ORGANIZATIONAL AND POLICY RESPONSES OF FLINT AREA HOSPITALS TO THE MEDICARE PROSPECTIVE PAYMENT SYSTEM

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ABSTRACT

ORGANIZATIONAL AND POLICY RESPONSES
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In 1983, Congress approved a Medicare prospective payment plan for most inpatient hospital services which is widely regarded as the most significant change in the government health insurance program since its beginning. The radically altered reimbursement incentives inherent in DRG-based prospective payment produce different contingencies and constraints that, in turn, require dramatically different organizational and policy responses by hospitals. This paper describes a study designed to determine the extent to which local, Flint area hospitals are choosing the predicted, advised responses, what institutional variables are operating to influence those choices, and whether there is evidence that government policy intent will be achieved.

Interviews conducted with senior administrators at five sample hospitals confirmed that medical and financial information systems are being enhanced and integrated, outpatient services are expanding, hospitals are becoming more diversified in the types of services they provide, and vertically integrated healthcare provider systems are developing in response to the prospective pricing plan. Contrary to expectation, and

legislative intent, little evidence was found of service (DRG) specialization by hospitals or greater physician administrative involvement. Nor are hospitals restructuring internally to a product-line, matrix management approach in response to the Medicare reimbursement policy change.

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CHAPTER I

INTRODUCTION

On March 24, 1983, Congress approved a Medicare prospective payment plan for most inpatient hospital services as part of the Social Security Amendments of 1983. This system is widely regarded as the most significant change in the government health insurance program since its beginning.[1] It represents a profound change in hospital reimbursement away from a system with inflationary incentives to a system with incentives for cost control and efficiency.

Under Medicare's old retrospective reimbursement system, hospitals were paid on a periodic, per diem basis for the process of inpatient care, based on each institution's reasonable costs of providing services. The size of the payment was a function of each individual hospital's total operating costs.[2] With prospective payment, hospitals are paid a fixed rate for a specific product. Upon discharge, Medicare patients are assigned to one of 467 newly defined "diagnosis related groups," or DRGs, based on the nature of their illness. Each DRG carries a specific rate of reimbursement. If treatment costs exceed established payment rates, the hospital loses money. If the rates exceed costs, the hospital profits.[3]

Medicare payment for inpatient services on the basis

of prospective prices is effective with each hospital's fiscal year beginning on or after October 1, 1983. The system will be phased in over a three year period, during which the payment for each Medicare discharge will be computed by blending a hospital-specific cost-per-case amount, the regional urban or rural price for the DRG to which the patient is assigned (adjusted for variations in wage levels), and the national urban or rural price for the DRG (also adjusted for wage level variations). When the system is completely implemented, beginning in October, 1986, hospitals will receive a payment per Medicare patient that reflects an urban or rural national average price for each DRG, adjusted for differences in area wages, and that is independent of costs incurred in any individual hospital.[4]

Medicare currently accounts for thirty-six percent of operating revenue at the average American hospital.[5] Among Flint area hospitals studied, the mean is forty percent (median, forty-three percent). Thus, the leap from service-based retrospective cost reimbursement to product-specified prospective rates necessitates that hospitals significantly change the way they do things. Further motivation to change lies in the fact that prospective pricing is expected to eventually be embraced by all third-party payers.[6] In Michigan, a DRG prospective reimbursement methodology for Medicaid inpatient hospital services is scheduled for implementation in January, 1985.[7] The radically altered reimbursement incentives inherent in prospective payment produce different contingencies and constraints that, in turn, require dramatically different

organizational responses by hospitals.

The Federal government's intended changes in hospital practices are clear. Certain hospital organizational and policy responses to the Medicare prospective payment system are likely to occur, dependent on certain institutional variables. These responses, and the possibility of those undesirable and "system-gaming" in nature, are thoroughly discussed in the literature. Accordingly, the purposes of this study are as follows:

1. To determine the extent to which <u>local</u> community hospitals are choosing the predicted, advised responses.
2. To determine what institutional variables are operating to influence those choices.
3. To determine if there is evidence that government policy intent will be achieved.

What follows next in Chapter II is a literature review. Chapter III states the research hypotheses. Chapter IV is a discussion of the methodology; the results are presented in Chapter V. Chapter VI is a discussion of these findings.

Footnotes to Chapter I

[1]R.R. Kovener and Michael C. Palmer, "Implementing the Medicare Prospective Pricing System," Healthcare Financial Management, (August, 1983), 44.

[2]Jerry L. Bolandis, Hospital Finance: A Comprehensive Case Approach (Rockville, Maryland: Aspen Systems Corporation, 1982), pp. 67-85.

[3]Dennis D. Pointer and Martin B. Ross, "DRG Cost-Per-Case Management," Modern Healthcare, (February 15, 1984), 110.

[4]American Hospital Association, Medicare Prospective Pricing: Legislative Summary and Management Implications (Chicago: American Hospital Association, April, 1983), p. 1.

[5]Glenn Richards, "Medicare's Big Switch," Hospitals, (December 16, 1983), 86.

[6]See, for example, Harvey D. Doremus, "A Reimbursement System That Limits the Costs of Hospital Care," Healthcare Financial Management, (April, 1983), 91; Paul M. Ellwood, "When MDs Meet DRGs," Hospitals, (December 16, 1983), 62; "Insurers Slow to Use DRGs but Interested," Hospitals, (October 1, 1984), 46; Pointer and Ross, op. cit., 109; Richards, op. cit., 90.

[7]State of Michigan, Medical Services Administration, Medical Assistance Program Bulletin, No. 5360-84 (1984), p. 1.

CHAPTER II

REVIEW OF THE LITERATURE

This study involved preliminary research to answer three key questions. 1- What hospital organizational and policy responses are intended by the government through enactment of the Medicare prospective payment system? 2- What hospital responses are recommended by industry experts and predicted likely to occur? 3- What institutional variables may impact response decisions? Answers to these questions were arrived at via thorough review of recent healthcare and hospital management journals and the pertinent Federal Register documents, and follow below. Information contained in this chapter was used as a basis for developing the study hypotheses, which are discussed in Chapter III.

A. Hospital Responses Intended by Government Legislation

The following government intentions for hospitals have been articulated by DHHS officials[1] and appear within the Medicare prospective payment system regulations published in the Federal Register:[2]

1. Reduced inpatient utilization.

2. Greater cost consciousness.
3. Behavior change to decrease hospital operating costs.
4. Improved operating efficiency.
5. Services specialization, resulting in improved quality of care.
6. Increased competition among hospitals.
7. More active medical participation in the financial and operating routines of hospitals.

