Part Three
Evaluation Strategies

Chapter 10

Current PPS Evaluation Activities

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Chapter 10

Current PPS Evaluation Activities

INTRODUCTION

Several Federal Government and private organizations are involved in the evaluation of Medicare's prospective payment system (PPS) established by the Social Security Amendments of 1983 (Public Law 98-21). Organizations sponsoring PPS studies in the Federal Government include the Department of Health and Human Services (DHHS), primarily the Health Care Financing Administration (HCFA); the Prospective Payment Assessment Commission (ProPAC), an independent body established by Congress in the Social Security Amendments of 1983; and congressional agencies such as OTA. Private organizations involved in PPS studies include professional societies, trade associations, and beneficiary groups.

In their research efforts, various agencies and organizations are emphasizing one or more of the impact areas addressed in Part Two of this report: expenditures and costs, quality of care, access to care, technological change, and clinical research. Thus far, HCFA has focused mainly on costs and expenditures under PPS, although the agency has recently initiated a set of research projects pertaining to quality of care. Quality of care issues are also included among the PPS research interests of many private organizations. Within the Federal Government, the potential for addressing access to care rests with the National Center for Health Services Research and Health Care Technology Assessment (NCHSR&HCTA), [1] a Public Health Service (PHS) agency whose domain is health services research, Technological change under PPS is the evaluation focus of the Health Industry Manufacturers' Association and a few other private organizations. No Federal agency has initiated studies of PPS impacts on technological change. The effect of PPS on clinical research is of particular interest to teaching hospitals and groups involved in cancer research.

This chapter examines PPS-related evaluation studies by Federal agencies and a number of private organizations. It also discusses several important issues pertaining to current PPS evaluation efforts, including overlaps and gaps in research, problems with data for evaluation studies, and staffing and funding for congressionally mandated studies of PPS.

[1] The name of this agency was formerly the National Center for Health Services Research (NCHSR). The change in its name marked a new emphasis on health care technology assessment and a change in focus on technology assessment issues by the passage of Public Law 98-551 on Oct. 25, 1984.

PPS-RELATED EVALUATION STUDIES BY FEDERAL AGENCIES

Federal activities with respect to the evaluation of PPS fall into two broad categories:

- studies mandated by Congress in legislation or requested in committee report language during the past 3 years, either for the purpose of evaluating PPS or to consider specific issues in the refinement and expansion of PPS; and
- studies funded by Federal agencies as part of their general responsibility to monitor and evaluate their programs or as background to mandated PPS studies.

The following discussion identifies and discusses the congressionally mandated and other PPS-related studies of executive branch agencies, mainly HCFA and other components of DHHS; of ProPAC; and of congressional agencies such as OTA, the Congressional Budget Office (CBO), the Congressional Research Service (CRS), the General Accounting Office (GAO), and OTA.

Mandated PPS Studies of Federal Agencies

A list of PPS studies mandated by legislation or requested in a congressional committee report is provided in table 10-1. Almost all of the congressionally mandated PPS studies were assigned to the Secretary of Health and Human Services and became the responsibility of HCFA. Three studies not assigned to DHHS were assigned to ProPAC.

The Social Security Amendments of 1983 (Public Law 98-21) mandated several reports by DHHS on possible refinements to PPS (see table 10-1). It also directed the Secretary of Health and Human Services to ". . . study and report annually to the Congress at the end of each year (beginning with 1984 and ending with 1987) on the impact, of the payment methodology . . . [on] classes of hospitals, beneficiaries, and other payers for inpatient hospital services, and other providers . . ." Finally, this law directed ProPAC to deliver annual reports to the Secretary of Health and Human Services with recommendations on adjustments to PPS.

The Deficit Reduction Act of 1984 (Public Law 98-369) mandated several additional PPS studies by DHHS (see table 10-1). Most of the studies mandated by this law focus on refinements or adjustments to the new payment system.

The House Appropriations Committee, in its July 1984 report for the 1985 Departments of Labor, HHS, Education and Related Agencies Bill (Report 98-911 on H.R. 6028), called for (though technically did not mandate) three studies pertaining to the impacts of PPS (see table 10-1).

Mandated Studies **To Be Undertaken by the Department of Health and Human Services**

The preparation of most of the DHHS studies mandated by Congress has been assigned to HCFA (see table 10-1). Only a few of the studies are being managed by other components of DHHS.

Health Care Financing Administration.—As shown in table 10-1, most of the mandated studies under HCFA'S direction have been assigned to the agency's Office of Research and Demonstrations (ORD). Several of the mandated studies under HCFA'S direction, including the study on incorporating exempted hospitals and exempted hospital units into PPS, pertain to the refinement or expansion of PPS. Other mandated studies reflect congressional anticipation of potential problems under PPS, such as adverse effects on sole community hospitals, uncompensated costs of care, adverse effects on large rural teaching hospitals, underutilized hospitals, wage adjustments, intensity of care, severity of illness, and outlier payments. A report by HCFA due at the end of 1986 will consider the impact of State alternatives to PPS on Medicare, Medicaid, private health expenditures, and tax expenditures, As of August 1985, most of the HCFA-supported, congressionally mandated studies of PPS had yet to be released or had not been completed. All of HCFA's congressionally mandated deadlines for PPS studies had been missed.

Starting in 1984 and ending in 1987, the Secretary's annual PPS impact reports are expected to evaluate the effects of Medicare's new payment system on classes of hospitals, beneficiaries, and other payers for inpatient hospital services, and to evaluate in particular the impact of computing DRG rates by census division rather than nationwide. The Secretary's first report, which is to be largely descriptive, will contain information on the background and objectives of PPS, early findings on the impact of PPS, and descriptions of PPS-related research issues that will be examined as the system develops (336). As of August 15, 1985, the 1984 annual impact report, due December 31, 1984, was in the Secretary's office for clearance. [2]

Other DHHS Agencies.—The National Institutes of Health (NIH) and HCFA are responsible for a mandated study of the effects of PPS on clinical trials (study #31 in table 10-1). An interim report is expected in the fall of 1985. The Office of the Assistant Secretary for Planning and Evalu-

[2]Although the first annual report has not been released, a brief oral description was provided to OTA by HCFA staff. The report covers program implementation as well as sections on PPS impacts on: 1) hospitals (by type and region, effects on length of hospital stay, admissions, and case mix); 2) Medicare beneficiaries (providing baseline data for future annual impact reports); 3) quality of care; 4) other providers; 5) Medicare program expenditures (rates of increase over the past 10 years; Part A, Part B, and total); and 6) other payers (brief section) (84),

Table 10-1 .—Studies of Medicare's PPS Mandated by Congress

Study topic	Report due date	Agency	Status (as of August 1985)
Reports Mandated by Social Security Amendments of 1983 (Public Law 98-21):			
1983-1984 reports			
1 Impact of Single Limits on Skilled Nursing Facilities	12/31/84a	HCFA-OLP	Complete (1/85)
2 Impact of Hospital PPS on Skilled Nursing Facilities	12/31/84a	HCFA-OLP	Complete (1/85)
3 Including U S Territory Hospitals	4/1/84	HCFA-BERC	In clearance
4 Incorporating Capital Into PPS	10/14/84	ASPEf HCFA	In clearance
5 Annual PPS Impact Reports, 1984-87	12/31/84-87	HCFA-ORD-OR	In clearance
1985 reports			
6 Annual Report and Recommendations on PPS to the Secretary of Health and Human Services	Beginning 4/1/85	ProPAC	Complete (4/85)
7 Occupancy of Sole Community Hospitals	4/1/85	HCFA-ORD-OR	In clearance
8 A-B Information Transfers .	4/1/85	HCFA-ORD-BPO	In clearance
9 Uncompensated Care Costs	4/1/85	HCFA-ORD-OR	In clearance
10 Cost of Care Information to Patients	4/1/85	HCFA-ORDOR	Complete (8/85)
11 Large Rural Teaching Hospitals . ., ...	4/1/85	HCFA-ORD.OR	In clearance
12 Case-Mix Measurement Refinements of DRGs (including severity of illness, intensity of care, and adequacy of outlier payment)	12/31/85	HCFA-ORD-OR	—
13 Eliminating Rural .Urban Rates ., ., .,	12/31/85	HCFA-ORD-OR	
14 Exempted Hospitals Report: Long-Term Care Hospitals, Psychiatric Units, Rehabilitation Units, and Pediatric Hospitals	12/31/85	HCFA-ORD-OR	
15 All-Payer Feasibility. Cost-Shifting .,	12/31/85	HCFA-ORD-OR	
16 Impact of Admission. Volume Adjustment	12/31/85	HCFA.ORD-OR	—
17. Physician DRGs —Including Payments for Physicians' Services to Hospital inpatients in DRG Payment Amounts	7/1/85[c]	HCFA-ORD-OR	Incomplete
1986 reports:			
18. Impact of State Alternatives to PPS on Medicare, Medicaid, Private Health Expenditures, and Tax Expenditures	12/31/86	HCFA-ORD-OR	
Reports Mandated by the Deficit Reduction Act (Public Law 98-369):			
1984 reports			
19 Prospective Payment for Skilled Nursing Facilities	8/1/84	HCFA-OLP	Complete (1/85)
20 Prospective Payment System Wage Index Adjustments	8/18/84	HCFA-BERC	Complete (4/85)
21 Opt Ions for Prospective Payment for Skilled Nursing Facilities	12/1/84	HCFA-OLP	Complete[d] (1/85)
22 Definition and Identification of "Disproportionate Share" Hospitals	12/31/84	HCFA-BERC	Incomplete
1985 reports.			
23 Urban/Rural Payment Differential ., ., ., .,	1/1 8185	HCFA-ORD-OR	To be Included with study +13
24. Advisability and Feasibility of Varying by DRG Proportions of Labor and Nonlabor Components of the Federal Payment Amount,	1/1 8185	HCFA-BERC	To be included with study .13
25 Pacemaker Payment Review (Part A)	3/1/85	ProPAC	Complete (3/85)
26 Pacemaker Payment Review (Part B) .,	3/1/85	HCFA-BQC	Incomplete
27. Closure and Conversion of Underutilized Hospital Facilities	3/1/85	HCFA-BERC/ORD	In clearance
28. Certified Registered Nurse Anesthetists ., ...,	7/1/85	HCFA-BERC/ORD	Incomplete
29 Hospital Specific Variance	9/1/85	HCFA-ORD	To be Included with study #13
30 Except Ions to Wage Index Adjustments . ., .,	—	HCFA-BERC	
Reports Requested by the House Appropriations Committee Report (Report 98.911 on H.R. 6028):			
1985 reports			
31 Effect of PPS on Clinical Trials . . . ., ...,	—	NIH/HCFA	Interim report, fall 1985 Completion expected winter 1986
32 Annual Report on Impact of PPS on Blood Banking ., .	—	HCFA	Expected early 1986
33 Effects of PPS on U S Health Care System ., ...	Beginning 2/86	ProPAC	

