEMHHQ =	4	THEN ANENSTAT =	14;
1	IF ANEMHGBA =	1	AND ANEMHHQ =	5	THEN ANENSTAT =	15;
1	IF ANEMHGBA =	1	AND ANEMHHQ =	1	THEN ANENSTAT =	16;
1	IF ANEMHGBA =	2	AND ANEMHHQ =	1	THEN ANENSTAT =	21;
1	IF ANEMHGBA =	2	AND ANEMHHQ =	2	THEN ANENSTAT =	22;
1	IF ANEMHGBA =	2	AND ANEMHHQ =	3	THEN ANENSTAT =	23;
1	IF ANEMHGBA =	2	AND ANEMHHQ =	4	THEN ANENSTAT =	24;
1	IF ANEMHGBA =	2	AND ANEMHHQ =	5	THEN ANENSTAT =	25;
1	IF ANEMHGBA =	2	AND ANEMHHQ =	1	THEN ANENSTAT =	26;
1	IF ANEMHGBA =	2	AND ANEMHHQ =	2	THEN ANENSTAT =	31;
1	IF ANEMHGBA =	2	AND ANEMHHQ =	3	THEN ANENSTAT =	32;
1	IF ANEMHGBA =	2	AND ANEMHHQ =	4	THEN ANENSTAT =	33;
1	IF ANEMHGBA =	2	AND ANEMHHQ =	5	THEN ANENSTAT =	34;
1	IF ANEMHGBA =	2	AND ANEMHHQ =	1	THEN ANENSTAT =	35;
1	IF ANEMHGBA =	2	AND ANEMHHQ =	2	THEN ANENSTAT =	36;
1	IF ANEMHGBA =	3	THEN ANENSTAT =	98;		
1	IF ANEMHGBA =	4	THEN ANENSTAT =	99;		

(For Replacement PEGS only)

ANEMSTAT = A;

---



VARIABLE ANEMSTAX (cont.)

CONSTRUCTION

```

IF ANHICBAX = 1 AND ANEMHQX = 1 THEN ANEMSTAX = 11;
IF ANHICBAX = 1 AND ANEMHQX = 2 THEN ANEMSTAX = 12;
IF ANHICBAX = 1 AND ANEMHQX = 3 THEN ANEMSTAX = 13;
IF ANHICBAX = 1 AND ANEMHQX = 4 THEN ANEMSTAX = 14;
IF ANHICBAX = 1 AND ANEMHQX = 5 THEN ANEMSTAX = 15;
IF ANHICBAX = 1 AND ANEMHQX < 0 THEN ANEMSTAX = 16;
IF ANHICBAX = 2 AND ANEMHQX = 1 THEN ANEMSTAX = 21;
IF ANHICBAX = 2 AND ANEMHQX = 2 THEN ANEMSTAX = 22;
IF ANHICBAX = 2 AND ANEMHQX = 3 THEN ANEMSTAX = 23;
IF ANHICBAX = 2 AND ANEMHQX = 4 THEN ANEMSTAX = 24;
IF ANHICBAX = 2 AND ANEMHQX = 5 THEN ANEMSTAX = 25;
IF ANHICBAX = 2 AND ANEMHQX < 0 THEN ANEMSTAX = 26;
IF ANHICBAX < 0 AND ANEMHQX = 1 THEN ANEMSTAX = 31;
IF ANHICBAX < 0 AND ANEMHQX = 2 THEN ANEMSTAX = 32;
IF ANHICBAX < 0 AND ANEMHQX = 3 THEN ANEMSTAX = 33;
IF ANHICBAX < 0 AND ANEMHQX = 4 THEN ANEMSTAX = 34;
IF ANHICBAX < 0 AND ANEMHQX = 5 THEN ANEMSTAX = 35;
IF ANHICBAX < 0 AND ANEMHQX < 0 THEN ANEMSTAX = 36;
IF ANHICBAX = 3 THEN ANEMSTAX = 98;
IF ANHICBAX = 4 THEN ANEMSTAX = 99;

```



ANEMHCT	2857
NUMBER OF OBSERVATIONS	3014
NUMBER OF MISSING	40.56
MEAN	40.50
MEDIAN	25.40
MINIMUM VALUE	56.10
MAXIMUM VALUE	3.72
STANDARD DEVIATION	9.16
COEFFICIENT OF VARIATION	0.04
SKEWNESS	0.06
KURTOSIS	

VARIABLE	ANEMHCT	AMEDIS
		ANEMIA
Hematocrit value at enrollment		
CODES		
; - No screening exam or hematocrit missing		
A - Replacement PEG		
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	ANEMHCTX	AKIDIS ANEMIA
Hematocrit value at exit		
CODES		
A - Missing hematocrit value		
A - No screening exam		
Range of test results - 18.1 to 82.5%		
ANEMHCTX 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

ANEMHCTX = DE17472;  
IF DE12220 >= 0  
THEN ANEMHCTX = DE12220;  
ANEMHCTX = ANEMHCTX/10;  
IF SCREENDX = . THEN ANEMHCTX = A;

ANEMHCTX

NUMBER OF OBSERVATIONS 4916  
NUMBER OF MISSING 955  
MEAN 42.81  
MEDIAN 42.90  
MINIMUM VALUE 18.10  
MAXIMUM VALUE 82.50  
STANDARD DEVIATION 3.97  
COEFFICIENT OF VARIATION 9.27  
SKEWNESS 0.08  
KURTOSIS 2.78

ANEMMCV	2857
NUMBER OF OBSERVATIONS	3014
NUMBER OF MISSING	
MEAN	87.13
MEDIAN	87.00
MINIMUM VALUE	60.00
MAXIMUM VALUE	115.00
STANDARD DEVIATION	5.07
COEFFICIENT OF VARIATION	5.81
SKEWNESS	-0.69
KURTOSIS	3.86

VARIABLE	ANEMMCV	AMEDIS
		ANEMIA

Mean cell volume at enrollment

CODES

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

Range of test results - 60 to 115 cubic microns

ANEMMCV 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

ANEMMCV = DE17474;  
IF DE12221 \= .  
THEN ANEMMCV = DE12221;  
IF DE17475 \= .  
THEN ANEMMCV = DE17475;  
  
(For Replacement PEGs only)  
ANEMMCV = A;

ANEMMCVX  
NUMBER OF OBSERVATIONS 4606  
NUMBER OF MISSING 1265  
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

VARIABLE	ANEMMCVX	AMEDIS ANEMIA
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  
SCREENDX Screening exam indicator at exit

CONSTRUCTION

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

VARIABLE	ANEMIMP	AMEDIS ANEMIA
Impact of anemia at enrollment		
CODES		
. - Missing, includes those without anemia		
B - No MHQB, Replacement PEGs only		
C - No impact		
1 - Some impact		
ANEMIMP indicates whether anemia caused worry/concern, activity restriction, or days in bed.		

#### INPUT VARIABLES

DE14325 (MHQB) During the past 3 months, how much has your anemia worried or concerned you?  
DE14326 (MHQB) During the past 3 months, how much of the has your anemia kept you from doing the kinds of things other people your age do?  
DE14327 (MHQB) 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  
MHQB MHQB 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 MHQB = . THEN ANEMIMP = B;
```

ANEMIMP VALUE	FREQ	CUM FREQ	%	CUM %
.	4976	.	.	.
B	13	732	82.99	82.99
0	732	882	17.01	100.00
1	150			

VARIABLE	ANEMIMPX	AMEDIS ANEMIA
Impact of anemia at exit		
CODES		
	- Missing, includes those without anemia	
	8 - No MHQB	
	0 - No impact	
	1 - Some impact	
	ANEMIMPX indicates whether anemia caused worry/concern, activity restriction, or days in bed.	

ANEMIMPX VALUE	FREQ	CUM FREQ	%	CUM %
8	4966	.	.	.
0	170	621	84.49	84.49
1	621	735	15.51	100.00

#### INPUT VARIABLES

```

DEI4325 (MHQB) During the past 3 months, how much has your
anemia worried or concerned you?
DEI4326 (MHQB) During the past 3 months, how much of the
has your anemia kept you from doing the kinds of
things other people your age do?
DEI4327 (MHQB) 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 DEI4325
ACTIVITY (Temporary variable) Rescaling of DEI4326
BEDDAYS (Temporary variable) Rescaling of DEI4327
MHQBX MHQB indicator at exit

```

#### CONSTRUCTION

```

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

```

```

WORRY = (4 - DEI4325);
ACTIVITY = (5 - DEI4326);
BEDDAYS = DEI4327;

```

#### (Construct ANEMIMPX)

```

ANEMIMPX = SUM(WORRY,ACTIVITY,BEDDAYS);
IF ANEMIMPX > 0 THEN ANEMIMPX = 1;
IF MHQBX = . THEN ANEMIMPX = 8;

```

ANGINA

VARIABLE	ANGITRIG	AMEDIS ANGINA
Presence or absence of chest pain, discomfort, heaviness, or pressure at enrollment		
CODES		
.	No answer to DE13758 (Dayton) or DE19018 (NonDayton)	
M	No MHQB	
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.		

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

(cont.)

ANGITRIG VALUE	FREQ	CUM FREQ	%	CUM %
.	691	.	.	.
M	13	.	.	.
1	819	819	15.85	15.85
2	4348	5167	84.15	100.00

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;

ANGTRIGX VALUE	FREQ	CUM FREQ	%	CUM %
1	591	591	.	.
M	170	761	13.88	13.88
2	709	1470	86.13	86.13
	4401	5870		100.00

VARIABLE	ANGTRIGX	AMEDIS ANGINA
----------	----------	------------------

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

CODES

. = No answer to DE19018

M = No MIQB

1 = Chest pain, discomfort, heaviness, or pressure in past 12 months

2 = No chest pain, discomfort, heaviness, or pressure in past 12 months

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

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. (cont.)



VARIABLE ANGRIGX (cont.)

INPUT VARIABLES

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

CONSTRUCTION

IF DE19018 = 1  
 THEN ANGRIGX = 1;  
 ELSE IF DE19018 = 2  
 THEN ANGRIGX = DE13758;  
 ELSE IF DE19018 = .  
 THEN ANGRIGX = .;

IF MHQB = . THEN ANGRIGX = M;

EGG1	VALUE	FREQ	CUM FREQ	%	CUM %
	R	3923	.	.	.
	0	223	1705	98.84	98.84
	1	20	1725	1.16	100.00

VARIABLE: ECC1	AMEDIS ANGINA
Intraventricular conduction abnormality noted on ECG at enrollment	
CODES	
.	No usable electrocardiogram
R	Replacement PEG
0	No intraventricular conduction abnormality noted
1	Intraventricular conduction abnormality noted
ECC1 indicates whether respondent's ECG showed evidence of intraventricular conduction abnormality.	

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 DO;

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 PEGs only }

ECG1 = R;

ECG1X VALUE	FREQ	CUM FREQ	%	CUM %
0	3148	2678	98.35	98.35
1	45	2723	1.65	100.00

VARIABLE	ECG1X	AMEDIS ANGINA
----------	-------	------------------

Intraventricular conduction abnormality noted on ECG at exit

CODES

0 = No usable electrocardiogram  
0 = No intraventricular conduction abnormality noted  
1 = Intraventricular conduction abnormality noted

ECG1X indicates whether respondent's ECG showed evidence of  
intraventricular conduction abnormality.

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  
(cont.)

VARIABLE ECG1X (cont.)

INPUT VARIABLES (cont.)

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

CONSTRUCTION

```
IF DE13034 = 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;
```

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ECG2	VALUE	FREQ	CUM FREQ	%	CUM %
R	3923	3923	.	.	.
0	223	223	1531	88.75	88.75
1	1531	1531	1725	11.25	100.00

VARIABLE	ECG2	AMEDIS ANGINA
ST segment or T wave abnormality noted on ECG at enrollment		
CODES		
.	= No usable electrocardiogram	
R	= Replacement PEG	
0	= No ST segment or T wave abnormality noted	
1	= ST segment or T wave abnormality noted	
ECG2 indicates whether respondent's ECG showed evidence of ST segment or T wave abnormality.		

INPUT VARIABLES

DE17338 (Screening exam) ECG completion code  
DE17335 (Screening exam) ECG interpretation 1  
DE17336 (Screening exam) ECG interpretation 2  
(cont.)

VARIABLE ECG2 (cont.)

INPUT VARIABLES (cont.)

DEI7337 (Screening exam) ECG interpretation 3  
DEI7338 (Screening exam) ECG interpretation 4  
DEI7339 (Screening exam) ECG interpretation 5

CONSTRUCTION

IF DEI7333 = 1  
THEN DO;

IF 4150 <= DEI7335 <= 4162 OR 4150 <= DEI7336 <= 4162 OR  
4150 <= DEI7337 <= 4162 OR 4150 <= DEI7338 <= 4162 OR  
4150 <= DEI7339 <= 4162  
THEN ECG2 = 1;  
ELSE ECG2 = 0;

END;

(For Replacement PEGs only)

ECG2 = R;

ECG2X	VALUE	FREQ	CUM FREQ	%	CUM %
0	3148	2476	2476	90.93	90.93
1	247	2723	2723	9.07	100.00

VARIABLE	ECG2X	AMEDIS ANGINA
ST segment or T wave abnormality noted on ECG at exit.		
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.		

(cont.)

# 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;
```

ECG3	VALUE	FREQ	CUM FREQ	%	CUM %
R	3923	3923	.	.	.
0	223	223	1717	99.54	99.54
1	1717	1717	1725	0.46	100.00
	8				

VARIABLE	ECG3	AMEDIS ANGINA
Ventricular enlargement noted on ECG at enrollment		
CODES		
.	No usable electrocardiogram	
R	Replacement PEG	
0	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.		

#### INPUT VARIABLES

DEI7333 (Screening exam) ECG completion code  
 DEI7335 (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 DEI7333 = 1
  THEN DO;
    IF 5100 <= DEI7335 <= 5129 OR 5100 <= DEI7336 <= 5129 OR
       5100 <= DEI7337 <= 5129 OR 5100 <= DEI7338 <= 5129 OR
       5100 <= DEI7339 <= 5129
    THEN ECG3 = 1;
    ELSE ECG3 = 0;
  END;

```

{For Replacement PEGs only}

ECG3 = R;

VARIABLE		ECG3X	AMEDIS ANGINA
Ventricular enlargement noted on ECG at exit			
CODES			
0 = No usable electrocardiogram			
1 = No right or left ventricular enlargement noted			
2 = 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;			

ECG3X	VALUE	FREQ	CUM FREQ	%	CUM %
0		3148	2690	98.79	98.79
1		33	2723	1.21	100.00

VARIABLE		ECG4	AMDIS ANGINA	
Infarction noted on ECG at enrollment				
CODES				
0 = No usable electrocardiogram				
R = Replacement PEG				
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		
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 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 PEGs only)

ECG4 = R;



ECG4X	VALUE	FREQ	CUM FREQ	%	CUM %
	0	3148	2686	98.64	98.64
	1	2686	2723	1.36	100.00

VARIABLE	ECG4X	AMEDIS ANGINA
Infarction noted on ECG at exit		
CODES		
0 = No usable electrocardiogram		
1 = Infarction noted (excluding subendocardial and atrial)		
ECG4X indicates whether respondent's ECG showed evidence of infarction (excluding subendocardial and atrial).		

#### 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 41 <= DE17335 <= 59 OR 41 <= DE17336 <= 59 OR
    41 <= DE17337 <= 59 OR 41 <= DE17338 <= 59 OR
    41 <= DE17339 <= 59
    THEN ECG4X = 1;
    ELSE ECG4X = 0;
  END;
```

VARIABLE	ECG5	AMEDIS ANGINA
Atrial fibrillation noted on ECG at enrollment		
CODES		
. = No usable electrocardiogram R = Replacement PEG 0 = No atrial fibrillation noted 1 = Atrial fibrillation noted		
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;		

ECG5 VALUE	FREQ	CUM FREQ	%	CUM %
R	3923	.	.	.
0	223	1724	99.94	99.94
1	1724	1725	0.06	100.00

ECG5X	VALUE	FREQ	CUM FREQ	%	CUM %
	0	3148	2716	99.74	99.74
	1	2715	2723	0.26	100.00

VARIABLE	ECG5X	AMEDIS ANGINA
Atrial fibrillation noted on ECG at exit		
CODES		
0 = No usable electrocardiogram		
1 = Atrial fibrillation noted		
ECG5X indicates whether respondent's ECG showed evidence of atrial fibrillation.		

#### INPUT VARIABLES

DEI3034 (Screening exam) ECG completion code  
 DEI7335 (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 ECG5X = 1;
    ELSE ECG5X = 0;
  END;

```

ECG6	VALUE	FREQ	CUM FREQ	%	CUM %
	R	3923	.	.	.
	0	223	1720	99.71	99.71
	1	1720	1725	0.29	100.00
		5			

VARIABLE	ECG6	AMEDIS ANGINA
Ventricular dysrhythmia noted on ECG at enrollment		
CODES		
.	No usable electrocardiogram	
R	Replacement PEG	
0	No Ventricular dysrhythmia noted (including ventricular premature systole)	
1	Ventricular dysrhythmia noted (including ventricular premature systole)	
ECG6 indicates whether respondent's ECG showed evidence of ventricular dysrhythmia.		

#### INPUT VARIABLES

DEI7333 (Screening exam) ECG completion code  
 DEI7335 (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 DEI7333 = 1
  THEN DO;
    IF 1400 <= DEI7335 <= 1450 OR 1400 <= DEI7336 <= 1450 OR
       1400 <= DEI7337 <= 1450 OR 1400 <= DEI7338 <= 1450 OR
       1400 <= DEI7339 <= 1450
    THEN ECG6 = 1;
    ELSE ECG6 = 0;
  
```

END;

(For Replacement PEGs only)

ECG6 = R;



ECG7	VALUF	FREQ	CUM FREQ	%	CUM %
	R	3923	.	.	.
	0	223	1725	100.00	100.00
		1725			

VARIABLE	ECG7	AMEDIS ANGINA
Artificial pacemaker noted on ECG at enrollment		
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

```
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			
0 = No usable electrocardiogram			
1 = No artificial pacemaker noted			
2 = Artificial pacemaker noted			
ECG7X indicates whether respondent's ECG showed evidence of an artificial pacemaker.			
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 = 1 OR DE17336 = 1 OR DE17337 = 1 OR			
DE17338 = 1 OR DE17339 = 1			
THEN ECG7X = 1;			
ELSE ECG7X = 0;			
END;			
ECG7X			
VALUE			
0		3148	
1		2722	
		1	
		FREQ	
		2722	
		2723	
		CUM FREQ	
		2722	
		2723	
		CUM %	
		99.96	
		0.04	
		100.00	

VARIABLE	ECGSUM	AMEDIS ANGINA
Number of abnormalities noted on ECG at enrollment		
CODES		
.	No usable electrocardiogram	
R	Replacement PEG	
0	No abnormality noted	
1	One abnormality noted	
2	Two abnormalities noted	
ECGSUM indicates the number of abnormalities noted on respondent's ECG.		

NOTE: No respondent had more than two abnormalities noted.

#### INPUT VARIABLES

ECG1 Intraventricular conduction abnormality noted on ECG  
 ECG2 ST segment or T wave abnormality noted on ECG  
 ECG3 Ventricular enlargement noted on ECG  
 ECG4 Infarction noted on ECG  
 ECG5 Atrial fibrillation noted on ECG  
 ECG6 Ventricular dysrhythmia noted on ECG  
 ECG7 Artificial pacemaker noted on ECG

#### CONSTRUCTION

ECGSUM = SUM(ECG1, ECG2, ECG3, ECG4, ECG5, ECG6, ECG7);

(For Replacement PEGs only)

ECGSUM - R;

ECGSUM	VALUE	FREQ	CUM FREQ	%	CUM %
.	R	3923	.	.	.
0	0	223	1486	86.15	86.15
1	1	1986	1703	12.58	98.73
2	2	217	1725	1.28	100.00
		22			





VARIABLE	MINNECG	AMEDIS ANGINA
	Presence or absence of ECG abnormality by Minnesota criteria at enrollment	
COD-S		
	. = No usable electrocardiogram	
	R = Replacement PEG	
	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.	

MINNECG	VALUE	FREQ	CUM FREQ	%	CUM %
.		3923	.	.	.
R		223	.	.	.
0		1506	1506	87.30	87.30
1		219	1725	12.70	100.00

# INPUT VARIABLES

DEI7333 (Screening exam) ECG completion code  
DEI7335 (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 DEI7333 = 1
  THEN DO;
    IF 5310 <= DEI7335 <= 5374 OR 5310 <= DEI7336 <= 5374 OR
       5310 <= DEI7337 <= 5374 OR 5310 <= DEI7338 <= 5374 OR
       5310 <= DEI7339 <= 5374 OR
       4150 <= DEI7335 <= 4152 OR 4150 <= DEI7336 <= 4152 OR
       4150 <= DEI7337 <= 4152 OR 4150 <= DEI7338 <= 4152 OR
       4150 <= DEI7339 <= 4152 OR
       4160 <= DEI7335 <= 4162 OR 4160 <= DEI7336 <= 4162 OR
       4160 <= DEI7337 <= 4162 OR 4160 <= DEI7338 <= 4162 OR
       4160 <= DEI7339 <= 4162 OR
    (cont..)
  
```

VARIABLE MINNECG (cont.)

CONSTRUCTION (cont.)

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;

VARIABLE	MINNECGX	AMEDIS ANGINA
Presence or absence of ECG abnormality by Minnesota criteria at exit		
CODES		
. = No usable electrocardiogram		
0 = No ECG abnormality by Minnesota criteria		
1 = At least one ECG abnormality by Minnesota criteria		
MINNECGX 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.)

MINNECGX VALUE	FREQ	CUM FREQ	%	CUM %
0	3148	2437	89.50	89.50
1	286	2723	10.50	100.00

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 = 95 OR
DE17335 = 117 OR DE17336 = 88 OR DE17336 = 91 OR
DE17336 = 95 OR DE17336 = 117 OR DE17337 = 88 OR
DE17337 = 91 OR DE17337 = 95 OR DE17337 = 117 OR
DE17338 = 88 OR DE17338 = 91 OR DE17338 = 95 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;
```

VARIABLE	ANGIROSE	AMEDIS ANGINA
Probability of angina pectoris by Rose scoring method at enrollment		
CODES		
1 = Missing		
2 = No angina pectoris		
3 = Probable angina pectoris		
4 = Angina pectoris with mild impairment		
4 = Angina pectoris with moderate impairment		
ANGIROSE indicates the probability of angina pectoris according to the Rose scoring method and estimates the degree of resulting impairment.		
INPUT VARIABLES		
DE13758	(Dayton - MHQB) Have you had pain, discomfort, heaviness, or pressure in your chest in the past 12 months?	
	(NonDayton - MHQB) Have you had any discomfort, heaviness, or pressure in your chest during the past 12 months?	
DE13759	(MHQB) Do you get this feeling in your chest when you walk uphill or hurry?	
DE13760	(MHQB) Do you get this feeling in your chest when you walk at an ordinary pace on level ground?	
DE13761	(MHQB) What do you usually do when you get this feeling in your chest while walking?	
DE13762	(MHQB) If you stand still, what happens to this feeling in your chest?	
DE13763	(MHQB) If you get this feeling in your chest while walking, do you usually place a nitroglycerine pill (small white pill) under your tongue?	
DE13764	(MHQB) Do you get pain in the upper or middle chest?	
DE13765	(MHQB) Do you get pain in the lower chest?	
DE13766	(MHQB) Do you get pain in left chest?	
DE13767	(MHQB) Do you get pain in the left arm?	
DE19020	(MHQB) When you get this feeling in your chest while walking, do you usually place a Nitro-glycerine, Cardilate or Isordil pill under your tongue? If so, is your pain relieved within 10 minutes?	
	(cont.)	

ANGIROSE VALUE	FREQ	CUM FREQ	%	CUM %
1	704	4976	96.30	96.30
2	4976	5080	2.01	98.32
3	104	5144	1.24	99.56
4	23	5167	0.45	100.00

```

VARIABLE ANGIROSE. (cont.)

INPUT VARIABLES (cont.)

DE19021 (MHQ8) 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 (MHQ8) Where do you usually get this pain?
ANGITRIG presence or absence of chest pain, discomfort,
heaviness, or pressure
PILL (NonDayton - 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
LOC (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
ASE Respondent's age at enrollment

CONSTRUCTION
(Construct ANGIROSE)
(Dayton)
IF ANGITRIG > 0
THEN DO;
    IF DE13758 = 2
    THEN ANGIROSE = 1;
    ELSE IF DE13759 = 2
    THEN ANGIROSE = 1;
    ELSE IF (DE13759 = 9 OR DE13759 = .) 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 = 8 OR DE13762 = 9 OR
    DE13762 < 0
    THEN DO;
        IF DE13763 = 3
        THEN ANGIROSE = 2;
        ELSE IF LOC = 1
        THEN ANGIROSE = 2;
        ELSE ANGIROSE = 1;
    END;

    ELSE IF LOC = 2 OR LOC = 3
    THEN ANGIROSE = 2;
    ELSE IF DE13760 = 1
    THEN ANGIROSE = 4;
    ELSE ANGIROSE = 3;

END;

(NonDayton)
IF ANGITRIC > 0
THEN DO;
    IF DE13758 = 2
    THEN ANGIROSE = 1;
    ELSE IF DE13759 = 2 OR DE13759 = .
    THEN ANGIROSE = 1;
    ELSE IF DE13761 = 3 OR DE13761 < 0
    THEN ANGIROSE = 1;
    ELSE IF 2 <= DE13762 <= 4 OR DE13762 < 0
    THEN DO;
        IF PILL = 2 OR PILL < 0
        THEN IF DE19022 \= 3
        THEN ANGIROSE = 1;
        ELSE ANGIROSE = 2;
    END;
    ELSE IF DE19022 \= 3
    THEN ANGIROSE = 2;
    ELSE IF DE13760 = 1
    THEN ANGIROSE = 4;
    ELSE ANGIROSE = 3;

END;
```

ANGROSEX	VALUE	FREQ	CUM FREQ	%	CUM %
1	1	761	4947	96.81	96.81
2	2	96	5043	1.88	98.69
3	3	55	5098	1.08	99.77
4	4	12	5110	0.24	100.00

VARIABLE	ANGROSEX	AMEDIS ANGINA
Probability of angina pectoris by Rose scoring method at exit		
CODES		
- Missing		
1 = No angina pectoris		
2 = Probable angina pectoris		
3 = Angina pectoris with mild impairment		
4 = Angina pectoris with moderate impairment		
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

D=13758 (MHQB) Have you had any discomfort, heaviness, or pressure in your chest during the past 12 months?

D=13759 (MHQB) Do you get this feeling in your chest when you walk uphill or hurry?

D=13760 (MHQB) Do you get this feeling in your chest when you walk at an ordinary pace on level ground?

D=13761 (MHQB) What do you usually do when you get this feeling in your chest while walking?

D=13762 (MHQB) If you stand still, what happens to this feeling in your chest?

D=19022 (MHQB) Where do you usually get this pain?

ANGTRICX 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 ANGRIGX > 0
  THEN DO;
    IF DE13758 = 2
      THEN ANGROSEX = 1;
    ELSE IF DE13759 = 2 OR DE13759 = .
      THEN ANGROSEX = 1;
    ELSE IF DE13761 = 3 OR DE13761 < 0
      THEN ANGROSEX = 1;
    ELSE IF {DE13762 = 2 OR DE13762 = 3 OR
      DE13762 = 4 OR DE13762 < 0}
      THEN IF PILX = 2 OR PILX < 0
        THEN IF DE19022 \= 3
          THEN ANGROSEX = 1;
        ELSE ANGROSEX = 2;
    ELSE IF DE19022 \= 3
      THEN ANGROSEX = 2;
    ELSE IF DE13760 = 1
      THEN ANGROSEX = 4;
    ELSE ANGROSEX = 3;
  END;
```

ANGI STAT VALUE	FREQ	CUM FREQ	%	CUM %
1	704	5110	98.90	98.90
2	44	5154	0.85	99.75
3	6	5160	0.12	99.87
4	7	5167	0.14	100.00

VARIABLE	ANGI STAT	AMEDIS ANGINA
Probability of angina pectoris by Rose scoring method and previous medical diagnosis at enrollment		
CODES		
. = Missing response (values . or M for ANGRIG)		
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		
ANGI STAT links results of Rose scoring method and previous medical diagnosis to indicate probability of angina pectoris.		

(cont.)

VARIABLE ANGISTAT (cont.)

INPUT VARIABLES

DEI3771 (MIQ8) Has a doctor ever said you have angina?  
ANGIROSE Probability of angina pectoris by Rose scoring  
method at enrollment  
ANGITRIG Presence or absence of chest pain, discomfort,  
heaviness, or pressure  
AGE Age of participant at enrollment

CONSTRUCTION

```
IF ANGITRIG = 1 OR ANGISTAT = 2
  THEN DO;
    IF ANGIROSE > 2 AND AGE >= 35 AND DEI3771 = 1
      THEN ANGISTAT = 4;
    ELSE IF ANGIROSE = 2 OR
      (ANGIROSE > 2 AND AGE < 35) AND
      DEI3771 = 1
      THEN ANGISTAT = 3;
    ELSE IF (ANGIROSE > 2 AND AGE >= 35) AND
      DEI3771 \= 1
      THEN ANGISTAT = 2;
    ELSE ANGISTAT = 1;
  END;
```

VARIABLE	ANG1STAX	AMEDIS ANGINA
Probability of angina pectoris by Rose scoring method and previous medical diagnosis at exit		
CODES		
1 = Missing response (values . or M for ANGTRIGX)		
2 = Angina not present		
3 = Angina present by Rose scoring method only		
4 = Angina present by physician diagnosis only		
5 = Angina present by both Rose scoring method and physician diagnosis		
ANG1STAX links results of Rose scoring method and previous medical diagnosis to indicate probability of angina pectoris.		
INPUT VARIABLES		
DE13771 {MHQ8} 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		
IF ANGTRIGX = 1 OR ANGTRIGX = 2		
THEN DO;		
IF ANGROSEX > 2 AND AGEX >= 35 AND DE13771 = 1		
THEN ANG1STAX = 4;		
ELSE IF ANGROSEX = 2 OR		
(ANGROSEX > 2 AND AGEX < 35) AND		
DE13771 = 1		
THEN ANG1STAX = 3;		
ELSE IF (ANGROSEX > 2 AND AGEX >= 35) AND		
DE13771 = 1		
THEN ANG1STAX = 2;		
ELSE ANG1STAX = 1;		
END;		

ANG1STAX VALUE	FREQ	CUM FREQ	%	CUM %
1	761	5055	98.92	98.92
2	5055	5084	0.57	99.49
3	29	5098	0.27	99.77
4	14	5110	0.24	100.00
	12			

ANGIBIN					
VALUE	FREQ	CUM FREQ	%	CUM %	
0	704	5110	98.90	98.90	
1	57	5167	1.10	100.00	

VARIABLE	ANGIBIN	AMEDIS ANGINA
Presence of angina pectoris at enrollment		
CODES		
.	Missing response (values . or M for ANGI TRIG)	
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	ANGIBINX	AMEDIS ANGINA
Presence of angina pectoris at exit		
CODES		
. = Missing response (values . or M for ANGRIGX)		
0 = No angina pectoris		
1 = Angina pectoris		
ANGIBINX 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 ANGIBINX = 0;
IF ANGISTAX > 1 THEN ANGIBINX = 1;

```

VARIABLE	ANGIIMP	AMEDIS ANGINA
Impact of angina at enrollment		
CODES		
. = Missing, includes those with no angina		
0 = No impact		
1 = Some impact		
ANGIIMP indicates whether angina (chest pain or heart trouble) caused any pain, worry, activity restrictions, days in bed.		

(cont.)

ANGIBINX VALUE	FREQ	CUM FREQ	%	CUM %
0	761	5055	98.92	98.92
1	55	5110	1.08	100.00

ANGIIMP VALUE	FREQ	CUM FREQ	%	CUM %
0	5067	148	18.41	18.41
1	148	804	81.59	100.00

VARIABLE ANGLIMP (cont.)

INPUT VARIABLES

DE13773 (Dayton - MHQA; NonDayton - MHQB) During the past  
3 months, how much pain has your chest pain or  
heart trouble caused you?  
DE13774 (Dayton - MHQA; NonDayton - MHQB) During the past  
3 months, how much has your chest pain or heart  
trouble worried or concerned you?  
DE13775 (Dayton - MIQA; NonDayton - MHQB) 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 - MIQA; NonDayton - MHQB) 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

I= DE13773 = 1, OR DE13774 = 4 OR DE13775 = 5 OR DE13776 = 0  
THEN ANGLIMP = 0;  
I= 1 <= DE13773 <= 3 OR 1 <= DE13774 <= 3 OR  
1 <= DE13775 <= 4 OR DE13776 > 0  
THEN ANGLIMP = 1;

VARIABLE	ANGIMPX	AMEDIS 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, days in bed.		

#### INPUT VARIABLES

DE13773 (MHQB) 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 (MHQB) 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 (MHQB) 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

```

IF DE13773 = 4 OR DE13774 = 4 OR DE13775 = 5 OR DE13776 = 0
  THEN ANGIMPX = 0;
IF 1 <= DE13773 <= 3 OR 1 <= DE13774 <= 3 OR
  1 <= DE13775 <= 4 OR DE13776 > 0
  THEN ANGIMPX = 1;

```

ANGIMPX VALUE	FREQ	CUM FREQ	%	CUM %
0	5177	82	11.82	11.82
1	612	694	88.18	100.00

CHRONIC OBSTRUCTIVE AIRWAY DISEASE  
(COAD)

VARIABLE BESTFEV1 AMEDIS  
COAD

Highest of three FEV1's at enrollment

CODES

1 - 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.

INPUT VARIABLES

DE17360 (Screening exam) FEV1 test - first try  
DE17364 (Screening exam) FEV1 test - second try  
DE17368 (Screening exam) FEV1 test - third try  
DE17379 (Screening exam) Spirometry completion code

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

(cont.)

BESTFEV1

NUMBER OF OBSERVATIONS 2884  
NUMBER OF MISSING 2987  
MEAN 343.84  
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



VARIABLE BSTFEV1 (cont.)

CONSTRUCTION

IF DE17379 \= 1 THEN BSTFEV1 = R;  
ELSE BSTFEV1 = MAX(DE17360, DE17364, DE17368);

VARIABLE	BSTFEV1X	AMEDIS COAD
Highest of three FEV1's at exit		
CODES		
. - Missing		
C - Not screened		
Range of values - 45 to 666 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. BSTFEV1X is the highest of the three FEV1's.		

INPUT VARIABLES

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

CONSTRUCTION

BSTFEV1X = MAX(DE17360, DE17364, DE17368);

IF SCREENDX = . THEN BSTFEV1X = C;

BSTFEV1X

NUMBER OF OBSERVATIONS 4695  
NUMBER OF MISSING 1176  
MEAN 317.57  
MEDIAN 309.00  
MINIMUM VALUE 45.00  
MAXIMUM VALUE 666.00  
STANDARD DEVIATION 94.25  
COEFFICIENT OF VARIATION 29.68  
SKEWNESS 0.34  
KURTOSIS -0.10

BESTFVC	2884
NUMBER OF OBSERVATIONS	2987
NUMBER OF MISSING	436.42
MEAN	422.00
MEDIAN	86.00
MINIMUM VALUE	981.00
MAXIMUM VALUE	127.73
STANDARD DEVIATION	29.27
COEFFICIENT OF VARIATION	0.52
SKEWNESS	0.26
KURTOSIS	

VARIABLE	BESTFVC	AMEDIS COAD
Highest of three FVC's at enrollment		
CODES		
- Missing		
R - Did not complete screening exam and/or spirometry exam		
Range of values - 86 to 981 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

```

DEI7359 (Screening exam) FVC test - first try
DEI7363 (Screening exam) FVC test - second try
DEI7367 (Screening exam) FVC test - third try
DEI7379 (Screening exam) Spirometry completion code
      1 - No screening exam
      2 - Yes
      3 - No or not applicable
      4 - Refused
      5 - Patient unable to comprehend
      6 - Administrative problem
      7 - Equipment failure
      8 - Uncooperative enrollee
      9 - Enrollee unable to comply
      9 - Additional data required

```

# CONSTRUCTION

```

IF DEI7379 \= 1 THEN BESTFVC = R;
ELSE BESTFVC = MAX(DEI7359,DEI7363,DEI7367);

```

BESTFVCX	
NUMBER OF OBSERVATIONS	4694
NUMBER OF MISSING	1177
MEAN	386.63
MEDIAN	371.00
MINIMUM VALUE	92.00
MAXIMUM VALUE	931.00
STANDARD DEVIATION	119.61
COEFFICIENT OF VARIATION	30.94
SKEWNESS	0.47
KURTOSIS	-0.06

VARIABLE	BESTFVCX	AMEDIS COAD
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

```

DEI7359 (Screening exam) FVC test - first try
DEI7363 (Screening exam) FVC test - second try
DEI7367 (Screening exam) FVC test - third try
SCREENDX Screening exam indicator at exit
  
```

CONSTRUCTION

```

BESTFVCX = MAX(DEI7359,DEI7363,DEI7367);
IF SCREENDX = . THEN BESTFVCX = C;
  
```

BSTPRFEV	2884
NUMBER OF OBSERVATIONS	2987
NUMBER OF MISSING	82.52
MEAN	82.00
MEDIAN	33.00
MINIMUM VALUE	99.00
MAXIMUM VALUE	8.92
STANDARD DEVIATION	10.81
COEFFICIENT OF VARIATION	-0.50
SKEWNESS	1.22
KURTOSIS	

VARIABLE	BSTPRFEV	AMEDIS COAD
Highest of three PFEV's at enrollment		
CODES		
R - Did not complete screening exam and/or spirometry exam		
Range of values - 33 to 99 percent		
PFEV 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 expect about 80% of the FVC in the first second. Three PFEV's were computed. BSTPRFEV is the maximum of these PFEV's.		

#### INPUT VARIABLES

DEI7361	(Screening exam) FEV1/FVC in % - first try
DEI7365	(Screening exam) FEV1/FVC in % - second try
DEI7369	(Screening exam) FEV1/FVC in % - third try
DEI7379	(Screening exam) Spirometry completion code
1	- No screening exam
2	- Yes
3	- No or not applicable
4	- Refused
5	- Patient unable to comprehend
6	- Administrative problem
7	- Equipment failure
8	- Uncooperative enrollee
9	- Enrollee unable to comply
9	- Additional data required

#### CONSTRUCTION

```
IF DEI7379 \= 1 THEN BSIPRFEV = R;
ELSE BSTPRFEV = MAX(DEI7361,DEI7365,DEI7369);
```

BSTPRFVX  
 NUMBER OF OBSERVATIONS 4691  
 NUMBER OF MISSING 1180  
 MEAN 87.98  
 MEDIAN 89.00  
 MINIMUM VALUE 23.00  
 MAXIMUM VALUE 100.00  
 STANDARD DEVIATION 8.38  
 COEFFICIENT OF VARIATION 9.52  
 SKEWNESS -1.58  
 KURTOSIS 5.13

VARIABLE	BSTPRFVX	AMEDIS COAD
Highest of three PFEV's at exit		
CODES		
- Missing		
C - Not screened		
Range of values - 22.5 to 100 percent		
PFEV 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 expect about 80% of the FVC in the first second. Three PFEV's were computed. BSTPRFVX is the maximum of these PFEV'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  
           3 - 3 year enrollment  
           5 - 5 year enrollment  
 SITE Participant's place of residence at enrollment  
 SCREENDX Screening exam indicator at exit

#### CONSTRUCTION

```

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

VARIABLE	CIGSTAT	AMEDIS COAD
Cigarette smoking status at enrollment		
CODES		
1 - Missing		
2 - Never smoked cigarettes		
3 - Ex-cigarette smoker		
4 - Current cigarette smoker		
CIGSTAT indicates the smoking status of each enrollee at enrollment.		

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

#### INPUT VARIABLES

DE13807 (MHQA) Have you ever smoked cigarettes fairly regularly?  
DE13810 (MHQA) 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 = 1 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;
```

CIGSTAT VALUE	FREQ	CUM FREQ	%	CUM %
1	734	2365	46.04	46.04
2	2365	3215	16.55	62.59
3	850	5137	37.42	100.00
	1922			

CIGSTAX	VALUE	FREQ	CUM FREQ	%	CUM %
.	A	621	.	.	.
1	1	166	2476	48.70	48.70
2	2	2476	3415	18.47	67.17
3	3	939	5084	32.83	100.00
		1669			

VARIABLE	CIGSTAX	AMEDIS COAD
Cigarette smoking status at exit		
CODES		
.	- Missing	
A	- No MHQA	
1	- Never smoked cigarettes	
2	- Ex-cigarette smoker	
3	- Current cigarette smoker	
CIGSTAX indicates the current smoking status of each enrollee.		

#### INPUT VARIABLES

DE13807 (MHQA) Have you ever smoked cigarettes fairly  
regularly?  
DE13810 (MHQA) Do you smoke cigarettes now?  
MHQAX MHQA indicator at exit

#### CONSTRUCTION

IF DE13807 = 2 AND DE13810 = 2 THEN CIGSTAX = 1;  
IF DE13807 = 1 AND DE13810 = 2 THEN CIGSTAX = 2;  
IF DE13810 = 1 THEN CIGSTAX = 3;  
IF MHQAX = . THEN CIGSTAX = A;

VARIABLE	PACKYR	AMEDIS COAD
Number of packyears for current cigarette smokers at enrollment		
CODES		
-3 - Missing		
-3 - Never smoked cigarettes		
-2 - Ex-cigarette smoker		
Range - 0.5 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?		
DE18823 (NonDayton - MHQA) During how many years have you smoked cigarettes regularly?		
CIGPKDAY (Temporary variable) Number of packs of cigarettes smoked a day		
YRSMOKED (Temporary variable) Number of years smoked regularly		
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;		

(cont.)

PACKYR	VALUE	FREQ	CUM FREQ	%	CUM %
-3	745	2365	2365	46.14	46.14
-2	850	3215	3215	16.58	62.72
0.5	146	3361	3361	2.85	65.57
1	26	3387	3387	0.51	66.08
1.75	186	3573	3573	3.63	69.70
2	1	3574	3574	0.02	69.72
3.5	141	3715	3715	2.75	72.47
4	136	3851	3851	2.65	75.13
6.5	61	3912	3912	1.19	76.32
7	40	3952	3952	0.78	77.10
8	179	4131	4131	3.49	80.59
8.75	2	4133	4133	0.04	80.63
9	47	4180	4180	0.92	81.55
11.5	35	4215	4215	0.68	82.23
13	153	4368	4368	2.99	85.21
14	25	4393	4393	0.49	85.70
16	71	4464	4464	1.39	87.09
16.5	18	4482	4482	0.35	87.44
18	130	4612	4612	2.54	89.97
19	13	4625	4625	0.25	90.23
20	6	4631	4631	0.12	90.34
21.5	6	4637	4637	0.12	90.46
23	63	4700	4700	1.23	91.69
26	70	4770	4770	1.37	93.06
28	62	4832	4832	1.21	94.27
32.5	3	4835	4835	0.06	94.32
33	37	4872	4872	0.72	95.05
35	68	4940	4940	1.33	96.37
38	30	4970	4970	0.59	96.96
43	10	4980	4980	0.20	97.15
45	7	4987	4987	0.14	97.29
46	42	5029	5029	0.82	98.11
56	36	5065	5065	0.70	98.81
57.5	8	5073	5073	0.16	98.97
66	21	5094	5094	0.41	99.38
70	2	5096	5096	0.04	99.42
76	17	5113	5113	0.33	99.75
82.5	4	5117	5117	0.08	99.82
86	6	5123	5123	0.12	99.94
95	2	5125	5125	0.04	99.98
107.5	1	5126	5126	0.02	100.00



```
VARIABLE PACKYR (cont.)
CONSTRUCTION (cont.)
(Construct YRSMOKED)
(Dayton)
    YRSMOKED = DE13808;
    IF 0 <= DE13808 < 2 THEN YRSMOKED = 1;
    IF 2 <= DE13808 <= 5 THEN YRSMOKED = 3.5;
    IF 6 <= DE13808 <= 10 THEN YRSMOKED = 8;

    IF 11 <= DE13808 <= 15 THEN YRSMOKED = 13;
    IF 16 <= DE13808 <= 20 THEN YRSMOKED = 18;
    IF 21 <= DE13808 <= 25 THEN YRSMOKED = 23;
    IF 26 <= DE13808 <= 30 THEN YRSMOKED = 28;
    IF 31 <= DE13808 <= 35 THEN YRSMOKED = 33;
    IF 36 <= DE13808 <= 40 THEN YRSMOKED = 38;
    IF 40 < DE13808 THEN YRSMOKED = 43;

(NonDayton)
    YRSMOKED = DE18823;
    IF DE18823 = 2 THEN YRSMOKED = 3.5;
    IF DE18823 = 3 THEN YRSMOKED = 8;
    IF DE18823 = 4 THEN YRSMOKED = 13;

    IF DE18823 = 5 THEN YRSMOKED = 18;
    IF DE18823 = 6 THEN YRSMOKED = 23;
    IF DE18823 = 7 THEN YRSMOKED = 28;
    IF DE18823 = 8 THEN YRSMOKED = 33;
    IF DE18823 = 9 THEN YRSMOKED = 38;
    IF DE18823 = 0 THEN YRSMOKED = 43;

(Construct PACKYR )
    PACKYR = CIGPKDAY * YRSMOKED;

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

(cont.)
```

VARIABLE PACKYR (cont.)

CONSTRUCTION (cont.)

{ NonDayton }

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

VARIABLE	PACKYR	AMEDIS COAD
Number of packyears for current cigarette smokers at exit		
CODES		
. - Missing		
A - No MHQA		
-3 - Never smoked cigarettes		
-2 - Ex-cigarette smoker		
Range - 0.5 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?  
DE13810 (MHQA) Do you smoke cigarettes now?  
DE13812 (MHQA) On the average, about how many packs of cigarettes a day do you currently smoke?  
DE18823 During how many years have you smoked cigarettes regularly?  
CIGPKDAY (Temporary variable) Number of packs of cigarettes smoked a day  
YRSMOKED (Temporary variable) Number of years smoked regularly  
MHQAX MHQA indicator at exit

(cont.)

PACKYR VALUE	FREQ	CUM FREQ	%	CUM %
. A	630	.	.	.
-3	166	2476	48.79	48.79
-2	2476	3415	18.50	67.29
0.5	939	3535	2.37	69.66
1	120	3566	0.61	70.27
1.75	31	3730	3.23	73.50
2	164	3736	0.12	73.62
3.5	6	3819	1.64	75.25
4	83	3919	1.97	77.22
6.5	100	3987	1.34	78.56
7	68	3998	0.22	78.78
8	11	4134	2.68	81.46
9	136	4194	1.18	82.64
11.5	60	4224	0.59	83.23
13	30	4357	2.62	85.85
14	133	4380	0.45	86.31
16	23	4426	0.91	87.21
16.5	46	4444	0.36	87.57
18	18	4546	2.01	89.58
19	18	4564	0.36	89.93
20	3	4567	0.06	89.99
21.5	9	4576	0.18	90.17
23	77	4653	1.52	91.69
26	66	4719	1.30	92.99
28	42	4761	0.83	93.81
32.5	8	4769	0.16	93.97
33	36	4805	0.71	94.68
36	36	4861	1.10	95.78
38	34	4895	0.67	96.45
43	21	4916	0.41	96.87
45	9	4925	0.18	97.04
46	48	4973	0.95	97.99
56	22	4995	0.43	98.42
57.5	9	5004	0.18	98.60
66	24	5028	0.47	99.07

(cont.)

VARIABLE	PACKYRX (cont.)	VALUE	FREQ	CUM FREQ	%	CUM %
CONSTRUCTION						
{Construct CIGPKDAY}						
	CIGPKDAY = DE13812;					
	IF DE13812 = 1 THEN CIGPKDAY = .50;	70	4	5032	0.08	99.15
	IF DE13812 = 2 THEN CIGPKDAY = 1;	76	18	5050	0.36	99.51
	IF DE13812 = 3 THEN CIGPKDAY = 2;	82.5	4	5054	0.08	99.59
	IF DE13812 = 4 THEN CIGPKDAY = 2.5;	86	16	5070	0.32	99.90
		95	3	5073	0.06	99.96
		107.5	2	5075	0.04	100.00
{Construct YRSMOKED}						
	YRSMOKED = DE18823;					
	IF DE18823 = 2 THEN YRSMOKED = 3.5;					
	IF DE18823 = 3 THEN YRSMOKED = 8;					
	IF DE18823 = 4 THEN YRSMOKED = 13;					
	IF DE18823 = 5 THEN YRSMOKED = 18;					
	IF DE18823 = 6 THEN YRSMOKED = 23;					
	IF DE18823 = 7 THEN YRSMOKED = 28;					
	IF DE18823 = 8 THEN YRSMOKED = 33;					
	IF DE18823 = 9 THEN YRSMOKED = 38;					
	IF DE18823 = 0 THEN YRSMOKED = 43;					
{Construct PACKYRX}						
	PACKYRX = CIGPKDAY * YRSMOKED;					
	IF DE13807 = 2 AND DE13810 = 2 THEN PACKYRX = -3;					
	IF DE13807 = 1 AND DE13810 = 2 THEN PACKYRX = -2;					
	IF DE13807 = . AND DE13810 = 2 THEN PACKYRX = .;					
	IF DE13810 < 0 THEN PACKYRX = DE13810;					
	IF MHQAX = . THEN PACKYRX = A;					

VARIABLE	PHLEGM	AMEDIS COAD
Bronchitis status variable at enrollment		
CODES		
.	Missing DE13777	
X	Missing DE19027 or DE13787	
0	Phlegm not present	
1	Phlegm present on most days for at least 3 out of the last 12 months	
2	Doctor diagnosed bronchitis or emphysema, phlegm was not present and therapy was either prescribed and/or taken	
3	No diagnosis was made for bronchitis or emphysema, phlegm was not present, but therapy was either prescribed or taken	
PHLEGM 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 MHQA for Dayton for the actual questions.		
INPUT VARIABLES		
DE13777	(Dayton - MHQA; NonDayton - MHQB) Has a doctor ever told you that you had (chronic) bronchitis or emphysema?	
DE13779	(Dayton - MHQA; NonDayton - MIQB) During the past 12 months, have you brought up any phlegm (thick spit) from your chest first thing in the morning?	
DE13780	(Dayton - MHQA; NonDayton - MIQB) During the past 12 months, have you brought up any phlegm (thick spit) from your chest first thing in the morning?	
DE13787	(Dayton - MHQA) Do you bring up phlegm on most days for at least 3 months of the year?	
DE13791	(Dayton - MHQA; NonDayton - MHQB) In the past 12 months, has a doctor prescribed any breathing exercises or postural drainage for your chronic bronchitis, emphysema, or phlegm?	
	(cont.)	

PHLEGM	VALUE	FREQ	CUM FREQ	%	CUM %
.	Q	677	.	.	.
X	X	14	.	.	.
0	0	19	.	.	.
1	1	4656	4656	90.22	90.22
2	2	475	5131	9.20	99.42
3	3	17	5148	0.33	99.75
		13	5161	0.25	100.00

VARIABLE PHLEGM (cont.)

INPUT VARIABLES (cont.)

DE13792 (Dayton - MHQA; NonDayton - 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 (Dayton - MHQA; NonDayton - 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 (Dayton - MHQA; NonDayton - 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?

DE19027 (NonDayton - MHQB) 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 PHLEGM = 0;  
 IF DE19027 = 1 OR DE13787 = 1 THEN PHLEGM = 1;  
 IF DE13777 = 1 AND (DE13797 = 1 OR DE13798 = 1 OR DE13791 = 1 OR DE13792 = 1) AND PHLEGM = 0 THEN PHLEGM = 2;  
 IF (DE13797 = 1 OR DE13798 = 1 OR DE13791 = 1 OR DE13792 = 1) AND DE13777 = 2 AND PHLEGM = 0 THEN PHLEGM = 3;  
 IF DE13777 < 0 THEN PHLEGM = 0;  
 IF (DE13777 > 0 AND DE19027 = .) OR (DE13777 > 0 AND DE13787 = .) THEN PHLEGM = X;

VARIABLE	PHLEGMX	AMEDIS COAD
Bronchitis status variable at exit		
CODES		
- Missing DE19027		
P - Missing DE13777		
Q - Phlegm not present		
1 - Phlegm present on most days for at least 3 out of the last 12 months		
2 - Doctor diagnosed bronchitis or emphysema, phlegm was not present and therapy was either prescribed and/or taken		
3 - No diagnosis was made for bronchitis or emphysema, phlegm was not present, but therapy was either prescribed or taken		
PHLEGMX summarizes the MHQ 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.		
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?	(cont.)

PHLEGMX VALUE	FREQ	CUM FREQ	%	CUM %
P	585	.	.	.
Q	18	.	.	.
0	177	.	.	.
1	4626	4626	90.87	90.87
2	431	5057	8.47	99.33
3	15	5072	0.30	99.63
	19	5091	0.37	100.00

VARIABLE PHLEGMX (cont.)

INPUT VARIABLES (cont.)

DE19027 (MHQB) 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 <= DE13777 <= 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 = Q;
IF DE13777 > 0 AND DE19027 = . THEN PHLEGMX = P;
```

VARIABLE	PERPRED	AMEDIS COAD
Percent of predicted FEV1 at enrollment		
CODES		
0 - Missing		
1 - Outliers		
R - 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

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

(cont.)

PERPRED

NUMBER OF OBSERVATIONS 2880  
NUMBER OF MISSING 2991  
MEAN 100.76  
MEDIAN 101.00  
MINIMUM VALUE 18.00  
MAXIMUM VALUE 197.00  
STANDARD DEVIATION 21.10  
COEFFICIENT OF VARIATION 20.94  
SKEWNESS 0.02  
KURTOSIS 1.08

```

VARIABLE PERPED (cont.)

INPUT VARIABLES (cont.)

BESTFEV1  Highest of three FEV1's
SCRAGE    (Temporary variable): Age from screening exam
SCRSEX    (Temporary variable): Sex from screening exam
          1 - Male
          2 - Female
SCRHGT     (Temporary variable): Height in inches from
          screening exam
PREDFEV1   (Temporary variable): Predicted FEV1 based on
          age, sex, and height

CONSTRUCTION
(Construct PREDFEV1)

IF SCRSEX = 1
  THEN DO;
    IF 0 <= SCRAGE < 25
      THEN PREDFEV1 = 100 *
        (-4.808+(SCRAGE*.045) +
          (SCRHGT*.046));
    IF SCRAGE >= 25
      THEN PREDFEV1 = 100 *
        (-4.203+((SCRAGE*(-.027)) +
          (SCRHGT*.052)));
    END;
  IF SCRSEX = 2
    THEN DO;
      IF 0 <= SCRAGE < 20
        THEN PREDFEV1 = 100 *
          (-2.703+(SCRAGE*.085) +
            (SCRHGT*.027));
      IF SCRAGE >= 20
        THEN PREDFEV1 = 100 *
          (-.794+((SCRAGE*(-.021)) +
            (SCRHGT*.027)));
      END;
    END;
  (cont.)

```



```
VARIABLE PERPRED (cont.)
CONSTRUCTION (cont.)
(Construct PERPRED)
```

```
PERPRED = (BESTFEV1/PREDFEV1) * 100;
IF PERPRED >= 200 THEN PERPRED = 0;
IF 0 <= PERPRED < 10 THEN PERPRED = 0;
IF DE17379 \= 1 THEN PERPRED = R;
```

```
VARIABLE PERPREDX AMED1S
COAD

Percent of predicted FEV1 at exit
CODES
. - Missing
0 - 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

```
BSTFEV1X Highest of three FEV1's
SCRAGE (Temporary variable): Age from screening exam
SCRSEX (Temporary variable): Sex from screening exam
1 - Male
2 - Female
(cont.)
```

```
PERPREDX
NUMBER OF OBSERVATIONS 4683
NUMBER OF MISSING 1188
MEAN 95.76
MEDIAN 97.00
MINIMUM VALUE 18.00
MAXIMUM VALUE 165.00
STANDARD DEVIATION 18.68
COEFFICIENT OF VARIATION 19.50
SKEWNESS -0.30
KURTOSIS 0.59
```

```

VARIABLE PERPREDX (cont.)
INPUT VARIABLES (cont.)
    SCRHT (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 SCRSEX = 1
    THEN DO;
        IF 0 <= SCRAGE < 25
        THEN PREDFEV1 = 100 *
            {-4.808+(SCRAGE*.045) +
            (SCRHT*.046)};
        IF SCRAGE >= 25
        THEN PREDFEV1 = 100 *
            {-4.203+((SCRAGE*(-.027)) +
            (SCRHT*.052))};
        END;
    IF SCRSEX = 2
    THEN DO;
        IF 0 <= SCRAGE < 20
        THEN PREDFEV1 = 100 *
            {-2.703 + (SCRAGE*.085) +
            (SCRHT*.027)};
        IF SCRAGE >= 20
        THEN PREDFEV1 = 100 *
            {-1.794+((SCRAGE*(-.021)) +
            (SCRHT*.027))};
        END;
    (Construct PERPREDX)
    PERPREDX = (BSTELEV1X/PREDFEV1) * 100;
    IF SCREENDX = . THEN PERPREDX = C;

```

VARIABLE	OBSTRUCT	AMEDIS COAD
Normal lung function obstructed at enrollment		
CODES		
. - Missing		
K - Missing PERPRED		
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 (PERPRED) and the BSTPRFEV to indicate whether each respondent has obstructed or unobstructed lung function.		
INPUT VARIABLES		
DEI7379 (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		
BSTPRFEV Highest of three PRFEV's		
PERPRED Highest actual FEV1 over predicted FEV1		
CONSTRUCTION		
IF ( 0 <= PERPRED < 75 AND 0 < BSTPRFEV < 80 )		
THEN OBSTRUCT = 1;		
IF PERPRED < 0 AND BSTPRFEV > 0 THEN OBSTRUCT = K;		
IF DEI7379 \= 1 THEN OBSTRUCT = R;		

OBSTRUCT	VALUE	FREQ	CUM FREQ	%	CUM %
.	K	677	.	.	.
.	R	4	.	.	.
.	0	2310	2735	94.97	94.97
.	1	145	2880	5.04	100.00

OBSTRUCX	VALUE	FREQ	CUM FREQ	%	CUM %
.	C	585	.	.	.
.	E	210	.	.	.
.	O	12	.	.	.
.	R	4	.	.	.
.	O	381	4504	96.26	96.26
.	1	175	4679	3.74	100.00

VARIABLE	OBSTRUCX	AMC DIS COAD
Normal lung function obstructed at exit		
CODES		
.	- Missing	
C	- Not screened	
E	- Missing PERPREDX	
O	- Missing BSTPRFVX	
R	- Missing both PERPREDX and BSTPRFVX	
O	- Not obstructed	
1	- Obstructed	
OBSTRUCX combines the results of the percent actual FEV1 divided by predicted FEV1 (PERPREDX) and the BSTPRFVX to indicate whether each respondent has obstructed or unobstructed lung function.		

#### INPUT VARIABLES

BSTPRFVX Highest of three PRFEV's  
 PERPREDX Highest actual FEV1 over predicted FEV1  
 SCREFNDX Screening exam indicator at exit

#### CONSTRUCTION

```

IF {0 <= PERPREDX < 75 AND 0 < BSTPRFVX < 80 }
  THEN OBSTRUCX = 1;
IF PERPREDX < 0 AND BSTPRFVX > 0 THEN OBSTRUCX = E;
IF BSTPRFVX < 0 AND PERPREDX > 0 THEN OBSTRUCX = O;
IF BSTPRFVX < 0 AND PERPREDX < 0 THEN OBSTRUCX = R;
IF SCREENEDX = . THEN OBSTRUCX = C;
  
```

VARIABLE	AIRWAY	AMEDIS COAD
Overall	COAD diagnosis at enrollment	
CODES		
.	Missing	PACKYR
C	Missing	OBSTRUCT
O	Missing	PHLEGM
P	Missing	PHLEGM
R	Did not complete	screening exam and/or spirometry exam
S	Did not complete	screening exam and/or spirometry exam
X	Missing	SOBSCALE
X	Missing	XPYR
0	No disease	
1	Probable obstructive pulmonary disease	
2	Chronic obstructive airway	
3	Chronic bronchitis	
AIRWAY combines the results of several derived variables from 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		
DEI3807	(MHQA) Have you ever smoked cigarettes fairly regularly?	
DEI3808	(Dayton - MHQA) During how many years have you smoked regularly?	
DEI3809	(Dayton - MHQA) During those years that you smoked regularly, on the average, how many packs a day did you smoke?	
DEI3810	(MHQA) Do you smoke cigarettes now?	
DEI7379	(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.)

AIRWAY VALUE	FREQ	CUM FREQ	%	CUM %
.	677	.	.	.
C	6	.	.	.
O	4	.	.	.
P	10	.	.	.
R	2310	.	.	.
S	38	.	.	.
X	28	.	.	.
0	2418	2418	86.42	86.42
1	95	2513	3.40	89.81
2	41	2554	1.47	91.28
3	244	2798	8.72	100.00

```

VARIABLE AIRWAY (cont.)

INPUT VARIABLES (cont.)

