



# H·CUP

HEALTHCARE COST AND UTILIZATION PROJECT

## HCUP Methods Series



Agency for Healthcare  
Research and Quality



U.S. Department of Health and Human Services  
Agency for Healthcare Research and Quality

**Contact Information:**  
**Healthcare Cost and Utilization Project (HCUP)**  
**Agency for Healthcare Research and Quality**  
**5600 Fishers Lane**  
**Room 07W17B**  
**Mail Stop 7W25B**  
**Rockville, MD 20857**  
**<http://www.hcup-us.ahrq.gov>**

**For Technical Assistance with HCUP Products:**

**Email: [hcup@ahrq.gov](mailto:hcup@ahrq.gov)**

**or**

**Phone: 1-866-290-HCUP**

Recommended Citation: Barrett M, Jiang J. *An Examination of Expected Payer Coding in HCUP Databases (Updated for 2015 HCUP Data), User Guide*. 2017. HCUP Methods Series Report # 2017-05 ONLINE. December 19, 2017. U.S. Agency for Healthcare Research and Quality. Available: <http://www.hcup-us.ahrq.gov/reports/methods/methods.jsp>.

The Healthcare Cost and Utilization Project (HCUP) Methods Series Report #2014-03 *An Examination of Expected Payer Coding in HCUP Databases* was produced in order to inform HCUP data users about expected payer codes by (1) presenting detailed information about the expected payer codes collected by HCUP States; (2) suggesting how these payer codes can be used for research purposes; and (3) examining the extent to which HCUP data capture discharges covered by these payers in comparison with other national data sources. Although the report provides information on all types of payers, the focus is on payers for low-income populations (especially the uninsured) and managed care. These are two areas of coding that tend to be the least standardized, and they are of increasing interest for researchers.

The original Methods Series report includes a main descriptive report and four separate supplements. Supplements 1–3 include coding information for the HCUP State databases specific to the uninsured, managed care, and Medicaid in data years 2008–2012. Supplements 1–3 have been updated for coding in data year 2013 (Methods Series Report #2015-08), data year 2014 (Methods Series Report #2016-09), and data year 2015 (Methods Series Report #2017-05). Supplement 4 has detailed data tables supporting the comparative figures and is only included with the original Methods Series Report #2014-03.

Because the report covers a wide range of topics, this User Guide was developed to help direct readers to information of interest. This User Guide provides a “road map” for using the Methods Series report (#2014-03) with explicit directions on where to find payer-specific information in the report.

### **Key Information for Understanding Expected Payer Information in the HCUP Databases**

The Executive Summary of the Methods Series report provides a general overview of the included information. The Introduction section of the Methods Series report provides background information concerning the value of expected payer information for researchers. It also describes some of the challenges for researchers using the data element, including variation in the ways it is collected across States, concerns about accuracy of the coding, and difficulties in identifying the uninsured.

To facilitate comparisons across States, HCUP combines the State-specific detailed categories for payer (PAY1\_X, PAY2\_X, PAY3\_X) into six general groups in the data elements PAY1, PAY2, and PAY3: Medicare, Medicaid, private insurance, self-pay, no charge, and other. For more information refer to the following sections of the Method Series report:

- Overview of the HCUP Uniform Expected Payer Codes (pages 5–6)
- HCUP State-Specific Payer Codes: Common Codes Included in HCUP “Other Payer” Category (pages 6–10).

### **Information on Specific Types of Expected Payers**

This User Guide is divided into three topics:

1. The major types of insurance (Table 1)
  - a. Medicare
  - b. Medicaid
  - c. Private insurance
2. Managed care (Table 2)

- a. Medicare
  - b. Medicaid
  - c. All managed care including Medicare, Medicaid, and private insurance
3. Uninsured (Tables 3).

The information presented is similar for each topic and is presented in tabular format. Tables 1–3 include where to find information on the HCUP expected payer definitions and how that may differ from definitions used for American Community Survey (ACS) population estimates or Centers for Medicare & Medicaid Services (CMS) enrollment counts. These tables also identify where to find information on how 2011 State-specific discharge counts by expected payer from the SID compare to 2011 ACS population estimates or CMS enrollment figures once the definitions are aligned. Referenced page numbers refer to the Methods Series report page numbers. Other references are to Supplements 1–4 of the Methods Series report.