ABBREVIATIONS ASPE "Assistant Secretary for Plannlng and Evaluation (DHHS)
HCFA Health Care Financing Administration
— BERC Bureau of Eligibility Reimbursement and Coverage
— BPO: Bureau of Program Operations
—BQC Bureau of Quality Control
—OLP Off Ice of Legislation and Policy
—ORD.OR Off Ice of Research and Demonstrations, Off Ice of Research
Pro PAC Prospective Payment Assessment Commission

"a-Due date revised from 12/31;83 to *12/31/84*
bReport has been completed and IS being reviewed within DHHS before being submitted to Congress
cDue date revised from 12/31/85 to 7/I/85
dReport included in larger project. "Study of Skilled Nursing Facilities Benefit Under Medicare "

SOURCES A Dobson and W Sobaski, Off Ice of Research and Demonstrations Health Care Financing Administration, Department of Health and Human Services Baltimore MD personal communications May and August 1985; A Dobson, "Prospective Payment" Current Configuration and Future Direction, " presented to the Prospective Payment Assessment Commission Washington, DC, Feb 2, 1984

ation (ASPE), with the support of HCFA, has been the DHHS focus for the congressionally mandated study on how to handle hospital capital spending under PPS (study #4 in table 10-1). This report, due October 14, 1984, was in the Secretary's office for clearance as of August 1985.

Mandated Studies To Be Undertaken by the Prospective Payment Assessment Commission

Medicare's PPS was implemented very soon after the enactment of the Social Security Amendments of 1983. Congress recognized that periodic adjustments to the new system—including the overall amount paid and the way the prices are apportioned among the different diagnosis-related groups (DRGs)—would be needed. Thus, in the same law that established Medicare's PPS, Congress created ProPAC as an independent commission of experts to make recommendations to the Secretary of Health and Human Services and to Congress about these changes. (The Secretary of Health and Human Services is charged with making the actual changes by regulation,)

The Social Security Amendments of 1983 specified that ProPAC Commissioners were to be selected and appointed by the Director of OTA. In addition, the 1983 law gave ProPAC two specific responsibilities:

- to recommend annually to the Secretary of Health and Human Services the appropriate percentage change in Medicare payments for inpatient hospital care (termed "the updating factor") which is to be applied to the previous year's payment rates; and
- to make periodic recommendations to the Secretary of Health and Human Services concerning changes in individual DRG weights and categories, beginning with fiscal year 1986 and at least every 4 years thereafter.

ProPAC's report containing these recommendations (study #6 in table 10-1) is due annually on April 1, and the first such report was delivered April 1, 1985 (237).

The Deficit Reduction Act of 1984 gave ProPAC two additional specific tasks: 1) to review and report on cardiac pacemaker payment under Medicare Part A and the relative weights assigned to those DRGs in which pacemakers are used (study #25 in table 10-1), and *2)* to make a recommendation regarding the overall annual rate of increase in allowed routine costs for non-PPS hospitals. The results of ProPAC's study of pacemaker payment under Part A and a recommended update factor for non-PPS hospitals were included in ProPAC's April 1985 report (237).

According to the House Appropriations Committee report language for the fiscal year 1985 Departments of Labor, HHS, Education, and Related Agencies Bill (Report 98-911 on H.R. 6028), "the primary role of the Commission lies in a broader evaluation of the impact of Public Law 98-21 *on* the American health care system. " That report directs ProPAC to submit an annual report to Congress expressing its views on the impact of PPS (study #33 in table 10-1). ProPAC's first report on the impact of PPS on the U.S. health care system is due on February 1, 1986. Although the House report language does not have the force of law, ProPAC intends to comply.

Nonmandated PPS-Related Studies by Federal Agencies

In addition to undertaking the congressionally mandated studies discussed above, DHHS and other Federal agencies are involved in nonmandated research evaluating PPS.

Nonmandated Studies by the Department of Health and Human Services

When PPS was established, several DHHS research and demonstration projects that were to have helped in the design of the new system had not been completed. Some of the DHHS projects that had been started before the passage of the Social Security Amendments of 1983 are being continued in order to address anticipated problems with PPS or with DRGs. In addition, some older projects concerning nonhospital aspects of health care delivery that may be affected by PPS have been extended. And, finally, some new DHHS studies have been undertaken with the purpose of providing background information for congressionally mandated studies. The nonmandated studies of HCFA and other DHHS agencies,

especially PHS agencies, are discussed further below.

Health Care Financing Administration. -HCFA conducts or funds intramural and extramural research and demonstrations on a wide range of issues pertaining to Medicare and Medicaid delivery of health services. HCFA'S ORD directs more than 300 research, evaluation, and demonstration projects, a substantial number of which focus on hospital payment. ORD projects are split between the Office of Research (OR) and the Office of Demonstrations and Evaluations (ODE) (336).

Table 10-2 provides a comprehensive list of all currently active extramural and intramural, ORD-supported, nonmandated studies of prospective payment for hospitals. Many of these studies will be used as background for the congressionally mandated studies of PPS. As shown in table 10-2, major areas covered by the studies are State alternatives to PPS, evaluation of PPS impacts, and case-mix measurement.

ORD'S research priorities relating to hospital payment for the short term (through fiscal year 1986), mid term (fiscal years 1987 to 1989), and long term (fiscal year 1990 and beyond) are shown in table 10-3. Short-term priorities include research on topics such as the refinement and recalibration of DRGs and the development of DRG-type payment systems for nonhospital services such as skilled nursing facilities (SNFS) and for physicians' services provided to inpatients. Mid- and long-term priorities focus on research pertaining to the development of alternative prospective payment systems for other kinds of services or cavitation.

HCFA has embarked on two 5-year cooperative agreements for Health Policy Centers with Brandeis University and the Rand Corp. /University of California at Los Angeles. The agency has assigned background research related to mandated studies of PPS to these two Health Policy Centers, as shown in table *10-4*. Each HCFA Health Policy Center has signed the first year's $975,000 cooperative agreement to do a variety of studies for both OR and ODE. Brandeis is to do 75 percent OR work and 25 percent ODE work, and Rand is to do 75 percent ODE work and 25 percent OR work. However, the first year of the Health Policy Centers' activities have not followed these OR/ODE formulas, probably because demonstrations tend to require more startup time and because of the early congressional deadlines on the mandated OR studies.

Public Health Service (PHS) Agencies.—Shortly after the introduction of PPS, NCHSR&HCTA was designated the focal point for the coordination of prospective payment studies within PHS. Other PHS agencies involved in PPS studies are the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA); the Health Resources and Services Administration (HRSA); the Centers for Disease Control (CDC); the Office of Health Planning and Evaluation (OHPE); NIH; and the National Center for Health Statistics (NCHS). The nonmandated PPS-related studies of NCHSR& HCTA, ADAMHA, HRSA, CDC, and OHPE are listed in table 10-5.

Most of NCHSR&HCTA's PPS-related work has involved PPS refinement issues, especially patient classification and case-mix measurement (see table 10-5). Indeed, the initial design of DRGs resulted from extramural funding of Yale researchers by NCHSR. NCHSR&HCTA's ongoing study of the impacts of PPS on clinical cancer research (study #6 in table 10-5) directly addresses one of the five important PPS impact areas identified by OTA. In addition, internal staff analyses and special studies, most of which use a unique national database developed for NCHSR& HCTA'S Hospital Cost and Utilization Project,[4] have covered PPS-related issues such as patient classification systems, sole community hospitals, and the effectiveness of DRG payment on long-term care.

NCHSR&HCTA regularly supports intramural and extramural studies that seek to enhance understanding of the health care system and which therefore may make evaluation of PPS more feasible. Currently, for example, NCHSR&HCTA is sponsoring studies to refine a predictive model for hospital readmission (study #9 in table 10-5), to

'Brandeis subcontracts some of this work to other members of its Health Policy Consortium, which includes The Urban Institute, Boston University Health Care Research Unit, Center for Health Economics Research, and Brandeis.

