



H·CUP
HEALTHCARE COST AND UTILIZATION PROJECT

Emergency Department and Inpatient
Utilization and Cost for Pregnant Women:
Variation by Expected Primary Payer and State of Residence, 2019

December 14, 2021

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OVERVIEW

Each year, about 700 women die in the United States as a result of pregnancy or delivery complications.¹ Approximately 60 percent of the pregnancy-related deaths could be prevented.¹ In the recently released *Healthy Women, Healthy Pregnancies, Healthy Futures: Action Plan to Improve Maternal Health in America*,² the Department of Health and Human Services identified key factors that may contribute to high maternal mortality and morbidity including variation in clinical practice patterns, access to care, and data limitations that inhibit surveillance and research.²

In addition, according to the 2019 results from the Pregnancy Risk Assessment Monitoring System (PRAMS), 59.8 percent of pregnant women have private insurance during the time they need prenatal care, 36.2 percent are on Medicaid, and 2.8 percent have no insurance and may experience barriers when attempting to access care.³ These percentages represent an overall average across 42 States and the District of Columbia, with the distribution of insurance coverage for pregnant women varying by State. Maternity coverage is 1 of the 10 essential health benefits that must be covered by all health insurance plans under the Affordable Care Act.⁴

Timely and State-specific information on hospital use for maternal care by expected payer provides analysts and policymakers with baseline information and helps identify areas of focus for quality improvement efforts. In response to a Congressional mandate for “research that examines the potential cost-savings to the public health system of providing a special enrollment period for pregnant individuals, as well as the impact of a special enrollment period on the private insurance market,”⁵ this data brief presents national, regional, and State-level variation of expected primary payer types among emergency department (ED) visits and inpatient hospitalizations for pregnant women.

For additional information on national estimates of hospital utilization for pregnancy and childbirth, please see [HCUP Statistical Briefs](#). For data on estimates of severe maternal morbidity among delivery hospitalizations, please see [HCUP Fast Stats](#).

¹ Centers for Disease Control and Prevention, 2019. [Pregnancy-Related Deaths](#). (Accessed November 18, 2021).

² Details of the HHS Action Plan are available at https://aspe.hhs.gov/sites/default/files/private/aspe-files/264076/healthy-women-healthy-pregnancies-healthy-future-action-plan_0.pdf (Accessed November 18, 2021).

³ Centers for Disease Control and Prevention. [Selected 2016 through 2019 Maternal Child Health Indicators Aggregate by State](#). (Accessed November 19, 2021).

⁴ Healthcare.gov. [What Marketplace health insurance plans cover](#) (Accessed November 19, 2021)

⁵ Departments of Labor, Health and Human Services, and Education, and related Agencies Appropriations Bill, 2022. Details available at: <https://www.govinfo.gov/content/pkg/CRPT-117hrpt96/html/CRPT-117hrpt96.htm> (Accessed November 29, 2021).

METHODS

State estimates of ED visits and inpatient hospitalizations for pregnant women were derived from the Healthcare Cost and Utilization Project (HCUP) 2019 State Emergency Department Databases (SEDD) and State Inpatient Databases (SID) for 39 States and the District of Columbia for which there was both emergency department and inpatient data available. The SEDD capture information on treat-and-release ED visits that do not result in an admission (i.e., patients who were treated in the ED and then released from the ED, or patients who were transferred to another hospital); the SID contain information on patients admitted to the hospital, regardless of whether they were seen in the ED. National and regional estimates of ED visits for pregnant women were derived from the HCUP 2019 Nationwide Emergency Department Sample (NEDS). The 2019 NEDS is a 20 percent weighted sample of hospital-owned EDs from States included in this report. National and regional estimates of inpatient hospitalizations for pregnant women were derived from the HCUP 2019 National Inpatient Sample (NIS). The 2019 NIS is a 20 percent weighted sample of discharges from all HCUP Partner States.

The analysis was limited to encounters at community hospitals, excluding rehabilitation and long-term acute care facilities, for women aged 12–55 years with a diagnosis or procedure code that indicated the women was pregnant. This report focuses on four types of hospital encounters:⁶

- Treat-and-release ED visits for maternal care, other than delivery
- Treat-and-release ED visits for non-maternal care for pregnant women
- Delivery hospitalizations
- Hospitalizations for maternal care, other than delivery

Organized by region of the country, the number of and aggregate costs for ED visits and hospitalizations are reported by the State of patient's residence and the expected primary payer. Total hospital charges were converted to costs using HCUP Cost-to-Charge Ratios⁷ based on hospital accounting reports from the Centers for Medicare & Medicaid Services (CMS). Costs reflect the actual expenses incurred in the production of hospital services, such as wages, supplies and utility costs, whereas charges represent the amount a hospital billed for the case. For each hospital, a hospital-wide cost-to-charge ratio (specific to either ED or inpatient care) is used. Hospital charges reflect the amount the hospital billed for the entire hospital stay and does not include professional (physician) fees. Expected primary payer for the hospital encounter includes "self-pay" or "no charge," which is generally considered to indicate uninsured patients, Medicaid, private insurance, and "other." Other in this report includes Medicare and other Federal and local government programs (e.g., TRICARE, CHAMPVA, Indian Health Service, Title V).

The HCUP Partner organizations are listed in Appendix A. Background on the HCUP databases is provided in Appendix B. The coding criteria for the different maternal encounter types is provided in Appendix C.

⁶ This report does not include information on inpatient stays for non-maternal care for pregnant women. These types of stays represent 0.2 percent of all maternal encounters in the hospital (ED and inpatient) based on an analysis using the HCUP Nationwide Emergency Department Sample (NEDS) and National Inpatient Sample (NIS).

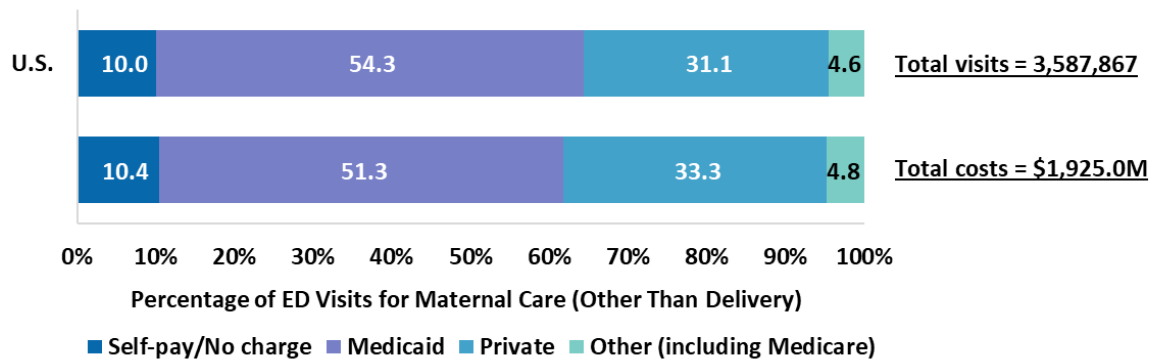
⁷ More information on the HCUP Cost-to-Charge Ratios for emergency department and inpatient data are available on the HCUP User Support website under [Research Tools](#).

RESULTS

The following figures show the national, regional, and State-level distribution of the number of encounters and aggregate costs for four types of hospital encounters for pregnant women by expected primary payer. The States are grouped into different figures by the four Census regions. The underlying data tables for the figures are provided in Appendix D.

Treat-and-Release Emergency Department Visits for Maternal Care, Other than Delivery, 2019

Figure 1a. Number and aggregate cost of treat-and-release emergency department visits for maternal care (other than delivery) by expected primary payer in the United States, 2019

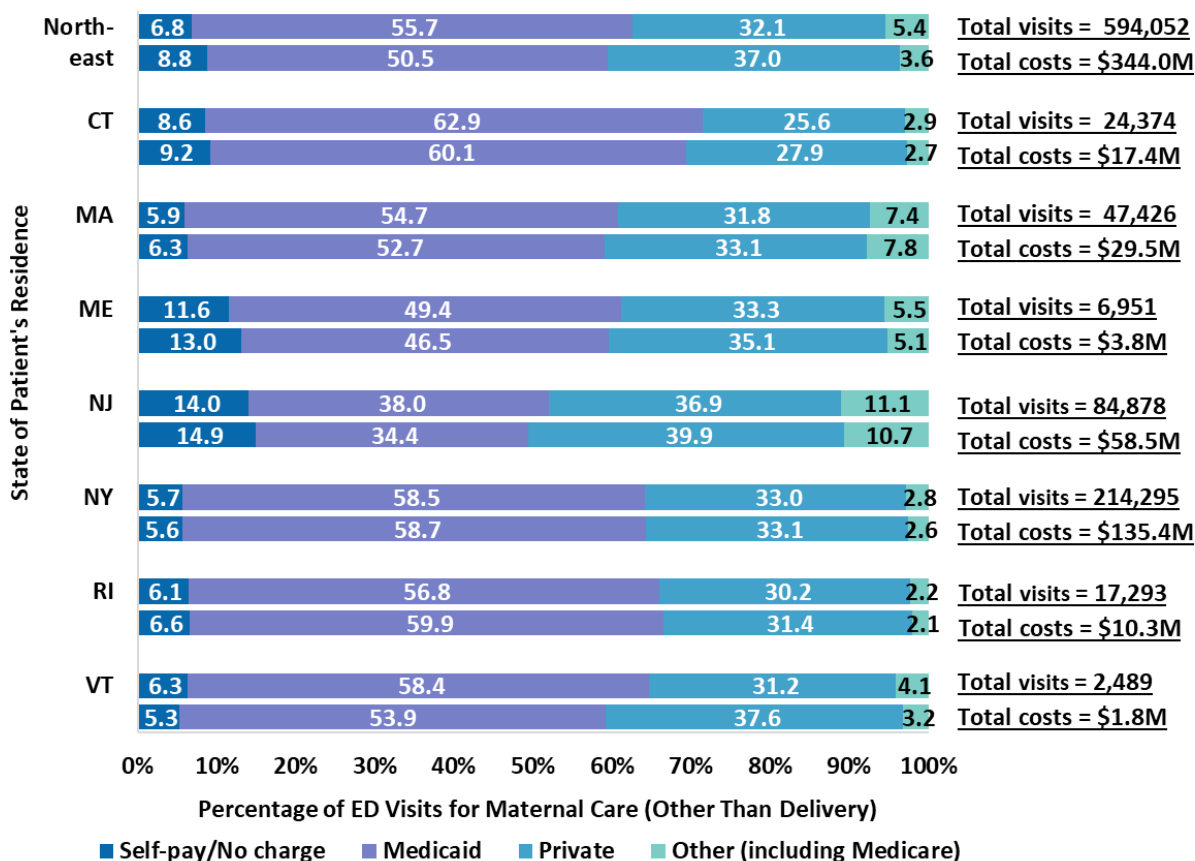


Abbreviation: ED, emergency department

Note: Expected payer information was missing for 0.1 percent of ED visits for maternal care (other than delivery) in the United States.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Emergency Department Sample (NEDS), 2019

Figure 1b. Number and aggregate cost of treat-and-release emergency department visits for maternal care (other than delivery) by expected primary payer and State of residence, States in the Northeast, 2019

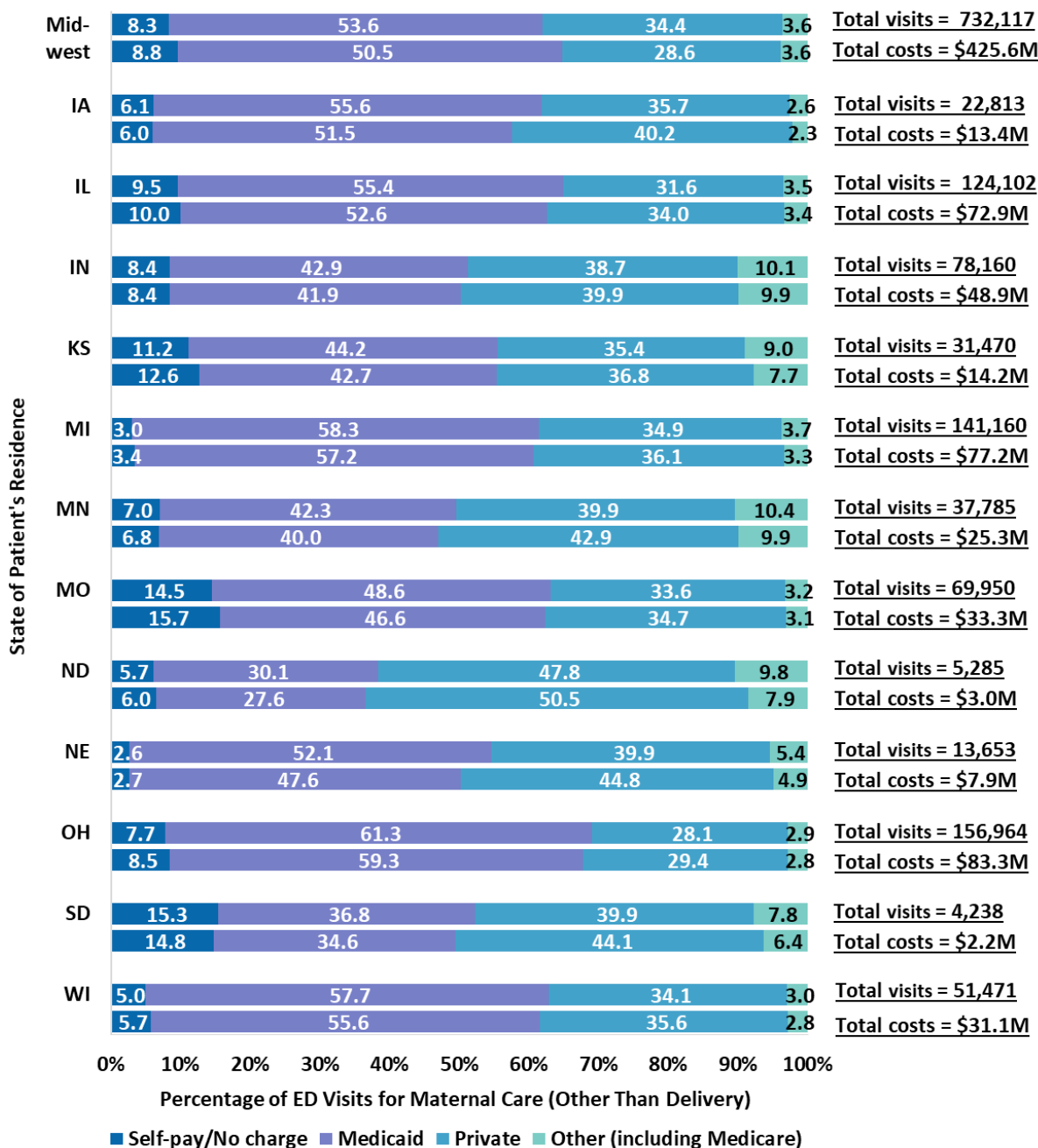


Abbreviation: ED, emergency department

Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient's residence. Expected payer information was missing for less than 0.1 percent of ED visits for maternal care (other than delivery) in the Northeast. This information was missing for less than 0.3 percent of ED visits for maternal care (other than delivery) among patients residing in CT, MA, ME, NJ, and NY, and for 4.7 percent of visits among patients residing in RI.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Emergency Department Sample (NEDS) and State Emergency Department Databases (SEDD), 2019

