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**NIS Description of Data Elements**  
The NIS is set of longitudinal hospital inpatient databases included in the HCUP family. These databases are created by AHRQ through a Federal-State-Industry partnership.

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AGE - Age in years at admission

General Notes

Age in years (AGE) is calculated from the birth date (DOB) and the admission date (ADATE) in the HCUP State databases with the few exceptions listed below. Ages over 89 are aggregated into a single category of 90 years or older in the HCUP nationwide databases starting in data year 2012.

Exceptions for assigning AGE:

- AGE is set to the supplied age if the age cannot be calculated (ADATE and/or DOB is missing or invalid). Note: If the supplied age is the age at discharge instead of the age at admission, then the supplied age is NOT used.
- AGE is missing (.) if the age cannot be calculated and the supplied age is missing.
- AGE is invalid (.A) if
  - it is out of range (AGE NE 0-124) or
  - the age cannot be calculated and the supplied age is nonnumeric.An invalid calculated AGE is not replaced by the supplied age.
- If the data source does not provide the necessary dates to calculate age or the reported age at admission, then beginning in the 1998 data, AGE is not present on the HCUP files. In the 1988-1997 data, AGE is retained on the HCUP files and is set to unavailable from source (.B).
- AGE is set to inconsistent (.C) if one of the HCUP edit checks is triggered. The age edit checks vary by year.
  - Beginning in the 1998 data, AGE is less than 0 (EAGE02), is greater than 124 (EAGE03), is inconsistent with neonatal diagnoses (EAGE04), or is inconsistent with maternal diagnoses/procedures (EAGE05).
  - From 2006-2014, AGE is inconsistent with the HCPCS procedure codes (ECPT03)
    - We discontinued age edits for HCPCS level I (CPT codes) beginning with data year 2011 and we discontinued age edits for all other HCPCS codes beginning in 2015.
  - In the 1988-1997 data, AGE is inconsistent with AGEDAY (ED021), neonatal diagnoses (ED3nn), maternal diagnoses (ED4nn), or maternal procedures (ED5nn).

When processing the 1996 HCUP data, no adjustment was made for the leap year when age was calculated from date of birth and admission date. This caused infants admitted on the day before their first birthday to have AGE=1 instead of AGE.

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Uniform Values

| Variable | Description               | Value | Value Description   |
|----------|---------------------------|-------|---|
| AGE      | Age in years at admission | 0-124 | Age in years  |
|          |                           | .     | Missing   |
|          |                           | .A    | Invalid   |
|          |                           | .B    | Unavailable from source (coded in 1988-1997 data only)  |
|          |                           | .C    | Inconsistent: beginning with 1998 data, EAGE02, EAGE03, EAGE04, EAGE05; in 2006-2014 data, ECPT03; in 1988-1997 data, ED021, ED3nn, ED4nnn, ED5nn |

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State Specific Notes

**Arizona**  
The reported age was not used when AGE could not be calculated because Arizona supplied age at discharge.

Beginning with 2005, source AGE is no longer supplied.

**Arkansas**  
Only the calculated age could be used to assign AGE because Arkansas did not supply age in years.

**California**  
In all years, California assigned the date of birth to admission date when the admission date was not reported and the discharge had a principal diagnosis indicating a newborn (defined as DX1 equal to V3x.0x). This caused the calculated age to be 0 days.

Prior to 1995, California reported ages at discharge. Only the calculated age was used to assign AGE.

Beginning in 1995, California reported ages at admission. When AGE could not be calculated from dates, the reported age was assigned.

**Colorado**

Beginning in data year 2014, the reported age was used to assign AGE. Age could not be calculated because the date of birth (DOB) provided by Colorado does not include the day of birth. Only birth month and year are provided. The day of birth was set to 15 for all records.

Beginning with 1998, the Colorado supplied age at admission was used to assign AGE when the age could not be calculated.

From 1994-1997, Colorado supplied age at admission. For consistency with earlier years of the SASD, however, only the calculated age was used to assign the HCUP variable AGE.

From 1988-1993, Colorado did not supply age at admission. Only the calculated age could be used to assign the HCUP variable age.

**Connecticut**

Patient age could not be calculated from dates since Connecticut did not report full dates of birth. During HCUP processing, only the reported age could be used to assign AGE.

**Florida**

Beginning in 2004, Florida provides DOB and ADATE for all discharges.

In 1997, patient age could not be calculated from dates since Florida did not report admission or birth dates. During HCUP processing, the reported age was used to assign AGE. From 1998 to 2001, Florida supplied admission date and date of birth for patients less than 11 years old. For patients over 10 years old, the reported age in years was used to assign AGE. Beginning in 2002, Florida reported age for all discharges, but did not provide admission date and date of birth.

**Hawaii**

Beginning in 2017, Hawaii does not provide date of birth (DOB).

Beginning in 1998, Hawaii provided the date of birth (DOB) with a four-digit year.

In prior years, only a two-digit year was available. To compensate for the two-digit birth year, the birth century was assigned as 1800 if the reported date of birth was after the admission date. Birth century was assigned as 1900 for all other records.

**Illinois**

Only the calculated age could be used to assign AGE because Illinois did not supply age in years.

**Iowa**

AGE may differ by one year from the actual age. When only the year of birth is available, Iowa assigns the day and month of birth to '01', which may cause the age calculated from birth date to be one year less than the actual age.

**Maine**

Starting with 2013 data, the patient age (AGE) is set to 90 for patients age 90 years and older.

**Massachusetts**

Prior to October 1998, ages greater than 100 years should be interpreted with caution. Age is calculated using the birth and admission date, but only a two-digit year for date of birth (DOB) was provided by the data source. An additional indicator variable provided by the data source, the "Century Birth date," indicates whether the age of the patient was greater or less than 100 years. HCUP experience has shown that this indicator was often not set when it should have been. Thus, if the century indicator specified 1800 or the birth date occurred after the admit date, the century for the date of birth was set to 1800. If the birth date is erroneously after the admit date, this rule causes the age in years (AGE) to be incorrectly greater than 100. If the age does not agree with neonatal or maternal diagnoses and/or procedures, the age is set to inconsistent (.C).

Beginning in October 1998, Massachusetts provides a four-digit birth year. The birth century indicator and the admission date are not used to modify the date of birth.

**Michigan**

Prior to 2001, age could not be calculated because Michigan did not report admission and birth dates. Beginning with the 2001 data, Michigan provided complete dates and AGE could be calculated.

**Nevada**

For discharges less than 90 years old, if the age could not be calculated from dates, then the reported age was used to assign AGE. For discharges that are 90 or older, only the calculated age could be used to assign AGE because Nevada sets age in years to 90 for all discharges age 90 and above.

**New Jersey**

Beginning in 2009 AGE was provided. In 2008, Age was calculated during the HCUP processing.

Prior to 1994, New Jersey reports age as a two-digit code with a maximum of 99 and provides a birth century indicator. Beginning in 1994, New Jersey provides a four-digit birth year. If age could not be calculated (ADATE or DOB missing or invalid) then age was assigned as follows:

| <u>Year of Data</u> | <u>HCUP processing of AGE</u>  |
|---------------------|--|
| 1988-1991           | If DOB is greater than ADATE, assign AGE as the reported age plus 100. Otherwise, assign AGE as the reported two-digit age.  |
| 1992-1993           | If DOB is greater than ADATE, assign AGE as the reported age plus 100. Otherwise, assign AGE as the reported two-digit age and add 100 if the birth century flag indicates that the patient is age 100 or older. |
| Beginning 1994      | Assign AGE as the reported age, if the reported AGE was in the range of 1-124 years. Otherwise, assign AGE as invalid (.A).  |

New York

Beginning with the 2008 data, the HCUP data element AGE is missing (.) for AIDS/HIV patients. New York identifies AIDS/HIV records by ICD-9-CM diagnosis code, DRG, or MS-DRG:

- An admitting, principal or any secondary diagnosis of "042", "043", "044", "7958", "27910", "27919", "2793", "1363", "79571", "07951", "07952", "07953", "V017" or "V08".
- A DRG of 488 through 490 (prior to October 2007) or MS-DRG of 700 through 716 (beginning in October 2007).

Please note that the admitting diagnosis is not retained in the HCUP databases prior to 2012.

In the 1988-1997 HCUP New York databases, AGE could not be calculated because New York did not report full admission and birth dates. During HCUP processing, only the reported age in years could be used to assign AGE.

Oklahoma

Only the supplied age could be used because Oklahoma does not supply date of birth. Oklahoma reports age in years (AGE) as missing for patients with AGE < 1 and does not report age in days (AGEDAY) for patients with AGE >= 1. During HCUP processing AGE was set to 0 for records with a valid value for age in days (AGEDAY).

Oregon

Oregon reports age at discharge. During HCUP processing, reported age was not used when patient age (AGE) could not be calculated from dates. Beginning in 2007, reported age was used if the calculated age was missing.

Pennsylvania

Prior to 1995, only the calculated age could be used to assign AGE because Pennsylvania did not supply age in years. The appropriate edit check for consistency of reported and calculated ages could not be performed.

Beginning in 1995, the source reported age in years. During HCUP processing, AGE was assigned using the reported age if patient age could not be calculated from the dates provided.

Beginning in 2008, only the supplied age in years could be used to assign AGE because Pennsylvania did not provide date of birth.

Birth Century

The availability of birth century information varies across years of data.

- Prior to 1996, date of birth (DOB) was supplied with a four-digit year.
- In 1996-1997, only a two-digit year for date of birth (DOB) was provided by the data source.
  - If DOB > admission date (ADATE), the birth century was assigned as 18 (e.g., if ADATE = 01/02/88 and DOB = 01/03/88, then the birth year was set to 1888 and the calculated age was 99).
  - If DOB <= ADATE, the birth century was assigned as 19 (e.g., if ADATE = 01/02/88 and DOB = 01/01/88, then the birth year was set to 1988 and the calculated age in years was 0).
- Beginning in 1998, the date of birth (DOB) was supplied with a four-digit year.

Pennsylvania

Pennsylvania discharges which are considered as having "sensitive conditions" based on their DRG, diagnoses, and procedures, had AGE set as follows:

If AGE is coded (>= 0), set AGE to the midpoint of 5-year intervals. The age intervals begin with 0-4 and end with 85+. For example,

| AGE                 | New Value                      |
|---------------------|--------------------------------|
| 0 - 4               | 2                              |
| 5 - 9               | 7                              |
| 10 - 14             | 12                             |
| 15 - 19             | 17                             |
| 20 - 24             | 22                             |
| ...5 year increment | ...midpoint of 5 year interval |
| 85+                 | 85                             |

The sensitive conditions and the screens for selecting them are listed below. The DRG and ICD-9-CM code screens are separated by "or" operators. The screen for sensitive conditions is updated as appropriate each year. Some out-of-date diagnoses and procedures, marked by "(D)", were dropped from the screen. Other diagnoses and procedures were added; these are marked by "(A)".

|             | DRG's OR | Diagnoses OR       | Procedures  |
|-------------|----------|--------------------|---|
| Abortion    | 380-381  | 634-634.92 (D)     | 69.01, 69.02  |
|             |          | 635-635.99 (A)     | 69.09 (AD)  |
|             |          | 636-636.99 (D)     | 69.51-69.59   |
|             |          | 637-637.99 (D)     | 69.93 (D)   |
|             |          | 638-638.99 (D)     | 74.91, 75.0   |
|             |          | 639-639.99 (D)     | 96.49 (D)   |
|             |          | V61.7              |   |
| AIDS/HIV    | 488-490  | 042                |   |
|             |          | 043-044.9 (D)      |   |
|             |          | 795.71 (A)         |   |
|             |          | 795.8 (D)          |   |
|             |          | V08 (A)            |   |
|             |          | V65.44 (A)         |   |
| Psychiatric | 424-432  | 290-302.9, 306-319 | 942.1--942.9, 943.1-943.9, 944.1-944.4, 945.1-945.2, 9459 |
|             |          | E95.0-E95.90       |   |
|             |          | E98.0-E98.99       |   |
|             |          | V11.0-V11.99 (A)   |   |

|                  |                  |                      |                                       |
|------------------|------------------|----------------------|---------------------------------------|
|                  |                  | V790, V798, V799 (A) |                                       |
| Substance Abuse  | 433-437, 521-523 | 303-305.93           | 944.5-944.6, 945.3-945.4, 946.1-946.9 |
|                  |                  | 980.0 (A)            |                                       |
|                  |                  | V65.42 (A)           |                                       |
|                  |                  | V791                 |                                       |
| Venereal Disease |                  | 090.0-099.9          |                                       |
|                  |                  | V027                 |                                       |
|                  |                  | V028                 |                                       |

South Carolina

The calculation of AGE differs across years.

Beginning in 2000

South Carolina reported a four-digit year for date of birth (DOB). No adjustments to birth century were made during HCUP processing.

From 1996 to 1999

Only a two-digit year for date (DOB) was provided by the data source.

- If DOB > admission date (ADATE), the birth century was assigned as 18 (e.g., if ADATE = 01/02/88 and DOB = 01/03/88, then the birth year was set to 1888 and the calculated age was 99).
- If DOB <= ADATE, the birth century was assigned as 19 (e.g., if ADATE = 01/02/88 and DOB = 01/01/88, then the birth year was set to 1988 and the calculated age in years was 0).

Using only the admission date to determine births in the 1800s causes no patient ages to be greater than 99 years.

In 1993 and 1995

South Carolina reported a two-digit year for date of birth (DOB). During HCUP processing, the birth century was assigned as 1800 if the reported age was at least 100 or the reported date of birth was after the admission date. Birth century was assigned as 1900 for all other records.

In 1994

South Carolina reported a four-digit year for date of birth (DOB). No adjustments to birth century were made during HCUP processing.

Tennessee

Prior to 2008, only the calculated age could be used to assign AGE because Tennessee did not supply age in years.