[4]The Hospital Cost and Utilization Project database is described in app. C.

Table 10-2.—ORD-Supported, Nonmandated Studies of Prospective Payment for Hospitals Active in 1985

Study topic	Period	Funding[a]	status (as of August 1985)
State Alternatives to PPS:			
1. National Hospital Ratesetting Study	**8178** to **2185**	$5,544,478	Complete
2. Incentive Prospective Payment System for Hospitals Through Fiscal Intermediaries	**9182** to 9/86	Waiver (MA)	
3. Rochester Area Hospitals' Corp.	1/80 to 12/86	Waiver (NY)	
4. Finger Lakes Area Hospitals' Corp.	1/81 to 12/85	Waiver (NY)	
5. Prospective Reimbursement Systems Based on Patient Case Mix for New Jersey Hospitals	12/76 to 12/84	$4,912,802	Complete
6, Proposal of the Development of a Hospital Reimbursement Methodology for New York State for the 1980s	1/83 to 12/85	Waiver (NJ)	
7. Prospective Payment System for Acute and Chronic Care Hospitals in Maryland	6/80 to 6/84	$2,037,563	Complete
8. Response of Massachusetts Acute Care Hospitals to the Massachusetts Hospital Cost Containment Act	12/84 to 11/87	$ 590,395	
Evaluation Studies:			
9. Prospective Payment Beneficiary Impact Study	3/84-ongoing	Intramural	In clearance
10. Commission on Professional and Hospital Activities Study (on quality-related process and hospital utilization before and during PPS)	**9184 to 9188**	$ 145,261	—
11. Rand Investigation Into Quality Indicators	**9184** to 12/87	$ 860,679	
12, Selected Analyses of PPS Impact on Hospital Behavior .,	7184 to 1187	$ 480,423	
13. Longitudinal Studies of Local Area Hospital Use	7184 to 7187	$ 214,290	—
14. Appropriateness of Hospitalization: A Comparative Analysis of Reliability and Validity of the Appropriateness Evaluation Protocol and Standardize Medreview Instrument	7184 to 1/86	$ 306,342	
15. Trends in Distribution of Medicare Expenditures.	Fall 1985	Intramural	—
16. Relation of Surgical Volume to Mortality After Surgery	Winter 1985	Intramural	Preliminary draft complete
17. Rehospitalization After Surgery Among Medicare Enrollees	Winter 1985	Intramural	
18. Study of the Relationship Between Cause of Death and Medicare Costs	Spring 1986	Intramural	—
19. National Impact Feasibility Study (proposed)	2/85 to 9/85	$ 75,000	—
20. Rand Pilot Study (on process and outcome variables available from medical records).	2/85 to 12/85	NA[c]	
Case* Mix Measurement:			
21. Measuring the Cost of Case Mix Using Patient Management Algorithms.	9/78 to 7/84	$1,166,846	Draft submitted
22. Severity of Illness Within DRGs	8/83 to 8/84	$ 87,711	Complete
23. DRGs and Nursing Resources	7/84 to 7/86	$ 427,910	
24. DRG Refinements for Nursing Care	8/83 to 3/85	$ 349,126	Complete
25. Severity of Illness and DRGs in Selected Cancers	9/84 to 9/87	$ 214,010	
26. Learning From and Improving DRGs for End-Stage Renal Disease Patients .,	7/84 to 7/86	$ 187,500	
27. Children's Hospital Case-Mix Classification System	7/84 to 7/85	$ 395,000	Incomplete
28. Study To Develop and Test Measures of Case Mix, Complexity, Case Mix Severity, and Case Volume for Hospitals	9/78 to 5/84	$ 426,630	Complete
29. Study To Determine Reasons for 7.4°/0 Rise in Overall Case-Mix Index of Hospitals in 1984	1/85 to 3/85	Intramural	Complete
30. Case-Mix and Resource Use in Hospital Emergency Room Settings	3183 to 9/85	$ 612,785	
Other:			
31. Prospective Payment in Rehabilitation Hospitals and Programs	10/84 to 9/85	$ 700,000	—
32. Evaluation of National Rural Swing-Bed Program[d]	9/83 to 6/86	$ 722,248	
33. PRO Quality Objective Report	4/85-ongoing	Intramural	

[a]Dollar amounts represent extramural funding. Funding levels for intramural projects and projects being conducted with State waivers that permit innovations to financing and delivery of health services under Medicare are not specified,
[b]Report has been completed and is being reviewed within DHHS before being submitted to Congress
[c]NA = Not available.
[d]HCFA is negotiating with the contractor to extent the scope of the report to address the impact of PPS on the swing-bed program If approved, the study will be extended until 10/87 and will receive an additional $280,000 (266).

SOURCE U S. Department of Health and Human Services, Health Care Financing Administration, *Status Report,* HCFA Pub No 03185 (Washington, DC U S. Government Printing Office, April 1985), updated by OTA through personal communication with ORD, August 1985

Table 10-3.—ORD'S Short", Mid-, and Long-Term Research Priorities Relating to Hospital Payment

Short-term: Fiscal years 1984.86

Prospective payment system:
. Refine and recalibrate DRGs
• Develop severity measures for use in PPS
• Study hospitals which are sole providers i n their communities and fairness of payments
• Study hospitals not yet involved in the system
• Incorporate factors for capital and graduate medical education into the rates

New developments:
. Develop a DRG-type system that combines payment for acute care and long-term care (skilled nursing facilities)
• Develop a DRG-type system that combines payment for acute care and physician services provided to hospital inpatients
• Study feasibility of hospital outpatient DRGs
Ž Evaluate impact of Medicare PPS for hospitals with Medicaid programs

Mid-term: Fiscal years 1987-89
• Recalibrate rates for PPS
• Develop, demonstrate, and evaluate an outpatient PPS
• Demonstrate and evaluate systems combining hospital and physician payment
• Demonstrate and evaluate systems combining hospital and skilled nursing facility payments
• Develop competitive-bidding payment models for hospital services
• Demonstrate and evaluate alternative PPS: with disease staging, by patient management category, and with severity of illness adjustments

Long-term: Fiscal year 1990 and beyond
• Demonstrate and evaluate competitive-bidding payment systems for hospital services
• Evaluate the effects of voucher payment systems on hospital efficiency, solvency, accessibility, and capital formation

SOURCE U S Department of Health and Human Services, Health Care Financing Administration, "Selected Activities for ShortTerm and LongTerm Agenda, " unpublished, Baltimore, MD, 1984

assess factors related to variations in length of hospital stay (study #7 in table *10-5),* and to analyze multihospital systems (study #8 in table 10-5).

ADAMHA's PPS-related studies concentrate on the development of patient classification systems (see table 10-5). Psychiatric and alcoholic units and hospitals are currently exempted under PPS. It is widely recognized that a patient classification system that accurately reflects resource use by patients in these facilities is needed if the exemptions are to be eliminated.

HRSA is concentrating on conducting research on the impacts of PPS on health care personnel (see table 10-.5). Other PPS-related studies by the agency focus on health care planning.

Table 10-4.—HCFA Health Policy Center PPS-Related Assignments **(as of August 1985)**

Study topic[a]	HCFA report due date	Center designation
1. Background for Annual Impact Report	***9/84-87***	Rand/UCLA
2. Sole Community Hospitals' Occupancy	4/1/85	Brandeis
3. Uncompensated Care costs	4/1/85	Brandeis
4. Large Rural Teaching Hospitals	4/1/85	Brandeis
5. Cost of Care Information to Patients	4/1/85	Rand/UCLA
6. Physician DRGs	7/5/85	Brandeis
7. Case-Mix Measurement Refinements for DRGs (severity of illness, intensity of care, and adequacy of outlier payments)	12/31/85	Rand/UCLA
8. Incorporating "Excepted" Hospitals Into PPS	12/31/85	Brandeis[b]
9. Eliminating Rural-Urban Rates	12/31/85	Brandeis
10. All-Payer Feasibility, Cost Shifting	12/31/85	Brandeis
11. Impact of Admissions, Volume Adjustment	12/31/85	Rand/UCLA
12. Impact of State Alternative PPS on: Medicare, Medicaid, Private Health Expenditures, Tax Expenditures	12/31 /86	Brandeis

aThese studies directly support one or more of the congressionally mandated studies listed in table 10-1.
bThe Rand Corp. is taking the lead on rehabilitation hospitais

SOURCE U S Department of Health and Human Services, Health Care Financing Administration, Status *Report,* HCFA Pub No 03185 (Washington, DC U S Government Printing Office, April 1985), updated by OTA staff through personal communication with HCFA, August 1985

CDC is planning an intramural study on the effect of DRGs on hospital infection rates, an important quality impact (see table 10-5). CDC's study will determine: 1) the relationship between DRG group and risk of iatrogenic infection, and 2) the proportion of iatrogenic infections that result in additional payment to hospitals. CDC also anticipates that changes in laboratory services will occur as a result of PPS. After developing a forecasting system and predicting trends in laboratory services, CDC hopes to track shifts in sites of services (e.g., from hospital laboratories to ambulatory settings) to monitor the quality of the services and to assist laboratories in maintaining quality.