Figure 1c. Number and aggregate cost of treat-and-release emergency department visits for maternal care (other than delivery) by expected primary payer and State of residence, States in the Midwest, 2019

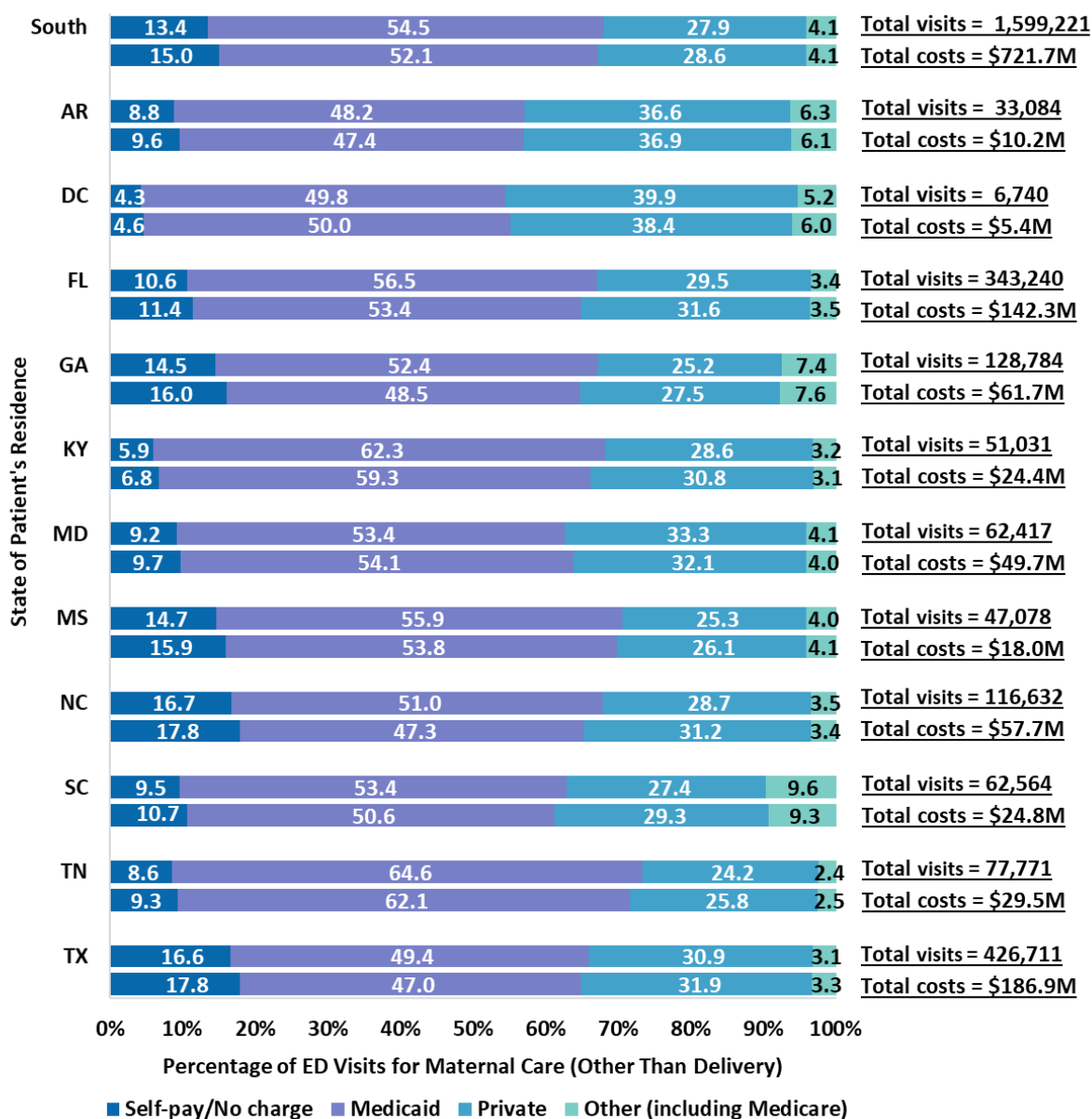


Abbreviation: ED, emergency department

Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient's residence. Expected payer information was missing for 0.1 percent of ED visits for maternal care (other than delivery) in the Midwest. This information was missing for 6.7 percent of ED visits for maternal care among patients residing in North Dakota. For other Midwest States reported in the figure, this information was missing for less than 0.4 percent of visits.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Emergency Department Sample (NEDS) and State Emergency Department Databases (SEDD), 2019

Figure 1d. Number and aggregate cost of treat-and-release emergency department visits for maternal care (other than delivery) by expected primary payer and State of residence, States in the South, 2019

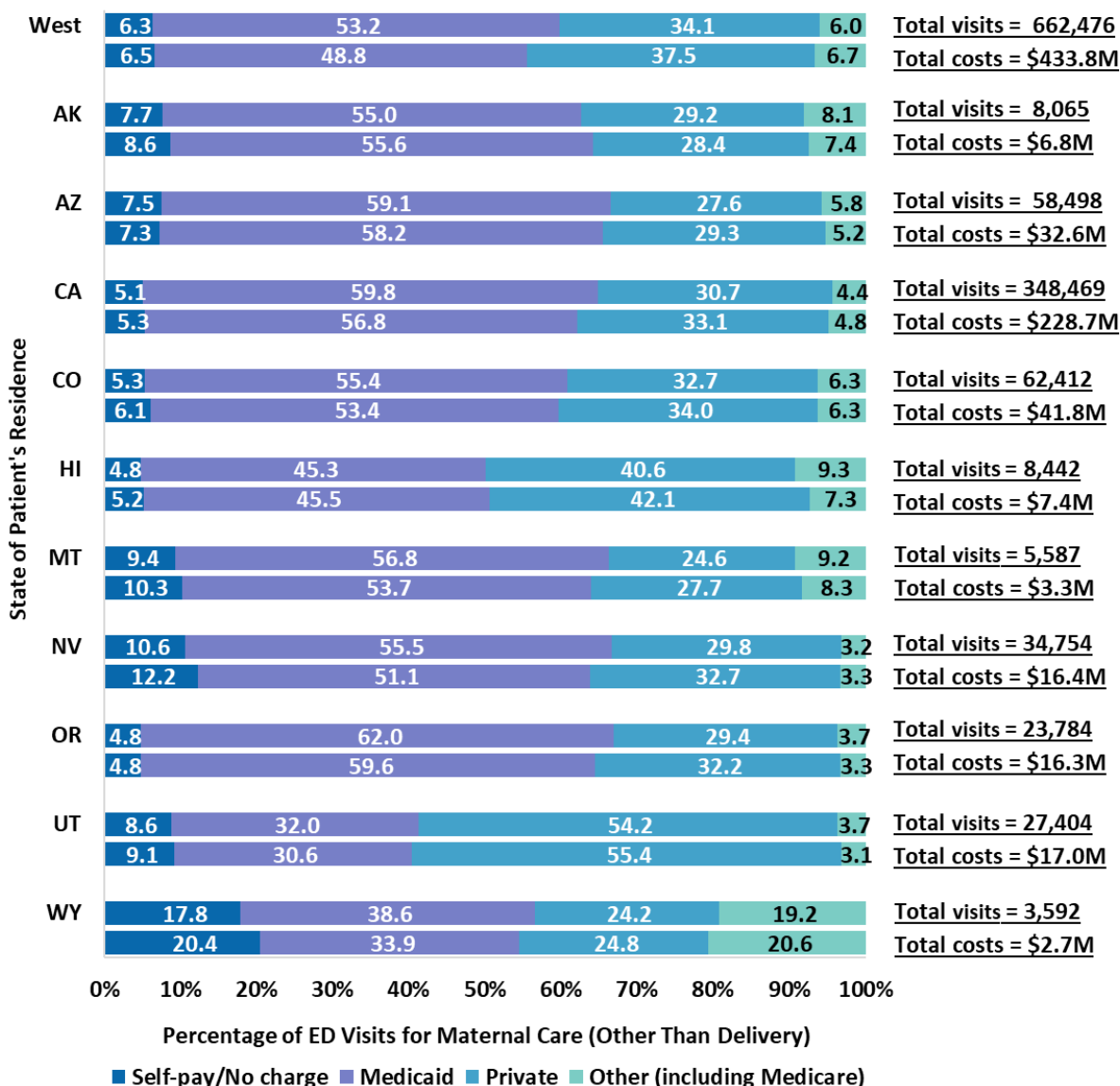


Abbreviation: ED, emergency department

Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient's residence. Expected payer information was missing for 0.1 percent of ED visits for maternal care (other than delivery) in the South. For all States in the South reported in the figure, expected payer information was missing for less than 0.9 percent of ED visits for maternal care.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Emergency Department Sample (NEDS) and State Emergency Department Databases (SEDD), 2019

Figure 1e. Number and aggregate cost of treat-and-release emergency department visits for maternal care (other than delivery) by expected primary payer and State of residence, States in the West, 2019



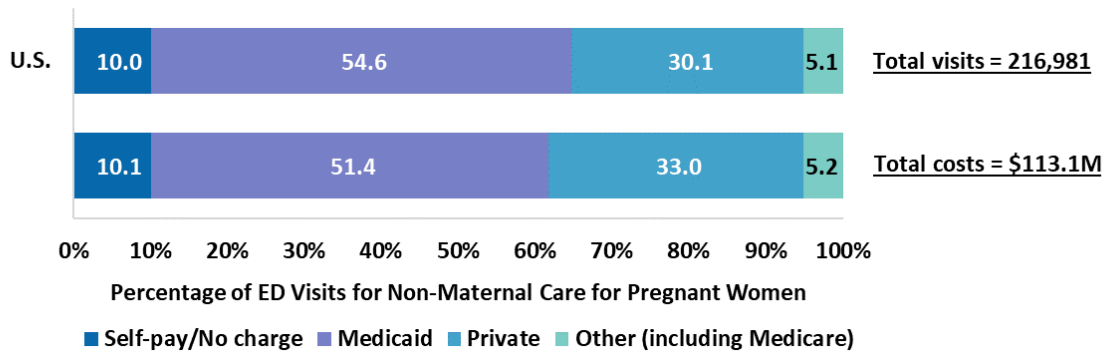
Abbreviation: ED, emergency department

Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient’s residence. Expected payer information was missing for 0.4 percent of ED visits for maternal care (other than delivery) in the West. This information was missing for 1.5 percent of ED visits for maternal care among patients residing in UT, and for less than 1.0 percent of visits among patients residing in AZ, CA, CO, HI, MT, NV, OR, and WY.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Emergency Department Sample (NEDS) and State Emergency Department Databases (SEDD), 2019

Treat-and-Release Emergency Department Visits for Non-Maternal Care for Pregnant Women, 2019

Figure 2a. Number and aggregate cost of treat-and-release emergency department visits for non-maternal care for pregnant women by expected primary payer in the United States, 2019

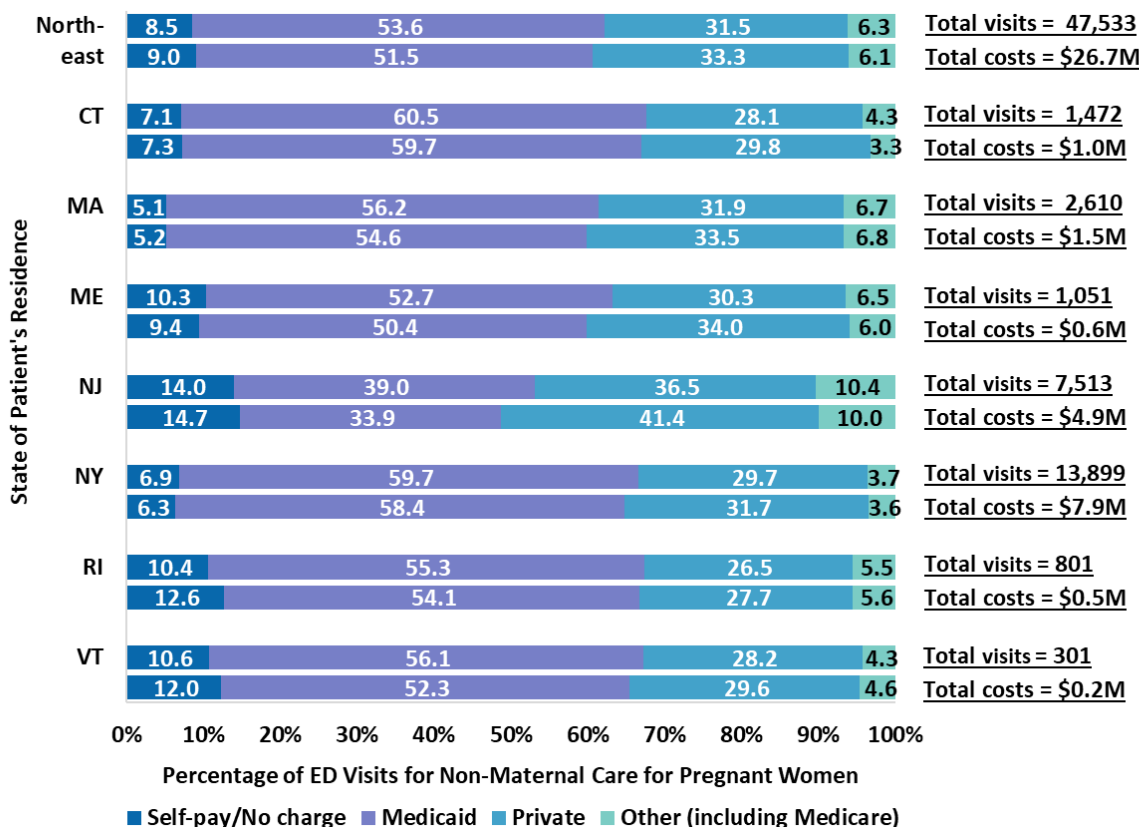


Abbreviation: ED, emergency department

Note: Expected payer information was missing for 0.2 percent of ED visits for non-maternal care for pregnant women in the United States.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Emergency Department Sample (NEDS), 2019

Figure 2b. Number and aggregate cost of treat-and-release emergency department visits for non-maternal care for pregnant women by expected primary payer and State of residence, States in the Northeast, 2019