Texas

Age in years (AGE) was set to the midpoints of age ranges. There are 22 age groups for the general patient population and 5 age groups for the HIV or alcohol/drug use patients. The age groups are shown below:

| Texas Restriction on AGE for General Patient Population other than HIV or Drug/Alcohol Use Patients |                  |
|---|------------------|
| Age Range   | New value of AGE |
| 0   | 0                |
| 1-4   | 2                |
| 5-9   | 7                |
| 10-14   | 12               |
| 15-17   | 16               |
| 18-19   | 19               |
| 20-24   | 22               |
| 25-29   | 27               |
| 30-34   | 32               |
| 35-39   | 37               |
| 40-44   | 42               |
| 45-49   | 47               |
| 50-54   | 52               |
| 55-59   | 57               |
| 60-64   | 62               |
| 65-69   | 67               |
| 70-74   | 72               |
| 75-79   | 77               |
| 80-84   | 82               |
| 85-89   | 87               |
| 90 and above  | 90               |

| Texas Restriction on AGE for HIV or Drug/Alcohol Use Patients |                  |
|---|------------------|
| Age Range   | New value of AGE |
| 0   | 0                |

|  |    |
|--|----|
| 1-17   | 8  |
| 18-44  | 31 |
| 45-64  | 54 |
| 65-74  | 69 |
| 75 and above   | 75 |
| The HIV or drug/alcohol use patients are identified by any principal or secondary diagnosis code on the record having the first four characters equal to one of the values in the following list: "2910", "2911", "2912", "2913", "2914", "2915", "2918", "2919", "2920", "2921", "2922", "2928", "2929", "3030", "3039", "3040", "3041", "3042", "3043", "3044", "3045", "3046", "3047", "3048", "3049", "3050", "3052", "3053", "3054", "3055", "3056", "3057", "3058", "3059", "7903", "V08" and "042". |    |

Utah

Prior to 2004, the reported age was not used when AGE could not be calculated because Utah supplied age at discharge. Beginning in 2004, Utah supplied the age at admission which was used during HCUP processing.

Beginning with the 2015 data, the HCUP data element AGE is set to missing (.) in the Central Distributor SID for records involving substance abuse or HIV infection. This was done at the request of the Utah Partner organization.

Virginia

Beginning in 2010, Virginia provided the date of birth (DOB).

Prior to 2010, patient age could not be calculated from dates since Virginia did not report date of birth. During HCUP processing, only the reported age could be used to assign AGE.

Washington

Availability of Reported Age

During HCUP processing of 1988-1992 discharges, the reported age was not used when AGE could not be calculated because Washington reported age at discharge. The appropriate edit check for consistency of reported and calculated ages could not be performed.

Beginning with 1993 discharges, Washington reported age at time of admission, consistent with the HCUP definition of AGE. Therefore, if the patient's age could not be calculated from dates, the reported age was assigned to AGE.

Ages Greater Than 99 Years

For 1988-1992 discharges, due to the coding of date of birth, no patient ages are greater than 99 years. Only a two-digit year for date of birth (DOB) was provided by the data source.

- If DOB is greater than admission date (ADATE), the birth century was assigned as 18 (e.g., if ADATE = 01/02/88 and DOB = 01/03/88, then the birth year was set to 1888 and the calculated age was 99).
- If DOB is less than or equal to ADATE, the birth century was assigned as 19 (e.g., if ADATE = 01/02/88 and DOB = 01/01/88, then the birth year was set to 1988 and the calculated age in years was 0).

For 1993-1996 discharges, the birth century was assigned as 1800 if the reported age was at least 100 or the reported date of birth was after the admission date. Birth century was assigned as 1900 for all other record. The age range is not truncated at 99.

In 1997, the reported age was no longer used to indicate ages over 100. This is consistent with the coding of AGE in other states. The coding of AGE in 1997 is the same as specified for 1988-1992.

Beginning in 1998, Washington provided a four-digit birth year with the century. If the reported date of birth was greater than the admission date, then the original date of birth remains unchanged and the age at admission (AGE and AGEDAY) was set to inconsistent (.C).

Wisconsin

Beginning in 2005, Wisconsin no longer codes ages greater than 96 to 96. Prior to 2005, an error during HCUP processing of 1989-1992 discharges caused age in years (AGE) and date of birth (DOB) to be set to missing (.) for all patients born in the year 1900. Beginning with 1993 discharges, AGE and DOB were processed correctly.

From 1989-1994, only the calculated age could be used to assign AGE because Wisconsin did not supply age in years. The appropriate edit check for consistency of reported and calculated ages could not be performed.

For 1995 discharges, the source supplied an age in years which was used if the age could not be calculated from date of birth and admission date.

Beginning in 1996, only the calculated age could be used to assign AGE because Wisconsin had truncated ages over 96 years to age 96.

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AHAID - AHA hospital identifier

General Notes

There are up to three different types of hospital identifiers included in the HCUP databases.

- The data source's own number scheme for identifying hospitals and facilities (DSHOSPID),
- The hospital identifier used by the American Hospital Association (AHAID and IDNUMBER), and
- A unique HCUP hospital identifier (HOSPID).

The hospital entity as defined by the data source may differ from the hospital entity as defined by the American Hospital Association (AHA). For example, the data source treats two separate facilities as two hospitals, while the AHA treats the two facilities as a single hospital, or vice versa. For consistency across states, HCUP defines hospitals in accordance with the AHA Annual Survey Database (Health Forum, LLC © 2007). During HCUP data processing, the data source's identification of the hospital is reconciled with the identification of the hospital in the AHA Annual Survey Database. For detailed information about

this linking process, see the special report on HCUP Hospital Identifiers.

The hospital identifier (AHAID) contains the 7-digit hospital identifier used on the AHA Annual Survey Database. These files contain information about hospital characteristics and are available for purchase through the AHA. AHAID is missing if the data source that contributed discharge data to the NIS prohibits the release of hospital identifiers. [Maps indicating the availability of the AHAID](#) in the NIS provide detailed information regarding which States publicly release this information by year

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Uniform Values

| Variable | Description             | Value | Value Description                        |
|----------|-------------------------|-------|--|
| AHAID    | AHA hospital identifier | 7(n)  | AHA hospital identifier with a leading 6 |
|          |                         | Blank | Missing                                  |

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State Specific Notes

None

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ATYPE - Admission type

General Notes

ATYPE indicates the type of admission (emergency, urgent, elective, etc.). Newborn admission types are separated only if that information is available from the data source. No edit check comparing the admission type to diagnosis or procedure codes is performed.

Because it is infrequently available from data sources, the admission type of delivery (ATYPE=5) is discontinued beginning in the 1998 data. If available, deliveries are recoded under urgent (ATYPE=2).

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Uniform Values

| Variable | Description    | Value | Value Description                                      |
|----------|----------------|-------|--|
| ATYPE    | Admission type | 1     | Emergency  |
|          |                | 2     | Urgent   |
|          |                | 3     | Elective   |
|          |                | 4     | Newborn  |
|          |                | 5     | Delivery (coded in 1988-1997 data only)                |
|          |                | 5     | Trauma Center (beginning in 2003)                      |
|          |                | 6     | Other  |
|          |                | .     | Missing  |
|          |                | .A    | Invalid  |
|          |                | .B    | Unavailable from source (coded in 1988-1997 data only) |

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State Specific Notes

**Arizona**  
Arizona provides a source value "5" for admissions from "observation" status. During HCUP processing through 2002, the source category Observation was recoded to the HCUP category "Other" (ATYPE = 6). Beginning with 2003, the source category Observation was recoded to the HCUP category "Urgent" (ATYPE = 2).

Arizona does not separately classify deliveries. The source documentation supplied by Arizona does not indicate which source categories were used for deliveries.

Beginning in 2007, Arizona no longer provides a source value for "observation" status.

Arkansas

Arkansas does not separately classify deliveries. The source documentation supplied by Arkansas does not indicate which source categories were used for deliveries.

Colorado

Beginning in 2003, Colorado reports an admission type of "Trauma Center".

In 1995, Colorado began collecting admission type, but it was optional for hospitals to report this data to the hospital association.

Colorado does not separately classify deliveries. The source documentation supplied by Colorado does not indicate which source categories were used for deliveries. Beginning with 1998 data, the HCUP variable for admission type does not include a value for deliveries (ATYPE = 5).

| Colorado                |                         |       |               |
|-------------------------|-------------------------|-------|---------------|
| Valid beginning in 2017 |                         |       |               |
| IATYPE                  |                         | ATYPE |               |
| Value                   | Description             | Value | Description   |
| Emergency               | Emergency               | 1     | Emergency     |
| Urgent                  | Urgent                  | 2     | Urgent        |
| Elective                | Elective                | 3     | Elective      |
| Newborn                 | Newborn                 | 4     | Newborn       |
| Trauma                  | Trauma Center           | 5     | Trauma Center |
| --                      | --                      | 6     | Other         |
| Unknown                 | Missing                 | .     | Missing       |
| Blank                   |                         |       |               |
| other                   | Any undocumented values | .A    | Invalid       |

Connecticut

Connecticut does not separately classify deliveries. The source documentation available for Connecticut does not describe which admission type(s) were used for deliveries.

District of Columbia

| IATYPE |                           | ATYPE |               |
|--------|---------------------------|-------|---------------|
| Value  | Description               | Value | Description   |
| 1      | Emergency                 | 1     | Emergency     |
| 2      | Urgent                    | 2     | Urgent        |
| 3      | Elective                  | 3     | Elective      |
| 4      | Newborn                   | 4     | Newborn       |
| 5      | Trauma Center             | 5     | Trauma Center |
| --     | --                        | 6     | Other         |
| 9      | Information not available | .     | Missing       |
| blank  | Unknown, Missing          |       |               |
| other  |                           | .A    | Invalid       |

Florida

Florida does not separately classify deliveries. According to the documentation available from the source, most normal deliveries are categorized as urgent (ATYPE = 2), and most cesarean births and some normal deliveries are included under elective (ATYPE = 3).

Georgia

Georgia does not separately classify deliveries nor do they have a separate category for "Other." The source documentation available for Georgia does not describe which admission type(s) were used for these categories.

Hawaii

Hawaii does not separately classify deliveries nor do they have a separate category for "Other." The source documentation available for Hawaii does not describe which admission type(s) were used for these categories.

**Illinois**  
Illinois does not separately classify deliveries. No documentation was available describing which admission type(s) were used for deliveries. Beginning with 1998 data, the HCUP variable for admission type does not include a value for deliveries (ATYPE = 5).

**Indiana**  
Indiana does not separately classify deliveries. The source documentation supplied by Indiana does not indicate which source categories were used for deliveries.

**Iowa**  
Iowa does not separately classify deliveries. No documentation was available describing which admission type(s) were used for deliveries.

**Kansas**  
Kansas does not separately classify deliveries. The source documentation available for Kansas does not indicate which code was used for deliveries.

**Kentucky**  
Kentucky does not separately classify deliveries. The source documentation supplied by Kentucky does not indicate which source categories were used for deliveries.

**Maine**  
Maine does not separately classify deliveries. The source documentation available for Maine does not describe which admission type(s) were used for deliveries.

**Maryland**

| IATYPE                                   |  | ATYPE |               |
|--|--|-------|---------------|
| Value                                    | Description                                    | Value | Description   |
| 3  | Emergency                                      | 1     | Emergency     |
| 4  | Urgent   | 2     | Urgent        |
| 1  | Delivery                                       |       |               |
| 5  | Scheduled                                      | 3     | Elective      |
| 2  | Newborn  | 4     | Newborn       |
|  |  | 5     | Trauma Center |
| 6  | Other  | 6     | Other         |
| 0  | Chronic (valid 2006-2013 and beginning 1/1/16) |       |               |
| 7  | Psychiatric                                    |       |               |
| 8  | Rehab  |       |               |
| 9  | Not available/Unknown                          | .     | Missing       |
| Missing                                  |  |       |               |
| Any other values that are not documented |  | .A    | Invalid       |

During HCUP processing of 1993 data, the source category "Rehabilitation" was erroneously recoded to the HCUP category "Invalid" (ATYPE = .A) instead of "Other" (ATYPE = 6). During HCUP processing for other years, the source category Rehabilitation was correctly recoded to the HCUP category "Other" (ATYPE=6).

Beginning in 1997, the source reported a separate category for "Psychiatric" admissions. These discharges are included under the uniform category "Other" (ATYPE = 6).

Beginning in 1998, an admission type of "Delivery" was recoded to "Urgent" (ATYPE = 2).

**Massachusetts**  
Massachusetts does not separately classify deliveries. The source documentation supplied by Massachusetts does not indicate which source categories are used for deliveries.

**Minnesota**  
Minnesota does not separately classify deliveries. The source documentation supplied by Minnesota does not indicate which source categories were used for deliveries.

**Missouri**  
Missouri does not separately classify deliveries. The source documentation supplied by Missouri does not indicate which source categories were used for deliveries.

**Montana**  
Montana does not separately classify deliveries. No documentation was available describing which admission type(s) were used for deliveries.

**Nebraska**  
The source value for Trauma Center (value 5) was recoded to Other (ATYPE=6) in 2002. Beginning in 2003, this source value was recoded to Trauma Center



(ATYPE=5) for inpatient and outpatient data.

Nebraska does not separately classify deliveries. The source documentation supplied by Nebraska does not indicate which source categories were used for deliveries.

Nevada

Nevada reported a separate category for the following types of admissions:

- Beginning with 2003 data:
  - Trauma was included under the uniform category "Trauma" (ATYPE = 5)
  - Semi-Urgent was included under the uniform category "Urgent" (ATYPE = 2)
- IN the 2002 data:
  - Trauma was included under the uniform category "Emergency" (ATYPE = 1)
  - Semi-Urgent was included under the uniform category "Urgent" (ATYPE = 2)

Nevada does not separately classify deliveries. The source documentation supplied by Nevada does not indicate which source categories were used for deliveries.

New Hampshire

New Hampshire does not separately classify deliveries. The source documentation supplied by New Hampshire does not indicate which source categories were used for deliveries.

New Jersey

New Jersey does not separately classify deliveries. No documentation was available describing which admission type(s) were used for deliveries.

New York

New York does not separately classify deliveries. No documentation was available describing which admission type(s) were used for deliveries.