OHPE is developing an analytic framework and a research agenda to address how the prospective payment system may be affecting access and qual-

Table 10-5.—Nonmandated PPS. Related Studies by Public Health Service Agencies

Study topic	Period	Funding[a]	Status (as of August 1985)
National Center for Health Services Research and Health Care Technology Assessment (NCHSR&HCTA):			
1. Impact of "Per-Case" Versus "Per-Service" Hospital Reimbursement-~.	9/30/79 to 9129183	$393,561	Complete
2. Marginal Cost of Hospital Output and Empty Beds. ., ...	9/1/81 to 5131184	$159,235	Complete
3. Measuring Clinical Homogeneity in the Two DRG Systems	7115/83 to 2128185	$111,945	Incomplete
4. Adjustment Artifacts in DRG-Based Medicare Reimbursement	9/1/84 to 8131/85	$ 21,539	
5. Trauma Case-Mix Measurement and Hospital Payment ., ...	9130184 to 9129186	$170,588	
6. Impacts of the Prospective Payment System on Clinical Cancer Research (with NCI)	9130184 to 8/31/86	$516,169	
7. Factors Related to Hospitals' Length of Stay	1/1/81 to 12/31/85	$680,479	
8. Multihospital Systems' Strategy, Structure, and Performance (Effect of PPS)	9/1/84 to 8131186	$202,747	
9. Prevention of Nonelective Hospital Readmission.	9130185 to 9129186	$106,159	
10. Hospital Use Rates in Local Communities in Michigan ., ...	4/1/85 to 9130188	$65,698	
Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA):			
1. Effects of Prospective Hospital Payment on Acute Inpatient Care for Mental Disorders	1981 to 1983	$62,754	Complete
2. Evaluation of the DHHS Proposed DRGs.	4/83 to 8183	$ 9,440	Complete
3. Identification of Resource Determinants for Use in Patient Classification Systems for Prospective Payment. . . . . ., ...	3/1/84 to 8/31184	$ 10,000	Complete
4. A Comparative Analysis of Functionally Related and Diagnosis-Related Groups ., ...	5/10/84 to 3/1/85	$ 9,999	Complete
5. A Study of Patient Classification Systems for Prospective Ratesetting for Medicare Patients in General Hospital Psychiatric Units and Psychiatric Hospitals ., ...	6130184 to 12/19/85	$665,189	
6. Selected Data on Psychiatric DRGs From the Commission on Professional and Hospital Activities National Sample Patient File	7115184 to 8131184	$ 9,950	Complete
7. The Use of Survival Time Analysis as a Method of Patient Classification, . . .	9/1/84 to 1/31/85	$ 9,400	Complete
8. Medicare-Medicaid Alcoholism Treatment Demonstration	9/81 to 12/85	$60,000	
9. Secondary Analysis of Drug and Alcohol Followup Data for Relevance to Diagnosis and Classification ., ...	7/1/84 to 6130185	$ 85,000	
10. Development of Diagnostic Sourcebook and Minimum Research Criteria . .	10/1/84 to 9130185	$68,000	
11, Utilization of the Severity-of-illness Index in Psychiatric Diagnosis	1/10/85 to 10/9/85	$25,000	—
Health Resources and Services Administration (HRSA):			
1. Experience With the Section 1122 Capital Expenditure Review Program.	4/9/84 to 9130184	$ 99,957	Complete
2. Implications of the DRG Reimbursement Methodologies on the Health Care System and Impact on Local Health Planning in the Short Term and Over the Long Term	4184 to 7185	N A[b]	Complete
3. Compilation and Descriptive Analysis of Major Third-Party Coverages for Health Services as Related to Health Personnel Standards	5/3/84 to 11/2/84	$ 17,614	Complete
4. Assessment of the Impact of DRGs on Changes in the Health Services Administration Function	6/18/84 to 4/1 7185	$ 13,047	Incomplete
5. Prospective Payment and DRGs: Impact on the Allied Health Professions, . .	6/29/84 to 8/14/85	$ 13,227	Incomplete
6. Impact of PPS on Medical Records Personnel	Not specified	Intramural	
7. Evaluation Study To Examine Recent Patterns of Capital Expenditures To Assess Hospital Reaction to DRG Reimbursement	Proposed fiscal year 1985	—	—
8. Evaluation Study To Examine the Impact of DRGs on the Financial Position of the Hospitals in HUD 242 Portfolio.	Proposed fiscal year 1985	—	—
9. A Series of Studies To Assess the Effect on Health Professions' Training Costs of the Medicare PPS	Proposed fiscal year 1985	—	—
Centers for Disease Control (CDC):	Proposed		
1. Effect of DRGs on Hospital Infections. ., ...	fiscal year 1985	Intramural	—
2. Impact of DRG System on Diabetes-Related Hospitalizations	10/1/83 to 6/20/84	$ 8,800	Complete
Office of Health Planning and Evacuation (OHPE):			
1. Development of a Research Agenda To Explore Issues of Access and Quality of Care in the Current Health Care Environment .	4/10/85 to 6/30/86	$132,000	

aDollar amounts represent extramural funding Funding levels for intramural projects and projects being conducted with State waivers that Permit innovations in financing and delivery of health services under Medicare are not specified

[b]NA = Not available

SOURCE U S Department of Health and Human Services, Public Health Service, National Center for Health Services Research, "Prospective Payment Activity as of April 1985, " Rockville, MD, April 1985, updated by OTA staff through personal communication with NCHSR&HCTA, ADAMHA, and HRSA, August 1985

ity of care. The study will organize the existing data and knowledge base currently available inside and outside DHHS and identify gaps in the database.

NIH has sponsored task forces and workgroups to address PPS issues, especially the effect of PPS on clinical cancer research. A planning group is coordinating efforts to collect data relating to DRGs and to access their impact on biomedical research.

NCHS has been assessing the ability of its databases to provide information relevant to evaluating PPS. In particular, the Hospital Discharge Survey, the National Nursing Home Survey, and the National Ambulatory Medical Care Survey may be used for data purposes. (These surveys are described in app. C.)

Other DHHS Agencies.–Nonmandated PPS-related studies being undertaken in ASPE and the Office of the Inspector General within DHHS are shown in table 10-6. In several cases, the ASPE studies support the Secretary's mandated studies. ASPE'S feasibility y analysis to determine whether Medicare Parts A and B can be linked at the carrier and intermediary levels (study #4 in table 10-6), for example, follows a HCFA-sponsored study on linking data from Part A and Part B claims at the central database level. The integration of Part A and Part B databases would bean important milestone in the development of prospective payment systems that cover a number of services.

ASPE'S project on financing graduate medical education (study #2 in table 10-6) was begun before PPS or the Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248), and it will report on whether teaching hospitals are more expensive than nonteaching hospitals when quality, case mix, and other factors are considered. ASPE is also developing a strategy for studying the impact of hospital prospective payment on long-term care (study #5 in table 10-6).

In March 1984, the DHHS Office of the Inspector General issued a strategy report on its own activities regarding the assessment of PPS (343). Strategies will include the following: 1) monitoring databases for accuracy; 2) examining changes in costs and payments under both Part A and Part B; 3) assessing the effectiveness of utilization and quality control peer review organizations (PROS) and fiscal intermediaries in maintaining the integrity of Medicare; 4) examining the extent of admission, readmission, and transfers for hospitals' financial benefit; 5) ascertaining fraud under PPS; and 6) recommending improvements in the system. Planned activities for fiscal year 1985 reflect this strategy and include assessments of PROS, DRG inspections, and the policy analyses listed in table 10-6.

Studies by Congressional Agencies

In response both to internal priorities and to requests from congressional committees, CBO, CRS, GAO, and OTA have devoted and are continuing to devote substantial resources to the evaluation and monitoring of PPS.

Congressional Budget Office.—CBO is working on a series of four PPS-related studies that will be combined into a single report upon completion. Preliminary papers for two of these studies have been prepared at the request of two Members of Congress: one paper entitled "Impact of Medicare Prospective Payment System on Disproportionate Share Hospitals'" and the other "An Analysis of the Impacts of a DRG Specific Price Blending Option for Medicare's Prospective Payment System. " The two remaining studies of the series will cover indirect teaching adjustments and the expenditure effects of freezing rates and the transition to national rates. CBO'S full report should be available in early summer 1986 (263).