B. Hospital Organizational and Policy Responses Recommended and Likely to Occur

1. Enhancement and Integration of Hospital Medical and Financial Information Systems

There is general agreement in the industry that effective response to the Medicare prospective payment system necessitates fundamental change in hospital information systems.[3] Averill et al. summarize that success under prospective payment systems will require that hospitals merge medical records, billing and financial data into a "single integrated database."[4] Dreachslin and Kobrinski assert that change in the configuration of hospital information systems should be the first order of business for management. "Only through the use of a merged clinical/financial data system allocated to the patient level can hospital management respond to Medicare prospective payment...."[5]

Dreachslin and Kobrinski further point out that clinical and financial systems need to be integrated and a costing methodology applied in order to permit the following essential

analyses:

- Hospital cost by DRG in relationship to the Medicare prospective reimbursement rate.
- Identification of the resource consumption profiles of each DRG.
- Separate reporting of costs by ancillary and routine cost centers so that the components of DRG costs can be studied.
- Medical audit reporting that allows for the analysis of physician-specific patterns of resource use by DRG and cost center.
- Comparison of cost data by case types from a meaningful set of peer hospitals.[6]

There is no doubt that improved cost accounting is an essential hospital response to prospective pricing; however, considerable debate does exist as to the degree of accuracy necessary (i.e., true costs versus some approximation of costs).[7]

More sophisticated, detailed medical/financial reports and more flexible report capabilities are also advised. The use of alternative case classification systems such as generalized patient management paths, stage of severity and severity of illness index in conjunction with DRGs will be needed to capture case mix within DRG and communicate more meaningfully with physicians. Physician access to information about patient resource consumption concurrent with the patient's stay is a desirable enhancement. The cash register approach of providing physicians with running totals of the cost of medical practice compared to a budget based on expected reimbursement or cost norms will put utilization control desirably back in the hands of the physician.[8]

2. Service (DRG) Specialization

Prospective payment imposes a financial risk for hospitals when treatment costs exceed payment rates. This has given hospitals a direct incentive for carefully assessing which types of patients they can treat most effectively and efficiently. There is consensus in the literature that cost-minimizing behavior may well involve increased specialization among hospitals, with each offering the limited mix of services that can be most efficiently, and profitably, produced.

According to Averill *et al.*:

> The DRG "price list" furnishes a natural basis for both providers and payers to negotiate on price, and to specialize. Since both quality of care and cost (and therefore profitability) are likely to vary with the volume of a given DRG, don't be surprised to see the more organized players, as well as the more sophisticated hospitals, redistributing business along case-mix lines.[9]

Kovener and Palmer note that service specialization is two-edged sword--increasing market share of some services and discontinuing, or at least de-emphasizing, services that are unprofitable.[10] Pointer and Ross write that reducing or restricting product line is a long-run proposition that generally entails closing hospital units, eliminating specific facilities and services, and changing the composition of the medical staff.[11] According to Berman,

> The strategy of second choice, which in time probably will become the dominant strategy, will be to reshape the product line--to give up some products, to take on others --to follow the track of strategic advantage.[12]

It is noted that hospital specialization was intended by the government through enactment of the new Medicare leg-

islation. "...insofar as prospective payment encourages specialization in certain services, we believe treatment may be improved for beneficiaries and other patients."[13] Such a work division objective is consistent with classic public administration theory.[14]

3. Expansion of Outpatient Services

The basic incentive of a fixed price-per-discharge payment system is to reduce costs by reducing inpatient resource utilization. The basic way for hospitals to reduce utilization is to shorten the patient length of stays and reduce the use of ancillary services. Thus, a predicted, advised hospital response to the new Medicare plan is to increase outpatient services, both in the area of pre-admission diagnostic testing and post-discharge therapeutic services.[15] The Federal legislation further encourages this direction by excluding outpatient services from prospective payment, leaving Medicare to continue to pay the costs of hospital outpatient treatment.[16]

4. Diversification/Vertical Integration

Industry sentiment regarding changing hospital products and services is summed up by Boerma:

> A long-term impact of DRG reimbursement is continued development of integrated health care provider systems, including hospitals, nursing homes, and home care agencies. Because of an incentive to shorten lengths of stay in the acute care phase, vertical integration is enhanced by DRG reimbursement.[17]

Lave concurs that the new Medicare financial arrangements:

> ...will further stimulate the restructuring of the hospital sector. This restructuring of the hospital sector consists of the corporate restructuring of given hospitals, horizontal integration into hospital chains, and vertical integration as the corporate structure links ambulatory care centers, hospitals, nursing homes, etc.[18]

It is noted that public administration thought acknowledges the potential effectiveness and efficiency of "multi-organizational arrangements."[19]

According to Dreachslin and Kobrinski,

> Diversification may very well be necessary to maintain an adequate cash flow. Consideration of joining multihospital systems, engaging in PPO or EPO contracting, using emergicenters and surgicenters, instituting pre-admission testing and contracting for outside services such as laboratory may constitute possible hospital responses. In short, the hospital must now be run like a business with multiple levels of service....[20]

According to Roe, changes in the Medicare reimbursement policy clearly favor hospitals unbundling services and diagnostic equipment into freestanding facilities.[21]

5. Internal Management Restructuring

According to Nelson, to correspond with new accounting systems that capture costs and revenues by DRG, hospitals may well restructure internally and introduce product-line management.

> "Hospitals have got to examine how they manage....I don't think they can manage as they have historically, by tending just to the 'paint shop,' the 'fender shop,' and so on. Someone has to manage the Ford Escort through the entire process. And product-line management, where one person is responsible for a program (obstetrics and gynecology, surgery, and so forth) may be the answer."[22]

Richards also foresees better-managed hospitals completely

restructuring internal management responsibilities.

> Managers will be made responsible for groups of product lines, and these will cut across a number of departments....Under "matrix management" systems, managers will be accountable not only for particular medical services but also for the cost of component parts of the services, such as nursing, laboratory, surgery, food service, laundry, supplies, and medication.[23]

Saltman and Young, too, suggest that:

> One recent development within management theory that may better suit the hospital's organizational structure is a matrix theory, an approach developed for organizations that operate with two simultaneous yet distinct lines of decision-making responsibility. In most matrix organizations, one line of responsibility encompasses functional departmental managers while the other contains "project managers" who shepherd a specific project through the "production process."[24]

Noting that strategic marketing is a product of the Medicare prospective payment system, and that hospitals will need to be more responsive to opportunities, Gurtner and Ruffner write:

> The old pyramidal hierarchy of decision-making with its built-in rigidity may be too slow to respond to a new opportunity. Instead, a product-specific or matrix form of organization may provide the necessary structural flexibility to complement the marketing function. Organizing the hospital around product complexes such as geriatrics or cancer may encourage decentralized problem-solving, which may be the best response to the changing environment.
>
> Specializing in a given product line leads to the development of expertise and managerial accountability. That is, an individual can better manage a homogeneous group of programs or products and can be held responsible for them. The product manager can be made responsible for "production" activities as well as promotion and distribution.[25]

Such management re-orientation is supported by classic public administration theory regarding organizational and administrative efficiency. Gulick introduced the principle of homogeneity to indicate limits on efficiency in hierarchical

organization.[26] Simon, following the work of Barnard, conceptualized bounded rationality and zoned authority, rejecting the earlier Wilsonian presumption that perfection in hierarchical organization is synonymous with efficiency.[27]

6. Greater Physician Involvement in Hospital Management

Under Medicare retrospective, cost-based reimbursement, hospitals and physicians essentially responded to the same incentives. But prospective payment switches the hospital onto a separate track of radically divergent incentives to lower length of stays and reduce the use of ancillary services. Physicians continue to be paid retrospectively on a fee-for-service basis and make the decisions regarding admission and services provided during an inpatient stay.[28] Thus, physicians are a key to controlling resource utilization, and the hospital community's task in response to the new Medicare prospective payment system is clear, as succinctly stated by Wilson: "It must forge a new alliance between management and the medical staff--one which breaks down the clinical/managerial dichotomy."[29]

