

File Composition by State

**HCUP State Emergency Department Databases
(SEDD)**

This document contains cumulative descriptions of the SEDD files across all years of HCUP data from 1996 to the current data year. Only data years 1999 forward are released through the HCUP Central Distributor.

Table of Contents

Iowa File Composition	5
Maine File Composition	6
Maryland File Composition	7
Massachusetts File Composition	9
Nebraska File Composition	10
New Jersey File Composition	12
South Carolina File Composition	13
Utah File Composition	14
Vermont File Composition	16

This section describes the original data files obtained from data organizations in participating states and used to create the HCUP outpatient databases. Information about the source of the original data files, the types of hospitals included in those files, the records excluded during HCUP processing, and other pertinent information to understand the composition of these files are presented after the Overview in state-specific sections.

Overview of HCUP Outpatient Databases

Prior to data year 2003, HCUP Partners were asked to provide HCUP with separate ambulatory surgery (AS) and emergency department (ED) source files, if possible, and a combined outpatient file with records flagged by type, as an alternative. Records identified as AS were included in the SASD. Records identified as ED were included in the SEDD. Investigation of these data files revealed that different data sources often defined AS and ED records slightly differently. In addition, a number of the AS and ED source files included other types of outpatient records such as chemotherapy, mammograms, and observation stays. The section “Selection of Records Prior to 2003” includes state-specific information on the inclusion of records in the SASD and/or SEDD prior to 2003.

Starting with the recreated, version 2, 2003 data and data year 2004, HCUP used the state-defined indication of AS and ED records for inclusion in the SASD and SEDD. Records identified by the state as AS were included in the SASD. Records identified by the state as ED were included in the SEDD. Three HCUP data elements (STATE_AS for AS services, STATE_ED for ED services, and STATE_OS for observation services) include information on the source-defined record type.

Data elements derived during HCUP data processing indicate that there is evidence on the HCUP record to indicate an AS, ED, or observation stay (OS) service. These three data elements (HCUP_AS for AS services, HCUP_ED for ED services, and HCUP_OS for observation services) will be on the SASD and SEDD files.

In contrast to other years, all ED records are placed in the SEDD. This includes

- Records identified by the state as ED
- Records with evidence of ED services (HCUP ED > 0).

This change means that some ED records will be included in BOTH the SASD and SEDD. Therefore, all outpatient ED records are available in the SEDD. If the HCUP Partner has indicated that the record is an ambulatory surgery record, but there is evidence of ED services on the HCUP records (i.e., ED charges or revenue codes), then the record is placed in both the SASD and SEDD.

In the first version of data year 2003, the allocation of records into the SASD and SEDD was handled differently. HCUP applied uniform criteria based on information

available on the HCUP file for the selection of AS records for the SASD and ED records for the SEDD.

For the SASD, the criteria for identifying ambulatory surgery records include the following:

- Presence of at least one ICD-9-CM or CPT-4 procedure in the following ranges:

ICD-9-CM procedure codes 00.50-86.99 or 88.40-88.59

CPT-4 procedure codes 10040-69999, 70496, 70498, 70544-70549, 71275, 71555, 72159, 72191, 72198, 73206, 73225, 73580, 73706, 73725, 74175, 74185, 75600-75790, 75893-75898, 75952-75954, 75992-75996, 78445, 92287, 92975, 92992-92993, 93501-93581.

- Length of stay of 0 or 1 days, if this information is available.

For the SEDD, the criteria for identifying ED records vary across states because of the differing availability of necessary data elements. We use one or more of these three criteria:

- A revenue center code in the range 450-459, indicating ED charges; or
- A CPT procedure code in the range 99281-99285, indicating an ED visit; or
- A positive emergency room charge, if revenue center codes are not available

If a record fits both the AS and ED criteria, the record was included in the SASD with an indication of ED services (HCUP variable EDflag > 0) with one exception. If a data source provides only ED data to HCUP, then the combination AS/ED records were placed in the SEDD file with an indication of AS services (HCUP variable ASflag > 0).

For all states, records that fit neither the AS nor ED screen are excluded from the SASD and SEDD. Records excluded from the SASD and SEDD were placed in the State Unused Files (STUF). It became apparent in evaluating the records excluded from the SASD and SEDD that in some cases the HCUP Partners had more information available to them and, therefore, were better able to identify AS and ED records.

If the data elements EDflag or ASflag are on the 2003 data file, then the HCUP file had records excluded and placed in the STUF file. If the data elements HCUP_AS, HCUP_ED, or HCUP_OS are on the 2003 file, then records were not excluded and placed in the STUF file.

