

COVID-19-Related Hospitalizations in 13 States, by Expected Payer, 2020

STATISTICAL BRIEF #274

June 2021

Pamela L. Owens, Ph.D.

Introduction

This Healthcare Cost and Utilization Project (HCUP) Statistical Brief presents statistics on COVID-19-related hospitalizations using 2019 State Inpatient Databases (SID) and 2020 quarterly inpatient data from 13 States. Differences in monthly hospitalizations by primary expected payer (Medicare, Medicaid, private insurance, self-pay/no charge) from April to September 2020 are compared with the same months in the prior year. Variation in utilization, average length of stay, and in-hospital mortality is illustrated. Because of the large sample size of the HCUP data, small differences can be statistically significant but not meaningful. Thus, only differences greater than or equal to 10 percent are discussed in the text.

This analysis is limited to discharges for patients treated in community, nonrehabilitation hospitals in 13 States (Colorado, Georgia, Iowa, Kentucky, Maryland, Michigan, Minnesota, Mississippi, Missouri, New Jersey, Ohio, South Carolina, and Vermont) for which HCUP data were available for April–September 2019 and April–September 2020. These States account for 24.7 percent of the resident U.S. population in 2019.^{1,2} All information contained in this Statistical Brief (except age-adjusted rates) can be found in the [HCUP Summary Trend Tables](#).³ The Summary Trend Tables, accessed as downloadable tables, provide State-specific monthly trends in hospital utilization for the most recent HCUP data available. These tables will be updated as more quarterly data become available. The analysis in this Statistical Brief is based on data available as of March 2021.

Findings

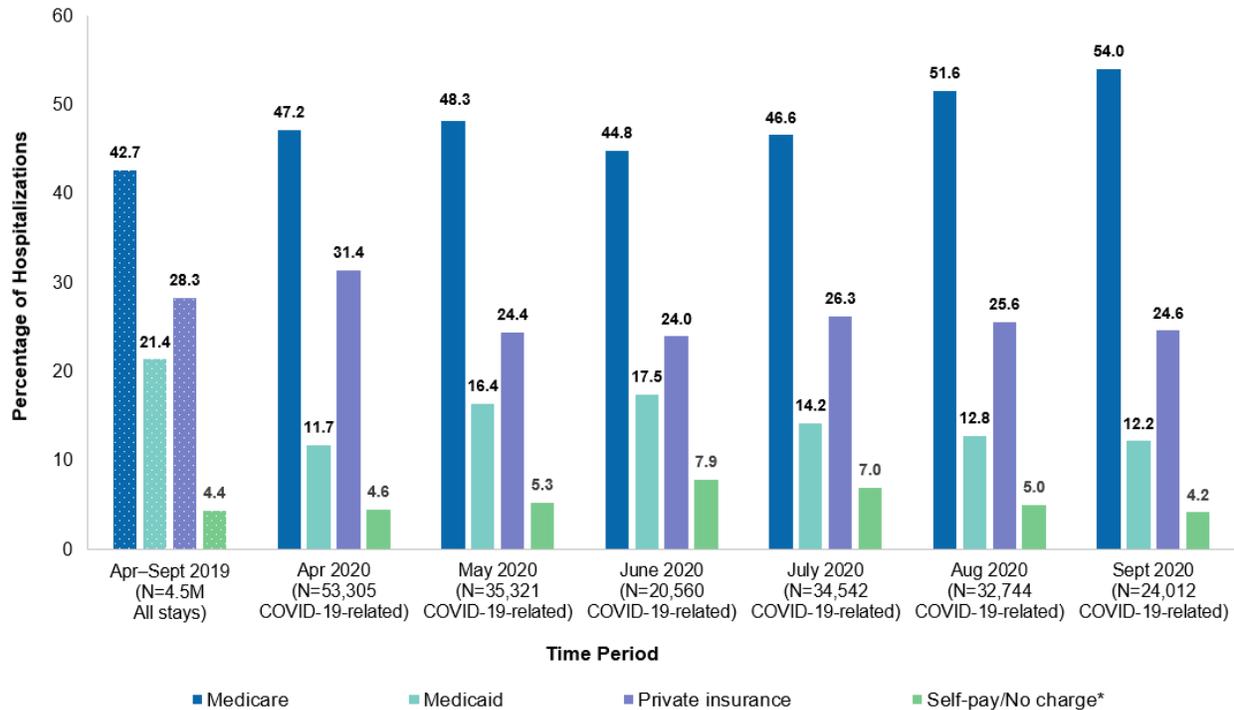
Differences in COVID-19-related hospitalizations, by expected payer, April–September 2020

Figure 1 displays the distribution of COVID-19-related hospitalizations in 13 States in each of 6 months, April, May, June, July, August, and September 2020, by expected payer (Medicare, Medicaid, private insurance, self-pay/no charge). As a reference, the distribution of all hospitalizations in the same States during April–September 2019 is also shown.

Highlights

- COVID-19-related hospitalizations were disproportionately more likely to be billed to Medicare in May, August, and September 2020 and disproportionately less likely to be billed to private insurance in May, June, and September 2020, using the distribution of all hospitalizations in 2019 as a reference.
- On average, from April to September 2020, COVID-19-related hospitalizations billed to Medicare were longer than hospitalizations billed to all other payers.
- In April 2020, the age-adjusted in-hospital mortality rate was similar across all expected payer groups (17.3–18.5 per 100 standard hospitalized population).
- The monthly age-adjusted in-hospital mortality rates varied by expected payer from May to September 2020. Compared with all other payers in the month, hospitalizations billed to Medicare had lower rates in June, those billed to Medicaid had lower rates in September, and those billed to private insurance had higher rates in May.
- Age-adjusted in-hospital mortality rates for COVID-19-related hospitalizations varied by expected payer and by the State in which the patient was hospitalized.