North Carolina

North Carolina does not separately classify deliveries. The source documentation supplied by North Carolina does not indicate which source categories were used for deliveries.

North Dakota

North Dakota does not separately classify deliveries. The source documentation supplied by North Dakota does not indicate which source categories were used for deliveries.

Ohio

| IATYPE              |  | ATYPE |             |
|---------------------|--|-------|-------------|
| Value               | Description  | Value | Description |
| 1                   | Emergency  | 1     | Emergency   |
| 2                   | Urgent   | 2     | Urgent      |
| 3                   | Elective   | 3     | Elective    |
| 4                   | Newborn  | 4     | Newborn     |
| 5                   | Admission for Pending Medicaid Recipient (Valid prior to 2012) | 6     | Other       |
| 5                   | Trauma (Valid starting in 2012)                                | 5     | Trauma      |
| 6                   | Medicaid recipient not reviewed (Valid prior to 2012)          | 6     | Other       |
| 7                   | Admission with Pre Admit (Valid prior to 2012)                 |       |             |
| 8                   | Rehabilitation (Valid prior to 2012)                           |       |             |
| 9                   | Information not available                                      | .     | Missing     |
| blank, not provided | blank, not provided  |       |             |
| other               |  | .A    | Invalid     |

Ohio reported a separate category for the following types of admissions; these categories were no longer available starting in 2012:

- Admission for Pending Medicaid recipient
- Medicaid recipient not reviewed
- Transferred to another hospital
- Rehabilitation Court committal.

These admissions were included under the uniform category "Other" (ATYPE = 6).

Ohio does not separately classify deliveries. The source documentation supplied by Ohio does not indicate which source categories were used for deliveries.

Oregon

Oregon does not separately classify deliveries. No documentation was available about which admission type(s) were used for deliveries.

Beginning with 2003, the Oregon codes an admission type of trauma center.

South Carolina

South Carolina does not separately classify deliveries. No documentation was available describing which admission type(s) were used for deliveries.

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South Carolina does not separately classify deliveries. No documentation was available describing which admission type(s) were used for deliveries.

**South Dakota**  
South Dakota does not separately classify deliveries. The source documentation supplied by South Dakota does not indicate which source categories were used for deliveries.

**Tennessee**  
Tennessee does not separately classify deliveries. The source documentation supplied by Tennessee does not indicate which source categories were used for deliveries.

**Texas**  
Texas does not separately classify deliveries. The source documentation supplied by Texas does not indicate which source categories were used for deliveries.

**Utah**  
Utah does not separately classify deliveries nor do they have a separate category for "Other". The source documentation available for Utah does not describe which admission type(s) were used for these categories.

**Vermont**  
Vermont does not necessarily classify deliveries. The source documentation supplied by Vermont does not indicate which source categories were used for deliveries.

**Washington**  
Washington does not separately classify deliveries. No documentation was available about which admission type(s) were used for deliveries.  
  
For 2003-2004, the source value for Trauma Center (value 5) was recoded to Other (ATYPE=6). Beginning with 2005, this source value was recoded to Trauma Center (ATYPE=5).

**West Virginia**  
West Virginia does not separately classify deliveries. The source documentation supplied by West Virginia does not indicate which source categories were used for deliveries. Beginning with 1998 data, the HCUP variable for admission type does not include a value for deliveries (ATYPE = 5)

**Wisconsin**  
Wisconsin does not separately classify deliveries. No documentation was available describing which admission type(s) were used for deliveries.

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**AWEEKEND - Admission day is on a weekend**

**General Notes**

An indicator of whether the admission day is on the weekend (AWEEKEND) is calculated from the admission date (ADATE). If AWEEKEND cannot be calculated (ADATE is missing or invalid), then

- AWEEKEND is missing (.) if ADATE is missing (.) or
- AWEEKEND is invalid (.A) if ADATE is invalid (.A).

Beginning in the 1998 HCUP files, the data element ADAYWK is replaced by admission weekend (AWEEKEND).

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**Uniform Values**

| Variable | Description                   | Value | Value Description        |
|----------|-------------------------------|-------|--------------------------|
| AWEEKEND | Admission day is on a weekend | 0     | Admitted Monday-Friday   |
|          |                               | 1     | Admitted Saturday-Sunday |
|          |                               | .     | Missing                  |
|          |                               | .A    | Invalid                  |

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**State Specific Notes**

Florida

Beginning in 1997, the reported admission day of week was used to assign A WEEKEND. In 1997, Florida did not provide admission date.

Beginning in 1998, admission date was provided only for those discharges less than 11 years old.

Beginning in 2004 admission date was provided for all discharges.

From data year 1998 to 2000, there may be an error in A WEEKEND. The data source in Florida has reported that during this time period, the reported value was sometimes incorrect. The data source could not specify the magnitude of the problem.

New York

The assignment of A WEEKEND varies by year in New York:

- Beginning in 2000 data, A WEEKEND is assigned from the reported admission day of the week if the admission date is missing.
- In the 1998-1999 data purchased from NTIS, A WEEKEND was calculated from the admission date. Because New York masked the admission and discharge dates on AIDS/HIV\* records, A WEEKEND was missing (.) on these discharges. An updated version of the 1998-1999 data is available through the HCUP Central Distributor with A WEEKEND coded on the New York AIDS/HIV\* records. In the 1998-1999 data purchased from HCUP Central Distributor, A WEEKEND in New York was calculated from the reported admission day of week.

\*Beginning with 2005, New York identifies AIDS/HIV records by ICD-9-CM diagnosis code or DRG:

- An admitting, principal, or secondary diagnosis of "042" "043" "044" "7958" "27910", "27919", "2793", "1363", "79571", "07951", "07952", "07953", "V017" or "V08".
- A DRG of 488 through 490 or 700 through 716.

\*From 2001 - 2004 data, New York identifies AIDS/HIV records by ICD-9-CM diagnosis code or DRG:

- An admitting, principal, or secondary diagnosis of "042" "043" "044" "7958" "27910", "27919", "2793", "1363", "79571", "07951", "07952", "07953" or "V08".
- A DRG of 488 "HIV with Extensive Operating Room Procedure", 489 "HIV with Major related condition", or 490 "HIV with or without Other Related Condition".

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CM\_AIDS - AHRQ comorbidity measure for ICD-9-CM codes: acquired immune deficiency syndrome

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description  | Value | Value Description          |
|----------|--|-------|----------------------------|
| CM_AIDS  | AHRQ comorbidity measure for ICD-9-CM codes: acquired immune deficiency syndrome | 0     | Comorbidity is not present |
|          |  | 1     | Comorbidity is present     |
|          |  | .A    | Invalid                    |

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State Specific Notes

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_ALCOHOL - AHRQ comorbidity measure for ICD-9-CM codes: alcohol abuse

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable   | Description  | Value | Value Description          |
|------------|--|-------|----------------------------|
| CM_ALCOHOL | AHRQ comorbidity measure for ICD-9-CM codes: alcohol abuse | 0     | Comorbidity is not present |
|            |  | 1     | Comorbidity is present     |
|            |  | .A    | Invalid                    |

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State Specific Notes

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_ANEMDEF - AHRQ comorbidity measure for ICD-9-CM codes: deficiency anemias

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable   | Description   | Value | Value Description          |
|------------|---|-------|----------------------------|
| CM_ANEMDEF | AHRQ comorbidity measure for ICD-9-CM codes: deficiency anemias | 0     | Comorbidity is not present |
|            |   | 1     | Comorbidity is present     |
|            |   | .A    | Invalid                    |

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State Specific Notes

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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**CM\_ARTH - AHRQ comorbidity measure for ICD-9-CM codes: rheumatoid arthritis/collagen vascular diseases**

**General Notes**

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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**Uniform Values**

| Variable | Description  | Value | Value Description          |
|----------|--|-------|----------------------------|
| CM_ARTH  | AHRQ comorbidity measure for ICD-9-CM codes: rheumatoid arthritis/collagen vascular diseases | 0     | Comorbidity is not present |
|          |  | 1     | Comorbidity is present     |
|          |  | .A    | Invalid                    |

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**State Specific Notes**

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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**CM\_BLDLOSS - AHRQ comorbidity measure for ICD-9-CM codes: chronic blood loss anemia**

**General Notes**

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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**Uniform Values**

| Variable   | Description  | Value | Value Description          |
|------------|--|-------|----------------------------|
| CM_BLDLOSS | AHRQ comorbidity measure for ICD-9-CM codes: chronic blood loss anemia | 0     | Comorbidity is not present |
|            |  | 1     | Comorbidity is present     |
|            |  | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_CHF - AHRQ comorbidity measure for ICD-9-CM codes: congestive heart failure

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description   | Value | Value Description          |
|----------|---|-------|----------------------------|
| CM_CHF   | AHRQ comorbidity measure for ICD-9-CM codes: congestive heart failure | 0     | Comorbidity is not present |
|          |   | 1     | Comorbidity is present     |
|          |   | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_CHRNLUNG - AHRQ comorbidity measure for ICD-9-CM codes: chronic pulmonary disease

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable    | Description  | Value | Value Description          |
|-------------|--|-------|----------------------------|
| CM_CHRNLUNG | AHRQ comorbidity measure for ICD-9-CM codes: chronic pulmonary disease | 0     | Comorbidity is not present |
|             |  | 1     | Comorbidity is present     |
|             |  | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_COAG - AHRQ comorbidity measure for ICD-9-CM codes: coagulopathy

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description   | Value | Value Description          |
|----------|---|-------|----------------------------|
| CM_COAG  | AHRQ comorbidity measure for ICD-9-CM codes: coagulopathy | 0     | Comorbidity is not present |
|          |   | 1     | Comorbidity is present     |
|          |   | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_DEPRESS - AHRQ comorbidity measure for ICD-9-CM codes: depression

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable   | Description   | Value | Value Description          |
|------------|---|-------|----------------------------|
| CM_DEPRESS | AHRQ comorbidity measure for ICD-9-CM codes: depression | 0     | Comorbidity is not present |
|            |   | 1     | Comorbidity is present     |
|            |   | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_DM - AHRQ comorbidity measure for ICD-9-CM codes: diabetes, uncomplicated

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description  | Value | Value Description          |
|----------|--|-------|----------------------------|
| CM_DM    | AHRQ comorbidity measure for ICD-9-CM codes: diabetes, uncomplicated | 0     | Comorbidity is not present |
|          |  | 1     | Comorbidity is present     |
|          |  | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_DMCX - AHRQ comorbidity measure for ICD-9-CM codes: diabetes with chronic complications

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description  | Value | Value Description          |
|----------|--|-------|----------------------------|
| CM_DMCX  | AHRQ comorbidity measure for ICD-9-CM codes: diabetes with chronic complications | 0     | Comorbidity is not present |
|          |  | 1     | Comorbidity is present     |
|          |  | .A    | Invalid                    |



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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_DRUG - AHRQ comorbidity measure for ICD-9-CM codes: drug abuse

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description   | Value | Value Description          |
|----------|---|-------|----------------------------|
| CM_DRUG  | AHRQ comorbidity measure for ICD-9-CM codes: drug abuse | 0     | Comorbidity is not present |
|          |   | 1     | Comorbidity is present     |
|          |   | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_HTN\_C - AHRQ comorbidity measure for ICD-9-CM codes: hypertension (combine uncomplicated and complicated)

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description   | Value | Value Description          |
|----------|---|-------|----------------------------|
| CM_HTN_C | AHRQ comorbidity measure for ICD-9-CM codes: hypertension (combine uncomplicated and complicated) | 0     | Comorbidity is not present |
|          |   | 1     | Comorbidity is present     |
|          |   | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_HYPOTHY - AHRQ comorbidity measure for ICD-9-CM codes: hypothyroidism

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable   | Description   | Value | Value Description          |
|------------|---|-------|----------------------------|
| CM_HYPOTHY | AHRQ comorbidity measure for ICD-9-CM codes: hypothyroidism | 0     | Comorbidity is not present |
|            |   | 1     | Comorbidity is present     |
|            |   | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_LIVER - AHRQ comorbidity measure for ICD-9-CM codes: liver disease

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description  | Value | Value Description          |
|----------|--|-------|----------------------------|
| CM_LIVER | AHRQ comorbidity measure for ICD-9-CM codes: liver disease | 0     | Comorbidity is not present |
|          |  | 1     | Comorbidity is present     |

|          |  |         |
|----------|--|---------|
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|          | .A   | Invalid |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_LYMPH - AHRQ comorbidity measure for ICD-9-CM codes: lymphoma

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description   | Value | Value Description          |
|----------|---|-------|----------------------------|
| CM_LYMPH | AHRQ comorbidity measure for ICD-9-CM codes: lymphoma | 0     | Comorbidity is not present |
|          |   | 1     | Comorbidity is present     |
|          |   | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_LYTES - AHRQ comorbidity measure for ICD-9-CM codes: fluid and electrolyte disorders

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description  | Value | Value Description          |
|----------|--|-------|----------------------------|
| CM_LYTES | AHRQ comorbidity measure for ICD-9-CM codes: fluid and electrolyte disorders | 0     | Comorbidity is not present |
|          |  | 1     | Comorbidity is present     |

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|  |                           |    |                        |
|--|---------------------------|----|------------------------|
|  | and electrolyte disorders | 1  | Comorbidity is present |
|  |                           | .A | Invalid                |

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State Specific Notes

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_METS - AHRQ comorbidity measure for ICD-9-CM codes: metastatic cancer

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description  | Value | Value Description          |
|----------|--|-------|----------------------------|
| CM_METS  | AHRQ comorbidity measure for ICD-9-CM codes: metastatic cancer | 0     | Comorbidity is not present |
|          |  | 1     | Comorbidity is present     |
|          |  | .A    | Invalid                    |

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State Specific Notes

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_NEURO - AHRQ comorbidity measure for ICD-9-CM codes: other neurological disorders

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description              | Value | Value Description          |
|----------|--------------------------|-------|----------------------------|
| CM_NEURO | AHRQ comorbidity measure | 0     | Comorbidity is not present |

|  |  |    |                        |
|--|--|----|------------------------|
|  | for ICD-9-CM codes: other neurological disorders | 1  | Comorbidity is present |
|  |  | .A | Invalid                |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_OBESE - AHRQ comorbidity measure for ICD-9-CM codes: obesity