Congressional Research Service.—CRS has completed two studies pertaining to PPS, an "issue brief" on Medicare prospective payment for inpatient hospital services and a paper on graduate medical education under Medicare. Both were prepared for congressional use. CRS is currently preparing a legislative history of the 1983 Social Security Amendments which set up PPS. The

[5]As of August 1985, there was no official definition of "disproportionate share hospitals. " Section 2315 of the Deficit Reduction Act of 1984 (Public Law 98-369) directed the Secretary of Health and Human Services to "develop and publish a definition of 'hospitals that serve a significantly disproportionate number of patients who have low income or are entitled to benefits under [Medicare] part A'... "

Table 10-6.—Nonmandated PPS-Related Studies by the DHHS Office of the Assistant Secretary for Planning and Evaluation and by the DHHS Office of the Inspector General

Study topic	Period	Funding[a]	Status (as of August 1985)
Office of the Assistant Secretary for Planning and Evaluation (ASPE):			
1. Policy Analysis Needs for Implementation of the Medicare PPS.	3184 to 10/84	$ 253,000	Complete
2. Financing of Graduate Medical Education	10/81 to 9/85	$4,000,000	
3. Hospital Capital Study[b]	1/84 to 9/84	$ 125,000	In clearance
4. Feasibility Analysis To Determine Whether Medicare Parts A and B Can Be Linked at the Carrier and Intermediary Levels[b]	7184 to 2185	$ 143,000	Complete
5. Project To Monitor Impact of Hospital Prospective Payment on Long-Term Care[b]	6/84 to 3185	$ 125,000	Incomplete
6. Analysis of Medical and Hospital Utilization Review in the Private Sector.	Proposed fiscal year 1986	$ 350,000 (est.)	–
7. Effects of PPS on Hospital Decisions Regarding Capital Investment	Proposed fiscal year 1987	Intramural	—
Office of the Inspector General (OIG):			
1. The Prospective Payment System and the (DHHS) Office of the Inspector General	3184	Intramural	Complete
2. Medicare Reimbursement for DRG #469	Ending 11/18/83	Intramural	Complete
3. Overpayment for Lens Procedures	Ending 7/20/84	Intramural	Complete
4. Overpayment for Coronary Procedures	Ending 6/7/84	Intramural	Complete
5. Inappropriate Readmission and Transfer Practices Under the PPS	Ending 10/23/84	Intramural	Complete
6. Overpayment for Cardiac Arrest	Ending 12/20/84	Intramural	Complete
7. Overpayment for Nail Removals	Ending 1/28/85	Intramural	Complete
8. Review of Peer Review Organizations	Planned fiscal year 1985	Intramural	—
9. DRG Inspections	Planned fiscal year 1985	Intramural	
a. Vulnerable DRGs (#14, #82, #88, and others that show upcoding potential and significant case-mix changes)	Planned fiscal year 1985	Intramural	—
b. Evaluation of PRO DRG Validations	Planned fiscal year 1985	Intramural	
c. DRG Validation in Hospitals Selected on a Statistically Valid Basis	Planned fiscal year 1985	Intramural	—
10. Special Policy Analyses	—	Intramural	—
a. Part B Reasonable Charge Levels for Intraocular Lenses	10/84 to 9/85	Intramural	
b. Assistants at Cataract/Intraocular Lens Implant Surgery at Teaching Hospitals.	10/84 to 9/85	Intramural	
c. Anesthesiology During Intraocular Lens Surgery	10/84 to 9/85	Intramural	

aDollar amounts represent extramural funding Funding levels for intramural Protects are not specified.
bDirectly supports one (or more) of the congressionally mandated studies of PPS.
cReport has been completed and is being reviewed within DHHS before being submitted to Congress.

SOURCE K. Means, Office of Assistant Secretary for Planning and Evaluation, US Department of Health and Human Services, Washington, DC, personal communication, March 1985; Prospective Payment Assessment Commission, *Technical Appendixes to the Report and Recommendations to the Secretary, US Department of Health and Human Services* (Washington, DC: U.S Government Printing Office, April 1985); and U S. Department of Health and Human Services, Off Ice of Inspector General, "The Prospective Payment System and The Office of Inspector General, " Washington, DC, Mar. 8, 1984, updated by OTA staff through personal communication with ASPE and OIG, August 1985

agency is also compiling a database and developing the capacity to model Medicare's PPS system. Plans are being developed for a paper on capital costs under Medicare. In addition, CRS has been providing daily staff assistance to congressional committees and Members of Congress on developing and evaluating PPS legislation in the 99th Congress (167).

General Accounting Office.—During the next 3 to 5 years, GAO plans to review the effectiveness of the mechanisms that were developed to prevent potential problems of PPS. Specifically, the agency will evaluate the adequacy of the databases used to set PPS payment rates, the effectiveness of PROS, and the effectiveness of PPS payment controls to prevent hospitals from maximizing payment.

GAO is engaged in a number of specific PPS-related studies, and more are in the planning and proposal stages (see table 10-7). These studies range from the adequacy of DRG rates in respiratory/inhalation therapy to information require-

Table 10-7.—Nonmandated PPS-Related Studies by the General Accounting Office

Study topic	Due date	Status (as of August 1985)
Ongoing studies:		
1. Evaluation of Utilization Review Efforts for Respiratory/Inhalation Therapy (adequacy of DRG rates)	9184	Complete
2. Survey of Utilization of Intensive Care Unit Services by Low-Risk Medicare Patients	8185	—
3. Review of Medicare Reimbursement for Implanting Cardiac Pacemakers	2185	Complete
4. Information Requirements for Evaluating the Impacts of Medicare Prospective Payment on Post-Hospital Long-Term Care Services	8/1 5/85	Incomplete
5. Survey of Patient Classification and Utilization Reviews of Nursing Homes	3185	Complete
6. Evaluation of Medicare's Hospital Admission Monitoring Systems.	11/1 8/85	
7. Survey of Intermediary Audits of Hospital Cost Reports	8/85	Complete
8. Review of Effect on Medicare/Medicaid Costs of Hospital Conversions From Nonprofit to Proprietary Status.	1/86	—
9. Survey of Unnecessary Admissions and Premature Discharges	Ongoing	—
Planned studies:		
10. Review of Utilization of Medically Unnecessary Hospital Days of Care by Medicare Patients		
11, Survey of Congressionally Mandated HHS Study of How To Incorporate Capital Costs Into Prospective Reimbursement		
Proposed studies:		
12, Survey of HCFA's Methodology for Calculating the Prospective Rates		
13. Survey To Assure That Medicare Beneficiaries Have Adequate Access to Care		
14. Survey of the Incidence of Unnecessary Surgery		
15. Review of the Accuracy of DRG Classification by Hospitals		
16. Survey of Improperly Allocated Costs		
17. Review of Billing Practices for Hospital-Based Professional Services		
18. Survey of Medicare Reimbursement for Hospital Teaching Costs		
19. Survey of Prospective Payment Plans in States With Medicare Waivers		
20. Survey of States' Compliance With Waiver Criteria for Exemptions Granted After Enactment of Medicare PPS		
21. Survey To Monitor Mandated HHS Studies on Prospective Reimbursement		

SOURCE U S Congress, General Accounting Office, Human Resources Division, "Reviewing the Medicare Prospective Reimbursement System for Hospitals draft Washington, DC February 1984, updated by OTA staff through personal communication with GAO, August 1985

ments for evaluating the impacts of Medicare PPS on posthospital long-term care services. GAO studies can be generated either internally or by congressional request.

One ongoing GAO study, "Information Requirements for Evaluating the Impacts of Medicare Prospective Payment on Post-Hospital Long-Term-Care Services" (study #4 in table 10-7), will identify Federal information and evaluation requirements for assessing the impact of PPS on posthospital health care (especially nursing home and home health care). A preliminary report has been released on the first stage of the project (297). Key issues were identified as follows:

- Have Medicare patients' posthospital needs changed?
- How are patients' needs being met?
- Are patients having access problems?
- How have long-term care costs been affected?

The second stage of the project will determine whether the questions can and will be addressed by current or planned evaluation studies or data collection efforts. GAO will suggest additional or different studies if such studies are considered necessary to complement ongoing efforts (297).

Office of Technology Assessment.—OTA's Health Program studies and publishes reports on issues of medical technology as requested by Congress. Some of OTA'S studies, including the present one, have contained specific references to PPS. The first project to include this issue was the July 1983 OTA technical memorandum "DRGs and the Medicare Program: Implications for Medical Technology" (305). That study was part of a larger OTA assessment "Medical Technology and Costs of the Medicare Program" (307). OTA is also responsible for the oversight of ProPAC, and released its first report to Congress on ProPAC in March 1985 (309).

Studies by the Prospective Payment Assessment Commission

When making its recommendations about the DRG updating factor and changes in individual DRG weights and categories, ProPAC must decide whether PPS is having some undesirable impact on beneficiaries. ProPAC has a statutory responsibility to take into account quality of care (Public Law 98-21). For that reason, ProPAC's research agenda shows a high priority for research on quality of care, which includes assessing current information, developing new databases, and improving quality measures. Specific plans for implementing this research agenda item are being developed.

PPS-related issues are brought to ProPAC's attention from external sources (such as medical specialty societies, the hospital industry, or Congress) and from internal staff or Commissioner analyses. Initial screening analyses are conducted to select technologies for in-depth analyses. The screening guidelines focus primarily on the interaction between quality of care and potential short- or long-term Medicare payment effects. The screening analyses of specific technologies are not evaluations of PPS per se, but the criteria that trigger whether such analyses are undertaken involve evaluation.

PPS-RELATED EVALUATION STUDIES BY PRIVATE ORGANIZATIONS

Many private organizations, including professional societies such as the American Medical Association, trade associations such as the Health Industry Manufacturers' Association, and beneficiary groups such as the American Association of Retired Persons, have an interest in the impacts of PPS and are conducting their own studies, both formal and informal. Because of the lack of timely and comprehensive data needed for their studies, many private organizations are in the process of compiling their own databases to complement or compare with HCFA'S databases.

In March 1985, as part of the present study, OTA conducted a survey of over 250 organizations to ascertain the extent of private initiatives in evaluating PPS. Very brief descriptions of studies reported by the more than 70 organizations responding to OTA'S survey are provided in table 10-8.