DE18825 (NonDayton - MHQA) During how many years did you
        smoke cigarettes regularly?
DE18826 (NonDayton - MHQA) 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
PHLEGM  Bronchitis status variable
SOBSCALE 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-cigarette smokers
XYRSMOKD (Temporary variable): Number of years smoked for
        ex-cigarette 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.)

```

```

VARIABLE AIRWAY (cont.)
CONSTRUCTION (cont.)
(construct XYRSMOKD)
    XYRSMOKD = .;
(Dayton)
    XYRSMOKD = DE13808;
    IF 0 <= DE13808 < 2 THEN XYRSMOKD = 1;
    IF 2 <= DE13808 <= 5 THEN XYRSMOKD = 3.5;
    IF 6 <= DE13808 <= 10 THEN XYRSMOKD = 8;
    IF 11 <= DE13808 <= 15 THEN XYRSMOKD = 13;
    IF 16 <= DE13808 <= 20 THEN XYRSMOKD = 18;
    IF 21 <= DE13808 <= 25 THEN XYRSMOKD = 23;
    IF 26 <= DE13808 <= 30 THEN XYRSMOKD = 28;
    IF 31 <= DE13808 <= 35 THEN XYRSMOKD = 33;
    IF 36 <= DE13808 <= 40 THEN XYRSMOKD = 38;
    IF 40 < DE13808 THEN XYRSMOKD = 43;
(NonDayton)
    XYRSMOKD = DE18825;
    IF DE18825 = 2 THEN XYRSMOKD = 3.5;
    IF DE18825 = 3 THEN XYRSMOKD = 8;
    IF DE18825 = 4 THEN XYRSMOKD = 13;
    IF DE18825 = 5 THEN XYRSMOKD = 18;
    IF DE18825 = 6 THEN XYRSMOKD = 23;
    IF DE18825 = 7 THEN XYRSMOKD = 28;
    IF DE18825 = 8 THEN XYRSMOKD = 33;
    IF DE18825 = 9 THEN XYRSMOKD = 38;
    IF DE18825 = 0 THEN XYRSMOKD = 43;
(Construct XPKYR)
    IF DE13810 = 2 AND DE13807 = 1
    THEN XPKYR = EXCIGDAY * XYRSMOKD;
(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 XPKYR = -4;
  IF DE13807 = 2 AND DE13810 = 2 THEN XPKYR = -3;

(Construct AIRWAY)
  IF 0 < PHLEGM < 3 THEN AIRWAY = 3;
  IF OBSTRUCT = 1 THEN AIRWAY = 1;
  IF 0 < PHLEGM < 3 AND OBSTRUCT = 1 THEN AIRWAY = 2;
  IF OBSTRUCT = 1 AND SOBSCALE >= 1 AND
    { PCKYR >= 15 OR XPKYR >= 15 } AND
    0 <= CHF_IND <= 3
    THEN AIRWAY = 2;
  IF { SOBSCALE = M OR SOBSCALE = 0 OR
      SOBSCALE = 1 OR SOBSCALE = . }
    THEN AIRWAY = 5;
  IF PCKYR < -3 THEN AIRWAY = C;
  IF XPKYR < -3 THEN AIRWAY = X;
  IF PHLEGM < 0 AND OBSTRUCT >= 0 THEN AIRWAY = P;
  IF PHLEGM >= 0 AND OBSTRUCT < 0 THEN AIRWAY = 0;
  IF PHLEGM < 0 AND OBSTRUCT < 0 THEN AIRWAY = B;
  IF DE173/9 \= 1 THEN AIRWAY = R;
```



AIRWAYX	VALUE	FREQ	CUM FREQ	%	CUM %
.	C	585	.	.	.
.	I	210	.	.	.
.	U	57	.	.	.
.	V	9	.	.	.
.	W	36	.	.	.
.	Y	42	.	.	.
.	Z	388	.	.	.
.	0	9	.	.	.
.	1	4015	4015	88.53	88.53
.	2	109	4124	2.40	90.94
.	3	58	4182	1.28	92.22
.		353	4535	7.78	100.00

VARIABLE	AIRWAYX	AMEDIS COAD
Overall Coad diagnosis at exit		
CODES		
.	Missing	
C	Not screened	
I	Missing SOBSCALX	
U	Missing PACKYRX	
V	Missing XPKYR	
W	Missing PHLEGMX	
Y	Missing OBSTRUCX	
Z	Missing PHLEGMX and OBSTRUCX	
0	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

PACKYRX Number of packyears of current cigarette smokers  
OBSTRUCX Normal lung function obstructed  
PHLEGMX Bronchitis status variable  
SOBSCALX Shortness of breath scale - For construction see CHF tracer 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-cigarette smokers  
XYRSMORD (Temporary variable): Number of years smoked for ex-cigarette smokers  
CHF\_IND Congestive heart failure disease status - For construction see CHF tracer documentation  
SCREENDX Screening exam indicator at exit

(cont.)

VARIABLE AIRWAYX (cont.)

CONSTRUCTION

(Construct AIRWAYX)

```

IF SCREENDX = . THEN AIRWAYX = C;
IF 0 < PHLEGMX < 3 THEN AIRWAYX = 3;
IF OBSTRUCK = 1 THEN AIRWAYX = 1;
IF 0 < PHLEGMX < 3 AND OBSTRUCK = 1 THEN AIRWAYX = 2;
IF OBSTRUCK = 1 AND SOBSCALX >= 1 AND
  (PACKYRX GE 15 OR XPKYR GE 15) AND 0 <= CHF_IND <= 3
  THEN AIRWAYX = 2;
IF (SOBSCALX = 14 OR SOBSCALX = 0 OR
  SOBSCALX = 1 OR SOBSCALX = .)
  THEN AIRWAYX = 1;
IF PACKYRX < -3 THEN AIRWAYX = U;
IF XPKYR < -3 THEN AIRWAYX = V;
IF PHLEGMX < 0 AND OBSTRUCK >= 0 THEN AIRWAYX = W;
IF PHLEGMX >= 0 AND OBSTRUCK < 0 THEN AIRWAYX = Y;
IF PHLEGMX < 0 AND OBSTRUCK < 0 THEN AIRWAYX = Z;

```

VARIABLE	COADBIN	AMEDIS COAD
Binary Coad status at enrollment		
CODES		
. - Missing R - Did not complete screening exam and/or spirometry exam 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		
COADBIN is a recode of AIRWAY.		

(cont.)

COADBIN	VALUE	FREQ	CUM FREQ	%	CUM %
R		763	.	.	.
1		2310	285	10.19	10.19
2		2513	2798	89.81	100.00

VARIABLE COADBIN (cont.)

INPUT VARIABLES

AIRWAY Overall disease diagnosis  
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

CONSTRUCTION

COADBIN = 2;  
IF 1 < AIRWAY THEN COADBIN = 1;  
IF AIRWAY < 0 THEN COADBIN = .;  
IF DE17379 \= 1 THEN COADBIN = R;

COADBINX	FREQ	CUM FREQ	%	CUM %
.	1126	.	.	.
0	210	.	.	.
1	411	411	9.06	9.06
2	4124	4535	90.94	100.00

VARIABLE	COADBINX	AMEDIS COAD
Binary COAD status at exit		
CODES		
.	Missing	
0	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 COADBINX (cont.)

INPUT VARIABLES

AIRWAYX Overall disease diagnosis  
SCREENDX Screening exam indicator at exit

CONSTRUCTION

COADBINX = 2;  
IF 1 < AIRWAYX THEN COADBINX = 1;  
IF AIRWAYX < 0 THEN COADBINX = .;  
IF SCREENDX = . THEN COADBINX = C;

COADIMP					
VALUE	FREQ	CUM FREQ	%	CUM %	
0	4686	714	60.25	60.25	
1	471	1185	39.75	100.00	

VARIABLE	COADIMP	AMEDIS
		COAD

Impact of chronic obstructive airway disease at enrollment

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 - MHQA; NonDayton - MHQB) During the past 3 months, how much pain has your bronchitis, phlegm, or emphysema caused you?  
DE13803 (Dayton - MHQA; NonDayton - MHQB) During the past 3 months, how much has your bronchitis, phlegm, or emphysema worried or concerned you?  
DE13804 (Dayton - MHQA; NonDayton - MHQB) 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 COADIMP (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 = 0;
ELSE COADIMP = 0;
```

VARIABLE	COADIMPX	AMEDIS COAD
Impact of chronic obstructive airway disease at exit		
CODES		
. - Missing, includes those without bronchitis, phlegm, or emphysema		
0 - No impact		
1 - Some impact		
COADIMPX indicates whether bronchitis, phlegm, or emphysema caused any pain, worry/concern, activity restrictions, or days in bed.		

INPUT VARIABLES

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

DE13803 (MHQB) During the past 3 months, how much has your bronchitis, phlegm, or emphysema worried or concerned you?

(cont.)

COADIMPX VALUF	FREQ	CUM FREQ	%	CUM %
0	4859	586	57.91	57.91
1	585	1012	42.10	100.00
	426			

VARIABLE COADIMPX (cont.)

INPUT VARIABLES (cont.)

DE13804 (MQB) 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 (MQB) 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 TRACER CONDITION |  
(CHF)

VARIABLE	CHF_SOB	AMEDIS CHF
Indicator of shortness of breath or a diagnosis of heart failure at enrollment		
CODES		
0 - Missing		
1 - 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 received a diagnosis of heart failure from a physician		
2 - Respondent has not experienced shortness of breath and has not received a diagnosis of heart failure from a physician		
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 MIQ. 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 - MHQA) 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 - MHQA; NonDayton - 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?
- 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? (cont.)

CHF_SOB VALUE	FREQ	CUM FREQ	%	CUM %
0	700	.	.	.
1	74	829	16.26	16.26
2	829	5097	83.74	100.00
	4268			

```

VARIABLE CHF_SOB (cont..)
INPUT VARIABLES (cont..)

DEI3747 (Dayton - MIQA; 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?

DEI3748 (Dayton - MHQA; NonDayton - MHQB) In the past 3
months, have you been bothered by shortness of
breath when you bathed or dressed yourself?

DEI3749 (Dayton - MIQA) Has a doctor ever said that you had
a weak heart or heart failure?

DEI3750 (Dayton - MHQA; NonDayton - MHQB) Thinking of the
past 3 months, did your ankles ever swell during
the day enough to make your shoes feel tight?

DEI3752 (Dayton - MHQA; NonDayton - MHQB) In the last 3
months, did you sleep on more than one pillow
because of a problem with shortness of breath?

DEI3753 (Dayton - MHQA) Do you currently take diuretic (or
fluid) pills which have been prescribed by a doctor?

DEI3754 (Dayton - MHQA) During the past 3 months, how much
pain has your shortness of breath or heart failure
caused you?

DEI3755 (Dayton - MIQA) During the past 3 months, how much
has your shortness of breath or heart failure
worried or concerned you?

DEI3756 (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?

DEI3757 (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?

DEI9003 (NonDayton - MHQB) During the past 12 months, have
you ever felt short of breath?

DEI9004 (NonDayton - MHQB) Has a doctor ever told you that
you had an enlarged heart or heart failure?

DEI9005 (NonDayton - MHQB) Has a doctor ever told you that
you had an enlarged heart or heart failure?

DEI9007 (NonDayton - MHQB) When was the last time you saw a
doctor about your shortness of breath, enlarged
heart or heart failure?

DEI9008 (NonDayton - MHQB) Has a doctor ever prescribed
diuretic (fluid or water) pills for your condition?

DEI9009 (NonDayton - MHQB) During the past 3 months, how
much pain has your shortness of breath, enlarged
heart or heart failure caused you?

DEI9010 (NonDayton - MHQB) 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.)
    DE19011 (NonDayton - MIQ8) 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?
    DE19012 (NonDayton - MIQ8) 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 DE13745 = . THEN MISS_IND = MISS_IND + 1;
        IF DE13746 = . THEN MISS_IND = MISS_IND + 1;
        IF DE13747 = . THEN MISS_IND = MISS_IND + 1;
        IF DE13748 = . THEN MISS_IND = MISS_IND + 1;
        IF DE13749 = . 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 DE13745 = . THEN MISS_IND = MISS_IND + 1;
        IF DE13746 = . THEN MISS_IND = MISS_IND + 1;
        IF DE13747 = . THEN MISS_IND = MISS_IND + 1;
        IF DE13748 = . THEN MISS_IND = MISS_IND + 1;
        IF DE13750 = . THEN MISS_IND = MISS_IND + 1;
        IF DE13752 = . THEN MISS_IND = MISS_IND + 1;
        IF DE19007 = . THEN MISS_IND = MISS_IND + 1;
        IF DE19008 = . THEN MISS_IND = MISS_IND + 1;
    (cont.)

```

```

VARIABLE CHF_SOB (cent..)
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 CHt_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 CHIF_SORX (cont.)

INPUT VARIABLES (cont.)

DEI9003 (MHQB) During the past 12 months, have you ever felt
short of breath?
DEI9004 (MIQB) Has a doctor ever told you that you had an
enlarged heart or heart failure?
DEI9005 (MHQB) Has a doctor ever told you that you had an
enlarged heart or heart failure?
DEI9007 (MHQB) When was the last time you saw a doctor about
your shortness of breath, enlarged heart or heart
failure?
DEI9008 (MHQB) Has a doctor ever prescribed diuretic (fluid
or water) pills for your condition?
DEI9009 (MHQB) During the past 3 months, how much pain has
your shortness of breath, enlarged heart or heart
failure caused you?
DEI9010 (MHQB) During the past 3 months, how much has your
shortness of breath or heart failure worried or
concerned you?
DEI9011 (MHQB) 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?
DEI9012 (MHQB) 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)
MISS_IND = 0;
IF DEI3744 = . THEN MISS_IND = MISS_IND + 1;
IF DEI3745 = . THEN MISS_IND = MISS_IND + 1;
IF DEI3746 = . THEN MISS_IND = MISS_IND + 1;
IF DEI3747 = . THEN MISS_IND = MISS_IND + 1;
IF DEI3748 = . THEN MISS_IND = MISS_IND + 1;
IF DEI3750 = . THEN MISS_IND = MISS_IND + 1;
IF DEI3752 = . THEN MISS_IND = MISS_IND + 1;
IF DEI9007 = . THEN MISS_IND = MISS_IND + 1;
IF DEI9008 = . THEN MISS_IND = MISS_IND + 1;
IF DEI9009 = . THEN MISS_IND = MISS_IND + 1;
IF DEI9010 = . THEN MISS_IND = MISS_IND + 1;
IF DEI9011 = . THEN MISS_IND = MISS_IND + 1;
IF DEI9012 = . THEN MISS_IND = MISS_IND + 1;
      (cont.)

```

```
VARIABLE CHF_SOBX (cont.)  
  
CONSTRUCTION (cont.)  
{Construct CHF_SOBX}  
  
    IF DE19003 = 1 THEN CHF_SOBX = 1;  
    ELSE IF DE19003 = 2 AND DE19005 = .  
        THEN CHF_SOBX = DE19004;  
    ELSE CHF_SOBX = MIN(DE19004, DE19005);  
{Assign missing values}  
    IF CHF_SOBX = 1 AND MISS_IND >= 9 THEN CHF_SOBX = 0;
```

VARIABLE	CHF_PATTN	AMEDIS CHF	CHF_PATTN VALUE	FREQ	CUM FREQ	%	CUM %
Shortness of breath pattern at enrollment							
CODES							
1	- Missing CHF_SOB and MHQB present		1	677	.	.	.
M	- MHQB missing (NonDayton only)		M	10	.	.	.
0	- The participant missed answering 9 or more questions in the shortness of breath or enlarged heart battery		0	13	.	.	.
S	- Shortness of breath not present, battery skipped		S	74	.	.	.
1	- No shortness of breath		1	4268	203	24.49	24.49
2	- Shortness of breath when bathing and dressing		2	203	209	0.72	25.21
3	- Shortness of breath when walking on level ground at own pace		3	6	212	0.36	25.57
4	- Shortness of breath when walking on level ground at own pace, and when bathing and dressing		4	3	213	0.12	25.69
5	- Shortness of breath when walking on level ground with peers		5	1	218	0.60	26.30
6	- Shortness of breath when walking on level ground with peers, and at own pace		6	5	221	0.36	26.66
7	- Shortness of breath when walking on level ground with peers, and when bathing and dressing		7	3	637	50.18	76.84
8	- Shortness of breath when walking on level ground with peers, or at own pace, and when bathing and dressing		8	416	647	1.21	78.05
9	- Shortness of breath when walking on level ground with peers, and when bathing and dressing		9	10	666	2.29	80.34
10	- Shortness of breath when walking on level ground with peers, and when bathing and dressing		10	19	673	0.84	81.18
11	- Shortness of breath when walking on level ground with peers, and when bathing and dressing		11	65	738	7.84	89.02
12	- Shortness of breath when walking on level ground with peers, and when bathing and dressing		12	10	748	1.21	90.23
13	- Shortness of breath when walking on level ground with peers, and when bathing and dressing		13	42	790	5.07	95.30
14	- Shortness of breath when walking on level ground with peers, and when bathing and dressing		14	39	829	4.70	100.00
15	- Shortness of breath when walking on level ground with peers, and at own pace		15				
16	- Shortness of breath when walking on level ground with peers, and at own pace, and when bathing and dressing.		16				

(cont.)

VARIABLE CHFPAATTN (cont.)

CHFPAATTN 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

DEI3745 (Dayton - MHQA; NonDayton - MHQB) In the past 3 months, have you been troubled by shortness of breath when you hurried or walked uphill?

DEI3746 (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?

DEI3747 (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?

DEI3748 (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

NDEI3745 (Temporary variable): Indicator variable based on DEI3745

NDEI3746 (Temporary variable): Indicator variable based on DEI3746

NDEI3747 (Temporary variable): Indicator variable based on DEI3747

NDEI3748 (Temporary variable): Indicator variable based on DEI3748

(cont.)

```

VARIABLE CHFPATTN (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 = . OR DE13746 = . OR DE13747 = . OR DE13748 = .)
  THEN DO;
    IF DE13745 = . THEN DE13745 = 0;
    IF DE13746 = . THEN DE13746 = 0;
    IF DE13747 = . THEN DE13747 = 0;
    IF DE13748 = . 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 DE13746 = 9);
    ELSE NDE13747 = 0;
    NDE13748 = 1 IF (DE13748 = 1);
    ELSE NDE13748 = 0;
  END;

{Construct CHFPATTN}
  IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 0 AND NDE13748 = 0
  THEN CHFPATTN = 1;
  ELSE IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 0 AND
    NDE13748 = 1
  THEN CHFPATTN = 2;
  ELSE IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 1 AND
    NDE13748 = 0
  THEN CHFPATTN = 3;
  ELSE IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 1 AND
    NDE13748 = 1
  THEN CHFPATTN = 4;
  (cont.)

```



```
VARIABLE CHFPATTN (cont.)
CONSTRUCTION (cont.)
ELSE IF NDE13745 = 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 NDE13745 = 0 AND NDE13746 = 1 AND NDE13747 = 1 AND
NDE13748 = 0
THEN CHFPATTN = 7;
ELSE IF NDE13745 = 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 NDE13745 = 1 AND NDE13746 = 1 AND NDE13747 = 0 AND
NDE13748 = 0
THEN CHFPATTN = 13;
ELSE IF NDE13745 = 1 AND NDE13746 = 1 AND NDE13747 = 0 AND
NDE13748 = 1
THEN CHFPATTN = 14;
ELSE IF NDE13745 = 1 AND NDE13746 = 1 AND NDE13747 = 1 AND
NDE13748 = 0
THEN CHFPATTN = 15;
                                         (cont.)
```

```
VARIABLE CHFPA1TN (cont.)  
CONSTRUCTION (cont.)  
ELSE IF NDE13745 = 1 AND NDF13746 = 1 AND NDE13747 = 1 AND  
NDF13748 = 1  
THEN CHFPA1TN = 16;  
  
(Assign missing values)  
IF CHF_SOB = . AND  
((SITE = 1 AND MHQA = 1) OR (SITE \= 1 AND MHQB = 1))  
THEN CHFPA1TN=1;  
IF SITE \= 1 AND MHQB = . THEN CHFPA1TN = M;  
IF CHF_SOB = 1 AND MISS_IND >= 9 THEN CHFPA1TN = 0;  
IF CHF_SOB < 2 THEN CHFPA1TN = S;
```

VARIABLE	CHF PATNX	AMEDIS CHF	CHF PATNX VALUE	FREQ	CUM FREQ	%	CUM %
Shortness of breath pattern at exit							
CODES							
1	- Missing CHF_SOBX and MHQB present		1	585			
2	- MHQB missing		2	21			
3	- The participant missed answering 9 or more questions in the shortness of breath or enlarged heart battery		3	170			
4	- Shortness of breath not present, battery skipped		4	45			
5	- Shortness of breath		5	4224			
6	- No shortness of breath		6	212	212	25.67	25.67
7	- Shortness of breath when bathing and dressing		7	2	214	0.24	25.91
8	- Shortness of breath when walking on level ground at own pace		8	2	216	0.24	26.15
9	- Shortness of breath when walking on level ground at own pace, and when bathing and dressing		9	3	219	0.36	26.51
10	- Shortness of breath when walking on level ground with peers		10	1	220	0.12	26.63
11	- Shortness of breath when walking on level ground with peers, and at own pace		11	417	637	50.48	77.12
12	- Shortness of breath when walking on level ground with peers, or at own pace, and when bathing and dressing		12	15	652	1.82	78.94
13	- Shortness of breath when walking on level ground with peers, or at own pace, and when bathing and dressing		13	6	658	0.73	79.66
14	- Shortness of breath when walking on level ground with peers, or at own pace, and when bathing and dressing		14	5	663	0.61	80.27
15	- Shortness of breath when walking on level ground with peers, or at own pace, and when bathing and dressing		15	71	734	8.60	88.86
16	- Shortness of breath when walking on level ground with peers, or at own pace, and when bathing and dressing		16	16	750	1.94	90.80
17	- Shortness of breath when walking on level ground with peers, or at own pace, and when bathing and dressing		17	34	784	4.12	94.92
18	- Shortness of breath when walking on level ground with peers, or at own pace, and when bathing and dressing		18	42	826	5.09	100.00

(cont.)

VARIABLE CHFPA1NX (cont.)

CHFPA1NX 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 (MHQB) In the past 3 months, have you been troubled by shortness of breath when you hurried or walked uphill?  
 DE13746 (MHQB) In the past 3 months, have you been short of breath when you walked with persons your own age on level ground?  
 DE13747 (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 (MHQB) In the past 3 months, have you been bothered by shortness of breath when you bathed or dressed yourself?  
 CHF\_SOBX Indicator of shortness of breath or a diagnosis of heart failure at exit  
 MHQBX MHQB 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\_SOBX above)  
 (cont.)

```

VARIABLE CHFPA1NX (cont.)
CONSTRUCTION (cont.)
(Construct NDE13745, NDE13746, NDE13747, NDE13748)
    IF CHF_SOBX = 1 AND MISS_IND < 9 AND
    {DE13745 = . OR DE13746 = . OR DE13747 = . OR DE13748 = .}
    THEN DO;
        IF DE13745 = . THEN DE13745 = 0;
        IF DE13746 = . THEN DE13746 = 0;
        IF DE13747 = . THEN DE13747 = 0;
        IF DE13748 = . THEN DE13748 = 0;
    END;
    IF {CHF_SOBX = 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 CHFPA1NX)
    IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 0 AND
    NDE13748 = 0
    THEN CHFPA1NX = 1;
    ELSE IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 0 AND
    NDE13748 = 1
    THEN CHFPA1NX = 2;
    ELSE IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 1 AND
    NDE13748 = 0
    THEN CHFPA1NX = 3;
    ELSE IF NDE13745 = 0 AND NDE13746 = 0 AND NDE13747 = 1 AND
    NDE13748 = 1
    THEN CHFPA1NX = 4;
    (cont.)

```

```
VARIABLE CHFPA1NX (cont.)
CONSTRUCTION (cont.)

ELSE IF NDE13745 = 0 AND NDE13746 = 1 AND NDE13747 = 0 AND
NDE13748 = 0
THEN CHFPA1NX = 5;

ELSE IF NDE13745 = 0 AND NDE13746 = 1 AND NDE13747 = 0 AND
NDE13748 = 1
THEN CHFPA1NX = 6;

ELSE IF NDE13745 = 0 AND NDE13746 = 1 AND NDE13747 = 1 AND
NDE13748 = 0
THEN CHFPA1NX = 7;

ELSE IF NDE13745 = 0 AND NDE13746 = 1 AND NDE13747 = 1 AND
NDE13748 = 1
THEN CHFPA1NX = 8;

ELSE IF NDE13745 = 1 AND NDE13746 = 0 AND NDE13747 = 0 AND
NDE13748 = 0
THEN CHFPA1NX = 9;

ELSE IF NDE13745 = 1 AND NDE13746 = 0 AND NDE13747 = 0 AND
NDE13748 = 1
THEN CHFPA1NX = 10;

ELSE IF NDE13745 = 1 AND NDE13746 = 0 AND NDE13747 = 1 AND
NDE13748 = 0
THEN CHFPA1NX = 11;

ELSE IF NDE13745 = 1 AND NDE13746 = 0 AND NDE13747 = 1 AND
NDE13748 = 1
THEN CHFPA1NX = 12;

ELSE IF NDE13745 = 1 AND NDE13746 = 1 AND NDE13747 = 0 AND
NDE13748 = 0
THEN CHFPA1NX = 13;

ELSE IF NDE13745 = 1 AND NDE13746 = 1 AND NDE13747 = 0 AND
NDE13748 = 1
THEN CHFPA1NX = 14;

ELSE IF NDE13745 = 1 AND NDE13746 = 1 AND NDE13747 = 1 AND
NDE13748 = 0
THEN CHFPA1NX = 15;

ELSE IF NDE13745 = 1 AND NDE13746 = 1 AND NDE13747 = 1 AND
NDE13748 = 1
THEN CHFPA1NX = 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;
```

SOBSCALE		VALUE	FREQ	CUM FREQ	%	CUM %
VARIABLE	SOBSCALE					
CHF	1	1	677	.	.	.
	M	M	10	.	.	.
	0	0	13	.	.	.
	S	S	74	.	.	.
			4268	.	.	.
	0	0	212	212	25.57	25.57
	1	1	431	643	51.99	77.56
	2	2	98	741	11.82	89.39
	3	3	49	790	5.91	95.30
	4	4	39	829	4.70	100.00

VARIABLE SOBSCALE

AMEDIS  
CHF

Shortness of breath scale at enrollment

CODES

```
1 - Missing
M - Missed CHF_SOB and MHQB present
0 - MHQB missing (NonDayton only)
0 - The participant missed answering 9 or more questions in
  the shortness of breath or enlarged heart battery
S - 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)
```

SUBSCALE 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 SOBSCALE (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_SOR above.)
(Construct SOBSCALE)
    IF CHF_PATTN = 1 OR CHF_PATTN = 2 OR CHF_PATTN = 3
    THEN SOBSCALE = 0;
    ELSE IF CHF_PATTN = 5 OR CHF_PATTN = 9 OR CHF_PATTN = 10
    THEN SOBSCALE = 1;
    ELSE IF CHF_PATTN = 4 OR CHF_PATTN = 6 OR CHF_PATTN = 7 OR
    CHF_PATTN = 11 OR CHF_PATTN = 13 OR CHF_PATTN = 14
    THEN SOBSCALE = 2;
    ELSE IF CHF_PATTN = 8 OR CHF_PATTN = 12 OR CHF_PATTN = 15
    THEN SOBSCALE = 3;
    ELSE IF CHF_PATTN = 16 THEN SOBSCALE = 4;

(Assign missing values)
    IF CHF_SOB = . AND
    ((SITE = 1 AND MHQA = 1) OR
    (SITE \= 1 AND MHQB = 1)
    THEN SOBSCALE = 1;
    IF SITE \= 1 AND MHQB = . THEN SOBSCALE = M;
    IF CHF_SOB = 1 AND MISS_IND >= 9 THEN SOBSCALE = 0;
    IF CHF_SOB = 2 THEN SOBSCALE = 5;

```





VARIABLE SOBSCALX (cont.)

CONSTRUCTION (cont.)

```

ELSE IF CHF_PATNX = 4 OR CHF_PATNX = 6 OR CHF_PATNX = 7 OR
CHF_PATNX = 11 OR CHF_PATNX = 13 OR CHF_PATNX = 14
THEN SOBSCALX = 2;

ELSE IF CHF_PATNX = 8 OR CHF_PATNX = 12 OR CHF_PATNX = 15
THEN SOBSCALX = 3;

ELSE IF CHF_PATNX = 16 THEN SOBSCALX = 4;

```

(Assign missing values)

```

IF CHF_SORX = . AND MHQBX = 1 THEN SOBSCALX = 1;
IF MHQBX = . THEN SOBSCALX = M;
IF CHF_SORX = 1 AND MISS_IND >= 9 THEN SOBSCALX = 0;
IF CHF_SORX = 2 THEN SOBSCALX = 5;

```

CHF_MHQ VALUE	FREQ	CUM FREQ	%	CUM %
1	677	.	.	.
M	10	.	.	.
0	13	.	.	.
1	74	.	.	.
2	4268	4268	83.74	83.74
3	713	4981	13.99	97.72
4	81	5062	1.59	99.31
	35	5097	0.69	100.00

VARIABLE CHF\_MHQ AMEDIS CHF

CHF status indicator at enrollment

CODES

```

1 - Missed CHF SOB and MHQB present
M - Missed CHF SOB and MHQB present
0 - MHQB missing (NonDayton only)
1 - The participant missed answering 9 or more questions in
the shortness of breath or enlarged heart battery
2 - CHF not present, battery skipped
3 - CHF not present, battery completed
4 - CHF possibly present
4 - CHF probably present

```

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.

(cont.)

VARIABLE CHF\_MHQ (cont.)

INPUT VARIABLES

DE13724 (Dayton only - MHQA) Are you currently taking any of these heart medicines: digitalis, digitalis leaf, digitoxin, or digoxin?

DE13744 (Dayton - MHQA; NonDayton - 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?

DE13749 (Dayton only - MHQA ) Has a doctor ever said that you had a weak heart or heart failure?

DE13751 (Dayton - MHQA; NonDayton - MHQB) When your ankles swelled during the day, were they usually still swollen the next morning?

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

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

DE19004 (NonDayton only - MHQB) Has a doctor ever told you that you had an enlarged heart or heart failure?

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

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

ACF (Temporary variable): Age at time of enrollment

CHF3IND1-3 (Temporary variables): Possible congestive heart failure indicators

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

CHF\_SOB Indicator of shortness of breath or a diagnosis of heart failure at enrollment

MHQA MHQB indicator at enrollment

MHQB indicator at enrollment

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

NDE19004 (Temporary variable): Combines Dayton DE13749 and NonDayton DE19004 and DE19005

NDE19014 (Temporary variable): Combines Dayton DE13724 and NonDayton DE19014

SODSCALE Shortness of breath scale at enrollment

STIF Respondent's place of residence at enrollment

(cont.)

VARIABLE CHF\_MHQ (cont.)

CONSTRUCTION

(For construction of MISS\_IND see construction of CHF SOB above)

(Construct NDE19004 and NDE19014)

(Dayton)

NDE19004 = DE13749;  
NDE19014 = DE13724;

(NonDayton)

NDE19004 = MIN(DE19004, DE19005);  
NDE19014 = DE19014;

(Construct CHF3IND1-CHF3IND8)

IF CHF\_SOB = 1

THEN DO:

CHF3IND1 = '0';  
CHF3IND2 = '0';  
CHF3IND3 = '0';  
CHF3IND4 = '0';  
CHF3IND5 = '0';  
CHF3IND6 = '0';  
CHF3IND7 = '0';  
CHF3IND8 = '0';

IF DE13744 = 1 AND DE13752 = 1  
THEN CHF3IND1 = '1';

IF (SOBSCALE = 0 OR SOBSCALE = 1) AND NDE19004 = 1 AND  
{DE13744 = 1 OR DE13752 = 1}  
THEN CHF3IND2 = '1';

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

IF 0 <= SOBSCALE <= 2 AND NDE19014 = 1 AND DE13753 = 1  
THEN CHF3IND4 = '1';

IF 0 <= SOBSCALE <= 2 AND NDE19004 = 1 AND  
{NDE19014 = 1 OR DE13744 = 1 OR DE13751 = 1 OR  
DE13752 = 1 OR DE13753 = 1}  
THEN CHF3IND5 = '1';

(cont.)

```
VARIABLE CHF_MHQ (cont.)
CONSTRUCTION (cont.)

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

    IF SOBSCALE >= 3 AND (DE13744 = 1 OR DE13752 = 1)
        THEN CHF3IND7 = '1';

    IF SOBSCALE = 4 AND NDE19004 = 1
        THEN CHF3IND8 = '1';

    END;

    (Construct CHF4IND1-CHF4IND9)

    IF CHF_SOB = 1
        THEN DO;
            CHF4IND1 = '0';
            CHF4IND2 = '0';
            CHF4IND3 = '0';
            CHF4IND4 = '0';
            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 NDE19004 = 1 AND DE13753 = 1
                THEN CHF4IND2 = '1';

            IF NDE19004 = 1 AND (NDE19014 = 1 OR DE13751 = 1 OR
               DE13753 = 1) AND (DE13744 = 1 OR DE13752 = 1)
                THEN CHF4IND3 = '1';

            IF DE13753 = 1 AND (NDE19014 = 1 OR DE13751 = 1) AND
               (DE13744 = 1 OR DE13752 = 1)
                THEN CHF4IND4 = '1';

            IF 0 <= SOBSCALE <= 2 AND
               (NDE19014 = 1 OR DE13751 = 1 OR DE13753 = 1) AND
               (DE13744 = 1 OR DE13752 = 1)
                THEN CHF4IND5 = '1';

        (cont.)
```

```

VARIABLE CHF_MHQ (cont.)
CONSTRUCTION (cont.)

    IF SOBSCALE = 3 AND (NDE19014 = 1 OR DE13753 = 1)
        THEN CHF4IND6 = '1';

    IF SOBSCALE = 3 AND DE13751 = 1 AND
        (DE13744 = 1 OR NDE19004 = 1 OR DE13752 = 1)
        THEN CHF4IND7 = '1';

    IF SOBSCALE >= 3 AND NDE19004 = 1 AND
        (DE13744 = 1 OR DE13752 = 1)
        THEN CHF4IND8 = '1';

    IF SOBSCALE = 4 AND
        (NDE19014 = 1 OR DE13751 = 1 OR DE13753 = 1)
        THEN CHF4IND9 = '1';

    END;

(Construct CHF_MHQ)

    IF CHF_SOB = 2 THEN CHF_MHQ = 1;

    IF CHF_SOB = 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_MHQ = 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' OR CHF4IND9 = '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;

    (cont.)

```

VARIABLE CHF\_MHQ (cont.)

CONSTRUCTION (cont.)

(Assign special missing values)

```

IF CHF_SOB = . AND
  ((SITE = 1 AND MHQA = 1) OR
   (SITE \= 1 AND MHQB = 1))
  THEN CHF_MHQ = 1;
IF SITE \= 1 AND MIQ3 = . THEN CHF_MHQ = M;
IF CHF_SOB = 1 AND MISS_IND >= 9 THEN CHF_MHQ = 0;

```

CHF_MHQX	FREQ	CUM FREQ	%	CUM %
1	585	.	.	.
2	21	.	.	.
3	170	.	.	.
4	45	.	.	.
5	4224	4224	83.64	83.64
6	705	4929	13.96	97.60
7	70	5000	1.39	98.99
8	51	5050	1.01	100.00

VARIABLE CHF\_MHQX

AMDIS CHF

CHF status indicator at exit

CODES

- 1 - Missing
- 2 - Missed CHF\_SOBX and MHQB present
- 3 - MHQB missing
- 4 - The participant missed answering 9 or more questions in the shortness of breath or enlarged heart battery
- 5 - CHF not present, battery skipped
- 6 - CHF not present, battery completed
- 7 - CHF possibly present
- 8 - CHF probably present

CHF\_MHQX 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.)

```

VARIABLE CHF_MHQB (cont.)

INPUT VARIABLES (cont.)

DE13753 (MHQB) Do you currently take diuretic (or fluid)
pills which have been prescribed by a doctor?
DE19004 (MHQB) Has a doctor ever told you that you had an
enlarged heart or heart failure?
DE19005 (MHQB) Has a doctor ever told you that you had an
enlarged heart or heart failure?
DE19014 (MHQB) Are you currently taking any of these heart
medicines: digitalis, digitalis leaf, digoxin,
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
CHF_SOBX Indicator of shortness of breath or a diagnosis
of heart failure at exit
MHQB_X MHQB indicator at exit
MISS_IND (Temporary variable): Number of missed questions
in shortness of breath or heart failure battery
DE1C9004 (Temporary variable): Combines Dayton DE13749
and Nondayton DE19004 and DE19005
SOBSCALX Shortness of breath scale at exit

CONSTRUCTION

(For construction of MISS_IND see construction of CHF_SOBX above)

(Construct DE1C9004)

    DE1C9004 = MIN(DE19004,DE19005);

(Construct CHF3IND1-CHF3IND8)

    IF CHF_SOBX = 1
    THEN DO;
        CHF3IND1='0';
        CHF3IND2='0';
        CHF3IND3='0';
        CHF3IND4='0';
        CHF3IND5='0';
        CHF3IND6='0';
        CHF3IND7='0';
        CHF3IND8='0';
    ;

(continuation)

```



```
VARIABLE CHF_MHQX (cont.)
CONSTRUCTION (cont.)

    IF DE13744 = 1 AND DE13752 = 1
    THEN CHF3IND1 = '1';

    IF (SOBSCALX = 0 OR SOBSCALX = 1) AND DE1C9004 = 1 AND
    (DE13744 = 1 OR DE13752 = 1)
    THEN CHF3IND2 = '1';

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

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

    IF 0 <= SOBSCALX <= 2 AND DE1C9004 = 1 AND
    (DE19014 = 1 OR DE13744 = 1 OR DE13751 = 1 OR
    DE13752 = 1 OR DE13753 = 1)
    THEN CHF3IND5 = '1';

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

    IF SOBSCALX >= 3 AND (DE13744 = 1 OR DE13752 = 1)
    THEN CHF3IND7 = '1';

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

    END;

(Construct CHF4IND1-CHF4IND9)

    IF CHF_SOBX=1
    THEN DO;

        CHF4IND1='0';
        CHF4IND2='0';
        CHF4IND3='0';
        CHF4IND4='0';
        CHF4IND5='0';
        CHF4IND6='0';
        CHF4IND7='0';
        CHF4IND8='0';
        CHF4IND9='0';

    (cont.)
```

```

VARIABLE CHF_MHGX (cont.)
CONSTRUCTION (cont.)

IF DE19014 = 1 AND DE13751 = 1 AND
{DE13744 = 1 OR DE13752 = 1}
THEN CHF4IND1 = '1';

IF DE19014 = 1 AND DE1C9004 = 1 AND DE13753 = 1
THEN CHF4IND2 = '1';

IF DE1C9004 = 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 <= SOBSCALX <= 2 AND {DE19014 = 1 OR
DE13751 = 1 OR DE13753 = 1} AND
{DE13744 = 1 OR DE13752 = 1}
THEN CHF4IND5 = '1';

IF SOBSCALX = 3 AND {DE19014 = 1 OR DE13753 = 1}
THEN CHF4IND6 = '1';

IF SOBSCALX = 3 AND DE13751 = 1 AND
{DE13744 = 1 OR DE1C9004 = 1 OR DE13752 = 1}
THEN CHF4IND7 = '1';

IF SOBSCALX >= 3 AND DE1C9004 = 1 AND
{DE13744 = 1 OR DE13752 = 1}
THEN CHF4IND8 = '1';

IF SOBSCALX = 4 AND {DE19014 = 1 OR DE13751 = 1 OR
DE13753 = 1}
THEN CHF4IND9 = '1';

END;

{Construct CHF_MHGX}

IF CHF_SOBX = 2 THEN CHF_MHGX = 1;

(cont.)

```

```

VARIABLE CHF_MHQX (cont.)

CONSTRUCTION (cont.)

  IF CHF_SOBX = 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' OR CHF4IND9 = '1';
        THEN CHF_MHQX = 4;

      IF CHF_MHQX = 4 AND AGE < 30
        THEN DO;

          CHF_MHQX = 3;

        END;

      END;

    END;

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

  (Assign special missing values)

  IF CHF_SOBX = . AND MHQBX = 1
    THEN CHF_MHQX = 1;
  IF MHQBX = . THEN CHF_MHQX = M;
  IF CHF_SOBX = 1 AND MTSS_IND >= 9 THEN
    CHF_MHQX = 0;

```

CHF_IMP					
VALUE	FREQ	CUM FREQ	%	CUM %	
1	766	.	.	.	
10	10	.	.	.	
S	4268	.	.	.	
0	304	304	36.76	36.76	
1	523	827	63.24	100.00	

VARIABLE	CHF_IMP	AMDIS CHF
Impact of congestive heart failure at enrollment		
CODES		
1 - Missing		
0 - The participant missed answering 9 or more questions in the shortness of breath or enlarged heart battery		
1 - Look the MHQ, but CHF SOB missing		
S - Respondent skipped CHF battery		
0 - No impact		
1 - Some impact		
CHF_IMP indicates whether congestive heart problems have caused concern or worry, pain, restricted activity, or bed days.		

# INPUT VARIABLES

- DEI3754 (Dayton - MHQA) During the past 3 months, how much pain has your shortness of breath or heart failure caused you?
- DEI3755 (Dayton - MHQA) During the past 3 months, how much has your shortness of breath or heart failure worried or concerned you?
- DEI3756 (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?
- DEI3757 (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?
- DEI9009 (NonDayton - MHQB) During the past 3 months, how much pain has your shortness of breath, enlarged heart, or heart failure caused you?
- DEI9010 (NonDayton - MHQB) During the past 3 months, how much has your shortness of breath, enlarged heart, or heart failure worried or concerned you?
- DEI9011 (NonDayton - MHQB) 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.)

DEI9012 (NonDayton - MHQB) 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?

NDEI9009 (Temporary variable) Combines DEI3754 and DEI9009
NDEI9010 (Temporary variable) Combines DEI3755 and DEI9010
NDEI9011 (Temporary variable) Combines DEI3756 and DEI9011
NDEI9012 (Temporary variable) Combines DEI3757 and DEI9012
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
MHQA MHQA indicator at enrollment
MHQB MHQB indicator at enrollment
Site Participant's place of residence at enrollment


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

(Construct NDEI9009, NDEI9010, NDEI9011, NDEI9012)
( Dayton)

NDEI9009 = DEI3754;
NDEI9010 = DEI3755;
NDEI9011 = DEI3756;
NDEI9012 = DEI3757;

( NonDayton)

NDEI9009 = DEI9009;
NDEI9010 = DEI9010;
NDEI9011 = DEI9011;
NDEI9012 = DEI9012;

(Construction of CHF_IMP)

IF NDEI9009 = 4 OR NDEI9010 = 4 OR NDEI9011 = 5 OR
NDEI9012 = 0 THEN CHF_IMP = 0;

IF 1<=NDEI9009<=3 OR 1<=NDEI9010<=3 OR 1<=NDEI9011<=4
OR NDEI9012>0 THEN CHF_IMP = 1;
(cont.)

```

VARIABLE CHF\_IMP (cont.)

CONSTRUCTION (cont.)

```

IF CHF_SOB = 1 AND MISS_IMP>9 THEN CHF_IMP = 0;
IF CHF_SOB = 2 THEN CHF_IMP = 5;
IF CHF_SOB = 3 AND ((SITE = 1 AND MHQA = 1) OR
(SITE\=1 AND MHQB = 1)) THEN CHF_IMP = 1;

```

VARIABLE	CHF_IMP	AMEDIS CHF
Impact of congestive heart failure at exit		
CODES		
0 - Missing		
1 - The participant missed answering 9 or more questions in the shortness of breath or enlarged heart battery		
2 - Took the MHQ, 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

DE19009 (MHQB) During the past 3 months, how much pain has your shortness of breath, enlarged heart, or heart failure caused you?

DE19010 (MHQB) During the past 3 months, how much has your shortness of breath, enlarged heart, or heart failure worried or concerned you?

DE19011 (MHQB) 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 (MHQB) 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? (cont.)

CHF_IMP	VALUE	FREQ	CUM FREQ	%	CUM %
0	1	802	1	.	.
1	5	21	1	.	.
2	0	4224	310	37.62	37.62
3	1	310	824	62.38	100.00

```

VARIABLE CHF_IMPX (cont.)
INPUT VARIABLES (cont.)
    MISS_IND (Temporary variable): Number of missed questions in
    CHF_SOBX indicator of shortness of breath or heart failure battery
    CHF_SOBX indicator of shortness of breath or a diagnosis
    MHQAX indicator of heart failure at exit
    MHQBX indicator of heart failure at exit
    MHQBX indicator of heart failure at exit
    SITE Participant's place of residence at enrollment

CONSTRUCTION
(For construction of MISS_IND see construction of CHF_SOBX above)

(Construct CHF_IMPX)
    IF DE19009 = 4 OR DE19010 = 4 OR DE19011 = 5 OR
    DE19012 = 0 THEN CHF_IMPX = 0;
    IF 1 <= DE19009 <= 3 OR 1 <= DE19010 <= 3 OR 1 <= DE19011 <= 4 OR
    DE19012>0 THEN CHF_IMPX = 1;
    IF CHF_SOBX = 1 AND MISS_IND>=9 THEN CHF_IMPX = 0;
    IF CHF_SOBX = 2 THEN CHF_IMPX = 5;
    IF CHF_SOBX = 3 AND (SITE = 1 AND MHQAX = 1) OR
    (SITE = 1 AND MHQBX = 1)
    THEN CHF_IMPX = 1;

```

-----  
DIABETES  
-----

DIABMHQ VALUE	FREQ	CUM FREQ	%	CUM %
.	683	.	.	.
B	13	.	.	.
C	246	.	.	.
0	4720	4720	95.76	95.76
1	76	4796	1.54	97.30
2	78	4874	1.58	98.88
3	55	4929	1.12	100.00

VARIABLE DIABMHQ AMEDIS  
DIABETES

Diabetes status based on the MHQ at enrollment

CODES

. - Missing  
B - No MHQB, for Replacement PEGs only  
C - 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 pre-diabetes as self-reported or as diagnosed by a physician in the medical history questionnaire.

# INPUT VARIABLES

DEI4423 (MHQB) Do you have any reason to think that you may have diabetes or pre-diabetes, sometimes called sugar diabetes or sugar disease?

DEI4424 (Dayton - MHQB) Did a doctor tell you that you had diabetes or pre-diabetes?

DEI4426 (MHQB) Do you take insulin?

DEI4427 (MHQB) Do you take any medicine by mouth for diabetes or pre-diabetes?

DEI9044 (NonDayton - MHQB) Has a doctor ever said to you that you had diabetes or pre-diabetes?

DEIX4424 (Temporary variable) Used to combine DEI9044 and DEI4424

MHQB MHQB indicator at enrollment

SITE Respondent's place of residence at enrollment

# CONSTRUCTION

(Construct DEI4424)

```
IF SITE = 1
  THEN DEI4424 = DEI4424;
                                (cont.)
```



VARIABLE DIABMHQ (cont.)

CONSTRUCTION (cont.)

IF SITE \= 1  
THEN DEIX4424 = DE19044;

(Construct DIABMHQ)

IF DE14423 = 2  
THEN DIABMHQ= 0;  
IF DE14423 = 1 AND DE14424 \= 1  
THEN DIABMHQ= 1;  
IF DE14423 = 1 AND DE14424 = 1 AND  
(DE14426 \= 1 OR DE14427 \= 1)  
THEN DIABMHQ= 2;  
IF DE14423 = 1 AND DE14424 = 1 AND  
(DE14426 = 1 OR DE14427 = 1)  
THEN DIABMHQ= 3;

IF MHQB = . THEN DIABMHQ = C;

{For replacement Pegs}

IF MHQB = . THEN DIABMHQ = B;

DIABMHQX VALUE	FREQ	CUM FREQ	%	CUM %
B	590	.	.	.
0	170	4870	95.29	95.29
1	71	4941	1.39	96.67
2	103	5044	2.02	98.69
3	67	5111	1.31	100.00

VARIABLE DIABMHQX AMEDIS  
DIABETES

Diabetes status based on the MHQ 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

DIABMHQX indicates whether respondent has diabetes or pre-diabetes 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 (NonDayton - 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 MIQBX = . THEN DIABMHQX = B;

GLUCOSE	
NUMBER OF OBSERVATIONS	2856
NUMBER OF MISSING	3015
MEAN	92.51
MEDIAN	86.00
MINIMUM VALUE	19.00
MAXIMUM VALUE	392.00
STANDARD DEVIATION	36.10
COEFFICIENT OF VARIATION	39.03
SKEWNESS	1.98
KURTOSIS	8.61

VARIABLE	GLUCOSE	AMEDIS DIABETES
Blood glucose test results at enrollment		
CODES		
. = Missing		
0 = 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

```

DE17480 (Screening exam) first glucose test
DE17481 (Dayton - Screening exam) second glucose test
DE12783 (NonDayton - Screening exam) second glucose test
SCREENED Screening exam indicator at enrollment

```

#### CONSTRUCTION

```

{Dayton}

```

```

GLUCOSE = DE17480;
IF DE17481 > 0 THEN GLUCOSE = DE17481;
IF SCREENED = . THEN GLUCOSE = D;

```

```

{NonDayton}

```

```

GLUCOSE = DE17480;
IF DE12783 > 0 THEN GLUCOSE = DE12783;
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.

GLUCOSEX

NUMBER OF OBSERVATIONS	4922
NUMBER OF MISSING	949
MEAN	93.16
MEDIAN	90.00
MINIMUM VALUE	32.00
MAXIMUM VALUE	473.00
STANDARD DEVIATION	23.12
COEFFICIENT OF VARIATION	24.82
SKENNESS	7.67
KURTOSIS	84.33

VARIABLE	GLUCOSEX	AMEDIS DIABETES
Blood glucose test results at exit		
CODES		
. - Missing		
C - 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  
 SCREENDX Screening exam indicator at exit

#### CONSTRUCTION

GLUCOSEX = DE13084;  
 IF DE13085 > 0 THEN GLUCOSEX = DE13085;  
 IF SCREENDX = . THEN GLUCOSEX = C;

VARIABLE	DIABSE	AMEDIS DIABETES
Glucose status at enrollment		
CODES		
- Missing		
0 - No screening exam		
0 - Normal glucose level		
1 - Equivocal glucose level		
2 - Elevated glucose level		
DIABSE is a blood glucose level indicator derived from the screening examination laboratory test results.		

DIABSE VALUE	FREQ	CUM FREQ	%	CUM %
0	947	.	.	.
0	2068	2732	95.66	95.66
1	2732	2814	2.87	98.53
2	82	2896	1.47	100.00
	42			

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;



DIABSTAT	VALUE	FREQ	CUM FREQ	%	CUM %
.	0	3015	2787	97.58	97.58
	1	2787	2811	0.84	98.42
	2	24	2820	0.32	98.74
	3	9	2823	0.11	98.85
	4	33	2856	1.16	100.00

VARIABLE	DIABSTAT	AMEDIS DIABETES
Diabetes status based on MHQ and screening exam at enrollment		
CODES		
.	- Missing	
0	- Not diabetic or did not answer MHQ	
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 MHQ.		

#### INPUT VARIABLES

```

DEI4424 (Dayton - MHQB) Did a doctor tell you that you had
diabetes or pre-diabetes?
DEI4426 (MHQB) Do you take insulin?
DEI4427 (MHQB) Do you take any medicine by mouth for
diabetes or pre-diabetes?
DEI9044 (NonDayton - MHQB) Has a doctor ever said to you
that you had diabetes or pre-diabetes?
GLUCOSE Glucose test result
DEI4424 (Temporary variable) Combines DEI9044 and DEI4424
SITE Respondent's place of residence at enrollment

```

#### CONSTRUCTION

```

(Construct DEI4424)

```

```

IF SITE = 1
  THEN DEI4424 = DEI4424;
IF SITE \= 1
  THEN DEI4424 = DEI9044;

```

(cont.)

VARIABLE DIABSTAT (cont.)

CONSTRUCTION (cont.)

(Construct DIABSTAT)

```
IF GLUCOSE \= .
  THEN DIABSTAT = 0;
IF (DE14426 = 1 OR DE14427 = 1) AND 60<= GLUCOSE <= 199
  THEN DIABSTAT = 1;
IF (DE14426 = 1 OR DE14427 = 1) AND
  {0 <= GLUCOSE < 60 OR 199 < GLUCOSE}
  THEN DIABSTAT = 2;
IF (DE14426 \= 1 AND DE14427 \= 1) AND
  DE14424 = 1 AND 160 <= GLUCOSE <= 199
  THEN DIABSTAT = 3;
IF (DE14426 \= 1 AND DE14427 \= 1) AND 199 < GLUCOSE
  THEN DIABSTAT = 4;
```

END



DIABSTAX VALUE	FREQ	CUM FREQ	%	CUM %
0	949	4834	98.21	98.21
1	4834	4871	0.75	98.96
2	37	4899	0.57	99.53
4	28	4917	0.37	99.90
5	18	4922	0.10	100.00

VARIABLE	DIABSTAX	AMEDIS DIABETES
Diabetes status based on the MHQ and screening exam at exit		
CODES		
0	- Missing	
1	- Not diabetic or did not answer MHQ	
2	- Diabetic, well-controlled with insulin or oral agents (50-199)	
3	- Diabetic, not well-controlled with insulin or oral agents (<50, >=200)	
4	- Diabetic, (160-199) and previous physician diagnosis, no medications	
5	- Diabetic, (>= 200) no medications	
	- 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 MHQ.		

#### INPUT VARIABLES

DEI4426 {MHQB} Do you take insulin?  
 DEI4427 {MHQB} Do you take any medicine by mouth for diabetes or pre-diabetes?  
 DEI9044 {MHQB} 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 (DEI4426 = 1 OR DEI4427 = 1) AND 50 <= GLUCOSEX <= 199
  THEN DIABSTAX = 1;
IF (DEI4426 = 1 OR DEI4427 = 1) AND
  (0 <= GLUCOSEX < 50 OR 199 < GLUCOSEX)
  THEN DIABSTAX = 2;
  (cont.)
```

# VARIABLE DIABSTAX (cont.)

## CONSTRUCTION (cont.)

```

IF (DE14426 \= 1 AND DE14427 \= 1) AND DE19044 = 1 AND
(160 <= GLUCOSEX <= 199)
THEN DIABSTAX = 3;
IF (DE14426 \= 1 AND DE14427 \= 1) AND 199 < GLUCOSEX
THEN DIABSTAX = 4;
IF (DE14426 \= 1 AND DE14427 \= 1) AND DE19044 \= 1 AND
160 <= GLUCOSEX <= 199
THEN DIABSTAX = 5;

```

VARIABLE	INSULIN	AMEDIS DIABETFS
Taking insulin at enrollment		
CODES		
.	Missing	
B	No MHQB, for Replacement PEGs only	
C	No MHQB, Replacement PEGs only	
K	Missing initial trigger question (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 (MHQB) Do you have any reason to think that you may have diabetes or pre-diabetes, sometimes called sugar diabetes or sugar disease? (cont.)

INSULIN VALUE	FREQ	CUM FREQ	%	CUM %
.	682	.	.	.
B	13	.	.	.
C	246	.	.	.
K	1	.	.	.
L	197	.	.	.
N	5	.	.	.
S	4594	.	.	.
1	30	30	22.56	22.56
2	103	133	77.44	100.00

```

VARIABLE INSULIN (cont.)

INPUT VARIABLES (cont.)

    DE14424; (MHQB) Did a doctor or nurse tell you that you had
              diabetes or pre-diabetes?
    DE19044; (MHQB - NonDayton) Has a doctor ever said to you
              that you had diabetes or pre-diabetes?
    DE14426; (MHQB) Do you take insulin?
    MHQB;    MHQB indicator at enrollment
    SITE;    Respondent's place of residence at enrollment

CONSTRUCTION

    INSULIN = DE14426;

    IF MHQB = . THEN INSULIN = C;
    IF DE14423 = 2 THEN INSULIN = S;
    IF (SITE = 1 AND DE14424 = 2) OR (SITE \= 1 AND DE19044 = 2)
        THEN INSULIN = S;

    (For Replacement PEGs only)

    IF MHQB = . THEN INSULIN = B;
    IF DE14423 = . THEN INSULIN = K;
    IF DE14423 = 2 THEN INSULIN = L;
    IF DE19044 = . THEN INSULIN = M;
    IF DE19044 = 2 THEN INSULIN = N;

```

VARIABLE	INSULINX	AMEDIS DIABETES
Taking insulin at exit		
CODES		
.	- Missing	
B	- No MHQB	
K	- Missing initial trigger question (DEI1423)	
L	- Answered no to initial trigger, skipped battery	
M	- Missed internal trigger (DEI9044)	
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

DEI1423 (MHQB) Do you have any reason to think that you may have diabetes or pre-diabetes, sometimes called sugar diabetes or sugar disease?  
DEI9044 (MHQB) Has a doctor ever said to you that you had diabetes or pre-diabetes?  
DEI1426 (MHQB) Do you take insulin?  
MHQBX MHQB indicator at exit

# CONSTRUCTION

INSULINX = DEI1426;  
IF MHQBX = . THEN INSULINX = B;  
IF DEI1423 = . THEN INSULINX = K;  
IF DEI1423 = 2 THEN INSULINX = L;  
IF DEI9044 = . THEN INSULINX = M;  
IF DEI9044 = 2 THEN INSULINX = N;

INSULINX VALUE	FREQ	CUM FREQ	%	CUM %
.	585	.	.	.
B	170	.	.	.
K	5	.	.	.
L	4870	.	.	.
N	71	.	.	.
1	39	39	22.94	22.94
2	131	170	77.06	100.00



VARIABLE DIABMED (cont.)

CONSTRUCTION (cont.)

IF (SITE = 1 AND DE14424 = 2) OR (SITE\=1 AND DE19044=2)  
THEN DIABMED = S;

(for Replacement PEOs only)

IF MHQB = . THEN DIABMED = B;  
IF DE14423 = . THEN DIABMED = K;  
IF DE14423 = 2 THEN DIABMED = L;  
IF DE19044 = 2 THEN DIABMED = N;

VARIABLE DIABMED AMEDIS  
DIABETES

Taking medication by mouth for diabetes at exit

. - Missing  
B - No MHQB  
K - Missing initial trigger question (DE14423)  
L - Answered no to initial trigger, skipped battery  
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 (MHQB) Do you have any reason to think that you  
may have diabetes or pre-diabetes, sometimes  
called sugar diabetes or sugar disease?  
DE19044 (MHQB) Has a doctor ever said to you that you had  
diabetes or pre-diabetes?  
DE14427 (MHQB) Do you take any medicines by mouth for  
diabetes or pre-diabetes?  
MHQBX MHQB indicator at exit

(cont.)

DIABMEDX VALUE	FREQ	CUM FREQ	%	CUM %
.	585	.	.	.
B	170	.	.	.
K	5	.	.	.
L	4870	.	.	.
N	71	.	.	.
1	33	33	19.41	19.41
2	137	170	80.59	100.00

VARIABLE DIABMEDX (cont.)

CONSTRUCTION

```
DIABMEDX = DF14427;

IF MHQBX = . THEN DIABMEDX = B;
IF DE14423 = . THEN DIABMEDX = K;
IF DE14423 = 2 THEN DIABMEDX = L;
IF DE19044 = . THEN DIABMEDX = M;
IF DE19044 = 2 THEN DIABMEDX = N;
```

DIABIMP					
VALUE	FREQ	CUM FREQ	%	CUM %	
B	5479	.	.	.	
C	13	.	.	.	
0	246	.	.	.	
1	71	71	53.38	53.38	
	62	132	46.62	100.00	

AMEDIS  
DIABETES

Impact of diabetes at enrollment

CODES

- . - Missing, includes those without diabetes
- B - No MHQB, for Replacement PEGs only
- C - No MHQB, except Replacement PEGs
- 0 - No impact
- 1 - Some impact

DIABIMP indicates whether diabetes caused any pain, worry/concern, activity restrictions, or days in bed.

INPUT VARIABLES

```
DE14441 (MHQB) During the past 3 months, how much pain has
your diabetes or pre-diabetes caused you?
DE14442 (MHQB) During the past 3 months, how much has your
diabetes or pre-diabetes worried or concerned you?
DE14443 (MHQB) 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 (MHQB) 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?
MHQB MHQB indicator at enrollment (cont.)
```

VARIABLE DIABIMP (cont.)

CONSTRUCTION

```
IF DE14441 = 4 OR DE14442 = 4 OR DE14443 = 5 OR DE14444 = 0
  THEN DIABIMP = 0;
IF (1 <= DE14441 <= 3) OR (1 <= DE14442 <= 3) OR
  (1 <= DE14443 <= 4) OR DE14444 > 0
  THEN DIABIMP = 1;
IF MHQB = . THEN DIABIMP = C;
(For Replacement PEGs only)
IF MHQB = . THEN DIABIMP = B;
```

VARIABLE	DIABIMPX	ANEDIS DIABETES
Impact of diabetes at exit		
CODES		
.	Missing, includes those without diabetes	
B	No MIQB	
0	No impact	
1	Some impact	
DIABIMPX indicates whether diabetes caused any pain, worry/concern, activity restrictions, or days in bed.		

INPUT VARIABLES

DE14441 (R093) During the past 3 months, how much pain has  
your diabetes or pre-diabetes caused you?  
DE14442 (M093) During the past 3 months, how much has your  
diabetes or pre-diabetes worried or concerned you?  
(cont.)

DIABIMPX VALUE	FREQ	CUM FREQ	%	CUM %
.	5532	.	.	.
B	170	.	.	.
0	80	80	47.34	47.34
1	89	169	52.66	100.00



```

VARIABLE DIABIMPX (cont.)
INPUT VARIABLES (cont.)
    DE14443  (MQB) 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  (MQB) 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?
    MQBX     MQB indicator at exit

CONSTRUCTION
    IF DE14441 = 1 OR DE14442 = 4 OR DE14443 = 5 OR DE14444 = 0
    THEN DIABIMPX = 0;
    IF (1 <= DE14441 <= 3) OR (1 <= DE14442 <= 3) OR
    (1 <= DE14443 <= 4) OR DE14444 > 0
    THEN DIABIMPX = 1;
    IF MQBX = . THEN DIABIMPX = B;

```

-----  
HAYFEVER

VARIABLE	HAYFMHQ	AMEDIS HAY FEVER
Hay fever status at enrollment		
CODES		
- Missing DE14226 (Dayton) or DE15325 (nonDayton)		
M - MHQ-B not completed		
T - Missing the trigger question (DE104219)		
1 - Bothered by hay fever in last 12 months; took shots or prescribed medication		
2 - Bothered by hay fever in last 12 months; taking prescribed medication, no shots		
3 - Bothered by hay fever in last 12 months; not taking shots or prescribed medication; taking non-prescribed medication		
4 - Bothered by hay fever in last 12 months; not taking shots, prescribed medication or non-prescribed medication		
4.1 - Bothered by hay fever in last 12 months; treatment unknown		
5 - Not bothered by hay fever in last 12 months; taking shots or prescribed medication		
6 - Not bothered by hay fever in last 12 months; no shots; taking prescribed medication		
7 - Not bothered by hay fever in last 12 months; no shots; taking non-prescribed medication		
8 - Not bothered by hay fever in last 12 months; not taking shots, prescribed medication, or non-prescribed medication		
8.1 - Not bothered by hay fever in last 12 months; don't know treatment		
9 - Never had hay fever		
HAYFMHQ 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.)

HAYFMHQ VALUE	FREQ	CUM FREQ	%	CUM %
M	684	.	.	.
T	259	.	.	.
1	264	264	5.36	5.36
2	43	307	0.87	6.24
3	240	547	4.88	11.11
4	246	793	5.00	16.11
4.1	2	795	0.04	16.15
5	17	812	0.35	16.49
6	9	821	0.18	16.68
7	24	845	0.49	17.16
8	189	1034	3.84	21.00
8.1	2	1036	0.04	21.04
9	3887	4923	78.96	100.00

VARIABLE HAYFMRQ (cont..)