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description  | Value | Value Description          |
|----------|--|-------|----------------------------|
| CM_OBESE | AHRQ comorbidity measure for ICD-9-CM codes: obesity | 0     | Comorbidity is not present |
|          |  | 1     | Comorbidity is present     |
|          |  | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_PARA - AHRQ comorbidity measure for ICD-9-CM codes: paralysis

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description  | Value | Value Description          |
|----------|--|-------|----------------------------|
| CM_PARA  | AHRQ comorbidity measure for ICD-9-CM codes: paralysis | 0     | Comorbidity is not present |
|          |  | 1     | Comorbidity is present     |
|          |  | .A    | Invalid                    |

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State Specific Notes

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_PERIVASC - AHRQ comorbidity measure for ICD-9-CM codes: peripheral vascular disorders

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable    | Description  | Value | Value Description          |
|-------------|--|-------|----------------------------|
| CM_PERIVASC | AHRQ comorbidity measure for ICD-9-CM codes: peripheral vascular disorders | 0     | Comorbidity is not present |
|             |  | 1     | Comorbidity is present     |
|             |  | .A    | Invalid                    |

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State Specific Notes

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_PSYCH - AHRQ comorbidity measure for ICD-9-CM codes: psychoses

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description  | Value | Value Description          |
|----------|--|-------|----------------------------|
| CM_PSYCH | AHRQ comorbidity measure for ICD-9-CM codes: psychoses | 0     | Comorbidity is not present |
|          |  | 1     | Comorbidity is present     |
|          |  | .A    | Invalid                    |

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State Specific Notes

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_PULMCIRC - AHRQ comorbidity measure for ICD-9-CM codes: pulmonary circulation disorders

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable    | Description  | Value | Value Description          |
|-------------|--|-------|----------------------------|
| CM_PULMCIRC | AHRQ comorbidity measure for ICD-9-CM codes: pulmonary circulation disorders | 0     | Comorbidity is not present |
|             |  | 1     | Comorbidity is present     |
|             |  | .A    | Invalid                    |

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State Specific Notes

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_RENLFAIL - AHRQ comorbidity measure for ICD-9-CM codes: renal failure

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable    | Description  | Value | Value Description          |
|-------------|--|-------|----------------------------|
| CM_RENLFAIL | AHRQ comorbidity measure for ICD-9-CM codes: renal failure | 0     | Comorbidity is not present |
|             |  | 1     | Comorbidity is present     |
|             |  | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_TUMOR - AHRQ comorbidity measure for ICD-9-CM codes: solid tumor without metastasis

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description   | Value | Value Description          |
|----------|---|-------|----------------------------|
| CM_TUMOR | AHRQ comorbidity measure for ICD-9-CM codes: solid tumor without metastasis | 0     | Comorbidity is not present |
|          |   | 1     | Comorbidity is present     |
|          |   | .A    | Invalid                    |

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State Specific Notes

Pennsylvania

For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_ULCER - AHRQ comorbidity measure for ICD-9-CM codes: peptic ulcer disease excluding bleeding

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.



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Uniform Values

| Variable | Description  | Value | Value Description          |
|----------|--|-------|----------------------------|
| CM_ULCER | AHRQ comorbidity measure for ICD-9-CM codes: peptic ulcer disease excluding bleeding | 0     | Comorbidity is not present |
|          |  | 1     | Comorbidity is present     |
|          |  | .A    | Invalid                    |

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State Specific Notes

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_VALVE - AHRQ comorbidity measure for ICD-9-CM codes: valvular disease

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable | Description   | Value | Value Description          |
|----------|---|-------|----------------------------|
| CM_VALVE | AHRQ comorbidity measure for ICD-9-CM codes: valvular disease | 0     | Comorbidity is not present |
|          |   | 1     | Comorbidity is present     |
|          |   | .A    | Invalid                    |

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State Specific Notes

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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CM\_WGHTLOSS - AHRQ comorbidity measure for ICD-9-CM codes: weight loss

General Notes

Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM\_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements. For more information, please refer to the materials available on the [Tools and Software](#) page of the HCUP User Support Web site.

For data beginning in the fourth quarter of 2015, the comorbidity measure is stored in the data element I10\_CM\_ to indicate the implementation of the ICD-10-CM/PCS coding system.

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Uniform Values

| Variable    | Description  | Value | Value Description          |
|-------------|--|-------|----------------------------|
| CM_WGHTLOSS | AHRQ comorbidity measure for ICD-9-CM codes: weight loss | 0     | Comorbidity is not present |
|             |  | 1     | Comorbidity is present     |
|             |  | .A    | Invalid                    |

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State Specific Notes

**Pennsylvania**  
For the 2002-2003 NIS, this data element is not available for discharges from Pennsylvania.

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DIED - Died during hospitalization

General Notes

Died during hospitalization (DIED) is coded from the discharge disposition of patient. The coding varies across years of data.

Beginning with 2001 HCUP data, the coding of DIED is assigned as follows:

- If DISPUniform indicates that a patient was discharged alive (values 1-7, 21 (starting in 2010), 99), then DIED is coded as 0.
  - If a patient had discharge status of died outside the hospital, then DISPuniform is set to 99 (discharged from the hospital alive, destination unknown) and DIED was set to alive (0).
- If DISPUniform indicates that a patient died in the hospital (value 20), then DIED is coded as 1.
- If DISPUniform is missing (.) or invalid (.A), then DIED is also coded as missing (.) or invalid (.A).

In 2010 only, DIED was incorrectly set to missing (.) instead of alive (0) for records in 10 States with DISPuniform equal 21 indicating Court/Law Enforcement. States affected include AZ, IA, KY, MD, MN, MO, MT, OR, SC, and SD. This was corrected in all other 2010 State databases and in all HCUP databases for 2011 forward.

From 1998-2000 data, the coding of DIED varied for patients with a disposition of died outside of the hospital.

- If DISPUniform indicates that a patient was discharged alive (values 1-7), then DIED is coded as 0.
- If DISPUniform indicates that a patient died in the hospital (value 20), then DIED is coded as 1.
- If DISPUniform is missing (.), then DIED is set to invalid (.A).
  - If a patient had discharge status of died outside the hospital, then DISPuniform is set to missing (.) and DIED is set to invalid (.A).

From 1988-1997 data, the HCUP data element DISP is used to code DIED.

- If DISP indicates that a patient was discharged alive (values 1-7), then DIED is coded as 0.
- If DISP indicates that a patient died in or out of the hospital (value 20), then DIED is coded as 1.
  - If a patient had a discharge status of died outside of the hospital, then DISP is set to died (20) and DIED is coded as 1.
- If DISP is missing (.), invalid (.A), or unavailable from the source (.B), then DIED is also missing (.), invalid (.A), or unavailable from the source (.B).

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Uniform Values

| Variable | Description                 | Value | Value Description                                      |
|----------|-----------------------------|-------|--|
| DIED     | Died during hospitalization | 0     | Did not die  |
|          |                             | 1     | Died   |
|          |                             | .     | Missing  |
|          |                             | .A    | Invalid  |
|          |                             | .B    | Unavailable from source (coded in 1988-1997 data only) |

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State Specific Notes

None

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DISCWT - Weight to discharges in the universe

General Notes

DISCWT is the discharge-level weight on the HCUP nationwide databases - Nationwide Inpatient Sample (NIS), Nationwide Emergency Department Sample (NEDS), Nationwide Readmissions Database (NRD), Nationwide Ambulatory Surgery Sample (NASS), and Kids' Inpatient Database (KID). To produce national estimates, use DISCWT to weight discharges in the Core file (or the NASS Encounter file) to the discharges from community hospitals located in the U.S.

Discharge weights vary in the NIS and KID as indicated below:

- From 2001 on, DISCWT should be used to create all national estimates, including total charge.
- In the 2000 NIS and KID, there are two discharge-level weights (DISCWT and DISCWTcharge). DISCWT should be used to create national estimates for all analyses except those that involve total charge. DISCWTcharge should be used to create national estimates of total charge.
- In the 1998-1999 NIS, DISCWT should be used to create all national estimates, including total charge.
- Prior to 1998, the discharge weight was named DISCWT\_U.

For detailed information about the development and use of discharge and hospital weights, see the year-specific Introduction report on the HCUP database of interest.

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Uniform Values

| Variable | Description                          | Value   | Value Description                     |
|----------|--------------------------------------|---------|---------------------------------------|
| DISCWT   | Weight to discharges in the universe | nn.nnnn | Weight to discharges in the universe. |

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State Specific Notes

None

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ELECTIVE - Elective versus non-elective admission

General Notes

ELECTIVE indicates whether the admission to the hospital was elective. This information was derived from the type of admission (ATYPE). If the admission type was missing or invalid, then ELECTIVE is also missing or invalid. If the admission type indicated an elective admission (ATYPE = 3), then ELECTIVE was set to 1. Otherwise, for any other valid non-missing ATYPE values, ELECTIVE was set to 0.

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Uniform Values

| Variable | Description                            | Value | Value Description      |
|----------|--|-------|------------------------|
| ELECTIVE | Elective versus non-elective admission | 0     | Non-elective admission |
|          |  | 1     | Elective admission     |
|          |  | .     | Missing                |
|          |  | .A    | Invalid                |

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State Specific Notes

California

ELECTIVE could not be derived from the admission type because that information was not provided by the data source. In California, ELECTIVE was assigned based on a data element that distinguished whether an admission was scheduled or unscheduled. If the admission was scheduled, then ELECTIVE was set to

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FEMALE - Indicator of sex

General Notes

The sex of the patient (FEMALE) is provided by the data source. All non-male, non-female (e.g., "other") values are set to missing (.).

If FEMALE is inconsistent with diagnoses (EDX03), procedures (EPR03), ICD-9-CM or ICD-10-CM/PCS procedures (EPR03), or HCPCS procedures (ECPT02), FEMALE is set to inconsistent (.C).

In HCUP databases before 1998, this data element is called SEX.

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Uniform Values

| Variable | Description      | Value | Value Description                  |
|----------|------------------|-------|------------------------------------|
| FEMALE   | Indicator of sex | 0     | Male                               |
|          |                  | 1     | Female                             |
|          |                  | .     | Missing                            |
|          |                  | .A    | Invalid                            |
|          |                  | .C    | Inconsistent, EDX03, EPR03, ECPT02 |

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State Specific Notes

California

Central Distributor only - because of confidentiality restrictions, gender (FEMALE) is suppressed on some records.

Colorado

According to the documentation available from the source, "Other/Unknown" includes patients undergoing sex changes, undetermined sex, live births with congenital abnormalities, and patients whose sex was unavailable from any source document. The source value for "Other/Unknown" was recoded to missing (.), during HCUP processing of 1988-1992 discharges.

From 1993 - 2002, "Other/Unknown" was recoded to invalid (.A) during HCUP processing. From 2003 - 2007 "Other/Unknown" was recoded to missing (.). Beginning in 2008, "Other/Unknown" was once again recoded to invalid (.A)

District of Columbia

| District of Columbia |             |        |             |
|----------------------|-------------|--------|-------------|
| IFEMALE              |             | FEMALE |             |
| Value                | Description | Value  | Description |
| M                    | Male        | 0      | Male        |
| F                    | Female      | 1      | Female      |
| U, blank             |             | .      | Missing     |
| other                |             | .A     | Invalid     |

Ohio

| District of Columbia |                     |        |             |
|----------------------|---------------------|--------|-------------|
| IFEMALE              |                     | FEMALE |             |
| Value                | Description         | Value  | Description |
| M                    | Male                | 0      | Male        |
| F                    | Female              | 1      | Female      |
| U                    | Unknown             | .      | Missing     |
| blank, not provided  | blank, not provided |        |             |
| other                |                     | .A     | Invalid     |

Utah

Through the 2002 data year, the source value "E" for "Encrypted patient gender (confidential data)" is recoded to missing (FEMALE = .).

Utah encrypts the patient gender for the following two conditions:

1. Patients with the Major Diagnosis Code of "Human Immunodeficiency Virus Infection" (value 25) and
2. Diagnosis Related Groups "Alcohol/Drug Abuse or Dependence" (values 433-437).

Beginning with the 2003 data, Utah supplies an unmasked file.

Beginning with the 2015 data, the HCUP data element FEMALE is set to missing (.) in the Central Distributor SID for records involving substance abuse or HIV infection. This was done at the request of the Utah Partner organization.

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HCUP\_ED indicates records that have evidence of emergency department (ED) services reported on the HCUP record. A value of 1 or more indicates that there is evidence of ED services, per HCUP criteria. A value of 0 marks records that do not include evidence of ED services.

The criteria used to identify ED services has changed over time. Evidence of ED services includes:

- Emergency department revenue code of 450-459 on record.
- Positive emergency department charge, when revenue center codes are not available.
- Emergency department CPT codes reported on record
  - 99281-99285
  - 99288 (added in data year 2018)
  - G0380-G0384 (added in data year 2018)
- Condition Code of P7 (NUBC preferred coding for public reporting as of July 1, 2010)
- Point of origin of ED (NUBC preferred coding from October 1, 2007 to June 30, 2010)
- Admission source of ED (NUBC preferred coding prior to October 1, 2007).

It is possible that records with HCUP\_ED=0 did in fact have ED services, but that relevant coding information was not captured on the HCUP record.

The availability of the data element HCUP\_ED varies by HCUP database:

- State Emergency Department Databases (SEDD) beginning in 2003
- State Inpatient Databases (SID) beginning in 2005
- Nationwide Inpatient Sample (NIS) beginning in 2007
- State Ambulatory Surgery Databases beginning in 2003.

Specific to the HCUP SEDD only: HCUP Partner organizations may have different criteria for identifying ED services. Records that are identified by the HCUP Partner as ED visits that are not admitted to the same hospital are included in the SEDD files, regardless of whether the record meets the HCUP ED criteria specified above. In these records, the HCUP\_ED variable will be set to 0 in the SEDD. Please refer to the HCUP\_ED State Specific Notes for more details.