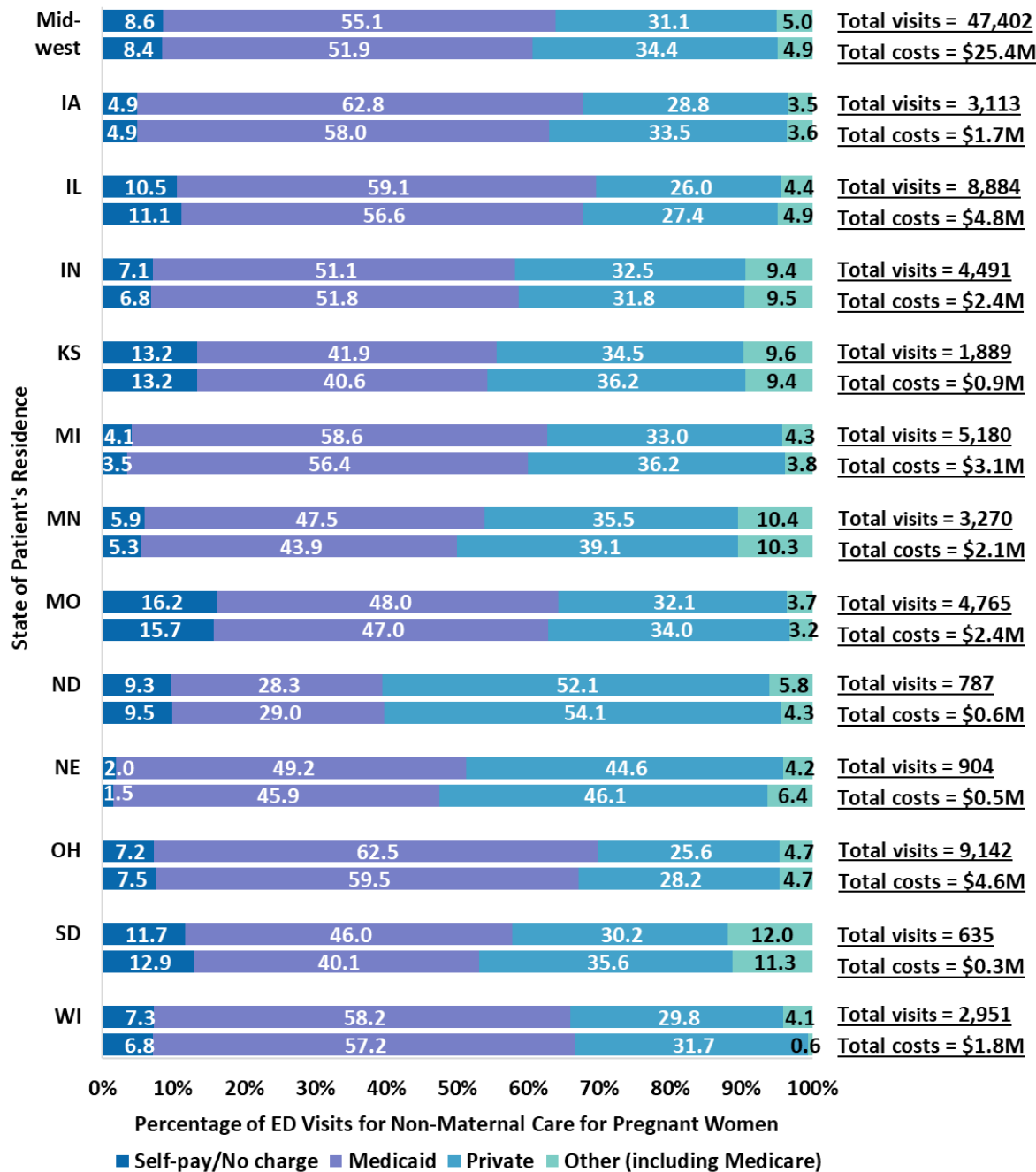


Abbreviation: ED, emergency department

Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient's residence. Expected payer information was missing for less than 0.1 percent of ED visits for non-maternal care for pregnant women in the Northeast. This information was missing for 2.4 percent of ED visits for non-maternal care for pregnant women among patients residing in RI, and for less than 1.0 percent of these visits among patients residing in MA, ME, NY, and VT.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Emergency Department Sample (NEDS) and State Emergency Department Databases (SEDD), 2019

Figure 2c. Number and aggregate cost of treat-and-release emergency department visits for non-maternal care for pregnant women by expected primary payer and State of residence, States in the Midwest, 2019

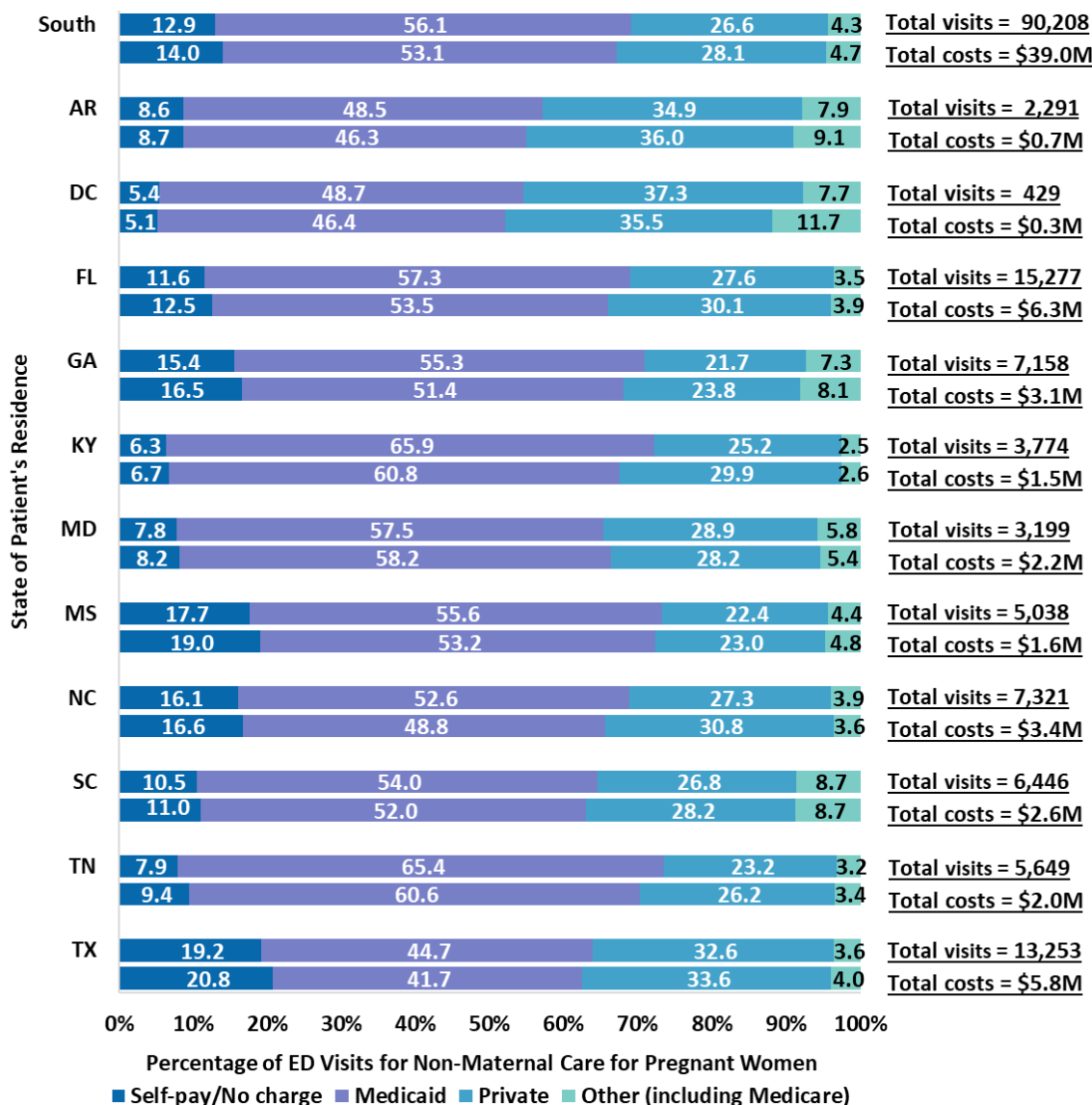


Abbreviation: ED, emergency department

Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient's residence. Expected payer information was missing for 0.3 percent of ED visits for non-maternal care for pregnant women in the Midwest. This information was missing for 4.5 percent of ED visits for non-maternal care for pregnant women among patients residing in ND, and for less than 1.0 percent of these visits among patients residing in KS, MI, MN, MO, OH, SD, and WI.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Emergency Department Sample (NEDS) and State Emergency Department Databases (SEDD), 2019

Figure 2d. Number and aggregate cost of treat-and-release emergency department visits for non-maternal care for pregnant women by expected primary payer and State of residence, States in the South, 2019

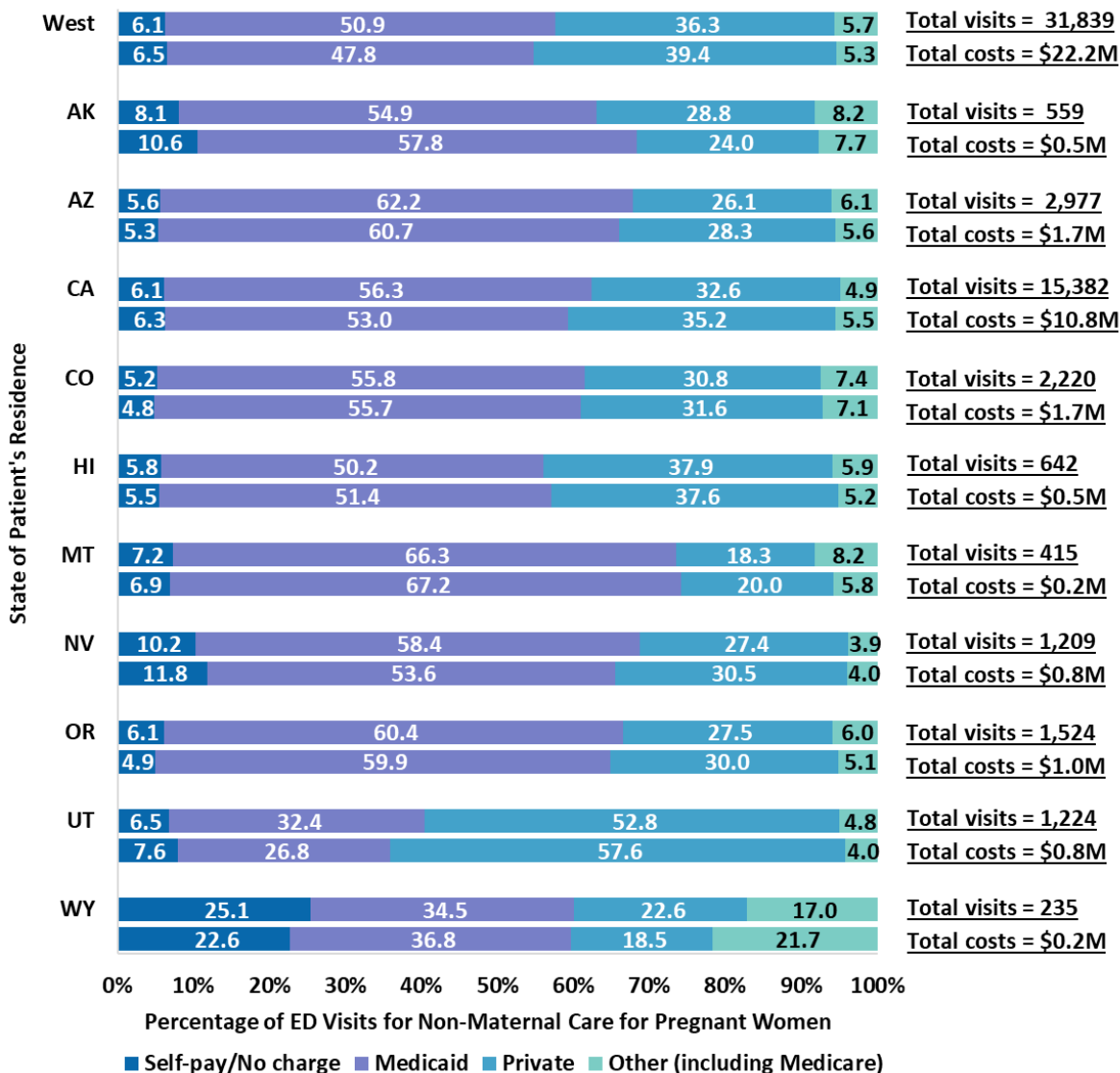


Abbreviation: ED, emergency department

Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient's residence. Expected payer information was missing for 0.1 percent of ED visits for non-maternal care for pregnant women in the South. This information was missing for less than 1.0 percent of ED visits for non-maternal care for pregnant women residing in DC, GA, KY, MD, NC, SC, TN, and TX.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Emergency Department Sample (NEDS) and State Emergency Department Databases (SEDD), 2019

Figure 2e. Number and aggregate cost of treat-and-release emergency department visits for non-maternal care for pregnant women by expected primary payer and State of residence, States in the West, 2019



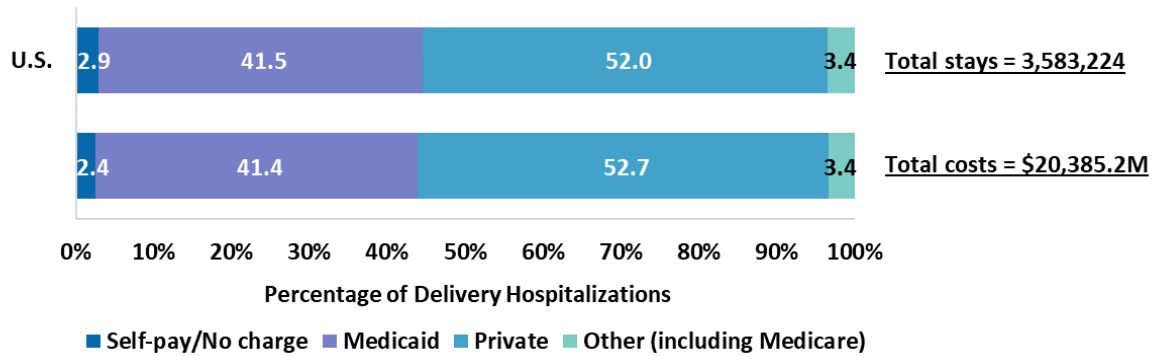
Abbreviation: ED, emergency department

Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient's residence. Expected payer information was missing for 1.0 percent of ED visits for non-maternal care for pregnant women in the West. This information was missing for 3.4 percent of ED visits for non-maternal care for pregnant women residing in UT, and for less than 0.9 percent of visits among patients residing in CA, CO, HI, NV, and WY.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Emergency Department Sample (NEDS) and State Emergency Department Databases (SEDD), 2019