INPUT VARIABLES

DEI4219	(Dayton - MHQB) Have you ever had hay fever?
DEI4221	(Dayton - MHQB) In the last 12 months did you get shots to help prevent hay fever?
DEI4222	(Dayton - MHQB) In the last 12 months has the doctor prescribed any medicine to help prevent the symptoms?
DEI4223	(Dayton - MHQB) Do you actually take medicine for the hay fever?
DEI4226	(Dayton - MHQB) During the past 12 months, in how many weeks were you bothered by hay fever?
DEI5318	(NonDayton - MHQB) Have you ever had hay fever or other allergies to plants and grasses?
DEI5320	(NonDayton - MHQB) In the past 12 months did you get any shots to help prevent hay fever or other plant allergies?
DEI5321	(NonDayton - MHQB) In the past 12 months has a doctor prescribed any medicine to help prevent the symptoms of hay fever or other plant allergies?
DEI5322	(NonDayton - MHQB) Do you actually take any medicine for the hay fever or other plant allergies?
DEI5325	(NonDayton - MHQB) During the past 12 months, how many weeks or months were you bothered by hay fever or other plant allergies?
DEIC4226	(Temporary variable): Combines Dayton DEI4226 and NonDayton DEI5325 to reflect midpoints
DEIC4219	(Temporary variable): Combines Dayton DEI4219 and NonDayton DEI5318
DEIC4221	(Temporary variable): Combines Dayton DEI4221 and NonDayton DEI5320
DEIC4222	(Temporary variable): Combines Dayton DEI4222 and NonDayton DEI5321
DEIC4223	(Temporary variable): Combines Dayton DEI4223 and NonDayton DEI5322
BOTHERED	(Temporary variable): Bothered by hay fever 1 - Never had hay fever 0 - MHQB not completed Q - Missing DEI4226 (Dayton) or DEI5325 (nonDayton) T - Missing the trigger question (DEIC4219) 0 - No 1 - Yes
MHQB	MHQB indicator at enrollment

(cont..)

```

VARIABLE HAYFMHQ (cont.)

CONSTRUCTION
{Construct DEIC4226}
{Dayton)
    IF DEIC4226 >= 0 THEN
        IF DEIC4226 = 99 THEN DEIC4226 = 0;
        ELSE IF 0 < DEIC4226 < 2 THEN DEIC4226 = 1;
        ELSE IF 2 <= DEIC4226 < 4 THEN DEIC4226 = 3;
        ELSE IF 4 <= DEIC4226 < 8 THEN DEIC4226 = 6;
        ELSE IF 8 <= DEIC4226 < 16 THEN DEIC4226 = 12;
        ELSE IF 16 <= DEIC4226 < 24 THEN DEIC4226 = 20;
        ELSE DEIC4226 = 39;
{NonDayton)

    IF DEIC5325 >= 0 THEN
        IF DEIC5325 = 1 THEN DEIC4226 = 0;
        ELSE IF DEIC5325 = 2 THEN DEIC4226 = 1;
        ELSE IF DEIC5325 = 3 THEN DEIC4226 = 3;
        ELSE IF DEIC5325 = 4 THEN DEIC4226 = 6;
        ELSE IF DEIC5325 = 5 THEN DEIC4226 = 12;
        ELSE IF DEIC5325 = 6 THEN DEIC4226 = 20;
        ELSE IF DEIC5325 = 7 THEN DEIC4226 = 39;
{Construct BOTHERED)

    IF MHQB = . THEN BOTHERED = M;
    IF DEIC4219 = . THEN BOTHERED = T;
    IF DEIC4226 >= 0 THEN
        IF DEIC4226 = 0 THEN BOTHERED = 0;
        ELSE BOTHERED = 1;

(NOTE: See construction of HAYFMHQ 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}
    DEIC4219 = DEI5318;
    DEIC4221 = DEI5320;
    DEIC4222 = DEI5321;
    DEIC4223 = DEI5322;

    (Construct HAYFMHQ)
    IF MHQB = 1 THEN
        IF DEIC4219 = 1 THEN
            IF BOTHERED = 1 THEN
                IF DEIC4221 = 2 AND DEIC4222=2 AND DEIC4223 = 3
                    THEN HAYFMHQ = 1;
                ELSE IF DEIC4221 = 1 OR DEIC4222 = 1
                    THEN HAYFMHQ = 1;
                ELSE IF DEIC4221 = 2 AND DEIC4222 = 2 AND DEIC4223 = 1
                    THEN HAYFMHQ = 2;
                ELSE IF DEIC4223 = 2
                    THEN HAYFMHQ = 3;
                ELSE HAYFMHQ = 4.1;
            ELSE IF BOTHERED = 0 THEN
                IF DEIC4221 = 2 AND DEIC4222 = 2 AND DEIC4223=3
                    THEN HAYFMHQ = 8;
                ELSE IF DEIC4221 = 1 OR DEIC4222 = 1
                    THEN HAYFMHQ = 5;
                ELSE IF DEIC4221 = 2 AND DEIC4222 = 2 AND
                    DEIC4223 = 1
                    THEN HAYFMHQ = 6;
                ELSE IF DEIC4223 = 2
                    THEN HAYFMHQ = 7;
                ELSE HAYFMHQ = 8.1;
            ELSE IF BOTHERED = . THEN BOTHERED = Q;
        ELSE;
    ELSE IF DEIC4219 = 2 THEN HAYFMHQ = 9;
    ELSE HAYFMHQ = T;
ELSE HAYFMHQ = M;
```

VARIABLE	HAYFMHQX	AMEDIS HAY FEVER	HAYFMHQX VALUE	FREQ	CUM FREQ	%	CUM %
Hay fever status at exit							
CODES							
1	Missing DE15325		M	587			
2	Missing the trigger question (DE15318)		T	170			
3	Missed by hay fever in last 12 months; took shots or prescribed medication		1	309		6.04	6.04
4	Bothered by hay fever in last 12 months; taking prescribed medication, no shots		2	50	359	0.98	7.02
5	Bothered by hay fever in last 12 months; not taking shots or prescribed medication; taking non-prescribed medication		3	235	594	4.60	11.62
6	Bothered by hay fever in last 12 months; not taking shots, prescribed medication or non-prescribed medication		4	278	872	5.44	17.06
7	Bothered by hay fever in last 12 months; treatment unknown		5	19	891	0.37	17.43
8	Not bothered by hay fever in last 12 months; taking shots or prescribed medication		6	9	900	0.18	17.60
9	Not bothered by hay fever in last 12 months; not taking shots, prescribed medication or non-prescribed medication		7	18	918	0.35	17.95
10	Not bothered by hay fever in last 12 months; taking shots or prescribed medication		8	183	1101	3.58	21.53
11	Not bothered by hay fever in last 12 months; not taking shots, prescribed medication, or non-prescribed medication		8.1	1	1102	0.02	21.55
12	Not bothered by hay fever in last 12 months; don't know treatment		9	4011	5113	78.45	100.00
13	Never had hay fever						
HAYFMHQX 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.							

INPUT VARIABLES

DE15318 (MHQ8) Have you ever had hay fever or other allergies to plants and grasses? (cont.)

```

VARIABLE HAYFMHQX (cont..)
INPUT VARIABLES (cont..)

DEI5320 (MHQB) In the past 12 months did you get any shots
to help prevent hay fever or other plant allergies?
DEI5321 (MHQB) In the past 12 months has a doctor prescribed
any medicine to help prevent the symptoms of hay
fever or other plant allergies?
DEI5322 (MHQB) Do you actually take any medicine for the hay
fever or other plant allergies?
DEI5325 (MHQB) During the past 12 months, how many weeks or
months were you bothered by hay fever or other
plant allergies?
DEIC5325 (Temporary variable) Recoding of DEI5325 to reflect
the midpoint of the responses.
ROTHERED (Temporary variable) Bothered by hay fever
    0 - Never had hay fever
    1 - MHQB not completed
    2 - Missing DEI5325
    3 - Missing the trigger question (DEI5318)
    4 - No
    5 - Yes
MHQBX MHQB indicator at exit

CONSTRUCTION
(Construct DEIC5325)
    IF DEI5325 >= 0 THEN
        IF DEI5325 = 1 THEN DEIC5325 = 0;
        ELSE IF DEI5325 = 2 THEN DEIC5325 = 1;
        ELSE IF DEI5325 = 3 THEN DEIC5325 = 3;
        ELSE IF DEI5325 = 4 THEN DEIC5325 = 6;
        ELSE IF DEI5325 = 5 THEN DEIC5325 = 12;
        ELSE IF DEI5325 = 6 THEN DEIC5325 = 20;
        ELSE IF DEI5325 = 7 THEN DEIC5325 = 39;

(Construct BOTHERED)
    IF MHQBX = . THEN BOTHERED = M;
    IF DEI5318 = . THEN BOTHERED = T;
    IF DEIC5325 >= 0 THEN
        IF DEIC5325 = 0 THEN BOTHERED = 0;
        ELSE BOTHERED = 1;
    (cont..)

```

```
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 MHQBX = 1 THEN  
  IF DE15318 = 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 DE15322 = 2  
        THEN HAYFMHQX = 3;  
      ELSE HAYFMHQX = 4.1;  
    ELSE IF BOTHERED = 0 THEN  
      IF DE15320 = 2 AND DE15321 = 2 AND DE15322 = 3  
        THEN HAYFMHQX = 8;  
      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 DE15322 = 2  
        THEN HAYFMHQX = 7;  
      ELSE HAYFMHQX = 8.1;  
    ELSE IF BOTHERED = . THEN BOTHERED = Q;  
  ELSE  
    ELSE IF DE15318 = 2 THEN HAYFMHQX = 9;  
    ELSE HAYFMHQX = T;  
    ELSE HAYFMHQX = N;
```



HAYSTAT2	VALUE	FREQ	CUM FREQ	%	CUM %
.	.	684	.	.	.
C	C	2	.	.	.
M	M	259	.	.	.
1	1	5	.	.	.
2	2	845	845	17.17	17.17
9	9	189	1034	3.84	21.01
		3887	4921	78.99	100.00

VARIABLE	HAYSTAT2	AMTDIS HAY FEVER
A recoding of HAYFMHQ at enrollment		
CODES		
.	Missing DE14226 (Dayton) or DE15325 (nonDayton)	
C	Not bothered by hay fever, don't know treatment	
M	MHQD not completed	
1	Missing the trigger question (DE14219)	
2	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	
9	Past hay fever: not bothered by hay fever in last 12 months and did not take shots, prescribed or nonprescribed medication	
	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.		

#### INPUT VARIABLE

HAYFMHQ Hay fever status

#### CONSTRUCTION

```

IF 1 <= HAYFMHQ <= 7 THEN HAYSTAT2 = 1;
ELSE IF HAYFMHQ = 8 THEN HAYSTAT2 = 2;
ELSE IF HAYFMHQ = 8.1 THEN HAYSTAT2 = 9;
ELSE HAYSTAT2 = HAYFMHQ;

```

3



VARIABLE	HAYFCURR	AMEDIS HAY FEVER	HAYFCURR VALUE	FREQ	CUM FREQ	%	CUM %
Current prevalence of hay fever at enrollment							
CODES							
- Missing							
M - Missing the trigger question (DE14219)			M	677	.	.	.
T - Missing DE14226 (Dayton) or DE15325 (nonDayton) and bothered or taking current treatment			T	259	.	.	.
W - Missing DE14226 (Dayton) or DE15325 (nonDayton) and not bothered or taking current treatment, or never had hay fever			W	5	.	.	.
X - Missing DE14226 (Dayton) or DE15325 (nonDayton) and not bothered or taking current treatment, or never had hay fever			X	4	.	.	.
0 - No (Not bothered and no treatment within last 12 months, or never had hay fever)			0	3	.	.	.
1 - Yes (Bothered or taking current treatment)			1	4078	4078	82.84	82.84
				845	4923	17.16	100.00
HAYFCURR 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							
DE14219	(Dayton - MHQB) Have you ever had hay fever?						
DE14221	(Dayton - MHQB) In the last 12 months did you get shots to help prevent hay fever?						
DE14222	(Dayton - MHQB) In the last 12 months has the doctor prescribed any medicine to help prevent the symptoms?						
DE14223	(Dayton - MHQB) Do you actually take medicine for the hay fever?						
DE14226	(Dayton - MHQB) During the past 12 months, in how many weeks were you bothered by hay fever?						
DE15318	(NonDayton - MHQB) Have you ever had hay fever or other allergies to plants and grasses?						
DE15320	(NonDayton - MHQB) In the past 12 months did you get any shots to help prevent hay fever or other plant allergies?						
DE15321	(NonDayton - MHQB) 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 HAYFCURR (cont.)
INPUT VARIABLES (cont.)

DEI5322  (NonDayton - MHQB) Do you actually take any medicine
for the hay fever or other plant allergies?
DEI5325  (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
- Never had hay fever
M - MHQB not completed
Q - Missing DEI4226 (Dayton)
or DEI5325 (nonDayton)
I - Missing the trigger
question (DEI4219)
0 - No
1 - Yes
MHQB     MHQB indicator at enrollment

CONSTRUCTION
(For construction of DEI4226, DEI4219, DEI4221, DEI4222,
DEI4223, and BOTHERED see construction of HAYFMHQ above )
(Construct HAYFCURR)
IF MHQB = 1 THEN HAYFCURR = M;
IF DEI4219 = 1 THEN HAYFCURR = 1;
IF DEI4219 = 1 THEN
  IF (DEI4221 = 1 OR DEI4222 = 1 OR DEI4223 = 1 OR
      DEI4223 = 2) OR BOTHERED = 1
  THEN HAYFCURR = 1;
  ELSE HAYFCURR = 0;
ELSE IF DEI4219 = 2 THEN HAYFCURR = 0;
IF BOTHERED = Q THEN
  IF HAYFCURR = 1 THEN HAYFCURR = W;
  ELSE HAYFCURR = X;

```

VARIABLE	HAYFCURX	AMEDIS HAY FEVER
Current prevalence of hay fever at exit		
CODES		
- Missing		
M - MHQB not completed		
T - Missing the trigger question (DE15318)		
W - Missing DE15325 and bothered or taking current treatment		
X - Missing DE15325 and not bothered or taking current treatment, or never had hay fever		
0 - No (Not bothered and no treatment within last 12 months, or never had hay fever)		
1 - Yes (Bothered or taking current treatment)		
HAYFCURX 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		
DE15318	(MHQB) Have you ever had hay fever or other allergies to plants and grasses?	
DE15320	(MHQB) In the past 12 months did you get any shots to help prevent hay fever or other plant allergies?	
DE15321	(MHQB) In the past 12 months has a doctor prescribed any medicine to help prevent the symptoms of hay fever or other plant allergies?	
DE15322	(MHQB) Do you actually take any medicine for the hay fever or other plant allergies?	
DE15325	(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	
- Never had hay fever		
M - MHQB not completed		
0 - Missing DE15325		
T - Missing the trigger question (DE15318)		
0 - No		
1 - Yes		
MHQB	MHQB indicator at exit	
		(cont.)

HAYFCURX VALUE	FREQ	CUM FREQ	%	CUM %
M	585	.	.	.
T	170	.	.	.
X	1	.	.	.
0	2	.	.	.
0	4195	4195	82.05	82.05
1	518	5113	17.95	100.00

VARIABLE HAYFCURX (cont.)

CONSTRUCTION

(For construction of BOTHERED see construction of HAYTMIQX above)

{Construct HAYFCURX}

```

IF MHQBX = . THEN HAYFCURX = M;
IF DE15318 = . 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;

```

VARIABLE	HAYSCORE	AMEDIS HAY FEVER
Hay fever severity score at enrollment		
CODES		
. - MHQB not completed or never had hay fever or answered "not bothered" to DE14226		
Range of values: 0 - 3900		
HAYSCORE 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 - MHQB) During the past 12 months, in how many weeks were you bothered by hay fever? (cont.)

HAYSCORE VALUE	FREQ	CUM FREQ	%	CUM %
. 0	5077	580	73.05	73.05
15	580	599	2.39	75.44
33	11	610	1.39	76.83
45	22	632	2.77	79.60
90	22	654	2.77	82.37
99	10	664	1.26	83.63
180	25	689	3.15	86.78
198	16	699	1.26	88.04
225	4	703	0.50	88.54
300	14	717	1.76	90.30
396	17	734	2.14	92.44
450	2	736	0.25	92.70
585	25	761	3.15	95.84
600	1	762	0.13	95.97
660	9	771	1.13	97.10
900	4	775	0.50	97.61
1287	13	788	1.64	99.24
2925	4	792	0.50	99.75
3900	2	794	0.25	100.00

```

VARIABLE HAYSCORE (cont.)
INPUT VARIABLES (cont.)
    DE14227 (Dayton - MHQB) During the weeks when you were
        bothered by hay fever, how often did your hay fever
        keep you from doing the kind of activities other
        people your age do?
    DE15325 (NonDayton - MHQB) During the past 12 months, how
        many weeks or months were you bothered by hay fever
        or other plant allergies?
    DE15326 (NonDayton - MHQB) 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?
    DE1C4226 (Temporary variable): Combines Dayton DE14227 and
        NonDayton DE15325.
    DE1C4227 (Temporary variable): Combines Dayton DE14227 and
        NonDayton DE15326.
    TIME (Temporary variable): Percent of time activity was
        restricted by hay fever.

CONSTRUCTION
{Construct DE1C4227}
    (Dayton)
        DE1C4227 = DE14227;
    (NonDayton)
        DE1C4227 = DE15326;
(Construct TIME)
    IF DE1C4227 >= 0 THEN
        IF DE1C4227 = 1 THEN TIME = 100;
        ELSE IF DE1C4227 = 2 THEN TIME = 75;
        ELSE IF DE1C4227 = 3 THEN TIME = 33;
        ELSE IF DE1C4227 = 4 THEN TIME = 15;
        ELSE IF DE1C4227 = 5 THEN TIME = 0;
(For construction of DE1C4226 see construction of HAYFMHQ above)
(Construct HAYSCORE)
    HAYSCORE = DE1C4226*TIME;

```

HAYSCORX	FREQ	CUM FREQ	%	CUM %
VALUE	5000	621	71.30	71.30
0	621	651	3.44	74.74
15	30	655	0.46	75.20
33	4	680	2.87	78.07
45	25	685	0.57	78.65
75	5	712	3.10	81.75
90	27	717	0.57	82.32
99	5	753	4.13	86.45
180	36	764	1.26	87.72
198	11	766	0.23	87.95
225	2	791	2.87	90.82
300	25	803	1.38	92.19
396	12	804	0.12	92.31
450	1	836	3.67	95.98
585	32	837	0.12	96.10
600	1	850	1.49	97.59
660	13	861	1.26	98.85
1287	11	865	0.46	99.31
1500	4	871	0.59	100.00
2925	6			

VARIABLE	HAYSCORX	AMEDIS HAY FEVER
Hay fever severity score at exit		
CODES		
- MHOB not completed or never had hay fever or answered "not bothered" to DE15325		
Range of values: 0 - 2925		
HAYSCORX 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

DE15325 (MIQB) During the past 12 months, how many weeks or months were you bothered by hay fever or other plant allergies?

DE15326 (MIQB) 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?

DE15325 (Temporary variable) Recoding of DE15325 to reflect the midpoint of the responses.

TIME (Temporary variable) Percent of time activity was restricted by hay fever.

#### CONSTRUCTION

(For construction of DE15325, see HAYFMHQX above)

(Construct TIME)

```
IF DE15326 >= 0 THEN
  IF DE15326 = 1 THEN TIME = 100;
  ELSE IF DE15326 = 2 THEN TIME = 75;
  ELSE IF DE15326 = 3 THEN TIME = 33;
  ELSE IF DE15326 = 4 THEN TIME = 15;
  ELSE IF DE15326 = 5 THEN TIME = 0;
```

(cont.)



VARIABLE HAYSCORX (cont.)

CONSTRUCTION (cont.)

{Construct HAYSCORX}

HAYSCORX = DEIC5325\*TIME;

VARIABLE	HAYFIMP	AMEDIS HAY FEVER
Impact of hay fever at enrollment		
CODES		
.	- Missing	
M	- No MHQB	
S	- Answered no to trigger, DEI4219 or DEI5318, skipped battery	
T	- Missed trigger, DEI4219 or DEI5318	
0	- No impact	
1	- Some impact	
HAYFIMP indicates whether hay fever caused any pain, worry/concern, activity restrictions, or day in bed.		

INPUT VARIABLES

DEI4219 {Dayton - MHQB} Have you ever had hay fever?  
DEI4224 {Dayton - MHQB} During the last 12 months, how much  
pain has your hay fever caused?  
DEI4225 {Dayton - MHQB} During the last 12 months, how much  
has your hay fever worried or concerned you?  
DEI4227 {Dayton - MHQB} 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?  
DEI4228 {Dayton - MHQB} During the last 12 months, how many  
days has your hay fever kept you in bed all or most  
of the day?  
DEI5318 {NonDayton - MHQB} Have you ever had hay fever or  
other allergies to plants and grasses?  
DEI5323 {NonDayton - MHQB} During the past 12 months, how  
much pain or distress has your hay fever or other  
plant allergies caused you?  
(cont.)

HAYFIMP VALUE	FREQ	CUM FREQ	%	CUM %
.	678	.	.	.
M	259	.	.	.
S	3887	.	.	.
T	5	.	.	.
0	327	327	31.38	31.38
1	715	1042	68.62	100.00

VARIABLE HAYFIMP (cont.)

INPUT VARIABLES (cont.)

DEI5324 (NonDayton - MHQB) During the past 12 months, how much has your hay fever or other plant allergies worried or concerned you?

DEI5326 (NonDayton - MHQB) 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 - MHQB) 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?

DEIC4219 (Temporary variable) Combines Dayton DEI4219 and NonDayton DEI5318

DEIC4224 (Temporary variable) Combines Dayton DEI4224 and NonDayton DEI5323

DEIC4225 (Temporary variable) Combines Dayton DEI4225 and NonDayton DEI5324

DEIC4227 (Temporary variable) Combines Dayton DEI4227 and NonDayton DEI5326

DEIC4228 (Temporary variable) Combines Dayton DEI4228 and NonDayton DEI5327

MHQB MHQB indicator at enrollment

CONSTRUCTION

(Construct DEI4219, DEI4224, DEI4225, DEI4227, DEI4228)

{Dayton}

DEIC4219 = DEI4219;  
 DEIC4224 = DEI4224;  
 DEIC4225 = DEI4225;  
 DEIC4227 = DEI4227;  
 DEIC4228 = DEI4228;

{NonDayton}

DEIC4219 = DEI5318;  
 DEIC4224 = DEI5323;  
 DEIC4225 = DEI5324;  
 DEIC4227 = DEI5326;  
 DEIC4228 = DEI5327;

(cont.)

VARIABLE HAYFIMP (cont.)

CONSTRUCTION (cont.)

(Construct HAYFIMP)

```

IF MHQB = . THEN HAYFIMP = M;
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;

```

HAYFIMPX	VALUE	FREQ	CUM FREQ	%	CUM %
M		585			
S		170			
T		4011			
0		349	349	31.61	31.61
1		755	1104	68.39	100.00

VARIABLE	HAYFIMPX	AMED: S HAY FEVER
----------	----------	----------------------

Impact of hay fever at exit

CODES

```

. = Missing
M = No MHQB
S = Answered no to trigger, DE15318, skipped battery
T = Missed trigger question, DE15318
0 = No impact
1 = Some impact

```

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 {MHQB} 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 {MHQB} 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 MHQB indicator at exit

CONSTRUCTION

IF MHQBX = . THEN HAYFIMPX = M;  
IF DE15318 = . THEN HAYFIMPX = 1;  
IF DE15318 = 2 THEN HAYFIMPX = S;  
IF DE15323 = 4 OR DE15324 = 4 OR  
DE15326 = 5 OR DE15327 = 0  
THEN HAYFIMPX = 0;  
IF 1 <= DE15323 <= 3 OR 1 <= DE15324 <= 3 OR  
1 <= DE15326 <= 4 OR DE15327 > 0  
THEN HAYFIMPX = 1;

-----  
HEARING LOSS CONDITION

VARIABLE	HEARVRT	APEDIS HEARING LOSS
Average hearing threshold level for the right ear at enrollment		
CODES		
, - Missing		
R - Not screened		
Range of Values - 0 to 106.67 dB		
HEARVRT is the average hearing threshold level for the right ear based on measurements taken at three different frequencies during the enrollment screening exam.		

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 HEARVRT = (DE17402 + DE17406 + DE17410) / 3;  
 IF SCREENED = , THEN HEARVRT = R;

HEARVRT VALUE	FREQ	CUM FREQ	%	CUM %
R	693	.	.	.
0	2291	.	.	.
1.666667	22	22	0.76	0.76
3.333333	46	68	1.59	2.35
5	145	213	5.02	7.38
6.666667	269	482	9.32	16.70
8.333333	352	834	12.19	28.89
10	434	1268	15.03	43.92
11.6667	372	1640	12.89	56.81
13.3333	324	1964	11.22	68.03
15	230	2194	7.97	76.00
16.6667	166	2360	5.75	81.75
18.3333	110	2470	3.81	85.56
20	70	2540	2.43	87.98
21.6667	64	2604	2.22	90.20
23.3333	50	2654	1.73	91.93
25	28	2682	0.97	92.90
26.6667	27	2709	0.94	93.83
28.3333	22	2731	0.76	94.60
30	23	2754	0.80	95.39
31.6667	13	2767	0.45	95.84
33.3333	20	2780	0.45	96.29
35	9	2800	0.69	96.99
36.6667	6	2809	0.31	97.30
38.3333	8	2815	0.21	97.51
40	3	2823	0.28	97.78
41.6667	6	2826	0.10	97.89
43.3333	5	2832	0.21	98.10
45	10	2837	0.17	98.27
46.6667	7	2847	0.35	98.61
48.3333	9	2854	0.24	98.86
50	2	2863	0.31	99.17
51.6667	2	2865	0.07	99.24
53.3333	1	2867	0.07	99.31
55	3	2868	0.04	99.34
60	1	2871	0.10	99.45
63.3333	2	2872	0.04	99.48
65	2	2874	0.07	99.55
	3	2877	0.10	99.65

(cont.)

VARIABLE HEARVRT (cont.)

VALUE	FREQ	CUM FREQ	%	CUM %
66.6667	1	2878	0.04	99.69
68.3333	2	2880	0.07	99.76
70	1	2881	0.04	99.79
71.6667	1	2882	0.04	99.83
75	1	2883	0.04	99.86
78.3333	1	2884	0.04	99.90
89.3333	1	2885	0.04	99.93
91.6667	1	2886	0.04	99.97
106.667	1	2887	0.04	100.00

VARIABLE	HEARAVRX	AMEDIS HEARING LOSS
Average hearing threshold level for the right ear at exit		
CODES		
. - Missing		
R - Not screened		
Range of Values - 0 to 75 dB		
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  
DE17406 {Screening exam} Air conduction threshold at 1000 Hz  
DE17410 {Screening exam} Air conduction threshold at 2000 Hz  
SCREENDX Screening exam indicator at exit

CONSTRUCTION

IF SCREENDX = 1  
THEN HEARAVRX = {DE17402 + DE17406 + DE17410} / 3;  
IF SCREENDX = , THEN HEARAVRX = R;

VALUE	FREQ	CUM FREQ	%	CUM %
HEARAVRX				
VALUE	FREQ	CUM FREQ	%	CUM %
.	923	.	.	.
R	210	84	1.77	1.77
0	84	288	4.31	6.08
1.666667	204	721	9.14	15.22
3.333333	433	1231	10.76	25.98
5	510	1811	12.24	38.22
6.666667	580	2342	11.21	49.43
8.333333	531	2805	9.77	59.20
10	463	2806	0.02	59.22
10.3333	1	3195	8.21	67.43
11.6667	389	3492	6.27	73.70
13.3333	297	3729	5.00	78.70
15	237	3919	4.01	82.71
16.6667	190	4063	3.04	85.75
18.3333	144	4186	2.60	88.35
20	123	4288	2.15	90.50
21.6667	102	4376	1.86	92.36
23.3333	88	4434	1.22	93.58
25	58	4482	1.01	94.60
26.6667	48	4520	0.80	95.40
28.3333	38	4554	0.72	96.12
30	34	4579	0.53	96.64
31.6667	25	4588	0.19	96.83
33.3333	9	4602	0.30	97.13
35	14	4620	0.38	97.51
36.6667	18	4629	0.19	97.70
38.3333	9	4650	0.44	98.14
40	21	4663	0.27	98.42
41.6667	13	4669	0.13	98.54
43.3333	6	4675	0.13	98.67
45	6	4682	0.15	98.82
46.6667	7	4687	0.11	98.92
48.3333	5	(cont.)		

VARIABLE HEARVRX (cont.)

VALUE	FREQ	CUM FREQ	%	CUM %
50	5	4692	0.11	99.03
51.6667	4	4696	0.08	99.11
53.3333	6	4702	0.13	99.24
55	3	4705	0.06	99.30
56.6667	3	4708	0.06	99.37
58.3333	6	4714	0.13	99.49
60	2	4716	0.04	99.54
61.6667	1	4717	0.02	99.56
63.3333	1	4718	0.02	99.58
65	2	4720	0.04	99.62
66.6667	1	4721	0.02	99.64
68.3333	2	4723	0.04	99.68
70	2	4725	0.04	99.73
71.6667	2	4727	0.04	99.77
75	11	4738	0.23	100.00

HEARAVLT

VALUE	FREQ	CUM FREQ	%	CUM %
R	694	.	.	.
0	2291	63	2.18	2.18
1.666667	126	189	4.37	6.55
3.333333	219	408	7.59	14.14
5	384	792	13.31	27.44
6.666667	389	1181	13.48	40.92
8.333333	375	1556	12.99	53.92
10	347	1903	12.02	65.94
11.6667	247	2150	8.56	74.50
13.3333	164	2314	5.68	80.18
15	142	2456	4.92	85.10
16.6667	75	2531	2.60	87.70
18.3333	69	2600	2.39	90.09
20	39	2639	1.35	91.44
21.6667	37	2676	1.28	92.72
23.3333	38	2714	1.32	94.04
25	27	2741	0.94	94.98
26.6667	18	2759	0.62	95.60
28.3333	19	2778	0.66	96.26
30	15	2793	0.52	96.78
31.6667	15	2808	0.52	97.30
33.3333	17	2825	0.59	97.89
35	7	2832	0.24	98.13
36.6667	4	2836	0.14	98.27
38.3333	9	2845	0.31	98.58
40	2	2847	0.07	98.65
41.6667	1	2848	0.04	98.68
43.3333	5	2853	0.17	98.86
45	3	2856	0.10	98.96

(cont.)

VARIABLE HEARAVLT AMEDIS  
HEARING LOSS

Average hearing threshold level for the left ear at enrollment

CODES

.- Missing

R - Not screened

Range of Values - 0 to 83.33 dB

HEARAVLT 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 (Screening exam) Air conduction threshold at 500 Hz  
DE17408 (Screening exam) Air conduction threshold at 1000 Hz  
DE17412 (Screening exam) Air conduction threshold at 2000 Hz  
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

IF SCREENED = 1  
THEN HEARAVLT = (DE17404 + DE17408 + DE17412) / 3;

IF SCREENED = . THEN HEARAVLT = R;

VARIABLE HEARAVLT (cont.)

VALUE	FREQ	CUM FREQ	%	CUM %
46.6667	3	2859	0.10	99.06
48.3333	4	2863	0.14	99.20
50	4	2867	0.14	99.34
53.3333	3	2870	0.10	99.45
55	2	2872	0.07	99.52
56.6667	3	2875	0.10	99.62
60	1	2876	0.04	99.65
61.6667	2	2878	0.07	99.72
63.3333	1	2879	0.04	99.76
65	3	2882	0.10	99.86
66.6667	1	2883	0.04	99.90
68.3333	1	2884	0.04	99.93
70	1	2885	0.04	99.97
83.3333	1	2886	0.04	100.00

HEARAVLX

VARIABLE	HEARAVLX	AMDLS HEARING LOSS
Average hearing threshold level for the left ear at exit	R	
CODES	0	
- Missing	1.666667	73
R - Not screened	3.333333	283
Range of Values - 0 to 75 dB	3.666667	700
HEARAVLX is the average hearing threshold level for the left ear based on measurements taken at three different frequencies during the exit screening exam.	5	701
	6.666667	1189
	8.333333	1689
	10	2165
	11.6667	2679
	13.3333	3068
	15	3415
	16.6667	3695
	18.3333	3901
	20	4065
	21.6667	4186
	23.3333	4282
	25	4363
	26.6667	4422
	28.3333	4469
	30	4504
	31.6667	4544
	33.3333	4577
		4606

INPUT VARIABLES

DE17404	(Screening exam) Air conduction threshold at 500 Hz
DE17408	(Screening exam) Air conduction threshold at 1000 Hz
DE17412	(Screening exam) Air conduction threshold at 2000 Hz
SCREENDX	Screening exam indicator at exit

(cont.)

VALUE	FREQ	CUM FREQ	%	CUM %
220	920			
210	73			
210	283			
417	700			
1	701			
488	1189			
500	1689			
476	2165			
514	2679			
389	3068			
347	3415			
280	3695			
206	3901			
164	4065			
121	4186			
96	4282			
81	4363			
59	4422			
47	4469			
35	4504			
40	4544			
33	4577			
29	4606			



VARIABLE HEARAVLX (cont.)

CONSTRUCTION

```

IF SCREENDX = 1
  THEN HEARAVLX = (DE17404 + DE17408 + DE17412) / 3;

IF SCREENDX = . THEN HEARAVLX = R;
  
```

VALUE	FREQ	CUM FREQ	%	CUM %
35	21	4627	0.44	97.60
36.6667	9	4636	0.19	97.79
38.3333	17	4653	0.36	98.14
40	12	4665	0.25	98.40
41.6667	10	4675	0.21	98.61
43.3333	6	4681	0.13	98.73
45	9	4690	0.19	98.92
46.6667	6	4696	0.13	99.05
48.3333	5	4701	0.11	99.16
50	4	4705	0.08	99.24
51.6667	3	4708	0.06	99.30
53.3333	2	4710	0.04	99.35
55	3	4713	0.06	99.41
56.6667	3	4716	0.06	99.47
58.3333	2	4718	0.04	99.52
60	4	4722	0.08	99.60
61.6667	3	4725	0.06	99.66
63.3333	1	4726	0.02	99.68
65	4	4730	0.08	99.77
66.6667	1	4731	0.02	99.79
70	4	4735	0.08	99.87
73.3333	2	4737	0.04	99.92
75	4	4741	0.08	100.00

T2000RT

VARIABLE	T2000RT	AMEDIS HEARING LOSS
Hearing threshold level at 2000 Hz for the right ear at enrollment	R	
CODES	0	
. = Missing	5	
R = Not screened	10	
Range of Values = 0 to 100 dB	15	
T2000RT is the hearing threshold level for the right ear based on a measurement taken at 2000 Hz during the enrollment screening exam.	20	
	25	
	30	
	35	
	40	
	45	
	50	
	55	
	60	
	65	
	70	
	75	
	80	
	90	
	95	
	100	

INPUT VARIABLES

```

HEARAVRT Average threshold for right ear
DE17410 (Screening exam) Air conduction threshold at 2000 Hz
SCREENED Screening exam indicator at enrollment
  
```

(cont.)

VALUE	FREQ	CUM FREQ	%	CUM %
R	693	.	.	.
0	2291	506	17.53	17.53
5	858	1364	29.72	47.25
10	739	2103	25.60	72.84
15	385	2488	13.34	86.18
20	119	2607	4.12	90.30
25	75	2682	2.60	92.90
30	67	2749	2.32	95.22
35	27	2776	0.94	96.16
40	37	2813	1.28	97.44
45	13	2826	0.45	97.89
50	20	2846	0.69	98.58
55	11	2857	0.38	98.96
60	13	2870	0.45	99.41
65	4	2874	0.14	99.55
70	5	2879	0.17	99.72
75	4	2883	0.14	99.86
80	1	2884	0.04	99.90
90	1	2885	0.04	99.93
95	1	2886	0.04	99.97
100	1	2887	0.04	100.00

VARIABLE T2000RT (cont.)

CONSTRUCTION

```

IF SCREENED = 1
  THEN IF HEARVRT \= .
    THEN T2000RT = DE17410;

IF SCREENED = . THEN T2000RT = R;
  
```

VARIABLE	T2000RTX	AMFDIS	HEARING LOSS
			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			
HEARVRX	Average threshold for right ear		
DE17410	(Screening exam) Air conduction threshold at 2000 Hz		
SCREENDX	Screening exam indicator at exit		
	T2000RTX	FREQ	CUM FREQ
VALUE			
.	R	923	.
0	0	210	.
5	5	1105	1105
10	10	924	2029
15	15	1139	3168
20	20	685	3853
25	25	299	4152
30	30	187	4339
35	35	136	4475
40	40	51	4526
45	45	41	4567
50	50	46	4613
55	55	41	4654
60	60	13	4667
65	65	24	4691
70	70	11	4702
75	75	14	4716
		22	4738
			CUM %
			%
			.
			23.32
			23.32
			42.82
			19.50
			24.04
			66.86
			14.46
			81.32
			6.31
			87.63
			3.95
			91.58
			2.87
			94.45
			1.08
			95.53
			0.87
			96.39
			0.97
			97.36
			0.87
			98.23
			0.27
			98.50
			0.51
			99.01
			0.23
			99.24
			0.30
			99.54
			0.46
			100.00

CONSTRUCTION

```

IF SCREENDX = 1
  THEN IF HEARVRX \= .
    THEN T2000RTX = DE17410;

IF SCREENDX = . THEN T2000RTX = R;
  
```







```
VARIABLE HEARSTAT (cont.)
CONSTRUCTION (cont.)
(Construct T2000B and WORSE)
  IF HEARAVLT = HEARVRT
    THEN DO;
      IF T2000LT = T2000RT
        THEN DO;
          T2000B = T2000RT;
          WORSE = HEARVRT;
          END;
        ELSE IF T2000LT < T2000RT
          THEN DO;
            T2000B = T2000LT;
            WORSE = HEARVRT;
            END;
          ELSE IF T2000LT > T2000RT
            THEN DO;
              T2000B = T2000RT;
              WORSE = HEARVRT;
              END;
            END;
          END;
        END;
      IF HEARAVLT \= HEARVRT
        THEN IF BETTER = HEARAVLT
          THEN DO;
            WORSE = HEARVRT;
            T2000B = T2000LT;
            END;
          ELSE DO;
            WORSE = HEARAVLT;
            T2000B = T2000RT;
            END;
        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.)
```

VARIABLE HEARSTAT (cont.)

CONSTRUCTION (cont.)

```
IF 0 <= BETTER <= 25 AND 0 <= T2000B <= 25 AND
  WORSE > 25
  THEN HEARSTAT = 1.2;
IF 0 <= BETTER <= 25 AND T2000B > 25 AND
  0 <= WORSE <= 25
  THEN HEARSTAT = 1.3;
IF 0 <= BETTER <= 25 AND T2000B > 25 AND WORSE > 25
  THEN HEARSTAT = 1.4;
IF 25 < BETTER <= 40 THEN HEARSTAT = 2;
IF 41 <= BETTER <= 55 THEN HEARSTAT = 3;
IF BETTER > 56 THEN HEARSTAT = 4;
```

END;

IF SCREENED = . THEN HEARSTAT = R;

HEARSTAT VALUE	FREQ	CUM FREQ	%	CUM %
R	922	.	.	.
1.1	210	4213	88.90	88.90
1.2	4213	4447	4.94	93.84
1.3	234	4516	1.46	95.29
1.4	69	4572	1.18	96.48
2	56	4701	2.72	99.20
3	129	4726	0.53	99.73
4	25	4739	0.27	100.00

VARIABLE	HEARSTAT	AMEDIS HEARING LOSS
Hearing status level at exit based on both ears		
CODES*		
R - Missing		
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 > 56	
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 = WORSE

(cont.)

VARIABLE HEARSIAx (cont.)

INPUT VARIABLES

BFTTR (Temporary variable) Average threshold for better  
ear  
T2000B (Temporary variable) Better ear threshold at 2000 Hz  
WORSE (Temporary variable) Average threshold for worse ear  
HFAVRX Average threshold for right ear  
HEARVLX Average threshold for left ear  
T2000LTX Hearing threshold level at 2000 Hz for the left ear  
T2000RIX Hearing threshold level at 2000 Hz for the right ear  
SCREENDX Screening exam indicator at exit

CONSTRUCTION

(Construct BETTR)

IF SCREENDX = 1  
THEN BETTR = MIN(HEARVLX, HFAVRX);

(Construct T2000B and WORSE)

IF HEARVLX = HFAVRX  
THEN DO;

IF T2000LTX = T2000RTX  
THEN DO;

T2000B = T2000RIX;  
WORSE = HFAVRX;  
END;

ELSE IF T2000LTX < T2000RTX

THEN DO;  
T2000B = T2000LTX;  
WORSE = HFAVRX;  
END;

ELSE IF T2000LTX > T2000RTX

THEN DO;  
T2000B = T2000RTX;  
WORSE = HEARVLX;  
END;

END;

(cont.)



```
VARIABLE HEARSTAX (cont.)
CONSTRUCTION (cont.)
    IF HEARVLX \= HEARVRX
    THEN IF BETTER = HEARVLX
    THEN DO;
        WORSE = HEARVRX;
        T2000B = T2000LTX;
        END;
    ELSE DO;
        WORSE = HEARVLX;
        T2000B = T2000R1X;
        END;

(Construct HEARSTAX)
    IF SCREENDX = 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 SCREENDX = . THEN HEARSTAX = R;
```

HRSTATRT	VALUE	FREQ	CUM FREQ	%	CUM %
R	1.1	694	.	.	.
	1.2	2291	2604	90.23	90.23
	1.3	45	2649	1.56	91.79
	1.4	52	2701	1.80	93.59
	2	7	2708	0.24	93.83
	3	117	2825	4.05	97.89
	4	45	2870	1.56	99.45
		16	2886	0.55	100.00

VARIABLE	HRSTATRT	AMEDIS HEARING LOSS
Hearing Status Level for the Right Ear at enrollment		
CODES*		
R - Missing		
1.1 - Not screened		
1.2 - RT < 25, T2 < 25, LT < 25		
1.3 - RT < 25, T2 > 25, LT < 25		
1.4 - RT < 25, T2 > 25, LT > 25		
2 - 25 < RT <= 40		
3 - 41 <= RT <= 55		
4 - RT > 55		
HRSTATRT defines hearing level for the right ear based on a measurement taken at 2000 Hz (T2000). If the right ear's average threshold is normal (< 25 dB), then the left ear's threshold is also taken into account.		

\*NOTE: RT = HEARVRT; T2 = T2000RT; LT = HEARAVLT.

#### INPUT VARIABLES

HEARVRT (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

```
IF SCREENED=1
  THEN DO;
    IF 0 <= HEARVRT <= 25 AND 0 <= T2000RT <= 25 AND
       0 <= HEARAVLT <= 25
    THEN HRSTATRT = 1.1;
    IF 0 <= HEARVRT <= 25 AND 0 <= T2000RT <= 25 AND
       HEARAVLT > 25
    THEN HRSTATRT = 1.2;
  (cont.)
```

VARIABLE HRSTATRT (cont.)

CONSTRUCTION (cont.)

```
IF 0 <= HEARVRT <= 25 AND T2000RT > 25 AND  
0 <= HEARVLT <= 25  
THEN HRSTATRT = 1.3;  
IF 0 <= HEARVRT <= 25 AND T2000RT > 25 AND  
HEARVLT > 25  
THEN HRSTATRT = 1.4;  
IF 25 < HEARVRT <= 40  
THEN HRSTATRT = 2;  
IF 41 <= HEARVRT <= 55  
THEN HRSTATRT = 3;  
IF HEARVRT > 56 THEN HRSTATRT = 4;
```

END;

IF SCREENED = . THEN HRSTATRT = R;

VARIABLE	HRSTARTX	AMEDIS HEARING LOSS
Hearing Status Level for the Right Ear at exit		
CODES*		
R - Missing		
1.1	RT < 25, T2 < 25, LT < 25	
1.2	RT < 25, T2 < 25, LT > 25	
1.3	RT < 25, T2 > 25, LT < 25	
1.4	RT < 25, T2 > 25, LT > 25	
2	25 < RT <= 40	
3	41 <= RT <= 55	
4	RT > 56	
HRSTARTX defines hearing level for the right ear based on a measurement taken at 2000 Hz (T2000). If the right ear's average threshold is normal (< 25 dB), then the left ear's threshold is also taken into account.		

\*NOTE: RT = HEARVRX; T2 = T2000RTX; LT = HEARAVLX. (cont.)

HRSTARTX VALUE	FREQ	CUM FREQ	%	CUM %
R	923	.	.	.
1.1	210	4146	87.51	87.51
1.2	123	4269	2.60	90.10
1.3	136	4405	2.87	92.97
1.4	29	4434	0.61	93.58
2	216	4650	4.56	98.14
3	55	4705	1.16	99.30
4	33	4738	0.70	100.00

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 41 <= HEARAVRX <= 55
    THEN HRSTARTX = 3;
    IF HEARAVRX > 56 THEN HRSTARTX = 4;
  END;

IF SCREENDX = . THEN HRSTARTX = R;
```

HRSTATLT	VALUE	FREQ	CUM FREQ	%	CUM %
.	R	694	.	.	.
1	1	2291	2598	90.02	90.02
2	1.1	2398	2671	92.55	92.55
3	1.2	73	2729	2.01	94.56
4	1.3	58	2741	0.42	94.98
5	1.4	12	2847	3.67	98.65
6	2	106	2872	0.87	99.52
7	3	25	2886	0.49	100.00
8	4	14			

VARIABLE	HRSTATLT	AMEDIS HEARING LOSS
Hearing Status level for the Left Ear at enrollment		
CODES*		
.	Missing	
1	Not screened	
1.1	LT < 25, T2 < 25, RT < 25	
1.2	LT < 25, T2 < 25, RT > 25	
1.3	LT < 25, T2 > 25, RT < 25	
1.4	LT < 25, T2 > 25, RT > 25	
2	25 < LT <= 40	
3	41 <= LT <= 55	
4	LT > 56	
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

HEARAVRT (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 0 <= T2000LT <= 25 AND
       HEARAVRT > 25
      THEN HRSTATLT = 1.2;
  
```

(cont.)

VARIABLE HRSTATLT (cont.)

CONSTRUCTION (cont.)

```

IF 0 <= HEARAVLT <= 25 AND T2000LT > 25 AND
0 <= HEARAVRT <= 25
THEN HRSTATLT = 1.3;
IF 0 <= HEARAVLT <= 25 AND T2000LT > 25 AND
HEARAVRT > 25
THEN HRSTATLT = 1.4;
IF 25 < HEARAVLT <= 40 THEN HRSTATLT = 2;
IF RT <= HEARAVLT <= 55 THEN HRSTATLT = 3;
IF HEARAVLT > 56 THEN HRSTATLT = 4;

```

END;

IF SCREENED = . THEN HRSTATLT = R;

HRSTATLTX	FREQ	CUM FREQ	%	CUM %
VALUE				
R	922	.	.	.
1.1	210	4134	87.23	87.23
1.2	111	4245	2.34	89.58
1.3	148	4393	3.12	92.70
1.4	27	4420	0.57	93.27
2	243	4663	5.13	98.40
3	48	4711	1.01	99.41
4	28	4739	0.59	100.00

VARIABLE HRSTATLTX AMEDIS HEARING LOSS

Hearing Status Level for the Left Ear at exit

CODES\*

```

. - Missing
R - Not screened
1.1 - LT < 25, T2 < 25, RT < 25
1.2 - LT < 25, T2 < 25, RT > 25
1.3 - LT < 25, T2 > 25, RT < 25
1.4 - LT < 25, T2 > 25, RT > 25
2 - 25 < LT <= 40
3 - 41 <= LT <= 55
4 - LT > 56

```

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.

(cont.)

VARIABLE HRSTALTX (cont.)

INPUT VARIABLES

HEARAVRX (Screening exam) Average threshold for right ear  
HEARAVLX (Screening exam) Average threshold for left ear  
T2000LTX (Screening exam) Left ear threshold at 2000 Hz  
SCREENDX Screening exam indicator at exit

CONSTRUCTION

```
IF SCREENDX = 1
  THEN DO;
    IF 0 <= HEARAVLX <= 25 AND 0 <= T2000LTX <= 25 AND
       0 <= HEARAVRX <= 25
      THEN HRSTALTX = 1.1;
    IF 0 <= HEARAVLX <= 25 AND 0 <= T2000LTX <= 25 AND
       HEARAVRX > 25
      THEN HRSTALTX = 1.2;
    IF 0 <= HEARAVLX <= 25 AND T2000LTX > 25 AND
       0 <= HEARAVRX <= 25
      THEN HRSTALTX = 1.3;
    IF 0 <= HEARAVLX <= 25 AND T2000LTX > 25 AND
       HEARAVRX > 25
      THEN HRSTALTX = 1.4;
    IF 25 < HEARAVLX <= 40 THEN HRSTALTX = 2;
    IF 41 <= HEARAVLX <= 55 THEN HRSTALTX = 3;
    IF HEARAVLX > 56 THEN HRSTALTX = 4;
  END;

IF SCREENDX = . THEN HRSTALTX = R;
```

VARIABLE	HEARBIN	AMEDIS HEARING LOSS
Binary 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.		

HEARBIN VALUE	FREQ	CUM FREQ	%	CUM %
R	693	.	.	.
0	2291	2794	96.78	96.78
1	2794	2887	3.22	100.00

#### INPUT VARIABLES

HEARVRT (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, HEARVRT);

(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;



HEARBINX	VALUE	FREQ	CUM FREQ	%	CUM %
R	0	920	.	.	.
0	1	210	4574	96.48	96.48
1		4574	4741	3.52	100.00
		167			

VARIABLE	HEARBINX	AMC015 HEARING LOSS
Binary hearing status of better ear at exit		
CODES		
.	- Missing	
R	- No screening exam	
0	- No hearing loss	
1	- 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)

F SCREENDX = 1  
THEN DO;

IF 0 < BETTER <= 25 THEN HEARBINX = 0;  
IF BETTER > 25 THEN HEARBINX = 1;  
END;

F SCREENDX = . THEN HEARBINX = R;

VARIABLE	HRSTAT41	AMFDIS	HEARING LOSS
Hearing status at enrollment, defining loss as starting at >= 41 db			
CODES			
. - Missing R - No screening exam 0 - No hearing loss 1 - Moderate to severe hearing loss			
HRSTAT41 indicates whether there is any hearing loss for the better ear at 41 db or above.			
<b>NOTE:</b> 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 HEARSTAT.			
INPUT VARIABLES			
HEARAVRT Average threshold for right ear			
HEARAVLT Average threshold for left ear			
BETTER (temporary variable) Average threshold for the better ear			
SCREENED Screening exam indicator at enrollment			
CONSTRUCTION			
{Construct BETTER}			
BETTER = MIN(HEARAVLT, 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;

VARIABLE	HRSTAT41X	AMEDIS HEARING LOSS
		Hearing status at exit, defining loss as starting at >= 41 db
	CODES	
	.	- Missing
	R	- No screening exam
	0	- No hearing loss
	1	- Moderate to severe hearing loss
		HRSTAT41X indicates whether there is any hearing loss for the better ear at 41 db or above.

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  
HEARSTAX.

INPUT VARIABLES

HEARAVRX Average threshold for right ear  
HEARAVLX Average threshold for left ear  
BETTER (Temporary variable) Average threshold for the  
better ear  
SCREENDX Screening exam indicator at exit  
(cont.)

HRSTAT41X VALUE	FREQ	CUM FREQ	%	CUM %
.	1049	.	.	.
R	210	4574	99.18	99.18
0	4574	4612	0.82	100.00
1	38			

VARIABLE HRSTA41X (cont.)

CONSTRUCTION

(Construct BETTER)

BETTER = MIN(HEARAVLX, HEARAVRX);

(Construct HRSTA41X)

IF SCREENDX = 1  
THEN DO;

IF 0 <= BETTER <= 25 THEN HRSTA41X = 0;  
IF BETTER >= 41 THEN HRSTA41X = 1;

END;

IF SCREENDX = , THEN HRSTA41X = R;

VARIABLE	HEARIMP	HEARING LOSS	AMEDIS
Impact of hearing problems at enrollment			
CODES			
. - Missing			
M - No MHQB			
S - Skipped battery, no hearing problems			
0 - No impact			
1 - Some impact			
HEARIMP indicates whether hearing problems have caused concern or worry, or restricted activity.			

INPUT VARIABLES

DEI4230 (Dayton - MHQB) Do you have trouble hearing with one or both ears without a hearing aid?  
DEI4240 (MHQB) 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.)

HEARIMP  
VALUE

M  
S  
0  
1

FREQ  
703  
259  
4798  
32  
79

CUM  
FREQ  
.  
.  
.  
32  
111

%  
.  
.  
.  
28.83  
71.17

CUM  
%  
.  
.  
.  
28.83  
100.00

VARIABLE HEARIMP (cont.)

INPUT VARIABLES (cont.)

DE14241 (MHQB) During the past 3 months, how much has your hearing problem worried or concerned you?

DE15300 (MHQB) 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 (Nondayton - MHQB) 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?

MHQB MHQB 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 MHQB = , THEN HEARIMP = N;
```



-----  
HYPERCHOLESTEROLEMIA

VARIABLE	CHOLEST	AMEDIS
		HYPERCHOLESTEROLEMIA
	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;

CHOLEST

NUMBER OF OBSERVATIONS	2856
NUMBER OF MISSING	3015
MEAN	205.18
MEDIAN	200.00
MINIMUM VALUE	51.00
MAXIMUM VALUE	500.00
STANDARD DEVIATION	43.17
COEFFICIENT OF VARIATION	21.04
SKEWNESS	0.83
KURTOSIS	1.87

CHOLESTX

NUMBER OF OBSERVATIONS	4915
NUMBER OF MISSING	956
MEAN	198.43
MEDIAN	193.00
MINIMUM VALUE	80.00
MAXIMUM VALUE	855.00
STANDARD DEVIATION	45.57
COEFFICIENT OF VARIATION	22.96
SKEWNESS	1.46
KURTOSIS	10.31

VARIABLE	CHOLESTX	AXEDIS
		HYPERCHOLESTEROLEMIA
	Blood cholesterol measurement at exit	
	CODES	
	- Missing DE17484 and DE17485	
	- No screening exam	
	Range of values - 80 to 855 mg/dl	
	CHOLESTX 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  
 SCREENDX Screening exam indicator at exit

#### CONSTRUCTION

```
CHOLESTX = DE17484;
IF DE17485 \= . AND DE17485 \= E
  THEN CHOLESTX = DE17485;
IF SCREENDX = .
  THEN CHOLESTX = E;
```



VARIABLE	CHOLMIQ	AMEDIS HYPERCHOLESTEROLEMIA
Hypercholesterolemia status based on the MHQ at enrollment		
CODES		
. = Missing		
A = No MHQB		
0 = No hypercholesterolemia ever present		
1 = Yes, doctor said hypercholesterolemia, not taking prescribed medications		
2 = Yes, doctor said hypercholesterolemia, taking prescribed medications		
CHOLMIQ indicates hypercholesterolemia status based on MHQ responses.		

CHOLMHQ	VALUE	FREQ	CUM FREQ	%	CUM %
.	A	677	.	.	.
.	0	259	4802	97.31	97.31
.	1	4802	4915	2.29	99.60
.	2	113	4935	0.41	100.00
.		20			

INPUT VARIABLES

DE14340 {MHQB} Has a doctor ever said you have high blood cholesterol?  
DE14343 {MHQB} Are you currently taking medicine for high cholesterol?  
MHQB MHQ3 indicator at enrollment

CONSTRUCTION

```
IF DE14340 = 2  
  THEN CHOLMIQ= 0;  
IF DE14340 = 1 AND DE14343 \= 1  
  THEN CHOLMIQ= 1;  
IF DE14340 = 1 AND DE14343 = 1  
  THEN CHOLMIQ= 2;  
IF MHQB = .  
  THEN CHOLMHQ= A;
```

CHOLMHQX	VALUE	FREQ	CUM FREQ	%	CUM %
0	0	758	4932	96.46	96.46
1	1	4932	5101	3.31	99.77
2	2	169	5113	0.24	100.00

VARIABLE CHOLMHQX AMEDIS  
HYPERCHOLESTEROLEMIA

Hypercholesterolemia status based on the MHQ at exit

CODES

0 - Missing

1 - No hypercholesterolemia ever present

2 - Yes, doctor said hypercholesterolemia, not taking prescribed medications

3 - Yes, doctor said hypercholesterolemia, taking prescribed medications

CHOLMHQX indicates hypercholesterolemia status based on MHQ responses.

# INPUT VARIABLES

DE14340 (MHQ3) Has a doctor ever said you have high blood cholesterol?

DE14343 (MHQ3) 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;

```

VARIABLE	CHOLSTAT	AMEDIS	CHOLSTAT	FREQ	CUM FREQ	%	CUM %
		HYPERCHOLESTEROLEMIA	VALUE				
	Cholesterol status indicator at enrollment		1	677	20	0.39	0.39
	CODES		2	20	101	1.56	1.95
	1 - Missing cholesterol-lowering drugs		3	81	123	0.42	2.37
	2 - Cholesterol over 299, taking no drugs		4	22	132	0.17	2.54
	3 - Cholesterol 260-299, taking no drugs, has had diagnosis		5	9	183	3.52	6.07
	4 - Cholesterol 260-299, no drugs, no diagnosis but on a special diet		6	2551	2866	45.11	55.18
	5 - Cholesterol 260-299, no drugs, no diagnosis, not on a special diet		7	2328	5194	44.82	100.00
	6 - Cholesterol under 260, no drugs						
	7 - All other respondents						
	CHOLSTAT assigns a status value to each respondent based on cholesterol level, current treatment, and reported previous diagnosis.						
INPUT VARIABLES							
DE14340	(MHQB) Has a doctor ever said you have high blood cholesterol?						
DE14343	(MHQB) Are you currently taking medicine for high cholesterol?						
DE13699	(MHQB) Are you on a special diet for high cholesterol?						
DE13704	(MHQB) What kind of low fat or cholesterol diet is it?						
CHOLEST	Blood cholesterol measurement						
SE	(Temporary variable) Cholesterol indicator						
	0 = less than 260 (normal)						
	1 = 260-299 (borderline elevated)						
	2 = 300 or more (elevated)						
	(cont.)						

```
VARIABLE CHOLSTAT (cont.)
CONSTRUCTION
{Construct SE}
  IF 0 < CHOLEST < 260
  THEN SE = 0;
  ELSE IF 260 <= CHOLEST < 300
  THEN SE = 1;
  ELSE IF CHOLEST >= 300
  THEN SE = 2;
  ELSE IF SCREENED = 1
  THEN SE = M;

{Construct CHOLSTAT}
  IF DE14343 = 1
  THEN CHOLSTAT= 1;
  ELSE IF SE = 2
  THEN CHOLSTAT= 2;
  ELSE IF SE = 1 AND DE14340 = 1
  THEN CHOLSTAT= 3;
  ELSE IF SE = 1 AND (DE13699 = 1 OR DE13704 = 1)
  THEN CHOLSTAT= 4;
  ELSE IF SE = 1
  THEN CHOLSTAT= 5;
  ELSE IF SE = 0
  THEN CHOLSTAT= 6;
  ELSE CHOLSTAT= 7;
```

CHOLSTAX	VALUE	FREQ	CUM FREQ	%	CUM %
1	1	585	12	0.23	0.23
2	2	133	145	2.52	2.74
3	3	31	176	0.59	3.33
4	4	7	183	0.13	3.46
5	5	235	418	4.45	7.91
6	6	4497	4915	85.07	92.98
7	7	371	5286	7.02	100.00

VARIABLE	CHOLSTAX	HYPERCHOLESTEROLEMIA	AMEDIS
		Cholesterol status indicator at exit	
	CODES		
	1	- Missing	
	2	- Taking cholesterol-lowering drugs	
	3	- Cholesterol over 300, taking no drugs	
	4	- Cholesterol 260-299, taking no drugs, has had diagnosis	
	5	- Cholesterol 260-299, no drugs, no diagnosis but on a special diet	
	6	- Cholesterol 260-299, no drugs, no diagnosis, not on a special diet	
	7	- Cholesterol under 260, no drugs	
		- Not screened or cholesterol value missing, no drugs	
		CHOLSTAX assigns a status value to each respondent based on cholesterol level, current treatment, and reported previous diagnosis.	

# INPUT VARIABLES

DEI3173	{Screening exam} Has a doctor ever said you have high blood cholesterol? 1 - No 2 - Yes
DEI3699	{MHQB} Are you on a special diet for high cholesterol?
DEI3704	{MHQB} What kind of low fat or cholesterol diet is it?
DEI4340	{MHQB} Has a doctor ever said you have high blood cholesterol?
DEI4343	{MHQB} Are you currently taking medicine for high cholesterol?
DEI3699	{MHQB} Are you on a special diet for high cholesterol?
DEI3704	{MHQB} What kind of low fat or cholesterol diet is it?
DOCSAIDX	{Temporary variable} High cholesterol reported by doctor 1 - Missing 2 - Yes 3 - No

(cont.)

```

VARIABLE CHOLSTAX (cont.)

INPUT VARIABLES (cont.)

