Postacute Care in Health Maintenance Organizations

Implications for Bundling

Peter D. Jacobson, James P. Kahan, Peter C. Noehrenberg
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PREFACE

This report was developed for the Health Care Financing Administration (HCFA) as part of the RAND/UCLA/Harvard Center for Health Care Financing Policy Studies activities. In this project, the authors were asked to assist HCFA in understanding whether current Health Maintenance Organization (HMO) postacute care practices provide insight into developing a bundled acute care system in the fee-for-service sector. An important policy consideration is whether and how HMO innovations can be replicated in the fee-for-service sector. The document should be of interest to researchers looking generally at the relationship between HMO and fee-for-service operations and to policymakers specifically interested in the applicability of HMO programs to fee-for-service facilities. This work was performed under a cooperative agreement with HCFA and was supported by the RAND/UCLA/Harvard Center for Health Care Financing Policy Research.
SUMMARY

PURPOSE OF THE STUDY

Medicare-covered postacute care (such as provided through skilled nursing facilities (SNFs), home health agencies, and rehabilitation facilities) is largely reimbursed on a cost basis. In view of the success of the prospective payment system (PPS) in restraining hospital costs with little attendant loss in quality of care, the Health Care Financing Administration (HCFA) is interested in the feasibility and desirability of an expanded PPS in the fee-for-service (FFS) sector to include postacute care. In an extended PPS, hospital and postacute care would be bundled under one prospective payment, essentially resulting in a managed care system for an entire acute care episode.

For Health Maintenance Organizations (HMOs), which bear both the financial risk and the medical responsibility of providing all acute care for its members, a postacute care system is integral to providing cost-effective care. Thus, it is not surprising that HMOs have taken the leading role in developing innovative postacute care programs, and provide a natural experiment for evaluating the feasibility of a fee-for-service bundled acute care payment system.

The purpose of this project is to assist HCFA in understanding whether the postacute care innovations now being implemented in HMOs can be successfully replicated in the fee-for-service sector. What are the salient HMO postacute care innovations that might be replicable, and what are the barriers to doing so? We also seek to identify the criteria by which HMO postacute care can be evaluated and potential postacute care approaches for future demonstration projects.

STUDY METHODOLOGY

We selected six HMOs for on-site visits: two plans are large multispecialty group-model HMOs; one plan is a medium-size multispecialty group HMO; one plan is a manager of health care rather than a provider; one plan is a small staff-model HMO; and one plan is a small group-model HMO. Two Social HMOs (SHMOs) were included in these plans. The sites selected vary along the following dimensions: market penetration, length of time in operation, geographic diversity, and postacute care programmatic approaches. The sites in-
clude at least one HMO in all geographic regions with a high percentage of HMO members.

Site visits lasted between one and two days. Interviews were conducted with a wide range of personnel involved in planning for and delivering postacute care, including physicians, care coordinators, quality assurance managers, plan administrators, and nurses.

LEARNING FROM THE HMO EXPERIENCES

For the most part, the structure of postacute care in HMOs is well-established. SNF and home health care dominate the postacute care process. Most of the innovations observed were incremental in nature, emerging from the existing HMO structure. None of these innovations required altering the managed care incentive system or the way in which health care was provided by HMOs. The harder question is how these innovations could be implemented in the FFS system under a single Medicare Part A bundled payment. Although there appears to be nothing inherently beyond the capacity of the FFS sector to incorporate, the different structural incentives between the two systems limits the direct replicability of the HMO postacute care innovations to the FFS system.

Common Issues in HMO Postacute Care Delivery

We found that the HMOs we surveyed were concerned with four common issues in attempting to deliver postacute care effectively and efficiently: (1) whether to buy or directly provide the services; (2) how to coordinate postacute care; (3) how to combine medical and nonmedical services; and (4) how to provide the appropriate services in a cost-effective way. Although proposed solutions differed widely across HMOs, the issues themselves were raised in a remarkably consistent way. Thus, we anticipate that the FFS system would face similar questions in responding to a bundled payment system.

From Managed Care to Fee-for-Service

Before generalizing from our examination of HMOs to a bundled FFS payment system, it is necessary to look at differences between the two systems that may affect the validity of the generalization. The basic problem is in adapting noninstitutional and nonmedical services to an institutional model where the locus of care is the hospital rather than a clinic.
Two primary differences affect replicability of managed care post-acute care practices to FFS facilities. First is the ability of managed care programs to avoid hospitalization through the clinic referral system for patients requiring more than outpatient care. Under the current FFS, the hospital has an incentive to admit the patient for treatment; by contrast, an HMO has an incentive to place the patient directly in a less-intensive care setting. The second difference is how well the postacute care is integrated into the overall scope of care provided. It is not an automatic result that bundled payments will provide the same incentives to coordinated care as capitated payments.

Identifying the Critical Attributes of an FFS Bundling Package

Our examination of HMOs highlights the considerations that would be needed to judge the critical attributes incorporated into a successful demonstration or implementation of a bundling package of hospital and postacute care. We discuss four attributes that should be included in a bundled system.

First, there must be a realistic incentive structure providing incentives or other mechanisms to avoid inpatient care. The incentive structures of the two systems are so different that without either changing the basic FFS incentives to use institutional care or adopting the systems integration of managed care plans, it is difficult to see how the replication could proceed.

Second, transitions between levels of care must be coordinated. The key to the success of any bundling system is coordinating care and continuous patient monitoring, not only during an acute care episode—something that hospitals are learning to do with the arrival of DRG payments—but for postacute care as well. Since the primary hospital client is the physician, not the patient, hospitals will need to be educated about mechanisms for coordinating postacute care.

Third, medical and nonmedical services must be considered when delivering postacute care. Many of the innovations we observed focus on the interaction between medical and nonmedical needs. Just as important, many of the interviewees stated that an increasingly frail elderly population requires a mix of medical and nonmedical services that the present institutional models are unprepared to provide. This is likely to present an even greater problem for the FFS sector, since it is based on a medical model. Thus, a critical component of a bundled system must be the flexibility to provide a range of medical and
nonmedical services as the facility deems appropriate in an individual case.

Fourth, patient freedom of choice and adequate grievance procedures need to be considered. Because a bundled Part A payment scheme includes care outside the hospital, it must include considerations of patient freedom of choice of care providers and grievance procedures in case people are dissatisfied with the care provided. Experience shows that patients in need of postacute care have at best restricted freedom of choice, and that both the present FFS and managed care systems offer only small choices, especially when access to postacute care is limited. But in the FFS system, the perception of freedom of choice exists; moreover, hospitals have not heretofore had the power to determine postacute care providers, so the issues of freedom of choice and grievance become relevant.

CONCLUSION

Bundling hospital and postacute care is a major step in the direction of managed care. To achieve it successfully calls for a set of financial incentives that makes bundling cost effective for both Medicare and FFS hospitals. Innovations in coordination of care must be developed, especially when patients transfer from one provider of care to another. Both medical and nonmedical care must be considered together. And patients' freedom of choice and grievances must be kept in mind. For managed care plans, all of these problems have been—more or less—worked out for the system as a whole, but for the proposed bundling package, they would have to be worked out for only one piece of the system, leaving the other pieces as untouched as possible. This presents a challenge of high magnitude and one that must be carefully examined before any bundling plan is implemented. Any proposed package should be tested in a demonstration plan before full implementation is attempted.
ACKNOWLEDGMENTS

We received valuable support throughout this project from Dennis Nugent of the Health Care Financing Administration (HCFA). We also appreciate the time spent by various HMO officials and employees in describing their postacute care programs to us and in providing additional materials. We appreciate the thoughtful reviews of an earlier draft by RAND colleagues Elizabeth McGlynn and Gerald Kominski. Their comments were invaluable. Our thanks also to Grace Carter, the Director of the RAND HCFA Center.
## CONTENTS

PREFACE ................................................................. iii

SUMMARY ............................................................... v

ACKNOWLEDGMENTS .................................................. ix

Section

1. POSTACUTE CARE IN HMOs: IMPLICATIONS
   FOR BUNDLING ....................................................... 1
   Introduction ....................................................... 1
   Study Purposes and Methodology ............................... 5
   Organization of the Report .................................. 8

2. LITERATURE REVIEW OF POSTACUTE CARE IN
   HMOs ................................................................. 9
   Introduction ....................................................... 9
   Demand Trends in Postacute Care ............................ 9
   Research into Postacute Care ................................. 12
   Linking Prospective Payment and Postacute Care .......... 14
   Swing-Beds ....................................................... 16
   Future Research .................................................. 17

3. A COMPARISON OF THE EXPERIENCE OF SIX
   HMOs ............................................................... 18
   Introduction ....................................................... 18
   The Structure of Postacute Care ............................. 19
   The Process of Providing Postacute Care ................. 26
   Program Challenges ............................................ 32

4. LEARNING FROM THE HMO EXPERIENCE .................. 35
   Common Issues in HMO Postacute Care Delivery .......... 35
   From Managed Care to Fee-for-Service ..................... 38
   Identifying the Critical Attributes of an FFS Bundling
     Package ....................................................... 43
   Conclusion ...................................................... 47

Appendix: POSTACUTE CARE PROGRAMS:
   INTERVIEW GUIDELINES ......................................... 49

BIBLIOGRAPHY .......................................................... 53
1. POSTACUTE CARE IN HMOs: IMPLICATIONS FOR BUNDLING

INTRODUCTION

Since 1984, most acute hospital care for Medicare beneficiaries has been reimbursed on the basis of the prospective payment system (PPS). For each patient, a hospital receives a predetermined payment based on the patient's diagnosis related group (DRG). The aim of PPS is to encourage cost-effective care. If the costs of care are lower than the predetermined amount, the hospital may keep the difference. If health care costs are higher, the hospital absorbs the loss.

For the most part, however, Medicare-covered postacute care (such as provided through skilled nursing facilities, home health agencies, and rehabilitation facilities) is still reimbursed on a cost basis, although there are some payment ceilings. In view of the success of PPS in restraining hospital costs with little attendant loss in quality of care (Kahn et al., 1990), the Health Care Financing Administration (HCFA) has funded research into the feasibility and desirability of an expanded PPS to include postacute care (Neu et al., 1986; Neu and Harrison, 1986).

Extending the concept of prospective payment to postacute care could encourage additional efficiencies through the integration of community-based and postacute services with acute care. In an extended PPS, hospital and postacute care would be bundled under one prospective payment, essentially resulting in a managed care system for an entire acute care episode. Under the bundled system, the hospital would be responsible for all treatment for a given acute care episode and would bear financial liability for the postacute care required by the patients they discharge. The hospitals would, therefore, have a financial interest in the choice of postacute providers and the extent and quality of postacute care (Burke, 1991). Given the potential number of providers involved, this would require sophisticated administrative processes to monitor closely the patient's quality and amount of care.

Bundling Pros and Cons

Although there are many potential benefits to a bundled payment system, including improved access for Medicare patients to postacute care, more efficient management of an entire episode of care, and re-
ducing incentives for premature hospital discharge, there are also some potential drawbacks to this approach. For example, hospitals may lack the knowledge to manage postacute care, hospitals could potentially dominate postacute care, and patients could lose freedom of choice.\footnote{Peter Jacobson and James Kahan, work in progress, available from the authors.} Most important, however, critics of the bundled approach express concern that such a system will provide incentives for the acute care manager to "skim" or "dump" patients—that is, to reduce patients' access to appropriate and necessary care. A bundled system must also deal with bypassing inpatient hospital care altogether through direct placement to postacute care, an issue we consider in Section 4.\footnote{In such an instance, the term "postacute care" loses some meaning, as patients receive such care without a preceding term of acute care. But because the varieties of such care often follow acute care and are known as postacute care, we use the same terminology.}

The advantages and disadvantages of a bundled acute care episode can be summarized as follows (Neu and Harrison, 1986; Dubay and Sulvetta, 1990):

**Advantages**

- Provides greater access to postacute care.
- Reduces incentives for premature hospital discharge.
- Helps control volume growth.
- Discourages the proliferation of providers.
- Encourages the continuity of care.
- Provides more efficient management of an acute care episode.