Delivery Hospitalizations, 2019

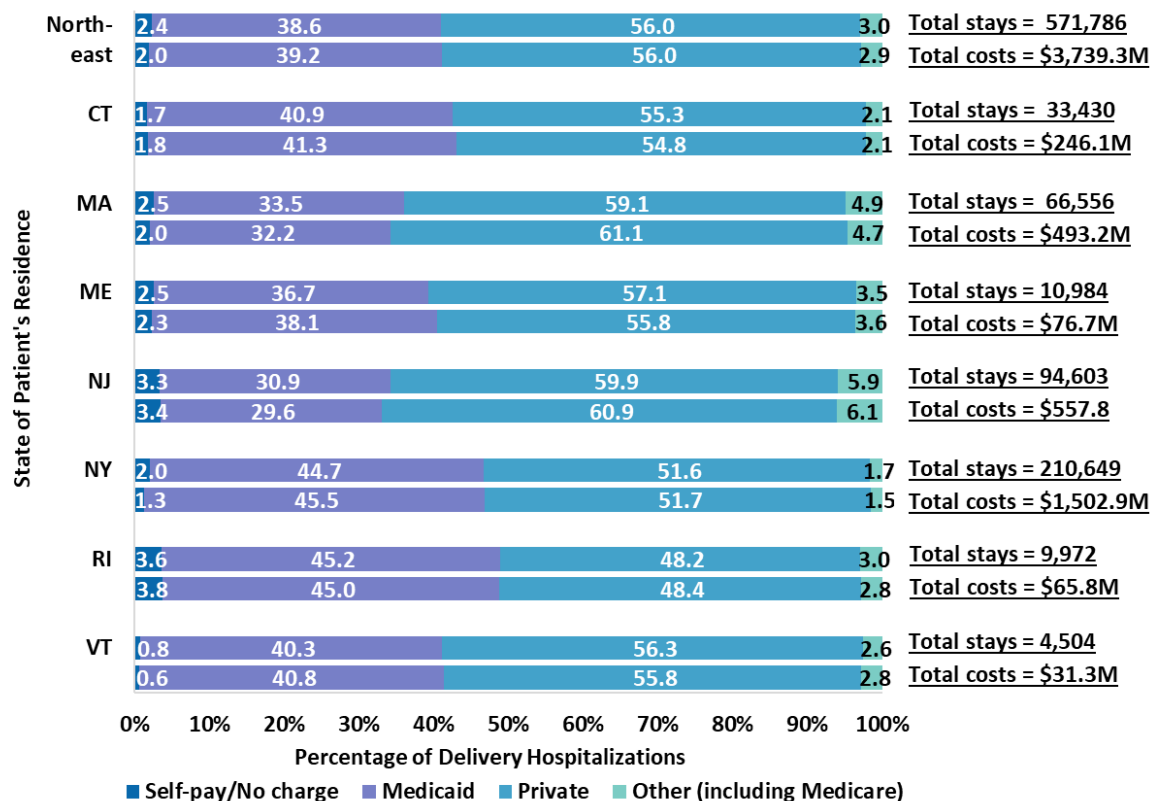
Figure 3a. Number and aggregate cost of delivery hospitalizations by expected primary payer in the United States, 2019



Note: Expected payer information was missing for 0.1 percent of delivery hospitalizations in the United States.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), National Inpatient Sample (NIS), 2019

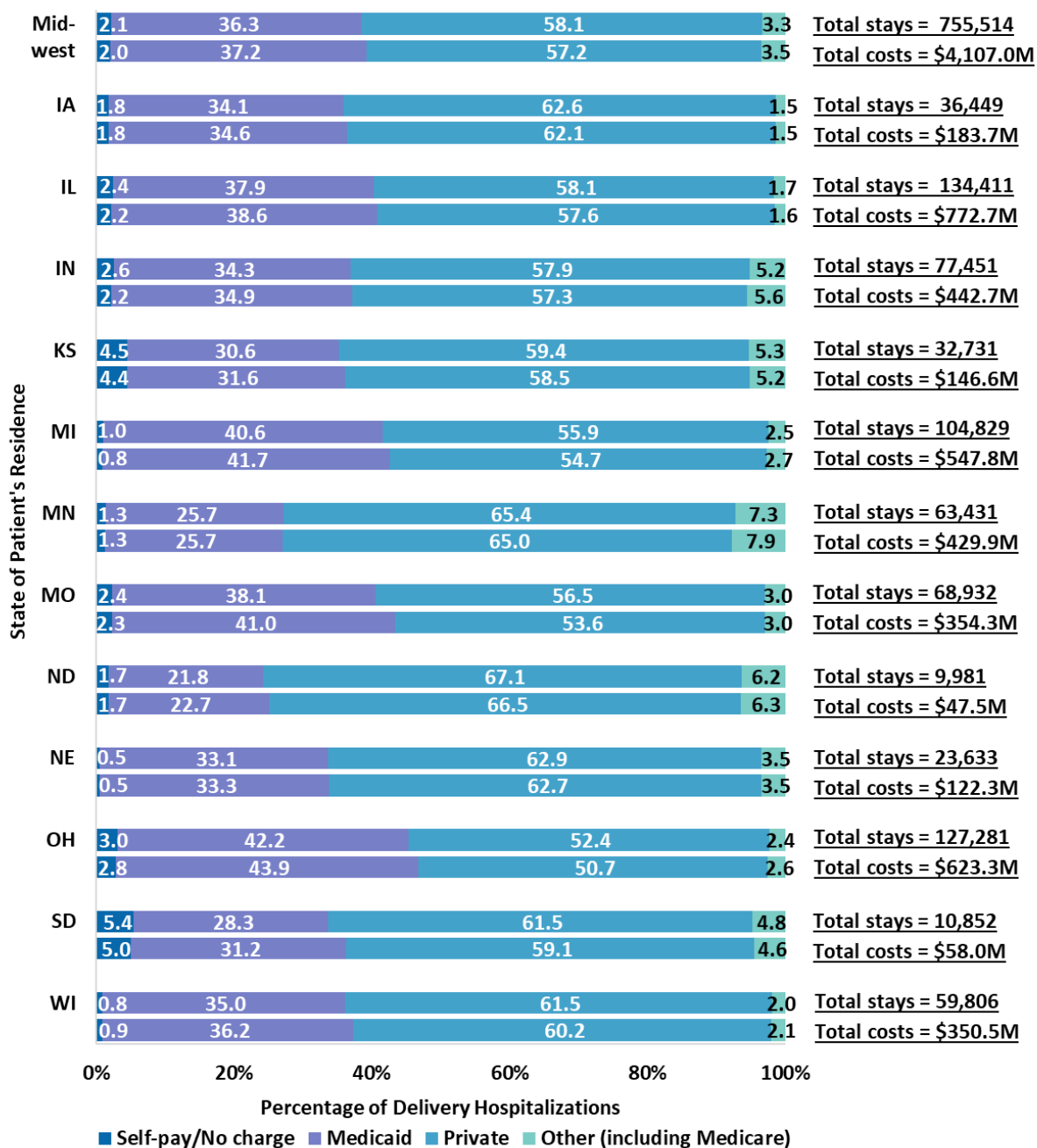
Figure 3b. Number and aggregate cost of delivery hospitalizations by expected primary payer and State of residence, States in the Northeast, 2019



Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient’s residence. Expected payer information was missing for 0.1 percent of delivery hospitalizations in the Northeast. This information was missing for less than 0.3 percent of delivery hospitalizations among patients residing in CT, MA, ME, NJ, and NY.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), National Inpatient Sample (NIS) and State Inpatient Databases (SID), 2019

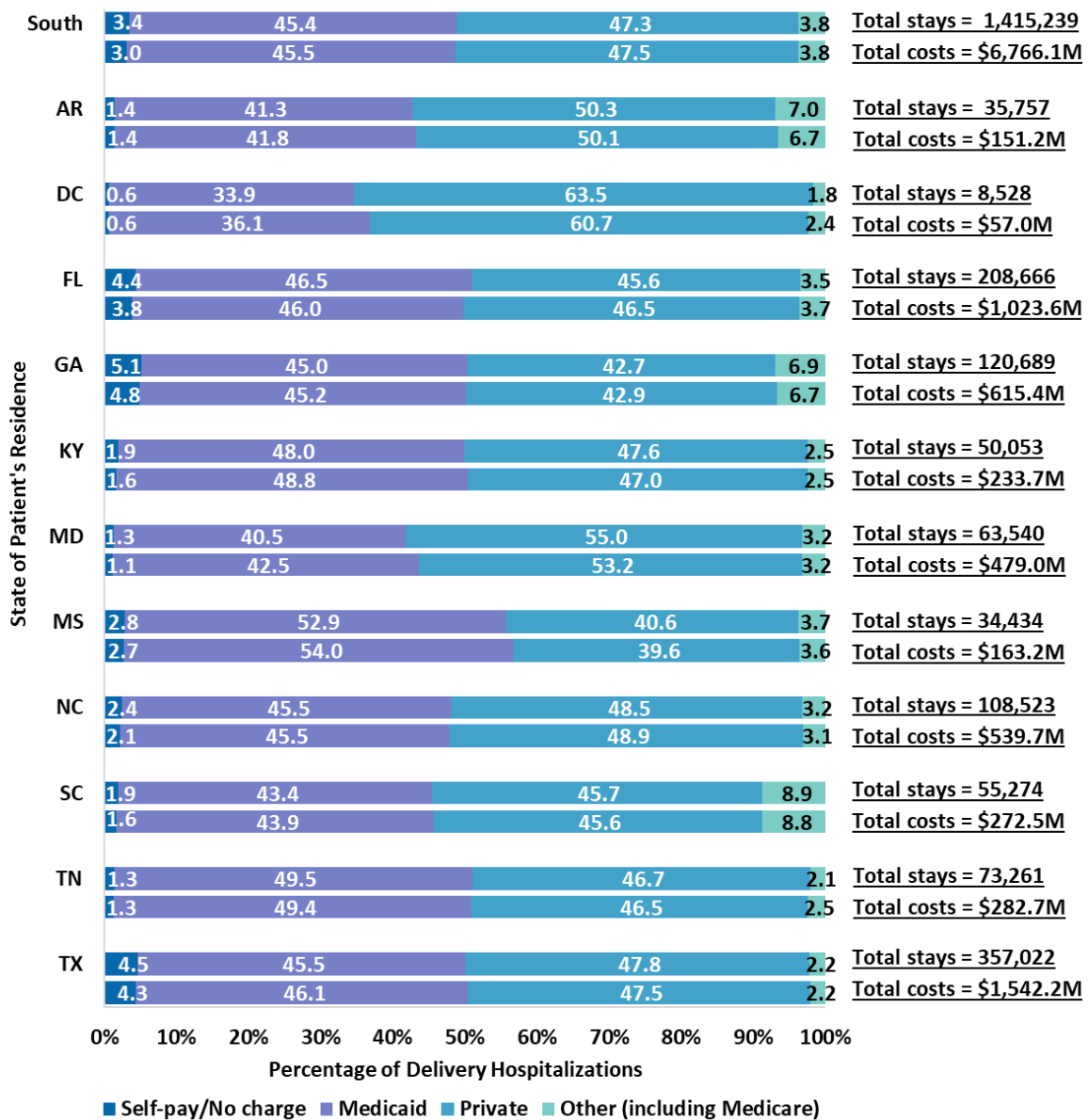
Figure 3c. Number and aggregate cost of delivery hospitalizations by expected primary payer and State of residence, States in the Midwest, 2019



Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient’s residence. Expected payer information was missing for 0.1 percent of delivery hospitalizations in the Midwest. This information was missing for 3.2 percent of delivery hospitalizations among patients residing in ND, and for less than 0.7 percent of visits among patients residing in IL, KS, MI, MN, MO, OH, SD, and WI.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), National Inpatient Sample (NIS) and State Inpatient Databases (SID), 2019

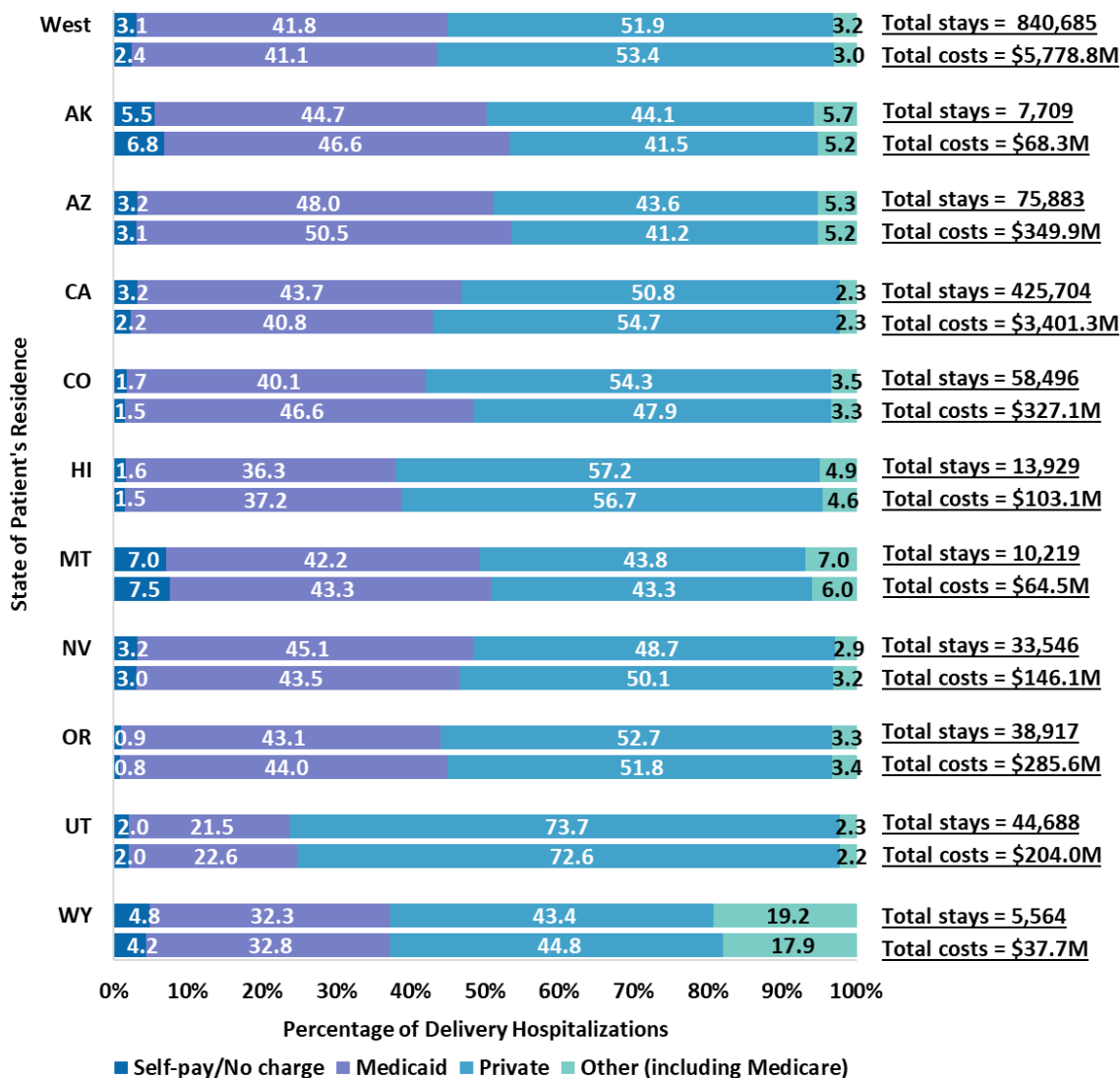
Figure 3d. Number and aggregate cost of delivery hospitalizations by expected primary payer and State of residence, States in the South, 2019



Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient’s residence. Expected payer information was missing for 0.1 percent of delivery hospitalizations in the South. For all States in the South reported in the figure, expected payer information was missing for less than 0.5 percent of delivery hospitalizations.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), National Inpatient Sample (NIS) and State Inpatient Databases (SID), 2019

Figure 3e. Number and aggregate cost of delivery hospitalizations by expected primary payer and State of residence, States in the West, 2019

