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STATEMENT OF

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ON

EVALUATING THE EFFECTS OF MEDICARE PROSPECTIVE PAYMENT ON POST-HOSPITAL CARE

BEFORE THE

SPECIAL COMMITTEE ON AGING

UNITED STATES SENATE

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

It is a pleasure to be here today to report to you on the information that will be available to the Congress and the public about the effects of implementing a prospective payment system (PPS) for hospitals in the Medicare program on post-hospital care. I will be summarizing the preliminary findings of an ongoing GAO study, requested by this Committee, that examines current and planned HHS evaluations. Our work is still in progress and, as a result, the findings we will be presenting today should be regarded as tentative.

As you know, PPS was intended to control the rate of growth in Medicare expenditures for hospital care. This was to be accomplished by providing hospitals with strong incentives to contain their costs by carefully controlling the amount of services provided or limiting patients' length of stay or both. Shorter lengths of stay may mean that some patients are discharged at an earlier stage in their recuperation. As a result, reducing hospital lengths of stay could lead to increased use (and therefore costs) of skilled nursing facility (SNF) and home health agency (HHA) services. So, from the beginning, PPS contained within it the potential for saving hospital costs while increasing the use and cost of post-hospital services.

The Health Care Financing Administration (HCFA), which administers the Medicare program, has the primary responsibility for implementing PPS and for conducting research and evaluations related to PPS. Under the provisions of the PPS legislation, HCFA is responsible for submitting a series of annual reports to

the Congress presenting the effects of PPS on hospitals, beneficiaries, and other health care providers, including SNFs and HHAs. While other entities, including the Prospective Payment Assessment Commission and the Utilization and Quality Control Peer Review Organizations, also have responsibilities for monitoring and evaluating PPS, the primary responsibility for evaluating PPS resides with HCFA.

In July 1984, this Committee asked GAO to perform four tasks:

--identify the range of issues regarding the likely impact of PPS on Medicare skilled nursing facility and home health care services, as well as on other long-term care services;

--develop criteria to determine which of these issues are most important for federal evaluation efforts and apply these criteria to the range of issues to select a set of priority concerns;

--determine what data and information are and are not available to address these priority concerns and propose an evaluation plan to be used with specific data adequate to monitor and analyze these issues; and

--compare these plan specifications with the evaluation plan and data collection HHS intends to carry out, in order to determine how well HHS's evaluation efforts will answer the priority concerns.

We provided you with an interim report last February that focused on our findings from the first two tasks (GAO/PEMD-85-8, dated February 21, 1985). From our review of available information and interviews with individuals having firsthand experience with PPS, we identified and presented what we found to be the four key issues related to the post-hospital care of Medicare patients. These issues are

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

Today we will present our preliminary findings from the whole study, focusing especially on the last two tasks and the information that the Congress can expect to receive from HHS on all four key issues. Our work complements the report recently released to this committee by the Office of Technology Assessment (OTA) that examined approaches for evaluating the effects of PPS on a wide range of outcomes. The OTA report focused primarily on hospital issues such as quality of care and medical technology. We will concentrate on the extent to which it is feasible to address issues related to post-hospital care, given the complexities of the health services environment, the manner in which PPS was introduced, and the availability of appropriate measures and data. We will also review the work being done in this area by HHS. Very briefly, our finding is that some studies providing information on the effects of PPS on post-hospital care can be done but that HHS is doing relatively little to develop this information.

WHAT CAN BE DONE?

We have translated the four key issues developed in our letter report into evaluation questions about the effects of PPS on five general outcomes. These outcomes are

1. patients' condition at hospital discharge,
2. the use of post-hospital services,
3. expenditures for those services,
4. access to those services, and
5. quality of care delivered by post-hospital services.

Three types of information about these outcomes could be generated. Descriptive information addresses the general question of "what is happening now." This type of information is

useful for characterizing the status of post-hospital services and patients under PPS and for identifying current problem areas. Descriptive information is usually relatively easy to collect, if appropriate measures are available. However, it does not provide any indication of whether the situation is different now from what it was before PPS. As a result, descriptive studies alone cannot give us information about the effects of PPS, because they do not contrast information from before and after the system's implementation.