**Disadvantages**

- Hospitals may lack sufficient knowledge of postacute care to manage the entire episode.
- Hospitals may dominate the postacute care providers.
- Patients may lose freedom of choice.
- May include incentives for patient skimming.
- May include disincentives to providing needed care.
• Volume control might lead to increased postacute care visits if reimbursement is on a per diem basis rather than on a capitated basis.

• Bundled procedures must be uniform across payment groups, otherwise bundling becomes too cumbersome and difficult to administer.

• Shifting financial responsibility to the facility places it at risk for services ordered by outside providers, over whom it has limited control.

• “Gaming” and double-billing become more of a threat, so there is the added burden of maintaining highly accurate tracking of billing, including linking bills from various intermediaries.

Postacute Care and Medicare

Postacute care lies at the intersection between acute care, long-term care, and the need for nonmedical services. The decision to use postacute care occurs when a simple referral to outpatient care is not sufficient. Medicare provides postacute care coverage for skilled nursing facilities (SNFs), home health agencies (HHAs), acute rehabilitation services, and durable medical equipment (DME). In a review of postacute care provided to Medicare recipients, Gornick and Hall (1988) found this group to have a greater need than the general population for postacute care following hospitalization. As patients are increasingly discharged from the hospital with continuing acute care needs, postacute care will become that much more important in reducing readmission rates and overuse of the emergency room. Understanding the basic Medicare benefit package will provide a basis for comparing HMO postacute care innovations with postacute care available at non-HMO facilities.

Skilled Nursing Facilities. Skilled nursing facilities provide a number of highly technical nursing and rehabilitation services for patients following an acute illness, as well as those with long-term chronic conditions. Persons become eligible for Medicare SNF benefits after three days of hospitalization. SNF benefits are intended to provide for short-term subacute needs; in turn, coverage is denied if skilled services are needed less than three times a week or if these services can be provided outside of the SNF.

Home Health Agencies. Medicare provides for HHA services for those homebound beneficiaries requiring “intermittent skilled nursing care, or physical or speech therapy” but not for those expected to require skilled care for long or indefinite periods or on a daily basis.
No prior hospitalization is required, and there are no limits on the number of visits, nor any cost-sharing.

**Rehabilitation.** Rehabilitation usually targets patients' functional limitations for treatment and helps them deal with disabling conditions. A primary goal of providing rehabilitation services is to restore beneficiaries to "their highest level of functional ability." Coverage is provided if services are "reasonable and necessary" and if they can be provided only in an inpatient setting. Beds designated for rehabilitation cannot also be used for acute care. Rehabilitation facilities, along with other specialized providers, are excluded from Medicare's PPS program. Hospitals are not reimbursed on the basis of DRG but by a "cost-based system of limits" similar to the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), which places limits on operating costs per discharge.

**Durable Medical Equipment.** Many illnesses and conditions require patients to make use of devices or equipment for treatment, rehabilitation, or adaptive functioning. Medicare covers the purchase or rental of DME, such as chairs with seat lifts, respirators, or oxygen tanks. Reimbursement is limited to a fee schedule based on 90 percent of reasonable charges. HCFA requires a written order from a physician before delivering DME.

**Postacute Care and HMOs**

For HMOs, which as capitated, managed care institutions bear the financial risk and medical responsibility of providing all acute care for their members, a postacute care system is integral to providing cost-effective care. As a capitated program, HMOs are particularly at risk for readmissions or overuse of the emergency room because they receive no additional reimbursement for these services. Thus, it is not surprising that HMOs have taken the leading role in developing innovative postacute care programs. Indeed, postacute care in HMOs is an evolving process with considerable experimentation under way, encompassing both the content and process of providing postacute care.

Even though there is little empirical evidence to sort out the contrary bundling hypotheses noted above, HMOs provide a setting for a natural experiment to evaluate the feasibility of a fee-for-service bundled acute care payment system (Fox et al., 1991). By their structure and nature, HMOs must be sensitive to the process of patient management and discharge planning and to the content of the care being provided. It is therefore appropriate to identify and evaluate HMO
postacute care referral and placement approaches. These approaches may simulate the strategies necessary to introduce a bundled payment system into the FFS sector.

STUDY PURPOSES AND METHODOLOGY

The purpose of this project is to assist HCFA in understanding whether the postacute care methods now being implemented in HMOs can be successfully replicated in the FFS sector. What are the salient HMO postacute care features that might be replicable, and what are the barriers to doing so? We also seek to identify the criteria by which HMO postacute care can be evaluated and potential postacute care approaches for future demonstration projects.

Site Selection

At the outset of the study, we devised certain criteria to guide site selection among the various alternatives. The primary criterion for site selection was to identify HMOs that have been experimenting with innovative postacute care approaches. The following criteria were also considered:

• Market penetration—we wanted a mixture of high-volume programs but we also wanted at least one small, innovative HMO.
• Length of time in operation—we considered only HMOs that had been operating for at least three years.
• Geographic diversity—because of geographic variations in resource use, we wanted a geographically representative sample.
• Different programmatic approaches—we identified both staff-model and group-model plans.
• Cost-saving techniques—we wanted programs with documented cost-saving techniques.

To identify HMOs for on-site visits, we contacted researchers with experience in studying HMOs, knowledgeable representatives from the Group Health Association of America, and industry representatives. Although the number of HMOs recommended for selection was not large, there was considerable consistency in those HMOs identified as having innovative postacute care programs.
Actual site selection proved to be more purposive and less systematic than we had anticipated for a number of reasons. First, we were unable to identify a large number of HMOs with innovative postacute care programs. Second, some of those we did identify were unable or unwilling to meet with us. Some programs were willing to participate, but could not do so during the study's time frame; others appeared wary of divulging proprietary information to competitors, despite assurances of confidentiality.

After these discussions, we selected six HMOs for on-site visits: two plans are large multispecialty group-model HMOs; one plan is a medium-size multispecialty group HMO; one plan is a manager of health care rather than a provider; one plan is a small staff-model HMO; and one plan is a small group-model HMO. Two Social HMOs (SHMOs) are included in these plans. Certain HMOs agreed to participate in this project only if their programs were not specifically identified. Therefore, we will report our results in the aggregate.

The sites selected vary along the dimensions we identified: market penetration, length of time in operation, geographic diversity, and programmatic approaches. For example, even though our sample does not include an HMO in the Southeast, it includes at least one HMO in all regions with a high percentage of HMO members. Most of our plans are in highly competitive HMO markets, though one appears to dominate the HMO market in its area. The sample includes both staff and group models, as well as a mixed model operating as a manager of services, most of which serve elderly patients under Medicare risk-based contracts. Each plan has been in operation for over ten years, and there is a mix of large and small (high- and low-volume) programs. Plans range in size from 137,000 to nearly 2.5 million members. The number of physicians in each plan ranges from nearly 450 to nearly 7,000.

Site Visits

Each site visit lasted between one and two days. Target interviewees for the site visits included the top administrators of each HMO, supervisory medical personnel, discharge planners, case managers, the supervisory data management and systems personnel, program de-

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As our results indicate, the selected HMOs appear to have limited documented cost-saving techniques.

Some of the data are drawn from Porter et al. (1992), a compilation of information on managed care plans.
velopment personnel and researchers, and those responsible for interactions with governmental agencies and other postacute care providers. Although the actual personnel interviewed varied across the sites, we were able to interview similar representatives in all but one site. In that site, we interviewed only the person responsible for coordinating the HMO's postacute care activities. We also received and evaluated materials supplied by interviewees, although we did not collect original data.

Before the on-site visits, we developed a standard interview guide (see the appendix) which served to organize note-taking, ensure that all topics were covered, and provide consistency across interviews and sites. For conceptual convenience, we used the familiar structure, process, outcome paradigm to conduct the interviews (Donabedian, 1980). Because both the structure and process of HMO postacute care programs will be important in an FFS demonstration project or implementation, we wanted to understand both aspects in each HMO. Outcome measures, if available, could indicate the suitability of such programs to the FFS sector. Thus, the interviews focused on the following issues:

- The HMO's general characteristics and history.
- Postacute care program implementation and administration.
- Contracting versus ownership strategies (risk distribution).
- Maintaining quality and continuity of care.
- Problems and grievances.
- Future program development.

Study Limitations

This study has three primary limitations. First, resource constraints prevented us from interviewing FFS providers to obtain their perspective on how the HMO postacute care methods can be applied to FFS providers. Second, the HMO sample is purposive and may not be representative of all HMO postacute care program innovations. Third, we did not collect and analyze HMO program data. Because this project does not evaluate HMO postacute care programs, we are unable to verify program successes or deficiencies.

Despite these limitations, we believe we have identified a wide range of postacute care programs that in all likelihood accurately reflect the current state of the art. Additional site visits would have provided
richer detail, but we would not expect to identify major features of postacute care programs beyond those already captured in our results.

ORGANIZATION OF THE REPORT

The remainder of this report is organized as follows. Section 2 reviews available literature on postacute care programs. In Section 3, we report the results of our on-site interviews. In Section 4, we discuss the implications of our findings for a bundled postacute care program in the FFS sector. The appendix presents our interview protocol.
2. LITERATURE REVIEW OF POSTACUTE CARE IN HMOs

INTRODUCTION

To provide background information in preparation for our HMO site visits, we conducted an extensive literature review. We searched the medical and professional literature to determine recent trends in postacute care. This literature review covered the period 1985 to the present, following the full implementation of Medicare's PPS for inpatient acute care. Articles from all major medical and professional journals, including trade publications, were examined for relevance.

Little was found specifically addressing the "bundling" of postacute care with acute care in HMO settings, so our search expanded to more general issues related to bundling from an institutional perspective. The search uncovered references to the current debate on the desirability of moving to PPS for the outpatient setting, but this has centered on the implications for physician reimbursement, rather than on efficiency, cost-effectiveness, or quality of care, and so is not discussed here ("Let's Give RBRVs a Chance Before 'Bundling' Physician Services," 1991; Cotton, 1989; Frieden, 1991; Lion et al., 1990; Traska, 1986). We also excluded the literature on managed care (primarily case management) because we had recently covered it in a previous report for HCFA (Jacobson et al., 1989).

One possible explanation for the relative paucity of information on HMO postacute care practices is that HMOs may view this information as proprietary and may therefore be unwilling to divulge to competitors any management or organizational practices that increase efficiency or control costs. This view was expressed repeatedly in our site visits.

DEMAND TRENDS IN POSTACUTE CARE

An examination of trends in short-term hospital stays among Medicare enrollees (Gornick and Hall, 1988) reveals that the mean length of stay has declined steadily since 1967 and that starting in 1984 the hospital admission rate began declining. This decline has been attributed to the implementation of the DRG system for payment of in-hospital services. SNF utilization changed in this period, with the number of SNF users per 1,000 enrollees increasing from nine to ten between 1981 and 1985—an 11 percent increase.
Medicare patients using HHA services within 60 days of hospitalization increased "substantially" from 1981–1985, from 9.1 percent to 17.9 percent; however, since the greatest increase occurred in the period 1981–1983, this change cannot be attributed to implementation of DRGs. Data on increases in rehabilitation usage are somewhat inconclusive, as there were changes in 1985–1986 resulting from the inclusion of New York and Massachusetts in the PPS inpatient program. Judging by the percentage of patients receiving care among these three modalities, the diagnoses with the highest fraction of Medicare patients are: stroke, major joint/limb reattachment procedures, and hip/femur procedures. These are also the diagnoses with the sharpest drop in length of stay under PPS in 1985 and "are DRGs for which post-hospital subacute care is commonly needed" (Guterman et al., 1988, p. 70).