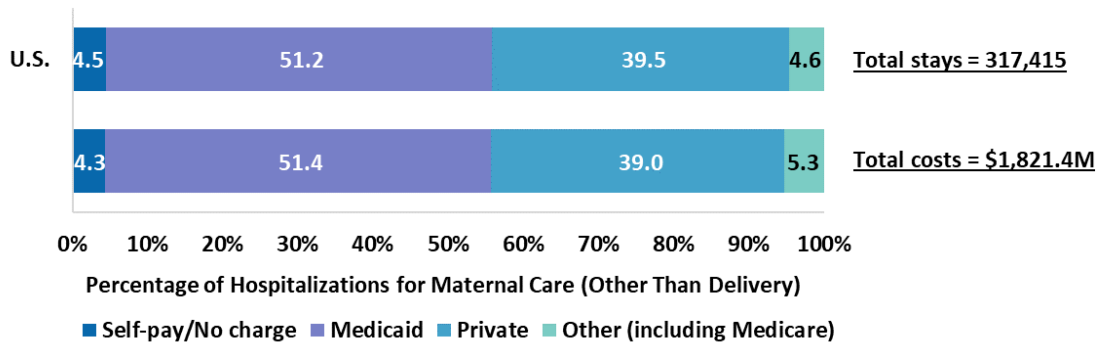


Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient's residence. Expected payer information was missing for 0.2 percent of delivery hospitalizations in the West. For all States in the West reported in the figure, expected payer information was missing for less than 0.5 percent of delivery hospitalizations.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), National Inpatient Sample (NIS) and State Inpatient Databases (SID), 2019

Hospitalizations for Maternal Care, Other Than Delivery, 2019

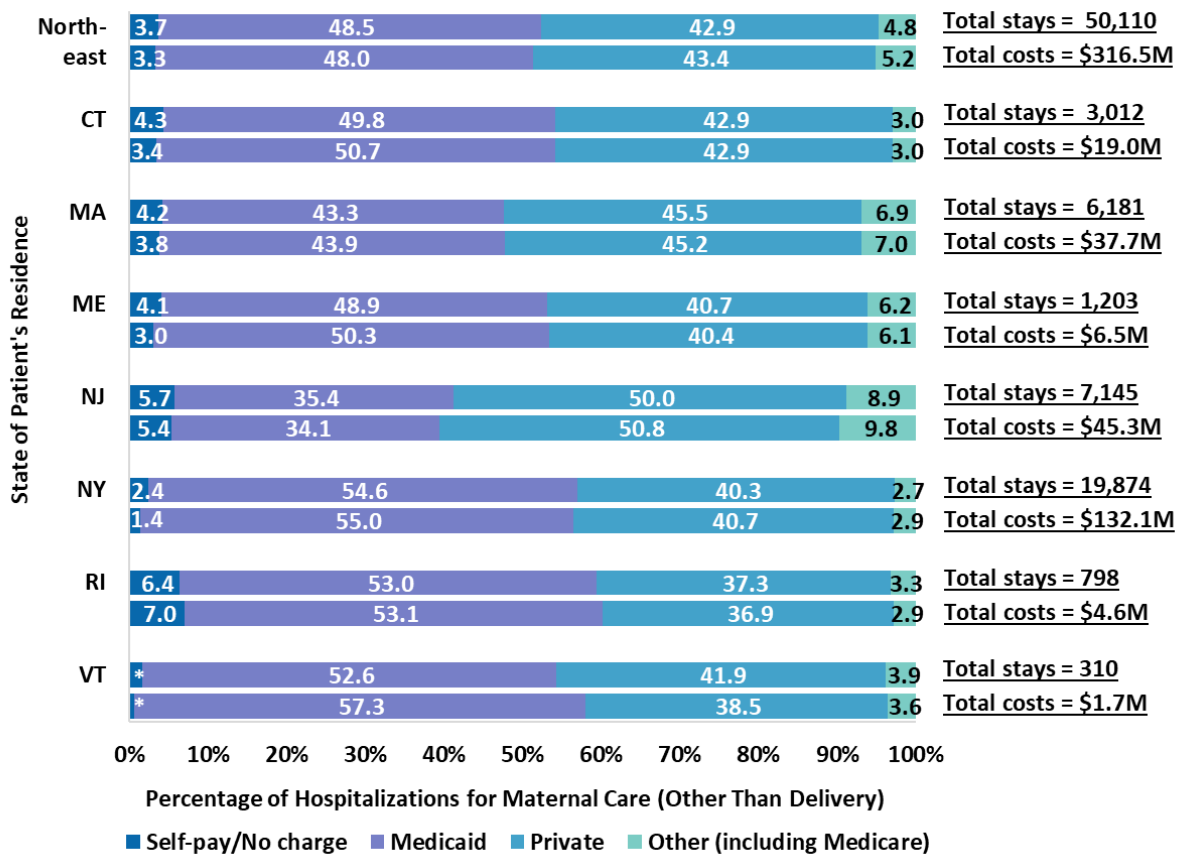
Figure 4a. Number and aggregate cost of hospitalizations for maternal care (other than delivery) by expected primary payer in the United States, 2019



Note: Expected payer information was missing for 0.2 percent of hospitalizations for maternal care (other than delivery) in the United States.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), National Inpatient Sample (NIS), 2019

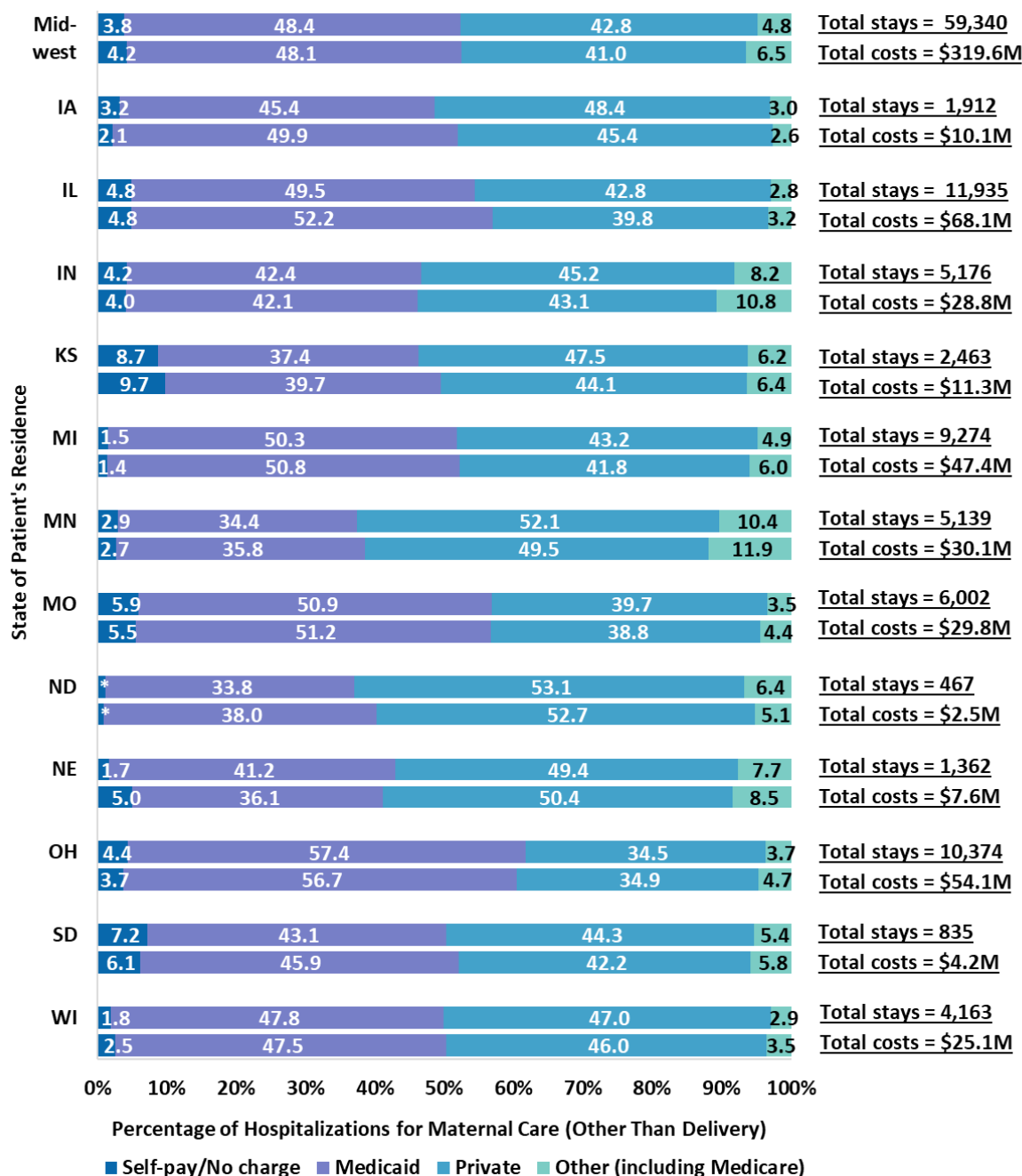
Figure 4b. Number and aggregate cost of hospitalizations for maternal care (other than delivery) by expected primary payer and State of residence, States in the Northeast, 2019



Notes: An asterisk indicates that the number of hospitalizations (stays) was less than or equal to 10 and the information on stays and aggregate costs are suppressed. Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient's residence. Expected payer information was missing for 0.1 percent of hospitalizations for maternal care (other than delivery) in the Northeast. This information was missing for less than 0.2 percent of hospitalizations for maternal care (other than delivery) among patients residing in MA, ME, and NY.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), National Inpatient Sample (NIS) and State Inpatient Databases (SID), 2019

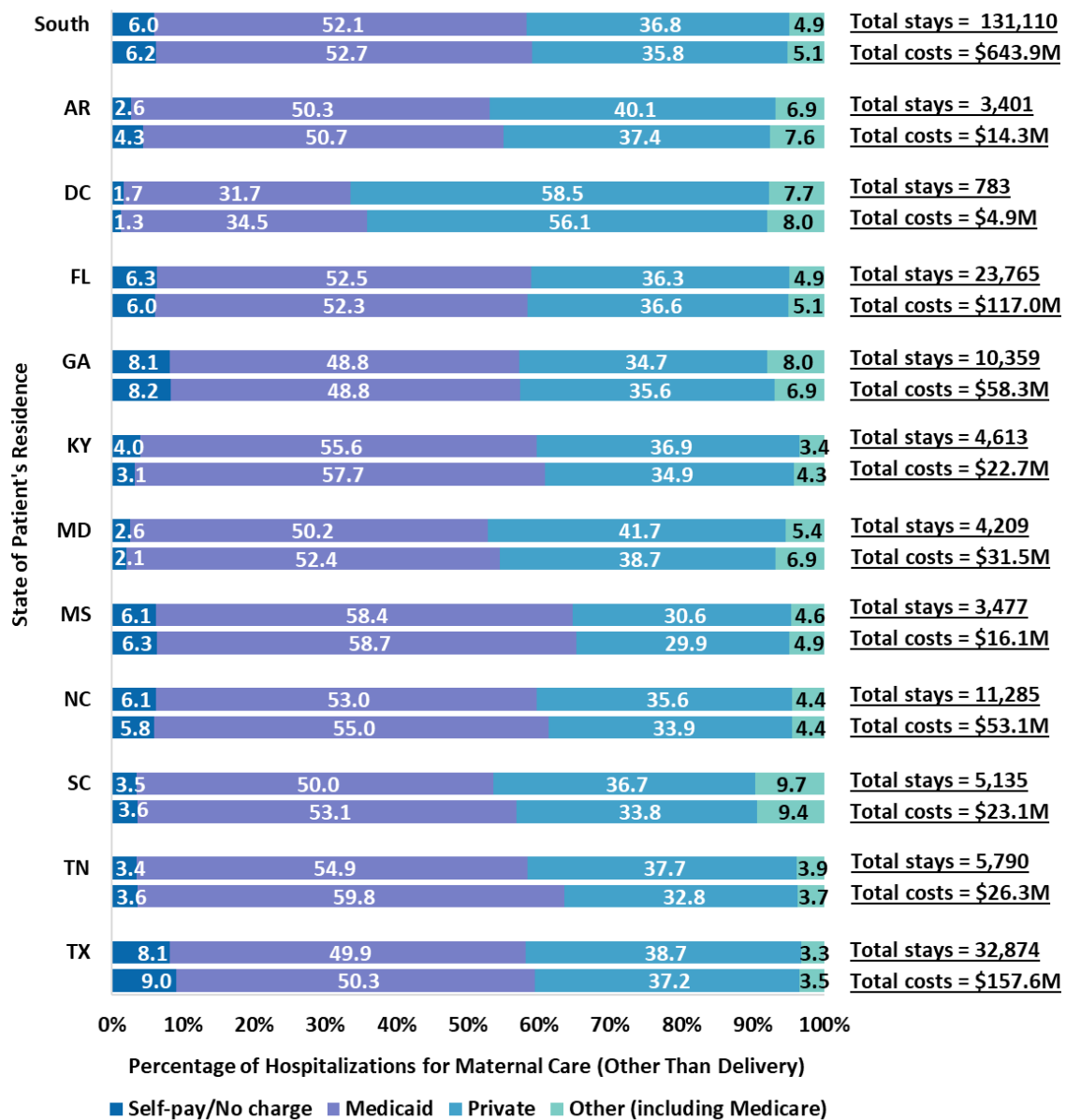
Figure 4c. Number and aggregate cost of hospitalizations for maternal care (other than delivery) by expected primary payer and State of residence, States in the Midwest, 2019



Notes: An asterisk indicates that the number of hospitalizations (stays) was less than or equal to 10 and the information on stays and aggregate costs are suppressed. Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient's residence. Expected payer information was missing for 0.2 percent of hospitalizations for maternal care (other than delivery) in the Midwest. This information was missing for 5.6 percent of hospitalizations for maternal care (other than delivery) among patients residing in ND, and for less than 0.4 percent of hospitalizations among patients residing in KS, MI, MN, MO, and WI.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), National Inpatient Sample (NIS) and State Inpatient Databases (SID), 2019