Change-over-time information addresses the question of "how what is happening now is different from what was happening before PPS." Studies designed to develop this type of information can detect developing trends or problems and estimate their magnitude. However, data from periods before a policy change like PPS are often more difficult and costly to obtain than is after-the-fact descriptive information, especially when the change has been made without any provision for collecting baseline data. Moreover, it is often impossible to separate the effects of other factors from those caused by PPS. Thus, while change-over-time information can show whether a change occurred, it is generally a weak guide on which to base policy because it cannot show why a change occurred.

Attributive information is needed if we observe changes in post-hospital outcomes and want to address the question of "what caused them -- PPS or something else." In addition to indicating specific factors that are responsible for the changes observed, this type of information also provides descriptive and change-

over-time information. Decisionmakers who must have a strong understanding of the effects of PPS on, say, the quality of post-hospital care should be receiving attributive information. In our opinion, attributive studies are needed to guide policy choices and to avoid either improperly blaming PPS for problems it did not cause or crediting it with improvements for which it was not responsible.

ARE ATTRIBUTIVE STUDIES OF PPS POSSIBLE?

In a word, "yes." In two words, "yes, but." Our forthcoming report will include the detailed technical analyses that led us to this conclusion. Today, I will summarize our findings rather than present the detailed technical analyses.

In general, we believe adequate evaluations of the effects of PPS on post-hospital care can be done but they will be complex and difficult. They will require nationally representative samples in order to avoid potentially misleading results based on samples that do not appropriately capture the important variations among providers. They will require some means of ruling out factors such as the influence of the Tax Equity and Fiscal Responsibility Act of 1982 and the preexisting trend of expanding home health care that could account for observed changes. They will have to rely on data that are already recorded because all hospitals not excluded from PPS and all patients within those hospitals have been affected by PPS. Because evaluations of the effects of PPS must rely on existing data, any measures of the outcomes of interest that are developed for this purpose will have to be tailored for use with these

data. In addition to resolving these problems, the studies will also have to be sensitive enough to detect what may initially be small changes that could, nonetheless, be important, either intrinsically or as they grow over time.

Of the five general outcome areas we identified earlier, two -- use and expenditures -- will be relatively easy to evaluate. The remaining three -- patient condition, access, and quality of care -- will be more difficult.

Obtaining Attributive Information About Use and Expenditures

If we refer now to Exhibit 1, we can see that data from the Medicare Statistical System -- that is, billing data -- could yield important information about the effects of PPS on Medicare use and expenditures for SNF and home health services. In addition, readmissions and mortality could be used as global indicators of the quality of care. The Medicare Statistical System does not include any data useful for assessing the effects of PPS on the remaining outcomes.

We believe that one approach, technically known as the interrupted time series design, is especially appropriate in this situation. This approach would use several years of pre-PPS and post-PPS Medicare data to develop estimates of the difference between what occurred after the implementation of PPS and what would have happened in the absence of PPS. Several statistical techniques are available for developing these estimates. A particular merit of this approach is that the use of a long series of pre-PPS observations can help evaluators to rule out a variety of alternative explanations for any observed change

EXHIBIT 1

Can Information on the Effects of PPS on Post-Hospital Care Be Obtained from Medicare Administrative Data?

Outcomes	From existing and validated measures?	If existing measures are validated?	With the development of new or better measures?
Patients' condition at discharge	- No	- No	- No
Use	Yes, on - Number of users - Volume of services	- Nothing additional	- Nothing additional
Expenditures[a]	Yes, on - Expenditures per patient - Expenditures per episode of illness	- Nothing additional	- Nothing additional
Access	- No	- No	- No
Quality	Yes, on - Readmissions[b] - Mortality[b]	- Nothing additional	Yes, on - Inappropriate types or amounts of care[c]

[a] Based on interim bills that may not exactly equal, in sum, the total of Medicare expenditures.

[b] From SNFs or HHAs within specified periods of time.