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Uniform Values

| Variable | Description                                   | Value | Value Description  |
|----------|---|-------|--|
| HCUP_ED  | HCUP indicator of emergency department record | 0     | Record does not meet any HCUP Emergency Department criteria                                    |
|          |   | 1     | Emergency Department revenue code on record  |
|          |   | 2     | Positive Emergency Department charge (when revenue center codes are not available)             |
|          |   | 3     | Emergency Department CPT procedure code on record  |
|          |   | 4     | Condition code P7 indication of ED admission, point of origin of ED, or admission source of ED |

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State Specific Notes

None

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HOSP\_BEDSIZE - Bedsize of hospital

General Notes

Bedsizes are based on hospital beds, and are specific to the hospital's location and teaching status. Bedsizes assesses the number of short-term acute care beds set up and staffed in a hospital. Hospital information was obtained from the AHA Annual Survey of Hospitals.

Beginning in 1998, the hospital's bedsize categories are defined using region of the U.S., the urban-rural designation of the hospital, in addition to the teaching status.

- Rural hospitals were not split according to teaching status, because rural teaching hospitals were rare. Prior to 2004 data, the urban/rural designation was based on Metropolitan Statistical Areas (MSA). Beginning with the 2004 data, this designation was determined by the Core Based Statistical Area (CBSA). This change in 2004 contributed to a slight decline in the number of hospitals that were classified as rural and a corresponding increase in the number of hospitals that were classified as urban.
- A hospital is considered a teaching hospital if it has one or more Accreditation Council for Graduate Medical Education (ACGME) approved residency programs, is a member of the Council of Teaching Hospitals (COTH) or has a ratio of full-time equivalent interns and residents to beds of .25 or higher. Beginning with the 2014 NIS, there is an increase in the number of hospitals identified as teaching facilities because the AHA Annual Survey showed an increase in facilities with approved residency programs. About this time, the ACGME became the primary organization for residency training approval.

| BEDSIZE CATEGORIES (Beginning in 1998) |                  |         |       |
|--|------------------|---------|-------|
| Location and Teaching Status           | Hospital Bedsize |         |       |
|  | Small            | Medium  | Large |
| NORTHEAST REGION                       |                  |         |       |
| Rural                                  | 1-49             | 50-99   | 100+  |
| Urban, nonteaching                     | 1-124            | 125-199 | 200+  |
| Urban, teaching                        | 1-249            | 250-424 | 425+  |
| MIDWEST REGION                         |                  |         |       |
| Rural                                  | 1-29             | 30-49   | 50+   |
| Urban, nonteaching                     | 1-74             | 75-174  | 175+  |
| Urban, teaching                        | 1-249            | 250-374 | 375+  |
| SOUTHERN REGION                        |                  |         |       |
| Rural                                  | 1-39             | 40-74   | 75+   |
| Urban, nonteaching                     | 1-99             | 100-199 | 200+  |
| Urban, teaching                        | 1-249            | 250-449 | 450+  |
| WESTERN REGION                         |                  |         |       |
| Rural                                  | 1-24             | 25-44   | 45+   |
| Urban, nonteaching                     | 1-99             | 100-174 | 175+  |
| Urban, teaching                        | 1-199            | 200-324 | 325+  |

Prior to 1988, the bedsize category did not vary by region and teaching hospitals were defined as having an AMA approved residency program or having membership in the Council of Teaching Hospitals.

| BEDSIZE CATEGORIES (Prior to 1998) |                  |         |       |
|------------------------------------|------------------|---------|-------|
| Location and Teaching Status       | Hospital Bedsize |         |       |
|                                    | Small            | Medium  | Large |
| Rural                              | 1-49             | 50-99   | 100+  |
| Urban, nonteaching                 | 1-99             | 100-199 | 200+  |
| Urban, teaching                    | 1-299            | 300-499 | 500+  |

In the 1988-1992 NIS, the hospital's bedsize category was stored in the variable ST\_BEDSZ. In the 1993-1997 NIS, this same information is stored in the variable H\_BEDSZ. Beginning with the 1998 NIS, the name HOSP\_BEDSIZE is used.

For detailed information about the NIS sampling design, see the year-specific report on the Design of the HCUP Nationwide Inpatient Sample.

In the NIS prior to 2012, HOSP\_BEDSIZE is missing if the data source that contributed discharge data to the NIS prohibits the release of hospital identifiers.

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Uniform Values

| Variable     | Description          | Value | Value Description |
|--------------|----------------------|-------|-------------------|
| HOSP_BEDSIZE | Bedsizes of hospital | 1     | Small             |
|              |                      | 2     | Medium            |
|              |                      | 3     | Large             |
|              |                      | .     | Missing           |

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State Specific Notes

None

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HOSP\_NIS - NIS hospital number

General Notes

A unique HCUP hospital number exclusive to the NIS; links to the Hospital Weights file. HOSP\_NIS cannot link to previous years or other databases.

Beginning with the 2012 NIS, hospital names and identifiers are no longer available, and the HCUP hospital identification number (HOSPID) is replaced by the NIS hospital number (HOSP\_NIS).

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Uniform Values

| Variable | Description         | Value | Value Description   |
|----------|---------------------|-------|---------------------|
| HOSP_NIS | NIS hospital number | 5.n   | NIS hospital number |

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State Specific Notes

None

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HOSP\_TEACH - Teaching status of hospital

General Notes

The hospital's teaching status was obtained from the AHA Annual Survey of Hospitals. The missions of teaching hospitals differ from nonteaching hospitals. In addition, financial considerations differ between these two hospital groups. Currently, the Medicare DRG payments are uniformly higher to teaching hospitals than to nonteaching hospitals.

A hospital is considered a teaching hospital if it has one or more Accreditation Council for Graduate Medical Education (ACGME) approved residency program, is a member of the Council of Teaching Hospitals (COTH) or has a ratio of full-time equivalent interns and residents to beds of .25 or higher. Beginning with the 2014 NIS, there is an increase in the number of hospitals identified as teaching facilities because the AHA Annual Survey showed an increase in facilities with approved residency programs. About this time, the ACGME became the primary organization for residency training approval.

The HCUP variable name and definition for the hospital's teaching status has changed over time. Beginning with the 1998 NIS, the variable name HOSP\_TEACH is used, and teaching hospitals include hospitals with a ratio of .25 or higher of full-time equivalent interns and residents to non-nursing home beds. In the 1993-1997 NIS, teaching status is stored in the variable H\_TCH and does not include the ratio of interns and residents to beds. In the 1988-1992 NIS, the hospital's teaching status is not available as a separate variable.

For detailed information about the NIS sampling design, see the year-specific report on the Design of the HCUP Nationwide Inpatient Sample. HOSP\_TEACH is missing if the data source that contributed discharge data to the NIS prohibits the release of hospital identifiers.

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Uniform Values

| Variable   | Description                 | Value | Value Description |
|------------|-----------------------------|-------|-------------------|
| HOSP_TEACH | Teaching status of hospital | 0     | Nonteaching       |
|            |                             | 1     | Teaching          |
|            |                             | .     | Missing           |

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State Specific Notes

None

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LOS - Length of stay, cleaned

General Notes

Length of stay (LOS) is calculated by subtracting the admission date (ADATE) from the discharge date (DDATE). Same-day stays are therefore coded as 0. Leave days are not subtracted. Before edit checks are performed, LOS and LOS\_X have the same value. If LOS is set to inconsistent (.C), the value of LOS\_X is retained.

LOS is not equal to the calculated value in the following cases:

- LOS is set to the supplied length of stay if the length of stay cannot be calculated (ADATE and/or DDATE is missing or invalid). Note: If the supplied length of stay codes same-day stays as 1 or subtracts leave days, then the supplied length of stay is NOT used.
- LOS is missing (.) if the length of stay cannot be calculated and the supplied length of stay is missing.
- LOS is invalid (.A) if
  - it is greater than the maximum value allowed during HCUP processing (the maximum allowed in the 1988-1997 data is 32,767; the maximum allowed beginning in the 1998 data is 20 years)
  - - or -
  - the length of stay cannot be calculated and the supplied length of stay is nonnumeric.
- An invalid calculated LOS is not replaced by the supplied length of stay.
- If the data source does not supply either admission date (ADATE) and discharge date (DDATE), or length of stay, then beginning in the 1998 data LOS is not present on the HCUP files. In the 1988-1997 data, LOS is retained on the HCUP files and is set to unavailable from source (.B).
- LOS is inconsistent (.C) if
  - LOS is negative (ELOS03 beginning in the 1998 data and ED011 in the 1988-1997 data),
  - Excessively long (ELOS04 beginning in the 1998 data and ED601 in the 1988-1997 data), or
  - Charges per day are unjustifiably low (ED911) or high (ED921).

Edit checks ED911 and ED921 are only performed on the 1988-1997 data. No charge per day edit checks are performed on the HCUP data beginning in the 1998 data.

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Uniform Values

| Variable | Description             | Value  | Value Description  |
|----------|-------------------------|--|--|
| LOS      | Length of stay, cleaned | 0 - 365 (for HCUP inpatient data), 0-30 (for HCUP outpatient data) | Days (Prior to data year 2017, LOS was limited to 0-3 days for outpatient data. In the 1988-1997 inpatient data, LOS can be greater than 365 days) |
|          |                         | .  | Missing  |
|          |                         | .A   | Invalid  |
|          |                         | .B   | Unavailable from source (coded in 1988-1997 data only)   |
|          |                         | .C   | Inconsistent: beginning with 1998 data, ELOS03, ELOS04; in 1988-1997 data, ED011, ED601, ED911n, ED921   |

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State Specific Notes

Alaska

The reported length of stay was not used when LOS could not be calculated because Alaska coded same-day stays with a value of 1. The appropriate edit check for consistency of reported and calculated length of stay could not be performed.

Arizona

Beginning in 1995, the source reports same-day stays as zero days so the supplied length of stay was used to assign LOS when length of stay could not be calculated from dates. Prior to 1995, the reported length of stay was not used when LOS could not be calculated because Arizona coded same-day stays with a value of 1 and subtracted days of absence from LOS.

Beginning with 2005, reported length of stay is no longer supplied.

Arkansas

Only the calculated length of stay could be used to assign LOS because Arkansas did not report length of stay.

Colorado

Beginning in 2007, the reported length of stay was used when LOS could not be calculated during the HCUP processing.

The reported length of stay was not used when LOS could not be calculated because Colorado:

- coded same-day stays with the value 1 and
- subtracted days of absence

**Connecticut**

Length of stay could not be calculated from dates since Connecticut did not report full admission and discharge dates. During HCUP processing, the reported length of stay and a flag which indicates same-day stays were used to assign LOS. If the same-day flag was not coded, the reported length of stay was retained as supplied (i.e., if the reported length of stay was 1 and the same-day flag is not coded, then LOS is set to 1 and not reset to 0).

**Florida**

Beginning in 2004, Florida provided admission date (ADATE) and discharge date (DDATE) the supplied length of stay was used when LOS and LOS\_X could not be calculated from the supplied dates. In 2000-2003, the supplied length of stay was used to assign LOS and LOS\_X because Florida did not provide the admission and discharge date necessary for calculating length of stay. The supplied length of stay was coded according to the HCUP standard that assigns a length of stay of zero (0) to same day stays.

In 1997-1999, the coding of LOS and LOS\_X is inconsistent with the coding of length of stay in other states. Florida provided the reported length of stay but not the admission and discharge date necessary for calculating LOS. Florida codes same-day stays as LOS=1; the HCUP standard coding of same-day stays is LOS=0. Usually 2% of a states' discharges are same-day stays.

Prior to 1997, the reported length of stay was not used when LOS could not be calculated because Florida:

- coded same-day stays with the value 1 and
- subtracted days of absence.

**Georgia**

Beginning with the 2001 data, Georgia supplied admission and discharge dates for calculating LOS for almost all discharges. The reported length of stay was only used to assign LOS when dates were unavailable. Prior to 2001, the reported length of stay was not used when LOS could not be calculated because Georgia coded same-day stays with a value of 1.

**Hawaii**

Starting in 2017, Hawaii supplies reported length of stay.

Prior to 2017, only the calculated length of stay could be used to assign LOS because Hawaii did not supply reported length of stay.

**Illinois**

The reported length of stay was not used when LOS could not be calculated because Illinois coded same-day stays with a value of 1.

Length of stay was calculated during the HCUP processing.

**Indiana**

Only the calculated length of stay could be used to assign LOS because Indiana codes same day stays with a value of 1.

**Iowa**

Prior to 2007, the reported length of stay was not used when LOS could not be calculated because Iowa coded same-day stays with a value of 1.

Beginning in 2007, the reported length of stay was used when LOS could not be calculated during the HCUP processing.

**Kansas**

The reported length of stay was not used when LOS could not be calculated because Kansas coded same-day stays with a value of 1.

**Kentucky**

Beginning with the 2007 data, Kentucky supplied admission and discharge dates for calculating LOS for all discharges. The reported length of stay was only used to assign LOS when dates were unavailable. Prior to 2007, the reported length of stay was not used when LOS could not be calculated because Kentucky coded same-day stays with a value of 1.

**Maine**

The supplied length of stay was not used when length of stay could not be calculated because Maine coded same-day stays with a value of 1.

**Massachusetts**

The supplied length of stay was not used when LOS could not be calculated because Massachusetts:

- coded same-day stays with the value 1 and
- subtracted days of absence.

**Michigan**

Beginning in 2007, when LOS could not be calculated, the data source supplied LOS was used. Note that Michigan assigns the value 365 for any stays greater than 364 days.

Prior to 2001, LOS could not be calculated because Michigan did not report admission or discharge dates. Beginning with the 2001 data, Michigan provided complete dates and LOS could be calculated. In 2003, only the calculated length of stay could be used to assign LOS because Michigan codes same day stays with a value of 1.

Caution: Prior to 2001, if LOS = 365, then the stay may be longer than a year. Michigan uses the value 365 for stays that are greater than equal 364 days.