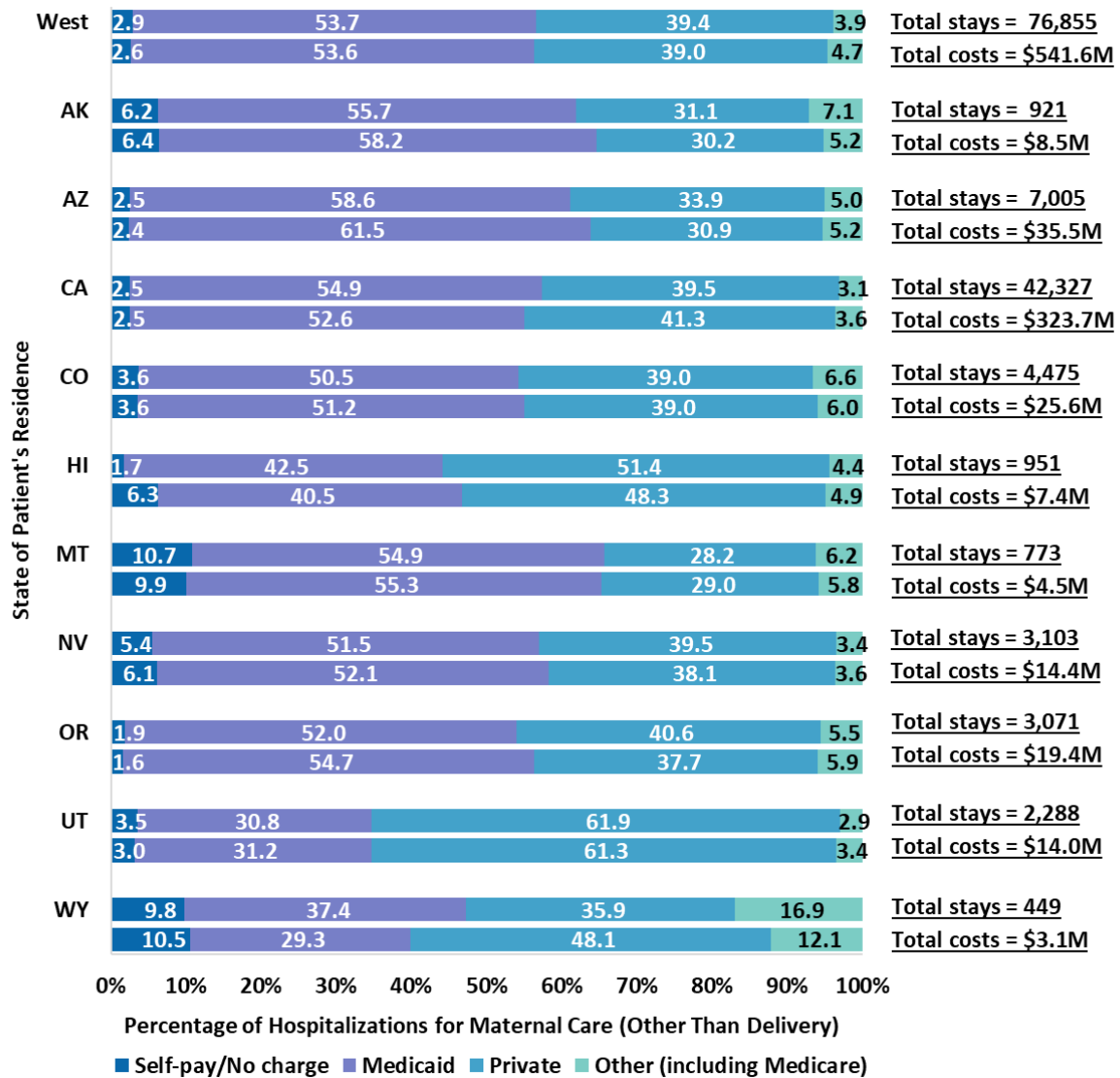
Figure 4d. Number and aggregate cost of hospitalizations for maternal care (other than delivery) by expected primary payer and State of residence, States in the South, 2019



Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient's residence. Expected payer information was missing for 0.2 percent of hospitalizations for maternal care (other than delivery) in the South. For all States in the South reported in this figure, expected payer information was missing for less than 1.0 percent of hospitalizations for maternal care (other than delivery).

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), National Inpatient Sample (NIS) and State Inpatient Databases (SID), 2019

Figure 4e. Number and aggregate cost of hospitalizations for maternal care (other than delivery) by expected primary payer and State of residence, States in the West, 2019



Notes: Regional estimates will differ from the sum of the included State-specific estimates because of weighting that accounts for States not included in this report. In addition, regional estimates are based on hospital region, whereas State-level estimates are based on State of patient's residence. Expected payer information was missing for 0.2 percent of hospitalizations for maternal care (other than delivery) in the West. For all States in the West reported in this figure, expected payer information was missing for less than 1.0 percent of hospitalizations for maternal care (other than delivery).

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), National Inpatient Sample (NIS) and State Inpatient Databases (SID), 2019

APPENDIX A. HCUP PARTNER ORGANIZATIONS

Asterisks indicate HCUP Partner organizations for which data are reported by State (i.e., Partners for which both emergency department and inpatient data are available for 2019).

Alaska Department of Health and Social Services*
Arizona Department of Health Services*
Arkansas Department of Health*
California Department of Health Care Access and Information*
Colorado Hospital Association*
Connecticut Hospital Association*
Delaware Division of Public Health
District of Columbia Hospital Association*
Florida Agency for Health Care Administration*
Georgia Hospital Association*
Hawaii Laulima Data Alliance*
Illinois Department of Public Health*
Indiana Hospital Association*
Iowa Hospital Association*
Kansas Hospital Association*
Kentucky Cabinet for Health and Family Services*
Louisiana Department of Health
Maine Health Data Organization*
Maryland Health Services Cost Review Commission*
Massachusetts Center for Health Information and Analysis*
Michigan Health & Hospital Association*
Minnesota Hospital Association (provides data for Minnesota and North Dakota) *
Mississippi State Department of Health*
Missouri Hospital Industry Data Institute*
Montana Hospital Association*
Nebraska Hospital Association*
Nevada Department of Health and Human Services*
New Hampshire Department of Health & Human Services
New Jersey Department of Health*
New Mexico Department of Health
New York State Department of Health*
North Carolina Department of Health and Human Services*
North Dakota (data provided by the Minnesota Hospital Association) *
Ohio Hospital Association*
Oklahoma State Department of Health
Oregon Association of Hospitals and Health Systems*
Pennsylvania Health Care Cost Containment Council
Rhode Island Department of Health*
South Carolina Revenue and Fiscal Affairs Office*
South Dakota Association of Healthcare Organizations*
Tennessee Hospital Association*
Texas Department of State Health Services*
Utah Department of Health*
Vermont Association of Hospitals and Health Systems*
Virginia Health Information
Washington State Department of Health
West Virginia Department of Health and Human Resources, West Virginia Health Care Authority
Wisconsin Department of Health Services*
Wyoming Hospital Association*

APPENDIX B. HEALTHCARE COST AND UTILIZATION PROJECT (HCUP) DATABASES

The Healthcare Cost and Utilization Project is a family of healthcare databases and related software tools and products developed through a Federal-State-Industry partnership and sponsored by the Agency for Healthcare Research and Quality (AHRQ). HCUP databases bring together the data collection efforts of State data organizations, hospital associations, and private data organizations (HCUP Partners) and the Federal government to create a national information resource of encounter-level health care data. HCUP includes the largest collection of longitudinal hospital care data in the United States, with all-payer, encounter-level information beginning in 1988. These databases enable research on a broad range of health policy issues, including cost and quality of health services, medical practice patterns, access to healthcare programs, and outcomes of treatments at the national, State, and local market levels.

The HCUP **State Emergency Department Databases (SEDD)** include information from hospital-owned emergency departments (EDs) from data organizations participating in HCUP, translated into a uniform format to facilitate multistate comparisons and analyses. The SEDD capture information on ED visits that do not result in an admission to the same hospital (i.e., patients who are treated in the ED and then discharged, transferred to another hospital, left against medical advice, or died). Researchers and policymakers use the SEDD to investigate questions related to ED care unique to one State, to compare data from two or more States, to conduct market area research or small variation analyses, and to identify State-specific trends.

The HCUP **State Inpatient Databases (SID)** contain the universe of the inpatient discharge abstracts from participating States that are translated into a uniform format to facilitate multistate comparisons and analyses. The SID capture information on all type of inpatient discharges including those admitted through the ED of the hospital, direct admissions, and transfers from acute care hospitals and other types of health facilities. Researchers and policymakers use the SID to investigate questions related to inpatient care unique to one State, to compare data from two or more States, to conduct market area research or small variation analyses, and to identify State-specific trends.

Sampled from the SEDD and SID, the HCUP **Nationwide Emergency Department Sample (NEDS)** was created to enable national and regional analyses of ED utilization patterns and to support researchers, policymakers, and clinicians in their decision-making regarding this critical source of care. The NEDS is a 20-percent sample of hospital-owned EDs. Available from data years 2006 through 2019, the NEDS can be used to analyze trends over time. In the 2019, the NEDS includes data from 40 States and the District of Columbia.

The HCUP **National Inpatient Sample (NIS)** is sampled from the SID and designed to produce national and regional estimates of inpatient utilization, access, cost, quality, and outcomes. The NIS approximates a 20-percent stratified sample of discharges from U.S. community hospitals, excluding rehabilitation and long-term acute care hospitals. The number of States participating in the NIS has grown from 8 in the first year (1988) to 48, plus the District of Columbia, in 2019.

The HCUP databases contain more than 100 clinical and nonclinical data elements included in a hospital abstract, such as:

- First-listed/principal and secondary diagnoses and procedures
- Admission and discharge status
- Patient demographics characteristics (e.g., sex, age, and, for some States, race/ethnicity)
- Expected payment source
- Total charges
- Length of stay.

More information is available on the HCUP User Support website (www.hcup-us.ahrq.gov).

APPENDIX C. CLINICAL CODING CRITERIA

The report was limited to emergency department (ED) visits and inpatient hospitalizations females aged 12–55 years old. The type of maternal encounter was determined as follows:

- ED visits for maternal care were specific to encounters in which the first-listed diagnosis indicated a maternal condition. See Table C.1 for information on the identification of maternal diagnoses.
- ED visits for non-maternal care for pregnant women were specific to encounters in which the first-listed diagnosis does not indicate a maternal condition, but either a secondary diagnosis indicates a maternal condition, or a procedure code indicates treatment for a maternal condition. See Table C.2 for information on the identification of maternal procedures in the ED.
- Delivery hospitalizations were specific to inpatient stays in which the woman delivered a child (excluding abortions). See Table C.3 for information on the identification of deliveries.
- Hospitalizations for maternal care, other than delivery, were specific to inpatient stays in which the principal diagnosis indicated a maternal condition. See Table C.1 for information on the identification of maternal diagnoses.

Table C.1 Maternal diagnoses identified by Clinical Classifications Software Refined (CCSR) for ICD-10-CM diagnoses

CCSR Category	CCSR Category Description
PRG001	Antenatal screening
PRG002	Gestational weeks
PRG003	Spontaneous abortion and complications of spontaneous abortion
PRG004	Induced abortion and complications of termination of pregnancy
PRG005	Ectopic pregnancy and complications of ectopic pregnancy
PRG006	Molar pregnancy and other abnormal products of conception
PRG007	Complications following ectopic and/or molar pregnancy
PRG008	Supervision of high-risk pregnancy
PRG009	Early, first or unspecified trimester hemorrhage
PRG010	Hemorrhage after first trimester
PRG011	Early or threatened labor
PRG012	Multiple gestation
PRG013	Maternal care related to fetal conditions
PRG014	Polyhydramnios and other problems of amniotic cavity
PRG015	Obstetric history affecting care in pregnancy
PRG016	Previous C-section
PRG017	Maternal care for abnormality of pelvic organs
PRG018	Maternal care related to disorders of the placenta and placental implantation
PRG019	Diabetes or abnormal glucose tolerance complicating pregnancy; childbirth; or the puerperium
PRG020	Hypertension and hypertensive-related conditions complicating pregnancy; childbirth; and the puerperium
PRG021	Maternal intrauterine infection
PRG022	Prolonged pregnancy
PRG023	Complications specified during childbirth
PRG024	Malposition, disproportion or other labor complications
PRG025	Anesthesia complications during pregnancy
PRG026	OB-related trauma to perineum and vulva
PRG027	Complications specified during the puerperium
PRG028	Other specified complications in pregnancy
PRG029	Uncomplicated pregnancy, delivery or puerperium
PRG030	Maternal outcome of delivery

Abbreviations: CCSR, Clinical Classifications Software Refined; ICD-10-CM, International Classification of Diseases, Tenth Revision, Clinical Modification.

Note: Information on the Clinical Classifications Software Refined for ICD-10-CM Diagnoses is available on the HCUP User Support website under [Research Tools](#).

Table C.2 Maternal procedures identified by Clinical Classifications Software (CCS) for Services and Procedures

CCS Category	CCS Category Description
122	Removal of ectopic pregnancy
126	Abortion (termination of pregnancy)
127	Dilatation and curettage (D&C), aspiration after delivery or abortion
134	Cesarean section
135	Forceps, vacuum, and breech delivery
137	Other procedures to assist delivery
138	Diagnostic amniocentesis
139	Fetal monitoring
140	Repair of current obstetric laceration
141	Other therapeutic obstetrical procedures including antepartum and postpartum care

Abbreviations: CCS, Clinical Classifications Software.

Note: Information on the Clinical Classifications Software for Services and Procedures is available on the HCUP User Support website under [Research Tools](#).

Table C.3 Identification of deliveries by ICD-10-CM diagnoses, ICD-10-PCS procedures, and Medicare-Severity Diagnostic Related Groups (MS-DRG)

Deliveries are identified by any of the following delivery diagnoses, procedures, or MS-DRGs, excluding records with an indication of abortion.

Clinical Coding Criteria for Deliveries
Delivery diagnoses:
Any diagnosis of Z370–Z379 (Outcome of delivery)
Any diagnosis of O80 (Vaginal delivery)
Any diagnosis of O82, O7582 (Cesarean delivery)
Delivery procedures:
Any procedure codes 10D00Z0-10D00Z2 (Extraction of Products of Conception, Open Approach)
Any procedure codes 10D07Z3-0D07Z8 (Extraction of Products of Conception, Via Natural or Artificial Opening)
Any procedure codes 10E0XZZ (Delivery of Products of Conception, External Approach)
Delivery MS-DRGs:
MS-DRG 768 Vaginal Delivery with O.R. Procedure except Sterilization &/or D&C
MS-DRG 783 Cesarean Section with Sterilization with MCC
MS-DRG 784 Cesarean Section with Sterilization with CC
MS-DRG 785 Cesarean Section with Sterilization without CC/MCC
MS-DRG 786 Cesarean Section without Sterilization with MCC
MS-DRG 787 Cesarean Section without Sterilization with CC
MS-DRG 788 Cesarean Section without Sterilization without CC/MCC
MS-DRG 796 Vaginal Delivery with Sterilization/D&C with MCC
MS-DRG 797 Vaginal Delivery with Sterilization/D&C with CC
MS-DRG 798 Vaginal Delivery with Sterilization/D&C without CC/MCC
MS-DRG 805 Vaginal Delivery without Sterilization/D&C with MCC
MS-DRG 806 Vaginal Delivery without Sterilization/D&C with CC
MS-DRG 807 Vaginal Delivery without Sterilization/D&C without CC/MCC
Indication of abortion:
Any diagnosis of 'O00', 'O01', 'O02', 'O03', 'O04', 'O07', 'O08'
Any procedure starting with '10A0'

Abbreviations: CC, Complication and Comorbidity; D&C, dilation and curettage; ICD-10-CM, International Classification of Diseases, Tenth Revision, Clinical Modification; ICD-10-PCS, International Classification of Diseases, Tenth Revision, Procedure Coding System; MCC, Major Complication and Comorbidity; MS-DRG, Medicare-Severity Diagnosis Related Group.