[c] For example, physician or outpatient clinic visits under Medicare Part B.

occurring at or after the implementation of PPS. For example, this approach could allow evaluators to separate the effects of PPS on the use of home health services from the general increase in use that was occurring before PPS.

Developing the necessary time series from the Medicare Statistical System would require extensive reorganization of the Medicare data. Currently, the structure of the Medicare data on use and expenditures (i.e., the Utilization Record) is based on individual patients' bills in the order in which they are processed by HCFA. In order to be used for evaluation studies, the data would have to be reorganized into a structure based on the services individual patients receive during an episode of illness associated with a hospital stay. They would also have to be sorted chronologically by date of hospital discharge. A project that HCFA has started, called the Medicare Automated Data Retrieval System, represents one approach toward accomplishing the necessary reorganization.

The costs and time involved in reorganizing Medicare data and doing the necessary statistical analyses are likely to be relatively small compared to the costs associated with collecting new data. Given its importance and the relatively low cost, we see no reason why this type of work should not be done now.

Obtaining Attributive Information About Patients' Condition at Discharge and About Access to and Quality of Post-Hospital Care

One approach to developing attributive information about the remaining outcomes would help get around the problem of the lack of data on these outcomes in the Medicare Statistical System. This approach, based on data from medical or other records

maintained by providers, involves comparing changes in outcomes for Medicare patients discharged from hospitals under PPS with those for patients discharged from hospitals coming under PPS at a later time. This comparison is possible because hospitals began operating under PPS at different times, depending on the starting dates of their Medicare cost-reporting years. The starting dates are spread throughout the year, although they are concentrated at the beginning of January, July, and October. Assuming that the groups of hospitals are generally similar, differences in outcomes could reasonably be attributed to PPS. For example, if patients discharged from hospitals under PPS were generally in less stable condition than patients discharged from hospitals not yet under PPS, as well as less stable than patients discharged from the same hospitals before PPS, then there is reason to believe that PPS caused this difference.

As Exhibit 2 illustrates, this approach could produce information on the effects of PPS on patients' condition at the time of hospital discharge and better information about effects on the quality of post-hospital subacute care than can be obtained from Medicare data on readmission and mortality alone. It may also be possible to generate some information on the use of post-hospital care by patients needing such care -- that is, on access to needed care. We believe it would be possible to develop a measure such as this.

Studies using medical or other records maintained by providers are likely to be more costly and time-consuming than studies using the Medicare data because of the need for extensive

EXHIBIT 2

Can Information on the Effects of PPS on Post-Hospital Care Be Obtained From Data Abstracted From Medical Records?

Outcomes	Using existing and validated measures?	If existing measures are validated?	With development of new or better measures?
Patients' condition	- No	Yes, on - Physical condition at hospital discharge	Yes, on - Need for post-hospital care at discharge
Use	Yes, on - Number of users and volume of services for Medicaid[a]	- Nothing additional	- Nothing additional
Expenditures	Yes, on - Expenditures paid by Medicaid[a]	- Nothing additional	- Nothing additional
Access	- No	- No	Yes, on - Use rates of post-hospital services by patients in need of care[b]
Quality	-No	Yes, on skilled nursing care on - rates of recuperation - avoidable complications - appropriate treatment plans	Yes, on home health care on - rates of recuperation - avoidable complications - appropriate treatment plans

[a] Appropriate data on use and expenditures from other sources (e.g., state funds or out-of-pocket) are probably not available.

[b] Assuming that a valid and reliable measure of need for post-hospital care can be developed.

data collection and for additional work on developing valid and reliable measures that can be used with medical records. The potential benefits of these studies, however, are not limited to producing information on how PPS has affected Medicare patients and post-hospital health care providers. They could also provide measurement instruments for, and experience with, conducting evaluations of post-hospital care based on medical and other records maintained by providers.