This growth in postacute care has occurred despite low reimbursement rates under Medicare, suggesting that factors other than financing may be driving the increases (Curtiss, 1988). For example, growth in demand for home health care has been spurred on by a movement to treat AIDS patients at home (Lindsey et al., 1990), the increasing use by insurers and employers of utilization review companies to divert patients from SNFs, the development of long-term policies by private insurers, and the "pre-funding" of employees' long-term care. The growth of managed care systems, such as HMOs, has led to increased use of bidding, prospective pricing, and bundling of services as they pursue price concessions. This is also causing some fallout in the industry, as "chain-based proprietary" HHAs are no longer participating in Medicare, and hospitals are now entering the market (Curtiss, 1988).

HCFA examined the period 1983–1985 and found that the data "do not suggest widespread problems with access to post-hospital care under PPS" (Guterman et al., 1988, p. 71). It was noted that ambulatory care was the fastest growing portion of the health care industry and that medical and surgical services covered under Medicare "appear to be shifting away from the inpatient setting toward office and outpatient settings" (Guterman et al., 1988, p. 73). Total payments for outpatient hospital services increased faster than during the period immediately before implementation of TEFRA, growing from 8.8 percent to 15.7 percent, suggesting "that some of the savings on inpatient services under PPS are being spent on outpatient services" (Guterman et al., 1988, p. 75). The supply of postacute care providers had grown since the advent of PPS, partially in response to
the increased demand for services brought about by the shorter inpatient stays under Medicare. The number of Medicare-certified SNFs had increased after PPS, and the number of swing bed and hospice programs exploded—542 percent and 367 percent, respectively, for the period 1983–1986 (Guterman et al., 1988).

As part of a larger study being conducted jointly with the University of Minnesota, RAND investigated how postacute care utilization is affected by the characteristics of the health care market, as well as that of the eligible patients within each market (Harrison, 1989; Neu et al., 1989). RAND found several patient-specific factors that influenced the provision of postacute care: the presence of a secondary diagnosis, gender (females had higher utilization), and race (whites are more likely to receive SNF care and non-whites are more likely to be served by HHA). Comparisons made across different cities indicated that SNF and HHA are substitutes for each other, and that SNF is often substituted for inpatient hospital care; however, the authors caution that they did not assess the medical appropriateness of these decisions or the relative quality of care provided in each setting. The RAND researchers also concluded that there was not a significant shortage of SNF beds for Medicare patients during 1984–1985, which is consistent with the HCFA findings discussed above.

In addition to the more traditional postacute providers, such as SNFs and HHAs, there is a burgeoning industry of highly specialized, or "niche," providers. A recent overview of the field by Pallarito (1992) found that the profitability of such ventures is evident in the rapid growth in for-profit chains providing postacute care. In the wake of PPS, hospitals are motivated to have patients recuperate in less-expensive settings. "Transitional hospitals" and "super SNFs" have much lower overhead yet can still provide complex services at a much lower rate. The motivation to provide care may be in large part due to the reimbursement for long-term care hospitals: A hospital that averages more than 25 days per patient qualifies for an exemption from PPS and is paid on a "reasonable cost basis." Despite this advantage, many postacute providers say that Medicare does not pay well enough, so they target commercially insured patients. In any case, HCFA is planning to look at applying PPS to previously exempted hospitals and units and will have a demonstration in five states of a PPS system for nursing facilities.

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1See also a discussion of the emergence of adult day care centers in Wood (1989).
RESEARCH INTO POSTACUTE CARE

As mentioned above, little research has been published on the role of postacute care in HMOs. One study that was reported was on home hospice care. Since 1982 and the passage of TEFRA, Medicare has covered hospice care and encouraged its development. The National Hospice Study found that home hospice care was less costly than acute inpatient care, primarily because of lower ancillary costs (Mor and Kidder, 1985). However, there was some concern that the costs in this, and other studies, underestimated the "true" costs of hospice care.

Kaiser Permanente of Oakland, California, embarked on a study to more accurately estimate the cost effectiveness of home hospice services in the HMO setting and to calculate the costs to the HMO and the patient (Abou-Saye et al., 1991). The study followed 72 non-Medicare, non-Medicaid terminally ill patients in home hospice care. Extensive chart reviews found that, contrary to commonly held assumptions, home hospice care was much more likely to be a substitute for "extended care" in an intermediate care facility (ICF) or SNF rather than acute inpatient placements. This suggests that earlier cost projections calculated against acute inpatient care may inflate the estimated savings. The study did find that hospice care yielded significant savings when compared with the most appropriate alternative treatment setting; on average, the savings were approximately $5,800 per patient.

A recent study examined the types of services offered to seniors at several HMOs around the United States, to see if special provisions were being made for the elderly within the organization and whether new approaches to care-giving were being explored (Fox et al., 1991). The information was gathered from site visits to eight HMOs. The HMOs made a number of modifications compared to FFS providers: direct admission to SNFs without prior hospitalization, nurse practitioners providing follow-up care, and home health care for assessment and patient education. The authors limited themselves to describing some of the more attractive features in each setting, without providing the rationale for their implementation or some evaluation as to their effectiveness in providing enhanced quality of care or increased efficiency. It is difficult to judge the worth of these interventions from the information as presented.

There have been very few published studies examining the organizational structure and goals of health care providers with respect to postacute care. In 1986, the Robert Wood Johnson Foundation awarded a grant to the Bigel Institute for Health Policy at Brandeis
University to examine the programs under their Hospital Initiatives in Long-Term Care (HILTC) project (Capitman et al., 1988). The foundation had awarded four-year grants to 24 general acute care hospitals to develop innovative acute care programs for long-term care patients. The authors developed a three-dimensional characterization of geriatric services, which evaluated programs based on their perceived goals, type of service, and organizational strategy. Three goals were defined as market share, efficient resource use, and new product lines. The hospitals surveyed usually identified one of the three major goals for new geriatric services as primary. Five service approaches were labeled: geriatric medicine, postacute care, transition management, chronic care, and geriatric information. Two organizational strategies were named: vertical integration and diversification.

Among the five types of services, two are of particular interest: postacute medical services and transition management. Postacute medical services was the most popular strategy, as it was adopted by 20 of the 24 participating hospitals. These programs generally offered “extended medical, nursing, or rehabilitative services” to patients no longer requiring intense acute care. To this end, many hospitals have developed, purchased, or managed free-standing SNFs, or hospital-based swing-bed facilities. A variant on this approach is the transitional care unit, otherwise known as a “steppdown” or “super-SNF” unit, geared toward patients whose needs are greater than a traditional SNF can provide for, but who are sufficiently medically stable to leave acute care. Transition management involves programs that “increase the efficiency and responsiveness of hospital services that assist patients in managing the transition from acute to post acute or long-term care” (Capitman et al., 1988, p. 20). This entails changing inpatient practices beyond just planning for discharge, and resistance to implementation may result.

Of the two broad organizational strategies identified, vertical integration attempts “to control, through ownership or management, all production and distribution processes directly related to their core activities” (Capitman et al., 1988, p. 21). This can include ancillary services, supplies, education, or insurance plans—any activity that has similar staffing or management requirements can be viewed as the result of vertical integration. This contrasts with strategies emphasizing diversity in services, which involve new types of management, resources, consumers, or payment sources. If the hospitals surveyed noted changes in the components of production when developing a service type, it was considered diversification; otherwise it was classified as vertical integration.
For the most part, postacute care and transitional management programs provided continuity of care for current patients and did not primarily involve new payment or referral sources; therefore, they were considered part of vertical integration strategy. Consistent with this is the apparent goal of increasing resource efficiency. Despite the fact that many of these services are not financially self-supporting, they were viewed as beneficial by allowing some patients who would otherwise be in acute care to move to a less-intense level of care, or by allowing the hospital to receive some reimbursement for underused capacity (i.e., swing-beds).

The authors conclude that the approaches involving vertical integration “hold the greatest promise for positive impacts on quality of care and accessibility” (Capitman et al., 1988). They feel that one of the main benefits is in assuring “patients are not lost to the care-giving system during such critical times,” as when patients make the transition from hospital to postacute care. They also claim that it is easier for hospitals to integrate vertically than to diversify, and that proposals that hospitals be responsible for postacute care “create strong incentives for integrative approaches.”

**LINKING PROSPECTIVE PAYMENT AND POSTACUTE CARE**

During the past several years, RAND has conducted research for HCFA to develop a planned demonstration for “extending” PPS to include postacute care provided to Medicare beneficiaries. By changing the reimbursement structure for an episode of illness, HCFA hoped to slow the rate of growth in Medicare costs and to increase access to postacute care for beneficiaries. Neu et al. (1986) helped delineate some of the pros and cons of such a system and described how best to pursue a demonstration project. The overall goal of an extended PPS program is to find the most efficient mix of care and services by a variety of providers in a given episode of illness.

RAND conducted some preliminary analyses on episodes of care for Medicare beneficiaries (Neu and Harrison, 1986). The database was assembled from HCFA payment records and yielded some interesting results. One finding was that postacute care utilization is concentrated in only about 27 DRGs. Another observation was that there is wide variation in postacute care utilization between states, which in

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3Although Capitman et al. provide a useful paradigm for understanding various approaches by hospitals for postacute care, they ignore an initial decision each hospital faces—whether to purchase or provide the services. As discussed in Section 3, HMOs contract out certain services through risk-based contracts.
turn suggests strongly there are differences in access among states. Neu and Harrison also looked at the type of "risk" hospitals may face with the advent of extended PPS—systematic or nonsystematic. Systematic risk is a bias in the type of patient the hospital attracts (more or less expensive to treat on average); nonsystematic risk is the "luck of the draw" in having a patient population that is decidedly different from average, again increasing costs. They were limited in their ability to pursue systematic biases in their dataset, but they did test whether particular classes of hospitals faced higher costs of care. The two dimensions examined were teaching versus nonteaching and urban versus rural. In neither case would extending PPS to cover postacute care appear to increase costs significantly as a result of systematic risk. Regarding nonsystematic risk, the authors found the variability of charges within a DRG for an entire episode of care is not significantly different from the variability of hospital charges alone. This suggests that extending PPS would not place hospitals at undue financial risk for nonsystematic biases.

Neu and Harrison concluded that there are no obvious obstacles to conducting a demonstration into extending PPS to postacute care. Their analysis offers some ideas regarding sample sizes and identifying candidate sites for the demonstration as well as a method for calculating the payment weights in an extended PPS fee schedule.

In a later report, Neu and Harrison (1988) evaluated the changes in postacute care (SNF and HHA) utilization following the implementation of PPS for inpatient care to Medicare beneficiaries. They used hospital billing and related records to compare two twelve-month periods, one pre-PPS (January to December 1981), and one post-PPS (July 1984 to June 1985). One observed trend in the analysis was that postacute care is becoming less focused on long-term care, as the increase in the number of users in the post-PPS period can be attributed to a higher number of patients needing only a few days of SNF care. These may be patients who previously would have stayed in the hospital for a few days longer, as evidenced by the decline in average length of stay for those patients using SNF or HHA as compared to the general Medicare population. One concern regarding PPS was that it would motivate hospitals to discharge patients "quicker and sicker," and so readmissions were examined for evidence of this. It was found that readmission rates actually declined in the post-PPS period compared to the pre-PPS period; the anticipated problems with premature discharges were not realized.

The authors then examined postacute care by DRG. As noted above, the majority of Medicare expenditures for postacute care can be at-
tributed to relatively few DRGs. Among those DRGs, utilization of both SNFs and HHA increased in the post-PPS period; however, the average number of covered SNF days declined, whereas the average number of HHA visits increased. They feel that the changes they observed were due to differences in the treatment and planning of care for Medicare beneficiaries and not just due to changes in the underlying case mix.