Most of the studies listed in table 10-8 cover more than one area of PPS impact. The majority cover some aspect of quality of care. Access to care and cost of care are topics in almost one-half of the studies. Approximately 20 percent of the studies address issues of PPS effects on health professions education, and about 12 percent deal with technological change. Only one of the groups responding to OTA'S survey indicated that it was directly studying the effects of PPS on clinical research. [6]

[6] Although the present assessment does not cover PPS effects on employment, it is interesting to note that many of the private organizations listed are conducting employment impact studies. For example, PPS effects on employment in nursing, occupational therapy, and medical records are being monitored by their respective associations.

Table 10-8.—PPS-Related Evaluation Studies by Private Organizations
(based on OTA's March 1985 survey)

Organization /Study Topic	Period	Funding	Comments
Provider organizations"			
American Academy of Neurology			
DRG expanded survey to obtain specific data on areas of concern which surfaced in an initial survey on DRGs	3/15/85 to 6/15/85	Internal	
American Academy of Ophthalmology			
Survey to assess impact of DRGs	1985	Uncertain	Council of Medical Specialty Soceties (CMSS) I IS coordinating effort
American Academy of Otolaryngology Head and Neck Surgery Inc			
Request to members to report experiences both good and bad especially regarding quality of care	Open-ended ongoing	None	
American Association for Clinical Chemistry			
AACC Membership Survey on Impact of DRGs	Completed 5 84 and 5 '85	Internal	
American Association for Respiratory Therapy			
Impact of Prospective Payment on Manpower Needs	1 / 85 to 12 '85	NA[a]	
American College of Cardiology			
1 Decision analysis of DRG payment rates relative 10 quality care to determine If DRG payments are adequate to allow appropriate procedures and practices for optimal patient outcome	Ongoing	$20000 yr	
2 DRG survey to obtain physcians perceptions and case reports on PPS effect on quality of care	Ongoing quarterly until 1987	$ 4,000/yr	
American College of Hospital Administrators			
Health Care in the 1990s Trends and Strategies	Completed 1984	NA	Used the Delphi Method forecasting response to elicit opinions from health care experts in SIX areas
American College of Physicians			
Two-part questionnaire to members to identify effects of PPS and collect an information base for rmodifying it regarding quality of care problematic DRGs causes and overt manifestations of negative and positive effects of PPS	1985-ongoing	NA	Cooperating with CMSS on a uniform PPS data set for all physician specialties
American College of Preventive Medicine			
Cooperative effort with American Medical Association	Ongoing	NA	
American Hospital Association			
1 Survey on PPS qualitative survey of hospital chief executive officers current assessments of problems and opportunities in PPS design and implementation	Quarterly	NA	
2 Annual Medicare financial survey collects quantitative data summarizing each hospital's experience with TEFRA and PPS in terms of Medicare revenues costs and utilization activity	Annual	NA	
3 One time special surveys on selected PPS issues	As needed	NA	
American Lung Association and medical section of American Thoracic Society			
Pilot survey by questionnaire entitled Early Impact of the Prospective Payment System on the Pulmonary Community to compile Information on quality of patient care length of stay and Introduction of new medical technologies	10/84 to 12/84	Internal	
American Medical Association			
1 DRG Monitoring Project Information assessment activity to ascertain current impact of PPS and Identify possible problem areas for further study	Continuing First report available	Internal	
2 Long term effects of PPS on quality of health care for Medicare beneficlaries	NA	NA	Developing research proposals with Johns Hop kins University
American Medical Record Associaton			
1 DRG Variation Analysis Study to identify discrepancies in coding between medical record departments and PROS	8 mos –ending mid-1985	$3000	Results will be published in Journal of American Medical Record Association
2 Survey on the impact of PPS on medical record departments	Published 5/85	NA	
American Nurses Association			
DRG Refinement for Nursing Care' variations in nursing care in selected DRGs appro priateness of refining DRGs to reflect differences in nursing care requirements	9/83 to 3 '85	$370,000	Funded by HCFA
American Occupational Therapy Association			
Opinion-based survey on the Impact of Prospective Payment System on Occupational Therapists	Completed 1985	$3500	
American Osteopathic Association			
Collection of anecdotal Information resulting from dialogue with affiliates	Ongoing	None	
American Podiatric Medical Association			
Analysis of costs of care provided by podiatrists and other practitioners in 20 hospitals under DRGs and 2 in waivered States (Maryland and New Jersey] description of patterns of foot care provided by podiatrists development of a database on patients with foot health problems treated by podiatrists	1 /85 to 8 '85		

Table 10-8.—PPS-Related Evaluation Studies by Private Organizations—Continued
(based on OTA'S March 1985 survey)

Organization/Study topic	Period	Funding	Comments
American Psychiatric Association			
The Task Force on Prospective Payment is overseeing a DRG project to 1) check the heterogeneity of psychiatric DRGs, 2) assess several variables for variance reduction, and 3) compare HCFA database (for MDC-20 and MDC-19)	1984 to 5/85	$150,000	
American Psychological Association			
1 Board of directors special task force on prospective payment which reviews clinical literature and current research and develops position papers	Ongoing	NA	
2 'Survey of PPS Impact on Psychologists" to analyze PPS impact on the provision of hospital services to the mentally disabled, including the use of multldisciplinary treatment teams, use of alternative settings, and particular impact of PPS on the professional services of psychologists	1983-85	NA	
American Society of Clinical Pathologists and the College of American Pathologists			
''PPS/DRG Impact Survey, to collect trend data for hospital laboratories regarding laboratory use, impacts on laboratory personnel, hospital beds, and type of contractual agreements with hospitals	1 /84–ongoing	$40,000	Mint opinion-based study 1984
American Society of EEG Technologists, Inc.			
A salary/employment status questionnaire to monitor employment trends and changes and effects of PPS on hospital setting	5/85	NA	
American Society of Internal Medicine			
Questionnaire for incident reporting by members regarding the impact of PPS on quality of care pressure from hospitals to discharge patients early or underutilize medically necessary tests, etc , Improvements m quality of care through more careful testing, improved communication, increased cost awareness	Ongoing	NA	
American Speech-Language-Hearing Association			
National survey of hospital-based members of association and others on the ''Impact of Prospective Payment System on Speech-Language Pathology and Audiology Services in Hospitals' –especially on reduction or elimination of services to Inpatients	1985–open ended	NA	Two small sample surveys were conducted at national meetings of the association
Association for the Advancement of Medical Instrumentation			
Survey to evalute impact of Medicare's prospective payment system on the association's membership and programming	1985 to 1990	$50,000	
Association of American Medical Colleges			
1 Survey on estimated Medicare revenue and expense under TEFRA and PPS, patient mix reformation, hospital bed capacity, and full-time equivalent residents m training	1985 version planned	Internal	
2 'The Medicare Adjustment for the Indirect Costs of Medical Education Historical Development and Current Status'	Published in January 1985	NA	Commissioned paper by Judith Lave, Ph D
Association of Community Cancer Centers			
''ACCC DRG Research Project' Intends to study the following issues measuring the effect of DRGs on clinical research, conventional cancer patient management, technology diffusion, cancer program development and patient outcomes	1984-1987	$100,000	Will utilize a unique cancer database to gather demographic, clinical, survival, and financial information from more than 100 community and university hospitals
Committee on Allied Health Education and Accreditation of the AMA			
1 Survey on "Impact of Prospective Payment System on Clinical Education for Allied Health Students' '–completed	8/84 to 1/85	NA	
2 Survey of program directors, ' 'Perceptions Regarding CAHEA-Accredited Programs and Their Graduates	8/84 to 1/85	NA	
Council of Medical Specialty Societies			
National survey of physician opinions regarding DRGs information regarding changes under DRG system and their perceived effects on costs and quality of care, addresses physicians' ability to identify specific troublesome DRGs	Pretested 1984; survey to be conducted fall 1985	NA	Multispecialty 24 member specialty societies
District of Columbia Hospital Association			
"The Inequity of Medicare Prospective Payment in Large Urban Areas, " to document the more severe impact of PPS on hospitals m large cities relative to those m suburbs and to recommend changes in PPS to improve equity	Published 9/84	Internal	1981 data used to project impact of PPS in first and fourth years of implementation
Federation of Nurses and Health Professionals			
Planning an opinion-based survey of members regarding quality of care and staffing ratios under PPS	Undecided	NA	Will probably compare 1985 to 1982-84
Florida Hospital Association			
Monitor utilization trends concurrent with introductlon of PPS through quarterly hospital utilization surveys	Ongoing quarterly basis	NA	Collect data on: admissions, patient days, Medicare patient days, outpatient visits, Medicare outpatient Visits

Table 10-8.— PPS-Related Evaluation Studies by Private Organizations—Continued
(based on OTA'S March 1985 survey)