Given the amount of mandated work that HCFA has to do already and the limited funds and staff available for that work, the cost and time required to develop the necessary measures and conduct these studies should be considered. Therefore, in discussing an overall plan for evaluating the effects of PPS, we emphasize the importance of using the results of attributive studies based on Medicare data to direct further studies and of prioritizing the entire range of information needs before devoting substantial resources to studies requiring extensive data collection. For example, if the results of analyses of Medicare data indicate that PPS has caused increased hospital readmissions, studies focusing on patient condition at discharge and placement in appropriate post-hospital settings would be important. As we have indicated, this would require work on the

EXHIBIT 3

What HHS Studies Address PPS Effects on Post-Hospital Subacute Care Services, and What Will They Cost?

Study description	Status		Estimated extramural cost
Basic activities			
1984 annual report to Congress (HCFA)	Not released	10/15/85	Intramural
1985 annual report to Congress (HCFA)	Due	12/31/85	Intramural
1986 annual report to Congress (HCFA)	Due	12/31/86	Intramural
Brandeis University Health Policy Research Consortium (HCFA)	Ongoing March 1984 to February 1989		$1,375,000
RAND/UCLA Health Financing Policy Research Center (HCFA)	Ongoing March 1984 to April 1989		$1,525,000
Descriptive surveys			
National Long-Term Care Survey (ASPE/HCFA)	1982 data collected		$975,000
	1984 data collected, analyses		$1,800,000
National Nursing Home Survey (NCHS)	1977 data collected		$1,100,000
	1985 data being collected		$5,300,000
National medical expenditures surveys			
NMCES (NCHSR)	1977 data collected		$23,700,000
NMCUES (NCHS/HCFA)	1980 data collected		$19,550,000
NMES (NCHSR/HCFA/NCHS)	1987 data collection planned		Figures not available

(EXHIBIT 3 cont.)

Study description	Status	Estimated extramural cost
Change-over-time studies		
National Home Health Study (HCFA/BQC)	Results released 3/85; no written report	Intramural
National SNF Study (HCFA/BQC)	In planning	Intramural
Beneficiary Profiling System (HCFA/BQC)	In progress, scheduled completion 1986	Intramural
Comparison of the Cost and Quality of Home Health and Nursing Home Care Provided by Freestanding and Hospital-based Organizations (HCFA/University of Colorado)	1980 and 1982-83 data collected 1986 data to be collected scheduled completion December 1986	$1,579,000
Hospital Cost and Utilization Project (NCHSR&HCTA)	1970-77 data collected 1980-87 being collected 1980-84 patient and hospital files, scheduled late 1986	Intramural
Impact of the PPS on the Quality of In-patient Care (HCFA/Commission of Professional and Hospital Activities)	Scheduled completion late 1988	$145,000
Medicare Quality of Care Study (RAND)	Scheduled completion late 1988	Figures not available
Attributive studies		
Selected Analyses of PPS Impact on Hospitals° Behavior (HCFA/Urban Institute; Georgetown)	Scheduled completion early 1987	$480,000
Evaluability Assessment of the Medicare PPS of Long-Term Care (ASPE/Urban Institute);	Scheduled completion fall 1985	$130,000
Assessing Post-Hospital Discharge Behavior Feasibility Study	Scheduled completion late 1986	$135,000

past studies, particularly large surveys of medical expenditures; current studies targeted at developing change-over-time information; and planned work.

According to congressional mandate, HHS is supposed to provide the Congress with information on the effects of PPS primarily by way of annual reports due at the end of each calendar year. The first report was due in December 1984 and has not yet been delivered. Our review of HHS's work on the annual reports indicates that no attributive information on post-hospital care will be included in any of the currently planned reports, although HHS has plans to include some change-over-time information on post-hospital care in the reports for fiscal years 1985 and 1986.

While HHS is studying the feasibility of developing better information on the effects of PPS on post-hospital care, it is doing very little work on studies that could produce attributive information on the issues of concern here. The work that is under way for developing descriptive and change-over-time information related to post-hospital care issues is also limited. In general, these studies will provide information addressing a broad range of health care issues rather than focusing specifically on PPS and post-hospital care.

collect primary data is likely to be relatively high. Therefore, we believe that the costs of the attributive studies that we have identified should not be too quickly rejected because of their projected price tags but rather should be considered in the context of the high costs that are usually involved in obtaining primary data.