The need for management-medical staff alliance is underscored by specific reference to it in the legislation. It is the intent of government to "invite more active medical participation in the financial and operating routines of hospitals."[30] Indeed, Wilson postulates that "Congress is determined to change physician behavior and the hospital has been selected as the instrument of change."[31]

The successful hospitals of the future, according to McMahon, will be "those that are going to have the best intra-institutional relationships--integrating the medical staff into operational budgeting, capital budgeting, all activities of the institution."[32] Kahn notes that

> ...hospitals that don't already have medical directors, or some sort of management-medical staff liason are going to find it increasingly important to bring someone onboard who can provide clinical input about treatment protocol and, at the same time, be directly involved in budgeting decisions.[33]

Sandrick predicts that hospitals will increasingly seek physician participation in strategic planning.[34] Indeed, study of the organizational effects of DRG reimbursement on New Jersey hospitals found a growing number of medical directors, directors of quality assurance and medical education, and salaried chiefs of clinical services, indicating that medical staffs in DRG reimbursed hospitals have become more involved in hospital operations.[35]

7. Other Predicted Hospital Responses

Other cost control strategies discussed in the literature besides reduced and more efficient provision of ancillary services include hospital staff reduction and/or growth rate adjustment,[36] increased emphasis on productivity, including measurement and staff training,[37] more aggressive pursuit of price discounts from suppliers,[38] improved energy conservation efforts,[39] and investment in cost-saving technologies.[40]

Besides expansion of outpatient services and integration with post-hospital care providers, lengths of stays may be reduced via increased emphasis on discharge planning,[41] greater infection control efforts,[42] development of nutritional support teams,[43] and expansion of physical therapy departments.[44] Shorter lengths of stays must then be compensated for by strategies to increase hospital care volume (admissions).[45] One such strategy is the establishment of psychiatric and chemical dependency rehabilitation units, since these services are exempted from the prospective reimbursement system.[46]

Further predicted hospital responses to Medicare prospective pricing include formation of DRG task forces and coordinators,[47] improved internal (staff) and external (public) communication and education efforts,[48] and emphasis on service quality and reliability.[49]

C. Undesirable and "System Gaming" Responses Possible

Review of the literature brings to light certain possible hospital responses to Medicare prospective payment which purportedly would negatively impact government budget neutrality intent as well as the overall quality of health care in the U.S. Such responses include:

1. Patient skimming/"product risk management" (refusal to admit those Medicare patients who cannot be treated profitably; reduction in total proportion of Medicare admissions).[50]

2. Admission creep (multiple admissions of single patient having multiple ailments).[51]

3. Diagnosis creep (classification of patients in most costly DRG categories).[52]

4. Cost shifting (to other payers).[53]

5. "Double-dipping" preadmission testing (taking advantage of the fact that Medicare will currently pay for many diagnostic procedures twice).[54]

6. Unnecessary admissions, with early discharge.[55]

7. Reluctance to invest in necessary technology, equipment, and renovations.[56]

8. Reduction in medical education and research programs.[57]

9. Reduction in community service programs, such as health education and outreach.[58]

D. Institutional Variables Which May Influence Hospital Response Decisions

It may reasonably be expected that historical percentage of Medicare admissions may influence the degree to which hospitals change and the aggressiveness with which they respond to the prospective payment system. Review of the literature suggests other institutional variables which may impact response decisions, including hospital size, geographic location, function, and corporate structure.

Small and rural hospitals will be affected more seriously by Medicare prospective pricing than urban or larger hospitals due to the purported inequitable application of the area wage indexes, and restricted cash flow and access to capital. They also tend to have volatile case mixes and censuses often fifty to eighty percent Medicare.[59] Thus, the motivation to respond aggressively will be high, but change will be impeded by other factors inherent in the size and

geographic location of these institutions. These include usually limited data processing and medical records resources and difficulty recruiting qualified personnel, as well as difficulty enlisting medical staff cooperation. Too, because of their unique service to their communities, rural hospitals are not easily in a position to specialize in their most efficiently provided DRGs and discontinue certain other types of care.[60]

The impact of Medicare prospective payment on those institutions which function as teaching hospitals is at question in the literature. On the one hand, they may be expected to respond aggressively to alter their tendency to see a larger proportion of more severely ill and indigent patients and the fact that the value of educating medical interns and residents has traditionally superceded that of using hospital services sparingly. However, due to the reimbursement adjustment paid to institutions which educate new physicians, many executives of teaching hospitals are not alarmed and predict that their facilities will fare well under Medicare's prospective payment system. Thus, initial responses may be accordingly tempered.[61]

Much of the literature previously cited in this review advocates multi-organizational arrangements in response to the Medicare prospective payment system. Thus, those institutions which are already members of multi-hospital organizations are afforded greater resources and flexibility in response choices and may be expected to demonstrate a wider variety of responses than those hospitals not so corporately structured.

Footnotes to Chapter II

[1]See Carolyne K. Davis and Donald Moran, in "Hospitals Must Change Behavior," Hospitals, (June 1, 1983), 22-3; Barbara Gagel, in "Prospective Pricing to Reform System," Hospitals, (June 1, 1983), 29; Richard S. Schweiker, "Executive Summary of 'The Report to Congress on Hospital Prospective Payment for Medicare'," in Healthcare Financial Management, (March 1983), 67-9.

[2]U.S., Health Care Financing Administration, "Medicare Program; Prospective Payments for Medicare Inpatient Hospital Services," Federal Register, XLVII, No. 171, Sept. 1, 1983, 39804-39807.

[3] See, for example, Richard F. Averill, Michael C. Kalison, and Richard J. Webb, "How Hospital Managers Should Respond to PPS," Healthcare Financial Management, (March, 1984), 72-85; Jennifer Cofer and Eileen Durkin, "Medical Records and DRGs," Michigan Hospitals, (October, 1983), 26-8; Janice L. Dreachslin and Edward J. Kobrinski, "Competitive Forces in Hospital Care: The Physician's, Administrator's Roles," Michigan Hospitals, (August, 1983), 24-6; Richard A. Hamilton, "Management Information Systems and DRGs," Michigan Hospitals, (October, 1983), 23-5; R.R. Kovener and Michael C. Palmer, "Implementing the Medicare Prospective Pricing System," Healthcare Financial Management, (August, 1983), 44-6; Roland Loup and Saunders Midyette, "A Generic Market-based Prospective Payment Action Plan," Health Care Strategic Management, (October, 1983), 15-17; Peter A. Wilson, "Hospitals and DRGs," Michigan Hospitals, (October, 1983), 7-10.

[4]Averill, et al., op. cit., 84.

[5]Dreachslin and Kobrinski, op. cit., 24.

[6]Ibid., 25.

[7]See, for example, Michael Nathanson, "Comprehensive Cost Accounting Systems Give Chains an Edge," Modern Healthcare, (February 15, 1984), 22-8; Michael Nathanson, "New Payment System Sparks Interest in Computer Systems," Modern Healthcare, (July, 1984), 208-12; Michael Nathanson, "New Software Helps Hospitals Watch Costs, Profit Under DRGs," Modern Healthcare, (September, 1984), 132; Gregory P. Foulsen, "Detailed Costing System Nets Efficiency, Savings," Hospitals, (October 1, 1984), 106-11.

[8]Dreachslin and Kobrinski, op. cit., 25. See also Vinod Sahney, "Prospective Payment System: Future Directions and Hospital Strategic Response," Michigan Hospitals, (August, 1984), 20.