CHOLESTX  Blood cholesterol measurement
SCREMX    (Temporary variable) Cholesterol indicator
          - Missing CHOLESTX
          0 - Missing screening exam
          1 - Less than 260 (normal)
          2 - 260 to 299 (borderline elevated)
          3 - 300 or more (elevated)

CONSTRUCTION

(Construct SCREMX)

  IF SCRENDX = .
  THEN SCREMX = 0;
  IF 0 < CHOLESTX < 260
  THEN SCREMX = 0;
  ELSE IF 260 <= CHOLESTX < 300
  THEN SCREMX = 1;
  ELSE IF CHOLESTX >= 300
  THEN SCREMX = 2;

(Construct DOCSAIDX)

  IF DE14340 = 1 OR ((DE14340 = . OR DE14340 = A)
  AND DE13173 = 2)
  THEN DOCSAIDX = 1;
  ELSE IF DE14340 = 2 OR ((DE14340 = . OR DE14340 = A)
  AND DE13173 = 1)
  THEN DOCSAIDX = 2;

(Construct CHOLSTAX)

  IF DE14343 = 1
  THEN CHOLSTAX = 1;
  ELSE IF SCREMX = 2
  THEN CHOLSTAX = 2;
  ELSE IF SCREMX = 1 AND DOCSAIDX = 1
  THEN CHOLSTAX = 3;
  ELSE IF SCREMX = 1 AND (DE13699 = 1 OR DE13704 = 1)
  THEN CHOLSTAX = 4;
  ELSE IF SCREMX = 1
  THEN CHOLSTAX = 5;
  ELSE IF SCREMX = 0
  THEN CHOLSTAX = 6;
  ELSE CHOLSTAX = 7;

```

CHOLDIET					
VALUE	FREQ	CUM FREQ	%	CUM %	
1	5176	195	28.06	28.06	
2	195	695	71.94	100.00	

VARIABLE	CHOLDIET	AMFDIS
		HYPERCHOLESTEROLEMIA
Special diet indicator at enrollment		
CODES		
1	- Missing, includes those without high cholesterol	
2	- Yes	
2	- No	
CHOLDIET indicates whether respondent is on a low fat or low cholesterol diet for hypercholesterolemia.		

INPUT VARIABLES

DE13699 (MIQB) Are you on a special diet for high cholesterol?  
DE13704 (MIQB) What kind of low fat or cholesterol diet is it?

CONSTRUCTION

IF DE13699 = 2 OR DE13704 = 2  
THEN CHOLDIET = 2;  
IF DE13699 = 1 OR DE13704 = 1  
THEN CHOLDIET = 1;

CHOLDIEX	VALUE	FREQ	CUM FREQ	%	CUM %
1	1	5190	249	36.56	36.56
2	2	432	681	63.44	100.00

VARIABLE	CHOLDIEX	AMIDIS HYPERCHOLESTEROLEMIA
Special diet indicator at exit		
CODES		
1 - Missing, includes those without high cholesterol		
2 - Yes		
2 - No		
CHOLDIEX indicates whether respondent is on a low fat or low cholesterol diet for hypercholesterolemia.		

#### INPUT VARIABLES

DE13699 (MHQB) Are you on a special diet for high cholesterol?  
 DE13704 (MHQB) 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;



CHOLIMP	FREQ	CUM FREQ	%	CUM %
VALUE				
.	5479	.	.	.
A	259	.	.	.
0	84	84	63.16	63.16
1	49	133	36.84	100.00

VARIABLE	CHOLIMP	AMEDIS
		HYPERCHOLESTEROLEMIA
		Impact of hypercholesterolemia at enrollment
		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;

CHOLIMPX	VALUE	FREQ	CUM FREQ	%	CUM %
.	0	5690	116	64.09	64.09
1	1	65	181	35.91	100.00

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.

#### 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?

#### CONSTRUCTION

IF DE14345 = 4 OR DE14346 = 5 THEN CHOLIMPX = 0;  
 IF 1 <= DE14345 <= 3 OR 1 <= DE14346 <= 4  
 THEN CHOLIMPX = 1;



SYSTOLX

NUMBER OF OBSERVATIONS	5059
NUMBER OF MISSING	812
MEAN	119.84
MEDIAN	120.00
MINIMUM VALUE	72.00
MAXIMUM VALUE	232.00
STANDARD DEVIATION	17.66
COEFFICIENT OF VARIATION	14.74
SKEWNESS	0.19
KURTOSIS	1.51

VARIABLE	SYSTOLX	AMEDIS HYPERTENSION
Systolic blood pressure measurement at exit		
CODES		
. - Missing DE17077 and DE17079 0 - 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 = 0;
IF SCREENDX \= .
  THEN DO;
  SYSTOLX = DE17077;
  IF DE17079 \= . THEN SYSTOLX = DE17079;
END;
  
```

DIASTOL

NUMBER OF OBSERVATIONS	2899
NUMBER OF MISSING	2972
MEAN	75.25
MEDIAN	76.00
MINIMUM VALUE	1.00
MAXIMUM VALUE	134.00
STANDARD DEVIATION	11.26
COEFFICIENT OF VARIATION	14.96
SKEWNESS	0.04
KURTOSIS	1.14

VARIABLE	DIASTOL	AMEDIS
		HYPERTENSION

Diastolic blood pressure measurement at enrollment

CODES

- . - Missing DE17080 and DE17082
- 0 - 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;
```

DIASTOLX

NUMBER OF OBSERVATIONS	5058
NUMBER OF MISSING	813
MEAN	76.90
MEDIAN	77.00
MINIMUM VALUE	40.00
MAXIMUM VALUE	136.00
STANDARD DEVIATION	11.96
COEFFICIENT OF VARIATION	15.56
SKEWNESS	0.45
KURTOSIS	0.70

VARIABLE	DIASTOLX	AMEDIS
		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;

```

HYPESTAT VALUE	FREQ	CUM FREQ	%	CUM %
0	689	.	.	.
1	2291	2382	82.39	82.39
2	164	2546	5.67	88.07
3	93	2639	3.22	91.28
5	45	2684	1.56	92.84
6	39	2723	1.35	94.19
7	142	2865	4.91	99.10
8	26	2891	0.90	100.00

VARIABLE	HYPESTAT	AMEDIS HYPERTENSION
Hypertension disease status at enrollment		
CODES		
0	Missing	
1	No screening exam	
2	Normal blood pressure (less than 140/90), does not take medications now	
3	Mildly elevated blood pressure (systolic: 140-159, or diastolic: 90-94), does not take medications, condition not previously mentioned by doctor	
4	Normal blood pressure, but takes medications	
5	Mildly elevated blood pressure, takes medications, condition not previously mentioned by doctor	
6	Mildly elevated blood pressure, does not take medications, condition previously mentioned by doctor	
7	Moderate or severe hypertension (systolic: 160 or higher, or diastolic: 95 or higher), does not take medications	
8	Moderate or severe hypertension, takes medications	
HYPESTAT indicates the severity of hypertension by combining blood pressure readings with responses to MHQ questions about previous doctor diagnosis and use of antihypertensive medications.		

NOTE: No respondents were assigned a value of 4.

#### INPUT VARIABLES

DEI3872 (MHQB) Has a doctor ever said you had high blood pressure?

DEI7016 (Screening exam) Are you now taking pills or medicine for high blood pressure?

1 - Yes  
2 - No

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 < SYSTOL < 140) AND (0 < DIASTOL < 90) AND
   (DEI7016 = 2)
THEN HYPESTAT = 1;
IF (0 < SYSTOL < 140) AND (0 < DIASTOL < 90) AND
   (DEI7016 = 1)
THEN HYPESTAT = 3;
IF ((SYSTOL >= 140 OR DIASTOL >= 90) AND
   (SYSTOL < 160 AND DIASTOL < 95) AND
   (DEI3872 = 2) AND (DEI7016 = 2))
THEN HYPESTAT = 2;
IF ((SYSTOL >= 140 OR DIASTOL >= 90) AND
   (SYSTOL < 160 AND DIASTOL < 95) AND
   (DEI3872 = 2) AND (DEI7016 = 1))
THEN HYPESTAT = 4;
IF ((SYSTOL >= 140 OR DIASTOL >= 90) AND
   (SYSTOL < 160 AND DIASTOL < 95) AND
   (DEI3872 = 1) AND (DEI7016 = 2))
THEN HYPESTAT = 5;
IF ((SYSTOL >= 140 OR DIASTOL >= 90) AND
   (SYSTOL < 160 AND DIASTOL < 95) AND
   (DEI3872 = 1) AND (DEI7016 = 1))
THEN HYPESTAT = 6;
IF ((SYSTOL >= 160 OR DIASTOL >= 95) AND DEI7016 = 2)
THEN HYPESTAT = 7;
IF ((SYSTOL >= 160 OR DIASTOL >= 95) AND DEI7016 = 1)
THEN HYPESTAT = 8;
```



HYPESTAX	VALUE	FREQ	CUM FREQ	%	CUM %
.	0	609	.	.	.
1	1	210	4058	80.33	80.33
2	2	4058	4311	5.01	85.33
3	3	253	4463	3.01	88.34
5	5	152	4543	1.58	89.93
6	6	80	4625	1.62	91.55
7	7	82	4916	5.76	97.31
8	8	136	5052	2.69	100.00

VARIABLE	HYPESTAX	AMEDIS HYPERFENSION
Hypertension disease status at exit		
CODES		
.	Missing	
0	No screening exam	
1	Normal blood pressure (less than 140/90), does not take medications now	
2	Mildly elevated blood pressure (systolic: 140-159, or diastolic: 95 or higher), does not take medications, condition not previously mentioned by doctor	
3	Normal blood pressure, but takes medications	
4	Mildly elevated blood pressure, takes medications, condition not previously mentioned by doctor	
5	Mildly elevated blood pressure, does not take medications, condition previously mentioned by doctor	
6	Mildly elevated blood pressure, takes medications, condition previously mentioned by doctor	
7	Moderate or severe hypertension (systolic: 160 or higher, or diastolic: 95 or higher), does not take medications	
8	Moderate or severe hypertension, takes medications	
HYPESTAX indicates the severity of hypertension by combining blood pressure readings with responses to MHQ questions about previous doctor diagnosis and use of antihypertensive medications.		

NOTE: No respondents were assigned a value of 4.

#### INPUT VARIABLES

DE13174 (Screening exam) Have you ever been told by a doctor that you had high blood pressure?

DE13872 (MHQB) Has a doctor ever said that you had high blood pressure?

DE13175 (Screening exam) Are you now taking pills or medicine for high blood pressure?

DE13876 (MHQB) Are you taking the pills or medicine now?

SYSTOLX Systolic blood pressure measurement (cont.)

```
VARIABLE HYPETAX (cont.)
INPUT VARIABLES (cont.)

    DIASTOLX Diastolic blood pressure measurement
    NOWDRUGX (Temporary variable): Taking high blood
              pressure medication at exit
              . - missing
              0 - No
              1 - Yes

    DOCSAIDX (Temporary variable): Hypertension at exit
              according to doctor
              . - missing
              0 - No
              1 - Yes

    SCRENDX Screening exam indicator at exit

CONSTRUCTION
(Construct DOCSAIDX)
    DOCSAIDX = .;
    IF DE13872 = 1 OR (DE13872 = . AND DE13174 = 2)
        THEN DOCSAIDX = 1;
    ELSE IF DE13872 = 2 OR (DE13872 = . AND DE13174 = 1)
        THEN DOCSAIDX = 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 HYPETAX)
    IF SCRENDX = . THEN HYPETAX = 0;
    IF (0 < SYSTOLX < 140) AND (0 < DIASTOLX < 90) AND
        (NOWDRUGX = 0)
        THEN HYPETAX = 1;
    IF (0 < SYSTOLX < 140) AND (0 < DIASTOLX < 90) AND
        (NOWDRUGX = 1)
        THEN HYPETAX = 3;
    (cont.)
```

VARIABLE HYPESTAX (cont.)

CONSTRUCTION (cont.)

```

IF ((SYSTOLX >= 140 OR DIASTOLX >= 90) AND
(SYSTOLX < 160 AND DIASTOLX < 95) AND
(DOCSAIDX = 0) AND (NOWDRUGX = 0))
THEN HYPESTAX = 2;
IF ((SYSTOLX >= 140 OR DIASTOLX >= 90) AND
(SYSTOLX < 160 AND DIASTOLX < 95) AND
(DOCSAIDX = 0) AND (NOWDRUGX = 1))
THEN HYPESTAX = 4;
IF ((SYSTOLX >= 140 OR DIASTOLX >= 90) AND
(SYSTOLX < 160 AND DIASTOLX < 95) AND
(DOCSAIDX = 1) AND (NOWDRUGX = 0))
THEN HYPESTAX = 5;
IF ((SYSTOLX >= 140 OR DIASTOLX >= 90) AND
(SYSTOLX < 160 AND DIASTOLX < 95) AND
(DOCSAIDX = 1) AND (NOWDRUGX = 1))
THEN HYPESTAX = 6;
IF ((SYSTOLX >= 160 OR DIASTOLX >= 95) AND NOWDRUGX = 0)
THEN HYPESTAX = 7;
IF ((SYSTOLX >= 160 OR DIASTOLX >= 95) AND NOWDRUGX = 1)
THEN HYPESTAX = 8;

```

HBP	VALUE	FREQ	CUM FREQ	%	CUM %
0	689	2291	2546	88.07	88.07
1	345	2891	2891	11.93	100.00

VARIABLE	HBP	AMEDIS
		HYPERTENSION
Binary hypertension status at enrollment		
CODES		
.	Missing	
0	No screening exam	
0	Normotensive (normal)	
1	Hypertensive	
HBP is derived from HYPESTAX and defines whether the diagnostic label of hypertension was supported at the time of the enrollment screening exam.		

(cont.)

VARIABLE HBP (cont.)

INPUT VARIABLES

HYPESTAT Hypertension disease status  
SCREENED Screening exam indicator at enrollment

CONSTRUCTION

(Note: No respondents were assigned a value of HYPESTAT=4 and so it is not included in this code)

```
IF SCREENED = 1 THEN HBP = D;  
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;
```

VARIABLE HBPX AMEDIS  
HYPERTENSION

Binary hypertension status at exit

CODES

- . - Missing
- D - No screening exam
- 0 - Normotensive (normal)
- 1 - Hypertensive

HBPX is derived from HYPESTAT and indicates whether the diagnostic label of hypertension was supported at the time of the exit screening exam.

HBPX	VALUE	FREQ	CUM FREQ	%	CUM %
	D	609	.	.	.
	0	210	4311	85.33	85.33
	1	4311	5052	14.67	100.00

INPUT VARIABLES

HYPESTAT Hypertension disease status  
SCREENDX Screening exam indicator at exit

(cont.)

VARIABLE HBPX (cont.)

CONSTRUCTION

(Note: No respondents were assigned a value of HYPESTAX=4 and so it is not included in this code)

```

IF SCRFENDX = . THEN HYPESTAX = D;
IF HYPESTAX = 1 OR HYPESTAX = 2
THEN HBPX = 0;
IF HYPESTAX = 3 OR HYPESTAX = 5 OR
HYPESTAX = 6 OR HYPESTAX = 7 OR HYPESTAX = 8
THEN HBPX = 1;

```

VARIABLE	HYPENCHS	AMEDIS HYPERTENSION
Enrollment hypertension status as defined by NCHS		
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	
HYPENCHS assigns a hypertension status as defined by the National Center for Health Statistics (NCHS).		

INPUT VARIABLES

HYPESTAT Hypertension disease status  
 SCREENED Screening exam indicator at enrollment  
 (cont.)

HYPENCHS VALUE	FREQ	CUM FREQ	%	CUM %
0	689	.	.	.
0	2291	2591	89.62	89.62
1	300	2891	10.38	100.00

VARIABLE HYPENCHS (cont.)

CONSTRUCTION

(Note: No respondents were assigned a value of HYPESTAT=4 and so it is not included in this code)

```
IF SCREENED = . THEN HYPENCHS = D;  
IF HYPESTAT = 1 OR HYPESTAT = 2 OR HYPESTAT = 5  
  THEN HYPENCHS = 0;  
IF HYPESTAT = 3 OR HYPESTAT = 6 OR  
  HYPESTAT = 7 OR HYPESTAT = 8  
  THEN HYPENCHS = 1;
```

HYPENCHSX VALUE	FREQ	CUM FREQ	%	CUM %
D	609	.	.	.
0	210	4391	86.92	86.92
1	4391	5052	13.08	100.00

VARIABLE	HYPENCHSX	AMFDIS HYPERTENSION
Exit hypertension status as defined by NCHS		
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	
HYPENCHSX assigns a hypertension status as defined by the National Center for Health Statistics (NCHS)		

INPUT VARIABLES

HYPESTAT: Hypertension disease status  
SCREENDX: Screening exam indicator at exit  
(cont.)

# VARIABLE HYPNCHSX (cont.)

## CONSTRUCTION

(Note: No respondents were assigned a value of HYPESTAX=4 and so it is not included in this code)

```

IF SCREENDX = 1 THEN HYPESTAX = D;
IF HYPESTAX = 1 OR HYPESTAX = 2 OR HYPESTAX = 5
THEN HYPNCHSX = 0;
IF HYPESTAX = 3 OR HYPESTAX = 6 OR
HYPESTAX = 7 OR HYPESTAX = 8
THEN HYPNCHSX = 1;

```

HYPEMHQ VALUE	FREQ	CUM FREQ	%	CUM %
0	680	.	.	.
1	13	4454	86.02	86.02
2	4454	4639	3.57	89.59
3	185	4927	5.56	95.15
4	288	5178	4.85	100.00

VARIABLE	HYPEMHQ	AMEDIS HYPERTENSION
Enrollment hypertension evaluation from MHQ		
CODES		
1	Missing	
2	MHQA not completed	
3	MHQB not completed	
4	Never been told by doctor that he has high blood pressure	
5	Doctor has said respondent is hypertensive	
6	Doctor has said more than once that respondent is hypertensive, or has prescribed medications in the past	
7	Respondent is currently taking prescribed antihypertension medications	
HYPEMHQ indicates doctor's previous evaluation of hypertension, and current use of prescribed antihypertensive medication.		

## INPUT VARIABLES

```

DE13872 {Dayton - MHQA; NonDayton - MHQB} Has a doctor ever
said that you had high blood pressure?
DE13874 {Dayton - MHQA; NonDayton - MHQB} Did the doctor
say more than one time that you had high blood
pressure, or did he say that just one time?
(cont.)

```

VARIABLE HYPEMHQ (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 (DE13872 > 0) THEN HYPEMHQ = 3 - DE13872;  
 IF (DE13874 = 1 OR DE13875 = 1) THEN HYPEMHQ = 3;  
 IF (DE13876 = 1) THEN HYPEMHQ = 4;  
 IF MHQA = . THEN HYPEMHQ = B;  
 IF MHQB = . THEN HYPEMHQ = C;

HYPEMHQX	VALUE	FREQ	CUM FREQ	%	CUM %
1	1	756	4267	83.42	83.42
2	2	213	4480	4.16	87.59
3	3	261	4741	5.10	92.69
4	4	374	5115	7.31	100.00

VARIABLE HYPEMHQX AMEDIS  
 HYPERTENSION

Exit hypertension evaluation from MHQ

CODES

- 1 - 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

HYPEMHQX indicates doctor's previous evaluation of hypertension, and current use of prescribed antihypertensive medication.

(cont.)



VARIABLE HYPENHGX (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 HYPENHGX = 3 - DE13872;  
 IF (DE13874 = 1 OR DE13875 = 1) THEN HYPENHGX = 3;  
 IF (DE13876 = 1) THEN HYPENHGX = 4;

HYPENHGX	VALUE	FREQ	CUM FREQ	%	CUM %
	0	5526	187	54.20	54.20
	1	187	345	45.80	100.00

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VARIABLE	HYPENHGX	AMEDIS
		HYPERTENSION
Use of medications at enrollment		
CODES		
0 - Missing, includes those without hypertension		
0 - Respondent has hypertension and a currently elevated blood pressure, but does not take medication for hypertension		
1 - Respondent has hypertension and takes medication for high blood pressure; current blood pressure may be normal or elevated		
HYPENHGX indicates whether hypertensive respondent takes antihypertensive medications.		

INPUT VARIABLES

HYPENHGX Hypertension disease status  
 (cont.)

VARIABLE HYPFMD (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 HYPFMD = 1;
IF HYPESTAT = 5 OR HYPESTAT = 7
  THEN HYPFMD = 0;
```

HYPFMDX VALUE	FREQ	CUM FREQ	%	CUM %
0	5130	371	50.07	50.07
1	370	741	49.93	100.00

VARIABLE HYPFMDX AMFDIS  
HYPERTENSION

Use of medications at exit

CODES

- 0 - Missing, includes those without hypertension
- 0 - Respondent has hypertension and a currently elevated blood pressure, but does not take medication for hypertension
- 1 - Respondent has hypertension and takes medication for high blood pressure; current blood pressure may be normal or elevated

HYPFMDX indicates whether hypertensive respondent takes antihypertensive medications.

INPUT VARIABLES

HYPESTAT Hypertension disease status

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 HYPFMDX = 1;
IF HYPESTAT = 5 OR HYPESTAT = 7
  THEN HYPFMDX = 0;
```



IIYPE IMPX	VALUE	FREQ	CUM FREQ	%	CUM %
	0	5024	430	50.77	50.77
	1	417	847	49.23	100.00

VARIABLE	IIYPE IMPX	AMEDIS
Impact of hypertension at exit		HYPERTENSION
CODES		
0 - Missing, includes those without hypertension		
1 - No impact		
2 - Some impact		
HYPERIMPX indicates whether hypertension caused any pain, worry/concern, or activity restrictions.		

#### INPUT VARIABLES

DE13881 (MH08) During the past 3 months, how much pain has your high blood pressure caused you?  
 DE13882 (MH08) 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 HYPERIMPX = 1;
ELSE IF DE13881 <= 0 AND DE13882 <= 0 AND DE13883 <= 0
  THEN HYPERIMPX = 0;
ELSE IF DE13881 = 4 OR DE13882 = 4 OR DE13883 = 5
  THEN HYPERIMPX = 0;
```

JOINT DISORDERS

VARIABLE	JOINMHQ	JOINT DISORDERS	AHEDIS
		Joint disorder status by history alone at enrollment	
		CODES	
		1 - Missing	
		2 - Did not take the MHQ	
		3 - Skipped trigger question, DE13725	
		4 - Other skip error, cannot classify	
		5 - No joint disorder	
		6 - Gout	
		7 - Acute joint disorder	
		8 - Chronic joint disorder, mild	
		9 - Chronic joint disorder, moderate	
		JOINMHQ 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, aching, swelling or stiffness in your joints? For example, your fingers, hip, knee? Do not count problems due to injury.

DE13726 (Dayton - MHQA; NonDayton - MHQB) Have you had pain or aching 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.)

JOINMHQ VALUE	FREQ	CUM FREQ	%	CUM %
M	677	.	.	.
T	13	.	.	.
1	3892	3892	75.18	75.18
2	66	3958	1.28	76.45
3	412	4370	7.96	84.41
4	447	4817	8.63	93.05
5	360	5177	6.95	100.00

VARIABLE JOINMHQ (cont.)

INPUT VARIABLES (cont.)

```

DE13729 (Dayton - MHQA; NonDayton - MHQB) Have you had
stiffness in joints or muscles when first getting
out of bed, 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 (DE13727) and stiffness (DE13728 and DE13729) using the temporary variable CHRONIC.)

```

IF SITE = 1 AND MHQA = .
THEN JOINMHQ = M;
ELSE IF SITE \= 1 AND MHQB = .
THEN JOINMHQ = M;
ELSE IF DE13725 = .
THEN JOINMHQ = T;
ELSE IF DE13725 = 2
THEN JOINMHQ = 1;
ELSE IF DE13725 = 1
THEN DO;

IF DE13737 = 1 OR DE18996 = 1
THEN JOINMHQ = 2;
ELSE DO;

CHRONIC = 0;

IF DE13726 = 1
THEN CHRONIC = CHRONIC + 1;
IF DE13727 = 1
THEN CHRONIC = CHRONIC + 1;
(cont.)

```

VARIABLE JOINMHQ (cont.)

CONSTRUCTION (cont.)

```
IF DE13728 = 1 OR DE13729 = 1
  THEN CHRONIC = CHRONIC + 1;
IF CHRONIC = 0
  THEN JOINMHQ = 3;
ELSE IF CHRONIC = 1
  THEN JOINMHQ = 4;
ELSE IF CHRONIC > 1
  THEN JOINMHQ = 5;
ELSE JOINMHQ = X;
```

END;

END;

JOINMHQX	FREQ	CUM FREQ	%	CUM %
VALUE				
B	585			
S	170			
1	3867	3867	75.63	75.63
2	76	3943	1.49	77.12
3	313	4256	6.12	83.24
4	427	4683	8.35	91.59
5	430	5113	8.41	100.00

VARIABLE JOINMHQX AMEDIS JOINT DISORDERS

Joint disorder status by history alone at exit

CODES

- Missing
- B - No MHQB
- 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

JOINMHQX 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 (MHQB) 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 JOINMHQX (cont.)

INPUT VARIABLES (cont.)

DE13726 (MHQB) Have you had pain or aching in any of your joints on most days for as long as a month?  
 DE13727 (MHQB) Have you had swelling of a joint, and pain when it was touched, on most days for as long as a month?  
 DE13728 (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?  
 DE13729 (MHQB) Have you had stiffness in joints or muscles when first getting out of bed, which lasted as long as 15 minutes?  
 DE18996 (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 (DE13725) regarding joint symptoms. The acute and chronic conditions were constructed by counting the sum of positive responses to pain (DE13726), swelling (DE13727) and stiffness (DE13728 and DE13729) using the temporary variable CHRONIC.}

```

IF MHQBX = 1 THEN JOINMHQX = B;
ELSE IF DE13725 = 1 THEN JOINMHQX = S;
ELSE IF DE13725 = 2 THEN JOINMHQX = 1;
ELSE IF DE13725 = 1 THEN DO;
    IF DE18996 = 1 THEN JOINMHQX = 2;
    ELSE DO;
        CHRONIC = 0;
        IF DE13726 = 1 THEN CHRONIC = CHRONIC + 1;
        (cont.)
    
```



VARIABLE JOINMHQX (cont.)

CONSTRUCTION (cont.)

```
IF DE13727 = 1
  THEN CHRONIC = CHRONIC + 1;
IF DE13728 = 1 OR DE13729 = 1
  THEN CHRONIC = CHRONIC + 1;
IF CHRONIC = 0
  THEN JOINMHQX = 3;
ELSE IF CHRONIC = 1
  THEN JOINMHQX = 4;
ELSE IF CHRONIC > 1
  THEN JOINMHQX = 5;
ELSE JOINMHQX = X;
```

END;

END;

GOUTMEDS	VALUE	FREQ	CUM FREQ	%	CUM %
	1	5851	20	100.00	100.00

VARIABLE GOUTMEDS

AMEDIS  
JOINT DISORDERS

Currently taking medicine for gout at enrollment

CODES

1 - Missing or does not take medicine for gout  
2 - Takes medicine for gout

GOUTMEDS designates those people who were taking medicine for  
gout or high uric acid levels at enrollment.

INPUT VARIABLES

DE13738 (Dayton - MHQA) Are you currently taking colchicine,  
allopurinol (zyloprim), or benemid for your gout or  
high uric acid level?  
DE18997 (NonDayton - MHQB) Are you currently taking any of  
these medications for your gout or high uric acid  
level--colchicine, allopurinol, zyloprim, benemid,  
or colbenemid?

(cont.)

VARIABLE GOUTMEDS (cont.)

CONSTRUCTION

IF DE13738 = 1 OR DE18997 = 1  
THEN GOUTMEDS = 1;

GOUTMEDX VALUE	FREQ	CUM FREQ	%	CUM %
.	643	.	.	.
B	170	.	.	.
S	3	.	.	.
T	3867	.	.	.
U	2	.	.	.
V	1168	.	.	.
1	18	18	100.00	100.00

VARIABLE	GOUTMEDX	AMEDIS JOINT DISORDERS
Currently taking medicine for gout at exit		
CODES		
.	Missing	
B	No MHQB	
S	Missed trigger question, DE13725	
T	No joint problem, skipped out of battery	
U	No doctor diagnosis, DE18996	
V	Missed question on doctor diagnosis, DE18996	
1	Takes medicine for gout	
GOUTMEDX designates those people who were taking medicine for gout or high uric acid levels at exit.		

INPUT VARIABLES

DE13725 (MHQB) 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 (MHQB) Has a doctor ever said that you have gout or  
high uric acid level?

DE18997 (MHQB) Are you currently taking any of these  
medications for your gout or high uric acid level--  
colchicine, allopurinol, zyliprim, benemid, or  
colbenemid?

MHQBX :MHQB indicator at exit

(cont.)

VARIABLE GOUTMEDX (cont.)

CONSTRUCTION

```
IF DE18997 = 1
  THEN GOUTMEDX = 1;
```

{Assign special missings}

```
IF DE13725 = 2 THEN GOUTMEDX = T;
IF DE13725 = 1 THEN GOUTMEDX = S;
IF DE18996 = 2 THEN GOUTMEDX = V;
IF DE18996 = 1 THEN GOUTMEDX = U;
IF MHQ8X = 1 THEN GOUTMEDX = B;
```

JNLIMIT	VALUE	FREQ	CUM FREQ	%	CUM %
1	5822	49	100.00	100.00	100.00

VARIABLE	JNLIMIT	AMEDIS JOINT DISORDERS
----------	---------	---------------------------

Mobility limitation at enrollment

CODES

1 - 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?
```

(cont.)

VARIABLE JNLIMIT (cont.)

CONSTRUCTION

```

IF DE13730 = 2 OR DE13731 = 2 OR
DE13732 = 2 OR DE13733 = 2 OR
DE13734 = 2
THEN JNLIMIT = 1;

```

JNLIMITX VALUE	FREQ	CUM FREQ	%	CUM %
B	1805	.	.	.
S	170	.	.	.
.	3	.	.	.
1	3867	26	100.00	100.00
	26			

VARIABLE	JNLIMITX	AMEDIS JOINT DISORDERS
Mobility limitation at exit		
CODES		
.	Missing	
B	No MHQB	
S	Missed trigger question, DE13725	
1	No joint problem, skipped out of battery	
1	Limited joint mobility	
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 (MHQB) 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.
DE13730 (MHQB) Can you walk up and down stairs without help?
DE13731 (MHQB) Can you get into and out of a car without
help?
DE13732 (MHQB) Can you bathe yourself without help?
DE13733 (MHQB) Can you feed yourself without help?
DE13734 (MHQB) Can you get into bed without help?
MHQBx MHQB indicator at exit

```

(cont.)

VARIABLE JNLIMITX (cont.)

CONSTRUCTION

```
IF DE13725 = 2 THEN JNLIMITX = T;  
IF DE13725 = . 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;
```

URICACID

NUMBER OF OBSERVATIONS 2856  
NUMBER OF MISSING 3015  
MEAN 4.93  
MEDIAN 4.50  
MINIMUM VALUE 0.40  
MAXIMUM VALUE 10.40  
STANDARD DEVIATION 1.40  
COEFFICIENT OF VARIATION 28.29  
SKEWNESS 0.39  
KURTOSIS 0.07

VARIABLE	URICACID	AMEDIS JOINT DISORDERS
Serum Uric Acid (mg/dl) at enrollment		
CODES		
. - Missing		
0 - 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

```
DE17482 (Screening exam) Uric acid level measure  
DE17483 (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;
```

(cont.)

VARIABLE URICACID (cont.)

CONSTRUCTION (cont.)

```

IF DE17483 > 0
  THEN URICACID = DE17483/10;
ELSE IF DE17482 > 0
  THEN URICACID = DE17482/10;
ELSE IF DE17482 = .
  THEN URICACID = U;
END;

```

URICACDX

NUMBER OF OBSERVATIONS 4897  
 NUMBER OF MISSING 974  
 MEAN 5.23  
 MEDIAN 5.10  
 MINIMUM VALUE 1.00  
 MAXIMUM VALUE 15.80  
 STANDARD DEVIATION 1.45  
 COEFFICIENT OF VARIATION 27.79  
 SKEWNESS 0.67  
 KURTOSIS 1.16

VARIABLE URICACDX AMEDIS  
 JOINT DISORDERS

Serum Uric Acid (mg/dl) at exit

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  
 SCOREENDX Screening exam indicator at exit

(cont.)

```
VARIABLE URICACDX (cont.)  
CONSTRUCTION  
  IF SCRENDX = 1  
    THEN DO;  
      IF DE17483 > 0  
        THEN URICACDX = DE17483/10;  
      ELSE IF DE17482 > 0  
        THEN URICACDX = DE17482/10;  
      ELSE IF DE17482 = .  
        THEN URICACDX = U;  
    END;  
  IF SCRENDX = . THEN URICACDX = C;
```





JOINRFX					
VALUE	FREQ	CUM FREQ	%	CUM %	
.	585	.	.	.	
C	210	.	.	.	
R	4028	.	.	.	
1	22	22	2.10	2.10	
2	1026	1048	97.90	100.00	

VARIABLE	JOINRFX	AMEDIS
		JOINT DISORDERS
		Latex fixation slide test for rheumatoid factor at exit
		CODES
		. - Missing
		C - Not screened
		R - Test not done
		1 - Positive
		2 - Negative
		JOINRFX represents the results from the latex fixation slice test. The test was done as part of the exit screening exam.

#### INPUT VARIABLES

```
DE13143 (Screening exam) Latex fixation test
1 - Negative
2 - Positive
SCREENDX 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 SCREENDX = . THEN JOINRFX = C;
IF SCREENDX = 1
THEN DO;
    IF DE13143<0 THEN JOINRFX = R;
    ELSE JOINRFX = DE13143;
END;
IF JOINRFX = 1 THEN JOINRFX = 2;
ELSE IF JOINRFX = 2 THEN JOINRFX = 1;
```

JOINSIZE  
 NUMBER OF OBSERVATIONS 651  
 NUMBER OF MISSING 5220  
 MEAN 60.86  
 MEDIAN 59.50  
 MINIMUM VALUE 47.50  
 MAXIMUM VALUE 91.50  
 STANDARD DEVIATION 6.70  
 COEFFICIENT OF VARIATION 11.01  
 SKEWNESS 1.14  
 KURTOSIS 1.74

VARIABLE	JOINSIZE	JOINT DISORDERS	AMEDIS
Average joint size at enrollment			
CODES			
J - Missing			
J - Joint size measure not done			
Range of values - 47.5 to 91.5 mm			
JOINSIZE represents the average finger joint size for each participant.			

NOTE: In Dayton, the two worst and the one most normal appearing middle joint (proximal inter-phalangeal or PIP) on each hand was measured. In NonDayton sites the PIP joint of all ten fingers was measured.

#### INPUT VARIABLES

DEI2713 (NonDayton - Screening exam) Right thumb  
 DEI2770 (NonDayton - Screening exam) Right index finger  
 DEI2771 (NonDayton - Screening exam) Right middle finger  
 DEI2772 (NonDayton - Screening exam) Right ring finger  
 DEI2773 (NonDayton - Screening exam) Right little finger  
 DEI2774 (NonDayton - Screening exam) Left thumb  
 DEI2775 (NonDayton - Screening exam) Left index finger  
 DEI2776 (NonDayton - Screening exam) Left middle finger  
 DEI2777 (NonDayton - Screening exam) Left ring finger  
 DEI2778 (NonDayton - Screening exam) Repeat left ring finger  
 DEI2779 (NonDayton - Screening exam) Left little finger  
 DEI2720 (Dayton - Screening exam) First measure of worst PIP joint on the right hand  
 DEI2721 (Dayton - Screening exam) Repeat measure of worst PIP joint on the right hand  
 DEI2723 (Dayton - Screening exam) First measure of 2nd worst PIP joint on the right hand  
 DEI2724 (Dayton - Screening exam) Repeat measure of 2nd worst PIP joint on the right hand  
 DEI2726 (Dayton - Screening exam) First measure of worst PIP joint on the left hand  
 DEI2727 (Dayton - Screening exam) Repeat measure of worst PIP joint on the left hand  
 (cont.)

```

VARIABLE JOINSIZE (cont.)
INPUT VARIABLES (cont.)
    DE17279 (Dayton - Screening exam) First measure of 2nd worst
    PIP joint on the left hand
    DE17280 (Dayton - Screening exam) Repeat measure of 2nd
    worst PIP joint on the left hand
    DE17282 (Dayton - Screening exam) First measure for most
    normal PIP joint on right hand
    DE17283 (Dayton - Screening exam) Repeat measure for most
    normal PIP joint on right hand
    DE17285 (Dayton - Screening exam) First measure for most
    normal PIP joint on left hand
    DE17286 (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 = DE17270 + DE17271 + DE17273 +
    DE17274 + DE17276 + DE17277 +
    DE17279 + DE17280 + DE17282 +
    DE17283 + DE17285 + DE17286;
    IF JOINSIZE > 0
    THEN JOINSIZE = ROUND((JOINSIZE/12),.1);

{NonDayton}
    JOINSIZE = DE12713 + DE12770 + DE12771 +
    DE12772 + DE12773 + DE12774 +
    DE12775 + DE12776 + DE12777 +
    DE12778 + DE12779;
    IF JOINSIZE > 0
    THEN JOINSIZE = ROUND((JOINSIZE/11),.1);

    IF JOINSIZE = . THEN JOINSIZE = J;

```

JOINSIZX	NUMBER OF OBSERVATIONS	544
	NUMBER OF MISSING	5327
	MEAN	57.68
	MEDIAN	56.55
	MINIMUM VALUE	44.30
	MAXIMUM VALUE	76.10
	STANDARD DEVIATION	5.33
	COEFFICIENT OF VARIATION	9.24
	SKEWNESS	0.54
	KURTOSIS	-0.26

VARIABLE	JOINSIZX	AMEDIS
		JOINT DISORDERS
Average joint size at exit		
CODES		
. - Missing		
C - Not screened		
R - Joint size measure not done		
Range of values - 44.3 to 76.1 mm		
JOINSIZX represents the average finger 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) Repeat left ring finger
DE12779 (Screening exam) Left little finger
SCREENDX Screening 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) / 11
IF JOINSIZX > 0
  THEN JOINSIZX = ROUND((JOINSIZX/11),1);
IF JOINSIZX = . THEN JOINSIZX = R;
IF SCREENDX = . THEN JOINSIZX = C;

```

JOINWALK	654
NUMBER OF OBSERVATIONS	5217
NUMBER OF MISSING	8.79
MEAN	8.40
MEDIAN	5.00
MINIMUM VALUE	99.90
MAXIMUM VALUE	3.95
STANDARD DEVIATION	44.87
COEFFICIENT OF VARIATION	19.00
SKEWNESS	436.45
KURTOSIS	

VARIABLE	JOINWALK	AMEDIS	JOINT DISORDERS
Number of seconds required to walk 50 feet at enrollment			
CODES			
. = Missing			
Range of values = 5.0 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

DEI7288 {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 DEI7288 > 0
      THEN JOINWALK = DEI7288 / 10;
  END;
```

JOINWLKX

NUMBER OF OBSERVATIONS	1066
NUMBER OF MISSING	4805
MEAN	9.58
MEDIAN	9.10
MINIMUM VALUE	0.90
MAXIMUM VALUE	99.90
STANDARD DEVIATION	4.46
COEFFICIENT OF VARIATION	46.57
SKEWNESS	15.82
KURTOSIS	314.77

VARIABLE	JOINWLKX	AMEDIS
		JOINT DISORDERS
	Number of seconds required to walk 50 feet at exit	
CODES		
	- Missing	
	Range of values - 0.9 to 99.9 seconds	
	JOINWLKX 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

DEI7288 (Screening exam) Time in tenths of a second, for 50 foot walk  
 SCREENDX Screening exam indicator at exit

#### CONSTRUCTION

```

IF SCREENDX = 1
  THEN DO;
    IF DEI7288 > 0
      THEN JOINWLKX = DEI7288 / 10;
  END;

```

;

JOINGRIP	659
NUMBER OF OBSERVATIONS	5212
NUMBER OF MISSING	239.62
MEAN	250.00
MEDIAN	80.00
MINIMUM VALUE	250.00
MAXIMUM VALUE	24.86
STANDARD DEVIATION	10.38
COEFFICIENT OF VARIATION	-3.13
SKEWNESS	11.25
KURTOSIS	

VARIABLE	JOINCRIP	AMLDIS	JOINT DISORDERS
Grip strength at enrollment			
CODES			
. = Missing			
Range of values = 80 to 250 mm Hg.			
JOINCRIP measures the best grip strength of the weaker hand based on three tries. The maximum possible value was 250 mm Hg.			

```

INPUT VARIABLES
DEI7262 (Screening exam) Grip strength right hand 1st try
DEI7263 (Screening exam) Grip strength left hand 1st try
DEI7264 (Screening exam) Grip strength right hand 2nd try
DEI7265 (Screening exam) Grip strength left hand 2nd try
DEI7266 (Screening exam) Grip strength right hand 3rd try
DEI7267 (Screening exam) Grip strength left hand 3rd try
SCREENED Screening exam indicator at enrollment

CONSTRUCTION
(Construct JOINCRIP)
IF SCREENED = 1
  THEN DO;
    JOINCRIP = MIN(MAX(DEI7263,DEI7265,DEI7267),
      MAX(DEI7262,DEI7264,DEI7266));
  END;

```

JOINCRPX

NUMBER OF OBSERVATIONS	1046
NUMBER OF MISSING	4825
MEAN	237.99
MEDIAN	250.00
MINIMUM VALUE	40.00
MAXIMUM VALUE	250.00
STANDARD DEVIATION	29.10
COEFFICIENT OF VARIATION	12.23
SKEWNESS	-3.03
KURTOSIS	9.92

VARIABLE	JOINCRPX	AMEDIS	JOINT DISORDERS
Grip strength at exit			
CODES			
<ul style="list-style-type: none"> <li>- Missing</li> <li>C - Not screened</li> <li>R - Grip test was not done</li> <li>Range of values - 40 to 250 mm Hg</li> </ul>			
JOINCRPX measures the best grip strength of the weaker hand based on three tries. The maximum possible value was 250 mm Hg.			

# INPUT VARIABLES

```

DEI7262 (Screening exam) Grip strength right hand 1st try
DEI7263 (Screening exam) Grip strength left hand 1st try
DEI7264 (Screening exam) Grip strength right hand 2nd try
DEI7265 (Screening exam) Grip strength left hand 2nd try
DEI7266 (Screening exam) Grip strength right hand 3rd try
DEI7267 (Screening exam) Grip strength left hand 3rd try
SCREENDX Screening exam indicator at exit

```

# CONSTRUCTION

```

(Construct JOINCRPX)

```

```

IF SCREENDX = 1
  THEN DO;

```

```

  JOINCRPX = MIN(MAX(DEI7263,DEI7265,DEI7267),
    MAX(DEI7262,DEI7264,DEI7266));

```

```

  END;

```

```

IF JOINCRPX = .
  THEN JOINCRPX= R;

```

```

IF SCREENDX = . THEN JOINCRPX = C;

```



JOINIMP	VALUE	FREQ	CUM FRFQ	%	CUM %
0	4400	265	265	18.02	18.02
1	1206	1471	1471	81.99	100.00

VARIABLE	JOINIMP	AMEDIS JOINT DISORDERS
Impact of joint disorders at enrollment		
CODES		
0 - Missing, includes those without a joint disorder		
1 - No impact		
2 - Some impact		
JOINIMP indicates whether joint disorders caused pain, worry/concern, activity restrictions, or days in bed.		

#### INPUT VARIABLES

DEI3739 (Dayton - MHQA) During the past 3 months, how much pain has the trouble with your joints caused you?

DEI3740 (Dayton - MHQA) During the past 3 months, how much has the trouble with your joints worried or concerned you?

DEI3741 (Dayton - MHQA) 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?

DEI3742 (Dayton - MHQA) During the past 30 days, how many days has the trouble with your joints kept you in bed all or most of the day?

DEI8999 (NonDayton - MHQ8) During the past 3 months, how much pain has the trouble with your joints or muscles caused you?

DEI9000 (NonDayton - MHQ8) During the past 3 months, how much has the trouble with your joints or muscles worried or concerned you?

DEI9001 (NonDayton - MHQ8) 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?

DEI9002 (NonDayton - MHQ8) 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

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 = DE18999;  
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;

JOINIMPX	VALUE	FREQ	CUM FREQ	%	CUM %
B	586	586			
S	170	170			
T	3	3			
0	3867	3867			
1	63	63			
	1182	1182	63	5.06	5.06
			1245	94.94	100.00

VARIABLE	JOINIMPX	JOINT DISORDERS	AMEDIS
Impact of joint disorders at exit			
CODES			
- Missing			
B - No MHQB			
S - Missed trigger question, DE13725			
T - No joint disorders, skipped out of battery			
0 - No impact			
1 - Some impact			
JOINIMPX indicates whether joint disorders caused pain, worry/concern, activity restrictions, or days in bed.			

# INPUT VARIABLES

DE13725 (MHQB) 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 (MHQB) During the past 3 months, how much pain has the trouble with your joints or muscles caused you?

DE19000 (MHQB) During the past 3 months, how much has the trouble with your joints or muscles worried or concerned you?

DE19001 (MHQB) 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 (MHQB) 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

BLDDAYS (Temporary variable) Days in bed in past 30 days

MHQBx MHQB indicator at exit

(cont.)

VARIABLE JOINIMPX (cont.)

CONSTRUCTION

(Construct PAIN, WORRY, ACTIVITY and BEDDAYS)

```
PAIN = DE18999;  
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 MIQBX = . THEN JOINIMPX = B;  
IF DE13725 = . THEN JOINIMPX = S;  
IF DE13725 = 2 THEN JOINIMPX = T;
```

# KIDNEY PROBLEMS/URINARY TRACT INFECTIONS (UTI)

VARIABLE KIDNBUN AMEDIS  
KIDNEY PROBLEMS/UTI  
Blood urea nitrogen (BUN) measure at enrollment  
CODES  
- Missing  
Range of Values - 4 to 50 mg/dl  
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 NonDayton sites).

IF SITE = 1  
THEN DO;

DE12785 = DE12785/10;  
DE12786 = DE12786/10;

END;

(Construct KIDNBUN)

KIDNBUN = DE12785;  
IF DE12786 \= , THEN KIDNBUN = DE12786;

KIDNBUN VALUE	FREQ	CUM FREQ	%	CUM %
4	3016	3	0.11	0.11
5	9	12	0.32	0.42
6	33	45	1.16	1.58
7	84	129	2.94	4.52
8	150	279	5.25	9.77
9	213	492	7.46	17.23
10	294	786	10.30	27.53
11	303	1089	10.61	38.14
12	308	1397	10.79	48.93
13	329	1726	11.52	60.46
14	260	1986	9.11	69.56
15	222	2208	7.78	77.34
16	171	2379	5.99	83.33
17	142	2521	4.97	88.30
18	95	2616	3.33	91.63
19	63	2679	2.21	93.84
20	54	2733	1.89	95.73
21	39	2772	1.37	97.09
22	30	2802	1.05	98.14
23	20	2822	0.70	98.84
24	9	2831	0.32	99.16
25	5	2836	0.18	99.34
26	3	2839	0.11	99.44
27	4	2843	0.14	99.58
28	5	2848	0.18	99.76
29	3	2851	0.11	99.86
30	2	2853	0.07	99.93
33	1	2854	0.04	99.97
50	1	2855	0.04	100.00





```

VARIABLE KIDN_UC (cont.)
INPUT VARIABLES (cont.)
    63 - Mima polymorphans
    64 - Other gram-negative
    71 - Staphylococcus aureus
    72 - Streptococcus faecalis-enterococcus
        (Group D)
    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 (Screening 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;

```



KIDN_UCX	VALUE	FREQ	CUM FREQ	%	CUM %
.	C	3073	.	.	.
0	0	210	12	0.46	0.46
1	1	12	90	3.01	3.48
2	2	78	102	0.46	3.94
3	3	12	249	5.68	9.62
4	4	147	2588	99.38	100.00
		2339			

VARIABLE	KIDN_UCX	KIDNEY PROBLEMS/UTI
Urine culture result at exit		
CODES		
.	Missing	
0	Not screened	
1	Growth > 100,000 for out of area people (organism not specified)	
2	Pathogenic infection	
3	Nonpathogenic infection	
4	Growth less than 100,000 (organism not identified by lab)	
5	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	Lactobacilli
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

(cont.)

```

VARIABLE KIDN_UCX (cont.)
INPUT VARIABLES (cont.)

DEI3129 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
DEI3130 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
DEI3131 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
DEI12538 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
FNRTERM 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 = 1 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 = 3)  
THEN DO;

IF DE10082 = 1 THEN UC = 4;  
ELSE IF DE10082 = 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 DE10082 = 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 DE10082 = 9 THEN KIDN\_UCX = 2;

END;

(cont.)

VARIABLE KIDN\_UCX (cont.)

CONSTRUCTION (cont.)

IF OUTAREA = 1  
THEN DO;

IF DE112538 = 1 THEN KIDN\_UCX = 4;  
IF 2 <= DE112538 <= 4 THEN KIDN\_UCX = 3;  
IF DE112538=5 THEN KIDN\_UCX = 0;

END;

KIDNPILL					
VALUE	FREQ	CUM FREQ	%	CUM %	
.	4739	.	.	.	
0	13	.	.	.	
1	47	47	4.20	4.20	
2	947	994	84.63	88.83	
128	125	1119	11.17	100.00	

VARIABLE KIDNPILL AMEDIS  
KIDNEY PROBLEMS/UTI

Currently taking prescribed medication for bladder or  
urine infection at enrollment

CODES

.

- Missing

0

- No MHQB

1

- Yes

2

- No

128

- Status of taking medication unknown, DE14333 missing

KIDNPILL indicates whether or not the respondent is currently  
taking prescribed medication for a bladder or urine infection  
based on MHQ questions. This variable applies only to  
females. Males are included as missings.

INPUT VARIABLES

DE14329 (MHQB) Have you ever had a kidney, bladder, or  
urine infection?

DE15013 (NonDayton - 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?  
(cont.)

```

VARIABLE KIDNPILL (cont.)
INPUT VARIABLES (cont.)
    MHQB    MHQB indicator at enrollment
    SEX      (Temporary variable) Sex of participant
             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);

(Construct KIDNPILL)
    IF SEX = 2 AND DE14329 = 1 AND DE14333 = 1
      THEN KIDNPILL = 1;
    IF SEX = 2 AND DE14329 = 1 AND (DE14333 = 2 OR DE14333 = 3)
      THEN KIDNPILL = 2;
    IF SEX = 2 AND DE14329 = 1 AND DE14333 = .
      THEN KIDNPILL = 128;
    IF MHQB = . THEN KIDNPILL = B;

```

KIDNPILX	VALUE	FREQ	CUM FREQ	%	CUM %
.	B	4556	.	.	.
1	1	170	47	4.11	4.11
2	2	47	1141	95.55	99.65
128	128	1094	1145	0.35	100.00
		4			

VARIABLE	KIDNPILX	AMED:IS KIDNEY PROBLEMS/UTI
Currently taking prescribed medication for bladder or urine infection at exit		
CODES		
.	- Missing	
B	- No MHQB	
1	- Yes	
2	- No	
128	- Status of taking medication unknown, DEI4333 missing	
KIDNPILX indicates whether or not the respondent is currently taking prescribed medication for a bladder or urine infection based on MHQ questions. This only applies for females. Males are included as missings.		

# INPUT VARIABLES

DEI4329 (MHQB) Have you ever had a kidney, bladder, or urine infection?

DEI5013 (MHQB) Have you ever had a kidney, bladder, or urine infection?

DEI4329 (Temporary variable) Combines DEI4329 and DEI5013

DEI4333 (MHQB) Do you currently take any pills or other medicines for kidney, bladder or urine infection, whether or not a doctor prescribed them?

MHQB indicator at exit

SEX (Temporary variable)

1 - Male

2 - Female

# 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);

(cont.)

```
VARIABLE KIDNPILX (cont.)  
CONSTRUCTION (cont.)  
(Construct KIDNPILX)  
    IF SEX = 2 AND DEIC4329 = 1 AND DEI4333 = 1  
    THEN KIDNPILX = 1;  
    IF SEX = 2 AND DEIC4329 = 1 AND (DEI4333 = 2 OR DEI4333 = 3)  
    THEN KIDNPILX = 2;  
    IF SEX = 2 AND DEIC4329 = 1 AND DEI4333 = .  
    THEN KIDNPILX = 128;  
    IF MIQBX = . THEN KIDNPILX = B;
```

KIDNSTAT	VALUE	FREQ	CUM FREQ	%	CUM %
	10	924	40	0.81	0.81
	10.1	40	42	0.04	0.85
	11	4	46	0.08	0.93
	11.1	22	68	0.45	1.38
	12	1	69	0.02	1.40
	12.1	854	923	17.26	18.66
	13	47	970	0.95	19.61
	14	594	1564	12.01	31.62
	19	16	1580	0.32	31.94
	21	1065	2645	21.53	53.47
	22	2302	4947	46.53	100.00
	25				

VARIABLE	KIDNSTAT	AMEDIS KIDNEY PROBLEMS/UTI
Urinary tract infection status at enrollment		
CODES		
10 - Missing		
10 - Females with 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 no history of UTI and positive culture		
19 - Females with a history of UTI, negative culture, not taking medications for UTI		
21 - 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		
KIDNSTAT indicates the kidney, bladder or urine infection status for females based on data from the enrollment MHQ and the dipstick urinalysis, microscopic urinalysis, and urine culture test results.		

# INPUT VARIABLES

DE14329 (MPQB) Have you ever had a kidney, bladder, or urine infection?  
DE15013 (MIQB) Have you ever had a kidney, bladder, or urine infection?  
(cont.)



VARIABLE KIDNSTAT (cont.)

INPUT VARIABLES (cont.)

DEI4329 Combines DEI4329 and DEI5013  
 DEI4331 (MIQB) Do you currently have a kidney, bladder or  
 urine infection? For example: cystitis or  
 pyelonephritis?  
 DEI4333 (MIQB) Do you currently take any pills or other  
 medicines for kidney, bladder or urine 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  
 KIDN UC Urine culture test results  
 NPCURHAV (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 NPCURHAV)

IF SEX = 2 AND (KIDNPILL = 2 OR KIDNPILL = 128) AND DEI4331 = 1  
 THEN NPCURHAV = 1;  
 IF SEX = 2 AND (KIDNPILL = 2 OR KIDNPILL = 128) AND DEI4331 = 2  
 THEN NPCURHAV = 2;  
 IF SEX = 2 AND (KIDNPILL = 2 OR KIDNPILL = 128) AND DEI4331 = .  
 THEN NPCURHAV = 128;  
 (cont.)

```

VARIABLE KIDNSTAT (cont.)
CONSTRUCTION (cont.)
(Construct KIDNSTAT)
  IF SEX = 1
    THEN KIDNSTAT = 25;
  IF SEX = 2 AND SCREENED = .
    THEN KIDNSTAT = 22;
  IF SEX = 2 AND SCREENED = 1 AND (KIDN_UC = 5 OR KIDN_UC = .)
    THEN KIDNSTAT = 21;
  IF SEX = 2 AND DEIC4329 = 2 AND KIDN_UC = 1
    THEN KIDNSTAT = 14;
  IF SEX = 2 AND DEIC4329 = 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 NPCURHAV = 1 AND KIDN_UC = 1
    THEN KIDNSTAT = 10.1;
  IF NPCURHAV = 1 AND 1 < KIDN_UC < 5
    THEN KIDNSTAT = 19;
  IF (NPCURHAV = 2 OR NPCURHAV = 128) AND KIDN_UC = 1
    THEN KIDNSTAT = 10;
  IF (NPCURHAV = 2 OR NPCURHAV = 128) AND 1 < KIDN_UC < 5
    THEN KIDNSTAT = 19;
  IF SEX = 2 AND DEI7026 = 1 AND DEIC4329 = 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 DEI7026 = 1 AND
    (DEIC4329 = 2 OR DEIC4329 = .) AND
    (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 = .
    THEN KIDNSTAT = 22;

```

KIDNSTAX	VALUE	FREQ	CUM FREQ	%	CUM %
	10	606	39	0.74	0.74
	10.1	39	40	0.02	0.76
	11	1	41	0.02	0.78
	11.1	41	82	0.78	1.56
	12	3	85	0.06	1.61
	12.1	2	87	0.04	1.65
	13	1433	1520	27.22	28.87
	14	32	1552	0.61	29.48
	19	996	2548	18.92	48.40
	21	132	2680	2.51	50.90
	22	106	2786	2.01	52.92
	25	2479	5265	47.09	100.00

VARIABLE	KIDNSTAX	KIDNEY PROBLEMS/UTI	AMEDIS
Urinary tract infection status at exit			
CODES			
	10	Missing	
	10	Females with 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 no history of UTI and positive culture	
	19	Females with a history of UTI, negative culture, not taking medications for UTI	
	21	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	
KIDNSTAX indicates the kidney, bladder or urine infection status for females based on data from the exit MIQ and the dipstick urinalysis, microscopic urinalysis, and urine culture test results.			

# INPUT VARIABLES

DE13188 (Screening exam) Are you pregnant or suspect you may be pregnant?

- 1 - No
- 2 - Yes

(cont.)

VARIABLE KIDNSTAX (cont.)

INPUT VARIABLES (cont.)

DEI4329 (MHQB) Have you ever had a kidney, bladder, or urine infection?  
 DEI5013 (MHQB) Have you ever had a kidney, bladder, or urine infection?  
 DEI4329 Combines DEI4329 and DEI5013  
 DEI4331 (MHQB) Do you currently have a kidney, bladder or urine infection? For example: cystitis or pyelonephritis?  
 DEI4333 (MHQB) Do you currently take any pills or other medicines for kidney, bladder or urine 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  
 KIDN\_UCX Urine culture test results  
 NPCURHAV (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  
 SCRFEIDX Screening exam indicator at exit

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 NPCURHAV}

IF SEX = 2 AND (KIDNPILX = 2 OR KIDNPILX = 128) AND DEI4331 = 1  
 THEN NPCURHAV = 1;  
 IF SEX = 2 AND (KIDNPILX = 2 OR KIDNPILX = 128) AND DEI4331 = 2  
 THEN NPCURHAV = 2;  
 IF SEX = 2 AND (KIDNPILX = 2 OR KIDNPILX = 128) AND DEI4331 = .  
 THEN NPCURHAV = 128;  
 (cont.)

```

VARIABLE KIDNSTAX (cont.)
CONSTRUCTION (cont.)
(Construct KIDNSTAX)

IF SEX = 1
THEN KIDNSTAX = 25;
IF SEX = 2 AND SCREENDX = .
THEN KIDNSTAX = 22;
IF SEX = 2 AND SCREENDX = 1 AND {KIDN_UCX = 0 OR
KIDN_UCX = 5 OR KIDN_UCX = .}
THEN KIDNSTAX = 21;
IF SEX = 2 AND DEIC4329 = 2 AND KIDN_UCX = 1
THEN KIDNSTAX = 14;
IF SEX = 2 AND DEIC4329 = 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 NPCURHAV = 1 AND KIDN_UCX = 1
THEN KIDNSTAX = 10.1;
IF NPCURHAV = 1 AND 1 < KIDN_UCX < 5
THEN KIDNSTAX = 19;
IF (NPCURHAV = 2 OR NPCURHAV = 128) AND KIDN_UCX = 1
THEN KIDNSTAX = 10;
IF (NPCURHAV = 2 OR NPCURHAV = 128) AND 1 < KIDN_UCX < 5
THEN KIDNSTAX = 19;
IF SEX = 2 AND DEI3188 = 2 AND DEIC4329 = 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 DEI3188 = 2 AND
{KIDNSTAX = 2 OR DEIC4329 = .} AND
{KIDNSTAX = 14 OR KIDNSTAX = 11 OR KIDNSTAX = 10.1
OR KIDNSTAX = 10}
THEN KIDNSTAX = 12.1;

```

KIDNBIN				
VALUE	FREQ	CUM FREQ	%	CUM %
0	4307	1448	92.58	92.58
1	116	1564	7.42	100.00

VARIABLE	KIDNBIN	AMFDIS KIDNEY PROBLEMS/UTI
Binary indicator of urinary tract infection at enrollment		
CODES		
0 - Missing		
1 - Yes, urinary tract infection		
KIDNBIN recodes KIDNSTAT to create a binary indicator of the presence (positive culture or under treatment) or absence of a urinary tract infection, based on the MHQ and screening exam. Applies only to females.		

INPUT VARIABLES

DEI4329 (MHQB) Have you ever had a kidney, bladder, or urine infection?  
DEI5013 (MHQB) Have you ever had a kidney, bladder, or urine infection?  
DEI4329 Combines DEI4329 and DEI5013  
KIDNSTAT Urinary tract infection status at enrollment

CONSTRUCTION

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 \= .  
THEN KIDNBIN = 1;  
IF (KIDNSTAT = 13 OR KIDNSTAT = 19) AND DEI4329 \= .  
THEN KIDNBIN = 0;

KIDNBINX				KIDNBINX			
VARIABLE	KIDNBINX	AMEDIS	KIDNEY PROBLEMS/UTI	VALUE	FREQ	CUM FREQ	CUM %
Binary indicator of urinary tract infection at exit				0	3323	2429	95.33
CODES				1	2429	2548	95.33
- Missing					119		4.67
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 MHQ and screening exam. Applies only to females.							
INPUT VARIABLES							
DEI4329 (MHQB) Have you ever had a kidney, bladder, or urine infection?							
DEI5013 (MHQB) Have you ever had a kidney, bladder, or urine infection?							
DEIC4329 Combines DEI4329 and DEI5013							
KIDNSTAX Urinary tract infection status at exit							
CONSTRUCTION							
DEIC4329 = MIN(DEI4329,DEI5013);							
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 DEIC4329 \= . THEN KIDNBINX = 1;							
IF (KIDNSTAX = 13 OR KIDNSTAX = 19) AND DEIC4329 \= . THEN KIDNBINX = 0;							

VARIABLE	KIDIMP	AMEDITS	KIDNEY PROBLEMS/UTI	IMPACT OF KIDNEY, BLADDER OR URINE INFECTION AT ENROLLMENT	CODES
					<ul style="list-style-type: none"> <li>- Missing, includes those not entering the battery</li> <li>B - Replacement PEG - No MHQB</li> <li>0 - No impact</li> <li>1 - Some impact</li> </ul>
					<p>KIDIMP summarizes the responses from the MHQ 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.</p>
INPUT VARIABLES					
DEI4335	(MHQB)			During the past 3 months how much pain has your kidney, bladder, or urine infection caused you?	
DEI4336	(MHQB)			During the past 3 months how much has your kidney, bladder, or urine infection worried or concerned you?	
DEI4337	(MHQB)			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?	
DEI4338	(MHQB)			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?	
DEI4335	(Temporary variable)			Recodes DEI4335	
DEI4336	(Temporary variable)			Recodes DEI4336	
DEI4337	(Temporary variable)			Recodes DEI4337	
MHQB				MHQB indicator at enrollment	
CONSTRUCTION					
(Construct DEI4335, DEI4336, DEI4337)					
(Note: Recodes DEI4335, DEI4336, and DEI4337 so that greatest impact receives the highest score.) (cont.)					



VARIABLE KIDNIMP (cont.)

CONSTRUCTION (cont.)

```
DEIX4335 = 5 - DEIX4335;
DEIX4336 = 5 - DEIX4336;
DEIX4337 = 6 - DEIX4337;
```

(Construct KIDNIMP)

```
IF DEIX4335 > 1 OR DEIX4336 > 1 OR
  DEIX4337 > 1 OR DEIX4338 > 0
  THEN KIDNIMP = 1;
IF DEIX4335 = 1 AND DEIX4336 = 1 AND
  DEIX4337 = 1 AND DEIX4338 = 0
  THEN KIDNIMP = 0;
```

(For Replacement PEGs only)

```
IF MHQB = . THEN KIDNIMP = 8;
```

KIDNIMPX VALUE	FREQ	CUM FREQ	%	CUM %
8	4300	.	.	.
0	170	1117	79.73	79.73
1	1117	1401	20.27	100.00
	284			

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 MHQB
- 0 - No impact
- 1 - Some impact

KIDNIMP summarizes the responses from the MHQ 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 KIDNIMPX (cont..)

INPUT VARIABLES

DEI4335 (MHQB) During the past 3 months how much pain has your kidney, bladder, or urine infection caused you?  
 DEI4336 (MHQB) During the past 3 months how much has your kidney, bladder, or urine infection worried or concerned you?  
 DEI4337 (MHQB) 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?  
 DEI4338 (MHQB) 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?  
 DEI4335 (Temporary variable) Recodes DEI4335  
 DEI4336 (Temporary variable) Recodes DEI4336  
 DEI4337 (Temporary variable) Recodes DEI4337  
 MHQB MHQB indicator at exit

CONSTRUCTION

(Construct DEI4335, DEI4336, DEI4337)

{Note: Recodes DEI4335, DEI4336, and DEI4337 so that greatest impact receives the highest score.}

DEI4335 = 5 - DEI4335;  
 DEI4336 = 5 - DEI4336;  
 DEI4337 = 6 - DEI4337;

(Construct KIDNIMPX)

IF DEI4335 > 1 OR DEI4336 > 1 OR  
 DEI4337 > 1 OR DEI4338 > 0  
 THEN KIDNIMPX = 1;  
 IF DEI4335 = 1 AND DEI4336 = 1 AND  
 DEI4337 = 1 AND DEI4338 = 0  
 THEN KIDNIMPX = 0;  
 IF MHQB = . THEN KIDNIMPX = B;

PEPTIC ULCER DISEASE

NEWSTATD	FREQ	CUM. FREQ	%	CUM. %
0	677	677	80.41	80.41
10	13	690	0.75	81.16
20	39	729	0.35	81.51
30	18	747	0.32	81.83
40	63	810	1.22	83.05
50	166	976	3.20	86.25
60	25	1001	0.48	86.73
70	27	1028	0.52	87.25
80	297	1325	5.73	92.98
90	380	1705	7.33	100.31
100	4166	5871	80.41	100.00

VARIABLE	NEWSTATD	AMEDIS ULCER
Ulcer status classification at enrollment		
CODES		
0 - Missing		
10 - MHC not taken, PFC replacements only		
20 - MD or X-ray confirmed and reports 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 DE13885, 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

DE13885 (Dayton - MHC; NonDayton - MHC) In the last 3 months, have you ever been troubled with episodes (attacks) of stomach pain or stomach ache? (cont.)