Organization/Study topic	Period	Funding	Comments
Health Industry Manufacturers' Association			
1 "Recahbratlon and Updating A Means to Health Care Cost Control and Quality'	Published 2/84	NA	Focus on keeping PPS flexible for incorporating technological change
2 Recalibration case studies for diagnostic technologies	6/85 to 12/85	NA	Contract with Johns Hopkins University, focus on keeping PPS flexible for incorporating technological change
3 Policy analysis of recalibration issues	5/85 to 9/85	NA	Focus on keeping PPS flexible for Incorporating technological change
4 "Study and Analysis of ORG Prices Implications for Manufacturers"	Published 4/84	NA	Focus on keeping PPS flexible for Incorporating technological change
Hospital Research and Educational Trust (affiliated with AMA)			
'An Evaluation of the New Medicare Prospective Pricing System as a Cost Containment Strategy' to examine changes in case mix resulting from PPS, conduct an analysis of public general and major teaching hospitals, study changes in the style of care provided and assess trends in readmissions to acute care hospitals and hospital discharges to nursing homes and home health agencies			
Kansas Hospital Association			
'The State of Rural Kansas Hospitals A Study of Hospitals in the First Congressional District of Kansas" to determine the early impacts of PPS and other Kansas payment system changes on rural hospitals in Kansas and to form a base for future impact assessments	1980-1984	NA	
Montana Hospital Association			
Financial impact on Montana hospitals of PPS, related to admission patterns and quality of care issues	1/83 to 9/85	$500	
National Coalition of Burn Center Hospitals			
Survey of all hospitals with burn centers to determine the impact of PPS			
New York City Health and Hospitals Corporation			
"Comparison of Resource Utilization Public and Non-Public Hospital Patients" to identify causes in length-of-stay and cost differences	1981 to 1983	Internal	
Tennessee Hospital Association			
Quarterly utilization surveys	10/83–ongoing	Internal	
Washington Business Group on Health			
Created the Employers Prospective Payment Advisory Committee (EPPAC) to monitor ProPAC and examine impact of PPS	12/83–ongoing	None	Focus on technology assessment cost shifting incited by ORGS graduate medical education, coding errors and gaming
Wisconsin Hospital Association			
1 Modeling of the impact of Medicare PPS, including the effect of the 4-year blend the freeze and the wage index revision as requested by member hospitals	Ongoing–as required	NA	
2 Survey on Medicare discharges, days, patient charges/costs, and problem DRGs	Quarterly	NA	
Beneficiary groups and disease-specific foundations:			
American Association of Retired Persons			
Informal reporting by members of experience regarding admissions and discharges	1 /85 to 4/85	None	
American Diabetes Association			
Opinion-based study to determine impact of PPS on quality of health care for persons with diabetes	Ending 6/12/85	Internal	The Committee on Government Relations has been charged to report to the National Meeting
American Society for Parenteral and Enteral Nutrition			
'"An Evaluation of the Implication and Implementation of the DRG-based Prospective Payment System on Parenteral and Enteral Nutrition Services' to provide society members with practical advice on how to function effectively and to determine if these services are equitably treated under PPS	2/84 to 5/85	$25,000	Also considering development of a proposed change to the ICD-9-CM coding system that would permit identification of parenteral and enteral nutrition cases in hospital and Medicare record systems Proposing a major data collection effort to detect significant length of stay and cost variations among these patients

Table 10-8.— PPS-Related Evaluation Studies by Private Organizations—Continued
(based on OTA'S March 1985 survey)

Organization/Study topic	Period	Funding	Comments
American Spinal Injury Association			
DRG-related length-of-stay allowance calculations for spinal cord injured persons to attempt to get exemption status for these patients	Completed 9/84	NA	Shared information with ProPAC
Burn Foundation			
Assessment of the applicability of several case-mix indices to burn care, specifically to Improve categorization of burn patients regarding severity level	9/84 to 12/85	$370! 000	National study of burn hospitalization at 24 hospitals
Cystic Fibrosis Foundation			
"Differential Resource Use Study, to study relative resource allocation of treating cystic fibrosis patients compared with caring for other patients In the same DRGs	6/84 to present		Shared Information with ProPAC
National Association of Area Agencies on Aging			
'"Effects of Medicare' Prospective Payment System on Community Based Long Term Care' to see if there has been an Increased need and/or utilization of home health, chore home-delivered meals, etc , and to assess if adequate community-based services are available to meet increased needs	Ongoing–5/85	Internal	
National Hemophilia Foundation			
DRG Data Collection Project	10/84 to 9/85	$46,000/yr	NHF wiIl report to ProPAC Preliminary results demonstrate a great disparity between cost of treating hemophiliac patients and other patients classified in the same DRG
General purpose foundations:			
The Commonwealth Fund			
1 Task Force on Academic Health Centers Program of Reports to examine conventional wisdom about effects of major public policies (including PPS) on academic health centers including control of size and content of graduate medical education programs, future financing of teaching hospitals, role of academic health centers in caring for the poor role of teaching hospitals in technological change, and the diversity among academic health centers	11 /15/83 to 7/14/85	$530,000	The Johns Hopkins Hospital IS the grantee
2 Examining the effects of Medicaid and Medicare financing and delivery innovations to evaluate Arizona's new Medicaid program, California's new Medicaid program, New York's new hospital payment program and nationwide Medicare cost limits on hospitals as models for future structure of Medicare and Medicaid	12/ 1 /82 to 4/30185	$325> 000	Brandeis Unwersity, University Health Policy Consortium, IS the grantee
W K Kellogg Foundation			
Study of DRGs to improve quality and cost-effectiveness of inpatient care The project WiIl include consideration of the differences in levels of nursing care needed, costs for alternate forms of care, use of all hospital resources and the development of educational programs for staff to Improve cost-effective care	1984 to 1987	$348,500	Grant awarded to Northwestern Memorial Hospital
The Medical Trust c/o Glenmede (PEW)			
'State of the Art in Seventy of Illness' to determine which severity-of-illness measure best explains the cost differential between teaching and nonteaching hospitals, including costs per case, costs per day, utilization of ancillary services, and average length of stay within the same DRG, which measure IS a better predictor of cost rather than ratio of cost to charge	2/85 to 2/87	$310,000	Conducted by New York University Medical Center
Pew Memorial Trust			
1 'Planning for the Future of Burn Care Under Prospective Reimbursement' '(see Burn Foundation)	9/84 to 12/85	$370,000	
2 'Children's Hospitals' Case-Mix Classification System Project' to determine whether and how DRGs in their present or modified form or some other case-mix system should be Incorporated into a prospective payment system for children's hospitals	6/84 to 9/85	$725,000	Conducted by National Association of Children's Hospitals
Robert Wood Johnson Foundation			
Evaluation of the Impact of New Jersey Reimbursement System on Hospital Operations and Medical Practice	43/83 to 6/86	$700.000	Interviews with key partici pants, including physicians, nurses, hospital administrators, and State of ficials

[a]NA = Not available

SOURCE Off Ice of Technology Assessment 1985

SUMMARY OF ISSUES PERTAINING TO CURRENT PPS EVALUATION ACTIVITIES

Overlaps and Gaps in PPS-Related Research

As suggested in the preceding discussion, thus far, the focus of most of the PPS-related studies supported by Federal agencies has been on issues pertaining to the refinement and expansion of the new payment system. A smaller number of Federal studies address the evaluation of PPS impacts on health expenditures or quality of care, In some cases, the focus of Federal agencies on refinement and expansion issues is a result of congressional mandates for specific studies, but in other cases, Federal agencies chose this focus because of their administrative responsibilities or individual interests. The PPS-related research activities of Federal agencies do not appear to be duplicative.

The focus of most of the PPS-related studies supported by private organizations has been on issues pertaining to the evaluation of PPS impacts, especially identifying negative impacts on quality of care or access to care. Despite their emphasis on PPS impacts, studies by private organizations generally have several limitations. A limitation of most of the studies is that they are either incident- or opinion-based. Another problem is that many of these studies are designed to find only negative impacts on quality and access, and by failing to consider positive impacts, they may give a biased picture. Furthermore, professional associations have neither the resources nor the interest to do more than concentrate on their members' involvement in PPS, so bias is almost inevitable.

OTA found that private organizations have research projects that overlap with some Federal research and with the research of other private organizations (see table 10-8). For several reasons, however, this overlap is probably beneficial. One reason is that although overlapping and duplicative studies cost society more money, they do have a research advantage: If two well-designed studies show approximately the same results, they may validate each other. Credibility is increased by replicability. If two well-designed studies have opposite results, a need for further study is indicated. Another reason that overlap and duplication of effort maybe desirable is that most of the organizations involved in evaluating PPS at this time have an interest at stake (including HCFA, because it administers the program); to the extent that duplication counteracts the biases of the different studies that are conducted, it may be used to develop a more balanced evaluation.

The adequacy of Federal efforts to provide a thorough and balanced evaluation of the impacts of PPS on quality and access to care is especially important, because private efforts are geared to finding negative impacts of PPS on quality of care or access to care. The enthusiasm with which interested private organizations have initiated their own studies argues for a commitment on the part of the Federal Government to produce objective and unbiased assessments of the full range of PPS impacts, particularly in the areas of quality and access to care.

OTA found that a major gap in current public and private PPS-related studies is the absence of a comprehensive plan, especially at a level of staffing and funding that would be reasonable, to evaluate the impacts of PPS on the U.S. health care system. A comprehensive evaluation of the impacts of PPS on the health care system would consider all of the dimensions of the impacts discussed in Part Two of this report: namely, expenditures and costs, quality of care, access to care, technological change, and clinical research.

As currently planned, the DHHS Secretary's annual PPS impact reports mandated by the Social Security Amendments of 1983 will not constitute a comprehensive evaluation of PPS impacts. Although the annual impact reports taken together could be planned as a comprehensive evaluation, DHHS' initial plan for the reports is to concentrate on certain dimensions of evaluation in separate years. Also, the Secretary's annual impact reports are required for only 3 more years (through 1987). Many effects that could be attributed to PPS may not be observable until later years.