[9]Richard F. Averill, Michael J. Kalison, and Richard J. Webb, "Responding to PPS: The Outside Response," Healthcare Financial Management, (April, 1984), 96.

[10]R.R. Kovener and Michael C. Palmer, "Implementing the Medicare Prospective Pricing System," Healthcare Financial Management, (September, 1983), 76.

[11]Dennis D. Pointer and Martin B. Ross, "DRG Cost-Per-Case Management," Modern Healthcare, (February 15, 1984), 112.

[12]Howard Berman, in "The Times are Changing," Hospitals, (July 16, 1983), 107.

[13]U.S., Health Care Financing Administration, op. cit., 39806.

[14]See, for example, Luther Gulick, "Notes on the Theory of Organization," in Papers on the Science of Administration, ed. by Luther Gulick and Lyndall Urwick (New York: Institute of Public Administration, 1937), pp. 3-13.

[15]See, for example, Averill, et al., op. cit., 96; Kovener and Palmer, op. cit., 46; Michael Nathanson, "Double-dipping Can Hike Profits, But Advantages May be Short-lived," Modern Healthcare, (February 15, 1983), 154; Nellie O'Gara, "Trustees Shift Focus," Hospitals, (March 16, 1983), 89; Linda Punch, "Physicians Must Alter Practice Patterns Under DRGs," Modern Healthcare, (February 15, 1984), 116; Linda Punch, "More Outpatient Cardiac Rehab Units Circulate in Freestanding Market," Modern Healthcare, (May 15, 1984), 36; Cynthia Wallace, "There's No Secret to Medicare Payment System; the 'Magic' is in New Incentives," Modern Healthcare, (January, 1984), 40.

[16]American Hospital Association, Medicare Prospective Pricing: Legislative Summary and Management Implications (Chicago: American Hospital Association, April, 1983), p. 2.

[17]Hans Boerma, "Hospital Organization Improves," Hospitals, (January 16, 1983), 59. See also Martin G. Skrzynski, "Reimbursement Issues and Long-term Care: Transitions," Michigan Hospitals, (June, 1983), 7-8; Cynthia Wallace, "Hospitals Getting Ready for DRGs," Modern Healthcare, (December, 1983), 23-6.

[18]Judith R. Lave, "Hospital Reimbursement Under Medicare," Healthcare Financial Management, (July, 1984), 70.

[19]See, for example, Vincent Ostrom, The Intellectual Crisis in American Public Administration (University, Alabama: University of Alabama Press, 1974), pp. 48-73.

[20]Dreachslin and Kobrinski, op. cit., 25.

[21]Wayne I. Roe, "Should Equipment Move to Freestanding Facility?" Modern Healthcare, (February 15, 1984), 156.

[22]William Nelson, in "Strategies for Change," Hospitals, (July 1, 1983), 63.

[23]Glenn Richards, "Working Smarter," Hospitals, (October 1, 1983), 100.

[24]Richard B. Saltman and David W. Young, "Prospective Reimbursement and the Hospital Power Equilibrium: A Matrix-Based Management Control System," Inquiry, (Spring, 1983), 22.

[25]William H. Gurtner and John K. Ruffner, "How to Respond to Prospective Payment," Hospital Forum, (January/February, 1984), 59.

[26]Gulick, op. cit., 3-13.

[27]Herbert A. Simon, Administrative Behavior: A Study of Decision-Making Processes in Administrative Organization (New York: The Free Press, 1947).

[28]Pointer and Ross, op. cit., 112.

[29]Wilson, op. cit., 10.

[30]U.S., Health Care Financing Administration, op. cit., 39807.

[31]Wilson, op. cit., 10.

[32]Alex McMahon, in "When MDs Meet DRGs," Hospitals, (December 16, 1983), 66.

[33]Lynn Kahn, "Meeting of the Minds," Hospitals, (March 16, 1983), 85.

[34]Karen Sandrick, "Medical Staff-Administration Relations Under PPS," Hospitals, (April 16, 1984), 80.

[35]"Hospital Organization Improves," Hospitals, (January 16, 1983), 50.

[36]See, for example, Richards, op. cit., 100; Wallace, op. cit., 40.

[37]See, for example, Kovener and Palmer, op. cit., 45; Richards, op. cit., 92-100.

[38]Wallace, op. cit., 40.

[39]David Dayton and George Greider, in "PPS--A Catalyst for Energy Improvements," Hospitals, (December 1, 1983), 56.

[40]Esther F. Kuntz, "Task Forces Scour Diagnosis, Therapy Methods for Cost-Cutting Procedures," Modern Healthcare, (February 15, 1984), 138-42.

[41]See, for example, Punch, op. cit., 114; Richards, op. cit., 100.

[42]"Living With Prospective Payment," Modern Healthcare, (November, 1983), 5.

[43]"Nutrition Support Can Trim Stays," Modern Healthcare, (February 15, 1984), 164.

[44]"Therapy Program Called Vital Under PPS," Hospitals, (October 16, 1983), 49.

[45]See, for example, Richard F. Averill and Michael J. Kalison, "Prospective Payment by DRG," Healthcare Financial Management, (February, 1983), 18; Kovener and Palmer, op. cit., 78.

[46]See, for example, "DRG Cost-Per-Case Management," Modern Healthcare, (February 15, 1984), 168; William J. Lubaway, "Medicare Payment and DRGs," Michigan Hospitals, (October, 1983), 19.

[47]See, for example, Theresa Jankowski, in "Speaker Relates New Jersey Hospitals' DRG Experiences," Hospitals, (April 16, 1983), 38; Punch, op. cit., 114; Wallace, op. cit., 23.

[48]See, for example, John Bedrosian, in "Prospective Plan Needs Public Awareness," Hospitals, (October 16, 1983), 19; Wallace, op. cit., 26.

[49]See, for example, O'Gara, op. cit., 89; Ronald C. Wacker, "Value-Driven Management," Hospitals, (April 1, 1983), 82.

[50]See, for example, Karen Davis, in "Severe Illness Problem for PPS," Hospitals, (December 16, 1983), 17; Paul M. Ellwood, "When MDs Meet DRGs," Hospitals, (December 16, 1983), 66; Emily Friedman, "Getting To Know Us," Hospitals, (March 16, 1983), 81; Edmund C. King, "Prospective Rates," Hospital Forum, (March/April, 1983), 57; Lave, op. cit., 70; "The Times Are Changing," Hospitals, (July 16, 1983), 103; Claudia Wallis, "Putting Lids on Medicare Costs," Time, (October 10, 1983), 56.

[51]See, for example, Lave, op. cit., 68; "Living With Prospective Payment," op. cit., 5; Edward Madigan, in "Doubts on Prospective Plan," Hospitals, (January 16, 1983), 30; Wallis, op. cit., 56.

[52]See, for example, Ellwood, op. cit., 66; Lave, op. cit., 68; Madigan, op. cit., 30.

[53]See, for example, Averill and Kalison, op. cit., 12-13; Madigan, op. cit., 30; Glen Richards, "The Next Step," Hospitals, (March 16, 1983), 72; Wallace, op. cit., 26; Wallis, op. cit., 56.

[54]See, for example, Lave, op. cit., 68; "Living With Prospective Payment," op. cit., 5; Nathanson, op. cit., 154.