As discussed above, Neu et al. (1989) examined the relationship between hospital and postacute care and different types of postacute care. They found some substitution between SNF and home health care, substitution between SNF and inpatient care, and complementarity between home health care and length of stay. Recent analysis of later data by Steiner indicates that the substitution between SNF and inpatient care continues, that SNF and rehabilitation care have become substitutes, and that home health appears to be independent of other postacute care services.

SWING-BEDS

One area of postacute care that has received attention in recent years is the so-called “swing-beds,” hospital beds that can be used for both acute and long-term care (Shaughnessy and Schlenker, 1986). Swing-beds fill a need for continuing care at a less-intense level. Given the reimbursement structure under PPS, there is some question whether hospitals are maximizing revenues by overproviding ancillary services to patients in swing-beds; these are not included under PPS but are reimbursed on a cost basis.

This greater utilization of ancillary services has manifested itself by patients in swing-bed hospitals having higher total charges per day than those in SNFs; however, per diem reimbursements for swing-beds have been growing at one-third the rate of SNFs on average (Silverman, 1990). This higher rate of ancillary services may be due to differences in case mix between swing-bed facilities and SNFs, as swing-bed hospitals have a population that is in need of more short-term intense care than SNFs, which care for “traditional long-term care nursing home patients.” Controlling swing-bed costs rests on removing incentives for hospitals to push patients from acute care to swing-beds so as to maximize the return in providing for ancillary services (termed “postacute loading”) (Schlenker and Shaughnessy, 1986).

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3 Andrea Steiner, "Hospital and Postacute Care: Use and Substitution of Medicare Services," unpublished manuscript available from the author.
1989). This can be accomplished by basing case-mix reimbursement upon a per stay rather than a per day basis; this reportedly would capture ancillary and capital costs with routine costs and would provide an effective link between acute care reimbursements under DRGs and long-term subacute care costs.

FUTURE RESEARCH

Most research on postacute care has focused on utilization and costs of certain types of care; however, the availability and adequacy of care after discharge, and the effectiveness of its delivery, have not been examined. HCFA and HHS have funded two studies to look at these issues. System Sciences, Inc., with Mathematica Policy Research as a subcontractor, has conducted a national study “on the availability and adequacy of post-hospital care” to patients discharged to care in the community; the study will also identify patients who are at risk of experiencing difficulties in either obtaining care or of experiencing adverse outcomes. The University of Minnesota, with RAND as a subcontractor, has studied “the course and outcomes of Medicare- and non-Medicare-covered postacute care” in homes, SNFs and IHRs (Gornick and Hall, 1988).
3. A COMPARISON OF THE EXPERIENCE OF SIX HMOs

INTRODUCTION
As noted above, we will report the results of our site visits in the aggregate. Because some persons agreed to speak to us only under the condition that their programs not be specifically identified, we sacrifice clarity of results for understanding postacute care generally across a range of programs. For context, we provide specific examples from our interviews based on the following key: plans A, B, and C are large multispecialty group model HMOs; plan D is a small group-model HMO; plan E is a small staff-model HMO; and plan F is a mixed-model manager of care.

Our interviews suggest that postacute care in HMOs needs to be understood as both content and process. By content, we mean the specific postacute care programs available to HMO members. That is, what is the range of possible postacute care services? By process, we focus on how those services are arranged and provided. What, for instance, determines the patient’s health care path and choices among available services? The two concepts are very much interrelated and cannot always be separated. For example, case management is both content, in providing a service, and procedure, in arranging patient flow.

When considering the applicability of the HMO postacute care concept to the FFS sector, it is important to keep both concepts in mind. Indeed, it is likely that the processes used to manage patient care in HMOs will be the most difficult to replicate in the FFS sector, given the fragmentation of health care delivery.

As one might expect, the postacute care program goals were consistent across HMOs: provide appropriate care at the lowest possible level of resource use consistent with maintaining quality of care; minimize inpatient days; prevent readmissions and emergency room use; and maintain patient independence in the home or community. In particular, each program emphasized members’ responsibility for their own care and the importance of educating members and their caregivers about maintaining proper health care. As one interviewee graphically put it: “(This HMO) is not your mother.”

Consistent with the goal of providing appropriate care at the lowest level of acuity, each program uses some form of care coordination to
assist the member’s transfer to the next stage and to monitor medical progress at each stage. In most programs, a shift “downward and outward” in acuity level is encouraged.\textsuperscript{1} Although programs varied considerably in how the coordination mechanism operated, the goal of a seamless patient flow was constant across our six programs.

**THE STRUCTURE OF POSTACUTE CARE**

For conceptual convenience, we can divide the general postacute care structure into established and new programs. Established programs are those services, such as home health, that are structurally consistent across HMOs and that form the basis of postacute care delivery for each HMO visited. Though the program benefits vary across HMOs, these programs have operated for years, and there is generally only incremental change in how care is provided. It is in newly emerging programs, many of which are now being tested, that we find the most innovation and variation across HMOs.

**Established Programs**

Most of the HMOs we visited provide the standard Medicare TEFRA benefits, including 100 SNF days, unlimited HHA visits, and appropriate rehabilitation. Some go beyond TEFRA to provide nonmedical services, especially when doing so might avert an inpatient readmission or emergency room visit. For example, plan A allows considerable leeway in providing services (such as noncovered community services) if money will be saved. Only one HMO (B) mandates the TEFRA three-day inpatient requirement before admission to a SNF.\textsuperscript{2} All plans waive the three-day requirement for HHA or rehabilitation services, but because we are more interested in broad program development, we do not present a systematic analysis of HMO postacute care benefits or variations in benefits across HMOs.

**SNFs.** Two issues regarding SNF care stand out across our study sites. First, most SNF care is contracted with free-standing SNFs. Even HMOs that at one time owned and operated a SNF are now obtaining these services through contractual arrangements. One HMO

\textsuperscript{1}One interviewee described the shift this way: What was formerly postoperative inpatient care is now SNF care, what was formerly SNF is now an ICF, and what was formerly ICF is now group-assisted living.

\textsuperscript{2}One person in this HMO argued that the three-day requirement prevented unnecessary SNF utilization, even at the expense of some unnecessary inpatient admissions.
(plan A), for example, owned three SNFs but has sold two and expects to sell the remaining one. Another (plan E) once owned a SNF specializing in orthopedics. Each plan suggested that it is more cost-effective to contract these services, usually on a per diem basis, than for the HMO to provide them. Plan C noted that its own workforce is union, but it can contract to nonunion SNFs, thereby saving labor costs.

Per diem contracting usually places the risk on the HMO. Thus, plan F requires prior approval for all contracted services. For its large multispecialty group contracts, plan F provides a capitated arrangement for which the multispecialty group is at risk. Two plans, B and D, use three levels of reimbursement—an empty bed rate and two rates depending on patient acuity. Both plans suggest that this balances the risk between the HMO and the SNF.

Several interviewees suggested that contracting was more flexible and more responsive to plan needs—if needs are not met, the plan can simply contract with another agency. Plan E also suggested that this provides members with greater choice. Although only plans C and E reported ever cancelling a SNF contract, several mentioned that particular SNF services had been curtailed. At least two HMOs (D and E) noted improved quality after negotiating deals with primary SNFs. As a result of a merger with a local hospital, plan D acquired access to an adjoining SNF (access through a connecting tunnel), allowing the SNF to be used for pre- and postoperative procedures. This proximity facilitates continuity and quality of care.

In most of the contracts, the HMO assesses and monitors the care to be provided. In plan C, physicians and nurses (RNs) visit the SNFs to advise and train house staff, but the SNF is responsible for the actual medical care. Thus, absent capitated payment, the SNF has an incentive for overutilization. One person even argued that SNFs foster dependence because the incentives are for longer stays.

Second, the HMOs we studied have attempted to limit the number of SNFs used by members. Interviewees told us that negotiating deals with one or two primary SNFs assures bed access and quality and is generally more cost-effective than having members at a large number of SNFs. Geographical exigencies require that large, multijurisdictional HMOs maintain arrangements with a larger number of SNFs, but the intention is to channel as many members as possible into the fewest number of SNFs. That way, quality and utilization can be monitored more effectively through physician or geriatric nurse practitioner (GNP) or RN rounds. Many HMOs also use contracted SNFs
for special medical problems, such as referring total hip or knee replacements to an orthopedic SNF.

**HHA.** In general, we found the HHA benefit and concept to be structurally well-defined and stable across the HMOs studied. This suggests that HHA care is a set postacute care benefit and that changes are likely to be incremental.

Nonetheless, three facts stand out about HMO home health programs. First, HHA services are expanding, as most plans report substantial increases in demand for HHA care.\(^3\) One reason for the greater demand is that plans may be using HHA care as a substitute for inpatient (length of stay) and outpatient services. Part of the downward and outward shift mentioned above means that HHAs are seeing sicker patients who require more extensive health care services. As more acutely ill persons are sent home, the demand for both medical and nonmedical services increases.

Second, providing HHA care is expensive. Even though HHAs are essentially run by nonphysicians, medically necessary visits are expensive. Thus, many plans are considering ways of containing HHA care costs.

Third, unlike the contracting arrangements for SNF care, most of our study HMOs own and operate their HHAs. These plans maintain that owning HHAs, rather than contracting, provides better continuity, quality, and control of care at a similar cost. The exceptions to this are plan F, which, as a care manager, contracts out all of its health care services, and plan D, which contracts most of its HHA care on a capitated basis from one Visiting Nurse Association (VNA).\(^4\) In plan F, physicians must authorize referral to an HHA.

Much of the debate over HHA involves the level of services to be provided. At the present time, the range of services that can be provided in the home is expanding, particularly in the confluence of medical and nonmedical needs. Many HMOs are seeking to expand the diagnoses suitable for HHA care. The goal is to keep people out of the hospital, so unskilled noncustodial care can make a big difference. As one interviewee put it, they are expanding the boundaries of HHA care by shifting as much care as possible into the home. In many cases, for example, plans are experimenting with additional home

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\(^3\)Demand for HHA care fluctuated across HMOs visited. Most reported consistent increases during the past five years, but one (plan B) reported flat growth until 1991.

\(^4\)Plan D recently merged with a hospital that owns a VNA, so it, too, may become a provider of home health.
care, such as infusion therapy and ventilator services. But in other cases, plans are deciding that certain services are actually more expensive to provide at home and are thus moved to a more intensive, though less-expensive, level. In this sense, according to one interviewee, the need is to focus on systemwide costs, not just the costs of a particular service. It seems fair to say that most plans review diagnoses to determine where HHA can substitute for institutional care, but many are also looking for ways to reduce the number of HHA visits.

Rehabilitation. Most postacute rehabilitation appears to be quite routine. In fact, none of our interviewees suggested that they were doing anything out of the ordinary regarding rehabilitation. In each program, most rehabilitation services are contracted, usually from a SNF specializing in a particular disease condition. The primary issue identified by plan A is the difficulty of distinguishing between more costly acute rehabilitation and SNF rehabilitation.

Pharmaceutical Benefits. Pharmaceutical benefits emerged in our interviews as a major issue. Who pays and who monitors the administration of pharmaceuticals is an important issue for HCFA to consider in developing an FFS bundled system. Both SHMO demonstrations include a pharmaceutical benefit (unlike the comparable TEFRA plan), and both demonstrations reported adverse selection resulting from higher pharmaceutical benefits. But plan A, which provides full plan pharmaceutical benefits at a SNF, argues that this benefit actually lowers the cost of a SNF stay to the plan. According to one interviewee, the pharmaceutical benefit also enhances quality because a plan pharmacist monitors compliance in the SNF, resulting in a lower medication error rate. In plan C, pharmacists are actively involved in pharmaceutical planning, recommending cheaper drug substitutes when available.

