Psychiatric Inpatient Routine Cost Analysis: A Project Overview

1.0 Statement of the Problem

When PPS was first introduced in 1983, patients treated in distinct-part units of general acute hospitals as well as those treated in freestanding psychiatric facilities were excluded on the grounds that the classification system did not meaningfully separate patients by resource use. Early work by Health Economics Research, Inc. (HER) and others confirmed this decision, leaving these facilities to be paid under TEFRA. TEFRA capped per discharge payment amounts based on each facility's own costs, assuming costs varied with patient complexity and resource needs. Fifteen years later, there are strong reasons to believe that the baseline target caps are outmoded and bear only limited relation to current casemix costliness across facilities. BBA reductions in payments to psychiatric facilities renewed public interest in putting their payments on a prospective basis. Concurrently, novel per diem bases of payment had been adopted for SNFs, opening up the possibility of allowing psychiatric payments to vary as well by individual patient length of stay. No rigorous, generalizable studies of Medicare per diem cost drivers exist, however, although a valuable literature provides guidance to likely stratifiers in building payment clusters.

The problem in developing efficient and fair prices for psychiatric patients is that the vast majority of costs for these patients are incurred in routine care wards; yet, the

Medicare Cost Report requires providers to report a single, inclusive per diem across all patients. Because facilities vary in their patient severity, paying a flat per diem amount everywhere would (a) create incentives to avoid treating complex patients, and (b) generate financial losses for facilities willing to treat expensive cases.

2.0 Towards a Routine Per Diem Payment Strategy

HER recently was awarded a HCFA contract to analyze variations in routine costs in psychiatric facilities. HER's proposed research strategy is based on primary data collection in selected facilities. Primary data on patient service intensity will be merged with Medicare claims on the same patients and supplemented by key routine cost measures taken from facility Medicare Cost Reports. Primary data will be used to produce a relative value (RVU) index of daily facility routine service intensity (e.g., nursing and group therapy time) for each patient. Using this criterion variable, patients will then be clustered by diagnosis and other unique characteristics (e.g., age, involuntarily committed). The classification system will be applied to the routine costs of participating facilities to test the explanatory power of the system.

3.0 Primary Data Collection

Sample Plan. HER has proposed a tiered sampling plan in response to HCFA's suggestion. The facility sample is quite limited under the understanding that the data collection will not support calibration of a final prospective payment system. The effort is exploratory in nature. The sample must be large enough to test the more important cost stratifiers and be representative enough to indicate relevant geographic factors. In

addition, the sampling strategy must be cost effective, both in terms of ease of access to providers and in terms of on-site collection burden.

The final sample selection has been confirmed with the HCFA Project Officer, and HER will be *sending a 4-person site team to five areas for one week each: (1) Boston (New England), (2-3) Philadelphia and Baltimore (Mid-Atlantic), (4) Chicago (East North Central), and (5) Seattle (Pacific).* One private and one public free-standing hospital has been selected in most areas plus two psychiatric units of general acute hospitals.

Within each facility, we propose to collect data either on two or three units depending on facility size and type. Geriatric and adult units will be emphasized.

We are not intending to interview individual patients. Based on conversations with clinicians, we believe that interviews with key clinicians, staff, and managers, supplemented by staff daily logs of their own time, can elicit the necessary information for imputing variable resource costs.

Initial Contact. The primary contact, or liaison, in each hospital will likely be the Psychiatric Medical Director or Vice President of Nursing. An overview of the project and an anticipated level of effort by facility staff will be provided in more detail during the initial telephone contact. After agreeing to participate, a hospital site coordinator will be identified who, in turn, will distribute background materials to relevant staff and help arrange HER's on-site interviewing.

Activity Tables. Three kinds of primary data collection protocols will be used to gather patient and staff information.

The *Patient Activity* table asks mental health specialists to record times of patients in various activities (e.g., group therapy, nourishment, restraint or seclusion, discharge planning) for each shift over 7 consecutive days.

A second *Staff Activity* table will have each staff member on selected units record their own time in various activities by shift. Each staff member providing any patient-related services will fill out this weekly log, including nurses, unit managers, mental health specialists, professionals, and case managers. Using a full week's data collection period will increase the robustness of the data and reduce the error associated with focusing on a single day to estimate average cost per day across a stay.

Patient Characteristics. Besides the patient and staffing data, we will also be collecting a limited amount of patient characteristic information once for each patient. This two-page form is limited to patient age, admission and discharge dates (if available) and limited diagnostic and symptom related information supplemented by few other determinants of resource use such as involuntary commitment and disturbed state during stay.

Interview Protocols. In addition, several types of managers will be interviewed to better understand differences in costs and treatment patterns. Interview protocols will be used to guide the interview process which generally takes about an hour per group. Another couple of hours will be needed with the facility's Finance Director to understand the cost structure of the hospital.

4.0 Secondary Data Analysis

In the second phase of this study, Medicare claims will be merged with the primary staffing data to produce resource-based estimates of daily costs. Several patient characteristics will be examined in forming a classification system, e.g., diagnosis, commitment status. A few potential clusters likely will be generated from the grouping process. Armed with these clusters and their associated RVU weights, average costs will be determined within cluster for all patients in the sampled psychiatric facilities. Descriptive tables will then show potential financial "winners and losers" at the facility level, benchmarked against actual Medicare payments. These results will help detect any remaining biases in the classification system. As part of the primary data collection and analysis, we will also show to what extent patients' daily resource use varies over the course of their stays; hence the need for several study days per facility.

5.0 HER Past Performance Analyzing Psychiatric Payment Systems

HER staff have an extended history of analyzing issues associated with developing classification and payment systems for psychiatric patients. In their 1985 NIMH Study of Patient Classification Systems for Prospective Rate-Setting for Medicare Patients in General Hospital Psychiatric Units and Psychiatric Hospitals, HER examined the financial impact of reimbursing all Medicare admissions for psychiatric illness and alcohol, drug abuse and mental health (ADM) admissions by DRG under PPS. Alternative classification systems were devised in this study with more clinical appeal than the DRGs for ADM illnesses. HER ultimately recommended against a per case DRG payment system at that time given limitations in the DRGs in explaining variations in patient costs. Under the HCFA-funded study entitled TEFRA Psychiatric Hospital and

Unit Peer Group and Case Outlier Analyses, HER staff quantified the financial impact of TEFRA on psychiatric facilities excluded from PPS for fiscal years 1986 and 1987. Staff proposed modifications to HCFA of the existing TEFRA cost-sharing payment system in order to improve the fairness of payments and to maintain appropriate incentives for cost-effective care. Finally, in the Assessment of the Impact of the Relevant Provisions of the Balanced Budget Act (BBA) of 1997 on the PPS Exempt Psychiatric Providers, HER, under contract to the National Association of Psychiatric Health Systems, simulated the impact of the BBA on financial performance of psychiatric hospitals. Results of this study emphasized the advantages to both providers and the government of moving to a per diem prospective payment system.