**Missouri**

Beginning with the 2007 data, Missouri supplied admission and discharge dates for calculating LOS for all discharges. The reported length of stay was only used to assign LOS when dates were unavailable. Prior to 2007, the reported length of stay was not used when LOS could not be calculated because Kentucky coded same-day stays with a value of 1. The appropriate edit check for consistency of reported and calculated length of stay could not be performed.

**Nebraska**

The reported length of stay was not used when LOS could not be calculated because Nebraska coded same-day stays with the value 1.

**Nevada**

Only the calculated length of stay could be used to assign LOS because Nevada codes same day stays with a value of 1.

**New Hampshire**

Only the calculated length of stay could be used to assign LOS because New Hampshire codes same day stays with a value of 1.

**New Mexico**

The original New Mexico inpatient file contained outpatient records from HOSPID=35020. During the creation on the 2011 New Mexico SID these outpatient records, identified by a length of stay of 0 days, were excluded. This approach also eliminated any inpatient discharges with same day stays for this hospital. Any analysis using the 2011 New Mexico SID should be aware that this hospital is missing information on same day stays.

**New York**

The assignment of LOS and LOS\_X varies by year in New York:

- Beginning in 2000 data, the length of stay (LOS and LOS\_X) in New York was calculated from the admission and discharge dates. Because New York masked the dates on AIDS/HIV\* records, the calculated length of stay was missing. During HCUP processing, other information provided by New York was used to determine LOS and LOS\_X when the calculated length of stay was missing. The length of stay provided by New York (which did not include leave days), total leave days, and a flag that indicates a same day stay were used to determine a length of stay that was consistent with the coding of length of stay on other HCUP records.

- In the 1998-1999 data purchased from NTIS, the length of stay (LOS and LOS\_X) in New York was calculated from the admission and discharge dates. Because New York masked the admission and discharge dates on AIDS/HIV\* records, LOS and LOS\_X was missing (.) on these discharges. An updated version of the 1998-1999 data is available through the HCUP Central Distributor with LOS and LOS\_X coded on the New York AIDS/HIV\* records. The updated version has LOS and LOS\_X calculated using the method described for the 2000 data.

In the 1998-1999 data purchased from HCUP Central Distributor, the length of stay (LOS and LOS\_X) in New York was calculated using the method described for the 2000 data.

- In the 1988-1997 HCUP data, LOS and LOS\_X could not be calculated from dates because New York did not report full admission and discharge dates. During HCUP processing, the length of stay provided by New York was used to assign LOS and LOS\_X. The length of stay provided by New York was adjusted during HCUP processing to be consistent with the coding of length of stay in other states.

\*The HCUP data elements LOS and LOS\_X are missing (.) for AIDS/HIV patients. Beginning with the 2005 New York identifies AIDS/HIV records by ICD-9-CM diagnosis code or DRG:

- An admitting, principal or any secondary diagnosis of "042", "043", "044", "7958", "27910", "27919", "2793", "1363", "79571", "07951", "07952", "07953", "V017" or "V08".
- A DRG of 488 through 490 or 700 through 716.

\*For 1998- 2004 data, New York identifies AIDS/HIV records by ICD-9-CM diagnosis code or DRG:

- An admitting, principal, or secondary diagnosis of "042" "043" "044" "7958" "27910", "27919", "2793", "1363", "79571", "07951", "07952", "07953" or "V08".
- A DRG of 488 "HIV with Extensive Operating Room Procedure", 489 "HIV with Major related condition", or 490 "HIV with or without Other Related Condition".

Please note that the admitting diagnosis is not retained in the HCUP databases.

**North Carolina**

Beginning with the 2007 data, North Carolina supplied admission and discharge dates for calculating LOS for almost all discharges. The reported length of stay was only used to assign LOS when dates were unavailable. Prior to 2007, the reported length of stay was not used when LOS could not be calculated because North Carolina coded same-day stays with a value of 1.

**Ohio**

Only the calculated length of stay could be used to assign LOS because Ohio codes same day stays with a value of 1.

**Oklahoma**

The reported length of stay was not used when LOS could not be calculated because Oklahoma coded same-day stays with the value 1.

**Oregon**

Prior to 1994, the reported length of stay was assigned to LOS if dates were not available. However, the coding of same day stay varies: some Oregon hospitals report discharges on the day of admission as one day stay (LOS=1), in addition to reporting same day stay as zero days (LOS=0).

Beginning in 1994, the reported length of stay was not used when LOS could not be calculated from dates because Oregon coded all same-day stays as one day (LOS=1).

Beginning in 2007, the reported length of stay was used if the calculated LOS was missing.

**Pennsylvania**

Prior to 1997, the reported length of stay was not used when LOS could not be calculated because Pennsylvania coded same-day stays with a value of 1 and subtracted days of absence from LOS. The appropriate edit check for consistency of reported and calculated length of stay could not be performed.

Beginning in 1997, Pennsylvania reports same-day stays as zero days. The supplied length of stay was used to assign LOS when length of stay could not be calculated from dates.

Beginning in 2008, only the supplied length of stay was used to assign LOS because Pennsylvania did not supply admission or discharge date.

**South Carolina**

**South Carolina**

The reported length of stay was not used when LOS could not be calculated because South Carolina coded same-day stays with a value of 1.

**South Dakota**

Prior to 2007, only the calculated length of stay could be used to assign LOS\_X because South Dakota codes same day stays with a value of 1.

Beginning in 2007, regardless if same day stays are coded with a value of 1, the source provided length of stay is used when LOS could not be calculated from dates.

**Tennessee**

Only the calculated length of stay could be used to assign LOS because Tennessee did not report length of stay.

**Texas**

The reported length of stay was not used when LOS could not be calculated because Texas coded same-day stays with the value 1.

**Utah**

Prior to 2004, the reported length of stay was not used when LOS could not be calculated because Utah coded same-day stays with a value of 1. Beginning in 2004, Utah coded same day stays with a value of 0.

**Vermont**

The reported length of stay was not used when LOS could not be calculated because Vermont coded same-day stays with the value 1.

**Washington**

Beginning in data year 2010, Washington provided only length of stay to HCUP and not the admission and discharge dates. The provided length of stay was used for the HCUP data elements LOS and LOS\_X. Washington codes same days stays with the value of 1, instead of 0. This is different than other HCUP databases.

Prior to data year 2012, the length of stay was calculated from admission and discharge dates.

**West Virginia**

Beginning in 2001, West Virginia provides LOS.

Prior to 2001, only the calculated length of stay was used to assign LOS because West Virginia did not provide the reported length of stay.

**Wisconsin**

For 1988-1994, the reported length of stay was not used when LOS could not be calculated because Wisconsin subtracted leave days and coded length of stay greater than 999 days as 999 days. Beginning with 1995, length of stay was not supplied. From 1995 - 2006, Wisconsin did not consistently supply length of stay - only the calculated length of stay was used to assign LOS and LOS\_X. Beginning in 2007, we used the supplied length of stay to assign LOS and LOS\_X when these fields could not be calculated from dates.

**Wyoming**

The reported length of stay was used when LOS could not be calculated even though Wyoming coded same-day stays as 1 day.

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**NCHRONIC - ICD-9-CM Number of chronic conditions**

**General Notes**

The data element NCHRONIC contains the count of unique chronic diagnoses reported on the discharge. A chronic condition is defined as a condition that lasts 12 months or longer and meets one or both of the following tests: (a) it places limitations on self-care, independent living, and social interactions; (b) it results in the need for ongoing intervention with medical products, services, and special equipment.

The process of counting the number of chronic conditions involves multiple steps. First, each diagnosis is assigned to a Clinical Classification Software (CCS) category. This information is available in the DXCCSn data elements. Second, the diagnosis is classified as a chronic or non-chronic condition by the Chronic Condition Indicator. This information is available in the CHRONn data elements. Third, the number of chronic conditions is counted. If the discharge has multiple diagnoses that map to the same CCS and are all considered chronic, then the chronic condition is only counted once.

More information on the Clinical Classification Software (CCS) and Chronic Condition Indicators is available under [Tools & Software](#) on the HCUP-US website.

For data beginning in the fourth quarter of 2015, the number of chronic conditions is stored in the data element I10\_NCHRONIC to indicate the implementation of the ICD-10-CM/PCS coding system.

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**Uniform Values**

| Variable | Description                           | Value  | Value Description                     |
|----------|---------------------------------------|--------|---------------------------------------|
| NCHRONIC | ICD-9-CM Number of chronic conditions | 0 - nn | ICD-9-CM Number of chronic conditions |
|          |                                       | .A     | Invalid                               |

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State Specific Notes

None

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NDX - Number of ICD-9-CM diagnoses on this discharge

General Notes

NDX indicates the total number of ICD-9-CM diagnoses (valid and invalid) coded on the discharge record. In assigning NDX, the first listed diagnosis is included in the count, even if it is blank, so long as there is a secondary diagnosis present (see table below).

For data beginning in the fourth quarter of 2015, the count of the number of diagnoses is stored in the data element I10\_NDX to indicate the implementation of the ICD-10-CM/PCS coding system.

| Value | Description   |
|-------|---|
| 0     | No diagnoses are coded on the record  |
| 1     | Only the first listed diagnosis (DX1) is coded. All secondary diagnoses are blank.                              |
| 2     | One secondary diagnosis (DX2) is coded. The first listed diagnosis (DX1) may be coded or blank.                 |
| 3     | The second and third diagnoses (DX2 and DX3) are coded. The first listed diagnosis (DX1) may be coded or blank. |

A maximum of 15 diagnoses has been retained on a NIS inpatient record. States that provide fewer than 15 diagnoses have had the diagnosis vector padded with blank values. For example, if a state supplied 5 diagnoses, DX6 through DX15 are blank (" ") on all records from that state. States that provide more than 15 diagnoses may have information truncated. If an inpatient record from these states had more than 15 non-missing diagnoses, diagnoses in positions 16 and above were not included in the NIS file. If the number of diagnoses coded on this discharge (NDX) is greater than 15, secondary diagnoses have been truncated from the record.

Refer to the general note for the diagnosis fields (DXn) for the number of diagnoses provided in each state.

Since on the NIS the number of diagnoses coded on the discharge (NDX) can be greater than the number of diagnoses available on the inpatient record, caution needs to be taken when using NDX to loop through the diagnoses. A counter for the loop should not extend past 15. Programming code such as the following example SAS statement is needed to take this into account:

```
DO I = 1 to MIN(15,NDX);  
Followed by code to process all diagnoses.  
END;
```

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Uniform Values

| Variable | Description                                    | Value  | Value Description   |
|----------|--|--------|---------------------|
| NDX      | Number of ICD-9-CM diagnoses on this discharge | 0 - nn | Number of diagnoses |

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State Specific Notes

None

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NIS\_STRATUM - Stratum used to post-stratify hospital

General Notes

NIS\_STRATUM is a four-digit stratum identifier used to post-stratify hospitals for the calculation of universe and frame weights. Prior to 1998, this data element was named STRATUM.

NIS\_STRATUM includes the hospital's census region or division, ownership/control, location/teaching, and bedsize. Information was obtained from the AHA Annual Survey of Hospitals.

- Prior to 2012, the NIS was stratified by census region. Beginning with 2012, the NIS is stratified by census division.

States, by U.S. Census Bureau Region and Census Division

- Region 1 (Northeast)
  - Division 1 (New England) Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
  - Division 2 (Mid Atlantic) New York, Pennsylvania, New Jersey
- Region 2 (Midwest) (Prior to June 1984, the Midwest Region was designated as the North Central Region)
  - Division 3 (East North Central) Wisconsin, Michigan, Illinois, Indiana, Ohio
  - Division 4 (West North Central) Missouri, North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa
- Region 3 (South)
  - Division 5 (South Atlantic) Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida
  - Division 6 (East South Central) Kentucky, Tennessee, Mississippi, Alabama
  - Division 7 (West South Central) Oklahoma, Texas, Arkansas, Louisiana
- Region 4 (West)
  - Division 8 (Mountain) Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona, New Mexico
  - Division 9 (Pacific) Alaska, Washington, Oregon, California, Hawaii

- U.S. Census Bureau. Census Bureau Regions and Divisions with State FIPS Codes. [http://www2.census.gov/geo/pdfs/maps-data/maps/reference/us\\_regdiv.pdf](http://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf). Accessed August 8, 2015.
- A metropolitan statistical area is considered urban, and a non-metro statistical area is rural.
  - Teaching hospitals have an AMA-approved residency program, are a member of the Council of Teaching Hospitals (COTH) or have a ratio of full-time equivalent interns and residents to beds of .25 or higher.
  - Control categories include government nonfederal (public), private not-for-profit (voluntary), and private investor-owned (proprietary). When there were enough hospitals of each type to allow it, hospitals were stratified as public, voluntary, and proprietary. This stratification was used for Southern rural, Southern urban nonteaching, and Western urban nonteaching. For smaller strata, the Midwestern rural and Western rural hospitals, a collapsed stratification of public versus private was used, with the voluntary and proprietary hospitals combined to form a single "private" category. For all other combinations of region, location, and teaching status, no stratification based on control was advisable given the number of hospitals in these cells.
  - Bedsize assesses the number of short-term acute beds in a hospital.