INPUT VARIABLES (cont.)

DE13886	(Dayton - MIQA; NonDayton - MHQB) In the past 3 months, have you had these pains for as many as 3 days?
DE13890	(Dayton - MHQA; NonDayton - MHQB) 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 that participant has an ulcer
	2 - Has not been confirmed that participant has an ulcer
	3 - Don't know, participant did not answer
ONE_B	4 - Has been confirmed by a doctor that participant has an ulcer but, was not confirmed by an x-ray (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
ONE_B2	4 - Respondent did not complete ulcer battery (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	4 - Respondent did not complete ulcer battery (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. }

```

VARIABLE NEWSTAD (cont.)
INPUT VARIABLES (cont.)
    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
    MHQB MHQB indicator at enrollment

CONSTRUCTION
    IF ONE_A = 1 AND ANACDALY = 1
    THEN NEWSTAD = 10;
    ELSE IF ONE_A = 1 AND ONE_B = 1
    THEN NEWSTAD = 20;
    ELSE IF ONE_A = 1 AND ONE_B2 = 1
    THEN NEWSTAD = 20;
    ELSE IF ONE_A = 1 AND ONE_C = 1
    THEN NEWSTAD = 20;
    ELSE IF ONE_A = 1 AND DE13885 = 1
    THEN NEWSTAD = 30;
    ELSE IF ONE_A = 1 AND DE13885 = 2
    THEN NEWSTAD = 40;
    ELSE IF ONE_A = 1 AND DE13885 = .
    THEN NEWSTAD = 50;
    ELSE IF ONE_B = 1
    THEN NEWSTAD = 60;
    ELSE IF ONE_B2 = 1
    THEN NEWSTAD = 60;
    ELSE IF ONE_C = 1
    THEN NEWSTAD = 70;
    ELSE IF DE13885 = 1 AND DE13886 = 1
    THEN NEWSTAD = 80;
    ELSE IF DE13885 = 1
    THEN NEWSTAD = 90;
    ELSE IF DE13885 = 2 OR (DE13890 = 2 AND DE13885 = .)
    THEN NEWSTAD = 100;
    ELSE IF DE13885 = .
    THEN NEWSTAD = 110;

    (For replacement PEGs only)
    IF MHQB = . THEN NEWSTAD = B;

```

NEWSTADX	VALUE	FREQ	CUM FREQ	%	CUM %
.	.	585	.	.	.
B	B	170	39	0.76	0.76
10	10	39	49	0.20	0.96
20	20	10	99	0.98	1.94
30	30	50	275	3.44	5.38
40	40	176	298	0.45	5.83
60	60	23	320	0.43	6.26
70	70	22	335	4.20	10.46
80	80	215	793	5.04	15.50
90	90	258	5115	84.48	99.98
100	100	4322	5116	0.02	100.00
110	110	1			

VARIABLE	NEWSTADX	AMEDIS ULCER
Ulcer status classification at exit		
CODES		
.	Missing	
B	MHQB not taken	
10	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 DE13385, 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	
NEWSTADX divides participants into eleven classifications of ulcer status based on use of antacids, ulcer symptoms, and reported x-ray confirmation.		

# INPUT VARIABLES

DE13885	(MHQB) In the last 3 months, have you ever been troubled with episodes (attacks) of stomach pain or stomach ache?
DE13886	(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	(temporary variable) Ulcer symptom classification Group 1: Confirmation by MD or X-ray 1 - Has been confirmed by a doctor and an x-ray that participant has an ulcer 2 - Has not been confirmed that participant has an ulcer

(cont.)

```

VARIABLE NEWSTADX (cont.)
INPUT VARIABLES (cont.)

ONE_B
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
(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

ONE_B2
4 - Respondent did not complete ulcer battery
(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
4 - Respondent did not complete ulcer battery
(Temporary variable) Ulcer symptom classification
Group 4: Episodes of stomach pain occurring
three days a week which awoken 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

ANACDALY
4 - Respondent did not complete ulcer battery
(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

MHQB3X  MHQB indicator at exit

CONSTRUCTION
IF MHQB3X = 1 THEN NEWSTADX = B;
IF ONE_A = 1 AND ANACDALY = 1
  THEN NEWSTADX = 10;
ELSC IF ONE_A = 1 AND ONE_B = 1
  THEN NEWSTADX = 20;

```

(cont.)

```
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 = .
        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 = .)
        THEN NEWSTADX = 100;
      ELSE IF DE13885 = .
        THEN NEWSTADX = 110;
```



DYSPEPS					
VALUE	FREQ	CUM FREQ	%	CUM %	
8	677	.	.	.	
0	13	4504	86.93	86.93	
1	4504	5181	13.07	100.00	
	677				

VARIABLE	DYSPEPS	AMEDIS ULCER
Current dyspepsia at enrollment		
CODES		
. = Missing B = MHQB not taken, replacement PEGs only Q = Not assignable 0 = No current dyspepsia 1 = Yes, has current dyspepsia		
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  
MHQB MHQB indicator at enrollment

#### CONSTRUCTION

```

IF 80 <= NEWSTATD <= 90
  THEN DYSPEPS = 1;
ELSE IF NEWSTATD = 110
  THEN DYSPEPS = Q;
ELSE DYSPEPS = 0;

```

(For Replacement PEGs)

```

IF MHQB \= 1 THEN DYSPEPS = B;

```

DYSPEPSX	VALUE	FREQ	CUM FREQ	%	CUM %
.	B	585	.	.	.
.	Q	170	.	.	.
0	Q	1	4642	90.75	90.75
1	Q	473	5115	9.25	100.00

VARIABLE	DYSPEPSX	AMEDIS ULCER
Current dyspepsia at exit		
CODES		
.	Missing	
B	MHQB not taken	
Q	Not assignable	
0	No current dyspepsia	
1	Has current dyspepsia	
DYSPEPSX indicates the presence of current dyspepsia, not indicative of ulcer, for the participant.		

#### INPUT VARIABLES

NEWSTADX Ulcer status classification at exit  
MHQB MHQB indicator at exit

#### CONSTRUCTION

```

IF 80 <= NEWSTADX <= 90
  THEN DYSPEPSX = 1;
ELSE IF NEWSTADX = 110
  THEN DYSPEPSX = Q;
ELSE DYSPEPSX = 0;

IF MHQB \= 1 THEN DYSPEPSX = B;

```

ULCEMHQ VALUE	FREQ	CUM FREQ	%	CUM %
B	681			
1.1	13	39	0.75	0.75
1.2	39	57	0.35	1.10
1.3	18	120	1.22	2.32
1.4	63	166	3.21	5.52
2.1	25	311	0.48	6.01
2.2	27	338	0.52	6.53
3.1	296	634	5.72	12.25
3.2	379	1013	7.32	19.57
4	4164	5177	80.43	100.00

VARIABLE	ULCEMHQ	AMEDIS ULCER
Ulcer status indicator at enrollment		
CODES		
	- Missing	
	B - No MHQB, for Replacement Pegs only	
1.1	- Physician diagnosis of ulcer confirmed by x-ray, currently taking antacids daily	
1.2	- Physician diagnosis of ulcer confirmed by x-ray, with current symptoms	
1.3	- Physician diagnosis of ulcer confirmed by x-ray, with some symptoms in last 3 months	
1.4	- Physician diagnosis of ulcer confirmed by x-ray, without current symptoms	
2.1	- Stomach ache 3 or more days a week, more than 1/2 hour after eating, and relieved by milk or food	
2.2	- Stomach ache 3 or more days a week, severe enough to awaken person at night, and relieved by milk or food	
3.1	- Frequent dyspepsia	
3.2	- Occasional dyspepsia	
4	- No disease	
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.)

DE13890 (Dayton - MHQA; NonDayton - MHQB) Have you ever been told by a doctor that you had an ulcer in your stomach or duodenum (small bowel)?

DE13891 (Dayton - MHQA; NonDayton - MHQB) 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?)

DE13892 (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 {DE13890 = 2 OR DE13890 < 0} AND DE13885 = 2  
 THEN ULCEMHQ = 4;  
 ELSE IF {DE13890 = 1 AND {DE13891 = 2 OR  
 DE13891 = 3 OR DE13891 = 8 OR  
 DE13891 < 0}} AND DE13885 = 2  
 THEN ULCEMHQ = 4;

IF DE13890 = 1 AND DE13891 = 1 AND DE13885 = 1 AND  
 ({SITE = 1 AND DE13892 = 1} OR  
 {SITE \= 1 AND DE19034 = 5 OR DE19034 = 6})  
 THEN ULCEMHQ = 1.1;

ELSE IF DE13885 = 2 AND DE13890 = 1 AND DE13891 = 1  
 THEN ULCEMHQ = 1.4;

ELSE IF DE13885 = 1 AND DE13886 = 1 AND DE13888 = 1 AND  
 ({SITE = 1 AND {DE13887 = 2 OR DE13887 = 3}} OR  
 {SITE \= 1 AND {DE19033 = 3 OR DE19033 = 4}})  
 THEN DO;

{cont.}

```

VARIABLE ULCEMHQ (cont.)
CONSTRUCTION (cont.)

    IF (DE13890 = 1 AND
        (DE13891 = 2 OR DE13891 = 3 OR
         DE13891 = 8 OR DE13891 < 0)) OR
        DE13890 = 2 OR DE13890 = .
    THEN ULCEMHQ = 2.1;

END;

ELSE IF DE13885 = 1 AND DE13886 = 1 AND
        DE13888 = 1 AND DE13889 = 1 AND
        ((SITE = 1 (AND DE13887 = 1 OR DE13887 = 4)) OR
         (SITE \= 1 AND (DE19033 = 1 OR DE19033 = 2 OR
          DE19033 = 5 OR DE19033 < 0)))
    THEN DO;

    IF (DE13890 = 2 OR DE13890 = .) OR
        (DE13890 = 1 AND (DE13891 = 2 OR
         DE13891 < 0 OR DE13891 = 8 OR
         DE13891 = 3))
    THEN ULCEMHQ = 2.2;

END;

ELSE IF (DE13890 = 2 OR DE13890 = .) AND
        DE13885 = 1 AND DE13886 = 1 AND
        DE13888 = 1 AND
        ((SITE = 1 AND (DE13887 = 1 OR
         DE13887 = 4 OR DE13887 < 0)) OR
         (SITE \= 1 AND (DE19033 = 1 OR
          DE19033 = 2 OR DE19033 = 5 OR
          DE19033 < 0))) AND DE13889 = 2
    THEN ULCEMHQ = 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 = 1 AND
        ((SITE = 1 AND (DE13887 = 1 OR
         DE13887 = 4 OR DE13887 < 0)) OR
         (SITE \= 1 AND (DE19033 = 1 OR
          DE19033 = 2 OR DE19033 = 5 OR
          DE19033 < 0))) AND DE13889 = 2
    THEN ULCEMHQ = 3.1;

( cont. )

```

```

VARIABLE ULCEMHQ (cont.)
CONSTRUCTION (cont.)

ELSE IF (DE13890 = 2 OR DE13890 < 0) AND
DE13885 = 1 AND DE13886 = 1 AND
(DE13888 = 2 OR DE13888 < 0)
THEN ULCEMHQ = 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 ULCEMHQ = 3.1;

ELSE IF DE13890 \= 1 AND DE13885 = 1 AND DE13886 = 2
THEN ULCEMHQ = 3.2;

ELSE IF DE13890 = 1 AND DE13891 \= 1 AND
DE13885 = 1 AND DE13886 = 2
THEN ULCEMHQ = 3.2;

IF DE13890 = 1 AND DE13891 = 1 AND DE13885 = 1 AND
((SITE = 1 AND DE13892 = 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 ULCEMHQ = 1.2;
    ELSE ULCEMHQ = 1.3;
END;

{For Replacement PEGs}
IF MHQB = 1, THEN ULCEMHQ = B;

```

ULCEMHQX	VALUF	FREQ	CUM FREQ	%	CUM %
1	1.1	589	589	.	.
	1.2	170	759	0.76	0.76
	1.3	39	798	0.20	0.96
	1.4	10	808	0.98	1.94
	2.1	50	858	3.44	5.38
	2.2	176	1034	0.45	5.83
	3.1	23	1057	0.43	6.26
	3.2	215	1272	4.21	10.47
	4	256	1528	5.01	15.47
		4321	5112	84.53	100.00

VARIABLE	ULCEMHQX	AMEDIS ULCER
Ulcer status indicator at exit		
CODES		
1	1 - Missing	
	2 - MHQB not taken	
1.1	1 - Physician diagnosis of ulcer confirmed by x-ray, currently taking antacids daily	
1.2	2 - Physician diagnosis of ulcer confirmed by x-ray, with current symptoms	
1.3	3 - Physician diagnosis of ulcer confirmed by x-ray, with some symptoms in last 3 months	
1.4	4 - Physician diagnosis of ulcer confirmed by x-ray, without current symptoms	
2.1	1 - Stomach ache 3 or more days a week, more than 1/2 hour after eating, and relieved by milk or food	
2.2	2 - Stomach ache 3 or more days a week, severe enough to awaken person at night, and relieved by milk or food	
3.1	1 - Frequent dyspepsia	
3.2	2 - Occasional dyspepsia	
4	3 - No disease	
<p>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.</p>		

#### INPUT VARIABLES

DE13885	(MHQB) In the last 3 months, have you ever been troubled with episodes (attacks) of stomach pain or stomach ache?
DE13886	(MHQB) In the past 3 months, have you had these pains for as many as 3 days in one week?
DE13888	(MHQB) Are these pains relieved by taking milk or food?
DE13889	(MHQB) Have the pains ever awakened you at night?
DE13890	(MHQB) Have you ever been told by a doctor that you had an ulcer in your stomach or duodenum (small bowel)?
	(cont.)

```
VARIABLE ULCEMHQX (cont.)
INPUT VARIABLES (cont.)

DE13891 (MHQB) 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 (MHQB) When do these attacks or episodes usually
come on?
DE19034 (MHQB) How often do you take antacids such as
tablets (like Tums) or white liquid medicine (like
Maalox or Gelusil)?
MHQBX MHQB Indicator at exit

CONSTRUCTION

IF (DE13890 = 2 OR DE13890 < 0) AND DE13885 = 2
THEN ULCEMHQX = 4;
ELSE IF (DE13890 = 1 AND (DE13891 = 2 OR DE13891 = 3 OR
DE13891 = 8 OR DE13891 < 0)) AND DE13885 = 2
THEN ULCEMHQX = 4;

IF DE13890 = 1 AND DE13891 = 1 AND DE13885 = 1 AND
(DE19034 = 5 OR DE19034 = 6)
THEN ULCEMHQX = 1.1;
ELSE IF DE13885 = 2 AND DE13890 = 1 AND DE13891 = 1
THEN ULCEMHQX = 1.4;
ELSE IF DE13885 = 1 AND DE13886 = 1 AND DE13888 = 1 AND
(DE19033 = 3 OR DE19033 = 4)
THEN DO;
    IF (DE13890 = 1 AND
        (DE13891 = 2 OR DE13891 = 3 OR
DE13891 = 8 OR DE13891 < 0)) OR
        DE13890 = 2 OR DE13890 = .
    THEN ULCEMHQX = 2.1;
END;
ELSE IF DE13885 = 1 AND DE13886 = 1 AND DE13888 = 1 AND
DE13889 = 1 AND (DE19033 = 1 OR DE19033 = 2 OR
DE19033 = 5 OR DE19033 < 0)
THEN DO;
    (cont.)
```



```

VARIABLE ULCEMHQX (cont.)
CONSTRUCTION (cont.)

      IF (DE13890 = 2 OR DE13890 = .) OR
         {DE13890 = 1 AND
          {DE13891 = 2 OR DE13891 < 0 OR
           DE13891 = 8 OR DE13891 = 3}}
      THEN ULCEMHQX = 2.2;

      END;

      ELSE IF (DE13890 = 2 OR DE13890 = .) AND
              DE13885 = 1 AND DE13886 = 1 AND DE13888 = 1 AND
              (DE19033 = 1 OR DE19033 = 2 OR
               DE19033 = 5 OR DE19033 < 0) AND DE13889 = 2
      THEN ULCEMHQX = 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 = 1 AND
              (DE19033 = 1 OR DE19033 = 2 OR
               DE19033 = 5 OR DE19033 < 0) AND DE13889 = 2
      THEN ULCEMHQX = 3.1;

      ELSE IF (DE13890 = 2 OR DE13890 < 0) AND
              (DE13885 = 1 AND DE13886 = 1) AND
              (DE13888 = 2 OR DE13888 < 0)
      THEN ULCEMHQX = 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 ULCEMHQX = 3.1;

      ELSE IF DE13890 = 1 AND DE13885 = 1 AND DE13886 = 2
      THEN ULCEMHQX = 3.2;

      ELSE IF DE13890 = 1 AND DE13891 = 1 AND
              DE13885 = 1 AND DE13886 = 2
      THEN ULCEMHQX = 3.2;

      IF DE13890 = 1 AND DE13891 = 1 AND
         DE13885 = 1 AND 1 <= DE19034 <= 4)
      THEN DO;

                                         (cont.)

```

VARIABLE ULCEMHQX (cont.)

CONSTRUCTION (cont.)

```
IF DE13886 = 1 AND DE13888 = 1 AND
  ((DE19033 = 3 OR DE19033 = 4) OR
  ((DE19033 \= 3 AND DE19033 \= 4) AND
  DE13889 = 1))
  THEN ULCEMHQX = 1.2;
  ELSE ULCEMHQX = 1.3;
END;
```

END;

IF MHQBX = . THEN ULCEMHQX = B;

VARIABLE	ULCEMHQR	AMEDIS ULCER
	Collapsed ulcer status indicator at enrollment	
CODES		
	1 - Missing	
	2 - Active ulcer	
	3 - Old, cured or silent ulcer	
	4 - No disease	
	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 has 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  
ULCEMHQ Ulcer disease status indicator at enrollment (cont.)

ULCEMHQR VALUE	FREQ	CUM FREQ	%	CUM %
1	694	172	3.32	3.32
2	172	847	13.04	16.36
3	675	1013	3.21	19.57
4	166	5177	80.43	100.00

VARIABLE ULCEMHQR (cont.)

CONSTRUCTION

(Construct ULCETEMP)

IF ULCEMIHQ = 1.1 OR ULCEMIHQ = 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 ULCEMHQR)

IF ULCETEMP > 2  
THEN ULCEMHQR = 1;  
ELSE IF DYSPTEMP > 1  
THEN ULCEMIQR = 2;  
ELSE IF ULCEMIHQ = 1.4  
THEN ULCEMHQR = 3;  
ELSE IF ULCEMHQ = 4  
THEN ULCEMHQR = 4;



VARIABLE ULCMHQRX (cont.)

CONSTRUCTION (cont.)

(Construct ULCMHQRX)

```
IF ULCETEMP > . THEN ULCMHQRX = 1;  
ELSE IF DYSPTEMP > . THEN ULCMHQRX = 2;  
ELSE IF ULCMHQX = 1.4 THEN ULCMHQRX = 3;  
ELSE IF ULCMHQX = 4 THEN ULCMHQRX = 4;
```

ULCEIMP VALUE	FREQ	CUM FREQ	%	CUM %
0	5011	.	.	.
1	13	33	3.90	3.90
	814	847	96.10	100.00

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VARIABLE ULCIMP AMEDIS  
ULCER

Impact of stomach problems or ulcer disease at enrollment

CODES

. - Missing, includes those with no ulcer disease or  
stomach problems  
B - No MHQB  
0 - No impact  
1 - Some impact

ULCEIMP indicates whether stomach problems, or ulcer disease  
caused any pain, worry/concern, activity restrictions, or  
days in bed.

INPUT VARIABLES

DE13894 :(MHQB) During the past 3 months, how much pain has  
stomach trouble caused you?  
DE13895 (MHQB) During the past 3 months, how much has  
stomach trouble worried or concerned you?  
(cont.)

VARIABLE ULCEIMP (cont..)

INPUT VARIABLES (cont..)

DEI3896 (MHQB) During the past 3 months, how often has stomach trouble kept you from doing the kinds of activities other people your age do?  
 DEI3897 (MHQB) During the past 30 days, how many days has stomach trouble kept you in bed all or most of the day?  
 MHQB MHQB indicator at enrollment

CONSTRUCTION

IF MHQB = . THEN ULCEIMP = B;  
 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;

ULCEIMPX	FREQ	CUM FREQ	%	CUM %
B	5087	.	.	.
0	170	.	.	.
1	14	14	2.28	2.28
	600	614	97.72	100.00

VARIABLE	ULCEIMPX	AMEDIS ULCER
Impact of stomach problems or ulcer disease at exit		
CODES		
.	Missing, includes those with no ulcer disease or stomach problems	
B	No MHQB	
0	No impact	
1	Some impact	
ULCEIMPX indicates whether stomach problems, or ulcer disease caused any pain, worry/concern, activity restrictions, or days in bed.		

(cont..)

VARIABLE ULCEIMPX (cont.)

INPUT VARIABLES

DE13894 (MHQB) During the past 3 months, how much pain has  
 stomach trouble caused you?  
 DE13895 (MHQB) During the past 3 months, how much has  
 stomach trouble worried or concerned you?  
 DE13896 (MHQB) During the past 3 months, how often has  
 stomach trouble kept you from doing the kinds of  
 activities other people your age do?  
 DE13897 (MHQB) During the past 30 days, how many days has  
 stomach trouble kept you in bed all or most of the  
 day?  
 MHQBX MHQB indicator at exit

CONSTRUCTION

IF MHQBX = . THEN ULCEIMPX = B;  
 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;

SLEEPING PILLS AND TRANQUILIZERS

PILLFREQ VALUE	FREQ	CUM FREQ	%	CUM %
.	678	.	.	.
D	750	.	.	.
M	13	.	.	.
S	4295	.	.	.
V	4	.	.	.
1	27	27	20.61	20.61
2	31	58	23.66	44.28
3	38	96	29.01	73.28
4	35	131	26.72	100.00

VARIABLE PILLFREQ AMEDIS  
PILLS

Frequency of sleeping pill use at enrollment

CODES

.

- Missing

D

- Not currently using sleeping pills (Dayton)

M

- MHQB not completed (nonDayton)

S

- "No" to sleeping pill trigger question (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 - MHQA) Are you currently using sleeping pills which are prescribed by a doctor?

DE19075 (NonDayton - MHQB) During the past three months, have you used any sleeping pills prescribed by a doctor?

DE19076 (NonDayton - MHQB) About how often do you take these sleeping pills? (Of those prescribed and used within last 3 months.)

MHQB MHQB indicator at enrollment

CONSTRUCTION

(Dayton)

```

IF DE13851 = . THEN PILLFREQ = V;
ELSE IF DE13851 = 1
  THEN PILLFREQ = D;
ELSE IF DE13851 = 2
  THEN PILLFREQ = 4;

```

(cont.)



VARIABLE PILLFREQ (cont.)

CONSTRUCTION (cont.)

```
ELSE IF DE13851 = 3
  THEN PILLFREQ = 3;
ELSE IF DE13851 = 4
  THEN PILLFREQ = 2;
ELSE IF DE13851 = 5
  THEN PILLFREQ = 1;
```

(NonDayton)

```
IF DE19075 = . THEN DE19076 = V;
IF DE19075 = 2 THEN DE19076 = S;
IF MHQB = . THEN DE19076 = M;

PILLFREQ = DE19076;
```

VARIABLE	PILLFREQ	AMEDIS PILLS
Frequency of sleeping pill use at exit		
CODES		
. - Missing		
M - MHQB not completed		
S - "No" to sleeping pill trigger question (DE19075)		
V - DE19075 missing		
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

DE19075 (MHQB) During the past three months, have you used any sleeping pills prescribed by a doctor? (cont.)

PILLFREQX VALUE	FREQ	CUM FREQ	%	CUM %
M	585	.	.	.
S	170	.	.	.
V	4991	.	.	.
1	2	31	25.20	25.20
2	31	54	18.70	43.90
3	23	92	30.89	74.80
4	38	123	25.20	100.00
	31			

VARIABLE PILLFREQ (cont.)

INPUT VARIABLES (cont.)

DE19076 (MHQB) About how often do you take these sleeping pills? (Of those prescribed and used within the last 3 months).  
MHQBX MHQB indicator at exit

CONSTRUCTION

IF DE19075 = . THEN DE19076 = V;  
IF DE19075 = 2 THEN DE19076 = S;  
IF MHQBX = . THEN DE19076 = M;  
PILLFREQ = DE19076;

VARIABLE	PILLUSE	AMEDIS PILLS
Level of sleeping pill use at enrollment		
CODES		
1 - Missing, includes those with no pill use		
2 - High use (every night)		
3 - Medium use (a few times a week or month)		
4 - Low use (once a month or less)		
PILLUSE recodes PILLFREQ into 3 levels of use.		

INPUT VARIABLES

PILLFREQ Frequency of sleeping pill use at enrollment

CONSTRUCTION

PILLUSE = .;  
IF PILLFREQ = 1 THEN PILLUSE = 1;  
ELSE IF PILLFREQ = 2 OR PILLFREQ = 3  
THEN PILLUSE = 2;  
ELSE IF PILLFREQ = 4  
THEN PILLUSE = 3;

PILLUSE  
VALUE

FREQ  
5740  
27  
69  
35

CUM  
FREQ  
27  
96  
131

%  
.61  
52.67  
26.72

CUM  
%  
20.61  
73.28  
100.00

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PILLUSEX VALUE	FREQ	CUM FREQ	%	CUM %
1	5748	31	25.20	25.20
2	31	92	49.59	74.80
3	61	123	25.20	100.00

VARIABLE PILLUSEX AMEDIS  
PILLS

Level of sleeping pill use at exit

CODES

- 1 - Missing, includes those with no pill use
- 2 - High use (every night)
- 3 - Medium use (a few times a week or month)
- 4 - Low use (once a month or less)

PILLUSEX recodes PILFREQX into 3 levels of use.

#### INPUT VARIABLES

PILFREQX Frequency of sleeping pill use at exit

#### CONSTRUCTION

```

IF PILFREQX = 1 THEN PILLUSEX = 1;
ELSE IF PILFREQX = 2 OR PILFREQX = 3
  THEN PILLUSEX = 2;
ELSE IF PILFREQX = 4
  THEN PILLUSEX = 3;

```

PILLIMP VALUE	FREQ	CUM FREQ	%	CUM %
.	677	.	.	.
A	775	.	.	.
S	4310	.	.	.
0	85	85	77.98	77.98
1	24	109	22.02	100.00

VARIABLE	PILLIMP	AMEDIS PILLS
Impact of sleeping pill use at enrollment		
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 - MHQB) During the past 3 months, how much has your use of sleeping pills worried or concerned you?

DE19077 (NonDayton - MHQB) 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 - MHQB) 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 = S;

```

PILLIMPX	VALUE	FREQ	CUM FREQ	%	CUM %
.	.	585	.	.	.
S	S	5163	.	.	.
0	0	88	88	71.55	71.55
1	1	35	123	28.46	100.00

VARIABLE PILLIMPX

AMEDIS  
PILLS

Impact of sleeping pill use at exit

CODES

```

. - Missing
S - 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 (MHQB) During the past 3 months, how much has your
use of sleeping pills worried or concerned you?
DE19077 (MHQB) 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 (MHQB) 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 = S;

```

TRANFREQ	VALUE	FREQ	CUM FREQ	%	CUM %
.	E	679	.	.	.
.	M	44	.	.	.
.	T	13	.	.	.
.	U	4666	.	.	.
.	U	6	.	.	.
1	1	115	115	24.84	24.84
2	2	78	193	16.85	41.69
3	3	78	271	16.85	58.53
4	4	117	388	25.27	83.80
5	5	75	463	16.20	100.00

VARIABLE	TRANFREQ	AMEDIS PILLS
Frequency of tranquilizer use at enrollment		
CODES		
.	- Missing	
E	- Not currently using tranquilizers, but has prescription (Dayton)	
M	- MHQB not completed (nonDayton)	
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

DE13854 (Dayton - MHQA) Are you currently using tranquilizers or sedatives that were prescribed by a doctor?  
DE19080 (NonDayton - MHQB) About how often do you take these tranquilizers, sedatives, or nerve pills? (Of 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.)

(Dayton)

```

IF DE13854 = T THEN TRANFREQ = T;
ELSE IF DE13854 = U THEN TRANFREQ = U;
ELSE IF DE13854 = 1 THEN TRANFREQ = E;
ELSE IF DE13854 = 2 THEN TRANFREQ = 5;
ELSE IF DE13854 = 3 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 MHQB = . THEN DE19080 = M;  
TRANFREQ = DE19080;
```

TRANFREQX

VARIABLE TRANFREQX AMEDIS  
PILLS

Frequency of tranquilizer use at exit

CODES

```
. - Missing  
M - MHQB 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
```

TRANFREQX indicates the frequency of prescribed tranquilizer  
or sedative use.

INPUT VARIABLES

DE19080 (MHQB) About how often do you take these  
tranquilizers, sedatives, or nerve pills? (Of  
those prescribed and used within last 3 months.)  
MHQB MHQB indicator at exit

(cont.)

VALUE	FREQ	CUM FREQ	%	CUM %
M	586	.	.	.
T	170	.	.	.
U	4754	.	.	.
1	14	.	.	.
2	92	92	26.51	26.51
3	76	168	21.90	48.42
4	53	221	15.27	63.69
5	65	286	18.73	82.42
	61	347	17.58	100.00

# VARIABLE TRNFREQX (cont.)

## CONSTRUCTION

(Note: Special missings 'r' and 'u' were assigned to DE19080 prior to the following code.)

```
IF MIQBX = . THEN DE19080 = M;
TRNFREQX = DE19080;
```

VARIABLE	TRANQUSE	AMEDIS PILLS
Level of tranquilizer use at enrollment		
CODES		
1 - Missing, includes those with no tranquilizer use		
2 - High use (once a day or more)		
3 - Medium use (a few times a week or month)		
4 - Low use (once a month or less)		
TRANQUSE recodes TRNFREQ into 3 levels of use.		

## INPUT VARIABLES

TRANFREQ frequency of tranquilizer use at enrollment

## CONSTRUCTION

```
IF TRNFREQ = 1 OR TRNFREQ = 2
THEN TRANQUSE = 1;
ELSE IF TRNFREQ = 3 OR TRNFREQ = 4
THEN TRANQUSE = 2;
ELSE IF TRNFREQ = 5 THEN TRANQUSE = 3;
```

TRANQUSE VALUE	FREQ	CUM FREQ	%	CUM %
1	5408	193	41.69	41.69
2	193	388	42.12	83.80
3	195	463	16.20	100.00



TRANUSEX	VALUE	FREQ	CUM FREQ	%	CUM %
1	1	5524	168	48.42	48.42
2	2	168	286	34.01	82.42
3	3	118	347	17.58	100.00

VARIABLE	TRANUSEX	AMEDIS PILLS
Level of tranquilizer use at exit		
CODES		
1 - Missing, includes those with no tranquilizer use		
2 - High use (once a day or more)		
3 - Medium use (a few times a week or month)		
4 - Low use (once a month or less)		
TRANUSEX recodes TRNFREQ into 3 levels of use.		

#### INPUT VARIABLES

TRNFREQ Frequency of tranquilizer use at exit

#### CONSTRUCTION

```

IF TRNFREQ = 1 OR TRNFREQ = 2
  THEN TRANUSEX = 1;
ELSE IF TRNFREQ = 3 OR TRNFREQ = 4
  THEN TRANUSEX = 2;
ELSE IF TRNFREQ = 5 THEN TRANUSEX = 3;

```

TRANQIMP VALUE	FREQ	CUM FREQ	%	CUM %
.	677	.	.	.
A	775	.	.	.
T	4036	257	67.10	67.10
0	257	383	32.90	100.00
1	126			

VARIABLE	TRANQIMP	AMEDIS PILLS
Impact of tranquilizer use at enrollment		
CODES		
.	- Missing	
A	- Dayton participants	
T	- No tranquilizer use, skipped out of battery	
0	- No impact	
1	- Some impact	
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 TRANQIMP (cont.)

CONSTRUCTION (cont.)

(NonDayton)

```

IF (0 < DE13855 < 4) OR (0 < DE19081 < 5) OR (0 < DE19082)
  THEN TRANQIMP = 1;
ELSE IF (DE13855 = 4 AND DE19081 = 5 AND DE19082 = 0)
  THEN TRANQIMP = 0;
ELSE TRANQIMP = 1;

```

TRANQIMPX	FREQ	CUM FREQ	%	CUM %
1	585	.	.	.
0	4941	229	66.38	66.38
1	116	345	33.62	100.00

VARIABLE TRANQIMPX AMEDIS PILLS

Impact of tranquilizer use at exit

CODES

```

1 - Missing
0 - No tranquilizer use, skipped out of battery
1 - No impact
1 - Some impact

```

TRANQIMPX indicates whether tranquilizer use caused any worry/concern, activity restrictions, or days in bed.

INPUT VARIABLES

```

DE13855 (MHQB) During the past 3 months, how much has your
use of tranquilizers, sedatives, or nerve pills
worried or concerned you?
DE19081 (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 (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?

```

(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 = T;
```

REFLXUSE	FREQ	CUM FREQ	%	CUM %
1	691	73	1.41	1.41
2	73	132	1.14	2.55
3	59	568	8.42	10.97
4	436	5180	89.04	100.00

VARIABLE	RELXUSE	AMEDIS PILLS
	Combined sleeping pill and tranquilizer use at enrollment	
CODES		
	1 - Missing	
	2 - Use both	
	3 - Use sleeping pills only	
	4 - Use tranquilizers only	
	5 - Use neither	
	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
	0 - Missing
	1 - Do not use
	2 - Use
SITE	Respondent's place of residence at enrollment (cont.)

```
VARIABLE RELXUSE (cont.)

CONSTRUCTION
(Construct BINPILLS)
  IF SITE = 1
  THEN DO;
    IF DEI3851 = 1 THEN BINPILLS = 0;
    ELSE IF 2 <= DEI3851 <= 5
    THEN BINPILLS = 1;
    ELSE BINPILLS = DEI3851;
  END;
  IF SITE \= 1
  THEN DO;
    IF DEI9075 = 2 THEN BINPILLS = 0;
    ELSE IF DEI9075 = 1 THEN BINPILLS = 1;
    ELSE BINPILLS = DEI9075;
  END;
(Construct RELXUSE)
  IF BINPILLS = 1 AND (2 <= DEI3854 <= 6 OR DEI9079 = 1)
  THEN RELXUSE = 1;
  ELSE IF BINPILLS = 1 THEN RELXUSE=2;
  ELSE IF BINPILLS \= 1 AND
    (2 <= DEI3854 <= 6 OR DEI9079 = 1)
  THEN RELXUSE = 3;
  ELSE IF BINPILLS \= 1 AND (DEI3854 = 1 OR DEI9079 = 2)
  THEN RELXUSE = 4;
  ELSE RELXUSE=.;
```

RELXUSEX	VALUE	FREQ	CUM FREQ	%	CUM %
1	1	769	769	1.51	1.51
2	2	77	846	0.90	2.41
3	3	46	892	5.31	7.72
4	4	271	1163	92.28	100.00
		4708			

VARIABLE	RELXUSEX	AMEDIS PILLS
Combined sleeping pill and tranquilizer use at exit		
CODES		
		1 - Missing
		2 - Use both
		3 - Use sleeping pills only
		4 - Use tranquilizers only
		5 - Use neither
RELXUSEX summarizes use of prescribed sleeping pills and/or tranquilizers.		

#### INPUT VARIABLES

DE19075 (MHQB) During the past three months, have you used any sleeping pills prescribed by a doctor?

DE19079 (MHQB) 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

1 - Missing

0 - Do not use

1 - Use

#### CONSTRUCTION

(Construct BINPILL)

```
IF DE19075 = 2 THEN BINPILL = 0;
CLSC 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;
ELSE IF BINPILL \= 1 AND DE19079 = 2
  THEN RELXUSEX = 4;
ELSE RELXUSEX = .;
```

-----  
SURGICAL CONDITIONS

VARIABLE	HEMRTRIG	AMEDJS	SURGICAL CONDITIONS
			Had hemorrhoids during 12 months prior to enrollment
CODES			
	.		- Missing
	M		- No MHQB
	1		- Yes
	2		- No
			HEMRTRIG 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.)

HEMRTRIG					
VALUE	FREQ	CUM FREQ	%	CUM %	
.	679	.	.	.	
M	259	.	.	.	
1	725	725	14.70	14.70	
2	4208	4933	85.30	100.00	

VARIABLE HEMRTRIG (cont.)

CONSTRUCTION

IF MHQB = . THEN DE14415 = M;  
HEMRTRIG = DE14415;

VARIABLE	HEMRTRGX	SURGICAL CONDITIONS	AMEDIS
		Had hemorrhoids during 12 months prior to exit	
	CODES		
	.	- Missing	
	M	- No MHQB	
	1	- Yes	
	2	- No	
		HEMRTRGX 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?  
MHQB MHQB indicator at exit

CONSTRUCTION

IF MHQBX = . THEN DE14415 = M;  
HEMRTRGX = DE14415;

HEMRTRGX	VALUE	FREQ	CUM FREQ	%	CUM %
.	M	589	.	.	.
1	1	170	735	14.38	14.38
2	2	735	5112	85.62	100.00
		4377			



HEMRSUP	VALUE	FREQ	CUM FREQ	%	CUM %
.	.	677	.	.	.
M	M	259	.	.	.
S	S	4208	.	.	.
T	T	2	.	.	.
1	1	170	170	23.45	23.45
2	2	555	725	76.55	100.00

VARIABLE	HEMRSUP	AMEDIS
		SURGICAL CONDITIONS
		Took suppositories for hemorrhoids at enrollment
	CODES	
	.	- Missing
	M	- Did not take MHQB
	S	- Answered no to initial trigger question, skipped out of battery
	T	- Missing initial trigger question, DE14415
	1	- Yes
	2	- No
		HEMRSUP 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.

NOTE: No special missings were assigned for the Replacement PEGs; for this group all missings are grouped under '.'

# INPUT VARIABLES

DE14415 (MHQB) Have you had hemorrhoids (piles) within the past 12 months?  
 DE14417 (Dayton - MHQB) In the last 3 months, have you taken rectal suppositories for hemorrhoids (piles)?  
 DE19053 (NonDayton - MHQB) In the past 3 months have you taken any rectal suppositories for your piles or hemorrhoids?  
 MHQB MHQB indicator at enrollment  
 SITE Participant's place of residence at enrollment

# CONSTRUCTION

```

IF MHQB = .
  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;
```

VARIABLE	HEMRSUPX	AMEDIS
		SURGICAL CONDITIONS
Took suppositories for hemorrhoids at exit		
CODES		
. - Missing		
M - Did not take MHQB		
S - Answered no to initial trigger question, skipped out of battery		
T - Missing initial trigger question, DE14415		
1 - Yes		
2 - No		
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 (MHQB) Have you had hemorrhoids (piles) within the past 12 months?  
(cont.)

HEMRSUPX  
VALUE

.  
M  
S  
T  
1  
2

FREQ  
585  
170  
4377  
4  
175  
560

CUM  
FREQ  
. .  
175  
735

%  
. .  
23.81  
76.19

CUM  
%  
. .  
23.81  
100.00

VARIABLE HEMRSUPX (cont.)

INPUT VARIABLES (cont.)

DE19053 (MHQB) In the past 3 months have you taken any  
rectal suppositories for your piles or hemorrhoids?  
MHQB indicator at exit

CONSTRUCTION

IF MHQB = 1 THEN DE19053 = M;  
IF DE14415 = 2 THEN DE19053 = S;  
IF DE14415 = 1 THEN DE19053 = T;  
HEMRSUPX = DE19053;

VARIABLE	HEMRSITZ	SURGICAL CONDITIONS	AMEDIS
Took sitzbaths for hemorrhoids at enrollment			
CODES			
1 - Missing			
M - Did not take MHQB			
S - Answered no to initial trigger question, skipped out of battery			
T - Missing initial trigger question, DE14415			
1 - Yes			
2 - No			
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

DE14415 (MHQB) Have you had hemorrhoids (piles) within the  
past 12 months?  
DE14419 (Dayton - MHQB) In the last 3 months, have you used  
sitzbaths (hot baths) because of hemorrhoids  
(piles)?  
(cont.)

HEMRSITZ	FREQ	CUM FREQ	%	CUM %
M	680	.	.	.
S	259	.	.	.
T	4208	.	.	.
1	2	123	17.04	17.04
2	599	722	82.96	100.00

```
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 = .
    THEN DO;
      DE14419=T;
      DE19054=T;
    END;
  IF SITE = 1
    THEN HEMRSITZ = DE14419;
  IF SITE \= 1
    THEN HEMRSITZ = DE19054;
```

HEMRSIZX	VALUE	FREQ	CUM FREQ	%	CUM %
.	.	586	.	.	.
M	M	170	.	.	.
S	S	4377	.	.	.
T	T	4	.	.	.
1	1	148	148	20.16	20.16
2	2	586	734	79.84	100.00

VARIABLE	HEMRSIZX	AMEDIS	SURGICAL CONDITIONS
Took sitzbaths for hemorrhoids at exit			
CODES			
.	.	.	Missing
M	M	.	Did not take MIQB
S	S	.	Answered no to initial trigger question, skipped out of battery
T	T	.	Missing initial trigger question, DE14415
1	1	.	Yes
2	2	.	No
HEMRSIZX 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 (MIQB) Have you had hemorrhoids (piles) within the past 12 months?  
 DE19054 (MIQB) In the past 3 months, have you taken any sitzbaths (hot baths) because of your piles or hemorrhoids?  
 MIQBX MIQB indicator at exit

#### CONSTRUCTION

IF MIQBX = . THEN DE19054 = M;  
 IF DE14415 = 2 THEN DE19054 = S;  
 IF DE14415 = . THEN DE19054 = T;  
 HEMRSIZX = DE19054;

VARIABLE	HEMRMED	AMEDIS
		SURGICAL CONDITIONS
Doctor prescribed treatment for hemorrhoids at enrollment		
CODES		
.	- Missing	
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 missings	
1	- Doctor prescribed suppositories or sitzbaths	
2	- Doctor did not prescribe suppositories or sitzbaths	
3	- Never saw a doctor regarding treatment (NonDayton)	
HEMRMED indicates whether a doctor prescribed suppositories or sitzbaths 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 sitzbaths (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 HEMRMED.)

```

IF MHQB = .
  THEN HEMRMED = M;
ELSE IF DE14415 = 2
  THEN HEMRMED = S;
ELSE IF DE14415 = .
  THEN HEMRMED = T;

```

(cont.)

HEMRMED	FREQ	CUM FREQ	%	CUM %
.	677	.	.	.
M	259	.	.	.
S	4208	.	.	.
T	2	.	.	.
Z	1	.	.	.
1	129	129	17.82	17.82
2	245	374	33.84	51.66
3	350	724	48.34	100.00

VARIABLE HEMRMED (cont.)

CONSTRUCTION (cont.)

```
ELSE IF DE14416 = 1 OR DE14418 = 1
  THEN HEMRMED = 1;
ELSE IF DE14416 = 2 AND DE14418 = 2
  THEN HEMRMED = 2;
ELSE IF SITE \= 1 AND DE19050 \= 1
  THEN HEMRMED = 3;
ELSE IF DE14416 = T OR DE14416 = S OR
  DE14416 = M
  THEN HEMRMED = DE14416;
ELSE HEMRMED = Z;
```

VARIABLE	HEMRMEDX	AMFDIS	SURGICAL CONDITIONS
Doctor prescribed treatment for hemorrhoids at exit			
CODES			
. - Missing			
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 sitzbaths			
2 - Doctor did not prescribe suppositories or sitzbaths			
3 - Never saw a doctor regarding treatment (NonDayton)			
HEMRMEDX indicates whether a doctor prescribed suppositories or sitzbaths 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)?

(cont.)

HEMRMEDX	VALUE	FREQ	CUM FREQ	%	CUM %
M		585	.	.	.
S		170	.	.	.
T		4377	.	.	.
1		4	147	20.00	20.00
2		178	325	24.22	44.22
3		410	735	55.78	100.00

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VARIABLE HEMRMEDX (cont.)

INPUT VARIABLES (cont.)

DE14418 (MIQB) During the past 12 months, has a doctor  
prescribed sitzbaths (hot baths) because of  
hemorrhoids (piles)?  
DE19050 (NonDayton - MIQB) Have you ever seen a doctor  
about your piles or hemorrhoids?  
MIQBX MIQB indicator at exit

# CONSTRUCTION

(Note: Special missings (M,S,T) were assigned to DE14416  
before constructing HEMRMED.)

```

IF MIQBX = .
  THEN HEMRMEDX = M;
ELSE IF DE14415 = 2
  THEN HEMRMEDX = S;
ELSE IF DE14415 = .
  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 = 2;

```



HEMRMHQ VALUE	FREQ	CUM FREQ	%	CUM %
.	677	.	.	.
M	259	.	.	.
S	4208	.	.	.
T	2	.	.	.
Z	1	.	.	.
1	74	74	10.22	10.22
2	55	129	7.60	17.82
3	66	195	9.12	26.93
4	180	375	24.86	51.80
5	90	465	12.43	64.23
6	259	724	35.77	100.00

VARIABLE	HEMRMHQ	SURGICAL CONDITIONS	AMEDIS
Hemorrhoid status based on the MHQ at enrollment			
CODES			
.		- Missing	
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 missings	
1		- Doctor prescribed therapy, patient took therapy	
2		- Doctor prescribed therapy, but none was taken	
3		- Therapy not prescribed by doctor, but therapy was taken	
4		- Therapy not prescribed by doctor, and none was taken	
5		- Therapy taken; did not see a doctor regarding therapy	
6		- Therapy not taken; did not see a doctor regarding therapy	
HEMRMHQ 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

HEMRMED Doctor prescribed treatment for hemorrhoids at enrollment  
HEMRSUP Has taken suppositories for hemorrhoids at enrollment  
HEMRSTZ Has taken sitz baths for hemorrhoids at enrollment  
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;
      (cont.)
```

```
VARIABLE HEMRMHQ (cont.)
CONSTRUCTION (cont.)

    ELSE IF HEMRSITZ = 2 AND HEMRSUP = 2
    THEN TAKEN = 2;
    ELSE TAKEN = Z;

(Construct HEMRMHQ)

    IF HEMRMED = 1 AND TAKEN = 1
    THEN HEMRMHQ = 1;
    ELSE IF HEMRMED = 1 AND TAKEN = 2
    THEN HEMRMHQ = 2;
    ELSE IF HEMRMED = 2 AND TAKEN = 1
    THEN HEMRMHQ = 3;
    ELSE IF HEMRMED = 2 AND TAKEN = 2
    THEN HEMRMHQ = 4;
    ELSE IF HEMRMED = 3 AND TAKEN = 1
    THEN HEMRMHQ = 5;
    ELSE IF HEMRMED = 3 AND TAKEN = 2
    THEN HEMRMHQ = 6;
    ELSE HEMRMHQ = HEMRMED;

(Construct HEMRMHQ, for replacement PEGs only)

    IF HEMRMED = 1 AND TAKEN = 1
    THEN HEMRMHQ = 1;
    ELSE IF HEMRMED = 1 AND TAKEN = 2
    THEN HEMRMHQ = 2;
    ELSE IF HEMRMED = 2 AND TAKEN = 1
    THEN HEMRMHQ = 3;
    ELSE IF HEMRMED = 2 AND TAKEN = 2
    THEN HEMRMHQ = 4;
    ELSE IF HEMRMED = 3 AND TAKEN = 1
    THEN HEMRMHQ = 5;
    ELSE IF HEMRMED = 3 AND TAKEN = 2
    THEN HEMRMHQ = 6;
    ELSE IF HEMRMED < 0
    THEN HEMRMHQ = HEMRMED;
    ELSE IF TAKEN < 0
    THEN HEMRMHQ = TAKEN;
```



```
VARIABLE HEMRMHGX (cont.)  
CONSTRUCTION (cont.)  
(Construct HEMRMHGX)  
  IF HEMRMEDX = 1 AND TAKEN = 1  
  THEN HEMRMHGX = 1;  
  ELSE IF HEMRMEDX = 1 AND TAKEN = 2  
  THEN HEMRMHGX = 2;  
  ELSE IF HEMRMEDX = 2 AND TAKEN = 1  
  THEN HEMRMHGX = 3;  
  ELSE IF HEMRMEDX = 2 AND TAKEN = 2  
  THEN HEMRMHGX = 4;  
  ELSE IF HEMRMEDX = 3 AND TAKEN = 1  
  THEN HEMRMHGX = 5;  
  ELSE IF HEMRMEDX = 3 AND TAKEN = 2  
  THEN HEMRMHGX = 6;  
  ELSE IF HEMRMEDX < 0  
  THEN HEMRMHGX = HEMRMEDX;  
  ELSE IF TAKEN < 0  
  THEN HEMRMHGX = TAKEN;
```

HEMRIMP					
VALUE	FREQ	CUM FREQ	%	CUM %	
.	679	.	.	.	
M	259	.	.	.	
S	4208	.	.	.	
0	231	231	31.86	31.86	
1	494	725	68.14	100.00	

VARIABLE	HEMRIMP	AMEDIS
		SURGICAL CONDITIONS
		Impact from hemorrhoids at enrollment
		CODES
	.	- Missing
	M	- Did not take MHQB
	S	- Answered no to initial trigger question, skipped out of battery
	T	- Missing initial trigger question, DE14415
	0	- No impact
	1	- Some impact
		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 (MHQB) Have you had hemorrhoids (piles) within the past 12 months?  
 DE14420 (MHQB) During the past 3 months, how much pain have your piles or hemorrhoids caused you?  
 DE14421 (MHQB) 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 (MHQB) 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 (MHQB - NonDayton) During the past 3 months, how much have your piles or hemorrhoids worried or concerned you?  
 MHQB MHQB indicator at enrollment

(cont.)

VARIABLE HEMRIMP (cont.)

CONSTRUCTION

(Dayton)

```
IF 0 < DE14420 < 4 OR 0 < DE14421 < 5 OR
   DE14422 > 0
   THEN HEMRIMP = 1;
ELSE IF DE14420 < 0 AND DE14421 < 0 AND
   DE14422 < 0
   THEN HEMRIMP = .;
ELSE HEMRIMP = 0;
```

```
IF MIQB = . THEN HEMRIMP = M;
IF DE14415 = 2 THEN HEMRIMP = S;
IF DE14415 = . THEN HEMRIMP = 1;
```

(NonDayton)

```
IF 0 < DE14420 < 4 OR 0 < DE19055 < 4 OR
   0 < DE14421 < 5 OR DE14422 > 0
   THEN HEMRIMP = 1;
ELSE IF DE14420 < 0 AND DE19055 < 0 AND
   DE14421 < 0 AND DE14422 < 0
   THEN HEMRIMP = .;
ELSE HEMRIMP = 0;
```

```
IF MIQB = . THEN HEMRIMP = M;
IF DE14415 = 2 THEN HEMRIMP = S;
IF DE14415 = . THEN HEMRIMP = 1;
```

HEMR IMPX	VALUE	FREQ	CUM FREQ	%	CUM %
.	M	586	.	.	.
S	S	170	.	.	.
T	T	4377	.	.	.
0	0	4	221	30.11	30.11
1	1	513	734	69.89	100.00

VARIABLE	HEMR IMPX	SURGICAL CONDITIONS	AMEDIS
Impact of hemorrhoids at exit			
CODES			
.	Missing		
M	Did not take MHQB		
S	Answered no to initial trigger question, skipped out of battery		
T	Missing initial trigger question, DE14415		
0	No impact		
1	Some impact		
HEMR IMPX indicates whether hemorrhoids caused any pain, worry/concern, activity restrictions, or days in bed.			

#### INPUT VARIABLES

DE14415 (MHQB) Have you had hemorrhoids (piles) within the past 12 months?  
 DE14420 (MHQB) During the past 3 months, how much pain have your hemorrhoids (piles) caused you?  
 DE14421 (MHQB) During the past 3 months, how often have your hemorrhoids (piles) kept you from doing the kinds of activities other people your age do?  
 DE14422 (MHQB) During the past 30 days, how many days have your hemorrhoids (piles) kept you in bed all or most of the day?  
 DE19055 (MHQB) During the past 3 months, how much have your piles or hemorrhoids worried or concerned you?  
 MHQBX MHQB indicator at exit

#### CONSTRUCTION

```
IF 0 < DE14420 < 4 OR 0 < DE19055 < 4 OR
0 < DE14421 < 5 OR DE14422 > 0
THEN HEHRIMPX = 1;
ELSE IF DE14420 < 0 AND DE19055 < 0 AND
DE14421 < 0 AND DE14422 < 0
THEN HEHRIMPX = .;
ELSE HEHRIMPX = 0;
```

(cont.)

VARIABLE HEMRIMPX (cont.)

CONSTRUCTION (cont.)

```

IF MHQB = . THEN HEMRIMPX = M;
IF DE14415 = 2 THEN HEMRIMPX = S;
IF DE14415 = . THEN HEMRIMPX = T;

```

VARIABLE	VEINTRIG	AMEDIS
		SURGICAL CONDITIONS
		Had varicose veins during 12 months prior to enrollment
		CODES
		. - Missing
		M - No MHQB
		1 - Yes
		2 - No
		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

```

DE14383 (MHQB) During the past 12 months, have you noticed
varicose veins in your legs?
MHQB MHQB indicator at enrollment

```

CONSTRUCTION

```

IF MHQB = . THEN DE14383 = M;
VEINTRIG = DE14383;

```

VEINTRIG	FREQ	CUM FREQ	%	CUM %
VALUE				
.	680	.	.	.
M	259	.	.	.
1	639	639	12.96	12.96
2	4293	4932	87.04	100.00



VARIABLE	VEINTRGX	AMEDIS
		SURGICAL CONDITIONS
		Had varicose veins during 12 months prior to exit
		CODES
		. - Missing
		M - No MHQB
		1 - Yes
		2 - No
		VE NTRGX 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 (MHQB) During the past 12 months, have you noticed varicose veins in your legs?  
MHQBX MHQB indicator at exit

#### CONSTRUCTION

IF MHQBX = . THEN DE14383 = M;  
VEINTRGX = DE14383;

VEINTRGX	VALUE	FREQ	CUM FREQ	%	CUM %
	.	590	.	.	.
	M	170	.	.	.
	1	656	656	12.84	12.84
	2	4455	5111	87.17	100.00

VEINWORS	VALUE	FREQ	CUM FREQ	%	CUM %
.	C	677	.	.	.
.	J	2291	.	.	.
.	Q	10	.	.	.
.	R	254	.	.	.
.	W	1252	.	.	.
.	1	5	.	.	.
.	2	442	442	31.98	31.98
.	3	556	998	40.23	72.21
.	4	220	1218	15.92	88.13
.	5	113	1331	8.18	96.31
.	5	51	1382	3.69	100.00

VARIABLE	VEINWORS	SURGICAL CONDITIONS	AMEDIS
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	- Men who had no varicose vein exam		
W	- Bad response to trigger		
1	- Absent		
2	- Spider angioma		
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 angioma
3	- Minimal
4	- Moderate
5	- Severe

(cont.)

```
VARIABLE VEINWORS (cont.)
INPUT VARIABLES (cont.)

DEI7383  (Screening exam)  Severity of varicose veins in the
left leg
1 - Absent
2 - Spider angiomas
3 - Minimal
4 - Moderate
5 - Severe

SCREENED  Screening exam indicator at enrollment
SEX       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 DEI7380 = 2
  THEN VEINWORS = Q;
IF SEX = 1 AND DEI7381 = 2
  THEN VEINWORS = R;

IF DEI7382 = . OR DEI7383 = .
  THEN DO;

  IF DEI7382 \= .
    THEN VEINWORS = DEI7382;
  IF DEI7383 \= .
    THEN VEINWORS = DEI7383;
  IF DEI7382 = . AND DEI7383 = .
    THEN VEINWORS = J;

  END;

IF DEI7382 >= 1 AND DEI7383 >= 1
  THEN DO;

  IF DEI7382 >= DEI7383
    THEN VEINWORS = DEI7382;
  ELSE VEINWORS = DEI7383;

  END;
```

VEINWORX VALUE	FREQ	CUM FREQ	%	CUM %
Z	795	.	.	.
1	2836	.	.	.
2	910	910	40.63	40.63
3	538	1448	24.02	64.64
4	412	1860	18.39	83.04
5	205	2065	9.15	92.19
	175	2240	7.81	100.00

VARIABLE	VEINWORX	SURGICAL CONDITIONS	AMEDIS
Severity of varicose veins at exit			
CODES			
1 - Missing			
2 - Missing DE17382 and DE17383			
3 - Absent			
4 - Spider angioma			
5 - Minimal			
6 - Moderate			
7 - Severe			

Severity of varicose veins at exit

CODES

- 1 - Missing
- 2 - Missing DE17382 and DE17383
- 3 - Absent
- 4 - Spider angioma
- 5 - Minimal
- 6 - Moderate
- 7 - Severe

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 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

#### CONSTRUCTION

IF DE17382 = . OR DE17383 = .  
THEN DO;

IF DE17382 \= .  
THEN VEINWORX = DE17382;  
(cont.)

VARIABLE VEINWORX (cont.)

CONSTRUCTION (cont.)

```
IF DE17383 \= .
  THEN VEINWORX = DE17383;
IF DE17382 = . AND DE17383 = .
  THEN VEINWORX = Z;
```

END;

```
IF DE17382 >= 1 AND DE17383 >= 1
  THEN DO;
```

```
IF DE17382 >= DE17383
  THEN VEINWORX = DE17382;
ELSE VEINWORX = DE17383;
```

END;

VARIABLE	VEINAVR	AMFDIS
		SURGICAL CONDITIONS
Average leg score for 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 - Men who had no varicose vein exam W - Bad response to trigger 1 to 5 - range in .5 increments, the lowest meaning absent and the highest severe		
VEINAVR 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.		

(cont.)

VEINAVR  
VALUE

C	677			
J	2291			
Q	10			
R	254			
W	1252			
1	5			
1.5	442	31.98		31.98
2	15	1.09		33.07
2.5	563	40.74		73.81
3	1020	7.31		81.11
3.5	1121	10.49		91.61
4	145	2.46		94.07
4.5	34	3.55		97.61
5	49	1.16		98.77
	16	1.23		100.00
	17			
	1365			
	1382			

VARIABLE VEINAVR (cont.)

INPUT VARIABLES

DEI7380 (Screening exam) Is the examinee female and 20  
years old or older?  
1 - Yes  
2 - No

DEI7381 (Screening exam) Is examinee male and does he  
claim to have or have had varicose veins?  
1 - Yes  
2 - No

DEI7382 (Screening exam) Severity of varicose veins in the  
right leg  
1 - Absent  
2 - Spider angioma  
3 - Minimal  
4 - Moderate  
5 - Severe

DEI7383 (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  
SEX  
1 - Male  
2 - Female

CONSTRUCTION

(Note: VEINAVR was assigned a value of W by reviewing responses  
to exceptional cases individually.)

```

IF SCREENED = .
  THEN VEINAVR = C;
IF SEX = 2 AND DEI7380 = 2
  THEN VEINAVR = Q;
IF SEX = 1 AND DEI7381 = 2
  THEN VEINAVR = R;
IF DEI7382 = . OR DEI7383 = .
  THEN DO;
  IF DEI7382 \= .
    THEN VEINAVR = DEI7382;
  ELSE IF DEI7383 \= .
    THEN VEINAVR = DEI7383; (cont.)

```

VARIABLE VEINAVEX (cont.)

CONSTRUCTION (cont.)

```
ELSE IF DEI7382 = . AND DEI7383 = .
  THEN VEINAVEX = J;
END;
```

```
ELSE IF DEI7382 >= 1 AND DEI7383 >= 1
  THEN VEINAVEX = (DEI7382 + DEI7383) / 2;
```

VEINAVEX VALUE	FREQ	CUM FREQ	%	CUM %
.	795	.	.	.
1	2836	.	.	.
1.5	910	910	40.63	40.63
2	130	1040	5.80	46.43
2.5	476	1516	21.25	67.68
3	74	1590	3.30	70.98
3.5	291	1881	12.99	83.97
4	56	1937	2.50	86.47
4.5	150	2087	6.70	93.17
	38	2125	1.70	94.87
	115	2240	5.13	100.00

VARIABLE	VEINAVEX	SURGICAL CONDITIONS	AMEDIS
----------	----------	---------------------	--------

Average leg score for varicose veins at exit

CODES

. - Missing

Z - Missing DEI7382 and DEI7383

1 to 5 - range in .5 increments, the lowest meaning absent and the highest severe

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.

INPUT VARIABLES

DEI7382 (Screening exam) right leg Severity of varicose veins in the

1 - Absent

2 - Spider angioma

3 - Minimal

4 - Moderate

5 - Severe

DEI7383 (Screening exam) left leg Severity of varicose veins in the

1 - Absent

2 - Spider angioma

3 - Minimal

4 - Moderate

5 - Severe

(cont.)

VARIABLE VEINAVEX (cont.)

CONSTRUCTION

```
IF DEI7382 = . OR DEI7383 = .
  THEN DO;
  IF DEI7382 \= .
    THEN VEINAVEX = DEI7382;
  ELSE IF DEI7383 \= .
    THEN VEINAVEX = DEI7383;
  ELSE IF DEI7382 = . AND DEI7383 = .
    THEN VEINAVEX = Z;
END;
ELSE IF DEI7382 >= 1 AND DEI7383 >= 1
  THEN VEINAVEX = (DEI7382 + DEI7383) / 2;
```

VARIABLE	VEIN_SE	AMEDIS
		SURGICAL CONDITIONS
Binary varicose veins status indicator at enrollment		
CODES		
. - Missing		
C - Did not take screening exam		
J - Missing responses to DEI7382 and DEI7383		
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.)

VEIN_SE	FREQ	CUM FREQ	%	CUM %
VALUE				
.	677	.	.	.
C	2291	.	.	.
J	10	.	.	.
Q	254	.	.	.
R	1252	.	.	.
W	5	.	.	.
1	384	384	27.79	27.79
2	998	1382	72.21	100.00

I 382 I



VEIN_SEX	VALUE	FREQ	CUM FREQ	%	CUM %
1	2	795	.	.	.
1	1	2836	792	35.36	35.36
2	2	1448	2240	64.64	100.00

# VARIABLE VEIN\_SF (cont.)

## CONSTRUCTION

```

IF VEINWORX >= 3
  THEN VEIN_SF = 1;
ELSE IF VEINWORX = 1 OR VEINWORX = 2
  THEN VEIN_SF = 2;
ELSE VEIN_SF = VEINWORX;

```

VEINMDRC	VALUE	FREQ	CUM FREQ	%	CUM %
M	678	678	678	13.66	13.66
S	259	259	937	18.72	32.38
T	4293	4293	5230	86.34	88.70
Z	3	3	5233	0.06	88.76
1	1	1	5234	0.02	88.78
2	87	87	5321	1.66	90.44
	550	550	5871	100.00	100.00

1 384 1

VARIABLE	VEINMDRC	AMEDIS
		SURGICAL CONDITIONS
		Physician recommended therapy for varicose veins at enrollment
		CODES
		1 - Missing
		M - No MHQB
		S - Skipped out of varicose vein battery
		T - Missed varicose vein trigger question
		Z - Missing responses to DE14385 and DE14386
		1 - Yes, MD recommended therapy
		2 - No, MD did not recommend therapy
		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 (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?

MHQB MHQB indicator at enrollment

(cont.)

VARIABLE VEINMDRC (cont..)

CONSTRUCTION

```
IF DE14383 = .  
  THEN DO;  
    DE14385 = T;  
    DE14386 = T;  
  END;
```

```
IF DE14383 = 2  
  THEN DO;  
    DE14385 = S;  
    DE14386 = S;  
  END;
```

```
IF MHQB = .  
  THEN DO;  
    DE14385 = M;  
    DE14386 = M;  
  END;
```

```
IF DE14385 < 0  
  THEN VEINMDRC = DE14385;  
  ELSE IF DE14385 = 1 OR DE14386 = 1  
    THEN VEINMDRC = 1;  
  ELSE IF DE14385 = 2 AND DE14386 = 2  
    THEN VEINMDRC = 2;  
  ELSE VEINMDRC = Z;
```

VEINMDRX	VALUE	FREQ	CUM FREQ	%	CUM %
	M	585			
	S	170			
	T	4455			
	1	5			
	2	95	95	14.48	14.48
		561	656	85.52	100.00

VARIABLE	VEINMDRX	AMEDIS
		SURGICAL CONDITIONS
		Physician recommended therapy for varicose veins
		at exit
		CODES
		1 - Missing
		M - No MHQB
		S - Skipped out of varicose vein battery
		T - Missed varicose vein trigger question
		Z - Missing responses to DE14385 and DE14386
		1 - Yes, MD recommended therapy
		2 - No, MD did not recommend therapy
		VEINMDRX 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?  
MHQB MHQB indicator at exit

# CONSTRUCTION

```

IF DE14383 = 1
THEN DO;
  DE14385 = T;
  DE14386 = T;
END;

```

(cont.)

VARIABLE VEINMDRX (cont.)

CONSTRUCTION (cont.)