[55]"DRG Cost-Per-Case Management," op. cit., 170.

[56]See, for example, "DRGs Could Slow New Technology," Modern Healthcare, (September, 1983), 52; Kahn, op. cit., 86; Wallace, op. cit., 42.

[57]See, for example, Friedman, op. cit., 80; Gurtner and Ruffner, op. cit., 58; Lave, op. cit., 74.

[58]O'Gara, op. cit., 88.

[59]Friedman, op. cit., 80.

[60]See, for example, Friedman, op. cit., 80; Kahn, op. cit., 86; "Small and Rurals See Cash Crunch Due to PPS," Hospitals, (September 16, 1984), 46; Cynthia Wallace, "Rural Hospitals Attack Payment System," Modern Healthcare, (April, 1984), 48.

[61]See, for example, Friedman, op. cit., 80; Susan D. Horn, "Does Severity of Illness Make a Difference in Prospective Payment?" Healthcare Financial Management, (May, 1983), 49-52; Lave, op. cit., 74; Cynthia Wallace, "Many Teaching Hospitals Fare Well Under Prospective Pay...For Now," Modern Healthcare, (August 1, 1984), 34-8.

CHAPTER III

RESEARCH HYPOTHESES

The purpose of this chapter is to present the specific hypotheses tested in this study. The "local"--and, thus, narrow--focus of the project required recognition of its limitations and refinement of the questions to be addressed. The small hospital sample size precludes significant multivariate analysis of response decisions. The change to prospective payment is so recent that not all hospital responses are concretely observable, indeed, even decided upon yet. Also, data on "system-gaming" strategies, due to their implication, are difficult to elicit.

The hypotheses to be pursued in this study, therefore, were systematically culled from the universe of possible hospital responses to the Medicare prospective payment plan, which were discussed in the preceding literature review, based on their manageable dimensions, concrete observability of responses, and relevance to government intent. Consideration was also given to their relationship to public administration concepts (e.g., specialization, hierarchical decision making, organizational arrangements). The research hypotheses are stated below:

H_1: In response to the Medicare prospective payment system, hospital medical and financial information systems are being integrated.

H_2: In response to the Medicare prospective payment system, DRG specialization is occurring.

H_3: In response to the Medicare prospective payment system, hospital outpatient services are expanding.

H_4: In response to the Medicare prospective payment system, diversification/vertical integration is occurring.

H_5: In response to the Medicare prospective payment system, hospitals are restructuring internally to a product-line management approach.

H_6: In response to the Medicare prospective payment system, physicians are being involved more in hospital management.

CHAPTER IV

METHODOLOGY

The purpose of this chapter is to describe the data used in the study and to discuss the analysis of the data. Also, limitations of the study are explained.

A. Description of the Data

Data was collected during the month of December, 1984, via interviews with senior administrators at five hospitals within the Genesee-Lapeer-Shiawassee region. Those administrators who agreed to be interviewed included two chief financial officers, a controller, a Director of Planning and Education, and a Director of Management Services. Hospitals were randomly selected from two size groups: those institutions with more than 100 but less than 300 beds, and those with 300 or more beds. The interview method was chosen due to the recency of the policy impact under study. Many hospital responses to Medicare prospective pricing are still in the planning stage, with such data only verbally available. Written planning documents may exist, but the likely inclusion of sensitive strategic and competitive plans precludes their availability to the student.

The interview format was informally structured to address the hypotheses stated in the previous chapter. (See Interview Questionaire appended.) Actual reported hospital responses were compiled by type, frequency, and degree, and compared to those advised and predicted. Data on independent institutional variables, such as hospital size, geographic location (urban/rural), function (teaching/non-teaching), corporate structure, and historical proportion of Medicare admissions, were also collected and their implications considered in the analysis.

B. Limitations of the Study

Several limitations which should be recognized are explained in this section.

1. The small, five-hospital sample size precludes significant multivariate analysis of response decisions.
2. The data reflect only those hospital responses acted upon or considered at a relatively <u>early</u> stage in the period of adjustment to the Medicare policy change.
3. The data will vary depending on the position and expertise of the hospital administrator willing to be interviewed.
4. Increasing marketplace competition in the healthcare industry which is occurring concurrently with changing reimbursement policies is acknowledged to be a confounding factor in attributing some hospital responses <u>soley</u> to DRGs.
5. Some responses likely to draw public criticism, such as discontinuation of de-emphasis of certain services, may not be frankly discussed.
6. Hospital responses to prospective pricing deemed also to be of a strategic marketing nature are also unlikely to be openly discussed.

These limitations will be discussed in relationship to the findings later in this paper.

CHAPTER V

FINDINGS

This chapter contains a presentation and analysis of the findings derived from the interview data collected in December, 1884, from senior administrators at five Flint area hospitals. The findings are arranged in order of hypotheses H_1 through H_6 previously discussed. At the end of the chapter, an overall summary of the findings is provided.

A. Information Systems Integration - Hypothesis 1

Hypothesis 1 stated that hospitals are integrating their medical and financial information systems in response to the Medicare prospective payment system. Table 1 presents the data related to this hypothesis. Analysis follows.

As expected, all Flint area hospitals studied have responded to Medicare prospective pricing by integrating medical and financial information systems. One of the smaller institutions began the process three years ago in anticipation of the policy impact. The other hospitals have been in various stages of data merger for one to two years now. In all cases, the changes have been coordinated internally, without the use of outside consultants.

TABLE 1

MEDICAL/FINANCIAL INFORMATION SYSTEMS INTEGRATION
IN RESPONSE TO THE MEDICARE PROSPECTIVE PAYMENT SYSTEM
AT A SAMPLE OF FLINT AREA HOSPITALS

	Institutions with 100 but less than 300 beds		Institutions with 300 or more beds		
	Hospital A	Hospital B	Hospital C	Hospital D	Hospital E
1. How have medical/financial information systems changed as a result of DRGs?	The systems have been integrated.	→	→	→	...are in the process of being integrated.
	Additional data are collected; additional reports are generated.	→	→	→	→
2. Have computers and/or software been purchased as a direct result of DRGs?	Yes; both a larger mainframe computer & DRG grouper software have been purchased.	Yes; IBM PC has been purchased; shared data service software selected.	DRG grouper has been purchased. Entire data processing system is currently in process of replacement/upgrading.	IBM PCs & DRG grouper software have been purchased.	DRG grouper software was purchased.
3. Have data processing/medical records staff been added to handle extra work related to DRGs?	Yes; 1 DRG coordinator, 1 medical records coder, ½FTE programmer.	Yes; 3 FTEs for utilization review & DRG coding.	Yes; 7.5 FTEs added for UR function.	Yes; 3 FTEs added for UR and coding.	Yes (number uncertain).
4. Has the medical records dept. been administratively realigned under the finance dept. in response to DRGs?	No (was already organized this way).	→	Yes	No	No
5. Has the hospital's cost accounting changed as a result of DRGs?	No	Not yet. True-cost system under development.	→	→	"uncertain"
6. Has a consultant been engaged to develop an information systems master plan to deal with DRGs?	No	→	→	→	→
7. Are physicians provided information about patient resource consumption concurrently with the patient's stay?	No	Not yet, but procedure is under development.	→	→	→

Computer software and hardware to meet the new information needs have been acquired to varying degrees by the sample institutions. All hospitals purchased DRG Grouper programs. The smaller institutions have purchased both software and upgraded hardware. The larger hospitals have internally adapted their existing equipment, with two adding additional microcomputers.

