User's Guide to Hospital Setting Comparison Tables

Comparison Across Three Hospital Settings

Since reporting year 2001, data have been available across three hospital settings: inpatient, outpatient procedures, and emergency department (ED) visits. Comparison of utilization across these three settings offers a more comprehensive view of patterns in the health care delivery system. The distribution of discharges among the three settings by hospital offers an interesting snapshot of local patterns of use. In most of the tables that follow, the discharge records are sorted by diagnostic or procedure groups for comparison across the three settings (see explanation of Clinical Classifications Software below).

The tables comparing discharges across the three settings focus primarily on resident and non-resident discharges from the fourteen Vermont (VT) civilian acute care hospitals. The Veterans Administration (VA) hospital in White River Junction does not submit ED data and is included only in Table C9.

The final table (Table C9) compares data for Vermonters using hospitals in Vermont, Massachusetts (MA), New Hampshire (NH), and New York (NY). Since reporting year 2001, the NH Department of Health and Human Services has provided data from all three settings for Vermont residents using NH hospitals. This final table also includes data for Vermonters using the VA hospital in White River Junction and MA and NY hospitals, even though these hospitals do not provide data across all three hospital settings. Specifically, the VA hospital and the NY State Department of Health provide inpatient and outpatient procedure records, but not ED records. The MA Division of Health Care Finance and Policy provides only inpatient records at this time.

Individuals may have multiple records in any or all of the three datasets if they had multiple inpatient discharges, outpatient procedures and/or emergency department visits during the reporting year. Therefore, the number of discharge records likely exceeds the number of individuals who received hospital-based services during the reporting year.

Definitions

Charges

The payments hospitals receive for an episode of care rarely equal what is charged. All patients, or insurance plans, do not pay the same amount for similar treatments, supplies and services, even though they may be billed the same amount. Private insurers generally negotiate separately with hospitals to set reimbursement rates. The federal and state governments set Medicare and Medicaid reimbursement rates independently. Variations in charges and reimbursement may be designed so services are cross-subsidized. Comparative analyses of hospital charges must take the limitations of charge data into account.

Charges in this report are defined as "facility" charges. Hospitals subtract professional fees and charges for patient convenience items from the total charge in order to calculate the facility charge. However, facility charge data are not always reported according to this standard definition. Some hospitals include salaried and contracted physician fees in their facility charges.

Recent Changes in Definitions for the Three Hospital Settings

Emergency Department (ED) Visits. For purposes of the hospital setting comparison tables, ED data are defined as records from all outpatient settings that originated in the ED (had an associated revenue code beginning 45, Emergency Room). Inpatient records that originated in the ED remain in the inpatient data column for these tables. In contrast, the Emergency Department Visits section of this

Monograph provides analyses of all ED visits, whether they resulted in an inpatient admission or not.

In the 2001 and 2002 Monograph tables comparing hospital settings, ED records included only records coded by hospitals as emergency room visits (patient type "E").

Beginning with the 2003 Monograph, two changes were made to the way in which records were selected for inclusion in the ED analyses in these tables. ED data selection was expanded to include all outpatient records which had an associated revenue code beginning 45 (Emergency Room). At the same time, ED data records decreased because some patient type "E" records were determined not to be true ED visits (had no associated ER revenue record).

In addition to patient type "E" records, the ED dataset was expanded to include records of other outpatient types which originated in the ED:

- observation bed records (patient type "O") of patients requiring additional observation of their condition,
- ambulatory surgery records (patient type "A") of patients requiring an outpatient procedure, and
- series patient records (patient type "X") of patients who might be returning for ongoing treatment.

The decrease in records occurred when more than 12,000 patient type "E" records were found in 2003 to have no associated ER revenue charge. Many of these records turned out to be for clinics held after hours in hospital EDs.

Inpatient Discharges. Selection of inpatient records included in the hospital setting comparison tables has not changed. The inpatient dataset includes all discharges that were billed as an inpatient stay, regardless of admission source. Maternal records are included, but newborns (MDC 15) are excluded, to avoid duplicate counts. Tables C7 and C8 provide comparisons of inpatient records that originated in the ED with those that did not.

Outpatient Procedures. The outpatient procedure data include records which did not originate in the ED and which have a procedure code in the ICD-9-CM code range 00.0-86.99. Outpatient procedures may have been performed in an operating room or other hospital outpatient setting.

In the 2001 and 2002 Monographs, the hospital setting comparison tables included outpatient procedure analyses for records coded by hospitals as ambulatory surgery (patient type "A") which had a procedure in the ICD-9-CM code range 00.0 – 86.99.

Beginning with reporting year 2003, the set of outpatient procedure records included in these tables was expanded. Records with certain outpatient types in addition to those designated as ambulatory surgery (patient type "A") were included if they had a procedure in the defined range. The additional patient types included are:

- observation bed records (patient type "O") of patients requiring observation after a procedure and
- series patient records (patient type "X") of patients who might be returning for routine care such as chemotherapy or kidney dialysis.

Comparison to Previous Monographs

The hospital setting comparison tables presented in this Monograph are comparable to those published in the 2003 Monograph but cannot meaningfully be compared to the tables published in the 2001 or 2002 Monographs. In data year 2003, multiple changes were made in the definitions for selecting outpatient procedure and ED records, resulting in differences in both the number of records included and the nature of the records. For a detailed discussion of these changes, please see the User's Guide to Outpatient Procedure Tables and the User's Guide to Emergency Department Tables.

Clinical Classifications Software (CCS) Groupings

Clinical Classifications Software (CCS) is a tool that can collapse principal diagnosis (over 12,000) and procedure (over 3,500) codes into meaningful categories. The single-level diagnosis CCS aggregates illnesses and conditions into more than 260 mutually exclusive categories. Similarly, the single-level procedure CCS aggregates procedures into 231 mutually exclusive categories, most representing single types of procedures. High level CCS groups further collapse single-level CCS groups into broad categories based on body systems or condition.

The CCS diagnosis and procedure groups are used in these comparison tables to compare patient records across health care settings. CCS was developed at the Agency for Healthcare Research and Quality (AHRQ) and is available to the public at the website: http://www.ahrq.gov/data/hcup/ccs.htm

Hospital vs. Hospital Service Area Data

In the tables that follow, data are reported by hospital, but not by hospital service area. This is because, unlike the inpatient dataset, the outpatient procedure dataset does not include records for Vermont residents using MA hospitals and the ED dataset does not include records for Vermont residents using the VA hospital in White River Junction and MA and NY hospitals. Therefore, outpatient procedure and ED visit rates cannot be calculated on a hospital service area or population basis.