Iowa File Composition

Source Files

Beginning in data year 2004, Iowa Hospital Association (IHA) provided their Statewide Outpatient Database to HCUP. This database contains information on all emergency room, ambulatory surgeries, and observation visits from Iowa hospitals and surgery centers. IHA identified the different types of outpatient records as follows:

- Emergency Room - Any record with a HCPCS code of 99281-99285 or 99291 and with a revenue code 0450, 0451, 0452, 0456, 0459
- Outpatient Surgery - Any record not classified as Emergency Room AND with a revenue code 0360, 0361, 0369, 0480, 0481, 0490, 0499, 0750, 0759.
- Observation - Any record not classified as Emergency Room or Outpatient Surgery AND with a revenue code 0760, 0762, 0769.

Maine File Composition

Source Files

The Maine Health Data Organization (MHDO) provides ambulatory surgery (AS) and emergency department (ED) records to HCUP in one combined outpatient file. The file also contains information on other services such as physical therapy and chemotherapy visits. Information on recurring visits which list several visits for the same type of scheduled procedure/treatment can be bundled into one record. Data from freestanding ambulatory surgery centers are not included.

Selection of Records

The Maine Health Data Organization provided a mixture of outpatient records in the same file. Discharges that include services to revenue codes in the range 450-459 (emergency room) were retained in the HCUP Maine SEDD.

Records with a discharge disposition of "still a patient" were excluded from the HCUP Maine emergency department data.

Selection of Records in 2003, Version 1, Only

Using the standard HCUP criteria for assigning records to the SASD and SEDD, the source records are sorted as follows:

- 14.4% of source records are assigned to the SASD
- 15.9% of source records are included in the SEDD
- 68.7% of source records are sent to the STUF.

SEDD Notes

Charge File for the Maine SEDD. Maine provided a normalized line item detail file in which a submitted charge pertains to a specified revenue center. There may be multiple charges reported for the same revenue center. This type of Charges file includes multiple records per discharge abstract. Each record includes the following information for one service: revenue center (REVCODE), charge (CHARGE), unit of service (UNITS), CPT/HCPCS codes (CPTHPCPS), and possibly day of service (SERVDAY). For example, if a patient had 5 laboratory tests, there are 5 records in the Charges file with information on the charge for each laboratory test.

Maryland File Composition

Source Files

The Maryland Health Services Cost Review Commission (HSCRC) provides ambulatory surgery (AS) and emergency department (ED) records to HCUP in two separate files. One file contains information from ambulatory surgery centers that are associated with acute care hospitals. Data from freestanding ambulatory surgery centers are not included. The second file contains ambulatory care data from emergency departments, clinics, and labor/delivery centers within acute care, general hospitals in Maryland.

Selection of Records

Maryland retains their emergency department data in an "Ambulatory Care" data set that also includes clinic and labor & delivery records that do not result in an admission to the hospital. Prior to 2001, HSCRC had supplied HCUP with only the emergency department records from the Maryland Ambulatory Care data set. Beginning in 2001, HSCRC provided HCUP with the complete Ambulatory Care data set. The clinic and labor & delivery records were excluded from the Maryland SEDD during HCUP data processing using a record type indicator provided by HSCRC. HSCRC has warned that the record type indicator in their source data may not always be correct because some hospitals switched the meanings of the data element in some quarters. Analysts are advised to check the revenue codes for emergency department services (REVCDn in the range 450-459) before using the data when this distinction is important.

Selection of Records in 2003, Version 1, Only

Because the Maryland AS file does not include ICD-9-CM procedure codes, only CPT-4 procedure codes are considered in assigning records to the 2003 SASD. For the 2003 SEDD, the presence of a revenue code indicating ED services (range 450-459) is the reason for inclusion. The Maryland outpatient source records are separated as follows:

- 21% of source records are assigned to the SASD
- 63% of source records are included in the SEDD
- 16% of source records are excluded.

The excluded records include labor/delivery and clinic services such as aftercare, non-traumatic joint disorders and HIV infection. As noted previously, the Maryland source file includes these other types of outpatient services.

SEDD Notes

Charge File for the Maryland SEDD. Maryland provided summarized charge detail in which charge information is summed within the revenue center. This type of Charges

file includes one record per discharge abstract. Each record contains three corresponding arrays with the following information: revenue center (REVCDn), total charge for the revenue center (CHGn), and total units of service for the revenue center (UNITn). For example, if a patient had 5 laboratory tests, REVCD1 would include the revenue code for laboratory, CHG1 would include the total charge for the 5 tests, and UNIT1 would be 5.