Hospice. Hospice coverage did not emerge as a major issue during our interviews. At least four plans, A, B, C, and E, own and operate a hospice. So far, there does not appear to have been excessive demand for hospice beds.

New Programs

Much of the programmatic innovation in HMO postacute care is in new demonstration programs or in those that are under consideration. Although we are impressed by the number and range of pro-

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5Plan C owns and operates some rehabilitation facilities.
gram experiments now under way, we will not report all of them in detail. Instead, we focus on those being developed by more than one HMO or that appear to be particularly applicable to and replicable in the FFS sector. One aspect common to most of these innovations is a focus on functional as well as diagnostic needs.

**SHMO Demonstrations.** Two of our selected HMOs (plans B and E) are participants in the national Social HMO (SHMO) demonstration, an attempt to integrate case management with medical management and an array of nonmedical services. The primary advantage of a SHMO relative to Medicare's TEFRA benefits is flexibility in providing additional benefits (primarily nonmedical—such as day care and homemaker services) beyond TEFRA limits, at an added cost to members. Although the two demonstrations are quite different, they share certain characteristics applicable to the potential FFS bundling arrangement.\(^6\) Both rely on extensive case management to coordinate postacute care services, and both attempt to combine medical and nonmedical services, focusing as much on function as on diagnosis. This provides greater flexibility in arranging for the most appropriate mix of medical and community services. It should be noted, however, that both demonstrations raised concerns that the SHMO attracted too many high-risk patients as a result of generous pharmaceutical benefits. Also, even though the SHMO may pay for some noncovered services, it does not generally pay for the community services it helps to arrange.

Plans B and E are considering offering variants of the SHMO option to plan members. For instance, plan E is considering offering the SHMO as a high option plan and its current TEFRA as a low option. Plan B is considering a high/low option within the SHMO benefit.

**Benefit Substitution Programs.** Two HMOs are experimenting with benefit substitution programs to pool available resources. Plan A is experimenting with a benefit substitution pilot program where the costs of current program benefits will be estimated and used to purchase more appropriate services that may not be covered by the current benefit package. This would permit the plan to purchase transitional living arrangements for acute rehabilitation, even though that is not a covered benefit. As long as the services purchased are

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\(^6\)Our interviews showed that the two SHMO demonstrations are sufficiently different that we do not feel comfortable discussing whether and how the SHMO concept might be applied in the FFS sector. According to one physician, however, SHMO benefits include financial flexibility, more comprehensive in-home assessment, and consistent decisionmaking based on medical diagnosis and functional needs.
cost-neutral relative to the cost of available benefits, more treatment options can be arranged.

In a similar experiment, plan D is seeking to pool all available resources and buy what the patient needs. The plan hopes to save both acute and SNF care costs by combining Medicare benefits with available community resources to purchase services that were previously unavailable, such as long-term acute ambulatory care.

**Transitional Living Centers.** One HMO (plan D) is considering a hybrid of the On-Lok model, which focuses on extended day care services, and the SHMO as the financial model. The patient population for this plan is largely the frail elderly with extensive nonmedical needs, particularly for nonhome day care. Thus, the experiment's specific intent is to combine medical and nonmedical services in a custodial setting. Many of the patients are too sick to go home but are not sick enough to qualify for rehabilitation or SNF care.\(^7\) The experiment cannot go forward, however, because the HMO lacks the housing to provide the assisted alternative living arrangements contemplated by the experiment. Until housing is available, the experiment is likely to begin with extended day care services.

Plans A, B, and E considered developing transitional living centers but decided against it either because of the cost (overhead and labor) or because of insufficient volume.\(^8\) Instead, they have decided to contract for the necessary subacute care. As noted in the literature review, a number of non-HMO hospitals have begun to acquire such transitional facilities.

**Geriatric Programs.** Several plans, including A, B, C, and D, are developing or expanding existing geriatric specialty clinics. In plan A, for example, a geriatric continuity clinic provides outpatient consultation and geriatric assessments, especially for frail elderly patients. A goal of this program is to provide geriatricians at all levels of care and to have each patient followed by a trained geriatric nurse practitioner. Likewise, plan B is currently testing the feasibility and

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\(^7\)Plan B is located in a state with extensive alternative living arrangements through ICFs and foster care residences. Although the patients are responsible for their room and board charges, the housing availability allows the program to provide expanded day care services. Plan B provides the medical care, and the patient selects the location.

\(^8\)We are aware of at least one HMO that has built its own transitional living facility. Unfortunately, we were not able to arrange a visit to discuss its reasoning.
cost-effectiveness of a geriatric screening and assessment program designed to integrate geriatric skills in primary care. 9

In another pilot program at plan A, a GNP has been added to the frail elderly assessment team at a plan primary care clinic. Once again, the aim is to provide the appropriate mix of medical and nonmedical services based on the assessment and case monitoring by the GNP. As a link between the primary care physician and postacute care services, the nurse can provide necessary services at home, regardless of skilled need, beyond the Medicare risk contract. The services must be cost-neutral or save money.

A related pilot program in plan A is a randomized controlled trial for inpatient geriatric assessment. One group of patients will be assessed and provided with a medical, physical, and psychological plan for subsequent placement. The assessment will focus on functional level, mental status, proper placement, patient satisfaction, and utilization patterns. A control group will be handled in the usual plan fashion. After proper evaluation, the goal is to develop criteria for case screening.

Plan C is developing and assessing a model for the frail elderly facing care transitions. The model is an attempt to provide continuity of care through geriatric assessment, case management, and appropriate linkage with community services. Patient satisfaction will be an important outcome measure.

**Diagnosis-Specific Protocols.** Plans A and B are implementing protocols directing the treatment of certain conditions, particularly joint replacements. Both HMOs use the critical pathway concept, setting forth targets for when the patient should be discharged from the hospital and for the subsequent transitions through the postacute care system.

Plan B has gone even farther to identify core diseases that will be managed on a regionwide basis, such as diabetes and breast cancer. This is tantamount to disease-specific managed care. Patients with these conditions will be monitored, helping to create databases for future disease management. A regional services manager will oversee all aspects of the patient’s care.

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9Plan E has also discussed the need for centralized geriatricians along with an outpatient geriatric assessment clinic. Plan F provides special training in geriatrics to contract providers and sells geriatric care management to hospitals.
A potentially controversial program initiated by plan C is to supply services to AIDS patients over and above the Medicare benefit. The purpose is to determine if total costs are thereby minimized.

THE PROCESS OF PROVIDING POSTACUTE CARE

Care Coordination in General

Much of what makes a capitated managed care system more efficient than the fragmented FFS system is in managing the postacute care episode. Assuring smooth transitions between levels of care is crucial if HMOs are to provide quality care at the least possible cost. Coordination between the acute inpatient admission and the subsequent postacute care is difficult even in systems structured (both financially through capitation and institutionally) to enhance coordination across levels of care. What separates the competing concepts are the processes by which HMOs coordinate acute care episodes. Innovations in HMO case processing, therefore, need to be understood before replication by FFS providers.

The HMOs we visited varied considerably in their approach to coordinating postacute care. Variations include the person responsible for discharge planning and for the patient's transition from one level to another and the primacy of the physician's role in postacute care. Most plans provide coordination from a central headquarters rather than at a clinic or hospital. In plan D, for instance, 14 nurses located at headquarters arrange for and coordinate postacute care. The care plan is determined by the physician and coordinator and managed by the coordinator. In plan E, 11 care coordinators located at headquarters are responsible for 20 clinics, though the plan is exploring locating the coordinators at the clinics. Within this system, the care coordinators are responsible for providing access and referrals to plan and community benefits and preventing readmissions, and the physician acts as a medical consultant or gatekeeper.

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10The controversy arises because of the potential that it will be mandated as a benefit for the federal employee program at no additional cost to subscribers.

11Plan F focuses on avoiding hospitalization through precertification or screening rather than on providing postacute care.

12That the plan experiences a 40 percent readmission rate for CHF patients suggests that the coordination and follow-up responsibilities may not be working as expected.
Case Management

The case management function, where one person or small group manages and provides continuity throughout an entire acute care episode, is perhaps the most attractive aspect of a bundled or capitated system. Benefits include better resource management and getting people into proper levels of care. Yet only the SHMO in plan E of the HMOs we visited actually assigns a case manager who coordinates patient care for the entire episode.\textsuperscript{13} For example, plans A and B rely on a relay system to assist patient transitions, which results in some fragmentation of care. At each care level, the patient is assisted by a plan coordinator, but no one coordinator follows the patient’s entire acute care episode. The TEFRA benefit of plan E uses limited case management, mainly focused on hospital discharge planning. Plan F has no outpatient case management system and relies on the physician to determine the appropriate care level. Similarly, plan C relies on coordinators at each level (such as home health nurses) to “kick back” patients inappropriately sent there.

Despite the attention given to case management as a concept, there appears to be little consensus across HMOs as to what constitutes case management.\textsuperscript{14} Even within HMOs, there is little consensus on what case management should be (a care coordinator, a cost-containment mechanism, or a patient advocate), how it should be delivered (one coordinator for an entire episode or a series of handoffs among coordinators), or on who should receive it (the frail elderly, people with certain diagnoses, or all patients).

Although the large HMOs we visited suggested that case management was difficult and inefficient in a large, geographically dispersed plan, even the smallest plan we visited lacked a current case management program. That plan, however, began gradually phasing in a case management program as of April 1992. Aside from the traditionally expected efficiency benefits, an important reason given for the change was to improve patient relations. The case manager is expected to do a better job explaining the course of medical treatment to patients and involving the patient and the family in the care.

\textsuperscript{13}One interviewee from plan E stated that case management is important for continuity of care but that cost savings, such as avoiding readmissions, have yet to be documented. The interviewee added that the case manager is also seen as a patient advocate.

\textsuperscript{14}As RAND colleague Elizabeth McGlynn points out, case management is a widely used term in mental health care and social services. Yet no one seems to agree on what it means.
Other HMOs are also experimenting with case management approaches. Plan A is piloting a modified case management approach for a small number of cases (catastrophic care and acute degenerative diseases) to identify diagnoses that would benefit from case management. For the pilot project, case management refers to one coordinator assisting the transition from acute to postacute care for the entire acute care episode. The purposes are to merge current medical benefits with nonmedical needs not currently being met and to identify categories of cases (such as the frail elderly with specific diagnoses) suitable for case management.

Plan B has discussed implementing a more extensive case management system to deal with fragmentation in transitions between postacute care levels but is pursuing a more limited approach. Focusing on disease management, care will be organized around specific diagnoses (such as diabetes). Thus, the expected range and level of care will be determined and delivered by protocol. Formal case management will be at each level, yet there will apparently be no overall case management to ensure continuity of care.

**Quality Assurance**

A successful quality assurance (QA) program is integral to a successful postacute care system. Each HMO we visited maintains a comparable QA program for both its internal and contracted services. For purposes of this project, we were most interested in how quality is monitored at contract facilities.

**Internal.** Internally, accountability usually rests with the primary care physician in each clinic. Each plan uses case conferences to review the level and quality of care provided. In particular, home health is reviewed through conferences between staff and supervisors, rather than through site visits by nurses or physicians. Each plan maintains some on-site assessment for contracted SNF care, but some HMOs (especially plan B) rely on the QA program already in place at the SNF. Since contracts are only with accredited facilities, Joint Committee on Accreditation of Health Care Organizations (JCAHCO) standards must be in place.

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15 One physician subsequently criticized the pilot for targeting the wrong population and for insufficient interaction with physicians. He argued that case management is useless without physician involvement.