APPENDIX D. DATA TABLES

Table D.1 Number and aggregate cost of treat-and-release emergency department visits for pregnant women by expected primary payer and State of residence, 2019

Patient State of Residence	Expected Primary Payer	Treat-and-Release Emergency Department Visits for Maternal Care (Other Than Delivery)		Treat-and-Release Emergency Department Visits for Non-Maternal Care for Pregnant Women	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
Total U.S.	All payers	3,587,867	1,925.0	216,981	113.1
	Self-pay/No charge	356,994	199.7	21,703	11.4
	Medicaid	1,947,981	987.1	118,381	58.2
	Private	1,114,489	641.8	65,272	37.3
	Other	163,503	92.7	11,101	5.9
	Missing or invalid	4,900	3.7	524	0.4
Northeast	All payers	594,052	344.0	47,533	26.7
	Self-pay/No charge	40,326	25.6	4,043	2.4
	Medicaid	330,958	184.6	25,487	13.7
	Private	190,492	115.4	14,984	8.9
	Other	32,206	18.5	2,999	1.6
	Missing or invalid	70	0.0	20	0.0
Midwest	All payers	732,117	425.6	47,402	25.4
	Self-pay/No charge	60,442	37.3	4,070	2.1
	Medicaid	392,777	215.1	26,105	13.2
	Private	251,763	157.3	14,719	8.7
	Other	26,489	15.2	2,383	1.2
	Missing or invalid	646	0.6	124	0.1
South	All payers	1,599,221	721.7	90,208	39.0
	Self-pay/No charge	214,615	108.5	11,635	5.5
	Medicaid	871,730	375.8	50,577	20.7
	Private	446,447	206.4	24,006	11.0
	Other	64,951	29.8	3,916	1.8
	Missing or invalid	1,478	1.0	74	0.0
West	All payers	662,476	433.8	31,839	22.2
	Self-pay/No charge	41,611	28.3	1,955	1.4
	Medicaid	352,516	211.7	16,212	10.6
	Private	225,786	162.6	11,563	8.7
	Other	39,857	29.1	1,804	1.2
	Missing or invalid	2,706	2.1	306	0.2
AK	All payers	8,065	6.77	559	0.47
	Self-pay/No charge	619	0.58	45	0.05
	Medicaid	4,434	3.76	307	0.27
	Private	2,359	1.92	161	0.11
	Other	653	0.50	46	0.04
	Missing or invalid	0	0.00	0	0.00

Patient State of Residence	Expected Primary Payer	Treat-and-Release Emergency Department Visits for Maternal Care (Other Than Delivery)		Treat-and-Release Emergency Department Visits for Non-Maternal Care for Pregnant Women	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
AR	All payers	33,084	10.24	2,291	0.71
	Self-pay/No charge	2,918	0.98	198	0.06
	Medicaid	15,952	4.85	1,112	0.33
	Private	12,115	3.78	800	0.26
	Other	2,082	0.63	181	0.06
	Missing or invalid	17	0.00	0	0.00
AZ	All payers	58,498	32.59	2,977	1.67
	Self-pay/No charge	4,366	2.37	167	0.09
	Medicaid	34,574	18.97	1,851	1.01
	Private	16,154	9.54	777	0.47
	Other	3,401	1.70	182	0.09
	Missing or invalid	*	*	0	0.00
CA	All payers	348,469	228.71	15,382	10.82
	Self-pay/No charge	17,671	12.16	940	0.68
	Medicaid	208,423	129.84	8,662	5.74
	Private	107,130	75.62	5,017	3.80
	Other	15,172	11.04	760	0.59
	Missing or invalid	73	0.05	*	*
CO	All payers	62,412	41.79	2,220	1.67
	Self-pay/No charge	3,302	2.53	115	0.08
	Medicaid	34,587	22.33	1,238	0.93
	Private	20,435	14.21	683	0.53
	Other	3,913	2.62	165	0.12
	Missing or invalid	175	0.10	19	0.01
CT	All payers	24,374	17.35	1,472	1.01
	Self-pay/No charge	2,084	1.60	104	0.07
	Medicaid	15,320	10.44	891	0.60
	Private	6,249	4.84	413	0.30
	Other	715	0.47	64	0.03
	Missing or invalid	*	*	0	0.00
DC	All payers	6,740	5.43	429	0.31
	Self-pay/No charge	287	0.25	23	0.02
	Medicaid	3,356	2.72	209	0.15
	Private	2,689	2.09	160	0.11
	Other	352	0.33	33	0.04
	Missing or invalid	56	0.05	*	*

Patient State of Residence	Expected Primary Payer	Treat-and-Release Emergency Department Visits for Maternal Care (Other Than Delivery)		Treat-and-Release Emergency Department Visits for Non-Maternal Care for Pregnant Women	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
FL	All payers	343,240	142.33	15,277	6.34
	Self-pay/No charge	36,427	16.24	1,767	0.79
	Medicaid	193,856	76.04	8,755	3.39
	Private	101,210	45.04	4,213	1.91
	Other	11,740	5.00	542	0.25
	Missing or invalid	*	*	0	0.00
GA	All payers	128,784	61.66	7,158	3.13
	Self-pay/No charge	18,659	9.87	1,104	0.52
	Medicaid	67,509	29.88	3,957	1.61
	Private	32,465	16.93	1,555	0.74
	Other	9,524	4.72	523	0.25
	Missing or invalid	627	0.26	19	0.01
HI	All payers	8,442	7.42	642	0.49
	Self-pay/No charge	403	0.38	37	0.03
	Medicaid	3,825	3.37	322	0.25
	Private	3,427	3.12	243	0.18
	Other	785	0.54	38	0.03
	Missing or invalid	*	*	*	*
IA	All payers	22,813	13.44	3,113	1.67
	Self-pay/No charge	1,401	0.81	154	0.08
	Medicaid	12,690	6.92	1,955	0.97
	Private	8,133	5.40	895	0.56
	Other	588	0.30	109	0.06
	Missing or invalid	*	*	0	0.00
IL	All payers	124,102	72.89	8,884	4.78
	Self-pay/No charge	11,835	7.27	932	0.53
	Medicaid	68,763	38.36	5,248	2.71
	Private	39,184	24.79	2,311	1.31
	Other	4,317	2.47	393	0.23
	Missing or invalid	*	*	0	0.00
IN	All payers	78,160	48.94	4,491	2.39
	Self-pay/No charge	6,543	4.10	317	0.16
	Medicaid	33,521	20.49	2,293	1.24
	Private	30,233	19.51	1,458	0.76
	Other	7,862	4.84	423	0.23
	Missing or invalid	*	*	0	0.00

Patient State of Residence	Expected Primary Payer	Treat-and-Release Emergency Department Visits for Maternal Care (Other Than Delivery)		Treat-and-Release Emergency Department Visits for Non-Maternal Care for Pregnant Women	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
KS	All payers	31,470	14.18	1,889	0.91
	Self-pay/No charge	3,514	1.79	250	0.12
	Medicaid	13,906	6.05	791	0.37
	Private	11,156	5.22	651	0.33
	Other	2,843	1.09	182	0.09
	Missing or invalid	51	0.03	15	0.01
KY	All payers	51,031	24.41	3,774	1.52
	Self-pay/No charge	3,031	1.65	237	0.10
	Medicaid	31,784	14.48	2,488	0.92
	Private	14,593	7.52	952	0.45
	Other	1,609	0.75	95	0.04
	Missing or invalid	14	0.01	*	*
MA	All payers	47,426	29.51	2,610	1.45
	Self-pay/No charge	2,779	1.87	133	0.08
	Medicaid	25,964	15.54	1,468	0.79
	Private	15,094	9.76	832	0.49
	Other	3,502	2.31	176	0.10
	Missing or invalid	87	0.04	*	*
MD	All payers	62,417	49.71	3,199	2.21
	Self-pay/No charge	5,716	4.81	248	0.18
	Medicaid	33,347	26.91	1,840	1.29
	Private	20,790	15.96	925	0.63
	Other	2,535	2.01	184	0.12
	Missing or invalid	29	0.02	*	*
ME	All payers	6,951	3.81	1,051	0.57
	Self-pay/No charge	803	0.50	108	0.05
	Medicaid	3,434	1.77	554	0.29
	Private	2,314	1.34	318	0.20
	Other	385	0.20	68	0.03
	Missing or invalid	15	0.01	*	*
MI	All payers	141,160	77.15	5,180	3.14
	Self-pay/No charge	4,277	2.59	212	0.11
	Medicaid	82,325	44.13	3,033	1.77
	Private	49,217	27.83	1,710	1.14
	Other	5,254	2.56	222	0.12
	Missing or invalid	87	0.04	*	*

Patient State of Residence	Expected Primary Payer	Treat-and-Release Emergency Department Visits for Maternal Care (Other Than Delivery)		Treat-and-Release Emergency Department Visits for Non-Maternal Care for Pregnant Women	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
MN	All payers	37,785	25.25	3,270	2.05
	Self-pay/No charge	2,652	1.72	193	0.11
	Medicaid	15,984	10.10	1,553	0.90
	Private	15,064	10.84	1,160	0.80
	Other	3,948	2.51	339	0.21
	Missing or invalid	137	0.08	25	0.03
MO	All payers	63,950	33.30	4,765	2.39
	Self-pay/No charge	9,263	5.22	772	0.38
	Medicaid	31,110	15.51	2,287	1.13
	Private	21,508	11.54	1,531	0.81
	Other	2,054	1.02	174	0.08
	Missing or invalid	15	0.01	*	*
MS	All payers	47,078	17.98	5,038	1.64
	Self-pay/No charge	6,917	2.86	890	0.31
	Medicaid	26,328	9.68	2,800	0.87
	Private	11,925	4.70	1,128	0.38
	Other	1,898	0.73	220	0.08
	Missing or invalid	*	*	0	0.00
MT	All payers	5,587	3.33	415	0.24
	Self-pay/No charge	523	0.34	30	0.02
	Medicaid	3,175	1.79	275	0.16
	Private	1,373	0.92	76	0.05
	Other	515	0.28	34	0.01
	Missing or invalid	*	*	0	0.00
NC	All payers	116,632	57.74	7,321	3.36
	Self-pay/No charge	19,488	10.30	1,176	0.56
	Medicaid	59,520	27.31	3,854	1.64
	Private	33,424	18.01	1,999	1.03
	Other	4,031	1.98	286	0.12
	Missing or invalid	169	0.14	*	*
ND	All payers	5,285	3.05	787	0.57
	Self-pay/No charge	300	0.18	73	0.05
	Medicaid	1,589	0.84	223	0.16
	Private	2,526	1.54	410	0.31
	Other	516	0.24	46	0.02
	Missing or invalid	354	0.24	35	0.02

Patient State of Residence	Expected Primary Payer	Treat-and-Release Emergency Department Visits for Maternal Care (Other Than Delivery)		Treat-and-Release Emergency Department Visits for Non-Maternal Care for Pregnant Women	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
NE	All payers	13,653	7.85	904	0.52
	Self-pay/No charge	353	0.21	18	0.01
	Medicaid	7,108	3.74	445	0.24
	Private	5,453	3.52	403	0.24
	Other	738	0.39	38	0.03
	Missing or invalid	*	*	0	0.00
NJ	All payers	84,878	58.53	7,513	4.86
	Self-pay/No charge	11,918	8.75	1,052	0.71
	Medicaid	32,228	20.15	2,932	1.65
	Private	31,289	23.35	2,745	2.01
	Other	9,442	6.28	784	0.49
	Missing or invalid	*	*	0	0.00
NV	All payers	34,754	16.44	1,209	0.76
	Self-pay/No charge	3,672	2.01	123	0.09
	Medicaid	19,283	8.40	706	0.40
	Private	10,361	5.38	331	0.23
	Other	1,108	0.54	47	0.03
	Missing or invalid	330	0.11	*	*
NY	All payers	214,295	135.37	13,899	7.91
	Self-pay/No charge	12,141	7.59	953	0.50
	Medicaid	125,392	79.40	8,301	4.62
	Private	70,738	44.79	4,128	2.51
	Other	6,011	3.58	512	0.28
	Missing or invalid	13	0.01	*	*
OH	All payers	156,964	83.26	9,142	4.56
	Self-pay/No charge	12,140	7.04	659	0.34
	Medicaid	96,179	49.34	5,715	2.72
	Private	44,125	24.51	2,339	1.29
	Other	4,511	2.36	426	0.21
	Missing or invalid	*	*	*	*
OR	All payers	23,784	16.34	1,524	1.02
	Self-pay/No charge	1,153	0.79	93	0.05
	Medicaid	14,746	9.74	921	0.61
	Private	6,994	5.26	419	0.31
	Other	889	0.54	91	0.05
	Missing or invalid	*	*	0	0.00

Patient State of Residence	Expected Primary Payer	Treat-and-Release Emergency Department Visits for Maternal Care (Other Than Delivery)		Treat-and-Release Emergency Department Visits for Non-Maternal Care for Pregnant Women	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
RI	All payers	17,293	10.33	801	0.45
	Self-pay/No charge	1,057	0.68	83	0.06
	Medicaid	9,820	6.18	443	0.24
	Private	5,222	3.25	212	0.13
	Other	382	0.22	44	0.03
	Missing or invalid	812	0.00	19	0.00
SC	All payers	62,564	24.83	6,446	2.64
	Self-pay/No charge	5,971	2.65	676	0.29
	Medicaid	33,389	12.56	3,481	1.37
	Private	17,147	7.29	1,729	0.75
	Other	6,028	2.31	558	0.23
	Missing or invalid	29	0.02	*	*
SD	All payers	4,238	2.24	635	0.26
	Self-pay/No charge	650	0.33	74	0.03
	Medicaid	1,561	0.78	292	0.11
	Private	1,692	0.99	192	0.09
	Other	331	0.14	76	0.03
	Missing or invalid	*	*	*	*
TN	All payers	77,771	29.53	5,649	2.04
	Self-pay/No charge	6,650	2.74	446	0.19
	Medicaid	50,218	18.35	3,696	1.24
	Private	18,806	7.63	1,313	0.54
	Other	1,885	0.73	179	0.07
	Missing or invalid	212	0.08	15	0.01
TX	All payers	426,711	186.91	13,253	5.79
	Self-pay/No charge	70,712	33.31	2,538	1.20
	Medicaid	210,650	87.90	5,926	2.41
	Private	131,914	59.58	4,314	1.94
	Other	13,409	6.10	474	0.23
	Missing or invalid	26	0.02	*	*
UT	All payers	27,404	17.02	1,224	0.81
	Self-pay/No charge	2,362	1.54	80	0.06
	Medicaid	8,774	5.20	397	0.22
	Private	14,840	9.43	646	0.47
	Other	1,017	0.52	59	0.03
	Missing or invalid	411	0.32	42	0.03

Patient State of Residence	Expected Primary Payer	Treat-and-Release Emergency Department Visits for Maternal Care (Other Than Delivery)		Treat-and-Release Emergency Department Visits for Non-Maternal Care for Pregnant Women	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
VT	All payers	2,489	1.80	301	0.22
	Self-pay/No charge	157	0.09	32	0.03
	Medicaid	1,453	0.97	169	0.11
	Private	777	0.68	85	0.06
	Other	102	0.06	13	0.01
	Missing or invalid	0	0.00	*	*
WI	All payers	51,471	31.13	2,951	1.80
	Self-pay/No charge	2,559	1.78	214	0.12
	Medicaid	29,697	17.32	1,718	1.03
	Private	17,558	11.07	878	0.57
	Other	1,537	0.88	122	0.07
	Missing or invalid	120	0.08	19	0.01
WY	All payers	3,592	2.68	235	0.18
	Self-pay/No charge	639	0.55	59	0.04
	Medicaid	1,386	0.91	81	0.07
	Private	871	0.66	53	0.03
	Other	688	0.55	40	0.04
	Missing or invalid	*	*	*	*

Note: An asterisk indicates that the number of encounters was suppressed for confidentiality or because the number of encounters was less than or equal to 10 and the information on encounters and aggregate costs are suppressed.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), Nationwide Emergency Department Sample (NEDS) and State Emergency Department Databases (SEDD), 2019

Table D.2 Number and aggregate cost of inpatient hospitalizations for maternal care by expected primary payer and State of residence, 2019