2001 SEDD. The data supplied to HCUP came in two files, each with a different format. Data for January to June were in one format, and data for July to December were in an expanded format. The July to December file contained data elements that were not provided for the first half of the year.

1999 SEDD. Sixteen hospitals did not provide all of their emergency department records to the State during varying periods in the latter half of the year. There is no clear pattern to the shortfall, but it is roughly an 18 percent decrease for August through December. The sixteen hospitals can be identified by DSHOSPID numbers: 21003, 21005, 21007, 210011, 210018, 210022, 210024, 210028, 210029, 210032, 210033, 210034, 210044, 210055, 210056, and 210061.

Massachusetts File Composition

Source Files

The Division of Health Care Finance and Policy in Massachusetts provides emergency department (ED) records to HCUP in one file. The file contains any visit by a patient to an emergency department that results in neither an outpatient observation stay nor an inpatient admission of the patient. An ED visit occurs even if the only service provided is triage or screening.

Selection of Records in 2003, Version 1, Only

Because Massachusetts does not provide revenue codes or detailed charges to HCUP, the standard criteria for selecting records for the 2003 SEDD cannot be applied. In this one state, all of the supplied ED records are included in the 2003 SEDD without screening.

Nebraska File Composition

Source Files

The Nebraska Hospital Association (NHA) provides ambulatory surgery (AS) and emergency department (ED) records to HCUP in one single file. NHA collects any type of outpatient record submitted by member acute-care hospitals operating in the state. Information on the record (i.e., revenue codes and CPT codes) is used to identify resources: ED, AS, and observation stay. Revenue codes 450-459 identify ED visits, while the presence of a surgical procedure indicates an AS record. One record can include multiple types of services. Data from freestanding ambulatory surgery centers are not included.

For data year 2001, NHA informed HCUP that the Nebraska outpatient source data files were approximately 80% complete and that the missing claims might reflect patients who lack health insurance and/or less expensive care. Missing claims are primarily hard copy claims that were not submitted by their providers. Hard copy claims are more likely to be associated with private pay and/or smaller third party Commercial payers that do not accept electronic claims. These patients might be more likely to lack health insurance (for whatever reason) and/or to be financially independent. Providers might file some claims on paper if the return on investment for filing them electronically is less obvious. Thus, paper-based claims could conceivably reflect less expensive care.

Selection of Records

The Nebraska Hospital Association prohibits the release of discharge records for patients with HIV diagnoses. These discharges were not included in the source file provided to HCUP and are therefore not included in the HCUP files.

During HCUP processing, records with a discharge disposition of "still a patient" were excluded from the HCUP Nebraska emergency department data.

Selection of Records in 2003, Version 1, Only

Using the standard HCUP criteria for assigning records to the 2003 SASD and the SEDD, the source records are separated as follows:

- 38% of source records are assigned to the SASD
- 61% of source records are included in the SEDD
- 1% of source records are excluded.

Please note that for Nebraska, the two CPT codes in the HCUP Core file were used to apply the selection criteria. The CPT codes in the line item detail were not considered. All revenue codes were used for the criteria.

SEDD Notes

Charge File for the Nebraska SEDD. Nebraska provided detailed charge information by revenue center. This type of Charges file includes one record per discharge abstract. Each record contains four corresponding arrays with the following information: revenue center (REVCDn), CPT or HCPCS procedure code (CPTn), total charge for the revenue center (CHGn), and total units of service for the revenue center (UNITn). For example, if a patient had 5 laboratory tests, REVCD1 would include the revenue code for laboratory, CPT1 would include the procedure code, CHG1 would include the charge for the procedure, and UNIT1 would be the unit of service. Revenue codes may be repeated more than once.

New Jersey File Composition

Source Files

The HCUP New Jersey emergency department files were constructed from confidential data received from the New Jersey Department of Health and Senior Services. The files consist of emergency department visits associated with all general acute care hospitals in New Jersey.

Emergency department (ED) events are defined as meeting all four of the following requirements:

1. Admitted and discharged from the ED on the same day -or- admitted and discharged the next day (This second scenario covers patients who are in the emergency department past midnight, but are not admitted as an inpatient.)
2. Bill type beginning with 13x for outpatient services
3. Emergency department charges for revenue codes 45x
4. No operating room or ambulatory surgery services.