The hospital's bedsize category is nested within census region, location, and teaching status.

| BEDSIZE CATEGORIES           |                  |         |       |
|------------------------------|------------------|---------|-------|
| Location and Teaching Status | Hospital Bedsize |         |       |
|                              | Small            | Medium  | Large |
| NORTHEAST REGION             |                  |         |       |
| Rural                        | 1-49             | 50-99   | 100+  |
| Urban, nonteaching           | 1-124            | 125-199 | 200+  |
| Urban, teaching              | 1-249            | 250-424 | 425+  |
| MIDWEST REGION               |                  |         |       |
| Rural                        | 1-29             | 30-49   | 50+   |
| Urban, nonteaching           | 1-74             | 75-174  | 175+  |
| Urban, teaching              | 1-249            | 250-374 | 375+  |
| SOUTHERN REGION              |                  |         |       |
| Rural                        | 1-39             | 40-74   | 75+   |
| Urban, nonteaching           | 1-99             | 100-199 | 200+  |
| Urban, teaching              | 1-249            | 250-449 | 450+  |
| WESTERN REGION               |                  |         |       |
| Rural                        | 1-24             | 25-44   | 45+   |
| Urban, nonteaching           | 1-99             | 100-174 | 175+  |
| Urban, teaching              | 1-199            | 200-324 | 325+  |

Some strata were combined for sampling and weight calculations. Consequently, a given hospital's actual value for a stratifier may differ from those indicated by the value of NIS\_STRATUM. Each hospital's individual stratifier values are contained in separate variables:

| Stratifier        | 1988-1992 NIS | 1993-1997 NIS | 1998-2011NIS  | Beginning with 2012 NIS |
|-------------------|---------------|---------------|---------------|-------------------------|
| Census Division   |               |               |               | HOSP_DIVISION           |
| Census Region     | ST_REG        | H_REGION      | HOSP_REGION   | HOSP_REGION             |
| Ownership/Control | ST_OWNER      | H_CONTRL      | HOSP_CONTROL  | H_CONTRL                |
| Location/Teaching | LOCTEACH      | H_LOCTCH      | HOSP_LOCTEACH | HOSP_LOCTEACH           |
| Bedsizes          | ST_BEDSZ      | H_BEDSZ       | HOSP_BEDSIZE  | HOSP_BEDSIZE            |

For detailed information about the NIS sampling design, see the year-specific report on the Design of the HCUP Nationwide Inpatient Sample.

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Uniform Values

| Variable    | Description                            | Value                                 | Value Description                                    |
|-------------|--|---------------------------------------|--|
| NIS_STRATUM | Stratum used to post-stratify hospital | Census Region (prior to 2012)         | Northeast (1)  |
|             |  |                                       | Midwest (2)  |
|             |  |                                       | South (3)  |
|             |  |                                       | West (4)   |
|             |  | Census Division (beginning with 2012) | New England (1)                                      |
|             |  |                                       | Mid-Atlantic (2)                                     |
|             |  |                                       | East North Central (3)                               |
|             |  |                                       | West North Central (4)                               |
|             |  |                                       | South Atlantic (5)                                   |
|             |  |                                       | East South Central (6)                               |
|             |  |                                       | West South Central (7)                               |
|             |  |                                       | Mountain (8)   |
|             |  |                                       | Pacific (9)  |
|             |  | Control                               | Government or Private (0)                            |
|             |  |                                       | Government, nonfederal (1)                           |
|             |  |                                       | Private, not-for-profit (2)                          |
|             |  |                                       | Private, investor-owned (3)                          |
|             |  |                                       | Private, either not-for-profit or investor-owned (4) |
|             |  | Location / Teaching                   | Rural (1)  |
|             |  |                                       | Urban nonteaching (2)                                |
|             |  |                                       | Urban teaching (3)                                   |
|             |  | Bedsizes                              | Small (1)  |
|             |  |                                       | Medium (2)   |
|             |  |                                       | Large (3)  |

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State Specific Notes

None

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NPR - Number of ICD-9-CM procedures on this discharge

General Notes



NPR indicates the total number of ICD-9-CM procedures (valid and invalid) coded on the discharge record. In assigning NPR, the first listed procedure is included in the count, even if it is blank, so long as there is an additional procedure present (see table below).

| Value | Description  |
|-------|--|
| 0     | No procedures are coded on the record.   |
| 1     | Only the first listed procedure (PR1) is coded. All secondary procedures are blank.                              |
| 2     | One secondary procedure (PR2) is coded. The first listed procedure (PR1) may be coded or blank.                  |
| 3     | The second and third procedures (PR2 and PR3) are coded. The first listed procedure (PR1) may be coded or blank. |
| etc.  |  |

For data beginning in the fourth quarter of 2015, the count of procedures is stored in the data element I10\_NPR to indicate the implementation of the ICD-10-CM/PCS coding system.

A maximum of 15 procedures have been retained on a NIS inpatient record. States that provide fewer than 15 procedures have had the procedure vector padded with blank values. For example, if a state supplied 5 procedures, PR6 through PR15 are blank (" ") on all records from that state. States that provide more than 15 procedures may have information truncated. If an inpatient record from these states had more than 15 non-missing procedures, procedures in positions 16 and above were not included in the NIS file. If the number of procedures coded on this discharge (NPR) is greater than 15, secondary procedures have been truncated from the record. Refer to the general note for the procedure codes (PRn) for the number of procedures provided in each state.

Since on the NIS the number of procedures coded on the discharge record (NPR) can be greater than the number of procedures available on the inpatient record, caution needs to be taken when using NPR to loop through the procedures. A counter for the loop should not extend past 15. Programming code such as the following example SAS statement is needed to take this into account:

```
DO I = 1 to MIN(15,NPR);  
Followed by code to process all procedures.  
END;
```

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Uniform Values

| Variable | Description                                     | Value  | Value Description    |
|----------|---|--------|----------------------|
| NPR      | Number of ICD-9-CM procedures on this discharge | 0 - nn | Number of procedures |

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State Specific Notes

Pennsylvania

For 1995-1996 data only, some discharges have NPR greater than 0, and yet all procedure codes are missing. This is due to constraints of the HCUP processor in handling CPT and HCPCS codes. Pennsylvania reports ICD-9-CM procedure codes on most of their discharges, but some use CPT and HCPCS procedure codes. CPT and HCPCS procedure codes could not be retained in the HCUP data because they are 5 characters and the HCUP procedure fields are 4 characters in length. Discharges with CPT and HCPCS procedure codes were processed by HCUP as follows:

- PRSYS identifies the procedure coding system as CPT or HCPCS.
- NPR is the number of non-missing CPT or HCPCS procedure codes supplied by Pennsylvania.
- The HCUP procedure codes are set to missing (PRn = blank).

In other years, CPT and HCPCS codes are either masked or were handled differently in other years. See the Pennsylvania note on procedures (PRn) for specific details.

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RACE - Race

General Notes



HCUP coding includes race and ethnicity in one data element (RACE). If the source supplied race and ethnicity in separate data elements, ethnicity takes precedence over race in setting the HCUP value for race.

Two HCUP data elements contain source-specific information about the race and ethnicity of the patient.

- RACE\_X retains information on the race of the patient as provided by the data source.
- HISPANIC\_X retains information on the Hispanic ethnicity as provided by the data source.

Not all data sources provide information on race (RACE\_X) and ethnicity (HISPANIC\_X). RACE\_X and HISPANIC\_X are not available on the HCUP National (Nationwide) Inpatient Sample (NIS), Kids' Inpatient Database (KID), and the Nationwide Emergency Department Sample (NEDS).

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Uniform Values

| Variable | Description | Value | Value Description                                      |
|----------|-------------|-------|--|
| RACE     | Race        | 1     | White  |
|          |             | 2     | Black  |
|          |             | 3     | Hispanic   |
|          |             | 4     | Asian or Pacific Islander                              |
|          |             | 5     | Native American  |
|          |             | 6     | Other  |
|          |             | .     | Missing  |
|          |             | .A    | Invalid  |
|          |             | .B    | Unavailable from source (coded in 1988-1997 data only) |

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State Specific Notes

North Dakota

| North Dakota         |                                     |                        |                           |
|----------------------|-------------------------------------|------------------------|---------------------------|
| RACE_X               |                                     | RACE                   |                           |
| Value                | Description                         | Value                  | Description               |
| R5                   | White/Caucasian                     | 1                      | White                     |
| R3                   | Black or African American           | 2                      | Black                     |
| If HISPANIC_X = "E1" |                                     | 3                      | Hispanic                  |
| R4                   | Native Hawaiian of Pacific Islander | 4                      | Asian or Pacific Islander |
| R2                   | Asian                               |                        |                           |
| R1                   | American Indian or Alaska Native    | 5                      | Native American           |
| R9                   | Other Race/Multiple Races           | 6                      | Other                     |
| RZ                   | Unknown/Not Provided                | .                      | Missing                   |
| Blank                |                                     |                        |                           |
| Other                |                                     | .A                     | Invalid                   |
| HISPANIC_X           |                                     |                        |                           |
| E1                   |                                     | Hispanic or Latino     |                           |
| E2                   |                                     | Non-Hispanic or Latino |                           |
| EY                   |                                     | Decline to state       |                           |
| Blank                |                                     | .                      | Missing                   |
| Other                |                                     | .A                     | Invalid                   |

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TOTCHG - Total charges, cleaned

General Notes

TOTCHG contains the edited total charges. The original value provided by the data source is retained in the data element TOTCHG\_X. How total charges are edited depends on the year of the data.

Beginning in the 1998 HCUP databases, the following edits are applied to total charges (TOTCHG):

- Values are rounded to the nearest dollar; and
- Zero charges are set to missing (.);
- If total charges are excessively low (ETCHG01) or high (ETCHG02), then TOTCHG is set to inconsistent (.C). The limits for excessively low and high total charges vary for inpatient and outpatient databases.
  - For inpatient data, the allowable values for total charges vary by year: total charges are allowed to be between \$25 and \$1.0 million, inclusive in 1998 to 2006; between \$100 and \$1.5 million, inclusive, in 2007 to 2010; between \$100 and \$5.0 million beginning in 2011 data; and between \$100 and \$10.0 million beginning in 2016 data.
  - For outpatient data, the allowable values for total charges vary by year: total charges are allowed to be between \$25 and \$50,000, inclusive, in 1998 to 2006; between \$100 and \$75,000, inclusive, in 2007 to 2010; and between \$100 and \$950,000 beginning in 2011 data.

In the 1988-1997 HCUP databases, the following edits are applied to total charges (TOTCHG):

- Values are rounded to the nearest dollar; and
- Zero charges are set to missing (.);
- Negative charges are set to invalid (.A); and
- For HCUP inpatient databases, if charges per day (TOTCHG/LOS) are unjustifiably low (ED911) or high (ED921), then TOTCHG is set to inconsistent (.C).
- For HCUP outpatient databases, if total charges are excessively low (ED912) or high (ED922), then TOTCHG is set to inconsistent (.C). (SASD)

Generally, total charges (TOTCHG and TOTCHG\_X) do not include professional fees and non-covered charges. If the source provides total charges with professional fees, then the professional fees are removed from the charge during HCUP processing. In a small number of HCUP databases, professional fees cannot be removed from total charges because the data source cannot provide the information. Please check the state-specific notes for information on which states are affected.

Emergency department charges incurred prior to admission to the hospital may be included in total charges (TOTCHG and TOTCHG\_X). Medicare requires a bundled bill for Medicare patients admitted to the hospital through the emergency department. Other payers may or may not have similar requirements.

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Uniform Values

| Variable | Description            | Value   | Value Description   |
|----------|------------------------|---------|---|
| TOTCHG   | Total charges, cleaned | Dollars | Total Charge rounded  |
|          |                        | .       | Missing   |
|          |                        | .A      | Invalid   |
|          |                        | .B      | Unavailable from source (coded in 1988-1997 data only)  |
|          |                        | .C      | Inconsistent: beginning with 1998 data, ETCHG01, ETCHG02; in 1998-1997 data, ED911, ED912, ED921, ED922 |

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State Specific Notes

**Arizona**  
Beginning in 1996, Arizona included charges for professional fees and patient convenience items in its total charges. Any charges for professional fees and convenience items were subtracted from the reported total charges during HCUP processing to make Arizona total charges (TOTCHG and TOTCHG\_X) comparable to data from other states.

Due to an error in HCUP processing in 1996, some types of professional fees were not subtracted from total charges (TOTCHG and TOTCHG\_X). The types of professional fees that were not subtracted include hospital visits, consultations, private duty nurses, EKGs, EEGs, and medical social services. Charges for these services were coded on 24% of the 1996 discharges, with a mean charge of \$216 and a range from \$1 to \$5,718. Total charges (TOTCHG and TOTCHG\_X) can be corrected by subtracting the detail charge, CHG61. No other years need correction.

Beginning in 1997, all reported professional fees and patient convenience items were subtracted from total charges (TOTCHG and TOTCHG\_X).

**Arkansas**  
Total charges in the 2008 Arkansas SID are not rounded to the nearest dollar.

**California**  
California supplied total charges only for the last 365 days of the stay for stays of more than one year (365 days). If the supplied length of stay was greater than 365 days, cleaned total charges, TOTCHG, was set to missing (.) and uncleaned total charges, TOTCHG\_X, retained the supplied total charge. Due to an error in HCUP processing, cleaned total charges, TOTCHG, were not set to missing in the 1998-1999 HCUP files

error in HCUP processing, cleaned total charges, TOTCHG, were not set to missing in the 1998-1999 HCUP files.

Some hospitals in California (including all Kaiser and Shriners hospitals) were exempted from reporting total charges. For those hospitals, TOTCHG and TOTCHG\_X were missing (.).

Source documentation indicated that hospital-based physician fees were not included in the reported total charges.

No Charges

The source reported total charges with the value of 1 for discharges with no charges (\$0). These records include live donors and courtesy or research patients. Values of 1 were verified with the hospital by the source.

Prior to 1995, total charges were set to missing (TOTCHG and TOTCHG\_X = .) for these records during HCUP processing. Beginning in 1995, only TOTCHG was set to missing (.) [invalid (.A) for 2008-2012 data] and TOTCHG\_X retained the value of 1. Due to an error in HCUP processing, cleaned total charges, TOTCHG, were not set to missing in the 1998-1999 HCUP files.

Colorado

According to Colorado, hospital based physician fees are excluded from total charges (TOTCHG and TOTCHG\_X).

Connecticut

Total charges in the 2008 Connecticut SID are not rounded to the nearest dollar.

Connecticut includes non-covered charges in the total charges if they are reported by hospitals, but does not report non-covered charges separately. The HCUP uniform total charges (TOTCHG) could not be adjusted to exclude non-covered charges. (Non-covered charges include items such as telephone and television).

Illinois

Total charges in the 2008 Illinois SID are not rounded to the nearest dollar.