**Table 1. Information on Medicare, Medicaid, and Private Insurance**

<b>Payer</b>	<b>Information on HCUP expected payer definitions and how that may differ from definitions for ACS population estimates or Centers for Medicare &amp; Medicaid Services (CMS) enrollment figures</b>	<b>Information comparing similarly defined 2011 SID discharges with ACS population estimates or CMS enrollment figures</b>
<b>Medicare</b>	<p>Overview of the HCUP Uniform Expected Payer Codes (pages 5–6)</p> <p>Calculating Insurance-Specific Population Estimates from the ACS (pages 24–25)</p> <p>Specific issues with aligning HCUP Medicare discharges with the ACS population estimates for Medicare:</p> <ul style="list-style-type: none"> <li>• HCUP discharges with dual Medicare and Medicaid coverage are usually coded with the primary expected payer of Medicare, but may have Medicaid as the expected primary payer. See section HCUP State-Specific Payer Codes: Identifying Patients Dually Enrolled in Medicare and Medicaid (page 13)</li> <li>• ACS allows population estimates to be calculated for only Medicare separate from Medicare/Medicaid dual enrollees (pages 24–25)</li> <li>• To align definitions, include Medicare/Medicaid dual enrollees with only Medicare.</li> </ul>	<p>Comparison of aligned SID Medicare discharges with ACS Medicare population estimates (pages 27–29)</p> <ul style="list-style-type: none"> <li>• Medicare, all ages (page 27)</li> <li>• Medicare, ages 0–64 (page 28)</li> <li>• Medicare, ages 65 and older (page 29)</li> </ul> <p>Detailed tables supporting the comparative figures in the Methods Series report are included in Supplement 4:</p> <ul style="list-style-type: none"> <li>• Table 4E.1 for Medicare, all ages</li> <li>• Table 4E.2 for Medicare, ages 0–64</li> <li>• Table 4E.3 for Medicare, ages 65 and older</li> </ul>

<b>Payer</b>	<b>Information on HCUP expected payer definitions and how that may differ from definitions for ACS population estimates or Centers for Medicare &amp; Medicaid Services (CMS) enrollment figures</b>	<b>Information comparing similarly defined 2011 SID discharges with ACS population estimates or CMS enrollment figures</b>
<b>Medicaid</b>	<p>Overview of the HCUP Uniform Expected Payer Codes (pages 5–6)</p> <p>Calculating Insurance-Specific Population Estimates from the ACS (pages 24–25)</p> <p>Specific issues with aligning HCUP Medicaid discharges with the ACS population estimates for Medicaid:</p> <ul style="list-style-type: none"> <li>• Background on Children’s Health Insurance Programs (CHIP) (pages 6–7) and Appendix B CHIP Programs by State pages 42–44)</li> <li>• HCUP includes CHIP under the Other payer category (pages 6–7)</li> <li>• ACS includes CHIP with Medicaid population counts (page 24)</li> <li>• To align definitions, see Supplement 3 for HCUP State-specific recodes for Medicaid to align HCUP with the ACS.</li> </ul>	<p>Comparison of aligned SID Medicaid discharges with ACS Medicaid population estimates (pages 30–32)</p> <ul style="list-style-type: none"> <li>• Medicaid, all ages (page 30)</li> <li>• Medicaid, ages 0–17 (page 31)</li> <li>• Medicaid, ages 18–64 (page 32)</li> </ul> <p>Detailed tables supporting the comparative figures in the Methods Series report are included in Supplement 4:</p> <ul style="list-style-type: none"> <li>• Table 4F.1 for Medicaid, all ages</li> <li>• Table 4F.2 for Medicaid, ages 0–17</li> <li>• Table 4F.3 for Medicaid, ages 18–64</li> </ul>