16 Plan D contracts most of its home health with one VNA. Quality monitoring is maintained through chart review and incident reports.
As an example, plan B negotiates explicit quality standards and criteria with its primary SNFs, and quarterly quality peer review conferences between the HMO and the SNF are required. HMO officials also sit on the SNF’s QA board. In plan C, a plan physician reviews each patient’s medical status.

Quality assessment for contracted facilities is usually conducted by a nurse, but the primary care physician takes an active role in monitoring SNF care. In all but plan F, a primary care physician is assigned to make routine SNF rounds. Plans A and D also rely on a geriatric nurse practitioner QA program for contracted facilities, whereas plan C uses visiting staff nurses to monitor a SNF’s quality of care. In general, the nurses visit SNF patients weekly; physician rounds vary across plans. The treatment plan is reviewed by a physician to determine appropriateness, and, at least in plan A, the utilization review (UR) committee routinely pulls SNF charts for review. In plan E, quality is monitored through patient visits by a geriatric nurse practitioner, who looks for patterns and trends in service delivery problems.17

Plan F, as a manager rather than provider of care, has an extensive QA program. This plan uses an implicit outcomes management approach (a quality screening and management process) to identify what the appropriate diagnosis, process, and outcome should be. Claims data are used to determine appropriate and necessary care, such as mammograms for women over 50. Standards are established and the data are reviewed annually. Data reviewed include readmissions, mortality, morbidity, and resource use. For patient care, a geriatric nurse practitioner is assigned to each patient to monitor the efficiency and appropriateness of care.

Discharge Planning

With some important exceptions, the role of discharge planning at the HMOs we visited appears to be similar to discharge planning in a non-HMO hospital. Both follow the Medicare discharge planning requirements, and both have similar incentives to limit the inpatient stay. In all plans, the physician bears responsibility for the discharge decision.

Even so, there are some important differences. First, several of the HMOs studied, particularly plans A, B, D, and F, placed great em-

17This plan uses unspecified “practical indicators” to go beyond Medicare’s requirements.
phasis on identifying high-risk patients at admission. For example, plans D and F use geriatric nurse practitioners to assess high-risk patients and develop discharge plans at admission. Second, most plans make a care coordinator available at admission. This tends to foster a team approach from the beginning.\footnote{\textsuperscript{18}} Plan B, for instance, maintains a strong social work presence at admission to screen and assess patients' probable needs for living in the community. Third, at least plan A also maintains a placement coordinator at plan headquarters to coordinate with the hospital discharge planner for appropriate placement. Discharge planning and continuing care coordinators are also located in that plan’s clinics to facilitate transfer to postacute care.

Use of a Team Approach

The selected HMOs differed on how much emphasis they placed on a team approach to assessing and providing postacute care. Most plans stated specifically that fostering a team approach, including the physician, RN, GNP, and social worker, was a plan goal. Although this meant a diminished role for the physician, these plans believed that it would result in more appropriate care, since physicians are less knowledgeable about postacute care services than the other team members. In plan E, for instance, a goal is to encourage physicians to involve care coordinators in placement decisions. In effect, this changes the physician’s role by focusing on social as well as medical needs for the older patients. Other plans rely more on the physician to determine the appropriate care setting.

Several interviewees stated that the team approach was also important in providing information to the patient and the patient's family. In each plan, however, the primary care physician remains the final authority on medical treatment and is supposed to maintain contact at all care levels.

One issue on which there appears to be a lack of consensus, if not outright confusion, is the role of social workers. In some plans, especially B, D, and E, social workers are an integral part of care organization and coordination and function in both centralized and decentralized settings. Their most important role is identifying and arranging for community services and other nonmedical benefits for which the patient is eligible but that are not covered by the plan benefit package.

\footnote{\textsuperscript{18}}In plan D, which merged with a non-HMO hospital, a plan representative is on site at the hospital.
To some extent, this expanded role overlaps with visiting home health nurses, clinic nurses, and care coordinators. Some people interviewed, particularly in plan E, had a difficult time explaining how the two roles differed.

Nevertheless, the social workers in these plans were considered to be an important part of the care coordinating team. These plans maintain social workers in each clinic to coordinate community resources. In addition, social workers play an extensive role in patient education, pain management, and bereavement counseling.

One unanswered question, at least for plan E, is the extent to which a social worker is also a patient advocate. Because the social work role is largely nonmedical, the social worker's relationship to the patient is different than that of other members of the team. On one level, the social worker is the patient's advocate for additional community and plan resources. But, as with the care coordinators, the social worker also represents the plan, thus limiting the patient advocacy role.

Education

A consistent theme throughout our interviews was the importance of education on at least two levels. Each plan stressed the need to educate the patient about responsibility for his or her own care. The plans devote considerable efforts, often by a social worker, to educate both the patient and the patient's caregiver about how to manage pain, how to use the HMO and the community to meet medical and nonmedical needs, and how to comply with any pharmaceutical regimen. Aside from arranging for community services, one of each plan's goals is to teach the family to become independent and manage the care of its members. Thus, plans A and D provide separate courses for caregivers. More important, patients need to understand the goals of postacute care and the linkages among various care levels and community services.

The plans also recognize the need to educate their physicians about the role and importance of postacute care (to reduce readmissions and emergency room use), and the need to recognize social and other nonmedical needs in the frail elderly population. In plans A and D, for example, physicians are trained from the beginning about

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19 In plan B, there are separate social workers for each level of care, thus leading to some overlap in social work services. No one social worker is assigned for an entire episode of care.

20 Plan A uses pharmaceutical compliance as a quality indicator.
postacute care, and there are continuing education classes and quarterly meetings to facilitate postacute care planning and coordination. This training also encourages team building.

**Grievance Process**

There is considerable uniformity in plan grievance processes for member complaints. For the most part, plans rely on the Medicare regulations for handling patient grievances and inform patients about their rights through membership materials. Most plans tend to handle grievances informally, although membership services handle formal grievances. We were unable to detect any consistent grounds for member grievances. In fact, most plans suggested that few grievances were ever filed, primarily because most problems were resolved through the care coordinators. Weekly rounds and conferences, along with patient education, tend to reduce the number of formal complaints. As one interviewee stated, "We can’t stay in business by mistreating members."

It is interesting, however, that no plan has a formal patient advocate. At best, care coordinators and social workers share a dual role in assisting the patient through the process and in representing the plan’s interests.

For complaints arising between providers, most appeared to be handled through informal consensus. Where providers disagree as to the level or extent of care, resolutions are arrived at informally. Very few contracts have been cancelled, as noted above. Once relations are established, they tend to remain in place.

**PROGRAM CHALLENGES**

To provide a broader context for HCFA’s consideration, we asked our interviewees to describe some of the challenges they face in providing postacute care. The responses varied, but a few common themes emerged.

**Data Analysis**

Perhaps the most consistent program challenge identified during our interviews is the need to develop better data-collection and analysis systems. Currently, most HMOs we visited have inadequate information systems and no systematic data analysis, particularly for documenting outcomes and postacute care cost savings. For example, most HMOs have no indicators for whether HHA care either makes a
difference in patient outcomes or saves money relative to institutional care. The exception appears to be plan F, which regularly reviews its cost and utilization data. Most plans also lack information to determine whether extensive case management would be cost-effective.

Another data analysis issue is in using diagnosis codes for various cost comparisons. Plan D, for instance, would like to compare readmission rates and costs for chronic obstructive pulmonary disease patients relative to the cost of additional home health visits. Similarly, plan F proposes to develop cost per DRG analyses for joint replacement procedures, stroke, and cardiac heart failure, very common postacute care problems, to determine the most cost-effective treatment path. The problem is that home health may be prescribed directly from the clinic for a condition other than that requiring hospitalization. Because diagnosis codes are not easily tracked from inpatient through home health, the economies of scale promised by HMOs may be mitigated and disease management programs are more difficult to implement.

Meeting Nonmedical Needs

Plans with a higher percentage of the frail elderly report patients presenting with increased psychosocial needs, alcohol abuse, dementia, or depression. In short, this is a population with a greater need for nonmedical services. Thus, two of the non-SHMO demonstration sites (plans D and F) expressed interest in SHMO-type social services benefits. Plan D is already pushing the boundaries between medical and nonmedical services as long as the services are either cost-neutral or reduce readmissions.

A major question is how to provide noncustodial services based on functional need. Plan A, for instance, suggested the need to provide alternatives to acute care for the frail elderly (24 hour/7 day services) to avoid inpatient care.

Continuity of Care

Although very few people we interviewed would say so directly, many implied that ensuring continuity of care remains a major issue in postacute care. For one thing, as noted above, there was little common understanding or use of case management in our selected HMOs. Plan B is now evaluating bringing all postacute care under one management structure, suggesting that continuity of care remains fragmented. Another possibility under consideration is to develop case management for selected populations, particularly those at high risk
of institutionalization. For another, as HMOs grow, it becomes more difficult to coordinate care between the physician and care coordinator. The handoff or relay system of case coordination seen in several plans tends to result in fragmentation of care and less coordination as the level of care acuity declines.

Cost Savings

Most plans assume that providing more home health or SNF days will reduce costs. However, few plans have hard data showing the extent of any such savings. That is, there have been few cost-benefit studies of home health, although some plans are currently conducting such research. Because many of the home health referrals come directly from a clinic (without an inpatient stay), it is not clear which home health costs are substitutes for what would have been inpatient costs. For example, 33 percent of the home health referrals in plan C come directly from a plan clinic, so it is not clear what institutional costs, if any, may be saved.
4. LEARNING FROM THE HMO EXPERIENCE

Understanding the processes through which HMOs coordinate an acute care episode is fairly easy. Most of the innovations explained to us were incremental in nature, emerging from the existing HMO structure. None of these innovations required altering the managed care incentive system or the way in which health care was provided by HMOs. The harder question is how these innovations could be implemented in the FFS sector under a single Medicare Part A bundled payment. There appears to be nothing inherently beyond the capacity of the FFS sector to incorporate, but the different structural incentives between the two systems limit the direct replicability of the HMO postacute care characteristics to the FFS sector.

In this section, we translate our study of the way six HMOs coordinate hospital care with postacute care into recommendations for how the FFS sector might implement such coordination under a bundled payment. First, we examine the common issues that emerged in our review of HMO postacute care initiatives. Then, we look at differences between managed care plans and FFS care that are relevant for the major findings. Finally, we look at the HMO results through the filter of the FFS sector to describe the critical attributes for any FFS demonstration project bundling hospital with postacute care.

COMMON ISSUES IN HMO POSTACUTE CARE DELIVERY

We found that the HMOs we surveyed were concerned with four common issues in attempting to deliver postacute care effectively and efficiently. Although proposed solutions differed widely across HMOs, the issues themselves were raised in a remarkably consistent way. Thus, we anticipate that the FFS sector would face similar questions in responding to a bundled system.

Deciding Whether or Not to Contract for Services

Each HMO faced the decision whether to purchase services from an outside vendor or to provide the services themselves. With few exceptions, the HMOs chose a mixed strategy, buying some care and directly providing others. The most frequently seen strategy was to contract for SNF and rehabilitation services but to have HHA care provided in-house. The HMOs were remarkably stable in the mix that each had chosen; there were few modifications being contem-
plated and these few were driven by larger issues, such as expansions and mergers, and not by the need for innovative mixes.

The principal reason why SNF and rehabilitation services were contracted is that it might not be cost-effective to have dedicated resources for these services. In view of the generally low patient volume needing these services at any given time, it is less costly to purchase them than to provide them. By contracting, principally on a per diem or other fixed-cost-per-use basis, the HMO must pay only for what it uses, with little or no wastage. In contrast, HHA care is a growing service with consistently high volume. This means that it is efficient to dedicate a home health staff from HMO resources. In short, HMOs contract for services until it becomes cheaper to provide them directly.