Iowa

Beginning in 1993, Iowa includes professional fees in its total charges if the hospital combines hospital and professional bills. From 1993 to 2002, professional fees were subtracted from total charges (TOTCHG and TOTCHG\_X) during HCUP processing to make Iowa total charges comparable to data from other states. Due to an error in processing the inpatient data in 2003-2004, professional fees were NOT subtracted from the total charges. Users can correct this by subtracting non-covered charges (CHG16) and professional fees (CHG17) from the total charges (TOTCHG and TOTCHG\_X). Beginning in 2005, professional fees and non-covered items are excluded from the total charges (TOTCHG and TOTCHG\_X).

Prior to 1993, it was optional for hospitals to report total charges to the hospital association:

- The availability of total charges varies by hospital.
- Some hospitals have missing (.) total charges (TOTCHG and TOTCHG\_X) on a large percentage of records.

Kansas

It was optional for hospitals to provide total charges to the hospital association. Approximately 5% to 25% of the discharges are missing total charges.

Some hospitals report total charges of \$1.00 for all discharges. For 1993-1994, the \$1.00 charges are included in the HCUP data. Beginning with 1995, total charges of \$1.00 in the Kansas inpatient data were set to missing (.).

Some smaller hospitals have data systems that allow a maximum of 5 digits for total charges. For these hospitals, total charges of \$100,000 or greater are coded as \$99,999.

Due to an error in 1994 HCUP processing, TOTCHG values of "invalid" (.A) were recoded to TOTCHG values of "missing" (.).

Louisiana

Total charges in the 2008 Louisiana SID are not rounded to the nearest dollar.

Maine

For the 2003 data year, Maine did not provide any charge information on their inpatient or outpatient files. This includes the detail charge records as well as the various total charge data elements (i.e., total charge, total professional fees, and total ancillary charges). This restriction is due to changes in Maine’s data release policies.

Professional charges were subtracted from the supplied total charge during HCUP processing to make Maine total charges (TOTCHG) comparable to data from other states.

Beginning in 2006, Maine supplied HCUP with total charges.

Maryland

Beginning in 2007, Maryland included the records from all other outpatients, Greenbaum cancer center, and UMMS shock trauma in the unified AS and ED outpatient data file. Total changes associated with some of these new records were smaller than \$100. During the HCUP processing, these values were categorized in "Inconsistent", which resulted in increasing the frequency associated with it.

Beginning in 2006, Maryland stopped providing total charges. This data element is created based on charges associated with revenue code 0001 during the HCUP data processing.

Maryland excluded the following from total charges:

- Physician charges and
- Charges not regulated by the Health Services Cost Review Commission (for example, telephone service, television charges or private duty nursing charges).

Maryland

Total charges in the 2008 Maryland SID are not rounded to the nearest dollar.

Beginning in 2006, Maryland stopped providing total charges. This data element is created based on charges associated with revenue code 0001 during the HCUP data processing.

HCUP data processing.

Maryland excluded the following from total charges:

- Physician charges and
- Charges not regulated by the Health Services Cost Review Commission (for example, telephone service, television charges or private duty nursing charges).

Massachusetts

Prior to 1993, Massachusetts included professional fees in its detailed and total charges, if these were included by the hospital. Hospitals are allowed, but not required, to report these professional fees in the charge fields. Individual facilities decide which professional fees are included and where. There is no way to determine which hospitals did or did not include professional fees.

Massachusetts

Special consideration was needed to handle the Massachusetts data beginning in the 2006 NIS. Fourth quarter data from sampled hospitals in Massachusetts were unavailable for inclusion in the 2006 and 2007 NIS. To account for the missing quarter of data, we sampled one fourth of the Massachusetts NIS discharges from the first three quarters and modified the records to represent the fourth quarter. To ensure a representative sample, we sorted the Massachusetts NIS discharges by hospital, discharge quarter, Clinical Classifications Software (CCS) diagnosis group for the principal diagnosis, gender, age, and a random number before selecting every fourth record. The following describes the adjustments made to the selected Massachusetts NIS records:

1. We relabeled the discharge quarter (DQTR) to four and saved the original discharge quarter in a new data element (DQTR\_X).
2. We adjusted the admission month (AMONTH) by the number of months corresponding to the change in the discharge quarter.
3. We adjusted the total charges (TOTCHG and TOTCHG\_X) using quarter-specific adjustment factors calculated as the mean total charges in the fourth quarter for all Northeastern NIS states (excluding Massachusetts) divided by the mean total charges in the first, second, or third quarter for all Northeastern NIS states (excluding Massachusetts).

We then adjusted the discharge weights for the Massachusetts records to appropriately account for the shifting of quarter one through three discharges to quarter four.

Michigan

In 2006, four Michigan hospitals submitted TOTCHG\_X with implied decimals. The problem begins in March for one hospital and in July for the other three facilities. During processing we fixed the problem data for both TOTCHG\_X and TOTCHG.

Missouri

According to the Missouri Hospital Association, most hospitals excluded professional fees from total charges (TOTCHG and TOTCHG\_X).

Mississippi

Charges for proceSSIONal fees and patient convenience items were subtracted from the reported total charges during HCUP processing to make Mississippi total charges (TOTCHG and TOTCHG\_X) comparable to data from other states.

Nevada

Prior to 2007, the total charges for Nevada are the charges reported for UB-92 revenue center "0001". Beginning in 2007, the total charges were the charges reported for UB-04 revenue center "0001". Fewer than 1% of discharges include professional fees (revenue codes, 096x, 097x and 098x) in the total charge field. Prior to 2006, professional fees were subtracted from the total charges. Beginning in 2006, professional fees were included in TOTCHG.

New Mexico

The original New Mexico inpatient file contained outpatient records from HOSPID=35020. During the creation of the 2011 New Mexico SID these outpatient records, identified by a length of stay of 0 days, were excluded. This approach also eliminated any inpatient discharges with same day stays for this hospital. Any analysis using the 2011 New Mexico SID should be aware that this hospital is missing information on same day stays.

New York

For the 1988-1993 HCUP files, New York supplied their Master File which consists of Discharge Data Abstracts (DDA) matched to Uniform Billing Forms (UBF) for inpatient stays. Information on total charges is included in the UBF part of the record. Due to an administrative change in the collection of billing records for 1989, a large percentage of the DDAs could not be matched to a UBF. When there was no match, charge information is missing. The match rate improves over time and stabilizes after 1991. The percentage of DDA records that have a matching UBF record in the Master File is as follows:

|      |        |
|------|--------|
| 1988 | 77.2%  |
| 1989 | 26.3%  |
| 1990 | 62.8%  |
| 1991 | 93.7%  |
| 1992 | 91.8%  |
| 1993 | 95.5%. |

Beginning in the 1994 data, hospitals submitted discharge records to New York in a new format, using Universal Data Set (UDS) specifications. This format combines the old UBF and DDA data into a single submission record.

Adjustment to Charges for Interim Bills

- For 1988-1993, when the length of stay from the Discharge Data Abstract did not equal the length of the billing period from the Uniform Billing Form, total charges (TOTCHG) were set to missing (.) because this billing information pertained only to the billing period, not the complete inpatient stay. However, TOTCHG\_X contains the original value from the billing record.
- Beginning in 1994, billing dates were not reported by New York and the adjustment to charge details (CHGn, RATEn, UNITn, REVCDn) was not made.

Ohio

Ohio excludes the following charges:

- Total charges < \$100

- Total charges > \$100
- Total charges > \$1,000,000
- Total charges = 0

**Oregon**

Kaiser hospitals are exempt from reporting total charges. As a result, TOTCHG and TOTCHG\_X are missing (.) for Kaiser Hospitals in Oregon.

Beginning in the 1995 data, some hospitals did not report total charges (TOTCHG and TOTCHG\_X) on charity bills since there are no charges to the patient.

**Pennsylvania**

Prior to 1997, non-covered charges and professional charges were subtracted from the supplied total charge during HCUP processing to make Pennsylvania total charges (TOTCHG) comparable to data from other states.

Beginning in 1997, Pennsylvania supplied total charges that did not include non-covered and professional charges.

**Rhode Island**

Charges for patient convenience items were subtracted from the reported total charges during HCUP processing to make Rhode Island total charges (TOTCHG and TOTCHG\_X) comparable to data from other states.

**South Carolina**

Beginning in 1996, professional fees and charges for patient convenience items were subtracted from the reported total charges during HCUP processing to make South Carolina total charges (TOTCHG and TOTCHG\_X) comparable to data from other states.

Prior to 1996, only professional fees were subtracted from the reported total charges because the source did not supply an itemized charge for patient convenience items.

In 2006, total charges were not included on South Carolina SASD or SEDD because of a problem with a major data vendor in the state.

**South Dakota**

Charges for professional fees, professional component charges, and non-covered charges were subtracted from the reported total charges during HCUP processing to make South Dakota total charges (TOTCHG and TOTCHG\_X) comparable to data from other states.

**Texas**

Beginning in 2006, charges associated with the professional fees and non-covered items (revenue code centers 096X, 097X, 098X, and 099X) have been removed from total charges.

Total charges are not available in the Texas data until July 2000. Non-covered accommodation and ancillary charges were subtracted from the supplied total charge during HCUP processing to make Texas total charges (TOTCHG) comparable to data from other states.

**Utah**

Beginning in 2002, professional fees were subtracted from the reported total charges during HCUP processing to make Utah total charges (TOTCHG and TOTCHG\_X) comparable to data from other states. Utah indicates that for the majority of the discharges, the reported total charge includes professional fees. Utah reports the total charge for the UB-92 revenue code "001" if the hospital provides individual revenue codes to the data organization; otherwise the total charge is the hospital-reported total. For the hospitals that do not provide individual revenue codes, Utah does not have any means of determining whether or not professional charges are included. Prior to 2002, professional fees were not subtracted from the total charges (TOTCHG and TOTCHG\_X). To make the total charges comparable to data from other states, professional fees (CHG2) should be subtracted from total charges (TOTCHG and TOTCHG\_X).

**Virginia**

Beginning in 2006, Virginia reports total charges under revenue center code 0001. If this code is present, the corresponding charge is retained to TOTCHG. If a revenue center code 0001 is not reported or contains a missing or known invalid value, TOTCHG is missing. The maximum value allowed for total charges in the Virginia source files is \$9,999,999.

Incorrect Charge Information in 2001 for Three Virginia Hospitals. Please set TOTCHG and TOTCHG\_X to missing in 2001 for the following three Virginia hospitals:

- DSHOSPID=490071
- DSHOSPID=490112
- DSHOSPID=490118.

The data source reported incorrect charges for these hospitals.

**West Virginia**

Total charges in the 2008 West Virginia SID are not rounded to the nearest dollar.

West Virginia has rate setting. The data source confirms that the all covered charges are included in the total charge (TOTCHG).

**Wisconsin**

Prior to 2006, Wisconsin may have included professional fees and convenience items in its total charges. Hospitals are instructed to remove these fees from total charges, but some hospitals do not subtract them and others have had difficulties with their accounting software. There is no way to determine which hospitals did or did not include these items.

Hospitals are not required to report total charges for stays over 100 days.

**Wisconsin**

An error during HCUP processing of 1993 discharges caused negative values of total charges (TOTCHG) to be set to missing (.) instead of invalid (.A). For other years, negative values of TOTCHG were processed correctly.

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TRAN\_IN - Indicator of a transfer into the hospital

General Notes

The data element TRAN\_IN indicates that the non-newborn patient was transferred into the hospital and is defined using either admission source (ASOURCE) or point of origin (PointOfOriginUB04), depending on data availability. The coding of admission source and point of origin varies by the admission type. When the admission type indicates a newborn (ATYPE=4) then the admission source and point of origin indicate the type of birth instead of the type of transfer. Therefore, the identification of transfers in TRAN\_IN is specific to non-newborn patients with ATYPE not equal to 4.

- The value 1 indicates the patient was transferred from a different acute care hospital (ASOURCE=2 or PointOfOriginUB04=4).
- The value of 2 indicates the patient was transferred in from another type of health facility.
  - Starting in data year 2017, the criteria was ASOURCE=3 or PointOfOriginUB04=5, or 6, D, E, or F.
  - Prior to data year 2017, the criteria was ASOURCE=3 and PointofOriginUB04=5 or 6.

TRAN\_IN is missing if information neither admission source nor point of origin is available.

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Uniform Values

| Variable | Description                               | Value | Value Description  |
|----------|---|-------|--|
| TRAN_IN  | Indicator of a transfer into the hospital | 0     | Not transferred in or newborn admission indicated by ATYPE=4 |
|          |   | 1     | Transferred in from a different acute care hospital          |
|          |   | 2     | Transferred in from another type of health facility          |
|          |   | .     | Missing  |

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State Specific Notes

None

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TRAN\_OUT - Transfer out indicator

General Notes

The data element TRAN\_OUT indicates that the patient was transferred out of the hospital and is defined using the discharge status. The value 1 indicates the patient was transferred to a different acute care hospital (DISPUNIFORM=2). The value of 2 indicates the patient was transferred to another type of health facility (DISPUNIFORM=5). TRAN\_OUTN is missing if the discharge disposition is missing or invalid.

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Uniform Values

| Variable | Description            | Value | Value Description                                  |
|----------|------------------------|-------|--|
| TRAN_OUT | Transfer out indicator | 0     | Not a transfer                                     |
|          |                        | 1     | Transferred out to a different acute care hospital |
|          |                        | 2     | Transferred out to another type of health facility |
|          |                        | .     | Missing  |

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State Specific Notes

None

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YEAR - Calendar year

General Notes

The discharge year (YEAR) is always coded. In the 1988-1997 HCUP databases, YEAR is two-digits (e.g., if the discharge year is 1990, then YEAR = 90). Beginning in the 1998 HCUP databases, YEAR is four-digits (e.g., 1998).

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Uniform Values

| Variable | Description   | Value | Value Description                              |
|----------|---------------|-------|--|
| YEAR     | Calendar year | yy    | 2-digit calendar year in 1988-1997 data        |
|          |               | yyyy  | 4-digit calendar year beginning with 1998 data |

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State Specific Notes

None

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