```

IF DE14383 = 2
  THEN DO;
    DE14385 = S;
    DE14386 = S;
  END;

IF MIQBX = .
  THEN DO;
    DE14385 = M;
    DE14386 = M;
  END;

IF DE14385 < 0
  THEN VEINMDRX = DE14385;
ELSE IF DE14385 = 1 OR DE14386 = 1
  THEN VEINMDRX = 1;
ELSE IF DE14385 = 2 AND DE14386 = 2
  THEN VEINMDRX = 2;
ELSE VEINMDRX = Z;

```

VEINTHER	VEINTHER VALUE	FRFQ	CUM FREQ	%	CUM %
.	.	678	.	.	.
M	M	259	.	.	.
S	S	4293	.	.	.
T	T	3	.	.	.
1	1	208	208	32.60	32.60
2	2	430	638	67.40	100.00

VARIABLE	VEINTHER	SURGICAL CONDITIONS	AMEDIS
Patient took therapy for varicose veins at enrollment			
CODES			
.	.	- Missing	
M	M	- No MIQBX	
S	S	- Skipped out of varicose vein battery	
T	T	- Missed varicose vein trigger question	
Z	Z	- Missing responses to DE14387 AND DE14388	
1	1	- Yes, patient took therapy	
2	2	- No, patient did not take therapy	
VEINTHER 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 VEINTHER (cont.)

INPUT VARIABLES

DEI4383 (MHQB) During the past 12 months, have you noticed  
varicose veins in your legs?  
DEI4387 (MHQB) Do you currently keep your feet up during  
the day because of varicose veins?  
DEI4388 (MHQB) Do you currently wear support stockings  
(elastic hose) because of varicose veins?  
MHQB MHQB indicator at enrollment

CONSTRUCTION

IF DEI4383 = .  
THEN DO;  
DEI4387 = T;  
DEI4388 = T;  
END;

IF DEI4383 = 2  
THEN DO;  
DEI4387 = S;  
DEI4388 = S;  
END;

IF MHQB = .  
THEN DO;  
DEI4387 = M;  
DEI4388 = M;  
END;

IF DEI4387 < 0  
THEN VEINTHER = DEI4387;  
ELSE IF 1 <= DEI4387 <= 3 OR 1 <= DEI4388 <= 3  
THEN VEINTHER = 1;  
ELSE IF DEI4387 = 4 AND DEI4388 = 4  
THEN VEINTHER = 2;  
ELSE VEINTHER = Z;

VE INTHRX VALUE	FREQ	CUM FREQ	%	CUM %
M	585	.	.	.
S	170	.	.	.
T	4455	.	.	.
Z	5	.	.	.
1	1	.	.	.
2	203	203	30.99	30.99
	452	655	69.01	100.00

VARIABLE	VE INTHRX	AMEDIS SURGICAL CONDITIONS
Patient took therapy for varicose veins at exit		
CODES		
.	- Missing	
M	- No MHQB	
S	- Skipped out of varicose vein trigger	
T	- Missed varicose vein trigger question	
Z	- Missing responses to DE14387 AND DE14388	
1	- Yes, patient took therapy	
2	- No, patient did not take therapy	
VE INTHRX 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

DE14383 (MHQB) During the past 12 months, have you noticed varicose veins in your legs?  
DE14387 (MHQB) Do you currently keep your feet up during the day because of varicose veins?  
DE14388 (MHQB) Do you currently wear support stockings (elastic hose) because of varicose veins?  
MHQBX MHQB indicator at exit

#### CONSTRUCTION

```

IF DE14383 = .
  THEN DO;
    DE14387 = T;
    DE14388 = T;
  END;

IF DE14383 = 2
  THEN DO;
    DE14387 = S;
    DE14388 = S;
  END;

```

(cont.)

VARIABLE VEINTHRX (cont.)

CONSTRUCTION (cont.)

```
IF MHQB = .
  THEN DO;
    DE14387 = M;
    DE14388 = M;
  END;

IF DE14387 < 0
  THEN VEINTHRX = DE14387;
ELSE IF 1 <= DE14387 <= 3 OR 1 <= DE14388 <= 3
  THEN VEINTHRX = 1;
ELSE IF DE14387 = 4 AND DE14388 = 4
  THEN VEINTHRX = 2;
ELSE VEINTHRX = Z;
```

VEINIMP VALUE	FREQ	CUM FREQ	%	CUM %
M	680	.	.	.
S	259	.	.	.
0	4293	341	53.37	53.37
1	298	639	46.64	100.00

VARIABLE	VEINIMP	SURGICAL CONDITIONS	AMEDIS
----------	---------	---------------------	--------

Impact of varicose veins at enrollment

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 (MHQB - Dayton) During the past 3 months, how much
    have your varicose veins worried or concerned you?
    DE14392 (MHQB - 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 (MHQB) During the past 30 days, how many days have
    your varicose veins kept you in bed all or most of
    the day?
    DE19059 (MHQB - NonDayton) During the past 3 months, how
    much have your varicose veins worried or concerned
    you?
    DE19060 (MHQB - 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
    MHQB MHQB 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
ACTIVRES < 0 AND DE14393 < 0
THEN VEINIMP = .;
ELSE VEINIMP = 0;

```

```

IF MIQB = . THEN VEINIMP = M;
IF DE14383 = 2 THEN VEINIMP = S;

```

VEINIMPX VALUE	FREQ	CUM FREQ	%	CUM %
.	591	.	.	.
M	170	.	.	.
S	4455	.	.	.
0	347	347	52.98	52.98
1	308	655	47.02	100.00

VARIABLE	VEINIMPX	SURGICAL CONDITIONS	AMFDIS
Impact of varicose veins at exit			
COD'S			
. - Missing			
M - No MIQB			
S - Skipped out of varicose vein battery			
0 - No impact			
1 - Some impact			
VEINIMPX indicates whether varicose veins caused any pain, worry/concern, activity restrictions, or days in bed.			

# INPUT VARIABLES

DE14383 (MIQB) During the past 12 months, have you noticed varicose veins in your legs?

DE14390 (MIQB) During the past 3 months, how much pain have your varicose veins caused you?

DE14393 (MIQB) During the past 30 days, how many days have your varicose veins kept you in bed all or most of the day?

DE19059 (MHQB) During the past 3 months, how much have your varicose veins worried or concerned you?

DE19060 (MHQB) 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) Recodes NonDayton DE19059 (cont.)

```

VARIABLE VEINIMPX (cont.)
INPUT VARIABLES (cont.)

    ACTIVRES (Temporary variable) Recodes NonDayton DE19060
    MHQBX    MIQB 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 VEINIMPX)

    IF 1 <= DE14390 < 4 OR 1 <= WORRY < 4 OR
       1 <= ACTIVRES < 5 OR DE14393 > 0
    THEN VEINIMPX = 1;
    ELSE IF DE14390 < 0 AND WORRY < 0 AND
           ACTIVRES < 0 AND DE14393 < 0
    THEN VEINIMPX = .;
    ELSE VEINIMPX = 0;

    IF MHQBX = . THEN VEINIMPX = M;
    IF DE14383 = 2 THEN VEINIMPX = S;

```

HRNATRIG	VALUE	FREQ	CUM FREQ	%	CUM %
.	.	683	.	.	.
M	M	259	.	.	.
1	1	68	68	1.38	1.38
2	2	4861	4929	98.62	100.00

VARIABLE	HRNATRIG	SURGICAL CONDITIONS	AMEDIS
Had a hernia within the 12 months prior to enrollment			
CODES			
.	.	- Missing	
M	M	- No MHQB	
1	1	- YES	
2	2	- No	
HRNATRIG indicates whether or not the respondent had a hernia within the 12 months prior to enrollment, based on responses to the MHQ.			

#### INPUT VARIABLES

DE14260 (MHQB) Have you had a hernia within the past 12 months?

MHQB MHQB indicator at enrollment

#### CONSTRUCTION

IF MHQB = . THEN DE14260 = M;  
HRNATRIG = DE14260;

HRNATRGX	VALUE	FREQ	CUM FREQ	%	CUM %
.	Missing	589	.	.	.
M	No MIQBX	170	.	.	.
1	Yes	77	77	1.51	1.51
2	No	5035	5112	98.49	100.00

VARIABLE	HRNATRGX	AMEDIS
		SURGICAL CONDITIONS
		Had a hernia within the 12 months prior to exit
CODES		
.	Missing	
M	No MIQBX	
1	Yes	
2	No	
		HRNATRGX indicates whether or not the respondent had a hernia during the 12 months prior to exit based on responses to the MIQ.

INPUT VARIABLES

DE14260 {MIQB} Have you had a hernia within the past 12 months?

MIQBX MIQB Indicator at exit

CONSTRUCTION

IF MIQBX = . THEN DE14260 = M;  
HRNATRGX = DE14260;

HRNAPREV VALUE	FREQ	CUM FREQ	%	CUM %
.	677	.	.	.
M	259	.	.	.
Z	11	.	.	.
1	321	321	6.52	6.52
2	4603	4924	93.48	100.00

VARIABLE	HRNAPREV	SURGICAL CONDITIONS	AMEDIS
Prevalence of hernia or past hernia operation at enrollment			
CODES			
.	- Missing		
M	- No MHQB		
Z	- Missing responses to DE14259 AND DE14260		
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

DE14259 (MHQB) Have you ever had an operation for a hernia, rupture, or herniated navel?  
(MHQB) Have you had a hernia within the past 12 months?

#### CONSTRUCTION

(Note: Special missing (M) was assigned to DE14259 and DE14260 before constructing HRNAPREV.)

```

IF DE14259 = M AND DE14260 = M
  THEN HRNAPREV = M;
ELSE IF DE14259 = 1 OR DE14260 = 1
  THEN HRNAPREV = 1;
ELSE IF DE14259 = 2 AND DE14260 = 2
  THEN HRNAPREV = 2;
ELSE HRNAPREV = Z;

```

HRNAPRVX VALUE	FREQ	CUM FREQ	%	CUM %
.	585	.	.	.
M	170	.	.	.
Z	7	.	.	.
1	342	342	6.69	6.69
2	4767	5109	93.31	100.00

VARIABLE	HRNAPRVX	SURGICAL CONDITIONS	AMEDIS
Prevalence of hernia or past hernia operation at exit			
CODES			
.	Missing		
M	No MHQB		
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 (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?

#### 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;
```

HRNASTAT VALUE	FREQ	CUM FREQ	%	CUM %
.	677	.	.	.
M	259	.	.	.
Z	11	.	.	.
1	49	49	1.00	1.00
2	19	68	0.39	1.38
3	253	321	5.14	6.52
4	4603	4924	93.48	100.00

VARIABLE	HRNASTAT	AMEDIS SURGICAL CONDITIONS
Hernia status at enrollment		
CODES		
.	- Missing	
M	- No MHQB	
Z	- Missing responses to DE14259 AND DE14260	
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	
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

(Dayton)

```
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.)



VARIABLE HRNASTAT (cont.)

CONSTRUCTION (cont.)

(NonDayton)

```
IF MIQB = .
  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;
IF DE14259 = 2 AND DE19056 = 1 AND DE14260 = 1
  THEN HRNASTAT = 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 HRNASTAT = 2.

HRNASTAX VALUE	FREQ	CUM FREQ	%	CUM %
.	585	.	.	.
M	170	.	.	.
Z	7	.	.	.
1	44	44	0.86	0.86
2	33	77	0.65	1.51
3	265	342	5.19	6.69
4	4767	5109	93.31	100.00

VARIABLE	HRNASTAX	SURGICAL CONDITIONS	AMEDIS
Hernia status at exit			
CODES			
.	Missing		
M	No MHQB		
Z	Missing responses to DE14259 AND DE14260		
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?  
 MHQB MHQB indicator at exit

#### CONSTRUCTION

```

IF MHQB = .
  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 = Z;
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 DE19056. In cases where there is contradictory information, any indication that a person has had surgery will qualify him for HRNASTAX = 2.

HRNAIMP					
VALUE	FREQ	CUM FREQ	%	CUM %	
M	683	.	.	.	
S	259	.	.	.	
0	4861	17	25.00	25.00	
1	17	68	75.00	100.00	
	51				

VARIABLE	HRNAIMP	SURGICAL CONDITIONS	AMEDIS
Impact of hernia at enrollment			
CODES			
.	- Missing		
M	- No MHQB		
S	- Answered no to trigger question, skipped out of battery		
0	- No impact		
1	- Some impact		
HRNAIMP 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;
```

HRNAIMPX VALUE	FREQ	CUM FREQ	%	CUM %
.	589	.	.	.
M	170	.	.	.
S	5035	.	.	.
0	25	25	32.47	32.47
1	52	77	67.53	100.00

VARIABLE	HRNAIMPX	AMEDIS	SURGICAL CONDITIONS
Impact of hernia at exit			
CODES			
.	- Missing		
M	- No MHQB		
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 (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?

MHQBX MHQB indicator at exit

#### CONSTRUCTION

```
IF MHQBX = .
  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;
```

TONSEXAM	VALUE	FREQ	CUM FREQ	%	CUM %
.		684	.	.	.
C		2291	.	.	.
G		2410	.	.	.
H		8	.	.	.
1		128	128	26.78	26.78
2		174	302	36.40	63.18
3		107	409	22.39	85.57
4		68	477	14.23	99.79
5		1	478	0.21	100.00

VARIABLE TONSEXAM AMEDIS  
SURGICAL CONDITIONS

Results of the tonsils exam at enrollment

CODES

- . - Missing
- C - Did not take screening exam
- G - Tonsil exam was not performed (age greater than or equal to 20)
- H - Missing value for age
- 1 - Absent
- 2 - Normal
- 3 - Minimally enlarged
- 4 - Moderately enlarged
- 5 - Touching midline

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

- 0 - Absent
- 1 - Normal
- 2 - Minimally enlarged
- 3 - Moderately enlarged
- 4 - 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 = G;  
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 = G;  
IF DE17087 = . THEN DE12185 = H;
```

TONSEXAM = DE12185;

- 406 -

TONSEXMX VALUE	FREQ	CUM FREQ	%	CUM %
C	5601	.	.	.
1	210	24	40.00	40.00
2	24	52	46.67	86.67
3	28	57	8.33	95.00
4	3	60	5.00	100.00

VARIABLE TONSEXMX AMEDIS  
SURGICAL CONDITIONS

Results of the tonsils exam at exit

CODES

- C - Missing
- 1 - Did not take screening exam
- 2 - Absent
- 3 - Normal
- 4 - Minimally enlarged
- 5 - Moderately enlarged
- 6 - Touching midline

TONSEXMX identifies the results of the tonsil exam done during the exit screening exam. The tonsils were examined for size.

(cont.)



VARIABLE TONSEMX (cont.)

INPUT VARIABLES

DE12185 (Screening exam) Results of tonsil exam  
 1 - Absent  
 2 - Normal  
 3 - Minimally enlarged  
 4 - Moderately enlarged  
 5 - Touching midline  
 SCREENDX Screening exam indicator at exit

CONSTRUCTION

IF SCREENDX = . THEN DE12185 = C;  
 TONSEMX = DE12185;

VARIABLE	TONSTAT	SURGICAL CONDITIONS	AMEDIS
Tonsils status indicator at enrollment			
CODES			
.	Missing		
C	Did not take screening exam		
G	Tonsil exam was not performed (age greater than or equal to 20)		
H	Missing value for age		
0	No enlargement of tonsils		
1	Enlargement of tonsils		
TONSTAT is an indicator which determines whether the respondent has enlarged tonsils or not.			

INPUT VARIABLES

DE17053 (Screening exam - Dayton) Age of examinee  
 DE17087 (Screening exam - NonDayton) Is examinee less than 20 years old?  
 1 - Yes  
 2 - No

(cont.)

TONSTAT	FREQ	CUM FREQ	%	CUM %
VALUE				
.	684	.	.	.
C	2291	.	.	.
G	2410	.	.	.
H	8	.	.	.
0	302	302	63.18	63.18
1	176	478	36.82	100.00

```
VARIABLE TONSTAT (cont.)
INPUT VARIABLES (cont.)
    TONSEXAM Results of tonsils exam
    SCREENED Screening exam indicator at enrollment

CONSTRUCTION
(Dayton)
    IF SCREENED = . THEN TONSTAT = G;
    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 = G;
    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;
```

TONSTATX	VALUE	FREQ	CUM FREQ	%	CUM %
.	C	5601	.	.	.
	0	210	.	.	.
	0	52	52	86.67	86.67
	1	8	60	13.33	100.00

VARIABLE	TONSTATX	SURGICAL CONDITIONS	AMEDIS
Tonsils status indicator at exit			
CODES			
.	.	- Missing	.
C	C	- Did not take screening exam	C
0	0	- No enlargement of tonsils	0
1	1	- Enlargement of tonsils	1
TONSTATX is an indicator which determines whether the respondent has enlarged tonsils or not.			

#### INPUT VARIABLES

TONSEXMX Results of tonsils exam  
SCREENDX 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 SCREENDX = . THEN TONSTATX = C;

```

-----  
THYROID CONDITION

VARIABLE	THYR_T4	AMEDIS THYROID CONDITION
Total serum thyroxine (T4) measure at enrollment		
CODES		
: - Missing		
E - 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.		

#### INPUT VARIABLES

```

DE12788 (NonDayton - Screening exam) 1st measure serum
thyroxine test
DE12991 (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 = 1
  THEN THYR_T4 = E;
  
```

(cont.)

THYR\_T4

NUMBER OF OBSERVATIONS	2855
NUMBER OF MISSING	3016
MEAN	7.49
MEDIAN	7.30
MINIMUM VALUE	0.00
MAXIMUM VALUE	20.20
STANDARD DEVIATION	2.10
COEFFICIENT OF VARIATION	27.96
SKEWNESS	0.74
KURTOSIS	1.78

```
VARIABLE THYR_T4 (cont.)
CONSTRUCTION (cont.)
(NonDayton)
```

```
    THYR_T4 = DE12788;
    IF DE12991 >= 0
    THEN THYR_T4 = DE12991;
    ELSE IF SCREENED = 1
    THEN THYR_T4 = F;
```

VARIABLE	THYR_T4X	THYROID CONDITION	AMEDIS
Total serum thyroxine (T4) measure at exit			
CODES			
- Missing			
C - Did not take screening exam			
Range of thyroxine test results - 0.9 to 41.6 mcg/100 ml			
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 = 1
    THEN THYR_T4X = C;
```

#### THYR\_T4X

```
NUMBER OF OBSERVATIONS 4894
NUMBER OF MISSING 977
MEAN 8.64
MEDIAN 8.40
MINIMUM VALUE 0.90
MAXIMUM VALUE 41.60
STANDARD DEVIATION 2.12
COEFFICIENT OF VARIATION 24.57
SKEWNESS 2.09
KURTOSIS 18.71
```

```

THYR_T7
NUMBER OF OBSERVATIONS      471
NUMBER OF MISSING          5400
MEAN                        5.45
MEDIAN                     5.80
MINIMUM VALUE              0.50
MAXIMUM VALUE              34.00
STANDARD DEVIATION         3.80
COEFFICIENT OF VARIATION   69.73
SKEWNESS                   1.72
KURTOSIS                   8.44

```

VARIABLE	THYR_T7	AMEDIS
		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

```

DE12994 (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

NUMBER OF OBSERVATIONS	879
NUMBER OF MISSING	4992
MEAN	3.32
MEDIAN	3.40
MINIMUM VALUE	0.50
MAXIMUM VALUE	17.30
STANDARD DEVIATION	1.45
COEFFICIENT OF VARIATION	43.56
SKEWNESS	3.13
KURTOSIS	22.49

VARIABLE	THYR_T7X	AMEDIS
		THYROID CONDITION
T7 measure (or free T4 index) at exit		
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  
SCREENDX Screening exam indicator at exit

#### CONSTRUCTION

```

THYR_T7X = DE12994;
IF DE12995 >= 0
  THEN THYR_T7X = DE12995;
IF SCREENDX = .
  THEN THYR_T7X = C;

```

THYR_SE VALUE	FREQ	CUM FREQ	%	CUM %
1	948			
2	2068			
3	4	4	0.14	0.14
4	3	7	0.11	0.25
5	5	12	0.18	0.42
6	71	83	2.49	2.91
7	3	86	0.11	3.01
	2769	2855	96.99	100.00

VARIABLE	THYR_SE	AMEDIS THYROID CONDITION
Thyroid disease status based on screening exam data at enrollment		
CODES		
1 - Missing		
2 - No screening exam		
3 - Elevated, no thyroid medications		
4 - Depressed, with thyroid medications		
5 - Normal, with thyroid medications		
6 - Depressed, with thyroid medications		
7 - Dayton elevated, pregnant or use birth control pills		
8 - Normal, no thyroid medications		
THYR_SE combines the results of six screening exam questions and two sets of serum thyroxine tests to create a thyroid status indicator.		

# 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) Examinee receiving thyroid medications?
	1 - Yes
	2 - No
DE17448	(Screening exam) Examinee on birth control pills?
	1 - Yes
	2 - No
DE17449	(Screening exam) Examinee 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 (DEI7025 = 1 OR DEI7026 = 1
  OR DEI7448 = 1 OR DEI7449 = 1)
  THEN THYR_SE = 6;
  IF THYR_SE = 1 AND (DEI7006 = 1 OR DEI7447 = 1)
  THEN THYR_SE = 3;
  IF 0 <= THYR_T4 <= 2.0
  THEN THYR_SE = 2;
  IF THYR_SE = 2 AND (DEI7006 = 1 OR DEI7447 = 1)
  THEN THYR_SE = 5;
  IF THYR_SE = 7 AND (DEI7006 = 1 OR DEI7447 = 1)
  THEN THYR_SE = 4;
  IF SCREENED = .
  THEN THYR_SE = E;

(NonDayton)
  IF THYR_T4 >= 0
  THEN THYR_SE = 7;

  IF SITE = 2
  THEN DO;
    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 (DEI7006 = 1 OR DEI7447 = 1)
    THEN THYR_SE = 3;
  IF THYR_SE = 2 AND (DEI7006 = 1 OR DEI7447 = 1)
    THEN THYR_SE = 5;
  IF THYR_SE = 7 AND (DEI7006 = 1 OR DEI7447 = 1)
    THEN THYR_SE = 4;
  IF SCREENED =
    THEN THYR_SE = E;
```

THYR_SEX	THYR_SEX VALUE	FREQ	CUM FREQ	%	CUM %
.	C	766	.	.	.
1	1	210	4745	96.94	96.94
2	2	4745	4859	2.33	99.27
3	3	114	4868	0.18	99.45
4	4	9	4884	0.33	99.78
5	5	16	4886	0.04	99.82
6	6	2	4891	0.10	99.92
7	7	5	4892	0.02	99.94
9	9	1	4894	0.04	99.98
10	10	2	4895	0.02	100.00
		1			

VARIABLE	THYR_SEX	AMEDIS THYROID CONDITION
Thyroid disease status based on screening exam data at exit		
CODES		
.	Missing	
1	No screening exam	
2	Normal, no thyroid medications	
3	Normal, with thyroid medications	
4	Hyperthyroid (elevated), no thyroid medications	
5	Hyperthyroid (elevated), with thyroid medications	
6	Definite hypothyroid (low T7, high TSH), no medication	
7	Probable hypothyroid (low T7, no TSH), no medication	
8	Possible hypothyroid (low T7, normal TSH), no medication	
9	Definite hypothyroid (low T7, high TSH), with medication	
10	Probable hypothyroid (low T7, no TSH), with medication	
11	Possible hypothyroid (low T7, normal TSH), with medication	
THYR_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
DE110083	(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
THYR_T4X	Total serum thyroxine measure at exit
THYR_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_TTX >= 0
  THEN THYR_SEX = 1;
IF SITE = 1 AND ENRTERM = 3
  THEN DO;
  IF THYR_TTX > 5.0
    THEN THYR_SEX = 3;
  ELSE IF 0 <= THYR_TTX < 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_TTX > 6.0
    THEN THYR_SEX = 3;
  ELSE IF 0 <= THYR_TTX < 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;

END;

(cont.)
```

```
VARIABLE THYR_SEX (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_SEX = 3;
  ELSE IF 0 <= THYR_T7X < 1.7
  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;

IF OUTAREA > 0 AND DE112557 >= 0 AND DE112550 >= 0
THEN DO;

  IF THYR_T7X > (1.16 * DE112558)
  THEN THYR_SEX = 3;
  ELSE IF 0 <= THYR_T7X < (.80 * DE112557)
  THEN THYR_SEX = 6;

END;

IF THYR_SEX = 1 AND DE13167 = 2
THEN THYR_SEX = 2;
IF THYR_SEX = 3 AND DE13167 = 2
THEN THYR_SEX = 4;
IF THYR_SEX = 5 AND DE13167 = 2
THEN THYR_SEX = 8;
IF THYR_SEX = 6 AND DE13167 = 2
THEN THYR_SEX = 9;
IF THYR_SEX = 7 AND DE13167 = 2
THEN THYR_SEX = 10;
IF SCREENED = .
THEN THYR_SEX = C;
```

THYR_MED VALUE	FREQ	CUM FREQ	%	CUM %
1	2969	77	2.65	2.65
2	2825	2902	97.35	100.00

VARIABLE THYR\_MED AMEDIS  
THYROID CONDITION

Taking medication for thyroid condition at enrollment

CODES

- 1 - No screening exam or missing
- 2 - Use thyroid medications
- 3 - 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;
```

THYRMEDX VALUE	FREQ	CUM FREQ	%	CUM %
1	806	142	2.80	2.80
2	4923	5065	97.20	100.00

VARIABLE	THYRMEDX	THYROID CONDITION	AMEDIS
Taking medication for thyroid condition at exit			
CODES			
1 - No screening exam or missing			
2 - Use thyroid medications			
2 - Do not use thyroid medications			
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;
```

THYRSTAT VALUE	FREQ	CUM FREQ	%	CUM %
1	3019			
2	2797	2797	98.07	98.07
3	9	2806	0.32	98.39
	46	2852	1.61	100.00

VARIABLE	THYRSTAT	AMEDIS THYROID CONDITION
Thyroid disease status based on screening exam and MHQ data at enrollment		
CODES		
	1 - Missing	
	2 - Normal	
	3 - Hyperthyroid	
	4 - Hypothyroid	
THYRSTAT combines the status variable that was derived from screening exam data (THYR_SE) and data from the MHQ.		

#### INPUT VARIABLES

DEI4369 (MHQB) Has a doctor ever said you had goiter or  
thyroid trouble?  
DEI4374 (Dayton - MHQB) Are you currently taking any  
medicine for your thyroid trouble?  
DEI8995 (NonDayton - MHQB) 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 MHQ 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 DEI4369 >= 0 AND DEI4369 \= 2 THEN MHQ = 4;
IF DEI4369 = 2 THEN MHQ = S;
IF DEI4374 = 1 THEN MHQ = 1;
IF DEI4374 = 2 THEN MHQ = 2;
IF DEI8995 = 1 THEN MHQ = 1;
IF DEI8995 = 2 THEN MHQ = 2;

```

(cont.)



VARIABLE THYRSTAT (cont.)

CONSTRUCTION (cont.)

IF DE14369 = 3 THEN MHQ = 3;  
IF MHQB = . THEN MHQ = B;

(Construct THYRSTAT)

IF THYR\_SE >= 0 AND (MHQ >= 0 OR MHQ = S)  
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 = 2;  
IF (THYR\_SE = 2 OR THYR\_SE = 5) OR MHQ = 3  
THEN THYRSTAT = 3;  
IF THYR\_SE < 0 OR (MHQ < 0 AND MHQ \= S)  
THEN THYRSTAT = .;

THYRSTAT VALUE	FREQ	CUM FREQ	%	CUM %
1	1002	4759	97.74	97.74
2	4759	4781	0.45	98.19
3	88	4869	1.81	100.00

VARIABLE THYRSTAT AMEDIS  
THYROID CONDITION

Thyroid disease status based on screening exam and  
MHQ data at exit

CODES

- 1 - Missing
- 2 - Normal
- 3 - Hypothyroid

THYRSTAT combines the status variable that was derived from  
screening exam data (THYR\_SEX) and data from the MHQ.

INPUT VARIABLES

DE14369 (MHQB) Has a doctor ever said you had goiter or  
thyroid trouble?  
(cont.)

```

VARIABLE THYRSTAX (cont.)
INPUT VARIABLES (cont.)

DE18995 (MHQB) Are you currently taking any medicine for
THYR_SEX your thyroid trouble?
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
MHQB MHQB indicator at exit

CONSTRUCTION
(Construct MHQ)

IF DE14369 = 1 THEN MHQ = 4;
IF DE14369 = 2 THEN MHQ = L;
IF DE18995 = 1 THEN MHQ = 1;
IF DE18995 = 2 THEN MHQ = 2;
IF DE18995 = 3 THEN MHQ = 3;
IF MHQB = . 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 = .;

```

THYRTSHX	VALUE	FREQ	CUM FREQ	%	CUM %
	C	5272			
	E	198			
		381			
	0.3	1	1	5.00	5.00
	0.4	1	2	5.00	10.00
	3	1	3	5.00	15.00
	4	4	7	20.00	35.00
	5	1	8	5.00	40.00
	5.9	1	9	5.00	45.00
	6	1	10	5.00	50.00
	6.9	1	11	5.00	55.00
	7	2	13	10.00	65.00
	8	1	14	5.00	70.00
	11	2	16	10.00	80.00
	16	1	17	5.00	85.00
	22	1	18	5.00	90.00
	34.4	1	19	5.00	95.00
	69	1	20	5.00	100.00

VARIABLE	THYRTSHX	AMEDIS
		THYROID CONDITION
Measurement of thyroid stimulating hormone (TSH) at exit		
CODES		
C - Missing		
E - Not screened		
Range of values - 0.3 to 69 microunits/ml		
THYRTSHX measures the thyroid stimulating hormone levels at exit for those whose T7 measure was below the normal range, as part of the exit screening exam.		

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  
 ENRTERM Participant's term of enrollment (3 or 5 year)  
 SCREENDX Screening exam indicator at exit

#### CONSTRUCTION

IF SCREENDX = . THEN DE110083 = C;  
 IF SITE = 1 AND ENRTERM = 3 THEN DE110083 = E;  
 THYRTSHX = DE110083;

VARIABLE	THYRIMP	AMEDIS
		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.		

#### 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;
```

THYRIMP	VALUE	FREQ	CUM FREQ	%	CUM %
0	5563	248	248	80.52	80.52
1	60	308	308	19.48	100.00

THYRIMPX	FREQ	CUM FREQ	%	CUM %
0	5597	213	77.74	77.74
1	213	274	22.26	100.00

VARIABLE	THYRIMPX	THYROID CONDITION	AMEDIS
Impact of thyroid disease at exit			
CODES			
0 - Missing, includes those with no thyroid disease			
1 - No impact			
2 - Some impact			
THYRIMPX indicates whether thyroid disease has any impact due to pain, worry/concern, activity restriction, or days in bed.			

#### 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 THYRIMPX = 0;
IF 1 <= DE14375 <= 3 OR 1 <= DE14376 <= 3 OR
1 <= DE14377 <= 4 OR DE14378 > 0
THEN THYRIMPX = 1;
```

VISION

VARIABLE	VSCORRCT	AMEDIS VISION
	Pinhole acuity test for correctable far vision at enrollment	
	CODES	
	- Missing	
	A - Not screened	
	E - Missing functional far vision measurement for left or right eye	
	K - Missing right pinhole test	
	L - Missing left pinhole test	
	M - Missing both pinhole test	
	1 - Possibility of improvement	
	2 - No possibility of improvement	
	6 - Perfect functional vision (No pinhole test)	
	VSCORRCT 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.	

VSCORRCT VALUE	FREQ	CUM FREQ	%	CUM %
A	900	.	.	.
E	2068	.	.	.
K	6	.	.	.
L	3	.	.	.
M	8	.	.	.
1	9	.	.	.
2	381	381	13.24	13.24
6	529	910	18.39	31.63
	1967	2877	68.37	100.00

INPUT VARIABLES

DEI7093	(Screening exam) glasses	Right eye distance vision with glasses
DEI7094	(Screening exam) glasses	Left eye distance vision with glasses
DEI7095	(Screening exam) glasses	Right eye distance vision without glasses
DEI7096	(Screening exam) glasses	Left eye distance vision without glasses
DEI7101	(Screening exam)	Right eye pinhole acuity (cont.)

```

VARIABLE VSCORRCF (cont.)
INPUT VARIABLES (cont.)

DEI7102 (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 DEI7094 \= . AND 0 < DEI7094 < DEI7096
THEN LTFUNF = DEI7094;
ELSE IF DEI7096 = . AND DEI7094 \= .
THEN LTFUNF = DEI7094;
ELSE LTFUNF = DEI7096;

IF SCREENED = . THEN LIMPROVE = A;
ELSE IF LTFUNF = .
THEN LIMPROVE = E;
ELSE IF LTFUNF > 20 AND DEI7102 = .
THEN LIMPROVE = L;
ELSE IF LTFUNF <= 20
THEN LIMPROVE = N;

                                         (cont.)

```

```
VARIABLE VSCORRECT (cont.)
CONSTRUCTION (cont.)

    ELSE IF LTFUNF < DE17102
    THEN LIMPROVE = 0;
    ELSE IF (DE17102 \= . AND LTFUNF \= .) AND
    (LTFUNF => DE17102)
    THEN LIMPROVE = LTFUNF - DE17102;

(Construct RTFUNF and RIMPROVE)

    IF DE17093 \= . AND 0 < DE17093 < DE17095
    THEN RTFUNF = DE17093;
    ELSE IF DE17095 = . AND DE17093 \= .
    THEN RTFUNF = DE17093;
    ELSE RTFUNF = DE17095;

    IF SCREENED = . THEN RIMPROVE = A;
    ELSE IF RTFUNF = .
    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 SCREENED = . THEN SUMPROVE = A;
    ELSE IF RIMPROVE = E OR LIMPROVE = E
    THEN SUMPROVE = C;
    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 VSCORRCT (cont.)
CONSTRUCTION (cont.)

      ELSE IF RIMPROVE >= 0 AND LIMPROVE >= 0
      THEN SUMPROVE = RIMPROVE + LIMPROVE;

(Construct VSCORRCT)

      IF SCREENED = .
      THEN VSCORRCT = A;
      ELSE IF SUMPROVE = E
      THEN VSCORRCT = E;
      ELSE IF (20 < RTFUF AND DE17101 = .)
      AND (20 < LTFUF AND DE17102 = .)
      THEN VSCORRCT = M;
      ELSE IF 20 < RTFUF AND DE17101 = .
      THEN VSCORRCT = K;
      ELSE IF 20 < LTFUF AND DE17102 = .
      THEN VSCORRCT = L;
      ELSE IF 0 < SUMPROVE
      THEN VSCORRCT = 1;
      ELSE IF SUMPROVE = 0
      THEN VSCORRCT = 2;
      ELSE IF LTFUF <= 20 AND RTFUF <= 20
      THEN VSCORRCT = 6;
```

VARIABLE	VSCORRCX	AMEDIS VISION
Pinhole acuity test for correctable far vision at exit		
CODES		
1 - Missing		
A - Not screened		
E - Missing functional far vision measurement for left or right eye		
K - Missing right pinhole test		
L - Missing left pinhole test		
M - Missing both pinhole tests		
1 - Possibility of improvement		
2 - No possibility of improvement		
6 - Perfect functional vision (No pinhole test)		

VSCORRCX 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.

VARIABLE	VSCORRCX	AMEDIS VISION
DEI7093	(Screening exam) Right eye distance vision with glasses	
DEI7094	(Screening exam) Left eye distance vision with glasses	
DEI7095	(Screening exam) Right eye distance vision without glasses	
DEI7096	(Screening exam) Left eye distance vision without glasses	
DEI7101	(Screening exam) Right eye pinhole acuity	
DEI7102	(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	
RTEUNF	(Temporary variable) functional far vision right eye	

(cont.)

VSCORRCX VALUE	FREQ	CUM FREQ	%	CUM %
1	585	1038	20.97	20.97
A	210	2010	19.63	40.60
E	34	972	59.40	100.00
K	20			
L	26			
M	45			
1	1038	1038	20.97	20.97
2	972	2010	19.63	40.60
6	2941	4951	59.40	100.00

```

VARIABLE VSCORRCX (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
SCREENDX Screening exam indicator at exit

CONSTRUCTION
(Construct LTFUNF and LIMPROVE)

  IF DE17094 \= . AND 0 < DE17094 < DE17096
  THEN LTFUNF = DE17094;
  ELSE IF DE17096 = . AND DE17094 \= .
  THEN LTFUNF = DE17094;
  ELSE LTFUNF = DE17096;

  IF SCREENDX = . 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;
  ELSE IF LTFUNF < DE17102
  THEN LIMPROVE = 0;
  ELSE IF {DE17102 \= . AND LTFUNF \= .} AND
  {LTFUNF => DE17102}
  THEN LIMPROVE = LTFUNF - DE17102;

( cont. )

```

```
VARIABLE VSCORRCX (cont.)
CONSTRUCTION (cont.)
(Construct RTFUF and RIMPROVE)

    IF DE17093 \= . AND 0 < DE17093 < DE17095
    THEN RTFUF = DE17093;
    ELSE IF DE17095 = . AND DE17093 \= .
    THEN RTFUF = DE17093;
    ELSE RTFUF = DE17095;

    IF SCREENDX = . THEN RIMPROVE = A;
    ELSE IF RTFUF = .
    THEN RIMPROVE = E;
    ELSE IF RTFUF > 20 AND DE17101 = .
    THEN RIMPROVE = K;
    ELSE IF RTFUF <= 20
    THEN RIMPROVE = N;
    ELSE IF RTFUF < DE17101
    THEN RIMPROVE = 0;
    ELSE IF (DE17101 \= . AND RTFUF \= .) AND
    (RTFUF => DE17101)
    THEN RIMPROVE = RTFUF - DE17101;

(Construct SUMPROVE)

    IF SCREENDX = . 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 VSCORRCX)

    IF SCREENDX = . THEN VSCORRCX = A;
    ELSE IF SUMPROVE = E
    THEN VSCORRCX = E;
    ELSE IF (20 < RTFUF AND DE17101 = .) AND
    (20 < LTFUF AND DE17102 = .)
    THEN VSCORRCX = M;

(cont.)
```

VARIABLE VSCORRCX (cont.)

CONSTRUCTION (cont.)

```
ELSE IF 20 < RTFUNF AND DE17101 = .
  THEN VSCORRCX = K;
ELSE IF 20 < LTFUNF AND DE17102 = .
  THEN VSCORRCX = L;
ELSE IF 0 < SUMPROVE
  THEN VSCORRCX = 1;
ELSE IF SUMPROVE = 0
  THEN VSCORRCX = 2;
ELSE IF LTFUNF <= 20 AND RTFUNF <= 20
  THEN VSCORRCX = 6;
```

VARIABLE VISINATF AMEDIS  
VISION

Best natural far vision at enrollment

CODES

. - Missing  
A - No screening exam  
E - Missing values in DE17095 or DE17096  
Range for far vision - 15/20 to 250/20

VISINATF is a measure of the best natural far vision for the participant, natural meaning without corrective lenses.

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.)

VISINATF VALUE	FREQ	CUM FREQ	%	CUM %
A	900			
E	2068			
.	15			
15	2	2	0.07	0.07
20	1457	1459	50.45	50.52
25	253	1712	8.76	59.28
30	196	1908	6.79	66.07
35	2	1910	0.07	66.14
40	128	2038	4.43	70.57
50	130	2168	4.50	75.07
60	126	2294	4.36	79.43
70	18	2312	0.62	80.06
100	144	2456	4.99	85.04
125	9	2465	0.31	85.35
150	61	2526	2.11	87.47
200	103	2629	3.57	91.03
250	259	2888	8.97	100.00

VARIABLE VISNATF (cont.)

CONSTRUCTION

```

IF SCREENED = .
  THEN DO;
    DE17095=A;
    DE17096=A;
  END;

IF DE17095 = . OR DE17096 = .
  THEN VISNATF = E;
ELSE IF DE17095 <= DE17096
  THEN VISNATF = DE17095;
ELSE IF DE17095 > DE17096
  THEN VISNATF = DE17096;

```

VISNATFX VALUE	FREQ	CUM FREQ	%	CUM %
.	585	.	.	.
A	210	.	.	.
E	77	.	.	.
10	7	7	0.14	0.14
13	139	146	2.78	2.92
15	381	527	7.62	10.54
16	1	528	0.02	10.56
20	1884	2412	37.69	48.25
25	444	2856	8.88	57.13
30	340	3196	6.80	63.93
40	356	3552	7.12	71.05
50	272	3824	5.44	76.50
60	1	3825	0.02	76.52
70	248	4073	4.96	81.48
80	2	4075	0.04	81.52
100	199	4274	3.98	85.50
140	1	4275	0.02	85.52
150	1	4276	0.02	85.54
200	405	4681	8.10	93.64
250	17	4698	0.34	93.98
400	300	4998	6.00	99.98
999	1	4999	0.02	100.00

VARIABLE VISNATFX AMEDIS  
VISION

Best natural far vision at exit

CODES

.

A - Missing

E - No screening exam

Range for far vision - 10/20 to 999/20

VISNATFX is a measure of the best natural far vision for the participant, natural meaning without corrective lenses.

INPUT VARIABLES

DE17095 (Screening exam) Right eye distance vision without glasses

DE17096 (Screening exam) Left eye distance vision without glasses

SCREENDX Screening exam indicator at exit

(cont.)

VARIABLE VISNATFX (cont.)

CONSTRUCTION

```

IF SCREENDX = .
  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;

```

VISINATN VALUE	FREQ	CUM FREQ	%	CUM %
A	900	.	.	.
E	2068	.	.	.
13	17	1	0.04	0.04
20	1820	1821	63.06	63.10
25	18	1839	0.62	63.72
30	144	1983	4.99	68.71
40	3	1986	0.10	68.82
50	246	2232	8.52	77.34
60	3	2235	0.10	77.44
70	81	2316	2.81	80.25
100	138	2454	4.78	85.03
110	1	2455	0.04	85.07
200	248	2703	8.59	93.66
250	4	2707	0.14	93.80
400	163	2870	5.65	99.45
800	16	2886	0.55	100.00

AMEDIS  
VISION

Best natural near vision at enrollment

CODES

. - Missing  
 A - No screening exam  
 E - Missing values in DE17099 or DE17100  
 Range for near vision - 13/20 to 800/20  
 VISINATN 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  
 SCREENED Screening exam indicator at enrollment

(cont.)

# VARIABLE VISINATN (cont.)

## CONSTRUCTION

```

IF SCREENED = .
  THEN DO;
    DE17099=A;
    DE17100=A;
  END;

IF DE17099 = . OR DE17100 = .
  THEN VISINATN = E;
ELSE IF DE17099 <= DE17100
  THEN VISINATN = DE17099;
ELSE IF DE17099 > DE17100
  THEN VISINATN = DE17100;

```

VARIABLE	VISNATNX	AMEDIS VISION
Best natural near vision at exit		
CODES		
. - Missing		
A - No screening exam		
E - Missing values in DE17099 or DE17100		
Range for near vision - 15/20 to 400/20		
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
SCREENDX Screening exam indicator at exit

```

(cont.)

VISNATNX VALUE	FREQ	CUM FREQ	%	CUM %
.	585	.	.	.
A	210	.	.	.
E	102	.	.	.
15	6	6	0.12	0.12
16	2	8	0.04	0.16
20	2501	2509	50.28	50.44
25	8	2517	0.16	50.60
30	676	3193	13.59	64.19
40	446	3639	8.97	73.16
50	5	3644	0.10	73.26
60	225	3869	4.52	77.78
80	252	4121	5.07	82.85
100	5	4126	0.10	82.95
120	310	4436	6.23	89.18
200	313	4749	6.29	95.48
250	11	4760	0.22	95.70
400	214	4974	4.30	100.00



VARIABLE VISNATNX (cont.)

CONSTRUCTION

```
IF SCREENDX = .  
  THEN DO;  
    DE17099=A;  
    DE17100=A;  
  END;  
  
IF DE17099 = . OR DE17100 = .  
  THEN VISNATNX = C;  
  ELSE IF DE17099 <= DE17100  
    THEN VISNATNX = DE17099;  
  ELSE IF DE17099 > DE17100  
    THEN VISNATNX = DE17100;
```

VARIABLE	VISIBLFF	FREQ	CUM FREQ	%	CUM %
Best line of functional far vision at enrollment					
CODES					
- Missing					
A - No screening exam	A	900			
E - Missing responses to DE 7093 and DE 7094	E	2068			
1 - 20/15 vision	1	6	3	0.10	0.10
2 - 20/20 vision	2	2342	2345	80.84	80.95
3 - 20/25 vision	3	288	2633	9.94	90.89
4 - 20/30 vision	4	156	2789	5.39	96.27
5 - 20/40 vision	5	50	2839	1.73	98.00
6 - 20/50 vision	6	31	2870	1.07	99.07
7 - 20/60 vision	7	11	2881	0.38	99.45
8 - 20/70 vision	8	9	2890	0.31	99.76
9 - 20/100 vision	9	7	2897	0.24	100.00
10 - 20/100+ vision					

Each adult's far functional vision (vision with corrective lenses, if normally worn) was tested at the time of the screening exam. VISIBLFF codes the best line (on the eye chart) that the person can see with his or her better eye.

#### INPUT VARIABLES

DE 7093 (Screening exam) Right eye distance vision with glasses  
 DE 7094 (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 = 1 THEN BESTFUNF = A;
IF VISINATF = E
  THEN DO;
  (cont.)
```

```

VARIABLE VISIRIFF (cont.)
CONSTRUCTION (cont.)

    IF (DEI7093 = . AND DEI7094 = .)
        THEN BESTFUNF = E;
    ELSE IF (DEI7093 \= . AND DEI7094 = .)
        THEN BESTFUNF = DEI7093;
    ELSE IF (DEI7093 = . AND DEI7094 \= .)
        THEN BESTFUNF = DEI7094;
    ELSE IF (DEI7093 \= . AND DEI7094 \= .)
        THEN DO;

        IF DEI7093 <= DEI7094
            THEN BESTFUNF = DEI7093;
        ELSE IF DEI7093 > DEI7094
            THEN BESTFUNF = DEI7094;

        END;

    END;

IF VISINATF \= E
THEN DO;

    IF (DEI7093 = . AND DEI7094 = .)
        THEN BESTFUNF = VISINATF;
    ELSE IF (DEI7093 \= . AND DEI7094 = .) AND
        DEI7093 <= VISINATF
        THEN BESTFUNF = DEI7093;
    ELSE IF (DEI7093 \= . AND DEI7094 = .) AND
        DEI7093 > VISINATF
        THEN BESTFUNF = VISINATF;
    ELSE IF (DEI7093 = . AND DEI7094 \= .) AND
        DEI7094 <= VISINATF
        THEN BESTFUNF = DEI7094;
    ELSE IF (DEI7093 = . AND DEI7094 \= .) AND
        DEI7094 > VISINATF
        THEN BESTFUNF = VISINATF;
    ELSE IF (DEI7093 \= . AND DEI7094 \= .)
        THEN DO;

        IF DEI7093 <= DEI7094 AND
            DEI7093 <= VISINATF
            THEN BESTFUNF = DEI7093;
        ELSE IF DEI7093 > DEI7094 AND
            DEI7094 <= VISINATF
            THEN BESTFUNF = VISINATF;
        ELSE BESTFUNF = VISINATF;

        END;

    END;

END;

                                (cont.)

```

```
VARIABLE VISIBLFF (cont.)  
CONSTRUCTION (cont.)  
{Construct VISIBLFF}  
    IF BESTFUNF = A THEN VISIBLFF = A;  
    ELSE IF BESTFUNF = E  
        THEN VISIBLFF = E;  
    ELSE IF 0 < BESTFUNF < 20  
        THEN VISIBLFF = 1;  
    ELSE IF 20 <= BESTFUNF < 25  
        THEN VISIBLFF = 2;  
    ELSE IF 25 <= BESTFUNF < 30  
        THEN VISIBLFF = 3;  
    ELSE IF 30 <= BESTFUNF < 40  
        THEN VISIBLFF = 4;  
    ELSE IF 40 <= BESTFUNF < 50  
        THEN VISIBLFF = 5;  
    ELSE IF 50 <= BESTFUNF < 60  
        THEN VISIBLFF = 6;  
    ELSE IF 60 <= BESTFUNF < 70  
        THEN VISIBLFF = 7;  
    ELSE IF 70 <= BESTFUNF < 80  
        THEN VISIBLFF = 8;  
    ELSE IF 80 <= BESTFUNF <= 100  
        THEN VISIBLFF = 9;  
    ELSE IF 100 < BESTFUNF  
        THEN VISIBLFF = 10;
```

VARIABLE	VISBLFFX	AMEDIS VISION
Best line of functional far vision at exit		
CODES		
- Missing		
A - No screening exam		
E - Missing responses to DE17093 and DE17094		
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 far functional vision (vision with corrective lenses, if normally worn) was tested at the time of the screening exam. VISBLFFX 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  
 VISNATFX Best natural far vision at exit  
 SCREENDX Screening exam indicator at exit

(cont.)

VARIABLE	VISBLFFX	AMEDIS VISION
Best line of functional far vision at exit		
CODES		
- Missing		
A - No screening exam		
E - Missing responses to DE17093 and DE17094		
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		

#### 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  
 VISNATFX Best natural far vision at exit  
 SCREENDX Screening exam indicator at exit

(cont.)

```

VARIABLE VISBLFFX (cont.)

CONSTRUCTION
(Construct BESTFUNF)

IF SCREENX = . THEN BESTFUNF = A;
IF VISNATFX = E
  THEN DO;
  IF (DEI7093 = . AND DEI7094 = .)
    THEN BESTFUNF = E;
  ELSE IF (DEI7093 \= . AND DEI7094 = .)
    THEN BESTFUNF = DEI7093;
  ELSE IF (DEI7093 = . AND DEI7094 \= .)
    THEN BESTFUNF = DEI7094;
  ELSE IF (DEI7093 \= . AND DEI7094 \= .)
    THEN DO;
    IF DEI7093 <= DEI7094
      THEN BESTFUNF = DEI7093;
    ELSE IF DEI7093 > DEI7094
      THEN BESTFUNF = DEI7094;
    END;
  END;

END;

IF VISNATFX \= E
  THEN DO;
  IF (DEI7093 = . AND DEI7094 = .)
    THEN BESTFUNF = VISNATFX;
  ELSE IF (DEI7093 \= . AND DEI7094 = .) AND
    DEI7093 <= VISNATFX
    THEN BESTFUNF = DEI7093;
  ELSE IF (DEI7093 \= . AND DEI7094 = .) AND
    DEI7093 > VISNATFX
    THEN BESTFUNF = VISNATFX;
  ELSE IF (DEI7093 = . AND DEI7094 \= .) AND
    DEI7094 <= VISNATFX
    THEN BESTFUNF = DEI7094;
  ELSE IF (DEI7093 = . AND DEI7094 \= .) AND
    DEI7094 > VISNATFX
    THEN BESTFUNF = VISNATFX;
  ELSE IF (DEI7093 \= . AND DEI7094 \= .)
    THEN DO;
    (cont.)
  
```

VARIABLE VISBLFFX (cont.)

CONSTRUCTION (cont.)

```

IF DE17093 <= DE17094 AND
DE17093 <= VISNATFX
THEN BESTFUNF = DE17093;
ELSE IF DE17093 > DE17094 AND
DE17094 <= VISNATFX
THEN BESTFUNF = DE17094;
ELSE BESTFUNF = VISNATFX;
END;

```

END;

(Construct VISBLFFX)

```

IF BESTFUNF = A THEN VISBLFFX = A;
ELSE IF BESTFUNF = E
THEN VISBLFFX = E;
ELSE IF 0 < BESTFUNF < 20
THEN VISBLFFX = 1;
ELSE IF 20 <= BESTFUNF < 25
THEN VISBLFFX = 2;
ELSE IF 25 <= BESTFUNF < 30
THEN VISBLFFX = 3;
ELSE IF 30 <= BESTFUNF < 40
THEN VISBLFFX = 4;
ELSE IF 40 <= BESTFUNF < 50
THEN VISBLFFX = 5;
ELSE IF 50 <= BESTFUNF < 60
THEN VISBLFFX = 6;
ELSE IF 60 <= BESTFUNF < 70
THEN VISBLFFX = 7;
ELSE IF 70 <= BESTFUNF < 80
THEN VISBLFFX = 8;
ELSE IF 80 <= BESTFUNF <= 100
THEN VISBLFFX = 9;
ELSE IF 100 < BESTFUNF
THEN VISBLFFX = 10;

```

VISIBLNFN	VALUE	FREQ	CUM FREQ	%	CUM %
.	A	900	.	.	.
.	E	2068	.	.	.
1	1	2209	2209	76.20	76.20
2	2	225	2434	7.76	83.96
3	3	5	2439	0.17	84.13
4	4	324	2763	11.18	95.31
5	5	69	2832	2.38	97.69
6	6	36	2868	1.24	98.93
7	7	31	2899	1.07	100.00

VARIABLE	VISIBLNFN	AMEDIS VISION
Best line of functional near vision at enrollment		
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. VISIBLNFN 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;
                                     (cont.)

```



VARIABLE VISIBLN (cont.)

CONSTRUCTION (cont.)

```

IF (DEI7097 = . AND DEI7098 = .)
  THEN BESTFUNN = F;
ELSE IF (DEI7097 \= . AND DEI7098 = .)
  THEN BESTFUNN = DEI7097;
ELSE IF (DEI7097 = . AND DEI7098 \= .)
  THEN BESTFUNN = DEI7098;
ELSE IF (DEI7097 \= . AND DEI7098 \= .)
  THEN DO;

  IF DEI7097 <= DEI7098
    THEN BESTFUNN = DEI7097;
  ELSE IF DEI7097 > DEI7098
    THEN BESTFUNN = DEI7098;

  END;

END;

IF VISINATN \= E
  THEN DO;

  IF (DEI7097 = . AND DEI7098 = .)
    THEN BESTFUNN = VISINATN;
  ELSE IF (DEI7097 \= . AND DEI7098 = .) AND
    DEI7097 <= VISINATN
    THEN BESTFUNN = DEI7097;
  ELSE IF (DEI7097 \= . AND DEI7098 = .) AND
    DEI7097 > VISINATN
    THEN BESTFUNN = VISINATN;
  ELSE IF (DEI7097 = . AND DEI7098 \= .) AND
    DEI7098 <= VISINATN
    THEN BESTFUNN = DEI7098;
  ELSE IF (DEI7097 = . AND DEI7098 \= .) AND
    DEI7098 > VISINATN
    THEN BESTFUNN = VISINATN;
  ELSE IF (DEI7097 \= . AND DEI7098 \= .)
    THEN DO;

    IF DEI7097 <= DEI7098 AND
      DEI7097 <= VISINATN
      THEN BESTFUNN = DEI7097;
    ELSE IF DEI7097 > DEI7098 AND
      DEI7098 <= VISINATN
      THEN BESTFUNN = DEI7098;
    ELSE
      THEN BESTFUNN = VISINATN;

    END;

  END;

  (cont.)

```

```
VARIABLE VISIBLFN (cont.)  
CONSTRUCTION (cont.)  
{Construct VISIBLFN}  
  IF BESTFUNN = A THEN VISIBLFN = A;  
  ELSE IF BESTFUNN = E  
    THEN VISIBLFN = E;  
  ELSE IF 0 < BESTFUNN < 20  
    THEN VISIBLFN = 1;  
  ELSE IF 20 <= BESTFUNN < 25  
    THEN VISIBLFN = 2;  
  ELSE IF 25 <= BESTFUNN < 30  
    THEN VISIBLFN = 3;  
  ELSE IF 30 <= BESTFUNN < 40  
    THEN VISIBLFN = 4;  
  ELSE IF 40 <= BESTFUNN < 50  
    THEN VISIBLFN = 5;  
  ELSE IF 50 <= BESTFUNN < 60  
    THEN VISIBLFN = 6;  
  ELSE IF 60 <= BESTFUNN < 70  
    THEN VISIBLFN = 7;  
  ELSE IF 70 <= BESTFUNN < 80  
    THEN VISIBLFN = 8;  
  ELSE IF 80 <= BESTFUNN <= 100  
    THEN VISIBLFN = 9;  
  ELSE IF 100 < BESTFUNN  
    THEN VISIBLFN = 10;
```

VISBLFNX	VALUE	FREQ	CUM FREQ	%	CUM %
.	A	585	.	.	.
.	E	210	.	.	.
.	1	42	.	.	.
.	2	3520	3520	69.93	69.93
.	3	945	4465	18.77	88.70
.	4	405	4870	8.05	96.74
.	5	81	4951	1.61	98.35
.	6	38	4989	0.76	99.11
.	7	23	5012	0.46	99.56
.	7	22	5034	0.44	100.00

VARIABLE	VISBLFNX	AMEDIS VISION
Best line of functional near vision at exit		
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 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 - 13 to 800  
 VISNATNX Best natural near vision at exit  
 SCREENDX Screening exam indicator at exit

# CONSTRUCTION

(Construct BESTFUNN)

```

IF SCREENDX = . THEN BESTFUNN = A;
IF VISNATNX = E
  THEN DO;

```

(cont.)

```
VARIABLE VISBLFNX (cont.)
CONSTRUCTION (cont.)

  IF {DEI7097 = . AND DEI7098 = .}
    THEN BESTFUNN = E;
  ELSE IF {DEI7097 \= . AND DEI7098 = .}
    THEN BESTFUNN = DEI7097;
  ELSE IF {DEI7097 = . AND DEI7098 \= .}
    THEN BESTFUNN = DEI7098;
  ELSE IF {DEI7097 \= . AND DEI7098 \= .}
    THEN DO;

    IF DEI7097 <= DEI7098
      THEN BESTFUNN = DEI7097;
    ELSE IF DEI7097 > DEI7098
      THEN BESTFUNN = DEI7098;

    END;

  END;

  IF VISNATNX \= E
  THEN DO;

    IF {DEI7097 = . AND DEI7098 = .}
      THEN BESTFUNN = VISNATNX;
    ELSE IF {DEI7097 \= . AND DEI7098 = .} AND
      DEI7097 <= VISNATNX
      THEN BESTFUNN = DEI7097;
    ELSE IF {DEI7097 \= . AND DEI7098 = .} AND
      DEI7097 > VISNATNX
      THEN BESTFUNN = VISNATNX;
    ELSE IF {DEI7097 = . AND DEI7098 \= .} AND
      DEI7098 <= VISNATNX
      THEN BESTFUNN = DEI7098;
    ELSE IF {DEI7097 = . AND DEI7098 \= .} AND
      DEI7098 > VISNATNX
      THEN BESTFUNN = VISNATNX;
    ELSE IF {DEI7097 \= . AND DEI7098 \= .}
      THEN DO;

      IF DEI7097 <= DEI7098 AND
        DEI7097 <= VISNATNX
        THEN BESTFUNN = DEI7097;
      ELSE IF DEI7097 > DEI7098 AND
        DEI7098 <= VISNATNX
        THEN BESTFUNN = DEI7098;
      ELSE BESTFUNN = VISNATNX;

    END;

  END;

  END;

  (cont.)
```

```
VARIABLE VISBLFNX (cont.)  
CONSTRUCTION (cont.)  
{Construct VISBLFNX}  
  IF BESTFUNN = A THEN VISBLFNX = A;  
  ELSE IF BESTFUNN = E  
    THEN VISBLFNX = E;  
  ELSE IF 0 <= BESTFUNN < 20  
    THEN VISBLFNX = 1;  
  ELSE IF 20 <= BESTFUNN < 25  
    THEN VISBLFNX = 2;  
  ELSE IF 25 <= BESTFUNN < 30  
    THEN VISBLFNX = 3;  
  ELSE IF 30 <= BESTFUNN < 40  
    THEN VISBLFNX = 4;  
  ELSE IF 40 <= BESTFUNN < 50  
    THEN VISBLFNX = 5;  
  ELSE IF 50 <= BESTFUNN < 60  
    THEN VISBLFNX = 6;  
  ELSE IF 60 <= BESTFUNN < 70  
    THEN VISBLFNX = 7;  
  ELSE IF 70 <= BESTFUNN < 80  
    THEN VISBLFNX = 8;  
  ELSE IF 80 <= BESTFUNN <= 100  
    THEN VISBLFNX = 9;  
  ELSE IF 100 <= BESTFUNN  
    THEN VISBLFNX = 10;
```

VISGLAUC	VALUE	FREQ	CUM FREQ	%	CUM %
B	677	677	677	. .	. .
D	259	259	936	. .	. .
1	4900	4900	4900	99.41	99.41
2	19	19	4919	0.39	99.80
3	2	2	4921	0.04	99.84
5	8	8	4929	0.16	100.00

VARIABLE	VISGLAUC	AMEDIS VISION
Glaucoma status at enrollment		
CODES		
.	Missing	
B	No MHQB	
D	Missing response to DE14359	
1	Never diagnosed as having glaucoma	
2	Diagnosed, but no treatment for glaucoma	
3	Doctor prescribed medication for glaucoma in past 12 months	
4	Currently taking medication, but doctor did not prescribe medication during the past 12 months	
5	Currently taking medication for glaucoma	
VISGLAUC defines the participants' glaucoma status at enrollment based on responses to the MHQ.		

# INPUT VARIABLES

DE14359 (MHQB) Has a doctor ever said you have glaucoma (increased pressure in the eye)?  
DE14361 (MHQB) During the past 12 months, has a doctor prescribed any eye drops for glaucoma (increased pressure in the eye)?  
DE14362 (MHQB) During the past 12 months, has a doctor prescribed any pills for glaucoma (increased pressure in the eye)?  
DE14363 (MHQB) Are you currently taking any eye drops for glaucoma (increased pressure in the eye)?  
DE14364 (MHQB) Are you currently taking any pills for glaucoma (increased pressure in the eye)?  
MHQB MHQB indicator at enrollment

# CONSTRUCTION

```

IF MHQB = . THEN VISGLAUC = B;
IF DE14359 = . THEN VISGLAUC = D;
IF DE14359 = ? THEN VISGLAUC = 1;
IF DE14359 = 1 THEN DO;

```

(cont.)

VARIABLE VISGLAUC (cont.)

CONSTRUCTION (cont.)