South Carolina File Composition

Source Files

The South Carolina Budget and Control Board provides ambulatory surgery (AS) and emergency department (ED) records to HCUP in three separate files. One file contains information from ambulatory surgery centers associated with acute care hospitals. The second file contains ambulatory surgery data from freestanding surgery centers. The third file contains visits to hospital-based emergency departments, excluding records that have total charges less than \$50.

The data include outpatient discharges from all South Carolina acute care hospitals derived from UB-92 records and discharges from South Carolina freestanding ambulatory surgery centers derived from HCFA 1500 records.

Selection of Records

The following records were excluded from the HCUP South Carolina ambulatory surgery files:

- Discharges with disposition of "still a patient" were excluded.

Selection of Records in 2003, Version 1, Only

Using the standard HCUP criteria for assigning records to the 2003 SASD and positive emergency room charges for assigning records to the SEDD, the source records are separated as follows:

- 30% of source records are assigned to the SASD
- 69% of source records are included in the SEDD
- 1% of source records are excluded.

Utah File Composition

Source Files

The Office of Health Care Statistics, Utah Department of Health provides ambulatory surgery (AS) and emergency department (ED) records to HCUP in two separate files. One file contains information on selected ambulatory surgeries occurring in hospital outpatient departments, hospital-affiliated ambulatory surgery centers, and freestanding ambulatory surgery centers. The second file contains emergency department encounters (identified by revenue codes in the range 450 to 459) from all Utah licensed hospitals. If a patient comes into the ED and has an ambulatory surgery, that record is included in the AS file.

The list of procedures that qualify as ambulatory surgery in Utah include the following:

Description	CPT-4 Codes	ICD-9-CM Procedure Codes
Mastectomy	19120-19220	850-8599
Musculoskeletal	20000-29909	760-8499
Respiratory	30000-32999	300-3499
Cardiovascular	33010-37799	350-3999
Lymphatic/Hematic	38100-38999	400-4199
Diaphragm	39501-39599	ICD9 codes in Respiratory
Digestive System	40490-49999	420-5499
Urinary	50010-53899	550-5999
Male Genital	54000-55899	600-6499
Laparoscopy	56300-56399	ICD9 codes in Musculoskeletal, Digestive, and Female Genital
Female Genital	56405-58999	650-7199
Endocrine/Nervous	60000-64999	010-0799
Eye	65091-68899	080-1699
Ear	69000-69979	180-2099
Nose, Mouth, Pharynx	CPT codes in Musculoskeletal and Respiratory	210-2999
Heart Catheterization	93501-93660	ICD-9 Codes in Cardiovascular

Selection of Records

The Utah Department of Health source data file included records on both emergency department outpatient visits and emergency department inpatient admissions. The source data also included a flag that identified the type of record (e.g., "o" for outpatient visit and "i" for inpatient admission). To be consistent with other HCUP SEDD, the inpatient admission records were excluded from the Utah SEDD and the emergency department outpatient visits were retained.

Selection of Records in 2003, Version 1, Only

Using the standard HCUP criteria for assigning records to the 2003 SASD and positive emergency room charges for assigning records to the SEDD, the Utah outpatient source records are separated as follows:

- 37% of source records are assigned to the SASD
- 62% of source records are included in the SEDD
- 2% of source records are excluded.

Vermont File Composition

Source Files

The Vermont Association of Hospitals and Health Systems provides both ambulatory surgery (AS) and emergency department (ED) data in a single file combined with other outpatient services, such as observations stays. If a patient receives ED care, the record is marked as an ED record. If the patient at any time receives a surgical procedure (principal or secondary) within the ICD-9-CM range of 01.00 to 86.99, or the CPT4 range of 10000-69999, then the record is classified as ambulatory surgery. The setting can vary, of course: a procedure may have been performed in the operating room, emergency room, an on-site clinic, surgical suites, or ambulatory surgery centers associated with a hospital. Data from freestanding ambulatory surgery centers are not included.

Selection of Records

Vermont supplied discharge abstracts for emergency room visits in a separate file from the Vermont inpatient and ambulatory surgery file.

Records with a discharge disposition of "still a patient" were excluded from the HCUP Vermont emergency department data.

Selection of Records in 2003, Version 1, Only

The standard HCUP criteria are used for assigning records to the 2003 SASD. Both emergency department CPT codes and two-digit revenue codes of "45" are used for identifying records for the SEDD. Only two-digit revenue codes are used because that is all that is available on the source file. The Vermont outpatient records are separated as follows:

- 38.5% of records are included in the SASD
- 57.1% of records are placed in the SEDD
- 3.9% of records are excluded.

The excluded records are for therapeutic and diagnostic procedures that do not fit the screen of surgical procedures.