All hospitals have added staff (from 2.5 to 7.5 FTEs) to respond to the additional data collection and reporting needs of the DRG system, particularly for the diagnosis coding and utilization review functions.

In three of the five hospitals studied, the medical records department reports administratively to the chief financial officer. One hospital instituted this realignment as a direct response to DRGs.

Cost accounting in each of the sample hospitals has been modified only slightly, and remains based on a ratio of cost to charges. However, three institutions are currently involved in developing costing standards in order to eventually be able to report-out actual costs per medical procedure. Identification of "true" costs by DRG, physician, or some other unit of analysis can then be obtained by aggregating, segregating or editing parts of the data base. Two of the three larger hospitals expect to implement detailed cost accounting within the next year. One of the smaller hospitals anticipates a two year implementation time frame. The other remains undecided regarding the value of pursuing cost accounting changes at all, viewing true-cost systems as perhaps

unnecessary and a panic response to DRGs.

All hospitals studied are aware of resource consumption profiles of attending physicians. However, they are choosing not to communicate this information yet. The emphasis at present is on enhanced utilization review to facilitate reduced lengths of stays. Four of the five hospitals do anticipate procedures within the next year to advise doctors of resource consumption per DRG, concurrently with the patient's stay. Two hesitant institutions, one large and one small, emphasized their sensitivity to not promoting public categorization of physicians as financial "winners" or "losers."

B. DRG Specialization - Hypothesis 2

Hypothesis 2 stated that specialization in those services (DRGs) which hospitals can produce most cost-efficiently is occurring in response to the Medicare prospective payment system. The findings of this study indicate, however, that despite awareness of inpatient services which are not "profitable" under the DRG system, none have been discontinued by any of the sample hospitals. Though general medical units have been closed in four of the five institutions, all deny any intentions to terminate particular existing services, citing "social responsibility," hospital mission, and role as community service provider as reasons. The administrator interviewed at one of the larger institutions did predict that in five years area hospitals will specialize in services

determined via mutual decision-making.

On the issue of service marketing, those interviewed declined to respond in much depth. There was agreement that certain inpatient services would likely be emphasized, pending the findings of case-mix monitoring and current market studies. No services have been de-emphasized yet, but the possibility is not ruled-out as better data becomes available within the next six to twelve months.

Exemption of inpatient psychiatric and rehabilitation units from the Medicare prospective payment system has incouraged pursuits in these areas by four of the five institutions. One hospital has expanded its inpatient psychiatric unit; two have acquired such units; and one is planning to do so. Also, one hospital began offering chemical dependency services in anticipation of the policy change, and another is planning such a unit. Two hospitals have had chemical dependency units for many years now.

C. Outpatient Services Expansion - Hypothesis 3

Hypothesis 3 stated that hospitals are expanding their outpatient services in response to the Medicare prospective payment system. Table 2 presents the data related to this hypothesis. Analysis follows.

As expected, all hospitals studied are expanding or planning to broaden outpatient services in response to the Medicare prospective payment system, albeit some more aggressively than others. Particular areas of emphasis, in

TABLE 2

EXPANSION OF OUTPATIENT SERVICES
IN RESPONSE TO THE MEDICARE PROSPECTIVE PAYMENT SYSTEM
AT A SAMPLE OF FLINT AREA HOSPITALS

	Institutions with 100 but less than 300 beds		Institutions with 300 or more beds		
	Hospital A	Hospital B	Hospital C	Hospital D	Hospital E
Outpatient physical therapy	expanding	expanding	expanding	no action yet	no action yet
surgery	planning to expand	expanding	planning to expand	no action yet	planning to expand
chemical dependency treatment	no action	no action	planning to add	planning to expand	"no comment"
laboratory testing	expanding	expanding	expanding	planning to expand	planning to expand

order of decreasing activity, are outpatient laboratory testing (three hospitals are in the process of expanding services; two are planning expansion), surgery (one hospital is already expanding services; three are planning expansion), physical therapy (three of the five hospitals are currently expanding this service), and chemical dependency treatment (one of the larger hospitals is planning to expand this service; another is planning to add it). One larger institution noted that it has made few firm decisions yet because it has not been operating under the DRG system long enough. Focus at present is on making internal operations more efficient rather than adding new services.

D. Diversification/Vertical Integration - Hypothesis 4

Hypothesis 4 stated that hospitals are becoming more diversified in the services they provide, and they are developing vertically integrated healthcare provider systems in response to the Medicare prospective payment system. Table 3 presents the data related to this hypothesis. Analysis follows.

Four of the five hospitals studied are developing vertically linked healthcare provider systems. The remaining institution is prohibited from doing so due to the nature of its charter. Primary areas of activity, in order of decreasing frequency, are home care, nursing homes, hospices, freestanding surgery centers, and freestanding chemical dependency centers.

TABLE 3

DIVERSIFICATION/VERTICAL INTEGRATION
IN RESPONSE TO THE MEDICARE PROSPECTIVE PAYMENT SYSTEM
AT A SAMPLE OF FLINT AREA HOSPITALS

	Institutions with 100 but less than 300 beds		Institutions with 300 or more beds		
	Hospital A	Hospital B	Hospital C	Hospital D	Hospital E
1. Home care	expanding	prohibited by charter	expanding	planning to expand	planning contractual arrangement
2. Nursing homes	CON filed	"	planning to expand	"under consideration"	→
3. Freestanding ER centers	no action	"	no action	→	→
4. Freestanding surgery centers	no action	"	CON filed	no action	"under consideration"
5. Hospices	CON filed	"	planning	no action	"under consideration"
6. Freestanding chemical dependency centers	no action	"	no action	expanding	"under consideration"
7. Service contract businesses					
a. Office space leasing	planning to expand	"	no action	planning to expand	"under consideration"
b. Office/clinic management	planning to expand	"	no action	→	→
c. Durable medical equipment sales	planning to expand	"	planning to expand	no action	→
d. Home oxygen services	no action	"	planning to expand	no action	→
e. Consultant services	no action	"	expanding	no action	→
8. Holding companies	under consideration	planning	already exists	under consideration	already exists

The findings reveal that one sample hospital has a relationship with a home care sister subsidiary of its parent company. Another institution is planning to contract with an independent home health care provider. Two other hospitals are expanding their own existing home care services. The status of integration with nursing homes is as follows: one hospital owns a convalescent center and has recently filed a certificate of need for expansion; another hospital has filed a CON to build a nursing home; yet a third and fourth of the five hospitals studied are "exploring" nursing home integration. Hospice services are in various stages of consideration, CON application, and implementation in three of the five institutions. A CON has been filed by one hospital and another is considering application for construction of a freestanding surgery center. One institution is expanding its contractual arrangements with freestanding chemical dependency centers, and another is considering such integration.

Diversification into office space leasing (by three of the hospitals), durable medical equipment sales (two of five), and other for-profit service contract businesses, including home oxygen, physician office/clinic management, and consultant services, is also occurring among Flint area hospitals in response to DRGs. As mentioned above, one institution complains that it has been unable to vertically integrate and diversify services due to the nature of its charter. Eventual corporate restructuring is planned in this case and by two other hospitals studied. Two institutions had already horizontally reorganized in anticipation of the impact of

reimbursement changes and increased competition in the health care industry.