A second major gap in ongoing and planned PPS-related research is the absence of studies of

the quality of data in the databases that are used or expected to be used in the future to evaluate PPS. The few studies that have been done provide enough evidence of poor quality in discharge abstract data pertaining to diagnoses to make analyses of diagnostic trends over time suspect. Under PPS, however, the quality of discharge and other data should improve because of data quality's new relationship to payment and review by PROS (see chs. 5 and 6 and app. G).

Problems With Data for PPS Evaluation Studies

Several distinct problems with data for PPS evaluation studies have been identified by the groups addressing PPS issues, One of these, quality of data, is mentioned above. The other major problem is that, in many cases, the data necessary for particular evaluation questions, such as quality and access measurements, were not systematically collected and analyzed in the past. '

A lack of usable baseline data has frustrated many researchers who want to evaluate the impact of PPS on quality of care or access to care. Because there are no good baseline data, trend analyses and comparative studies are infeasible. In some cases, retrospective studies are possible—for example, studies of quality impacts can compare patients' medical records before and since PPS. But such studies, which would require using or abstracting data directly from patients' medical records, are both time-consuming and expensive.

Several professional societies, including the Council of Medical Specialty Societies, are attempting to circumvent the problem of a lack of usable baseline data by surveying physicians or nurses about the change in quality of care. These surveys are soliciting both positive and negative feedback, but will probably reveal fewer positive quality changes because of the visible and emotional nature of negative changes. Furthermore, as noted above, the objectivity of such organizations is questionable. Even so, the findings of these groups will be valuable in identifying particularly deleterious effects that need immediate attention.

Staffing and Funding for Mandated PPS Studies

In the last 3 years, Congress has mandated (or requested in a committee report) PPS-related reports on more than 20 topics by the end of December 1986, giving HCFA and others a large added workload. So far, all of the DHHS deadlines for congressionally mandated PPS studies, including that for DHHS'S 1984 annual impact report on PPS, have been missed. [8] Although some of the difficulty in producing the mandated studies may be due to a lack of responsiveness on the part of the Administration, part of the problem appears to result from HCFA'S inability to comply with the requirements of mandated studies at its current funding and staffing levels.

This situation brings into question the reasonableness of the original timeframe and the staffing and funding levels for congressionally mandated studies. Given that DHHS received no additional funds or staff with its mandated studies, and given the administrative burdens of the grant and contracting process[9] and the need to develop databases for special analyses, the congressional deadlines appear to have been too tight. Although tight deadlines are understandable given the importance of the change from cost-based reimbursement to PPS and the health care expenditures involved, they appear to be impractical.

'Under PPS, some data items that were not so important in past studies are taking on new value. For example, discharge disposition of patients (e.g., discharged home for self-care or to a skilled nursing facility), though a relatively unimportant data item on Medicare bills in the past, may become an important indicator to trace the impact of PPS on quality and access to posthospital care.

'Although some of the deadlines for mandated studies have been changed-e. g., the deadline for HCFA'S study on the impact of single rates for skilled nursing facilities (study #1 in table 10-1) was extended, and the deadline for HCFA'S study on including payment for physicians' services to inpatients in DRG rates (study #17 in table 10-1) was moved up—other deadlines have simply not been met. The first annual impact report from DHHS, for example, was due Dec. 31, 1984, and had not been released as of August 1985, purportedly because of delays in the DHHS clearance process. Other mandated studies of PPS are also in DHHS clearance channels and may or may not be released by their due dates.

[9]Because HCFA lacked sufficient intramural staff to handle the large number of mandated studies, HCFA arranged for extramural research on many of the mandated studies. Some of the research may have been slowed by the Federal grant and contracting process, which must be approved by the Office of Management and Budget. Most outside researchers are meeting HCFA'S deadlines, but the reports prepared by HCFA staff on the basis of the external research are missing their release dates.

The scope of HCFA'S evaluation efforts can be put into perspective by comparing the Federal dollars spent on Medicare's hospital benefits with those spent by HCFA for extramural research and demonstration projects involving hospital payment in general and PPS in particular. In fiscal year 1984, total expenditures for Medicare's hospital benefits were estimated at $43.8 billion (58). HCFA'S overall budget for extramural research and demonstration projects supported through ORD in fiscal year 1984 was $32.8 million. An estimated $5.2 million, or about 16 percent, of that amount was for extramural projects involving hospital payment, with about $3.1 million directed to projects pertaining to PPS (45). This $5.2 **million represented about 0.01 percent of Medicare's total 1984 hospital expenditures. It is infeasible to accurately estimate HCFA expenditures for intramural research on these topics, but were these expenditures added, the proportions of resources spent on PPS-related research would remain miniscule.**

In fiscal year 1985, HCFA'S budget for extramural projects involving hospital payment through ORD was about $8.5 million (see table 10-9). For fiscal year 1986, the Administration has proposed a 33-percent reduction in HCFA'S overall budget for extramural research and demonstrations supported through ORD—from about $33 million to $22 million (with $6.7 million earmarked for projects on hospital payment) (see table 10-9). Despite the fact that proposed budget reductions have not been passed by Congress in the past, a reasonable assumption is that ORD'S fiscal year 1986 research and demonstration budget will not be increased and could be decreased. Any decrease in ORD'S funding is likely to further compromise the quality and timeliness of ORD'S study reports.

ProPAC is currently evaluating impacts of PPS and its various component parts on the U.S. health care system, as requested by the House Appropriations Committee. The small size of ProPAC'S overall budget and staff in relation to its many functions, however, limits the Commission's ability to perform a comprehensive evaluation of the effects of PPS on the health care system in addition to other mandated studies and functions specified in the Social Security Amendments of 1983.[10] Whenever possible, ProPAC plans to use existing data. Although the Commission does have the authority to initiate research, data collection, and analysis, its budget limits the Commission's potential for generating new data to study PPS impacts on quality or access to care.

This and other chapters of this report have suggested that additional research will be needed if the impact of PPS on Medicare beneficiaries and on the health care delivery system as a whole is to be adequately understood. The requirement that HCFA and other Federal agencies prepare mandated studies of PPS without additional funds or staff positions has imposed a great burden on these agencies. As more groups are affected by PPS, Congress will probably be petitioned to mandate additional studies of PPS. The burden of conducting most of these studies appears to fall

Table 10.9.—HCFA'S Funding for Extramural Research and Demonstrations, Fiscal Year 1985 and Proposed Fiscal Year 1986 **(in thousands)**

	Fiscal year 1985	Proposed fiscal year 1986
Hospital payment ., ...	$ 8,530	$ 6,720
Congressionally mandated	7,088	6,237
General research	1,442	483
Alternative payment systems ., . .	$ 9,104	$ 5,351
Congressionally mandated	1,248	1,100
General research	7,856	4,251
Program analysis and evaluation	$ 4,692	$2,645
Congressionally mandated	250	200
General research	4,442	2,445
Quality and coverage.	$ 2,558	$ 1,783
Congressionally mandated . .	700	718
General research	1,858	1,065
Other [a].	$ 7,758	$ 5,501
Congressionally mandated	678	1,000
General research	7,080	4,501
Total . . . . , ...	$32,642	$22,000
Congressionally mandated	9,964	9,255
General research	22,678	12,745

[a]Includes areas of physician payment, State programs for 10 ng-term care. and beneficiary awareness and prevention

SOURCE: U.S Department of Health and Human Services, Health Care Financing Administration, "Research, Demonstration, and Evaluation Spending Plan, " Baltimore, MD, April 1985

[10] ProPAC's budget for fiscal year 1985 is $3.4 million. The Commission has authority for 25 staff, and currently has approximately 23 staff members.

on HCFA, so it is important to recognize that **HCFA'S present budget and staff for research on and evaluation of PPS is small in relation to Medicare program expenditures and that more definitive study will probably require the allocation of additional resources.**

CONCLUSIONS

So far, most of the federally supported studies of **PPS have focused on program refinement issues; and most of the privately supported studies of PPS have focused on evaluation issues, especially the evaluation of PPS impacts on quality of care. In some cases, Congress has led Federal agencies to focus on refinement or expansion issues by mandating specific PPS studies, but in other cases, the agencies have selected this focus because of their administrative responsibilities or individual interests.**

As of August 1985, DHHS had completed some of the PPS studies mandated by Congress, but had failed to meet any of the deadlines established by **Congress. One of the most important mandated studies, the Secretary's annual impact report on PPS due in December 1984, remained in the Secretary's office for clearance. This situation brings into question the reasonableness of the original timeframe and staffing and funding levels for congressionally mandated studies,**

In addition to problems with the quality of data, a lack of baseline data has frustrated many researchers who want to evaluate the impact of PPS on, for example, quality of care or access to care. Retrospective data collection from patients' medical records is possible but expensive. PPS itself should have a salutary effect on the quality of data now being collected because of its direct tie to payment and the review by PROS.

PPS studies by Federal agencies do not appear to be duplicative. Although there is some overlap in the efforts of private organizations, both with other private organizations and with Federal agencies, this duplication of effort is probably beneficial. Duplication is important to the credibility of the research results. It will also help to identify areas for further study of discrepancies or gaps in research and evaluation efforts.

Good decisions about refining PPS will require evaluative information. The quality of that information depends on the quality of the studies on which it is based. Good studies will require reliable, accurate, and timely data and sophisticated methods of analysis. Such studies tend to be expensive and labor-intensive. Cutbacks at any point will affect the quality and timeliness of results.