Patient State of Residence	Expected Primary Payer	Delivery Hospitalizations		Hospitalizations for Maternal Care (Other than Delivery)	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
Total U.S.	All payers	3,583,224	20,385.2	317,415	1,821.4
	Self-pay/No charge	103,640	498.2	14,140	78.1
	Medicaid	1,488,820	8,444.9	162,645	935.4
	Private	1,864,325	10,734.3	125,520	710.2
	Other	122,565	686.5	14,720	95.7
	Missing or invalid	3,875	21.7	390	2.0
Northeast	All payers	571,786	3,739.3	50,110	316.5
	Self-pay/No charge	13,450	73.5	1,850	10.5
	Medicaid	220,575	1,464.0	24,310	151.8
	Private	320,210	2,092.3	21,515	137.3
	Other	17,160	107.5	2,385	16.6
	Missing or invalid	390	2.0	50	0.3
Midwest	All payers	755,514	4,107.0	59,340	319.6
	Self-pay/No charge	16,135	81.3	2,280	13.5
	Medicaid	274,074	1,527.2	28,730	153.8
	Private	439,120	2,348.7	25,405	131.2
	Other	25,190	144.8	2,865	20.7
	Missing or invalid	995	5.4	60	0.4
South	All payers	1,415,239	6,766.1	131,110	643.9
	Self-pay/No charge	48,290	205.9	7,810	39.8
	Medicaid	643,000	3,080.6	68,340	339.6
	Private	669,039	3,214.6	48,300	230.7
	Other	53,475	258.2	6,485	33.1
	Missing or invalid	1,435	6.9	175	0.7
West	All payers	840,685	5,778.8	76,855	541.6
	Self-pay/No charge	25,765	137.7	2,200	14.3
	Medicaid	351,170	2,374.8	41,265	290.4
	Private	435,955	3,083.4	30,300	211.0
	Other	26,740	176.1	2,985	25.4
	Missing or invalid	1,055	7.4	105	0.6
AK	All payers	7,709	68.30	921	8.49
	Self-pay/No charge	421	4.62	57	0.55
	Medicaid	3,447	31.81	513	4.94
	Private	3,403	28.33	286	2.56
	Other	438	3.53	65	0.44
	Missing or invalid	0	0.00	0	0.00

Patient State of Residence	Expected Primary Payer	Delivery Hospitalizations		Hospitalizations for Maternal Care (Other than Delivery)	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
AR	All payers	35,757	151.20	3,401	14.26
	Self-pay/No charge	502	2.06	90	0.61
	Medicaid	14,764	63.21	1,712	7.23
	Private	17,992	75.80	1,365	5.34
	Other	2,490	10.08	234	1.08
	Missing or invalid	*	*	0	0.00
AZ	All payers	75,883	349.87	7,005	35.52
	Self-pay/No charge	2,399	10.69	175	0.84
	Medicaid	36,410	176.66	4,104	21.83
	Private	33,078	144.26	2,378	10.98
	Other	3,996	18.26	348	1.86
	Missing or invalid	0	0.00	0	0.00
CA	All payers	425,704	3,401.28	42,327	323.73
	Self-pay/No charge	13,470	75.37	1,053	7.97
	Medicaid	186,102	1,386.20	23,243	170.30
	Private	216,343	1,861.54	16,706	133.62
	Other	9,731	77.82	1,316	11.77
	Missing or invalid	58	0.34	*	*
CO	All payers	58,496	327.06	4,475	25.62
	Self-pay/No charge	978	4.88	163	0.91
	Medicaid	23,477	152.48	2,258	13.12
	Private	31,766	156.75	1,746	9.98
	Other	2,020	10.95	294	1.53
	Missing or invalid	255	2.01	14	0.07
CT	All payers	33,430	246.12	3,012	18.97
	Self-pay/No charge	562	4.37	129	0.64
	Medicaid	13,662	101.62	1,501	9.62
	Private	18,496	134.90	1,292	8.14
	Other	709	5.22	90	0.57
	Missing or invalid	*	*	0	0.00
DC	All payers	8,528	57.05	783	4.92
	Self-pay/No charge	50	0.35	13	0.06
	Medicaid	2,893	20.59	248	1.70
	Private	5,415	34.61	458	2.76
	Other	151	1.36	60	0.39
	Missing or invalid	19	0.13	*	*
FL	All payers	208,666	1,023.57	23,765	116.99
	Self-pay/No charge	9,077	38.77	1,507	7.07
	Medicaid	97,081	470.62	12,470	61.22
	Private	95,187	476.34	8,620	42.76
	Other	7,320	37.83	1,168	5.94
	Missing or invalid	*	*	0	0.00

Patient State of Residence	Expected Primary Payer	Delivery Hospitalizations		Hospitalizations for Maternal Care (Other than Delivery)	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
GA	All payers	120,689	615.36	10,359	58.31
	Self-pay/No charge	6,130	29.59	838	4.79
	Medicaid	54,366	278.27	5,054	28.43
	Private	51,483	264.26	3,595	20.73
	Other	8,356	41.45	826	4.02
	Missing or invalid	354	1.80	46	0.34
HI	All payers	13,929	103.09	951	7.39
	Self-pay/No charge	225	1.52	16	0.46
	Medicaid	5,054	38.38	404	2.99
	Private	7,961	58.48	489	3.57
	Other	689	4.71	42	0.36
	Missing or invalid	0	0.00	0	0.00
IA	All payers	36,449	183.71	1,912	10.11
	Self-pay/No charge	665	3.35	61	0.21
	Medicaid	12,421	63.54	868	5.04
	Private	22,833	114.07	926	4.59
	Other	530	2.74	57	0.27
	Missing or invalid	0	0.00	0	0.00
IL	All payers	134,411	772.71	11,935	68.09
	Self-pay/No charge	3,173	17.05	578	3.27
	Medicaid	50,875	298.19	5,913	35.51
	Private	78,080	445.01	5,104	27.11
	Other	2,278	12.43	340	2.21
	Missing or invalid	*	*	0	0.00
IN	All payers	77,451	442.69	5,176	28.79
	Self-pay/No charge	1,988	9.85	217	1.15
	Medicaid	26,583	154.69	2,195	12.12
	Private	44,870	253.57	2,337	12.42
	Other	4,010	24.57	427	3.11
	Missing or invalid	0	0.00	0	0.00
KS	All payers	32,731	146.59	2,463	11.31
	Self-pay/No charge	1,487	6.51	215	1.10
	Medicaid	10,017	46.29	922	4.49
	Private	19,452	85.80	1,169	4.99
	Other	1,728	7.62	153	0.72
	Missing or invalid	47	0.37	*	*
KY	All payers	50,053	233.66	4,613	22.71
	Self-pay/No charge	947	3.71	184	0.71
	Medicaid	24,031	114.08	2,565	13.10
	Private	23,809	109.90	1,704	7.93
	Other	1,256	5.93	159	0.97
	Missing or invalid	*	*	*	*

Patient State of Residence	Expected Primary Payer	Delivery Hospitalizations		Hospitalizations for Maternal Care (Other than Delivery)	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
MA	All payers	66,556	493.16	6,181	37.70
	Self-pay/No charge	1,676	10.07	258	1.43
	Medicaid	22,272	158.64	2,678	16.55
	Private	39,357	301.47	2,814	17.05
	Other	3,247	22.96	428	2.65
	Missing or invalid	*	*	*	*
MD	All payers	63,540	479.04	4,209	31.52
	Self-pay/No charge	815	5.15	108	0.65
	Medicaid	25,736	203.51	2,114	16.50
	Private	34,923	254.76	1,756	12.19
	Other	2,054	15.50	228	2.17
	Missing or invalid	12	0.10	*	*
ME	All payers	10,984	76.74	1,203	6.46
	Self-pay/No charge	277	1.75	49	0.20
	Medicaid	4,030	29.26	588	3.25
	Private	6,268	42.80	490	2.61
	Other	387	2.79	74	0.40
	Missing or invalid	22	0.14	*	*
MI	All payers	104,829	547.84	9,274	47.38
	Self-pay/No charge	1,073	4.49	138	0.65
	Medicaid	42,519	228.59	4,669	24.08
	Private	58,557	299.61	4,011	19.81
	Other	2,647	15.01	454	2.83
	Missing or invalid	33	0.14	*	*
MN	All payers	63,431	429.92	5,139	30.05
	Self-pay/No charge	850	5.47	149	0.80
	Medicaid	16,327	110.55	1,768	10.75
	Private	41,501	279.29	2,678	14.87
	Other	4,625	33.76	535	3.57
	Missing or invalid	128	0.85	*	*
MO	All payers	68,932	354.28	6,002	29.82
	Self-pay/No charge	1,624	8.14	355	1.65
	Medicaid	26,270	145.35	3,057	15.25
	Private	38,926	189.93	2,380	11.58
	Other	2,061	10.54	208	1.32
	Missing or invalid	51	0.32	*	*
MS	All payers	34,434	163.16	3,477	16.08
	Self-pay/No charge	969	4.39	212	1.01
	Medicaid	18,212	88.16	2,032	9.44
	Private	13,963	64.69	1,065	4.80
	Other	1,281	5.86	160	0.78
	Missing or invalid	*	*	*	*

Patient State of Residence	Expected Primary Payer	Delivery Hospitalizations		Hospitalizations for Maternal Care (Other than Delivery)	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
MT	All payers	10,219	64.55	773	4.49
	Self-pay/No charge	718	4.84	83	0.45
	Medicaid	4,316	27.93	424	2.48
	Private	4,471	27.93	218	1.30
	Other	711	3.84	48	0.26
	Missing or invalid	*	*	0	0.00
NC	All payers	108,523	539.72	11,285	53.07
	Self-pay/No charge	2,624	11.48	684	3.08
	Medicaid	49,355	245.58	5,978	29.19
	Private	52,590	263.79	4,019	17.97
	Other	3,486	16.72	502	2.34
	Missing or invalid	468	2.14	102	0.49
ND	All payers	9,981	47.52	467	2.48
	Self-pay/No charge	166	0.80	*	*
	Medicaid	2,175	10.79	158	0.94
	Private	6,702	31.62	248	1.31
	Other	618	2.98	30	0.13
	Missing or invalid	320	1.33	*	*
NE	All payers	23,633	122.34	1,362	7.58
	Self-pay/No charge	125	0.56	23	0.38
	Medicaid	7,825	40.77	561	2.74
	Private	14,863	76.68	673	3.82
	Other	820	4.34	105	0.64
	Missing or invalid	0	0.00	0	0.00
NJ	All payers	94,603	557.82	7,145	45.33
	Self-pay/No charge	3,142	19.15	410	2.43
	Medicaid	29,227	165.00	2,532	15.45
	Private	56,661	339.91	3,569	23.02
	Other	5,572	33.75	634	4.43
	Missing or invalid	*	*	0	0.00
NV	All payers	33,546	146.05	3,103	14.43
	Self-pay/No charge	1,078	4.41	169	0.88
	Medicaid	15,119	63.47	1,599	7.51
	Private	16,339	73.19	1,226	5.49
	Other	966	4.71	107	0.52
	Missing or invalid	44	0.28	*	*
NY	All payers	210,649	1,502.94	19,874	132.12
	Self-pay/No charge	4,220	19.03	468	1.85
	Medicaid	94,154	684.24	10,849	72.62
	Private	108,708	776.78	8,018	53.77
	Other	3,557	22.82	535	3.86
	Missing or invalid	*	*	*	*

Patient State of Residence	Expected Primary Payer	Delivery Hospitalizations		Hospitalizations for Maternal Care (Other than Delivery)	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
OH	All payers	127,281	623.26	10,374	54.10
	Self-pay/No charge	3,856	17.69	454	1.98
	Medicaid	53,754	273.51	5,953	30.68
	Private	66,673	315.92	3,582	18.88
	Other	2,994	16.12	385	2.56
	Missing or invalid	*	*	0	0.00
OR	All payers	38,917	285.60	3,071	19.36
	Self-pay/No charge	361	2.41	58	0.31
	Medicaid	16,762	125.76	1,598	10.59
	Private	20,497	147.84	1,246	7.31
	Other	1,297	9.59	169	1.15
	Missing or invalid	0	0.00	0	0.00
RI	All payers	9,972	65.83	798	4.55
	Self-pay/No charge	363	2.50	51	0.32
	Medicaid	4,507	29.60	423	2.42
	Private	4,804	31.88	298	1.68
	Other	298	1.85	26	0.13
	Missing or invalid	0	0.00	0	0.00
SC	All payers	55,274	272.48	5,135	23.11
	Self-pay/No charge	1,058	4.49	179	0.84
	Medicaid	24,006	119.59	2,570	12.27
	Private	25,281	124.20	1,882	7.81
	Other	4,895	23.97	500	2.17
	Missing or invalid	34	0.23	*	*
SD	All payers	10,852	57.99	835	4.19
	Self-pay/No charge	588	2.89	60	0.25
	Medicaid	3,066	18.12	360	1.93
	Private	6,673	34.29	370	1.77
	Other	521	2.67	45	0.24
	Missing or invalid	*	*	0	0.00
TN	All payers	73,261	282.70	5,790	26.29
	Self-pay/No charge	975	3.56	199	0.94
	Medicaid	36,278	139.71	3,177	15.72
	Private	34,220	131.58	2,181	8.62
	Other	1,574	6.99	224	0.97
	Missing or invalid	214	0.87	*	*
TX	All payers	357,022	1,542.24	32,874	157.57
	Self-pay/No charge	16,205	66.53	2,673	14.23
	Medicaid	162,321	710.27	16,403	79.23
	Private	170,648	732.20	12,723	58.57
	Other	7,828	33.16	1,070	5.50
	Missing or invalid	20	0.09	*	*

Patient State of Residence	Expected Primary Payer	Delivery Hospitalizations		Hospitalizations for Maternal Care (Other than Delivery)	
		Number of Encounters	Aggregate Costs, in \$ (per million)	Number of Encounters	Aggregate Costs, in \$ (per million)
UT	All payers	44,688	203.98	2,288	14.02
	Self-pay/No charge	911	4.01	80	0.43
	Medicaid	9,612	46.12	705	4.38
	Private	32,938	148.11	1,417	8.60
	Other	1,017	4.55	67	0.48
	Missing or invalid	210	1.18	19	0.14
VT	All payers	4,504	31.27	310	1.73
	Self-pay/No charge	36	0.20	*	*
	Medicaid	1,815	12.76	163	0.99
	Private	2,537	17.45	130	0.67
	Other	116	0.87	12	0.06
	Missing or invalid	0	0.00	*	*
WI	All payers	59,806	350.52	4,163	25.14
	Self-pay/No charge	507	3.06	77	0.64
	Medicaid	20,917	126.83	1,991	11.93
	Private	36,810	210.85	1,958	11.57
	Other	1,213	7.48	121	0.88
	Missing or invalid	359	2.31	16	0.12
WY	All payers	5,564	37.69	449	3.10
	Self-pay/No charge	266	1.60	44	0.32
	Medicaid	1,798	12.38	168	0.91
	Private	2,416	16.89	161	1.49
	Other	1,069	6.75	76	0.38
	Missing or invalid	15	0.07	0	0.00

Note: An asterisk indicates that the number of encounters was suppressed for confidentiality or because the number of encounters was less than or equal to 10 and the information on encounters and aggregate costs are suppressed.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), National Inpatient Sample (NIS) and State Inpatient Databases (SID), 2019