E. Management Restructuring - Hypothesis 5

Hypothesis 5 stated that hospitals are restructuring internally to a product-line management approach in response to the Medicare prospective payment system. Findings reveal, however, that only one of the sample hospitals is doing so. Medical Program Administrator positions have been created at this larger institution to take charge of production and promotion of specific groups of hospital services (product lines). This matrix management system is expected to be operational within a few months. The other hospitals studied revealed no intended change in their typically pyramidal, department-as-center-of-responsibility organizational and decision-making structures.

F. Greater Physician Involvement in Management - Hypothesis 6

Hypothesis 6 stated that physicians are being involved more in hospital management in response to the Medicare prospective payment system. Findings reveal that all but one of the sample hospitals have historically sat one to two physicians on their boards of trustees. Each hospital also has had a chief medical officer for some time now. Contrary to expectation, no hospital studied has facilitated any change in physician administrative involvement in the financial and

operating routines of the institution in response to Medicare prospective payment. One frustrated administrator expressed the need to do so. The other hospitals are comfortable at present with the results of their physician education efforts. One institution effected a change in its by-laws, cutting in half the time required for physicians with admitting privileges to complete their patient medical records.

G. Summary of Findings

Hypothesis 1 stated that Flint area hospitals are integrating their medical and financial information systems in response to the Medicare prospective payment system. This was found to be the case in all five sample hospitals. Thus, the hypothesis is sustained.

Hypothesis 2 stated that specialization in those services (DRGs) which hospitals can produce most cost-efficiently is occurring in response to the Medicare prospective payment system. This hypothesis was not sustained insofar as none of the sample institutions have emphasized or discontinued or de-emphasized any services. It is noted, however, that future marketing of certain inpatient services is likely, and future de-emphasis of services is not ruled-out.

Hypothesis 3 stated that hospitals are expanding their outpatient services in response to the Medicare prospective payment system. This was found to be the case in all sample hospitals. Thus, the hypothesis is sustained.

Hypothesis 4 stated that hospitals are becoming more

diversified in the services they provide, and they are developing vertically integrated healthcare provider systems in response to the Medicare prospective payment system. This hypothesis is sustained, as all but one of the sample institutions are involved in such activities. The remaining hospital is attempting to corporately reorganize so as to be able to do the same.

Hypothesis 5 stated that hospitals are restructuring internally to a product-line management approach in response to the Medicare prospective payment system. This was found to be the case in only one of the sample institutions. Therefore, the hypothesis was not sustained.

Hypothesis 6 stated that physicians are being involved more in hospital management in response to the Medicare prospective payment system. This hypothesis was not sustained insofar as none of the hospitals studied have facilitated any change in physician administrative involvement in the financial and operating routines of the institutions.

CHAPTER VI

DISCUSSION OF THE FINDINGS

A. Summary of the Research Problem and the Findings

In 1983, Congress approved a Medicare prospective payment plan for most inpatient hospital services which is widely regarded as the most significant change in the government health insurance program since its beginning. The radically altered reimbursement incentives inherent in prospective payment produce different contingencies and constraints that, in turn, require dramatically different organizational and policy responses by hospitals. The purpose of this study was to determine the extent to which local community hospitals are choosing the predicted, advised responses, what institutional variables are operating to influence those choices, and whether there is evidence that government policy intent will be achieved.

Analysis of interview data showed that organizational and policy responses, actual and planned, to Medicare prospective pricing chosen by a majority of the Flint area hospitals studied, consistent with the advise and predictions of industry experts, include: integration of medical and finan-

cial information systems, addition of medical records/utilization review staff, development of micro-costing methodologies, development of procedures to advise doctors of resource consumption per DRG concurrently with the patient's stay, expansion into psychiatric and chemical dependency rehabilitation units, expansion of outpatient services, in the areas of pre-admission diagnostic testing, surgery, and post-discharge therapeutic services, vertical integration into home care services, nursing homes and hospices, and diversification into office space leasing and other for-profit service contract businesses. Increasing marketplace competition in the health care industry which is occurring concurrently with changing reimbursement policies is acknowledged to be a confounding factor in attributing some of the above responses soley to DRGs.

The results of this study are somewhat surprising in three areas: (1) While many in the healthcare field anticipated that the Medicare prospective payment system would lead hospitals to specialize in the services that each could most efficiently and profitably produce, thereby discontinuing unprofitable services, there is little evidence to date that such product line reshaping is occurring, or being given serious consideration, by any of the sample hospitals in the Flint area. (2) Despite considerable attention in the literature to product line, matrix management restructuring, only one hospital is choosing this response, in fact, changing its historical internal organizational arrangement at all in response to DRGs. (3) Also contrary to expectation, there has

been no movement of physicians into greater administrative involvement in financial and operating routines of the hospitals studied.

The impacts of independent institutional variables on hospital response decisions were not easily discerned in this study. The following observations are reported only to suggest areas for further study, with a larger and more heterogeneous sample. Hospital size appears a factor in the ease and degree of information systems integration, with the larger institutions able to adapt existing hardware and program internally. The smaller hsopitals studied needed to acquire both hardware and software packages. One small-hospital administrator suggested that development of detailed cost accounting methodologies may not be cost-effective for smaller institutions like his. Hospitals whose geographical location makes them sole community service providers may be less likely to specialize in services or discontinue "unprofitable" DRGs, according to data provided by those sample hospitals located outside the City of Flint. Horizontally integrated, private (versus public) corporate structure appears to facilitate ease of adaptability to the reimbursement change by allowing a greater variety of response choices, as manifested by the two sample hospitals so structured. The other institutions are actively planning or considering such reorganization. Also, the historical proportion of Medicare admissions appears to affect the aggressiveness and intensity with which hospitals are changing to respond to changes in reimbursement policy. It is noted that the two Flint area institutions with

the lowest percentage of operating revenue accounted for by Medicare seemed the most conservative in their response decisions. Finally, little was discernible in this study regarding the implications of hospital urban versus rural designations or teaching versus non-teaching functions.

B. Limitations of the Study

Some possible limitations of this study were discussed at the end of Chapter IV. In this section these limitations are discussed in relationship to the findings.

1. One limitation is the small sample size. Though the findings involving the five hospitals can be generalized to the response decisions of the three similar remaining institutions in the Genesee-Lapeer-Shiawassee region, significant multivariate analysis of responses is not possible. Other than the difference in bed-size categorization, the sample was rather homogeneous. Four of the five hospitals are designated "urban" institutions by the Health Care Financing Administration. All of the larger hospitals function as teaching institutions. Thus, the discussion of the impacts of independent institutional variables on hospital response decisions in the previous section must be considered only as a source of hypotheses for future study, with a larger, more heterogeneous sample.

2. Conclusions drawn from this study must be tempered by the fact that the data reflect only those hospital responses

acted upon or considered during the first year of the three year phase-in period of the new Medicare reimbursement system. Thus, some anticipated institutional changes may yet occur as the DRG rates become increasingly less hospital-specific and move toward national average figures. Indeed, administrators interviewed acknowledged the challenge faced over the next two years. Many response options remain under consideration, with decisions yet to be finalized.