<b>Payer</b>	<b>Information on HCUP expected payer definitions and how that may differ from definitions for ACS population estimates or Centers for Medicare &amp; Medicaid Services (CMS) enrollment figures</b>	<b>Information comparing similarly defined 2011 SID discharges with ACS population estimates or CMS enrollment figures</b>
<b>Medicare and Medicaid dual enrollees</b>	<p>Overview of the HCUP Uniform Expected Payer Codes (pages 5–6)</p> <p>HCUP State-Specific Payer Codes: Identifying Patients Dually Enrolled in Medicare and Medicaid (page 13)</p> <p>CMS enrollment figures for dual enrollees of Medicare and Medicaid dual enrollees (page 15)</p> <p>Specific issues with aligning HCUP dually enrolled Medicare/Medicaid discharges with the CMS enrollment figures:</p> <ul style="list-style-type: none"> <li>• HCUP discharges with dual Medicare and Medicaid coverage are usually coded with the primary expected payer of Medicare, but may have Medicaid as the expected primary payer. Not all HCUP States provide the necessary information to identify dual enrollment.</li> <li>• CMS provides enrollment estimates for Medicare/Medicaid dual enrollees separate from only Medicare (page 15).</li> </ul>	<p>Comparison of aligned SID discharges for Medicare and Medicaid dual enrollees with CMS dual enrollment figures (pages 15–16)</p> <p>Detailed tables supporting the comparative figures in the Methods Series report are included in Supplement 4:</p> <ul style="list-style-type: none"> <li>• Table 4A for Medicare and Medicaid dual enrollment</li> </ul>

<b>Payer</b>	<b>Information on HCUP expected payer definitions and how that may differ from definitions for ACS population estimates or Centers for Medicare &amp; Medicaid Services (CMS) enrollment figures</b>	<b>Information comparing similarly defined 2011 SID discharges with ACS population estimates or CMS enrollment figures</b>
<b>Private Insurance</b>	<p>Overview of the HCUP Uniform Expected Payer Codes (pages 5–6)</p> <p>Calculating Insurance-Specific Population Estimates from the ACS (pages 24–25)</p> <p>There are no specific issues with aligning HCUP privately insured discharges with the ACS population estimates.</p>	<p>Comparison of aligned SID privately insured discharges with ACS private insurance population estimates (pages 33–35)</p> <ul style="list-style-type: none"> <li>• Private insurance, all ages (page 33)</li> <li>• Private insurance, ages 0–17 (page 34)</li> <li>• Private insurance, ages 18–64 (page 35)</li> </ul> <p>Detailed tables supporting the comparative figures in the Methods Series report are included in Supplement 4:</p> <ul style="list-style-type: none"> <li>• Table 4G.1 for private insurance, all ages</li> <li>• Table 4G.2 for private insurance, ages 0–17</li> <li>• Table 4G.3 for private insurance, ages 18–64</li> </ul>

**Table 2. Information on Managed Care**

<b>Payer</b>	<b>Information on understanding the HCUP payer definitions and how that may differ from enrollment figures</b>	<b>Information comparing similarly defined 2011 SID discharges with enrollment figures</b>
Medicare managed Care	<p>HCUP State-Specific Payer Codes: Identifying Patients Enrolled in Managed Care Plans (pages 13–15)</p> <ul style="list-style-type: none"> <li>• Table 2 lists HCUP States with managed care expected payer codes for Medicare (page 14)</li> <li>• HCUP discharges for fee-for-service Medicare Advantage plans are rarely specifically identified in State-specific payer coding</li> <li>• CMS managed care enrollment figures include Medicare Advantage patients, including those covered by fee-for-service coverage</li> <li>• For HCUP State-specific coding of Medicare managed care discharges, see Table 2A in Supplement 2.</li> </ul>	<p>Comparison of SID discharges for Medicare managed care with CMS managed care enrollment figures (pages 17–18)</p> <p>Detailed tables supporting the comparative figures in the Methods Series report are included in Supplement 4:</p> <ul style="list-style-type: none"> <li>• Table 4B for Medicare managed care</li> </ul>
Medicaid managed Care	<p>HCUP State-Specific Payer Codes: Identifying Patients Enrolled in Managed Care Plans (pages 13–15)</p> <ul style="list-style-type: none"> <li>• Table 2 lists HCUP States with managed care expected payer codes for Medicaid (page 14)</li> <li>• For HCUP State-specific coding of Medicaid managed care discharges, see Table 2B in Supplement 2.</li> </ul>	<p>Comparison of SID discharges for Medicaid managed care with CMS managed care enrollment figures (pages 18–19)</p> <p>Detailed tables supporting the comparative figures in the Methods Series report are included in Supplement 4:</p> <ul style="list-style-type: none"> <li>• Table 4C for Medicaid managed care</li> </ul>