```

IF DE14363 = 1 OR DE14364 = 1
  THEN VISGLAUC = 5;
ELSE IF DE14361 = 1 OR DE14362 = 1
  THEN VISGLAUC = 3;
  ELSE VISGLAUC = 2;
END;

IF DE14359 = 1
  THEN DO;

  IF DE14363 = 1 AND DE14361 = 2
    THEN VISGLAUC = 4;
  IF DE14364 = 1 AND DE14362 = 2
    THEN VISGLAUC = 4;

  END;

```

VISGLAUC VALUE	FREQ	CUM FREQ	%	CUM %
.	585	.	.	.
B	170	.	.	.
D	3	.	.	.
1	5072	5072	99.20	99.20
2	20	5092	0.39	99.59
3	3	5095	0.06	99.65
5	18	5113	0.35	100.00

VARIABLE VISGLAUC AMEDIS  
VISION

Glaucoma status at exit

CODES

- . - Missing
- B - No MIQB
- D - Missing response to DE14359
- 1 - Never diagnosed as having glaucoma
- 2 - Diagnosed, but no treatment for glaucoma
- 3 - Doctor prescribed medication for glaucoma in past 12 months
- 4 - Currently taking medication, but doctor did not prescribe medication during the past 12 months
- 5 - Currently taking medication for glaucoma

VISGLAUC defines the participants' glaucoma status at exit based on responses to the MIQB.

(cont.)

VARIABLE VISGLAUX (cont.)

INPUT VARIABLES

DEI4359 (MQB) Has a doctor ever said you have glaucoma  
(increased pressure in the eye)?  
DEI4361 (MQB) During the past 12 months, has a doctor  
prescribed eye drops for glaucoma (increased  
pressure in the eye)?  
DEI4362 (MQB) During the past 12 months, has a doctor  
prescribed any pills for glaucoma (increased  
pressure in the eye)?  
DEI4363 (MQB) Are you currently taking any eye drops for  
glaucoma (increased pressure in the eye)?  
DEI4364 (MQB) Are you currently taking any pills for  
glaucoma (increased pressure in the eye)?  
MQBX MQB indicator at exit

CONSTRUCTION

```
IF MQBX = 1 THEN VISGLAUX = 8;
IF DEI4359 = 1 THEN VISGLAUX = 0;
IF DEI4359 = 2 THEN VISGLAUX = 1;
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;
```



VARIABLE	VISIMP	AMEDIS VISION
Impact of vision at enrollment for Dayton		
CODES		
.	Missing	
B	No MHQB	
F	NonDayton respondents	
0	No impact	
1	Some impact	
VISIMP indicates whether vision impairment caused worry/ concern or activity restrictions at enrollment for Dayton.		

#### INPUT VARIABLES

DE14356 (MHQB) During the past 3 months, how much have  
eyesight problems worried or concerned you?  
DE14357 (MHQB) During the past 3 months, how often have  
eyesight problems kept you from doing the kinds of  
activities other people your age do?  
MHQB MHQB indicator at enrollment  
SITE Respondent's place of residence at enrollment

#### CONSTRUCTION

```
IF SITE NE 1 THEN VISIMP=F;
IF SITE=1 THEN DO;
  IF MHQB = . THEN VISIMP = B;
  ELSE IF DE14356 = 4 AND DE14357 = 5
    THEN VISIMP = 0;
  ELSE IF 1 <= DE14356 <= 3 OR 1 <= DE14357 <= 4
    THEN VISIMP = 1;
END;
```

VISIMP VALUE	FREQ	CUM FREQ	%	CUM %
.	900	.	.	.
B	246	.	.	.
F	4196	.	.	.
0	367	367	69.38	69.38
1	162	529	30.62	100.00

VISIMPND	VALUE	FREQ	CUM FREQ	%	CUM %
.	.	908	.	.	.
F	F	775	.	.	.
0	0	2644	2644	63.13	63.13
1	1	1544	4188	36.87	100.00

VARIABLE	VISIMPND	AMEDIS VISION
impact of vision at enrollment for NonDayton		
CODES		
.	.	- Missing
F	F	- Dayton respondents
0	0	- No impact
1	1	- Some impact
VISIMPND indicates whether vision impairment caused worry/		
concern, activity restrictions, or pain at enrollment for		
NonDayton sites.		

#### INPUT VARIABLES

DEI4356 (MIQB) During the past 3 months, how much have  
 eyesight problems worried or concerned you?  
 DEI4357 (MIQB) During the past 3 months, how often have  
 eyesight problems kept you from doing the kinds of  
 activities other people your age do?  
 DEI8983 (MIQB - NonDayton) During the past 3 months, how  
 much pain have your eyes caused you?  
 MIQB MHQB 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 MIQB = . THEN VISIMPND = B;
  ELSE IF DEI4356 = 4 AND DEI4357 = 5 AND DEI8983 = 4
    THEN VISIMPND = 0;
  ELSE IF 1 <= DEI4356 <= 3 OR 1 <= DEI4357 <= 4 OR
    1 <= DEI8983 <= 3
    THEN VISIMPND = 1;
END;

```

VISIMPX					
VALUE	FREQ	CUM FREQ	%	CUM %	
8	598	.	.	.	
0	170	3467	67.94	67.94	
1	3467	5103	32.06	100.00	

VARIABLE	VISIMPX	AMEDIS VISION
Impact of vision at exit		
CODES		
8 - Missing		
0 - No MHQB		
1 - No impact		
1 - Some impact		
VISIMPX indicates whether vision impairment caused worry/		
concern, activity restrictions, or pain.		

#### INPUT VARIABLES

DE14356 (MHQB) During the past 3 months, how much have  
 eyesight problems worried or concerned you?  
 DE14357 (MHQB) During the past 3 months, how often have  
 eyesight problems kept you from doing the kinds of  
 activities other people your age do?  
 DE18983 (MHQB) During the past 3 months, how much pain have  
 your eyes caused you?  
 MHQBX MHQB indicator at exit

#### CONSTRUCTION

```

IF MHQBX = . THEN VISIMPX = 8;
ELSE IF DE14356 = 4 AND DE14357 = 5 AND DE18983 = 4
THEN VISIMPX = 0;
ELSE IF 1 <= DE14356 <= 3 OR 1 <= DE14357 <= 4 OR
1 <= DE18983 <= 3
THEN VISIMPX = 1;
  
```



## 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.<sup>1</sup> 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.<sup>2</sup> 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

---

<sup>1</sup>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.

<sup>2</sup>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.<sup>3</sup>

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.<sup>4</sup> 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.<sup>5</sup>

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. 3-4). Super PI

---

<sup>3</sup>Calculation of PI is further described in Clasquin and Brown, op. cit. The formula on p. 20 of that report should read  $PI = \max[K \times PG, PR]$ .

<sup>4</sup>The percentage of PI withheld depended on the site and assigned enrollment term, as follows:

	<i>3-yr Term</i>	<i>5-yr Term</i>
Dayton	25	15
Seattle	25	15
Fitchburg	33.3	25
Franklin Co.	33.3	25
Charleston	33.3	20
Georgetown Co.	33.3	20

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.

<sup>5</sup>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

MS1. *Vol. 1: Codebook for Eligibility-Family Changes File*, by S. M. Polich and C. d'Arc Taylor, The RAND Corporation, N-2264/1-HHS, May 1986.

MS2. *Vol. 2: Codebook for Full Sample Demographic File*, by S. M. Polich, N. F. Campbell, C. d'Arc Taylor, D. L. Wesley, J. W. Keesey, and E. S. Bloomfield, The RAND Corporation, N-2264/2-HHS, May 1986.

##### Aggregated Claims Series

AC1. *Vol. 1: Codebook for Fee-for-Service Annual Expenditures and Visit Counts*, by C. E. Peterson, M. Nelsen, and E. S. Bloomfield, The RAND Corporation, N-2360/1-HHS, May 1986.

## ISSUED TO DATE (cont.)

AC2-AC4. *Vol. 2: Codebooks for Fee-for-Service Visits--Outpatient, Inpatient, and Dental*, by C. E. Peterson, M. Nelsen, D. L. Wesley, and E. S. Bloomfield, The RAND Corporation, N-2360/2-HHS, June 1986.

AC2. FFS outpatient visits

AC3. FFS inpatient visits

AC4. FFS dental visits

AC5-AC6. *Vol. 3: Codebooks for Fee-for-Service Treatment Episodes and Annual Episode Counts*, by C. E. Peterson, C. d'Arc Taylor, and E. S. Bloomfield, The RAND Corporation, N-2360/3-HHS, June 1986.

AC5. FFS treatment episodes

AC6. FFS annual episode counts

AC8-AC9. *Vol. 4: Codebooks for Health Maintenance Organization and Seattle Fee-for-Service Visits--Outpatient and Inpatient*, by C. E. Peterson, M. Nelsen, and D. L. Wesley, The RAND Corporation, N-2360/4-HHS, December 1986.

AC8. HMO and Seattle FFS outpatient visits

AC9. HMO and Seattle FFS inpatient visits

AC7. *Vol. 5: Codebook for Health Maintenance Organization and Seattle Fee-for-Service Annual Expenditures and Visit Counts*, by C. E. Peterson, M. Nelsen, D. L. Wesley, and A. M. Bell, The RAND Corporation, N-2360/5-HHS, December 1986.

## Claims Line-Item Series

LI1-LI14. *Vol. 1: Codebooks for Fee-for-Service Claims*, by C. E. Peterson, M. Nelsen, D. L. Wesley, E. S. Bloomfield, and S. M. Polich, The RAND Corporation, N-2347/1-HHS, June 1986.

LI1. FFS data: hospital inpatient services

LI2. FFS data: inpatient physician procedures billed by institutions

LI3. FFS data: drugs prescribed by physicians

LI4. FFS data: supplies prescribed by physicians

LI5. FFS data: services rendered by physicians

LI6. FFS data: drugs sold by physicians

LI7. FFS data: supplies sold by physicians

LI8. FFS data: injections administered by physicians

LI9. FFS data: outpatient services billed by institutions

LI10. FFS data: services rendered by dentists

LI11. FFS data: drugs prescribed by dentists

LI12. FFS data: drugs purchased

LI13. FFS data: supplies purchased from pharmacies

LI14. FFS data: supplies purchased from nonpharmacy suppliers



### ISSUED TO DATE (cont.)

LI15-LI25. *Vol. 2: Codebooks for Health Maintenance Organization Claims*, by C. E. Peterson, M. Nelsen, E. S. Bloomfield, D. L. Wesley, and A. M. Bell, The RAND Corporation, N-2347/2-HHS, August 1986.

- 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-LI29. *Vol. 3: Codebooks for Seattle Fee-for-Service Claims for Comparison with Health Maintenance Organization Claims*, by C. E. Peterson, M. Nelsen, and D. L. Wesley, The RAND Corporation, N-2347/3-HHS, October 1986.

- 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

RF1. *Vol. 1: Codes Used in HIE Claims--Diagnoses, Symptoms, Procedures, Drugs, and Supplies*, by M. Nelsen and C. A. Edwards, The RAND Corporation, N-2349/1-HHS, May 1986.

### Health Status and Attitude Series

HS1-HS2. *Vol. 1: Codebooks for Adults and Children at Enrollment and Exit*, by E. M. Sloss, L. L. Colbert, D. L. Wesley, A. M. Bell, and A. B. Holland, The RAND Corporation, N-2447/1-HHS, November 1986.

- HS1. Adults at enrollment and exit
- HS2. Children at enrollment and exit

## ISSUED TO DATE (cont.)

### Medical History Questionnaire Series

MH1A-MH3A. *Vol. 1: Codebooks for Adults at Enrollment and Exit, Form A*, by C. A. Edwards, A. B. Holland, L. Y. Weissler, and M. Nelsen, The RAND Corporation, N-2485/1-HHS, August 1986.

- MH1A. Dayton adults at enrollment, Form A
- MH2A. NonDayton adults at enrollment, Form A
- MH3A. Adults at exit, Form A

MH1B-MH3B. *Vol. 2: Codebooks for Adults at Enrollment and Exit, Form B*, by C. A. Edwards, A. B. Holland, L. Y. Weissler, and M. Nelsen, The RAND Corporation, N-2485/2-HHS, October 1986.

- MH1B. Dayton adults at enrollment, Form B
- MH2B. NonDayton adults at enrollment, Form B
- MH3B. Adults at exit, Form B

MH4A-MH6B. *Vol. 3: Codebooks for Children at Enrollment and Exit*, by C. A. Edwards, A. M. Bell, D. L. Wesley, L. Y. Weissler, and M. Nelsen, The RAND Corporation, N-2485/3-HHS, November 1986.

- 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-MH9B. *Vol. 4: Codebooks for Infants at Enrollment and Exit*, by C. A. Edwards, A. B. Holland, D. L. Wesley, A. M. Bell, L. Y. Weissler, and M. Nelsen, The RAND Corporation, N-2485/4-HHS, December 1986.

- 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

IP1. *Codebooks for Insurance Preference Files: Relation between Expense Limit and Premium*, by E. S. Bloomfield, L. Y. Weissler, and A. B. Holland, The RAND Corporation, N-2508-HHS, October 1986.

**ISSUED TO DATE (cont.)**

**Medical Disorders Series**

MD1. *Vol. 1: Codebook for Adults at Enrollment and Exit*, by B. H. Operskalski, L. L. Colbert, D. L. Wesley, E. S. Bloomfield, A. M. Bell, N. F. Campbell, and S. M. Polich, The RAND Corporation, N-2446/1-HHS, February 1987.

**Dental Examinations**

DE1. *Codebook for Adults and Children at Enrollment and Exit*, by E. S. Bloomfield, L. Y. Weissler, and A. M. Bell, The RAND Corporation, N-2506-HHS, February 1987.

**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:*

*Overview of Chronic Disease in a General Adult Population*,  
K. N. Lohr, C. J. Kamberg, E. B. Keeler, et al., R-2262/1-HHS,  
November 1986.

*Acne*, R. H. Brook, K. N. Lohr, G. A. Goldberg, et al.,  
R-2262/2-1-HHS, August 1980.

*Hypertension*, R. H. Brook, D. M. Berman, K. N. Lohr, et al.,  
R-2262/3-HHS, August 1980.

*Angina Pectoris*, D. M. Berman, R. H. Brook, K. N. Lohr, et al.,  
R-2262/4-HHS, June 1981.

*Congestive Heart Failure*, M. Rosenthal, K. N. Lohr, R. S.  
Rubenstein, et al., R-2262/5-HHS, September 1981.

*Anemia*, B. Scott, G. A. Goldberg, R. H. Brook, et al.,  
R-2262/6-HHS, August 1980.

*Diabetes Mellitus*, R. H. Brook, K. N. Lohr, D. M. Berman, et al.,  
R-2262/7-HHS, January 1981.

*Chronic Obstructive Airway Disease*, B. Foxman, K. N. Lohr, R. H.  
Brook, et al., R-2262/8-HHS, September 1982.

*Thyroid Disease*, R. H. Brook, K. N. Lohr, and G. A. Goldberg,  
R-2262/9-HHS, March 1982.

*Joint Disorders*, B. Scott, R. H. Brook, K. N. Lohr, et al.,  
R-2262/10-HHS, December 1981.

*Hypercholesterolemia*, R. H. Brook, K. N. Lohr, E. B. Keeler,  
et al., R-2262/11-HHS, September 1981.

*Vision Impairments*, R. S. Rubenstein, K. N. Lohr, R. H. Brook,  
et al., R-2262/12-HHS, July 1982.

*Hay Fever*, S. Beck, R. H. Brook, K. N. Lohr, et al.,  
R-2262/13-HHS, July 1981.

*Hearing Loss*, S. Beck, R. H. Brook, K. N. Lohr, et al.,  
R-2262/14-HHS, August 1981.

*Surgical Conditions*, R. S. Rubenstein, S. Beck, K. N. Lohr,  
et al., R-2262/15-HHS, May 1983.

*Urinary Tract Infection*, J. V. Zielske, K. N. Lohr, R. H. Brook,  
et al., R-2262/16-HHS, May 1981.

*Peptic Ulcer Disease*, J. V. Zielske, K. N. Lohr, G. A. Goldberg,  
et al., R-2262/17-HHS, June 1982.

*Conceptualization and Measurement of Health for Adults:*

*Use of Hypnotic and Anxiolytic Drugs*, C. J. Kamberg, K. B. Wells,  
R. H. Brook, et al., R-2723-HHS, March 1982.

*The Health Insurance Study Screening Examination Procedures Manual*,  
L. H. Smith, G. A. Goldberg, R. H. Brook, et al., R-2101-HEW,  
September 1978.

**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.

**Directory of Batteries**

	Page No.
ACNE .....	470
ANEMIA .....	472
ANGINA .....	474
CHRONIC OBSTRUCTIVE AIRWAY DISEASE .....	478
CONGESTIVE HEART FAILURE .....	486
DIABETES .....	488
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# PIMPLES AND ACNE BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE<sup>1</sup>

### 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 56,  
page 16

49. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT THE PIMPLES?

(Circle one)

Within the past 3 months ..... 1 } —Answer 50-51  
3 - 6 months ago ..... 2 }  
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.)

	Yes	No
A. X-ray treatments	1	2
B. Ultra-violet light treatments	1	2
C. Special soaps	1	2
D. Special diet	1	2
E. Having pimples popped	1	2
F. Antibiotics, such as Tetracycline (TET-ra-SY-clean)	1	2
G. Injections into pimple cysts	1	2
H. Other medicines	1	2

<sup>1</sup> 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.

DO NOT  
WRITE IN  
THIS SPACE

52. WHETHER OR NOT A DOCTOR PRESCRIBED THEM, DO YOU CURRENTLY USE ANY OF THESE TREATMENTS FOR PIMPLES? (Circle one number on each line.)

Yes No

A. X-ray treatments	1	2
B. Ultra-violet light treatments	1	2
C. Special soaps	1	2
D. Special diet	1	2
E. Having pimples popped	1	2
F. Antibiotics, such as Tetracycline (TET-ra-SY-clean)	1	2
G. Injections into pimple cysts	1	2
H. Other medicines	1	2

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 YOUR FACE? 4184

NO ..... 2 --- (GO to q. 132, page 29)

YES ..... 1 --- (GO to q. 124)

124. In the last 12 months, has a doctor said that you had acne? 4185

Yes ..... 1

No ..... 2

125. In the last 12 months, have you seen a doctor about the pimples? 4186

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.

X-ray treatments

Yes ..... 1

No ..... 2

Ultra-violet light treatment

Yes ..... 1

No ..... 2

Special soaps

Yes ..... 1

No ..... 2

Special diet

Yes ..... 1

No ..... 2

Having pimples popped by doctor

Yes ..... 1

No ..... 2

Other medicines

Yes ..... 1

No ..... 2

127. Are you currently under a doctor's care or supervision for your acne or pimples? 4187

Yes ..... 1

No ..... 2

128. Whether or not the doctor prescribed them, do you currently use any of these treatments for pimples? CIRCLE YES OR NO FOR EACH.

X-ray treatments

Yes ..... 1

No ..... 2

Ultra-violet light treatment

Yes ..... 1

No ..... 2

Special soaps

Yes ..... 1

No ..... 2

Having pimples popped

Yes ..... 1

No ..... 2

Other medicines

Yes ..... 1

No ..... 2

129. During the past 3 months, how much pain has your acne or have your pimples caused you? 4188

(Circle one.)

A lot ..... 1

Some ..... 2

A little ..... 3

None at all ..... 4

130. During the past 3 months, how much has your acne or have your pimples worried or concerned you? 4189

(Circle one.)

A lot ..... 1

Somewhat ..... 2

A little ..... 3

Not at all ..... 4

131. In the past 3 months, did problems with the way your acne or pimples look cause you to miss or avoid conversation with people? 4190

(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<sup>1</sup>

ANEMIA

165. HAS A DOCTOR EVER SAID THAT YOU HAD ANEMIA (a-NEE-mee-ee)  
OR LOW BLOOD?

Yes ..... 1 --Answer 165  
No ..... 2 --Go to 172,  
page 44

166. IN THE PAST 12 MONTHS, HAS A DOCTOR PRESCRIBED ANY OF  
THESE TREATMENTS FOR YOUR ANEMIA? (Circle one number on  
each line.)

	Yes	No
A. Special diet	1	2
B. Iron pills or shots	1	2
C. Vitamin pills or shots	1	2
D. Blood transfusions	1	2

<sup>1</sup>Used in all HIS sites except Dayton at enrollment and in all sites upon exit. Revisions in-  
corporated in this version were based on experience with the Initial Dayton Battery.

167. DO YOU CURRENTLY TAKE ANY OF THESE TREATMENTS FOR  
ANEMIA, WHETHER OR NOT A DOCTOR HAS PRESCRIBED THEM?  
(Circle one number on each line.)

	Yes	No
A. Special diet	1	2
B. Iron pills or shots	1	2
C. Vitamin pills or shots	1	2
D. Blood transfusions	1	2

168. 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

169. DURING THE PAST 3 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

170. 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

171. 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

DO NOT  
WRITE IN  
THIS SPACE

27/ 4320  
28/ 4321  
29/ 4322  
30/ 4323

9043

30

4325

30

4326

27/

4327

30-30

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE,  
DAYTON

ANEMIA

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") 410

NO, I DO NOT HAVE ANEMIA (LOW BLOOD) ..... 3 (GO to q. 63, page 16)  
YES, I HAVE IT OR AM 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. 410

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. 420

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? 420

Yes ..... 1  
No ..... 2

60. During the past 3 months, how much has your anemia worried or concerned you? 420

(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? 420

(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") 420

Days in bed

# CHEST PAIN BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE<sup>1</sup>

### 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 101,  
page 31

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-B  
No ..... 2 --Go to 102,  
next page  
-C-D-E

101-A. DO YOU GET THIS FEELING IN YOUR CHEST WHEN YOU WALK AT  
AN ORDINARY PACE ON LEVEL GROUND?

Yes ..... 1  
No ..... 2

<sup>1</sup>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.

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

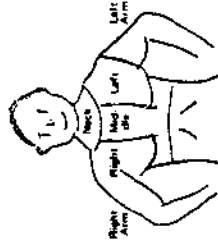
101-D. WHEN YOU GET THIS FEELING IN YOUR CHEST WHILE WALKING,  
DO YOU USUALLY PLACE A NITROGLYCERINE (ni-tro-GLISS-er-in),  
CARDILATE OR ISORDIL PILL UNDER YOUR TONGUE?

(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

3761

30

3762

51

9020

57

9021

52

- 474 -

9022

54

3 7 7 5

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? (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

47/

3 7 7 6

110. 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? (If none, write in "0.")

\_\_\_\_\_ days in bed last month

42-44/

9 0 2 3

55/

103. WHEN WAS THE LAST TIME YOU SAW A DOCTOR FOR THIS CHEST PAIN?

- (Circle one)  
Within past 3 months ..... 1  
3 - 6 months ago ..... 2  
7 - 12 months ago ..... 3  
More than 1 year ago ..... 4

3 7 7 0

56/

104. HAS A DOCTOR EVER SAID THAT YOU HAD A HEART ATTACK?

- Yes ..... 1  
No ..... 2

3 7 7 1

57/

105. HAS A DOCTOR EVER SAID THAT YOU HAVE ANGINA? (An-Ji-ne or AN-j-i-na)

- Yes ..... 1  
No ..... 2

9 0 2 4

58/

106-A. DURING THE PAST 12 MONTHS, DID YOU EVER PLACE A NITROGLYCERINE (ni-tro-GLIS-er-in), CARDIATE, OR ISORDIL PILL UNDER YOUR TONGUE FOR YOUR CHEST PAIN?

- (Circle one)  
Yes, and it helped ..... 1  
Yes, but it did not help ..... 2  
No, did not place any pill under tongue ..... 3

9 0 2 5

59/

106-B. DURING THE PAST 12 MONTHS, DID YOU EVER TAKE A SORBITRATE PILL (OR A SIMILAR PILL) THAT YOU CHEW FOR YOUR CHEST PAIN?

- (Circle one)  
Yes, and it helped ..... 1  
Yes, but it did not help ..... 2  
No, did not chew any pill ..... 3

3 7 7 3

60/

107. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR CHEST PAIN OR HEART TROUBLE CAUSED YOU?

- (Circle one)  
A great deal of pain ..... 1  
Some pain ..... 2  
A little pain ..... 3  
No pain at all ..... 4

3 7 7 4

61/

108. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR CHEST PAIN OR HEART TROUBLE WORRIED OR CONCERNED YOU?

- (Circle one)  
A great deal ..... 1  
Somewhat ..... 2  
A little ..... 3  
Not at all ..... 4

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. 96, page 18)  
YES ..... 1 — (GO to q. 82)

82. Do you get this feeling in your chest when you walk uphill or hurry?  
(Circle one)  
No ..... 2 — (GO to q. 87, next page)  
Yes ..... 1 —  
Do not walk uphill or hurry ..... 9 — (GO to q. 83)

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 nitroglycerine pill (small white pill) under your tongue?  
(Nitroglycerine pronounced "Ny-tro GLISS-er-in")  
(Circle one)  
Take pill - no 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) Yes ..... 1 — No ..... 2 —  
Lower chest (2 on picture) Yes ..... 1 — No ..... 2 —  
Left chest (3 on picture) Yes ..... 1 — No ..... 2 —  
Left arm (4 on picture) Yes ..... 1 — No ..... 2 —  
Somewhere else Yes ..... 1 — No ..... 2 —

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-jee-na" or "AN-jee-na")  
(Circle one)  
Yes ..... 1 —  
No ..... 2 —  
Don't know ..... 8 —

91. In the last 12 months, did you take a nitroglycerine pill (small white pill) under your tongue for the chest pain?  
(Nitroglycerine pronounced "Ny-tro GLISS-er-in")  
(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<sup>1</sup>

CHRONIC BRONCHITIS,  
EMPHYSEMA, PHLEGM

111. HAS A DOCTOR EVER TOLD YOU THAT YOU HAD CHRONIC BRONCHITIS (bron-kh-itis) OR EMPHYSEMA (em-fih-see-meh)?

Yes ..... 1 —Answer 111-A-B  
No ..... 2 —Go to 112, next page

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 (ihem) (THICK SPIT) FROM YOUR CHEST THE FIRST THING IN THE MORNING?

Yes ..... 1 —Go to 113-A, next page  
No ..... 2 —Go to 119, page 35

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 —Go to 113-A  
No ..... 2 —Go to 125, page 35

113-A. DURING THE PAST YEAR, WERE THERE AT LEAST 3 MONTHS WHEN YOU BROUGHT UP PHLEGM (THICK SPIT) ON MOST DAYS?

Yes ..... 1  
No ..... 2

<sup>1</sup>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.

113-B. 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 DAY BESIDES 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 THICK PHLEGM (THICK SPIT)?

Yes ..... 1 —Answer 118-A  
No ..... 2 —Go to 119

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

119. IN THE PAST 12 MONTHS, HAS A DOCTOR PRESCRIBED ANY OF THESE TREATMENTS FOR YOUR CHRONIC BRONCHITIS, EMPHYSEMA, OR PHEGM? (Circle one number on each line.)

	Yes	No
A. Breathing exercises or postural drainage	1	2
B. Any kind of machine to help your breathing	1	2
C. Smoke less or stop smoking	1	2
D. Get regular checkups of this condition	1	2
E. Slow down, or reduce your activity	1	2

120. WHETHER OR NOT A DOCTOR PRESCRIBED THEM, ARE YOU CURRENTLY DOING ANY OF THESE THINGS FOR YOUR CHRONIC BRONCHITIS, EMPHYSEMA, OR PHEGM? (Circle one number on each line.)

	Yes	No
A. Breathing exercises or postural drainage	1	2
B. Using any kind of machine to help your breathing	1	2
C. Not smoking or smoking less	1	2
D. Getting regular checkups of this condition	1	2
E. Reducing or slowing down your activity	1	2

121. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR CHRONIC BRONCHITIS, EMPHYSEMA, OR PHEGM 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, EMPHYSEMA, OR PHEGM WORRIED OR CONCERNED 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, EMPHYSEMA, OR PHEGM 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

124. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS YOUR CHRONIC BRONCHITIS, EMPHYSEMA, OR PHEGM KEPT YOU IN BED ALL DAY OR MOST OF THE DAY? (If none, write in "0.")

\_\_\_\_\_ days in bed last month

DO NOT  
WRITE IN  
THIS SPACE

18/ 3791  
19/ 3792  
20/ 3793  
21/ 3794  
22/ 3796

23/ 3797  
24/ 3798  
25/ 3799  
26/ 3800  
27/ 3801

3802

28/

3803

29/

3804

30/

DO NOT  
WRITE IN  
THIS SPACE  
3805

31/32/



ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE,  
DAYTON

BRONCHITIS, EMPHYSEMA, PHLEGM

96. HAS A DOCTOR EVER TOLD YOU THAT YOU HAD BRONCHITIS OR EMPHYSEMA? 3777

("Bronchitis" pronounced "Bron-KY-tis")

("Emphysema" pronounced "Em-fih-SEE-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 3778  
emphysema?

Yes ..... 1

No ..... 2

98. During the past 12 months, have you had any phlegm (thick spit) from your 3779  
chest first thing in the morning?

Yes ..... 1 — (GO to q. 104, next page)

No ..... 2 — (GO to q. 112, page 21)

99. DURING THE PAST 12 MONTHS, HAVE YOU HAD ANY PHLEGM (THICK SPIT) FROM 3780  
YOUR CHEST FIRST THING IN THE MORNING?

NO ..... 2 — (GO to q. 114, page 21)

YES ..... 1 — (GO to q. 100)

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? 3784

(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? 3787

Yes ..... 1

No ..... 2

105. Are you currently bringing up phlegm? 3790

Yes ..... 1

No ..... 2

106. Are you currently under a doctor's care or supervision for this problem? 3794

Yes ..... 1 — (GO to q. 108, next page)

No ..... 2 — (GO to q. 107)

107. Have you ever seen a doctor about the phlegm? 3798

No ..... 2 — (GO to q. 109, next page)

Yes ..... 1 — (GO to q. 108)

108. In the last 12 months, did a doctor prescribe any of these treatments for 3799  
your bronchitis, phlegm, or emphysema? CIRCLE YES OR NO FOR EACH.

(Circle one for each.)

Do breathing exercises or  
postural drainage

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 lots 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.
- (Circle one for each.)
- |  |                 |      |
|--|-----------------|------|
| Do breathing exercises or postural drainage? | Yes . . . . . 1 | 3787 |
|  | No . . . . . 2  |      |
| Use a breathing machine?                     | Yes . . . . . 1 | 3788 |
|  | No . . . . . 2  |      |
| Avoid or decrease smoking?                   | Yes . . . . . 1 | 3789 |
|  | No . . . . . 2  |      |
| Get regular checkups?                        | Yes . . . . . 1 | 3805 |
|  | No . . . . . 2  |      |
| Decrease (slow down) activity                | Yes . . . . . 1 | 3801 |
|  | No . . . . . 2  |      |
110. During the past 3 months, how much pain has your bronchitis, phlegm, or emphysema caused you?
- (Circle one)
- |                         |  |
|-------------------------|--|
| A lot . . . . . 1       |  |
| Some . . . . . 2        |  |
| A little . . . . . 3    |  |
| None at all . . . . . 4 |  |
111. During the past 3 months, how much has your bronchitis, phlegm, or emphysema worried or concerned you?
- (Circle one)
- |                        |  |
|------------------------|--|
| A lot . . . . . 1      |  |
| Somewhat . . . . . 2   |  |
| A little . . . . . 3   |  |
| Not at all . . . . . 4 |  |
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)
- |                                  |  |
|----------------------------------|--|
| 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     |  |
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<sup>1</sup>

### SMOKING

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

39-A. DURING HOW MANY YEARS HAVE YOU SMOKED 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 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

39-C. HAS A DOCTOR EVER TOLD YOU TO STOP OR CUT DOWN ON  
YOUR SMOKING?

Yes ..... 1 { —Go to 40.  
No ..... 2 { page 19

<sup>1</sup>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.

39. HAVE YOU EVER SMOKED CIGARETTES FAIRLY REGULARLY?

Yes ..... 1 —Answer 39-  
A-B-C-D  
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  
USED 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)  
6 months or less ..... 1  
7 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

SMOKING

114. DO YOU SMOKE CIGARS OR A PIPE NOW? 2006  
YES ..... 1  
NO ..... 2
115. HAVE YOU EVER SMOKED CIGARETTES FAIRLY REGULARLY? 2007  
NO ..... 2 — (GO to q. 122, page 23)  
YES ..... 1 — (GO to q. 116, next page)
116. During how many years have you smoked regularly?  
..... Years 2008
117. During those years that you smoked regularly, on the average, how many packs a day did you smoke? 2009  
(Circle one)  
Less than 3/4 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? 2010  
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) 2011
120. On the average, about how many packs of cigarettes a day do you currently smoke? 2012  
(Circle one.)  
Less than 3/4 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? 2013  
Yes ..... 1  
No ..... 2

# SHORTNESS-OF-BREATH BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE<sup>1</sup>

### 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

75. HAS A DOCTOR EVER TOLD YOU THAT YOU HAD AN ENLARGED HEART OR HEART FAILURE?

Yes ..... 1 -Answer 76  
No ..... 2 -Go to 84, page 24

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 PERSONS 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

<sup>1</sup>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.

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 -next page

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

DO NOT  
WRITE IN  
THIS SPACE

3748

77

3744

76

CARD 34

3752

75

9006

74

3750 1 484 1

73

3751

72

9007

71

9008

70

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

Not 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

DO NOT WRITE IN THIS SPACE

19 3753

9009

20

21

22

9010

9011

9012

23-24

DO NOT WRITE IN THIS SPACE

9013

25

26

27

9014

HEART MEDICINES

84. HAVE YOU EVER TAKEN ANY OF THESE HEART MEDICINES? --

DIGITALIS (Dij-ih-TAL-iss)

DIGITALIS LEAF

DIGITOXIN (Dij-ih-TOX-in)

DIGOXIN (Dij-ox-in)

LANOXIN (Lan-ox-in)

Yes, have taken one or more of these

No, have never taken any of these

1 --Answer 84-A

2 --Go to 85,

84.A. ARE YOU CURRENTLY TAKING ANY OF THESE HEART MEDICINES? -- DIGITALIS, DIGITALIS LEAF, DIGITOXIN, DIGOXIN, OR LANOXIN.

Yes

No

1

2

DO NOT WRITE IN THIS SPACE

485

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE,  
DAYTON

SHORTNESS OF BREATH OR HEART FAILURE

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? 3743

NO ..... 2 (GO to q. 67)

YES ..... 1 (GO to q. 67)

67. 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? 3744

Yes ..... 1

No ..... 2

68. In the past 3 months, have you been troubled by shortness of breath when you turned or walked uphill? 3745

(Circle one)

Yes ..... 1

No ..... 2

Do not hurry or walk uphill ..... 9

69. In the past 3 months, have you been short of breath when you walked with people of your own age on level ground? 3746

(Circle one)

Yes ..... 1

No ..... 2

Do not walk on level ground ..... 9

70. 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? 3747

(Circle one)

Yes ..... 1

No ..... 2

Do not walk on level ground ..... 9

71. In the past 3 months, have you been bothered by shortness of breath when you bathed or dressed yourself? 3748

Yes ..... 1

No ..... 2

72. Has a doctor ever said that you had a weak heart or heart failure? 3749

Yes ..... 1

No ..... 2

73. Thinking of the past 3 months, did your ankles ever swell during the day enough to make your shoes feel tight? 3750

No ..... 2 (GO to q. 75)

Yes ..... 1 (GO to q. 74)

74. When this happened, were they usually still swollen the next morning? 3751

Yes ..... 1

No ..... 2

75. In the last 3 months, did you sleep on more than one pillow because of a problem with shortness of breath? 3752

Yes ..... 1

No ..... 2

76. Do you currently take diuretic (or fluid) pills which have been prescribed by a doctor? 3753

("Diuretic" pronounced "Die-yuh-RET-ik")

Yes ..... 1

No ..... 2

77. During the past 3 months, how much pain has your shortness of breath or heart failure caused you? 3754

(Circle one)

A lot ..... 1

Some ..... 2

A little ..... 3

None at all ..... 4

78. During the past 3 months, how much has your shortness of breath or heart failure worried or concerned you? 3755

(Circle one)

A lot ..... 1

Somewhat ..... 2

A little ..... 3

Not at all ..... 4

79. 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? 3756

(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

80. 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? (IF NO DAYS IN BED, WRITE IN "0".) 3757

..... Days in bed

HEART MEDICINES

53. HAVE YOU EVER TAKEN ANY OF THESE HEART MEDICINES: DIGITALIS, DIGITALIS LEAF

LEAF, DIGITOXIN, OR DIGOXIN?

("Digitalis" pronounced "Dij-ih-TAL-iss")

("Digitoxin" pronounced "Dij-ih-TOX-in")

("Digoxin" pronounced "Dij-QX-in")

NO ..... 2 ..... (GO to Q 55, next page)

YES ..... 1 ..... (GO to Q 54)

54. Are you currently taking any of these heart medicines: digitalis, digitalis leaf,

digitoxin, or digoxin?

Yes ..... 1

No ..... 2



# DIABETES BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE<sup>1</sup>

### 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?

Yes ..... 1 —Answer 173  
No ..... 2 —Go to 186

173. HAS A DOCTOR EVER SAID TO YOU THAT YOU HAD DIABETES OR  
PRE-DIABETES?

Yes ..... 1 —Answer 174  
No ..... 2 —Go to 186

174. WHEN WAS THE LAST TIME YOU SAW A DOCTOR OR NURSE FOR  
YOUR DIABETES OR PRE-DIABETES?

(Circle one)

Within past 3 months ..... 1  
3 - 6 months ago ..... 2  
7 - 12 months ago ..... 3  
More than 1 year ago ..... 4

175. DO YOU TAKE INSULIN?

Yes ..... 1  
No ..... 2

<sup>1</sup>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.

176. DO YOU TAKE ANY MEDICINES BY MOUTH FOR DIABETES OR PRE-DIABETES?

Yes ..... 1  
No ..... 2

177. HAS A DOCTOR OR NURSE TOLD YOU TO CHECK YOUR URINE  
FOR SUGAR?

Yes ..... 1 —Answer 178  
No ..... 2 —Go to 180

178. HOW OFTEN DID THE DOCTOR OR NURSE TELL YOU TO CHECK  
YOUR URINE?

(Circle one)

Less than once a week ..... 1  
Once a week ..... 2  
Every other day ..... 3  
Every day ..... 4  
2 or more times a day ..... 5

179. IN THE PAST 30 DAYS, HOW MANY DAYS DID YOU ACTUALLY  
CHECK YOUR URINE AT LEAST ONCE?

(Circle one)

None ..... 1  
1 - 2 days ..... 2  
3 - 5 days ..... 3  
6 - 10 days ..... 4  
11 - 20 days ..... 5  
21 - 30 days ..... 6

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.)

Yes No

A. Keep your feet clean ..... 1 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

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE,  
DAYTON

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.)

	Yes	No
A. Keep your feet clean	1	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

43/ 4 4 3 6

44/ 4 4 3 7

45/ 4 4 3 8

46/ 4 4 3 9

47/ 4 4 4 0

4 4 4 1

48/

4 4 4 2

48/

4 4 4 3

50/

4 4 4 4

51-52/

DIABETES, PRE-DIABETES

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

154. During the past 3 months, how much has your diabetes or pre-diabetes worried or concerned you? <sup>442</sup>
- (Circle one.)
- A lot ..... 1
- Somewhat ..... 2
- A little ..... 3
- Not at all ..... 4
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? <sup>443</sup>
- (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 diabetes or pre-diabetes kept you in bed all or most of the day? (IF NO DAYS IN BED, WRITE IN "0".) <sup>444</sup>
- \_\_\_\_\_ Days in bed

150. In the last 30 days, how many times have you actually checked it? (IF NONE, WRITE IN "0".) <sup>445</sup>
- \_\_\_\_\_ Times
151. Has a doctor or nurse ever told you to do any of these things because of diabetes or pre-diabetes? CIRCLE YES OR NO FOR EACH. <sup>446</sup>
- Keep your feet clean Yes ..... 1 No ..... 2
- Cut your toenails straight across and not too short Yes ..... 1 No ..... 2
- Do not walk barefoot Yes ..... 1 No ..... 2
- Do not wear tight hose supporters Yes ..... 1 No ..... 2
- Watch your weight because of diabetes Yes ..... 1 No ..... 2
152. Do you actually do any of these things for diabetes or pre-diabetes, whether or not a doctor told you to? CIRCLE YES OR NO FOR EACH. <sup>447</sup>
- Keep your feet clean Yes ..... 1 No ..... 2
- Cut your toenails straight across and not too short Yes ..... 1 No ..... 2
- Do not walk barefoot Yes ..... 1 No ..... 2
- Do not wear tight hose supporters Yes ..... 1 No ..... 2
- Watch your weight because of diabetes Yes ..... 1 No ..... 2
153. During the past 3 months, how much pain has your diabetes or pre-diabetes caused you? <sup>448</sup>
- (Circle one)
- A lot ..... 1
- Some ..... 2
- A little ..... 3
- None at all ..... 4

# HAY FEVER BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

5323

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

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

### HAY FEVER OR OTHER PLANT ALLERGIES

27. HAVE YOU EVER HAD HAY FEVER OR OTHER ALLERGIES TO  
PLANTS AND GRASSES? 5318

- Yes ..... 1 —Answer 28  
No ..... 2 —Go to 37,  
page 12

28. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT YOUR  
HAY FEVER OR OTHER PLANT ALLERGIES? 5319

- (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? 5320

- 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? 5321

- Yes ..... 1  
No ..... 2

31. DO YOU ACTUALLY TAKE ANY MEDICINE FOR THE HAY FEVER OR  
OTHER PLANT ALLERGIES? 5322

- (Circle one)  
Yes, prescribed by doctor ..... 1  
Yes, but not prescribed by doctor ..... 2  
No, don't take any ..... 3

\*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.

33. DURING THE PAST 12 MONTHS, HOW MUCH HAS YOUR HAY FEVER  
OR OTHER PLANT ALLERGIES WORRIED OR CONCERNED YOU? 5324

- (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? 5325

- (Circle one)  
Not bothered at all in past 12 months ..... 1 —Go to 37,  
next page  
Less than 2 weeks of the time ..... 2  
2 weeks but less than 1 month ..... 3  
1 month but less than 2 months ..... 4  
2 months but less than 4 months ..... 5 —Answer 35  
4 months but less than 6 months ..... 6  
6 months or more ..... 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? 5326

- (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.") 5327

\_\_\_\_\_ days in bed last year

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE.  
DAYTON

HAY FEVER

1. HAVE YOU EVER HAD HAY FEVER? 4218  
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 4220  
months?  
Yes ..... 1  
No ..... 2
3. In the last 12 months, did you get shots to help prevent hay fever? 4221  
Yes ..... 1  
No ..... 2
4. In the last 12 months, has the doctor prescribed any medicine to help prevent 4222  
the symptoms?  
Yes ..... 1  
No ..... 2
5. Do you actually take any medicine for the hay fever? 4223  
(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? 4224  
(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 4225  
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 4226  
fever? (WRITE IN NUMBER OF WEEKS OR CIRCLE "99" IF NOT BOTH-  
ERED.)

Not bothered in last  
12 months ..... 99 — (GO to q. 71)  
Weeks ..... (GO to q. 9)

9. During the weeks when you were bothered by hay fever, how often did your 4227  
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 4228  
all or most of the day? (IF NO DAYS IN BED, WRITE IN "0".)

Days in bed

# HEARING BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE

### HEARING

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 } --Answer 19-A  
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

\*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.

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

5308

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

56

4241

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

57

4240

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

4234

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  
—Go to 25

4235

24-A. IN WHICH EAR HAVE YOU USED A HEARING AID?

- (Circle one)
- Left ear ..... 1
  - Right ear ..... 2
  - Both ears ..... 3

4236

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

4237

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

54

4239

55

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE,  
DAYTON

HEARING

11. HAVE YOU EVER HAD YOUR HEARING TESTED? 4275

(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? 4276

(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? 4277

Yes ..... 1  
No ..... 2

14. How often do you usually have your hearing tested? 4278

(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? 4279

(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? 4280

(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? 4281

No ..... 2 (GO to q. 20)  
Yes ..... 1 (GO to q. 18)

18. Which ear? 4282

(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? 4283

(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? 4284

Yes ..... 1  
No ..... 2

21. Do you wear a hearing aid now? 4285

(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? 4286

(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? 4287

(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-ler-  
m)?

(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 165.  
next page

159. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT YOUR  
HIGH CHOLESTEROL?

(Circle one)  
Within past 3 months ..... 1  
3 - 6 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

<sup>1</sup>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.

DO NOT  
WRITE IN  
THIS SPACE  
4 3 4 4

162. DO YOU THINK YOUR CHOLESTEROL HAS BEEN HIGH, NORMAL, OR  
LOW IN THE PAST 3 MONTHS?

(Circle one)  
High ..... 1  
Normal ..... 2  
Low ..... 3

163. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR HIGH  
CHOLESTEROL WORRIED OR CONCERNED YOU?

(Circle one)  
A great deal ..... 1  
Somewhat ..... 2  
A little ..... 3  
Not at all ..... 4

164. 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?

(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

### EATING HABITS AND DIET

25. ARE YOU ON ANY KIND OF SPECIAL DIET — EITHER TO LOSE  
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)

Yes No

To lose weight	1	2
Diabetes	1	2
Kidney failure	1	2
Ulcers	1	2
High cholesterol	1	2
Heart trouble or high blood pressure	1	2
Pregnancy	1	2
Some other reason	1	2
What?		

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THIS SPACE  
4 3 3 9

71

4 3 4 0

72

9 0 4 1

73

4 3 4 2

74

4 3 4 3

75

74 3 6 9 4

75 3 6 9 5

76 3 6 9 6

77 3 6 9 7

78 3 6 9 9

79 3 7 0 0

80 3 7 0 1

81 3 7 0 2

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE,  
DAYTON

25-B. WHAT KIND OF DIET IS IT? (Circle one number on each line.)

Yes No

Low calorie 1 2  
Low fat or cholesterol 1 2  
Low protein 1 2  
Low salt 1 2  
Low carbohydrate 1 2  
Bland diet 1 2  
Some other 1 2  
What?

25-C. WAS THIS DIET ORDERED BY A DOCTOR, NURSE, CLINIC, OR  
DIETITIAN?

Yes ..... 1  
No ..... 2

3710

25-D. HOW CAREFULLY DO YOU FOLLOW YOUR DIET? DO YOU FOLLOW  
IT . . .

(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

3711

CARD 03

30

25-E. HOW MUCH BOTHER IS THIS DIET? DOES IT BOTHER YOU . . .

(Circle one)

A great deal ..... 1  
Somewhat ..... 2  
A little ..... 3  
Not at all ..... 4

8806

30

CHOLESTEROL

74. HAVE YOU EVER HAD A BLOOD CHOLESTEROL TEST?  
("CHOLESTEROL" PRONOUNCED "KOH-LES-TER-ALL")

(Circle one.)

YES ..... 1  
NO ..... 2  
DONT KNOW ..... 8

75. HAS A DOCTOR EVER SAID YOU HAVE HIGH BLOOD CHOLESTEROL?

NO ..... 2 (GO to q. 82, next page)  
YES ..... 1 (GO to q. 76)

76. Are you currently under the care or supervision of a doctor for your high cholesterol?

Yes ..... 1  
No ..... 2

77. Has a doctor ever prescribed medicine for your high cholesterol?

Yes ..... 1  
No ..... 2

78. Are you currently taking any medicine for high cholesterol?

(Circle one.)

Yes, prescribed by doctor ..... 1  
Yes, but not prescribed by doctor ..... 2  
No, I don't take any drugs for cholesterol ..... 3

79. Do you think your cholesterol has been high, normal, or low in the past 3 months?

(Circle one.)

High ..... 1  
Normal ..... 2  
Low ..... 3

80. During the past 3 months, how much has your high cholesterol worried or concerned you?

(Circle one.)

A lot ..... 1  
Somewhat ..... 2  
A little ..... 3  
Not at all ..... 4

81. During the past 3 months, how often has your high cholesterol 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

DIET

### 37. ARE YOU ON A SPECIAL DIET?

NO ..... 2 (GO to q. 42, page 8)

YES ..... 1 (GO to q. 38)

38. What is the diet for? Answer "Yes" or "No" for each reason.  
(Circle one for each.)

To lose weight	Yes ..... 1	No ..... 2
Diabetes	Yes ..... 1	No ..... 2
Kidney failure	Yes ..... 1	No ..... 2
Ulcers	Yes ..... 1	No ..... 2
Allergies	Yes ..... 1	No ..... 2
High cholesterol	Yes ..... 1	No ..... 2
Heart trouble or high blood pressure	Yes ..... 1	No ..... 2
Pregnancy (IF YOU ARE MALE CIRCLE 9 FOR "Male - Does not apply".)	Yes ..... 1	No ..... 2
Male - Does not apply	Male - Does not apply ..... 9	

Other ..... 1  
(What? ..... 2)

MC

39. What kind of a diet is it? Answer "Yes" or "No" for each kind.  
(Circle one for each)

Low calorie	Yes ..... 1	No ..... 2
Low fat or cholesterol	Yes ..... 1	No ..... 2
Low protein	Yes ..... 1	No ..... 2
Low salt	Yes ..... 1	No ..... 2
Low carbohydrate	Yes ..... 1	No ..... 2
Bland diet	Yes ..... 1	No ..... 2
Other	Yes ..... 1	No ..... 2
(What? ..... MC)		

40. Was this diet ordered by a doctor, nurse, clinic, or dietitian?

Yes	..... 1
No	..... 2

41. In general, do you follow your diet?

(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

# BLOOD PRESSURE BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE<sup>1</sup>

### 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 6 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 93

page 28

<sup>1</sup>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.

87. HOW LONG AGO DID THE DOCTOR FIRST SAY THAT YOU HAD HIGH BLOOD PRESSURE?

(Circle one)

Within past 6 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

DO NOT  
WRITE IN  
THIS SPACE  
3 8 7 3  
20

3 8 7 4

31

3 8 7 5

- 499 -

32

3 8 7 6

33

3 8 7 7

34

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-LOSING 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

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THIS SPACE

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3883

42/

3884

43-44/

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.<sup>6</sup>

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<sup>6</sup>The finite selection model is 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.

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE,  
DAYTON

BLOOD PRESSURE

168. HAVE YOU EVER HAD YOUR BLOOD PRESSURE CHECKED?



NO ..... 2 — (GO to q. 171)  
YES ..... 1 — (GO to q. 169)

169. When did you last have your blood pressure checked?

(Circle one.)  
Within the last 6 months ... 1  
7-12 months ago ... 2  
1-2 years ago ... 3  
3-5 years ago ... 4  
More than 5 years ago ... 5

170. Did the person who checked your blood pressure tell you anything about it?

Yes ..... 1  
No ..... 2

171. HAVE YOU EVER BEEN TOLD BY A DOCTOR THAT YOU HAD HIGH BLOOD PRESSURE?

NO ..... 2 — (GO to q. 184, page 39)  
YES ..... 1 — (GO to q. 172)

172. How long ago were you first told this?

(Circle one.)  
Within the last 6 months ... 1  
7-12 months ago ... 2  
1-2 years ago ... 3  
3-5 years ago ... 4  
6-10 years ago ... 5  
More than 10 years ago ... 6

180. During the past 3 months, how much pain has your high blood pressure caused you? (Circle one.)  
A lot ..... 1  
Some ..... 2  
A little ..... 3  
None at all ..... 4

181. During the past 3 months, how much has your high blood pressure worried or concerned you? (Circle one.)  
A lot ..... 1  
Somewhat ..... 2  
A little ..... 3  
Not at all ..... 4

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? (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

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?	3874
More than 1 time ..... 1	
Only 1 time ..... 2	
174. Has a doctor prescribed pills or medicine for your high blood pressure?	3875
No ..... 2 (GO to q. 176)	
Yes ..... 1 (GO to q. 175)	
175. Are you still taking the pills or medicine now?	3876
(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 <u>currently</u> high or normal?	3877
High ..... 1	
Normal ..... 2	
177. How often would you say your food is salted, either in cooking or at the table?	3878
(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?	3879
Yes ..... 1	
No ..... 2	
179. Because of your blood pressure are you <u>currently</u> on a weight losing diet?	3880
Yes ..... 1	
No ..... 2	



# JOINT PROBLEMS BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE<sup>1</sup>

JOINT PROBLEMS		DO NOT WRITE IN THIS SPACE
84.	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.)	3 7 2 5
Yes	..... 1 —Answer 64-A-B	
No	..... 2 —Go to 74, page 21	
84-A.	HAVE YOU HAD PAIN OR ACHING IN ANY OF YOUR JOINTS ON MOST DAYS FOR AS LONG AS A MONTH?	3 7 2 6
Yes	..... 1	
No	..... 2	
84-B.	HAVE YOU HAD SWELLING OF A JOINT, AND PAIN WHEN IT WAS TOUCHED, ON MOST DAYS FOR AS LONG AS A MONTH?	3 7 2 7
Yes	..... 1	
No	..... 2	
84-C.	HAVE YOU HAD STIFFNESS IN JOINTS OR MUSCLES WHEN FIRST GETTING OUT OF BED ON MOST MORNINGS FOR AS LONG AS A MONTH?	3 7 2 8
Yes	..... 1	
No	..... 2	
84-D.	HAVE YOU HAD STIFFNESS IN JOINTS OR MUSCLES WHEN FIRST GETTING OUT OF BED, WHICH LASTED AS LONG AS 15 MINUTES?	3 7 2 9
Yes	..... 1	
No	..... 2	

<sup>1</sup>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.

85. CAN YOU DO THE FOLLOWING THINGS WITHOUT THE HELP OF ANOTHER PERSON OR ANY SPECIAL DEVICE? (Circle one number on each line.)

	Yes	No
A. Walk up and down stairs without help	..... 1	..... 2
B. Get into and out of a car without help	..... 1	..... 2
C. Bathe yourself without help	..... 1	..... 2
D. Feed yourself without help	..... 1	..... 2
E. Get into bed without help	..... 1	..... 2

86. 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

87. HAS A DOCTOR EVER SAID THAT YOU HAVE RHEUMATISM (RHO-ma-tiz-um) OR ARTHRITIS (ar-THRY-tis)?

Yes	..... 1
No	..... 2

88. HAS A DOCTOR EVER SAID THAT YOU HAVE GOUT OR HIGH URIC ACID LEVEL?

Yes	..... 1 —Answer 88-A
No	..... 2 —Go to 89

88-A. ARE YOU CURRENTLY TAKING ANY OF THESE MEDICATIONS FOR YOUR GOUT OR HIGH URIC ACID LEVEL? —

COLCHICINE (COLE-chi-seen)	..... 1
ALLOPURINOL (AL-to-PURE-in-ol)	..... 2
ZYLOPRIM (ZYE-to-prim)	..... 3
BENEMID (BEN-en-mid)	..... 4
COLBENEMID (COLE-ben-en-mid)	..... 5

Yes, one or more of these	..... 1
No, not taking any of these	..... 2

89. 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

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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

9000

607

9001

607

9002

607

# ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE, DAYTON

## JOINT PROBLEMS

55. DURING THE PAST 12 MONTHS HAVE YOU HAD PAIN, ACHING, SWELLING OR STIFF-  
NESS IN YOUR JOINTS? FOR EXAMPLE, YOUR FINGERS, HIP, KNEE? (DO NOT  
COUNT PROBLEMS DUE TO INJURY.)

NO ..... 2 — (GO to q. 66, page 12)  
YES ..... 1 — (GO to q. 56)

56. Have you had any of these problems in the last 12 months? Answer "Yes"  
or "No" for each problem.

a. Pain or aching in any of your joints on most days for at least one month? Yes ..... 1  
No ..... 2

b. Swelling of a joint with pain present when the joint was touched on most days for at least one month? Yes ..... 1  
No ..... 2

c. Stiffness in the joints and muscles when first getting out of the bed in the morning on most mornings for at least one month? Yes ..... 1 — (GO to part d below)  
No ..... 2 — (GO to q. 57)

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.)

Walk up and down stairs without help? Yes ..... 1  
No ..... 2

Get into and out of a car without help? Yes ..... 1  
No ..... 2

Bathe yourself without help? Yes ..... 1  
No ..... 2

Feed yourself without help? Yes ..... 1  
No ..... 2

Get into bed without help? Yes ..... 1  
No ..... 2

58. Has a doctor ever said you have rheumatism or arthritis?  
("Rheumatism" pronounced "ROO-muh-liz-um")  
("Arthritis" pronounced "Are-THRY-its")

(Circle one)  
No ..... 2  
Yes ..... 1

59. How many aspirins 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  
13 or more a day ..... 5

60. Has a doctor ever said that you have gout?

No ..... 2 — (GO to q. 62)  
Yes ..... 1 — (GO to q. 61)

61. Are you currently taking colchicine, allopurinol (Zyloprim), or benemid for your gout or high uric acid level?

("Colchicine" pronounced "KOLE-chih-sen")  
("Allopurinol" pronounced "Al-low-PURE-in-ah")  
("Zyloprim" pronounced "ZY-low-prim")  
("Benemid" pronounced "BEN-eh-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 at all ..... 4

63. During the past 3 months, how much has the trouble with your joints worried 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 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

65. During the past 30 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.)

OTHER ILLNESSES

25. 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

No. did not end not have this	Had it, but did not see doctor	Had it, and saw doctor
--	---	------------------------------

A. Bursitis	1	2	3
B. Arteriosclerosis, hardening of the arteries	1	2	3
C. Allergies	1	2	3
D. Frequent digestive upsets, stomach trouble, or intestinal trouble	1	2	3
E. Chronic hepatitis or yellow jaundice	1	2	3
F. Chronic gall bladder trouble or gallstones	1	2	3
G. Phlebitis (thrombophlebitis)	1	2	3
H. Any foot pain or infection	1	2	3
I. Women only: Any disease of the uterus or ovary	1	2	3
J. Women only: Any lumps in your breasts	1	2	3

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# URINARY TRACT INFECTION BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE<sup>1</sup>

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 149,  
below

147-B. HOW MANY TIMES ALTOGETHER?

(Circle one)  
Once ..... 1  
Twice ..... 2  
3 - 5 times ..... 3 —Go to 149,  
below  
6 - 10 times ..... 4  
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 157,  
page 41

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 (sis-ty-itis) OR  
PYELONEPHRITIS (py-lo-nef-RITE-itis)

Yes ..... 1  
No ..... 2

<sup>1</sup>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.

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 - 8 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

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE,  
DAYTON

KIDNEY DISEASE

63. DID A DOCTOR EVER SAY YOU HAD KIDNEY DISEASE? 429

YES ..... 1  
NO ..... 2

64. HAVE YOU EVER HAD A KIDNEY, BLADDER OR URINE INFECTION? 430

NO ..... 2 — (GO to q. 74, page 18)  
YES ..... 1 — (GO to q. 65)

65. How many times altogether? 431

(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) 432

("Cystitis" pronounced "Sis-IX-lis")  
("Pyelonephritis" pronounced "Plo-nih-FRY-lis")  
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 medicines for kidney, bladder, or urine infection? 433

Yes ..... 1  
No ..... 2

68. Do you currently take any pills or medicine for kidney, bladder, or urine infection, whether or not a doctor prescribed the pills or medicines? 434

(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? 435

Yes ..... 1  
No ..... 2

70. During the past 3 months, how much pain has your kidney, bladder or urine infection caused you? 436

(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 or concerned you? 437

(Circle one)  
A lot ..... 1  
Somewhat ..... 2  
A little ..... 3  
Not 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? 438

(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".) 439

..... Days in bed

# ULCER BATTERIES FROM THE MEDICAL HISTORY QUESTIONNAIRE

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE<sup>1</sup>

### STOMACH PAIN OR ACHE

132. IN THE PAST 3 MONTHS, HAVE YOU BEEN TROUBLED BY EPISODES OR ATTACKS OF STOMACH PAIN OR STOMACH ACHE (OTHER THAN THAT CAUSED BY OVEREATING)?

Yes ..... 1 —Answer 133  
No ..... 2 —Go to 145, page 38

133. IN THE PAST 3 MONTHS, HAVE YOU HAD THESE PAINS FOR AS MANY AS 3 DAYS IN ONE WEEK?

Yes ..... 1  
No ..... 2

134. WHEN DO THESE ATTACKS OR EPISODES USUALLY COME ON?

(Circle one)

Just before eating ..... 1  
Right after eating ..... 2  
½ to 1 hour after eating ..... 3  
More than 1 hour after eating ..... 4  
Not related to eating ..... 5

135. ARE THESE PAINS RELIEVED BY TAKING MILK OR FOOD?

Yes ..... 1  
No ..... 2

136. HAVE THESE PAINS EVER AWAKENED YOU AT NIGHT?

Yes ..... 1  
No ..... 2

<sup>1</sup>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.

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137. HOW OFTEN DO YOU TAKE ANTACIDS SUCH AS TABLETS (LIKE TUMS) OR WHITE LIQUID MEDICINE (LIKE MAALOX OR GELUSIL)?

(Circle one)

Do not take antacids ..... 1  
Once a month or less ..... 2  
Several (2 - 5) times a month ..... 3  
Several (2 - 5) times a week ..... 4  
Once a day ..... 5  
More than once a day ..... 6

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 (2 - 5) times a week ..... 4  
Once a day ..... 5  
More than once a day ..... 6

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 —Answer 140  
7 - 12 months ago ..... 3  
More than 1 year ago ..... 4  
Never saw a doctor about this ..... 5 —Go to 141 next page

140. DID A DOCTOR EVER PRESCRIBE ANY KIND OF MEDICINE FOR YOUR STOMACH PAIN?

Yes ..... 1  
No ..... 2

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

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

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143. DURING THE PAST 3 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-o-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 ACHE

184. IN THE LAST 3 MONTHS, HAVE YOU EVER BEEN TROUBLED WITH EPISODES  
(ATTACKS) OF STOMACH PAIN OR STOMACH ACHE?

NO ..... 2 — (GO to q. 189)  
YES ..... 1 — (GO to q. 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 food?

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-num")

NO ..... 2 — (GO to q. 191, next page)  
YES ..... 1 — (GO to q. 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

192. DO YOU TAKE ASPIRIN, OR MEDICINES LIKE ASPIRIN FOR RELIEF OF STOMACH  
PAIN?

(Circle one.)

No ..... 1  
Once a week ..... 2  
Twice to six times a  
week ..... 3  
1 to 3 tablets a day ..... 4  
4 or more tablets a day ..... 5

193. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS STOMACH TROUBLE CAUSED  
YOU?

(Circle one.)

A lot ..... 1  
Some ..... 2  
A little ..... 3  
None at all ..... 4

194. DURING THE PAST 3 MONTHS, HOW MUCH HAS STOMACH TROUBLE WORRIED  
OR CONCERNED YOU?

(Circle one.)