Three factors seemed to dominate the decision to purchase or provide services: risk distribution, quality assurance, and incentives for overuse. Proponents of contracting for care argued that seeking outside vendors distributed the risk beyond the HMO and that competition among vendors improved the overall quality of care provided to patients. By providing a steady volume of patients, the HMO is able to ensure high quality and limit overuse. Proponents of providing care in-house argued that quality control was more easily maintained and that perverse incentives for inappropriate care were eliminated.

Care Coordination

According to one interviewee, perhaps the most important issue in achieving effective and efficient management of care is the cultural change required to think through an entire episode of care by looking at where in the system the care can be most appropriately delivered. This means a change from viewing the hospital as the center of care to seeing the hospital as just one point along a continuum of care. The costs of an entire episode of care need to be understood instead of focusing on the cost of any particular stage of care. This also implies that there has to be some central manager or care coordinator whose scope encompasses all care.

Although the physician is a logical candidate for case manager because of the medical nature of care decisions, the HMO experience in-

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1One interviewee argued that contracting helped to create a market for postacute care, even where such a market had not existed previously, and that contracting provides "richer capabilities."
icates that a team approach may be superior. This becomes increasingly true as nonmedical services become part of the overall care package. The determination of the extent and duration of such services may call for expertise not possessed by the physician. A number of the HMOs we interviewed were attempting to integrate physicians and other professionals into case management teams to better coordinate care. These innovations did not always occur smoothly, however, as physicians and nonphysicians struggled to develop relationships that are different from the hierarchical model that has heretofore dominated medical culture.

We anticipated that the vertical integration of HMOs would translate into smooth transitions between levels of care. Instead, we found that these transitions were often not as smooth as expected. Some HMOs reported problems of duplication of services and layering of bureaucracies that made the transitions difficult. Others found occasional "hand off and forget" situations where there was nobody in charge in the gray zone between institutions.

The HMOs with the least difficulty in transitions had institutionalized feedback loops among the different levels of care, both in terms of sending and receiving patients and in terms of the appropriateness of the transition. Thus, one HMO had successfully instilled a culture where patients inappropriately sent to a particular locus of care would be "kicked back" to the sending agency with a recommendation for a better placement. This feedback system even extended to contracting facilities.

Medical and Nonmedical Services

A strong trend that we noted in all of our interviews was seeking out nonmedical services that would lessen the need for more expensive medical services. For example, the provision at home of elements of daily care such as meals and laundry might enable a patient to stay at home rather than be admitted to an institution.

Because of the clear advantage of such a shift, several of the innovations in postacute care currently contemplated by HMOs involve nonmedical services. Many of the innovations being considered may fairly be said to expand concepts of health care—for example, they include providing benefits to members above anything specified in the HMO contract. Such innovations call for a flexibility in the notion of what constitutes health care, and an ability to coordinate a mix of medical and nonmedical services.
The primary limitation to expanding nonmedical services was costs. For the most part, nonmedical services are not part of the typical benefit package. Thus, providing them is an additional overall expenditure, which can only be justified if the expenditure reduces overall medical expenses (such as readmissions or emergency room use). Few plans had collected and analyzed data to make such cost comparisons. In the absence of data showing savings, care coordinators have used subjective impressions in determining the level of nonmedical services to be provided by the plan.

Cost Considerations

For each of the HMOs, cost considerations were of major importance. In the battle for patients, the HMOs believe that their competitive advantage, based on economies of scale, salaried physicians, and efficient use of physical resources, has about reached its limit. Further advantages must come from efficient placements of patients, health promotion and prevention programs to lower costs, and elimination of inappropriate treatment. This having been said, however, the HMOs were generally reluctant to go into details about how they are containing costs, because such strategies were regarded as too confidential to release to competitors. Therefore, we learned few details about cost strategies or about actual cost savings.

The information that we did obtain indicated that most cost measures are attempts to get physicians and others to find and adopt less costly but equally medically effective treatment alternatives whenever they can. For example, pharmacists in one HMO remind physicians about less-expensive drugs and query whether the expensive one prescribed is really necessary. In another example, physicians were requested to consider the long-term value of ordering DME, especially when short-term inconvenience or difficulty for the patient might be compensated for by a more rapid return to better functioning.

FROM MANAGED CARE TO FEE-FOR-SERVICE

Before generalizing from our examination of HMOs to a bundled FFS payment scheme, it is necessary to look at differences between the two care provision sectors that may affect the validity of the generalization. Many managed care interviewees were skeptical that their particular postacute care innovations could be replicated in the FFS sector. Those who believed that replication was possible still raised questions about the different structures and processes that might impede successful replication. The basic problem is in adapting nonin-
stitutional services to an institutional model where the locus of care is
the hospital rather than a clinic.

Two primary differences affect replicability of managed care postacu-
tute care practices to FFS facilities. First is the ability of managed
care programs to avoid hospitalization through the clinic referral sys-
tem of patients requiring more than outpatient care. Under the cur-
rent PPS system, the non-HMO hospital has an incentive to admit
Medicare patients for treatment who are likely to cost less than the
DRG payment amount; further, there is no mechanism for postacute
placement absent a hospital stay. By contrast, an HMO has an
incentive to place the patient directly in a postacute care setting. If,
as many HMO interviewees maintain, one of the mechanisms for cost
 savings is in avoiding or bypassing inpatient admissions, any FFS
bundled system needs to develop incentives for providing direct access
to postacute care without a hospital stay. As we discuss below, this
requires involving private physicians in the placement decision.

The second difference is how well the postacute care is integrated into
the overall scope of care provided. Figure 1 portrays that difference.
The figure as a whole portrays a managed care view of an episode of
care. The episode begins with a determination (usually made at the
clinic) of whether an inpatient stay is required or whether the patient
should be referred directly to outpatient services or to a “postacute
care” placement. If a hospital stay is needed, various levels of
posthospital care are considered at discharge. Therefore, there are
two paths to postacute care for managed systems—either with or
without an episode of hospital care. For decisions regarding
postacute care, the alternatives are between care with a defined limit
in benefits (such as SNF or rehabilitation care) or open-ended care
(such as HHA, drug therapy, or DME).

The shaded portion of Figure 1 shows an FFS view of an episode of
hospital and postacute care. Unlike managed care, the episode begins
with a hospital stay and continues only through postacute care with a
defined endpoint. In the current FFS system, discharge planning
provides a patient with a postacute care referral, but the hospital’s
responsibility ends with discharge. Bundling changes the financial
incentives surrounding this decision point (as discussed below) but

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2Thus, an arguably—albeit extreme—position states that the only way to
implement a bundled system is to move to a capitated reimbursement system based on
functional rather than diagnostic needs.
not the basic decision structure.\textsuperscript{3} This difference in perspective can have varying impacts on the comparison between systems, depending on the type of care to be provided.

Figure 1—The FFS Bundling Perspective (shaded) Within a Managed Episode of Care

**SNF and Rehabilitation Care**

For SNF and rehabilitation care, there are few significant differences between managed care and FFS relevant to bundling if the postacute care follows hospitalization. For both sectors, discharge planning results in a transition from the hospital to postacute care. True, the HMO is more concerned with managing the entire episode of care and the non-HMO hospital is more concerned with the specific transition.

\textsuperscript{3}It is possible to create a system where hospitals are responsible for all postacute care whether or not they have admitted patients, but the logistics of such a system will be complex. At the other end, it is highly unlikely that hospitals would find acceptable any system paying a single payment while subjecting them to open-ended costs.
away from the hospital to something else, but this difference is relatively minor. Thus, for implementation purposes, HMOs may provide lessons for FFS bundling.

On the other hand, the major differences between the two sectors regarding prior hospitalization makes predicting the efficiency and effectiveness of such bundling problematic, because the HMO is better structured to avoid unnecessary hospitalization. The HMOs we interviewed that eliminated the Medicare hospitalization requirement for SNFs did so expressly to preclude the “admit to the hospital so the patient is eligible for the skilled nursing facility” costly gaming of the system. Because many placements in HMO postacute settings are without hospitalization where there would have been hospitalization in the FFS sector, it is hazardous to generalize from managed care sector to FFS about the numbers of such placements, the health care needs of patients in SNF or rehabilitation programs, and the costs of those programs.4

**HHA, Drug Therapy, and DME**

Whether or not postacute care is preceded by a hospital stay, there are difficulties in comparing managed to FFS sectors for these types of care. This is because these care categories are open-ended; both HMOs and Medicare will pay for unlimited HHA visits and extensive DME. Although Medicare does not provide outpatient drugs, most HMOs do, either as part of the included services or at strongly discounted prices. The HMOs we interviewed saw open-ended services as a potentially major area for costs; this plus a general reluctance among FFS providers to take on open-ended responsibilities means that any conceivable bundling package would have limitations on the provision of services.5 Therefore, the two sectors are not directly comparable.

Even if a closed-end package were to be considered, the question of prior hospitalization before postacute care is as applicable for these services as it was for SNFs and rehabilitation. Worse, because

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4An important implication of this difference—which goes well beyond the scope of this paper—is that Medicare should reconsider its requirement for prior hospitalization before SNF care. In an FFS system, outright elimination of that requirement would cause problems of its own, but the issues elucidated here strongly suggest the need for some change.

5Medicare would be ill-advised to pay hospitals the mean amount of open-ended care per DRG because of the skewed distribution of utilization of such services. Hospitals would not want to take on the risk of the long-term, expensive case. Hence, limitations appear inevitable.
Medicare will permit HHA and DME without prior hospitalization, there would be an incentive to find some pretext for providing the postacute care under different auspices (e.g., a different diagnosis) than the hospitalization, thus gaming the bundling system. The costs of surveillance to avoid such gaming could be considerable.

**How to Bundle**

Although managed care bundling packages are relatively straightforward, bundling in the FFS sector might be implemented in at least three possible ways, depending on the extent to which policy moves toward full management of care. The major variations among these options are in the scope of control and accountability of the hospital in directing the patient's postacute care.

1. **Hospital as Case Manager.** This "maximalist" alternative closely follows the pattern of managed care and gives the total responsibility for SNF and rehabilitation care to the hospital. A limited-term HHA benefit might also be included if feasible. DRGs would be adjusted to account for expected postacute care, but the hospital would have the responsibility for providing that care. The means for providing that care would be entirely open to the hospital, including purchasing or owning that care. Negotiations with providers could include both the basis and amount of remuneration, as well as the type of services provided, and guarantees of access to care and minimum numbers of patients.

2. **Shift in Financial Responsibility.** This "minimalist" alternative shifts financial liability for postacute care from Medicare to the hospital, while making as few changes as possible. As with option 1, DRGs would be adjusted to account for expected postacute care, and hospitals would receive an increased amount for each DRG based on this increment in expectation. In turn, the hospital would pay for SNF and rehabilitation care (and possibly HHA care). The hospital would be obligated to provide information to the patient listing the alternative arrangements available to the patient and would be free to arrange for postacute care packages but would not assign patients to posthospital care. Payment rates would be by regulation that perhaps could be superseded by mutually agreeable terms between hospitals and postacute care providers.

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6These alternatives will be more fully developed and discussed in forthcoming work by Peter Jacobson and James Kahan.
3. Hospital Responsibility with Alternatives. This is a compromise option which, like option 1, assigns primary responsibility for obtaining postacute care to the hospitals but leaves an alternative for patients to find and choose their own care, in which case the arrangements of option 2 making the hospital financially responsible hold.

The choice among the three implementation options is not one that can be made solely by analyses of managed care but requires further investigation. Nonetheless, we shall consider, whenever possible, the differences among the options in our analysis below.