3. This study was further limited by the expertise of the hospital administrators who consented or were delegated to be interviewed. In each case the CEO or CFO was initially approached. Greatest confidence may be placed in the data provided by the financial officers (interviewed in three of the five cases). The Director of Management Services and the Director of Planning and Education seemed less able to respond specifically regarding changes at their respective institutions.

4. All effort was made in this study to identify those hospital organizational and policy changes which are soley attributable to the Medicare prospective payment system. However, the increasing marketplace competition in the health care industry which is occurring concurrently with changing reimbursement policies motivates similar responses. Thus, some reported hospital changes, particularly in the areas of service efficiency and diversification, and vertical integration, were acknowledged by interview respondents to be dually motivated by DRGs and increasing marketplace competition, and, therefore, confound the validity of the results.

5. The issue of hospital administrators' reluctance

to discuss responses likely to draw public criticism, such as discontinuation or de-emphasis of certain services, appears not to be a limitation of this study. All interview respondents readily reported that no services have been terminated as a result of Medicare prospective pricing, nor are there plans to do so. Indeed, "loss leaders" (unprofitable DRGs) were mentioned which will continue to be provided. However, attention is again drawn to the relatively early stage of adjustment to the reimbursement change. This limitation may become an issue in later studies.

6. A final limitation of this study is the likelyhood that hospital responses to prospective pricing deemed also to be of a strategic marketing nature will not be openly discussed. This beared true in that the only interview question on which comment was declined had to do with inpatient services marketing in response to DRGs. Thus, the validity of the conclusion regarding the absence of DRG specialization is somewhat impuned.

C. Discussion of the Findings: Generalizability and Policy Implications

Though the generalizability of the findings of this study is impeded by the small, localized sample, the uniformity of certain responses to the Medicare prospective payment system, consistent with the recommendations of industry experts, across all sample hospitals suggests similar responses may be predicted throughout the country. Such organizational

and policy changes include: integration of medical and financial information systems, more sophisticated computerization, addition of medical records and utilization review staff, expansion of outpatient services, development of vertically integrated healthcare provider systems, and diversification into for-profit service contract businesses. Findings at four of the five hospitals studied also support the generalizability of the development of procedures to advise physicians regarding resource consumption concurrently with a patient's stay.

Hypotheses found not sustained in all sample cases include the absence of any service (DRG) specialization in response to Medicare prospective pricing, as well as no greater physician involvement in hospital management to date. Thus, these finding, too, may be generalized to other institutions throughout the country, assuming similar existing levels of physician administrative paritcipation. The fact that four of the five hospitals studied have also not opted for product line management restructuring may also be predictive.

The findings of this research, including those hypotheses not sustained, are corroborated in other recent studies of the early impact of DRGs. Gasper et al., in their study of Michigan hospitals, describe information systems integration, automation, and sophistication, outpatient expansion, service diversification, and procedures to provide physicians with information regarding resource consumption.[1] Diversification and vertical integration is documented in a nation-wide study reported by Hospitals, as is the lack of evidence of hospitals' specialization in profitable product lines and

little movement among physicians into hospital management since the enactment of the Medicare prospective payment system.[2]

Though hospital responses to Medicare reimbursement changes are only beginning to unfold, these findings suggest important policy implications. One of the purposes of this study was to determine if there is evidence that government policy intent will be achieved. The following conclusions may be drawn from the interview data:

1. Reduced utilization of inpatient hospitalization services is occurring.

2. Hospitals are increasingly more cost conscious and manifesting behaviors geared toward improved operating efficiency and cost reduction.

3. Increased competition among hospitals is beginning to emerge via marketing strategies.

4. There is not, however, evidence to date of hospital (DRG) specialization.

5. Nor is there evidence of more active medical participation in the financial and operating routines of hospitals.

Recognizing, again, that specialization and greater physician involvement may occur in time, these findings still warrant government monitoring of hospital responses to determine if legislative policy adjustments are necessary.

D. Conclusion

In the broadest sense, this paper represents an effort

to understand the Medicare Prospective Payment System and hospital responses to it. Specifically, the responses of five Flint area hospitals have been analyzed. Despite the limitations of the approach, the findings are useful insofar as they suggest early trends and influencing factors for further observation. Their policy implication to date is that Congressional intent may not be wholly achieved.

Footnotes to Chapter VI

[1]Kyle Gasper, Richard A. Hamilton, and Phillip Herren, "DRGs: The Early Impact," Michigan Hospitals, (August, 1984), 7-13.

[2]"PPS: After the First Year," Hospitals, (September 16, 1984), 57-82.

APPENDIX

APPENDIX

INTERVIEW QUESTIONAIRE

Introduction

"As a graduate student of Public Administration at the University of Michigan-Flint, I am conducting research regarding responses of local hospitals to the Medicare Prospective Payment System. Data are being collected via interviews with hospital administrators. Your hospital will not be identified in the report. Your willingness to participate in this interview is very much appreciated."

Interview Questions

Institution:_____

Administrator interviewed:_____

Number of beds:_____

Medicare accounts for approximately _____% of operating revenue.

Medicaid accounts for approximately _____% of operating revenue.

Urban or rural designation?

Number of FTE interns and residents:_____

Fiscal year begins_____

1. How have your hospital medical and financial information systems changed as a result of the DRG payment system?

2. To what extent have computers and/or software been purchased by your hospital as a result of DRGs?

3. Have data processing/medical records staff been added to handle extra work related to DRGs? How many?

4. Has medical records department been administratively realigned under finance department?

5. Has the hospital's cost accounting changed in reaction to Medicare prospective pricing?

6. What type of cost accounting system is presently used in the hospital?

   a. "Bottom-up" system--associates <u>true cost</u> of every input to a final product?

   b. "Top-down" system--approximates costs based on ratio of charges to costs?

7. Has the hospital engaged a consultant for an information systems master plan to deal with DRGs?

8. What future information system changes are planned? For when?

9. Are you providing physicians with information about patient resource consumption concurrently with the patient's stay?

10. Are you involving physicians in hospital financial and operational management as a response to prospective payment? How? In the past? Future involvement planned?

	past	since DRGs	planned
a. As board members?			
b. As members on hospital-wide committees (e.g., strategic planning, budgeting)?			
c. As salaried department heads?			
d. In medical staff liason positions?			

11. Has the hospital added or expanded or planned any types of services in response to Medicare prospective payment?

	expanded	added	planned
inpatient psychiatric/ rehabilitation units			
outpatient physical therapy			
surgery			
laboratory testing			
chemical dependency treatment			
home health care			
nursing homes			
freestanding ER centers			
Freestanding surgery centers			
hospices			
chemical dependency centers			
service contract businesses:			
office space leasing			
office/clinic management			
durable medical equipment sales			
home oxygen services			
consultant services			
holding companies			

12. Do you anticipate closing any inpatient units or discontinuing any services in response to the DRG system? Which ones? Over what period of time?

13. Will any inpatient services be especially marketed?

14. Will any inpatient services be especially de-emphasized?

15. How do you decide about service marketing or de-emphasis?

16. Are certain hospital services purposely not being cut, even though they are not "profitable" under the DRG system? What kinds?

17. Have DRGs prompted change in the hospital's internal management structure (i.e., toward product-line management, where one person is responsible for an entire program--geriatrics, cancer, etc.--cutting across departments)?

18. If so, are product managers responsible for service promotion as well as production?

19. In concluding this interview, your general impressions regarding the impact of prospective payment on your institution would be welcomed.

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