A lot ..... 1  
Somewhat ..... 2  
A little ..... 3  
Not at all ..... 4

195. DURING THE PAST 3 MONTHS, HOW OFTEN HAS STOMACH 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

196. DURING THE PAST 30 DAYS, HOW MANY DAYS HAS STOMACH TROUBLE KEPT YOU  
IN BED ALL OR MOST OF THE DAY? (IF NO DAYS IN BED, WRITE IN "0".)

..... Days in bed

# SLEEPING PILLS AND TRANQUILIZERS BATTERIES FROM THE MEDICAL HISTORY QUESTIONNAIRES

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE<sup>1</sup>

### 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  
-C-D  
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

<sup>1</sup>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.

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  
-C-D  
No ..... 2 --Go to 242-A-B,  
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

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9 0 7 9

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3 8 5 5

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9 0 8 1

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9 0 8 2

30-31/

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE,  
DAYTON

SLEEPING PILLS

154. HAS A DOCTOR EVER PRESCRIBED SLEEPING PILLS FOR YOU? 3450

YES ..... 1  
NO ..... 2

155. ARE YOU CURRENTLY USING SLEEPING PILLS WHICH ARE PRESCRIBED BY A DOCTOR? 3451

(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 or concerned you? 3452

(Circle one.)

A lot ..... 1  
Somewhat ..... 2  
A little ..... 3  
Not at all ..... 4  
Do not take sleeping pills ..... 9

TRANQUILIZERS, SEDATIVES

157. HAS A DOCTOR PRESCRIBED TRANQUILIZERS OR SEDATIVES FOR YOU IN THE LAST 12 MONTHS? 3453

("Tranquilizers" pronounced "TRAN-kwii-eye-zers")

NO ..... 2 (GO to q. 160, next page)

YES ..... 1 (GO to q. 158)

158. Are you currently using tranquilizers or sedatives which were prescribed by a doctor? 3454

(Circle one.)

No ..... 1 (GO to q. 160, next page)

Once a month or less ..... 2

A few times a month ..... 3

A few times a week ..... 4 (GO to q. 759)

Every day ..... 5

Twice a day or more ..... 6

159. During the past 3 months, how much has your use of tranquilizers or sedatives worried or concerned you? 3455

(Circle one.)

A lot ..... 1

Somewhat ..... 2

A little ..... 3

Not at all ..... 4

# DISEASE-SPECIFIC BATTERIES FROM THE MEDICAL HISTORY QUESTIONNAIRE

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE<sup>1</sup>

### HERNIA

204. HAVE YOU EVER HAD AN OPERATION FOR A HERNIA, RUPTURE, OR  
HERNIATED NAVEL? (HERNIA pronounced "HER-ne-a")

Yes ..... 1  
No ..... 2

205. HAVE YOU HAD A HERNIA WITHIN THE PAST 12 MONTHS?

Yes ..... 1 —Answer 208  
No ..... 2 —Go to 212,  
next page

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

<sup>1</sup>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.

DO NOT  
WRITE IN  
THIS SPACE  
4 2 6 2  
247

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

4 2 6 3

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?  
(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

4 2 6 4

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

### VARICOSE VEINS

212. HAVE YOU EVER HAD SURGERY FOR VARICOSE VEINS (SWOLLEN  
BLUE VEINS ON THE LEGS)?

Yes ..... 1  
No ..... 2

213. DURING THE PAST 12 MONTHS, HAVE YOU NOTICED VARICOSE  
VEINS IN YOUR LEGS?

Yes ..... 1 —Answer 214  
No ..... 2 —Go to 214,  
page 56

214. IN THE PAST 12 MONTHS, DID YOU AVOID WEARING SHORTS  
BECAUSE OF VARICOSE VEINS?

Yes ..... 1  
No ..... 2

4 3 8 5

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

4 3 8 6

216. IN THE PAST 12 MONTHS, HAS A DOCTOR TOLD YOU TO WEAR  
SUPPORT STOCKINGS (ELASTIC HOSE) BECAUSE OF VARICOSE  
VEINS?

Yes ..... 1  
No ..... 2

4387

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 it ..... 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

4415

196. HAVE YOU HAD HEMORRHOIDS (PILES) WITHIN THE PAST 12 MONTHS? (HEMORRHOIDS pronounced "HEM-oh-royds")

- Yes ..... 1 - Answer 197
- No ..... 2 - Go to 204, page 52

197. HAVE YOU EVER SEEN A DOCTOR ABOUT YOUR PILES OR HEMORRHOIDS?

- Yes ..... 1 - Answer 197-A-B
- No ..... 2 - Go to 198, next page

197-A. DURING THE PAST 12 MONTHS, HAS A DOCTOR PRESCRIBED RECTAL SUPPOSITORIES FOR YOUR PILES OR HEMORRHOIDS?

- Yes ..... 1
- No ..... 2

197-B. DURING THE PAST 12 MONTHS, HAS A DOCTOR PRESCRIBED SITZBATHS (HOT BATHS) FOR YOUR PILES OR HEMORRHOIDS?

- Yes ..... 1
- No ..... 2

197-C. DURING THE PAST 12 MONTHS, DID A DOCTOR EVER RECOMMEND THAT YOU HAVE AN OPERATION FOR YOUR PILES OR HEMORRHOIDS?

- (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

197-D. WHEN WAS THE LAST TIME YOU SAW A DOCTOR ABOUT YOUR PILES OR HEMORRHOIDS?

- (Circle one)
- Within past 3 months ..... 1
- 3 - 6 months ago ..... 2
- 7 - 12 months ago ..... 3
- More than 1 year ago ..... 4

198. THESE NEXT QUESTIONS ASK ABOUT THE PAST 3 MONTHS. IN THE PAST 3 MONTHS, HAVE YOU TAKEN ANY RECTAL SUPPOSITORIES FOR YOUR PILES OR HEMORRHOIDS?

- Yes ..... 1
- No ..... 2

199. IN THE PAST 3 MONTHS, HAVE YOU TAKEN ANY SITZBATHS (HOT BATHS) BECAUSE OF YOUR PILES OR HEMORRHOIDS?

- Yes ..... 1
- No ..... 2

200. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAVE YOUR PILES OR HEMORRHOIDS CAUSED YOU?

(Circle one)  
A great deal of pain ..... 1  
Some pain ..... 2  
A little pain ..... 3  
No pain at all ..... 4

201. DURING THE PAST 3 MONTHS, HOW MUCH HAVE YOUR PILES OR HEMORRHOIDS WORRIED OR CONCERNED YOU?

(Circle one)  
A great deal ..... 1  
Somewhat ..... 2  
A little ..... 3  
Not at all ..... 4

202. 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?

(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

203. DURING THE PAST 30 DAYS, HOW MANY DAYS HAVE YOUR PILES OR HEMORRHOIDS KEPT YOU IN BED ALL DAY OR MOST OF THE DAY? (If none, write in "0.")

\_\_\_\_\_ days in bed last month

247. HAVE YOU EVER HAD GALL BLADDER SURGERY?

Yes ..... 1  
No ..... 2

248. HAVE YOU EVER HAD YOUR TONSILS AND/OR ADENOIDS REMOVED?

Yes ..... 1  
No ..... 2

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WRITE IN  
THIS SPACE  
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10

9 0 5 5

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4 4 2 1

10

4 4 2 2

10

4 4 1 2

10

4 4 1 4

10

# ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE, DAYTON

## HERNIA

41. HAVE YOU EVER HAD AN OPERATION FOR HERNIA?

(“HERNIA” PRONOUNCED “HER-NEE-A”)  
YES ..... 1  
NO ..... 2

42. Have you had a hernia within the past 12 months?

No ..... 2 (GO to q. 48, page 9)  
Yes ..... 1 (GO to q. 43)

43. During the past 3 months, how much pain has your hernia caused you?

(Circle one.)  
A lot ..... 1  
Some ..... 2  
A little ..... 3  
None at all ..... 4

44. During the past 3 months, how much has your hernia worried or concerned you?

(Circle one.)  
A lot ..... 1  
Somewhat ..... 2  
A little ..... 3  
Not at all ..... 4

45. During the past 3 months, how often has your hernia 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

46. During the past 30 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.”)

\_\_\_\_\_ Days in bed

47. Are you now scheduled for an operation for hernia?

Yes ..... 1  
No ..... 2

## VARICOSE VEINS

111. HAVE YOU EVER HAD SURGERY FOR VARICOSE VEINS?

YES ..... 1  
NO ..... 2

121. 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.)

At all times ..... 1  
Most of the time ..... 2  
Some of the time ..... 3  
A little of the time ..... 4  
None of the time ..... 5

122. During the past 30 days, how many days have your varicose veins kept you in bed 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 "HIM-OR-ROYDS")

NO ..... 2 (GO to q. 143, next page)  
YES ..... 1 (GO to q. 136)

136. During the past 12 months, has a doctor prescribed rectal suppositories for your hemorrhoids (piles)? ("Suppositories" pronounced "Su-POS-ih-lor-ess")

Yes ..... 1  
No ..... 2

137. During the past 12 months, has a doctor prescribed sitz baths (hot baths) 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

112. HAVE YOU NOTICED VARICOSE VEINS IN YOUR LEGS WITHIN THE LAST 12 MONTHS?

NO ..... 2 (GO to q. 123, page 27)  
YES ..... 1 (GO to q. 113)

113. In the last 12 months, did you avoid wearing shorts because of varicose veins?

Yes ..... 1  
No ..... 2

114. 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

115. In the last 12 months, has a doctor told you to wear support stockings (elastic hose) because of varicose veins?

Yes ..... 1  
No ..... 1

116. 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

117. 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

118. Are you scheduled for surgery for varicose veins?

Yes ..... 1  
No ..... 2

119. 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

120. 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  
Not at all ..... 4

4421

141. During the past 3 months, how often have your hemorrhoids (piles) 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

4422

142. During the past 30 days, how many days have your hemorrhoids (piles) kept you in bed all or most of the day? (IF NO DAYS IN BED, WRITE IN "0".)

Days in bed

**SURGERY**

4412

247. HAVE YOU EVER HAD GALL BLADDER SURGERY?

- Yes ..... 1  
No ..... 2

4414

248. HAVE YOU EVER HAD YOUR TONSILS AND/OR ADENOIDS REMOVED?

- Yes ..... 1  
No ..... 2



# THYROID BATTERY FROM THE MEDICAL HISTORY QUESTIONNAIRE

## ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE<sup>1</sup>

### GOITER OR THYROID TROUBLE

56. HAS A DOCTOR EVER SAID YOU HAD GOITER (GOY-lee) OR THYROID TROUBLE?

Yes ..... 1 -Answer 57  
No ..... 2 -Go to 64, page 18

57. HAS A DOCTOR EVER PRESCRIBED ANY OF THESE TREATMENTS FOR YOUR GOITER OR THYROID TROUBLE? (Circle one number on each line.)

	Yes	No
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 3 months ..... 1  
3 - 6 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

<sup>1</sup>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.

DO NOT  
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THIS SPACE

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4378

47

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE,  
DAYTON

GOITER OR THYROID TROUBLE

100. HAS A DOCTOR EVER SAID THAT YOU HAD GOITER OR THYROID TROUBLE?  
("GOITER" PRONOUNCED "GOY-TER")

NO ..... 2 ..... (GO to q. 108, page 24)

YES ..... 1 ..... (GO to q. 101)

101. Has a doctor ever prescribed any of these treatments for goiter or thyroid trouble? CIRCLE YES OR NO FOR EACH.

Medicines Yes ..... 1

No ..... 2

Surgery Yes ..... 1

No ..... 2

Radiation Yes ..... 1

No ..... 2

102. Are you currently under a doctor's care or supervision for goiter or thyroid trouble?

Yes ..... 1

No ..... 2

103. Are you currently taking any medicine for your thyroid trouble?

(Circle one)

Yes, for overactive thyroid ..... 1

Yes, for underactive thyroid ..... 2

No ..... 3

104. During the past 3 months, how much pain has your goiter or thyroid trouble caused you?

(Circle one)

A lot ..... 1

Some ..... 2

A little ..... 3

None at all ..... 4

105. During the past 3 months, how much has your goiter or thyroid trouble worried or concerned you?

(Circle one)

A lot ..... 1

Somewhat ..... 2

A little ..... 3

Not at all ..... 4

106. During the past 3 months, how often has your goiter or thyroid 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

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 1-A-B-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-B-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

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.

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  
Most of the time ..... 2  
Some of the time ..... 3  
A little of the time ..... 4  
None of the time ..... 5

DO NOT WRITE IN THIS SPACE  
8982

19

4353

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4354

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4355

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8983

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24

4357

25

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WRITE IN  
THIS SPACE

4 3 5 8

8. IN THE PAST 5 YEARS, HAVE YOU EVER HAD YOUR EYES CHECKED FOR GLAUCOMA (INCREASED PRESSURE IN THE EYE)? (GLAUCOMA pronounced "glow [rhymes with cow] - KO-me")

Yes ..... 1  
No ..... 2

26/

4 3 5 3

9. HAS A DOCTOR EVER SAID YOU HAVE GLAUCOMA (INCREASED PRESSURE IN THE EYE)?

Yes ..... 1 —Answer 10  
No ..... 2 —Go to 17, page 7

27/

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

8 9 8 4

28/

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.)

	Yes	No
A. Eye Drops	1	2
B. Pills	1	2

29/ 4 3 5 1

30/ 4 3 6 2

12. ARE YOU CURRENTLY TAKING ANY OF THE FOLLOWING MEDICINES FOR GLAUCOMA (INCREASED PRESSURE IN THE EYE)? (Circle one number on each line.)

	Yes	No
A. Eye Drops	1	2
B. Pills	1	2

31/ 4 3 6 3

32/ 4 3 6 4

13. DURING THE PAST 3 MONTHS, HOW MUCH PAIN HAS YOUR GLAUCOMA (INCREASED PRESSURE IN THE EYE) CAUSED YOU? (Circle one)

A great deal of pain ..... 1  
Some pain ..... 2  
A little pain ..... 3  
No pain at all ..... 4

4 3 6 5

33/

DO NOT  
WRITE IN  
THIS SPACE

4 3 6 6

14. DURING THE PAST 3 MONTHS, HOW MUCH HAS YOUR GLAUCOMA (INCREASED PRESSURE IN THE EYE) WORRIED OR CONCERNED YOU? (Circle one)

A great deal ..... 1  
Somewhat ..... 2  
A little ..... 3  
Not at all ..... 4

34/

4 3 6 7

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

35/

4 3 6 8

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

36-37/

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE, FORM A  
DAYTON

147. WHEN DID YOU MOST RECENTLY HAVE YOUR EYES TESTED FOR VISION? 1347

- (Circle one)
- NEVER ..... 1 (GO to q. 149) *next page*  
5 OR MORE YEARS AGO ..... 2  
MORE THAN 2 BUT LESS THAN 5 ..... 3 (GO to q. 148)  
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? 1348

- Yes ..... 1  
No ..... 2

ENROLLMENT MEDICAL HISTORY QUESTIONNAIRE, FORM B  
DAYTON

EYESIGHT

82. HAVE YOU EVER HAD YOUR EYESIGHT CHECKED? 4347  
NO ..... 2 (GO to q. 84)  
YES ..... 1 (GO to q. 83)

83. Were glasses or contact lenses prescribed? 4348  
Yes ..... 1  
No ..... 2

84. DO YOU WEAR GLASSES OR CONTACT LENSES? 4349  
(Circle one)  
NO ..... 3 (GO to q. 87 next page)  
YES, BUT NOT PRESCRIBED ..... 2 (GO to q. 85, next page)  
YES, PRESCRIBED ..... 1

85. When do you wear them? CIRCLE YES OR NO FOR EACH ANSWER. 4350  
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 people your age? 4351

(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? 4352

YES ..... 1  
NO ..... 2

88. WITHOUT GLASSES, CAN YOU RECOGNIZE A FRIEND ACROSS THE STREET? 4353

YES ..... 1  
NO ..... 2

89. DURING THE PAST 3 MONTHS, HOW MUCH HAVE EYESIGHT PROBLEMS WORRIED OR CONCERNED YOU? 4354

(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

**GLAUCOMA**

91. IN THE LAST 5 YEARS, HAVE YOU EVER HAD YOUR EYES CHECKED FOR GLAUCOMA (INCREASED PRESSURE IN THE EYE)?

("GLAUCOMA" PRONOUNCED "GLA-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. 100, 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 AMEDIS LABORATORY TESTS

Lab Tests	Dayton	Seattle	Massachusetts and South Carolina*
HGB			
Enrollment	{14-18 gm/dl--Male}	{14-17 gm/dl--Male}	{14-17 gm/dl--Male}
3-yr exit	{12-16 gm/dl--Female}	{12-15 gm/dl--Female}	{12-15 gm/dl--Female}
5-yr exit	{11.0-17.0 gm/dl}	{14-18 gm/dl--Male}	{14-18 gm/dl--Male}
		{12-16 gm/dl--Female}	{12-16 gm/dl--Female}
		{14-18 gm/dl--Male}	{14-18 gm/dl--Male}
		{12-16 gm/dl--Female}	{12-16 gm/dl--Female}
HCT			
Enrollment	{42-52%--Male}	{42-51%--Male}	{42-51%--Male}
3-yr exit	{37-47%--Female}	{37-47%--Female}	{37-47%--Female}
5-yr exit	{35.0-52.0%}	{42-52 vol/dl--Male}	{42-52%--Male}
		{37-47 vol/dl--Female}	{37-47%--Female}
		{42-54%--Male}	{42-54%--Male}
		{36-48%--Female}	{36-48%--Female}
MCV			
Enrollment	{80-94 cubic microns--Male}	{84-103 cubic microns}	{84-103 cubic microns}
3-yr exit	{81-99 cubic microns--Female}	{80-94 cubic microns--Male}	{80-94 cubic microns--Male}
5-yr exit	{80-103.0 cubic microns}	{81-99 cubic microns--Female}	{81-99 cubic microns--Female}
		{80-100 cubic microns}	{80-100 cubic microns}
Glucose			
Enrollment	{up to 120 mg/dl}	{up to 110 mg/dl}	{65-120 mg/dl}
3-yr exit	{65-130 mg/dl}	{65-110 mg/dl}	{65-110 mg/dl}
5-yr exit	{65-110 mg/dl}	{75-105 mg/dl}	{75-115 mg/dl}
Cholesterol			
Enrollment	{150-300 mg/dl}	{150-300 mg/dl}	{150-300 mg/dl}
3-yr exit	{125-300 mg/dl}	{120-240 mg/dl--increases with age up to 330}	{120-240 mg/dl--increases with age up to 330}
5-yr exit	{120-240 mg/dl--increases with age up to 330}	{1-29 years: 120-240 mg/dl}	{1-29 years: up to 260 mg/dl}
		{30-39 years: 140-270 mg/dl}	{30-39 years: up to 270 mg/dl}
		{40-49 years: 150-310 mg/dl}	{40-49 years: up to 310 mg/dl}
		{over 50: 160-330 mg/dl}	{over 50: up to 330 mg/dl}
Uric Acid			
Enrollment	{2.5-8 mg/dl}	{2.5-8 mg/dl}	{2.5-8 mg/dl}
3-yr exit	{2.5-8.5 mg/dl}	{2.5-8.5 mg/dl--Male}	{2.5-8.5 mg/dl--Male}
5-yr exit	{2.5-8.5 mg/dl--Male}	{2.0-7.0 mg/dl--Female}	{2.0-7.0 mg/dl--Female}
		{4.0-8.5 mg/dl--Male}	{4.0-8.5 mg/dl--Male}
		{2.8-7.5 mg/dl--Female}	{2.8-7.5 mg/dl--Female}

Appendix E (cont.)  
NORMAL RANGES FOR AMEDIS LABORATORY TESTS

Lab Tests	Dayton	Seattle	Massachusetts and South Carolina*
BUN	Enrollment 3-yr exit 5-yr exit	(8-25 mg/dl) (6-26 mg/dl) (5-25 mg/dl)	(10-20 mg/dl) (5-25 mg/dl) (3.5-35.0 mg/dl)
Total thyroxine T <sub>4</sub> (by RIA)	Enrollment 3-yr exit 5-yr exit	(3.0-7.0 mcg/dl) (4.5-12.5 mcg/dl) (5.5-11.5 mcg/dl)	(5-22 mg/dl) (5-25 mg/dl) (3.5-35.0 mg/dl)
T7	Enrollment 3-yr exit 5-yr exit	(4.0-10.7 mcg/dl) (5.5-11.5 mcg/dl) (5.5-11.5 mcg/dl)	(4.0-11.0 mcg/dl) (5.5-11.5 mcg/dl) (5.5-11.5 mcg/dl)
TSH	Enrollment 3-yr exit 5-yr exit	(3.2-12.8 mcg/dl) (1.9-5.2 mcg/dl) (2.2-4.7 mcg/dl)	(0.9-3.6 mcg/dl) (1.9-5.2 mcg/dl) (2.2-4.7 mcg/dl)
	Test not done Test not done	(less than 10 micro U/ml) (less than 10 micro U/ml)	(less than 10 micro U/ml) (less than 10 micro U/ml)

\*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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Data file name .....	AMEDIS01.PUF.DATA
Creation Date .....	February 1, 1987
Variable format .....	Character
Total number of data elements .....	286
Header length (bytes) .....	20
Primary data length (bytes) .....	2240
Record length (bytes) .....	2260

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Table F.2

ADULT MEDICAL DISORDERS FILE: LISTING BY ALPHABETIC ORDER

Name	Location	Length	Type	Name	Location	Length	Type
ACNEBIN	101	8	I	CHF_SOBX	669	8	I
ACNEBINX	109	8	I	CHFPATNX	685	8	I
ACNEIMP	133	8	I	CHFPATTN	677	8	I
ACNEIMPX	141	8	I	CHOLDIET	1141	8	I
ACNESEV	117	8	I	CHOLDIEX	1149	8	I
ACNESEVX	125	8	I	CHOLEST	1093	8	I
ACNESTAT	85	8	I	CHOLESTX	1101	8	I
ACNESTAX	93	8	I	CHOLIMP	1157	8	I
AIRWAY	613	8	I	CHOLIMPX	1165	8	I
AIRWAYX	621	8	I	CHOLMHQ	1109	8	I
ANEMHCT	213	8.1	F	CHOLMHQX	1117	8	I
ANEMHCTX	221	8.1	F	CHOLSTAT	1125	8	I
ANEMHGB	149	8.1	F	CHOLSTAX	1133	8	I
ANEMHGBA	165	8	I	CIGSTAT	533	8	I
ANEMHGBX	157	8.1	F	CIGSTAX	541	8	I
ANEMIMP	245	8	I	COADBIN	629	8	I
ANEMIMPX	253	8	I	COADBINX	637	8	I
ANEMMCV	229	8	I	COADIMP	645	8	I
ANEMMCVX	237	8	I	COADIMPX	653	8	I
ANEMMHQ	181	8	I	DIABIMP	837	8	I
ANEMMHQX	189	8	I	DIABIMPX	845	8	I
ANEMSTAT	197	8	I	DIABMED	821	8	I
ANEMSTAX	205	8	I	DIABMEDX	829	8	I
ANGIBIN	453	8	I	DIABMHQ	741	8	I
ANGIBINX	461	8	I	DIABMHQX	749	8	I
ANGIIMP	469	8	I	DIABSE	773	8	I
ANGIIMPX	477	8	I	DIABSEX	781	8	I
ANGIROSE	421	8	I	DIABSTAT	789	8	I
ANGISTAT	437	8	I	DIABSTAX	797	8	I
ANGISTAX	445	8	I	DIASTOL	1189	8	I
ANGITRIG	261	8	I	DIASTOLX	1197	8	I
ANGROSEX	429	8	I	DYSPEPS	1557	8	I
ANGTRIGX	269	8	I	DYSPEPSX	1565	8	I
ANMHGBAX	173	8	I	ECGSUM	389	8	I
BESTFEV1	485	8	I	ECGSUMX	397	8	I
BESTFVC	501	8	I	ECG1	277	8	I
BESTFVCX	509	8	I	ECG1X	285	8	I
BSTFEV1X	493	8	I	ECG2	293	8	I
BSTPRFEV	517	8	I	ECG2X	301	8	I
BSTPRFVX	525	8	I	ECG3	309	8	I
CHF_IMP	725	8	I	ECG3X	317	8	I
CHF_IMPX	733	8	I	ECG4	325	8	I
CHF_MHQ	709	8	I	ECG4X	333	8	I
CHF_MHQX	717	8	I	ECG5	341	8	I
CHF SOB	661	8	I	ECG5X	349	8	I

See Note on last page of Appendix.

Table F.2 (cont.)

ADULT MEDICAL DISORDERS FILE: LISTING BY ALPHABETIC ORDER

Name	Location	Length	Type	Name	Location	Length	Type
ECG6	357	8	I	HRNAIMP	1989	8	I
ECG6X	365	8	I	HRNAIMPX	1997	8	I
ECG7	373	8	I	HRNAPREV	1957	8	I
ECG7X	381	8	I	HRNAPRVX	1965	8	I
ENRTERM	17	1	A	HRNASTAT	1973	8	I
FILENAME	1	6	A	HRNASTAX	1981	8	I
FILLER	18	3	A	HRNATRGX	1949	8	I
GLUCOSE	757	8	I	HRNATRIG	1941	8	I
GLUCOSEX	765	8	I	HRSTALTX	1037	8.1	F
GOUTMEDS	1317	8	I	HRSTARTX	1021	8.1	F
GOUTMEDX	1325	8	I	HRSTATLT	1029	8.1	F
HAYFCURR	885	8	I	HRSTATRT	1013	8.1	F
HAYFCURX	893	8	I	HRSTAT41	1061	8	I
HAYFIMP	917	8	I	HRSTA41X	1069	8	I
HAYFIMPX	925	8	I	HYPEIMP	1285	8	I
HAYFMHQ	853	8.1	F	HYPEIMPX	1293	8	I
HAYFMHQX	861	8.1	F	HYPEMED	1269	8	I
HAYSCORE	901	8	I	HYPEMEDX	1277	8	I
HAYSCORX	909	8	I	HYPEMHQ	1253	8	I
HAYSTAT2	869	8	I	HYPEMHQX	1261	8	I
HAYSTA2X	877	8	I	HYPENCHS	1237	8	I
HBP	1221	8	I	HYPESTAT	1205	8	I
HBPX	1229	8	I	HYPESTAX	1213	8	I
HEARAVLT	949	8.4	F	HYPNCHSX	1245	8	I
HEARAVLX	957	8.4	F	INSTAT	16	1	A
HEARAVRT	933	8.4	F	INSULIN	805	8	I
HEARAVRX	941	8.4	F	INSULINX	813	8	I
HEARBIN	1045	8	I	JNLIMIT	1333	8	I
HEARBINX	1053	8	I	JNLIMITX	1341	8	I
HEARIMP	1077	8	I	JOINRIP	1413	8	I
HEARIMPX	1085	8	I	JOINRIPX	1421	8	I
HEARSTAT	997	8.1	F	JOINIMP	1429	8	I
HEARSTAX	1005	8.1	F	JOINIMPX	1437	8	I
HEMRIMP	1813	8	I	JOINMHQ	1301	8	I
HEMRIMPX	1821	8	I	JOINMHQX	1309	8	I
HEMRMED	1781	8	I	JOINRF	1365	8	I
HEMRMEDX	1789	8	I	JOINRFX	1373	8	I
HEMRMHQ	1797	8	I	JOINSIZE	1381	8.1	F
HEMRMHQX	1805	8	I	JOINSIZX	1389	8.1	F
HEMRSITZ	1765	8	I	JOINWALK	1397	8.1	F
HEMRSIZX	1773	8	I	JOINWLKX	1405	8.1	F
HEMRSUP	1749	8	I	KIDN_UC	1461	8	I
HEMRSUPX	1757	8	I	KIDN_UCX	1469	8	I
HEMRTRGX	1741	8	I	KIDNBIN	1509	8	I
HEMRTRIG	1733	8	I	KIDNBINX	1517	8	I

See Note on last page of Appendix.

Table F.2 (cont.)

ADULT MEDICAL DISORDERS FILE: LISTING BY ALPHABETIC ORDER

Name	Location	Length	Type	Name	Location	Length	Type
KIDNBUN	1445	8	I	THYR_T4	2037	8.1	F
KIDNBUNX	1453	8	I	THYR_T4X	2045	8.1	F
KIDNIMP	1525	8	I	THYR_T7	2053	8.1	F
KIDNIMPX	1533	8	I	THYR_T7X	2061	8.1	F
KIDNPILL	1477	8	I	THYRIMP	2125	8	I
KIDNPILX	1485	8	I	THYRIMPX	2133	8	I
KIDNSTAT	1493	8.1	F	THYRMEDX	2093	8	I
KIDNSTAX	1501	8.1	F	THYRSTAT	2101	8	I
MHQA	21	8	I	THYRSTAX	2109	8	I
MHQAX	29	8	I	THYRTSHX	2117	8.1	F
MHQB	37	8	I	TONSEXAM	2005	8	I
MHQBX	45	8	I	TONSEXMX	2013	8	I
MINNECG	405	8	I	TONSTAT	2021	8	I
MINNECGX	413	8	I	TONSTATX	2029	8	I
NEWSTADX	1549	8	I	TRANFREQ	1669	8	I
NEWSTATD	1541	8	I	TRANIMPX	1709	8	I
OBSTRUCT	597	8	I	TRANQIMP	1701	8	I
OBSTRUCX	605	8	I	TRANQUSE	1685	8	I
OUTAREAX	69	8	I	TRANUSEX	1693	8	I
PACKYR	549	8.2	F	TRNFREQX	1677	8	I
PACKYRX	557	8.1	F	T2000LT	981	8	I
PEGFLAG	77	8	I	T2000LTX	989	8	I
PERPRED	581	8	I	T2000RT	965	8	I
PERPREDX	589	8	I	T2000RTX	973	8	I
PERSON	7	8	A	ULCEIMP	1605	8	I
PHLEGM	565	8	I	ULCEIMPX	1613	8	I
PHLEGMX	573	8	I	ULCEMHQ	1573	8.1	F
PILFREQX	1629	8	I	ULCEMHQR	1589	8	I
PILLFREQ	1621	8	I	ULCEMHQX	1581	8.1	F
PILLIMP	1653	8	I	ULCMHQRX	1597	8	I
PILLIMPX	1661	8	I	URICACDX	1357	8.1	F
PILLUSE	1637	8	I	URICACID	1349	8.1	F
PILLUSEX	1645	8	I	VEIN_SE	1877	8	I
RELXUSE	1717	8	I	VEIN_SEX	1885	8	I
RELXUSEX	1725	8	I	VEIN_AVER	1861	8.1	F
SCREENDX	61	8	I	VEIN_AVEX	1869	8.1	F
SCREENED	53	8	I	VEINIMP	1925	8	I
SITE	15	1	A	VEINIMPX	1933	8	I
SOBSCALE	693	8	I	VEINMDRC	1893	8	I
SOBSCALX	701	8	I	VEINMDRX	1901	8	I
SYSTOL	1173	8	I	VEINTHER	1909	8	I
SYSTOLX	1181	8	I	VEINTHRX	1917	8	I
THYR_MED	2085	8	I	VEINTRGX	1837	8	I
THYR_SE	2069	8	I	VEINTRIG	1829	8	I
THYR_SEX	2077	8	I	VEINWORS	1845	8	I

See Note on last page of Appendix.

Table F.2 (cont.)

ADULT MEDICAL DISORDERS FILE: LISTING BY ALPHABETIC ORDER

Name	Location	Length	Type	Name	Location	Length	Type
VEINWORX	1853	8	I	VISIMPND	2245	8	I
VISBLFFX	2197	8	I	VISIMPX	2253	8	I
VISBLFNX	2213	8	I	VISINATF	2157	8	I
VISGLAUC	2221	8	I	VISINATN	2173	8	I
VISGLAUX	2229	8	I	VISNATFX	2165	8	I
VISIBLFF	2189	8	I	VISNATNX	2181	8	I
VISIBLFN	2205	8	I	VSCORRCT	2141	8	I
VISIMPD	2237	8	I	VSCORRCX	2149	8	I

See Note on last page of Appendix.

Table F.3

ADULT MEDICAL DISORDERS FILE: LISTING BY LOCATION

Name	Location	Length	Type	Name	Location	Length	Type
FILENAME	1	6	A	ECG4X	333	8	I
PERSON	7	8	A	ECG5	341	8	I
SITE	15	1	A	ECG5X	349	8	I
INSTAT	16	1	A	ECG6	357	8	I
ENRTERM	17	1	A	ECG6X	365	8	I
FILLER	18	3	A	ECG7	373	8	I
MHQA	21	8	I	ECG7X	381	8	I
MHQAX	29	8	I	ECGSUM	389	8	I
MHQB	37	8	I	ECGSUMX	397	8	I
MHQBX	45	8	I	MINNECG	405	8	I
SCREENED	53	8	I	MINNECGX	413	8	I
SCREENDX	61	8	I	ANGIROSE	421	8	I
OUTAREAX	69	8	I	ANGROSEX	429	8	I
PEGFLAG	77	8	I	ANGISTAT	437	8	I
ACNESTAT	85	8	I	ANGISTAX	445	8	I
ACNESTAX	93	8	I	ANGIBIN	453	8	I
ACNEBIN	101	8	I	ANGIBINX	461	8	I
ACNEBINX	109	8	I	ANGIIMP	469	8	I
ACNESEV	117	8	I	ANGIIMPX	477	8	I
ACNESEVX	125	8	I	BESTFEV1	485	8	I
ACNEIMP	133	8	I	BSTFEV1X	493	8	I
ACNEIMPX	141	8	I	BESTFVC	501	8	I
ANEMHGB	149	8.1	F	BESTFVCX	509	8	I
ANEMHGBX	157	8.1	F	BSTPRFEV	517	8	I
ANEMHGBA	165	8	I	BSTPRFVX	525	8	I
ANMHGBAX	173	8	I	CIGSTAT	533	8	I
ANEMMHQ	181	8	I	CIGSTAX	541	8	I
ANEMMHQX	189	8	I	PACKYR	549	8.2	F
ANEMSTAT	197	8	I	PACKYRX	557	8.2	F
ANEMSTAX	205	8	I	PHLEGM	565	8	I
ANEMHCT	213	8.1	F	PHLEGMX	573	8	I
ANEMHCTX	221	8.1	F	PERPRED	581	8	I
ANEMNCV	229	8	I	PERPREDX	589	8	I
ANEMNCVX	237	8	I	OBSTRUCT	597	8	I
ANEMIMP	245	8	I	OBSTRUCX	605	8	I
ANEMIMPX	253	8	I	AIRWAY	613	8	I
ANGITRIG	261	8	I	AIRWAYX	621	8	I
ANGTRIGX	269	8	I	COADBIN	629	8	I
ECG1	277	8	I	COADBINX	637	8	I
ECG1X	285	8	I	COADIMP	645	8	I
ECG2	293	8	I	COADIMPX	653	8	I
ECG2X	301	8	I	CHF_SOB	661	8	I
ECG3	309	8	I	CHF_SOBX	669	8	I
ECG3X	317	8	I	CHFPATN	677	8	I
ECG4	325	8	I	CHFPATNX	685	8	I

See Note on last page of Appendix.

Table F.3 (cont.)

ADULT MEDICAL DISORDERS FILE: LISTING BY LOCATION

Name	Location	Length	Type	Name	Location	Length	Type
SOBSCALE	693	8	I	HEARBINX	1053	8	I
SOBSCALX	701	8	I	HRSTAT41	1061	8	I
CHF_MHQ	709	8	I	HRSTA41X	1069	8	I
CHF_NHQX	717	8	I	HEARIMP	1077	8	I
CHF_IMP	725	8	I	HEARIMPX	1085	8	I
CHF_IMPX	733	8	I	CHOLEST	1093	8	I
DIABMHQ	741	8	I	CHOLESTX	1101	8	I
DIABMHQX	749	8	I	CHOLMHQ	1109	8	I
GLUCOSE	757	8	I	CHOIMHQX	1117	8	I
GLUCOSEX	765	8	I	CHOLSTAT	1125	8	I
DIABSE	773	8	I	CHOLSTAX	1133	8	I
DIABSEX	781	8	I	CHOLDIET	1141	8	I
DIABSTAT	789	8	I	CHOLDIEX	1149	8	I
DIABSTAX	797	8	I	CHOLIMP	1157	8	I
INSULIN	805	8	I	CHOLIMPX	1165	8	I
INSULINX	813	8	I	SYSTOL	1173	8	I
DIABMED	821	8	I	SYSTOLX	1181	8	I
DIABMEDX	829	8	I	DIASTOL	1189	8	I
DIABIMP	837	8	I	DIASTOLX	1197	8	I
DIABIMPX	845	8	I	HYPESTAT	1205	8	I
HAYFMHQ	853	8.1	F	HYPESTAX	1213	8	I
HAYFMHQX	861	8.1	F	HBP	1221	8	I
HAYSTAT2	869	8	I	HBPX	1229	8	I
HAYSTA2X	877	8	I	HYPENCHS	1237	8	I
HAYFCURR	885	8	I	HYPENCHSX	1245	8	I
HAYFCURX	893	8	I	HYPEMHQ	1253	8	I
HAYSCORE	901	8	I	HYPEMHQX	1261	8	I
HAYSCORX	909	8	I	HYPEMED	1269	8	I
HAYFIMP	917	8	I	HYPEMEDX	1277	8	I
HAYFIMPX	925	8	I	HYPEIMP	1285	8	I
HEARAVRT	933	8.4	F	HYPEIMPX	1293	8	I
HEARAVRX	941	8.4	F	JOINMHQ	1301	8	I
HEARAVLT	949	8.4	F	JOINMHQX	1309	8	I
HEARAVLX	957	8.4	F	GOUTMEDS	1317	8	I
T2000RT	965	8	I	GOUTMEDX	1325	8	I
T2000RTX	973	8	I	JNLIMIT	1333	8	I
T2000LT	981	8	I	JNLIMITX	1341	8	I
T2000LTX	989	8	I	URICACID	1349	8.1	F
HEARSTAT	997	8.1	F	URICACDX	1357	8.1	F
HEARSTAX	1005	8.1	F	JOINRF	1365	8	I
HRSTATRT	1013	8.1	F	JOINRFX	1373	8	I
HRSTARTX	1021	8.1	F	JOINSIZE	1381	8.1	F
HRSTATLT	1029	8.1	F	JOINSIZX	1389	8.1	F
HRSTALTX	1037	8.1	F	JOINWALK	1397	8.1	F
HEARBIN	1045	8	I	JOINWLKX	1405	8.1	F

See Note on last page of Appendix.

Table F.3 (cont.)

ADULT MEDICAL DISORDERS FILE: LISTING BY LOCATION

Name	Location	Length	Type	Name	Location	Length	Type
JOINGRIP	1413	8	I	HEMRSIZX	1773	8	I
JOINGRPX	1421	8	I	HEMRMED	1781	8	I
JOINIMP	1429	8	I	HEMRMEDX	1789	8	I
JOINIMPX	1437	8	I	HEMRMHQ	1797	8	I
KIDNBUN	1445	8	I	HEMRMHQX	1805	8	I
KIDNBUNX	1453	8	I	HEMRIMP	1813	8	I
KIDN_UC	1461	8	I	HEMRIMPX	1821	8	I
KIDN_UCX	1469	8	I	VEINTRIG	1829	8	I
KIDNPILL	1477	8	I	VEINTRGX	1837	8	I
KIDNPILX	1485	8	I	VEINWORS	1845	8	I
KIDNSTAT	1493	8.1	F	VEINWORX	1853	8	I
KIDNSTAX	1501	8.1	F	VEINAVER	1861	8.1	F
KIDNBIN	1509	8	I	VEINAVEX	1869	8.1	F
KIDNBINX	1517	8	I	VEIN_SE	1877	8	I
KIDNIMP	1525	8	I	VEIN_SEX	1885	8	I
KIDNIMPX	1533	8	I	VEINMDRC	1893	8	I
NEWSTATD	1541	8	I	VEINMDRX	1901	8	I
NEWSTADX	1549	8	I	VEINTHER	1909	8	I
DYSPEPS	1557	8	I	VEINTHRX	1917	8	I
DYSPEPSX	1565	8	I	VEINIMP	1925	8	I
ULCEMHQ	1573	8.1	F	VEINIMPX	1933	8	I
ULCEMHQX	1581	8.1	F	HRNATRIG	1941	8	I
ULCEMHQR	1589	8	I	HRNATRGX	1949	8	I
ULCMHQRX	1597	8	I	HRNAPREV	1957	8	I
ULCEIMP	1605	8	I	HRNAPRVX	1965	8	I
ULCEIMPX	1613	8	I	HRNASTAT	1973	8	I
PILLFREQ	1621	8	I	HRNASTAX	1981	8	I
PILLFREQX	1629	8	I	HRNAIMP	1989	8	I
PILLUSE	1637	8	I	HRNAIMPX	1997	8	I
PILLUSEX	1645	8	I	TONSEXAM	2005	8	I
PILLIMP	1653	8	I	TONSEXMX	2013	8	I
PILLIMPX	1661	8	I	TONSTAT	2021	8	I
TRANFREQ	1669	8	I	TONSTATX	2029	8	I
TRNFREQX	1677	8	I	THYR_T4	2037	8.1	F
TRANQUSE	1685	8	I	THYR_T4X	2045	8.1	F
TRANUSEX	1693	8	I	THYR_T7	2053	8.1	F
TRANQIMP	1701	8	I	THYR_T7X	2061	8.1	F
TRANIMPX	1709	8	I	THYR_SE	2069	8	I
RELXUSE	1717	8	I	THYR_SEX	2077	8	I
RELXUSEX	1725	8	I	THYR_MED	2085	8	I
HEMRTRIG	1733	8	I	THYRMEDX	2093	8	I
HEMRTRGX	1741	8	I	THYRSTAT	2101	8	I
HEMRSUP	1749	8	I	THYRSTAX	2109	8	I
HEMRSUPX	1757	8	I	THYRTSHX	2117	8.1	F
HEMRSITZ	1765	8	I	THYRIMP	2125	8	I

See Note on last page of Appendix.



Table F.3 (cont.)

ADULT MEDICAL DISORDERS FILE: LISTING BY LOCATION

Name	Location	Length	Type	Name	Location	Length	Type
THYRIMPX	2133	8	I	VISBLFFX	2197	8	I
VSCORRCT	2141	8	I	VISIBLFN	2205	8	I
VSCORRCX	2149	8	I	VISBLFNX	2213	8	I
VISINATF	2157	8	I	VISGLAUC	2221	8	I
VISNATFX	2165	8	I	VISGLAUX	2229	8	I
VISINATN	2173	8	I	VISIMPD	2237	8	I
VISNATNX	2181	8	I	VISIMPND	2245	8	I
VISIBLFF	2189	8	I	VISIMPX	2253	8	I

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 "nnnnn.nn"). Missing values are written differently for each variable type: A = bbbbbb, I = bbbbbb., F8.1 = bbbbbb.b., F8.2 = bbbbbb.bb, and F8.3 = bbbb.bbb ("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

	Page No.
ACNESTAT Acne status at enrollment .....	58
ACNESTAX Acne status at exit .....	59
ACNEBIN Binary acne status at enrollment .....	60
ACNEBINX Binary acne status at exit .....	61
ACNESEV Severity of acne at enrollment .....	62
ACNESEVX Severity of acne at exit .....	63
ACNEIMP Impact of acne at enrollment .....	64
ACNEIMPX Impact of acne at exit .....	65
AIRWAY Overall disease diagnosis at enrollment .....	139
AIRWAYX Overall disease diagnosis at exit .....	143
ANEMHCT Hematocrit value at enrollment .....	79
ANEMHCTX Hematocrit value at exit .....	80
ANEMHGB Hemoglobin value at enrollment .....	66
ANEMHGBA Adjusted anemia status at enrollment .....	68
ANEMHGBX Hemoglobin value at exit .....	67
ANEMIMP Impact of anemia at enrollment .....	83
ANEMIMPX Impact of anemia at exit .....	84
ANEMMCV Mean cell volume at enrollment .....	81
ANEMMCVX Mean cell volume at exit .....	82
ANEMMHQ Anemia status based on MHQ at enrollment .....	71
ANEMMHQX Anemia status based on MHQ at exit .....	73
ANEMSTAT Anemia status at enrollment .....	75
ANEMSTAX Anemia status at exit .....	77
ANGIBIN Presence of angina at enrollment .....	114
ANGIBINX Presence of angina at exit .....	115
ANGIIMP Impact of angina at enrollment .....	115
ANGIIMPX Impact of angina at exit .....	117
ANGIROSE Angina by Rose method at enrollment .....	107
ANGISTAT Angina by Rose method and prior diagnosis at enrollment ..	111
ANGISTAX Angina by Rose method and prior diagnosis at exit .....	113
ANGITRIG Chest pain at enrollment .....	85
ANGROSEX Angina by Rose method at exit .....	110
ANGTRIGX Chest pain at exit .....	86
ANMHGBAX Adjusted anemia status at exit .....	70
 BESTFEV1 Highest of three FEV1s at enrollment .....	 118
BESTFVC Highest of three FVCs at enrollment .....	120
BESTFVCX Highest of three FVCs at exit .....	121
BSTFEV1X Highest of three FEV1s at exit .....	119
BSTPRFEV Highest of three PRFEVs at enrollment .....	122
BSTPRFVX Highest of three PRFEVs at exit .....	123
 CHF_IMP Impact of CHF at enrollment .....	 178
CHF_IMPX Impact of CHF at exit .....	180
CHF_MHQ CHF status indicator at enrollment .....	168

CHF_MHQX	CHF status indicator at exit .....	173
CHFPATTN	Shortness of breath pattern at enrollment .....	156
CHFPATNX	Shortness of breath pattern at exit .....	161
CHF_SOB	Shortness of breath indicator at enrollment .....	149
CHF_SOBX	Shortness of breath indicator at exit .....	153
CHOLDIET	Special diet at enrollment .....	253
CHOLDIEX	Special diet at exit .....	254
CHOLEST	Blood cholesterol measurement at enrollment .....	245
CHOLESTX	Blood cholesterol measurement at exit .....	246
CHOLIMP	Impact of hypercholesterolemia at enrollment .....	255
CHOLIMPX	Impact of hypercholesterolemia at exit .....	256
CHOLMHQ	Hypercholesterolemia status based on MHQ at enrollment ...	247
CHOLMHQX	Hypercholesterolemia status based on MHQ at exit .....	248
CHOLSTAT	Cholesterol status indicator at enrollment .....	249
CHOLSTAX	Cholesterol status indicator at exit .....	251
CIGSTAT	Cigarette smoking status at enrollment .....	124
CIGSTAX	Cigarette smoking status at exit .....	125
COADBIN	Binary disease status at enrollment .....	144
COADBINX	Binary disease status at exit .....	145
COADIMP	Impact of COAD at enrollment .....	146
COADIMPX	Impact of COAD at exit .....	147
DIABIMP	Impact of diabetes at enrollment .....	197
DIABIMPX	Impact of diabetes at exit .....	198
DIABMED	Taking diabetes medication by mouth at enrollment .....	195
DIABMEDX	Taking diabetes medication by mouth at exit .....	196
DIABMHQ	Diabetes status based on MHQ at enrollment .....	182
DIABMHQX	Diabetes status based on MHQ at exit .....	183
DIABSE	Glucose status at enrollment .....	187
DIABSEX	Glucose status at exit .....	188
DIABSTAT	Diabetes based on MHQ and screening exam at enrollment ...	189
DIABSTAX	Diabetes based on MHQ and screening exam at exit .....	191
DIASTOL	Diastolic blood pressure at enrollment .....	259
DIASTOLX	Diastolic blood pressure at exit .....	260
DYSPEPS	Current dyspepsia at enrollment .....	327
DYSPEPSX	Current dyspepsia at exit .....	328
ECG1	Intraventricular conduction abnormality at enrollment ....	87
ECG1X	Intraventricular conduction abnormality at exit .....	88
ECG2	ST segment or T wave abnormality at enrollment .....	89
ECG2X	ST segment or T wave abnormality at exit .....	90
ECG3	Ventricular enlargement at enrollment .....	92
ECG3X	Ventricular enlargement at exit .....	93
ECG4	Infarction at enrollment .....	94
ECG4X	Infarction at exit .....	95
ECG5	Atrial fibrillation at enrollment .....	96
ECG5X	Atrial fibrillation at exit .....	97
ECG6	Ventricular dysrhythmia at enrollment .....	98
ECG6X	Ventricular dysrhythmia at exit .....	99

ECG7	Artificial pacemaker at enrollment .....	100
ECG7X	Artificial pacemaker at exit .....	101
ECGSUM	Number of abnormalities at enrollment .....	102
ECGSUMX	Number of abnormalities at exit .....	103
ENRTERM	Enrollment term .....	54
FILENAME	Name of file .....	52
GLUCOSE	Blood glucose results at enrollment .....	185
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GOUTMEDS	Taking medicine for gout at enrollment .....	279
GOUTMEDX	Taking medicine for gout at exit .....	280
HAYFCURR	Current prevalence of hay fever at enrollment .....	209
HAYFCURX	Current prevalence of hay fever at exit .....	211
HAYFIMP	Impact of hay fever at enrollment .....	215
HAYFIMPX	Impact of hay fever at exit .....	217
HAYFMHQ	Hay fever status at enrollment .....	200
HAYFMHQX	Hay fever status at exit .....	204
HAYSCORE	Hay fever severity score at enrollment .....	212
HAYSCORX	Hay fever severity score at exit .....	214
HAYSTAT2	Recoding of HAYFMHQ at enrollment .....	207
HAYSTA2X	Recoding of HAYFMHQX at exit .....	208
HBP	Binary hypertension status at enrollment .....	265
HBPX	Binary hypertension status at exit .....	266
HEARAVRT	Average hearing threshold for right ear at enrollment.....	219
HEARAVRX	Average hearing threshold for right ear at exit .....	220
HEARAVLT	Average hearing threshold for left ear at enrollment .....	221
HEARAVLX	Average hearing threshold for left ear at exit .....	222
HEARBIN	Binary hearing status of better ear at enrollment .....	238
HEARBINX	Binary hearing status of better ear at exit .....	239
HEARIMP	Impact of hearing problems at enrollment .....	242
HEARIMPX	Impact of hearing problems at exit .....	244
HEARSTAT	Hearing status at enrollment .....	227
HEARSTAX	Hearing status at exit .....	229
HEMRIMP	Impact of hemorrhoids at enrollment .....	371
HEMRIMPX	Impact of hemorrhoids at exit .....	373
HEMRMED	Doctor prescribed treatment for hemorrhoids at enrollment .....	364
HEMRMEDX	Doctor prescribed treatment for hemorrhoids at exit .....	365
HEMRMHQ	Hemorrhoids status based on MHQ at enrollment .....	367
HEMRMHQX	Hemorrhoids status based on MHQ at exit .....	369
HEMRSITZ	Sitzbaths for hemorrhoids at enrollment .....	361
HEMRSIZX	Sitzbaths for hemorrhoids at exit .....	363
HEMRSUP	Suppositories for hemorrhoids at enrollment .....	359
HEMRSUPX	Suppositories for hemorrhoids at exit .....	360
HEMRTRIG	Hemorrhoids within 12 months prior to enrollment .....	357
HEMRTRGX	Hemorrhoids within 12 months prior to exit .....	358

HRNAIMP	Impact of hernia at enrollment .....	401
HRNAIMPX	Impact of hernia at exit .....	403
HRNAPREV	Prevalence of hernia at enrollment .....	396
HRNAPRVX	Prevalence of hernia at exit .....	397
HRNASTAT	Hernia status at enrollment .....	398
HRNASTAX	Hernia status at exit .....	400
HRNATRIG	Hernia within 12 months prior to enrollment .....	394
HRNATRGX	Hernia within 12 months prior to exit .....	395
HRSTALTX	Hearing status for left ear at exit .....	236
HRSTARTX	Hearing status for right ear at exit .....	233
HRSTATLT	Hearing status for left ear at enrollment .....	235
HRSTATRT	Hearing status for right ear at enrollment .....	232
HRSTAT41	Hearing status at enrollment, loss starting at $\geq 41$ db ...	240
HRSTA41X	Hearing status at exit, loss starting at $\geq 41$ dB.....	241
HYPEIMP	Impact of hypertension at enrollment .....	273
HYPEIMPX	Impact of hypertension at exit .....	274
HYPEMED	Use of medications at enrollment .....	271
HYPEMEDX	Use of medications at exit .....	272
HYPEMHQ	Enrollment hypertension evaluation from MHQ .....	269
HYPEMHQX	Exit hypertension evaluation from MHQ .....	270
HYPENCHS	Enrollment hypertension status defined by NCHS .....	267
HYPESTAT	Hypertension status at enrollment .....	261
HYPESTAX	Hypertension status at exit .....	263
HYPNCHSX	Exit hypertension status defined by NCHS .....	268
INSTAT	Insurance status .....	53
INSULIN	Taking insulin at enrollment .....	192
INSULINX	Taking insulin at exit .....	194
JOINGRIP	Grip strength at enrollment .....	293
JOINGRPX	Grip strength at exit .....	294
JOINIMP	Impact of joint disorders at enrollment .....	295
JOINIMPX	Impact of joint disorders at exit .....	297
JOINMHQ	Joint disorder status by MHQ at enrollment .....	275
JOINMHQX	Joint disorder status by MHQ at exit .....	277
JOINRF	Rheumatoid factor at enrollment .....	286
JOINRFX	Rheumatoid factor at exit .....	287
JOINSIZE	Joint size at enrollment .....	288
JOINSIZX	Joint size at exit .....	290
JOINWALK	Seconds required to walk 50 feet at enrollment .....	291
JOINWLKX	Seconds required to walk 50 feet at exit .....	292
JNLIMIT	Mobility limitation at enrollment .....	281
JNLIMITX	Mobility limitation at exit .....	282
KIDNBIN	Binary indicator of UTI at enrollment .....	316
KIDNBINX	Binary indicator of UTI at exit .....	317
KIDNBUN	Blood urea nitrogen (BUN) at enrollment .....	299
KIDNBUNX	Blood urea nitrogen (BUN) at exit .....	300
KIDNIMP	Impact of UTI at enrollment .....	318
KIDNIMPX	Impact of UTI at exit .....	319

KIDNPILL	Taking medication for UTI at enrollment .....	306
KIDNPILX	Taking medication for UTI at exit .....	308
KIDNSTAT	UTI status at enrollment .....	310
KIDNSTAX	UTI status at exit .....	313
KIDN_UC	Urine culture result at enrollment .....	301
KIDN_UCX	Urine culture result at exit .....	303
MHQA	Medical History Questionnaire, Form A - Enrollment .....	54
MHQAX	Medical History Questionnaire, Form A - Exit .....	55
MHQB	Medical History Questionnaire, Form B - Enrollment .....	55
MHQBx	Medical History Questionnaire, Form B - Exit .....	56
MINNECG	ECG abnormality by Minnesota criteria at enrollment .....	104
MINNECGX	ECG abnormality by Minnesota criteria at exit .....	105
NEWSTATD	Ulcer status classification at enrollment .....	321
NEWSTADX	Ulcer status classification at exit .....	324
OBSTRUCT	Lung function obstructed at enrollment .....	137
OBSTRUCX	Lung function obstructed at exit .....	138
OUTAREAX	Out-of-area screening exam indicator .....	57
PACKYR	Packyears for current smokers at enrollment .....	126
PACKYRX	Packyears for current smokers at exit .....	128
PEGFLAG	Replacement PEG indicator .....	57
PERPRED	Percent of predicted FEV1 at enrollment .....	133
PERPREDX	Percent of predicted FEV1 at exit .....	135
PERSON	Person identifier .....	52
PHLEGM	Bronchitis status at enrollment .....	130
PHLEGMX	Bronchitis status at exit .....	132
PILFREX	Frequency of sleeping pill use at exit .....	343
PILLFREQ	Frequency of sleeping pill use at enrollment .....	342
PILLIMP	Impact of sleeping pill use at enrollment .....	346
PILLIMPX	Impact of sleeping pill use at exit .....	347
PILLUSE	Level of sleeping pill use at enrollment .....	344
PILLUSEX	Level of sleeping pill use at exit .....	345
RELXUSE	Sleeping pill and tranquilizer use at enrollment .....	354
RELXUSEX	Sleeping pill and tranquilizer use at exit .....	356
SCREENED	Screening exam indicator - Enrollment .....	56
SCREENDX	Screening exam indicator - Exit .....	56
SITE	Site .....	53
SOBSCALE	Shortness of breath scale at enrollment .....	165
SOBSCALX	Shortness of breath scale at exit .....	167
SYSTOL	Systolic blood pressure at enrollment .....	257
SYSTOLX	Systolic blood pressure at exit .....	258
THYRIMP	Impact of thyroid disease at enrollment .....	426
THYRIMPX	Impact of thyroid disease at exit .....	427
THYR_MED	Medication for thyroid condition at enrollment .....	420
THYRMEDX	Medication for thyroid condition at exit .....	421
THYR_SE	Thyroid status based on screening exam at enrollment .....	414

THYR_SEX	Thyroid status based on screening exam at exit .....	417
THYRSTAT	Thyroid status based on screening exam and MHQ at enrollment .....	422
THYRSTAX	Thyroid status based on screening exam and MHQ at exit .....	423
THYRTSHX	Thyroid-stimulating hormone at exit .....	425
THYR_T4	T4 measure at enrollment .....	410
THYR_T4X	T4 measure at exit .....	411
THYR_T7	T7 measure (or free T4 index) at enrollment .....	412
THYR_T7X	T7 measure (or free T4 index) at exit .....	413
TONSEXAM	Tonsils exam at enrollment .....	405
TONSEXMX	Tonsils exam at exit .....	406
TONSTAT	Tonsils status at enrollment .....	407
TONSTATX	Tonsils status at exit .....	409
TRANFREQ	Frequency of tranquilizer use at enrollment .....	348
TRANIMPX	Impact of tranquilizer use at exit .....	353
TRANQIMP	Impact of tranquilizer use at enrollment .....	352
TRANQUSE	Level of tranquilizer use at enrollment .....	350
TRANUSEX	Level of tranquilizer use at exit .....	351
TRNFREQX	Frequency of tranquilizer use at exit .....	349
T2000LT	Hearing threshold at 2000 Hz for left ear at enrollment .....	225
T2000LTX	Hearing threshold at 2000 Hz for left ear at exit .....	226
T2000RT	Hearing threshold at 2000 Hz for right ear at enrollment .....	223
T2000RTX	Hearing threshold at 2000 Hz for right ear at exit .....	224
ULCEIMP	Ulcer impact at enrollment .....	339
ULCEIMPX	Ulcer impact at exit .....	340
ULCEMHQ	Ulcer status indicator at enrollment .....	329
ULCEMHQR	Collapsed ulcer status indicator at enrollment .....	336
ULCEMHQX	Ulcer status indicator at exit .....	333
ULCMHQRX	Collapsed ulcer status indicator at exit .....	338
URICACID	Serum uric acid at enrollment .....	283
URICACDX	Serum uric acid at exit .....	284
VEINAVER	Average leg score for varicose veins at enrollment .....	379
VEINAVEX	Average leg score for varicose veins at exit .....	381
VEINIMP	Impact of varicose veins at enrollment .....	390
VEINIMPX	Impact of varicose veins at exit .....	392
VEINMDRC	Doctor recommended therapy for varicose veins at enrollment .....	384
VEINMDRX	Doctor recommended therapy for varicose veins at exit ....	386
VEIN_SE	Binary varicose veins status at enrollment .....	382
VEIN_SEX	Binary varicose veins status at exit .....	383
VEINTHER	Patient took therapy for varicose veins at enrollment ....	387
VEINTHRX	Patient took therapy for varicose veins at exit .....	389
VEINTRIG	Varicose veins 12 months prior to enrollment .....	394
VEINTRGX	Varicose veins 12 months prior to exit .....	395
VEINWORS	Severity of varicose veins at enrollment .....	376
VEINWORX	Severity of varicose veins at exit .....	378

VISBLFFX	Best line of functional far vision at exit .....	443
VISBLFNX	Best line of functional near vision at exit .....	449
VISGLAUC	Glaucoma status at enrollment .....	452
VISGLAUX	Glaucoma status at exit .....	453
VISBLFF	Best line of functional far vision at enrollment .....	440
VISBLFN	Best line of functional near vision at enrollment .....	446
VISIMPD	Impact of vision at enrollment (Dayton) .....	455
VISIMPND	Impact of vision at enrollment (NonDayton) .....	456
VISIMPX	Impact of vision at exit .....	457
VISINATF	Best natural far vision at enrollment .....	435
VISINATN	Best natural near vision at enrollment .....	437
VISNATFX	Best natural far vision at exit .....	436
VISNATNX	Best natural near vision at exit .....	438
VSCORRCT	Pinhole test for correctable far vision at enrollment ....	428
VSCORRCX	Pinhole test for correctable far vision at exit .....	432



## GLOSSARY

Adjunct enrollee	Uninsured member of insured family/household or member of Dayton control group. Not part of sample in adult medical disorders file.
Adult	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.
AMEDIS	Adult Medical Disorders File (file name).
Attrition	Departure from experiment by voluntary withdrawal <i>before</i> completion of assigned enrollment term. Compare "exit" and "termination."
Baseline	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.
Baseline-only participant	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.
Baseline participant	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.
Baseline questionnaire	Elicited information at baseline on family's eligibility for experiment and measured prior health status, use of health care services, satisfaction with medical care, and insurance coverage. Completed four to six months before enrollment into experiment.
Child	Enrollee in experiment who was under 14 years of age at enrollment, or who was born during experiment.
Contract year	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.

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 <i>after</i> 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., ACNESTAT and ACNESTAX 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.

FFS	Fee for service, referring to fees charged for medical and dental services by providers in private economic sector.
GHC	Group Health Cooperative of Puget Sound--Seattle HMO that participated in experiment.
HIE	Health Insurance Experiment.
HIEI	Health Insurance Experiment Instrument. Each separately administered version of any data collection instrument was given unique HIEI number.
HIE-insured	Enrollee assigned to experimental health insurance plan paid by HIE (plans A-O, described on pp. 3-4). HIE-insured enrollees include members of HMO <i>experimental</i> group. Compare "HMO-insured."
HMO	Health maintenance organization. HMO that participated in experiment was Group Health Cooperative of Puget Sound.
HMO control group	Seattle enrollees drawn at random from existing HMO members who met HIE eligibility criteria. HIE <i>did not</i> pay insurance premiums for those enrollees.
HMO experimental group	Seattle enrollees experimentally transferred to HMO from FFS delivery system. HIE <i>did</i> pay insurance premiums for those enrollees.
HMO-insured	Member of HMO control group. Compare "HIE-insured."
Insured	Either HIE-insured or HMO-insured enrollee. Compare "uninsured."
Item nonresponse	Answer to individual question on any HIE questionnaire missing because participant skipped question accidentally. Distinguished from questions left unanswered because of skip pattern.
MDE	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.
Medical screening examination	Physical examination administered to randomly selected subsample of enrollees at enrollment and to all at exit. Produced data on general physiologic health.
MHQ	Medical history questionnaire. Elicited information on enrollee's health status, attitudes toward health care, health habits, and specific medical disorders. Completed

MHQ (cont.)	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 <i>both</i> enrollment and exit in all <i>other</i> 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."