IDENTIFYING THE CRITICAL ATTRIBUTES OF AN FFS BUNDLING PACKAGE

Our examination of HMOs highlights the considerations that would be needed to judge the critical attributes incorporated into a successful demonstration or implementation of a bundling package of hospital and postacute care. In this subsection, we describe four attributes that should be included in a bundling demonstration.

A Realistic Incentive Structure

Many interviewees stated that the successful replication of their postacute care program in an FFS environment depends on reimbursement incentives or other mechanisms to avoid inpatient care. The incentive structures of the two sectors are so different that without either changing the basic FFS incentives to use institutional care or adopting the systems integration of managed care plans, many found it difficult to see how the replication could proceed. That is, because monetary inputs (capitated payments) to managed care programs are fixed, the financial incentive is to provide cost-effective care at the lowest appropriate level. In FFS providers, both monetary inputs and monetary outputs can vary, so the financial incentives may not be to provide the lowest-cost care if more expensive care brings a greater net revenue.

This difference plays a major role in implementing a bundled payment system. Managed care systems naturally view hospital care and the menu of postacute care possibilities as choices in a pure cost-minimization (positing appropriate care) problem. But FFS bundling begins with hospitalization as a given and works the alternatives from that point, even if in retrospect hospitalization may not have been the optimal choice. Moreover, the hospital will try to minimize its costs, not the total costs of an acute care episode. Because it is not
immediately obvious that what is good for the hospital will be good for the system as a whole, the incentive system for any bundled plan must be carefully analyzed and simulated to detect unanticipated ways in which total costs to Medicare might actually be increased.

Financial incentives would be different for the three possible implementations for an FFS bundling plan we presented above. Given that non-HMO hospitals are unlikely to be transformed into managed care institutions, a minimalist (option 2) or mixed (option 3) structure for bundling is more likely than the full option 1 plan. But those plans, because they take control of placement out of the hands of the hospital while keeping payment for placement with the hospital, could motivate hospitals to find ways to subvert (“game”) the system. Surveillance of both hospitals and postacute care facilities would be required to detect any abuse of the system. The rules of payment, including prescribed amounts, would have to be well-specified.

Of equal importance is that the key to successful replication lies in developing cooperation between physician and hospital to encourage noninstitutional placement. Reimbursement must be structured to provide physicians with an incentive to refer patients directly to postacute care placement. This may require, for example, having social workers available to physicians or placed within a large multispecialty group practice. One person suggested some form of preadmission screen or gatekeeper system, perhaps with two levels of reimbursement (one with inpatient care, one without) that would encourage cooperation between hospital and physician. Such a system sounds good on the surface but glosses over the critical issue of determining when hospitals could be placed at risk for individuals not admitted as patients. Even if this issue could be resolved, additional matters such as whether Medicare, the hospital, the physician, or the patient would choose the hospital remain.

**Coordinating Transitions Between Levels of Care**

As one interviewee succinctly stated, “Bundling only works with efficient monitoring.” Another added that “the . . . health care system needs to be educated about managed care.” The key to the success of any bundling system is coordinating care and continuous patient monitoring, not only during an acute care episode—something that hospitals are learning to do with the arrival of DRG payments—but for postacute care as well. Since the primary hospital client is the physician, not the patient, hospitals will need to be educated about mechanisms for coordinating postacute care. Managed care programs already have a structure and process in place to support postacute
care. Even if it does not always operate optimally, the lessons learned in these programs can help non-HMO hospitals implement their own versions.

Because non-HMO hospitals do not have a natural incentive to develop vertically integrated managed care, it is important that any bundling system build in such management as part of the package. To attempt to provide managed care via a trial-and-error process is a risk to both efficient and effective care.

Central to managing care will be the question of responsibility. In the traditional FFS sector, the admitting physician retains responsibility for care but has no responsibility for the cost of the care. As it is unlikely that the physician will either surrender this responsibility or take on the financial responsibility for the costs of care, an expansion of the decisionmaking locus beyond the physician to a team of health care workers is desirable. Here, the experience of the managed care sector in composing such teams is invaluable, even if the issues such teams face are different from the ones to be faced by the FFS sector.

Managed care will be a problem for any of the three implementation options presented above. But it will be a greater problem for the latter two options than for the first, because the natural incentives to manage care are absent if there is no single entity responsible for care placement. In any event, the evident difficulty managed care systems have in providing continuity of care—a common theme in our interviews—does not bode well for care systems not oriented toward coordination of services.

Integration of Medical and Nonmedical Services

Many of the innovations we observed, including the SHMO and case management, focus on the interaction between medical and nonmedical needs. Just as important, many of the interviewees stated that an increasingly frail elderly population requires a mix of medical and nonmedical services that the present institutional models are unprepared to provide. This is likely to present an even greater problem for the FFS sector, since it is based on a medical model. Thus, a critical component of a bundled system must be the flexibility to provide a range of medical and nonmedical services as the facility deems appropriate in an individual case. Providing appropriate nonmedical services is also an opportunity for reducing unnecessary institutional placement.
Patient Freedom of Choice and Grievance Procedures

Because a bundled Part A payment scheme includes care outside the hospital, any system must include considerations of patient freedom of choice of care providers and grievance procedures in case people are dissatisfied with the care provided. These two issues are of lesser importance for the managed care sector, as our interviews bore out. Subscribers to managed care plans enroll in the full package of care and therefore implicitly accept the SNFs or other providers of the HMO. And grievances were universally considered to be well-handled by the HMO.

Experience shows that patients in need of postacute care have at best restricted freedom of choice, and that both the present FFS and managed care sectors offer only small choices, especially when access to postacute care is limited. But in the FFS sector, the perception of freedom of choice exists; moreover, hospitals have not heretofore had the power to determine postacute care providers, so the issues of freedom of choice and grievance become relevant.

Freedom of Choice. The three possible implementation options differ significantly in terms of patient freedom of choice. Each alternative is designed to improve quality of care, to have the potential for cost savings for HCFA, and to provide incentives for the development of postacute care to meet the demands of the Medicare population. Making hospitals financially responsible for postacute care (option 2) maintains at least the present level of patient freedom of choice. However, it has the disadvantages of adding administrative burdens to most of the parties and not fostering continuity of care. Also, there is doubt whether this option can be successfully implemented. If hospitals are responsible for all of postacute care (option 1), then there are efficiencies in the provision of postacute care to be gained but at the cost of administrative burdens to the hospitals and patient freedom of choice. Moreover, hospitals could be in a monopolist position toward the postacute care providers. The compromise alternative (option 3) increases patient freedom of choice, at the cost of additional administrative burdens to all parties.

Grievance Procedures. In addition to grievances now resolved under current Medicare regulations, other grievances might arise in a bundled care system involving such issues as (1) a hospital’s failure to provide postacute care, (2) a hospital’s choice of postacute care arrangements, (3) the quality of postacute services, and (4) discharge from postacute care. Any bundling program will have to anticipate such grievances and provide a mechanism for their resolution.
Such a grievance process might follow a familiar path of informal negotiation, to mediation, to arbitration, and then to the court system, with concentrated effort to traverse as few steps along the path as possible. In constructing the path, certain issues would need to be considered, including discharge planning, physician sign-off, and hospital responsibility. The legal implications and practical applications of having a hospital act as a case manager will need to be resolved.

CONCLUSION

Bundling hospital and postacute care is a major step in the direction of managed care. To achieve it successfully calls for a set of financial incentives that makes bundling cost-effective for both Medicare and hospitals. Innovations in coordination of care must be developed, especially when patients transfer from one provider of care to another. Both medical and nonmedical care must be considered together. And patients' freedom of choice and grievances must be kept in mind. For managed care plans, all of these problems have been—more or less—worked out for the system as a whole, but for the proposed bundling package, they would have to be worked out for only one piece of the system, leaving the other pieces as untouched as possible. This presents a challenge of high magnitude and one that must be carefully examined before any bundling plan is implemented. Any proposed package should be tested in a demonstration plan before full implementation is attempted.
Appendix

POSTACUTE CARE PROGRAMS: INTERVIEW GUIDELINES

RAND is conducting a research project sponsored by HCFA to explore what innovations HMOs may have recently developed for the posthospital acute care of their patients. Your organization was recommended as having dealt with this problem, so I am here today to talk to you and learn about your experiences.

1. General Characteristics and History

1.1. How long has your HMO been in operation? How many people are enrolled? Do you have Medicare enrollees?

1.2. Describe the general features of the postacute care program to me. Does it include skilled nursing facilities, home health care services, rehabilitation facilities?

1.3. What types of care are covered by your postacute care program?

1.4. What factors led you to initiate this program? To what extent were you motivated by changes in Medicare policy (e.g., PPS versus TEFRA)?

1.5. What did the present program replace or supplement?

1.6. Did the program provide you with any economies of scale? That is, were you able to provide postacute care more efficiently than before by centralizing your provision of care?

1.7. Were there any other options that you considered and rejected (or might reconsider in the near future)? If yes, what were the reasons for going with the present program?

2. Administration and Governance

2.1. Is coverage under your postacute care program contingent upon prior hospitalization? If yes, within what time frame must the posthospital care be initiated?

2.2. How are postacute care placement or referral decisions made?

2.3. At what point are patients targeted for postacute care?
2.4. What limits are placed on postacute care in your program (i.e., length of time)?
2.5. What provisions are made for care subsequent to termination from the postacute care program (i.e., transfer to long-term care)?
2.6. Who administers the program within your organization?
2.7. How were the guidelines for administering the program developed?
2.8. What are your cost-containment strategies? How do you monitor and control program costs?
2.9. What are the criteria for documenting the actual cost and savings of your postacute care program? Do you calculate program benefits relative to program costs? By what methods are the calculations made?

3. Use of Outside Providers

3.1. Is the program in-house or contracted to outside providers? What factors entered into your decision to keep postacute care in-house rather than contracting outside?
3.2. How is the interface between your organization and providers handled? How often do you follow up with providers; how frequently do you make site visits?
3.3. What are your criteria for selecting providers?
3.4. What type of reimbursement arrangements do you have with them (e.g., per capita, per diem, discounted fees, direct payments from Medicare or Medicaid)?
3.5. What are your risk-sharing arrangements with outside providers? How do you deal with outlier cases requiring extensive or expensive postacute care?
3.6. Do you rely on accounting reports from providers or do you have an independent analysis by your own accounting department?
3.7. How satisfied are you with the general use of outside providers? With the specific providers you use?

4. Maintaining Quality of Care

4.1. How are the patients who are assigned to the postacute care program followed?
4.2. Are case managers assigned or otherwise made available to the patients in this program?

4.3. How is discharge planning handled?

4.4. How does your HMO review the operations of the postacute care program?

4.5. Do you have a peer review committee established for this program?

4.6. How is the quality of care provided in the postacute care program monitored?

4.7. What types of data are collected and how are they analyzed? Which outcome measures are used in your evaluations?

5. Problems and Grievances

5.1. What methods are used to identify patterns of unnecessary or inappropriate postacute care or placements, and how are they documented?

5.2. Is there a grievance process in place, to handle patients whose wishes may be in conflict with placement decisions or treatment plans in postacute care?

5.3. Is there a resource person available for patient complaints, such as a patient’s advocate or ombudsman?

5.4. Once problems are identified, what is the process undertaken to rectify the situation?

6. Summary of the Good and Bad Points of Your Program

6.1. Quality of care, including patient well-being, coordinated case management and attention to the desires of patients.

6.2. Cost containment, including economies of scale, considerations of high-cost outliers.

6.3. Have you or would you recommend your program to other HMOs? As a model for non-HMO postacute care?

6.4. Why have the good things worked and the bad things not gone as well as hoped for?
7. Literature and Documentation

We would appreciate copies of any descriptive literature of your program that you give to patients, physicians, or providers. We would also appreciate (blank) copies of the guidelines and protocol sheets you use in the program to track patients, document services provided, and monitor costs.
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