Exhibit 4 summarizes our findings on the types of information that HHS will produce on the five outcomes I presented earlier.

In terms of patients' condition at hospital discharge to post-hospital care, we found that no attributive and only limited descriptive and change-over-time information will be produced. One relevant study is a pilot test that uses medical records to examine changes in patient condition from before PPS to after PPS for two medical conditions in a small sample of hospitals in southern California. A contract to extend the work to more conditions and hospitals is being negotiated although the details of the study are not yet available. A second study will provide information on changes in the types of patients entering skilled nursing facilities and home health agencies and changes in their care needs.

Analyses HHS has planned will not provide attributive

EXHIBIT 4

Will Information Be Available From Ongoing or Planned HHS Evaluations on Post-Hospital Outcomes?

Outcome	Attributive	Change-over-time	Descriptive	Measurement development
Patients' Condition	No	Limited[a]	Limited[a]	Limited
Use	Limited[b]	Yes	Yes	NA
Expenditures	No	Yes	Yes	NA
Access	No	Limited[c]	Limited[c]	No
Quality	No	Limited[d]	Limited[d]	Limited

[a] Only on a few medical conditions.
[b] Only on changes in hospital provision of post-hospital services.
[c] Only on proxy measures for access.
[d] Only on readmissions and mortality.

and for patients who did not use post-hospital services. However, this is the only information on the quality of post-hospital care that is likely to be produced.

We did not find any work going on at HHS that directly addresses the issue of access to post-hospital care for discharged Medicare patients, other than the work being done as part of the feasibility study mentioned earlier. Work in this area is seriously hampered by the lack of suitable measures of access. HHS has planned some work that will review available data for changes in bed supply or service use. These measures are sometimes used as proxies for measures of access.

Work currently in progress at HHS could lead to better measures of patients' condition and quality of care and provide a basis for future studies in these areas. This work as well as efforts to develop measures of access to post-hospital care will have to be done before any type of information can be produced on these outcomes.

Overall, as we show in Exhibit 4, we found that HHS is doing very little to develop information that would enable either HHS or the Congress to determine whether PPS caused any observed changes in post-hospital subacute services. We found only one such study, the first listed under attributive studies in Exhibit

volume of patients treated, while controlling for other economic and social factors. However, this study will address only one provider-oriented, and no patient-oriented, aspects of post-hospital care. Further, it is not scheduled for publication until 1987.

CONCLUSIONS

With regard to what can be done, we believe that evaluations of some of the effects of PPS on post-hospital outcomes are feasible. We have identified two possible approaches to producing attributive information. One, interrupted time series analysis of Medicare data on use, expenditures, readmissions, and mortality, is likely to be relatively inexpensive and could be conducted in a timely fashion. The results of studies of this type could help target further efforts to develop a more complete understanding of the effects of PPS. Completion of the Medicare Automated Data Retrieval System would help facilitate this approach. The second approach would be based on data in medical and other records maintained by providers. Studies of this type will require the development of measures and, like all extensive data collection efforts, are likely to be relatively expensive and take time to complete.

With regard to what HHS is doing, we did not find evidence of intentions to do the types of attributive studies we have just identified. We have found, however, that it will produce

patients' condition at hospital discharge and on access and quality. We found only one study under way that is specifically targeted to developing attributive information on post-hospital care outcomes. Finally, the work under way on outcome measures and on methods of medical record abstraction could prove useful not only for future attributive studies but also for health service research in general.

In short, we have found that HHS has not done, and currently does not plan to do, much work to produce attributive information on changes in patients' condition at hospital discharge or in the use of, expenditures for, access to, and quality of post-hospital care. The one attributive study planned is focused on providers, not patients. At present, HHS has no adequate basis for concluding that PPS does or does not affect post-hospital care; work under way is limited and unlikely to yield information that would support such conclusions in the near future.

This concludes my prepared statement. I will be happy to answer any questions you or other members of the Committee have.

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