<b>Payer</b>	<b>Information on understanding the HCUP payer definitions and how that may differ from enrollment figures</b>	<b>Information comparing similarly defined 2011 SID discharges with enrollment figures</b>
All Managed Care	<p>State-Specific Payer Codes: Identifying Patients Enrolled in Managed Care Plans (pages 13–15)</p> <ul style="list-style-type: none"> <li>• Table 2 lists HCUP States with managed care expected payer codes for Medicare, Medicaid, and private insurance (page 14)</li> <li>• For HCUP State-specific coding of managed care discharges, see Supplement 2 <ul style="list-style-type: none"> <li>○ Table 2A for Medicare managed care</li> <li>○ Table 2B for Medicaid managed care</li> <li>○ Table 2C for managed care plans for the privately insured.</li> </ul> </li> </ul>	<p>Publicly available data for managed care enrollment for the privately insured at the State level was unavailable. Consequently, we compared SID discharges for Medicare, Medicaid, and the privately insured with Kaiser Family Foundation (KFF) managed care penetration rates (pages 20–21)</p> <p>Detailed tables supporting the comparative figures in the Methods Series report are included in Supplement 4:</p> <ul style="list-style-type: none"> <li>• Table 4D for all managed care</li> </ul>

**Table 3. Information on the Uninsured**

<b>Payer</b>	<b>Information on understanding the HCUP payer definitions and how that may differ from ACS population estimates</b>	<b>Information comparing similarly defined 2011 SID discharges with ACS population estimates</b>
<b>Uninsured</b>	<p>Overview of the HCUP Uniform Expected Payer Codes (pages 5–6)</p> <p>Calculating Insurance-Specific Population Estimates from the ACS (pages 24–25)</p> <p>Specific issues with aligning HCUP discharges for the uninsured with the ACS population estimates for the uninsured:</p> <ul style="list-style-type: none"> <li>• HCUP State-Specific Payer Codes: Identifying the Uninsured (pages 10–13)</li> <li>• Background on payers coded as "Other Payer" in HCUP uniform coding, that may cover inpatient stays for uninsured and low-income patients (pages 6–10)               <ul style="list-style-type: none"> <li>○ Indian Health Services (IHS) (page 7)</li> <li>○ Hill Burton (page 9)</li> <li>○ Ryan White (page 9)</li> <li>○ State or county indigent programs (pages 14–15)</li> </ul> </li> <li>• Impact of counting discharges from select programs reported under the HCUP "Other Payer" category as uninsured (pages 11–13)</li> <li>• ACS includes IHS under uninsured population counts (pages 24–25)</li> <li>• To align definitions, see Supplement 1 for HCUP State-specific recodes for the uninsured to align HCUP with the ACS.</li> <li>• To understand the range of programs that may serve the uninsured, see Appendix C in the Method Series report. This appendix lists which of these programs are identifiable in the State-specific payer coding in the HCUP databases and which are not.</li> </ul>	<p>Comparison of aligned SID uninsured discharges with ACS uninsured population estimates (pages 36–38)</p> <ul style="list-style-type: none"> <li>• Uninsured, all ages (page 36)</li> <li>• Uninsured, ages 0–17 (page 37)</li> <li>• Uninsured, ages 18–64 (page 38)</li> </ul> <p>Detailed tables supporting the comparative figures in the Methods Series report are included in Supplement 4:</p> <ul style="list-style-type: none"> <li>• Table 4H.1 for uninsured, all ages</li> <li>• Table 4H.2 for uninsured, ages 0–17</li> <li>• Table 4H.3 for uninsured, ages 18–64</li> </ul>