Figure 1. Distribution of COVID-19-related hospitalizations in April–September 2020 compared with all hospitalizations in April–September 2019, by expected payer, 13 States



*Self-pay/No charge: includes self-pay, no charge, charity, and no expected payment.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), 2019 State Inpatient Databases (SID) and 2020 quarterly data from 13 States (CO, GA, IA, KY, MD, MI, MN, MO, MS, NJ, OH, SC, and VT) (available as of March 2021)

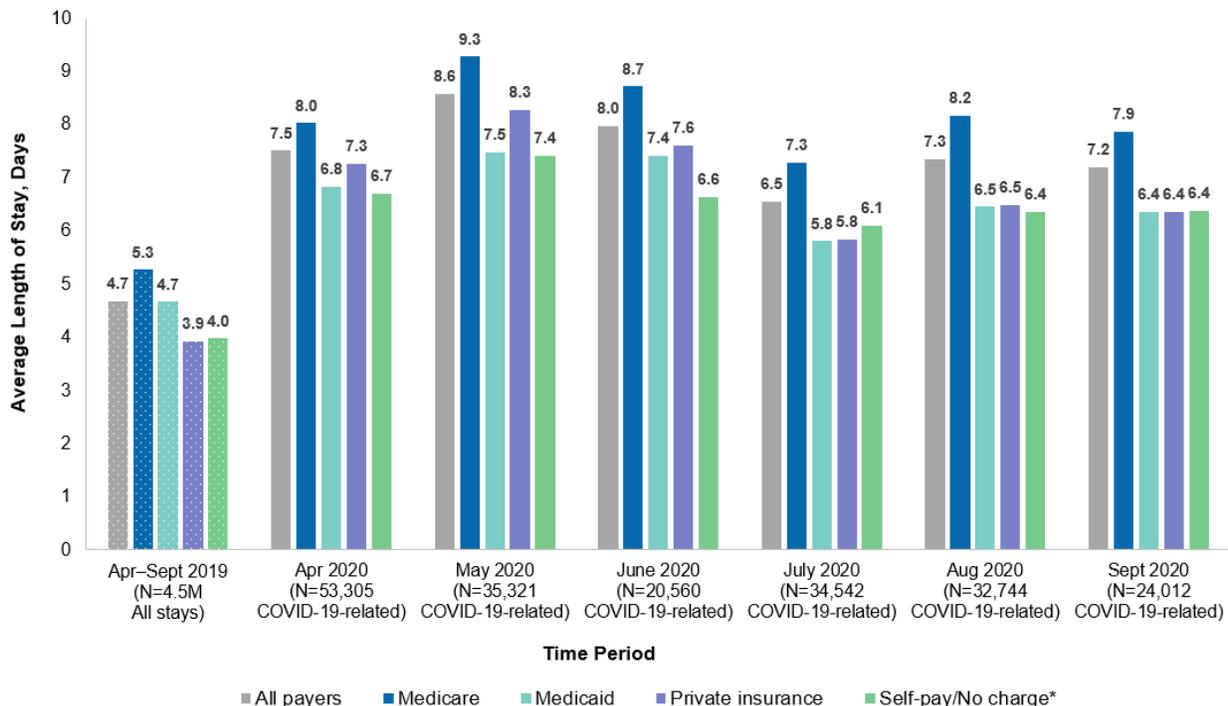
- Using the distribution of all hospitalizations in April through September 2019 as a reference, COVID-19-related hospitalizations were disproportionately more likely to be billed to Medicare (i.e., more than 10 percent higher) in May, August, and September 2020 and disproportionately less likely to be billed to private insurance (i.e., more than 10 percent lower) in May, June, and September 2020.
- The percentage of COVID-19-related hospitalizations billed to Medicaid was lower than the percentage of overall hospitalizations in the reference period in each of the 6 months from April to September 2020.
- The percentage of COVID-19-related hospitalizations billed as self-pay/no charge was higher than in the reference period in May (5.3 percent), June (7.9 percent), July (7.0 percent), and August (5.0 percent) (reference period: April–September 2019: 4.4 percent of all hospitalizations).
- Between April and September 2020, about 5 percent of COVID-19-related hospitalizations were billed to other types of payers, such as Workers’ Compensation, other (unspecified), and other Federal, State, and local government programs, such as TRICARE, Department of Veterans Affairs, Title V, and indemnity programs (data not shown). There is considerable variability in the percentage of COVID-19-related hospitalizations billed as “other” payer by State (from 1.6 to 7.4 percent), making further interpretation of the data difficult.^a Less than 0.01 percent of COVID-19-related hospitalizations were missing information on expected payer.

^a Excluding Vermont, which had fewer than 10 hospitalizations billed to “other,” the percentage of COVID-19-related hospitalizations billed to “other” in April–September 2020 in six States was within a percentage point of the percentage billed to “other” during the same months in 2019; however, the percentage of COVID-19-related hospitalizations billed to “other” in April–September 2020 in the remaining six States was nearly twice the percentage billed as “other” during the same months in 2019 (data not shown).

Differences in average length of COVID-19-related hospitalizations, by expected payer, April–September 2020

Figure 2 presents the average length of COVID-19-related hospitalizations in April–September 2020 across 13 States, by primary expected payer (Medicare, Medicaid, private insurance, self-pay / no charge). As a reference, the average length of all hospitalizations during April–September 2019 across the 13 States is also shown.

Figure 2. Average length of stay for COVID-19-related hospitalizations in April–September 2020 compared with all hospitalizations in April–September 2019, by expected payer, 13 States



*Self-pay/No charge: includes self-pay, no charge, charity, and no expected payment.

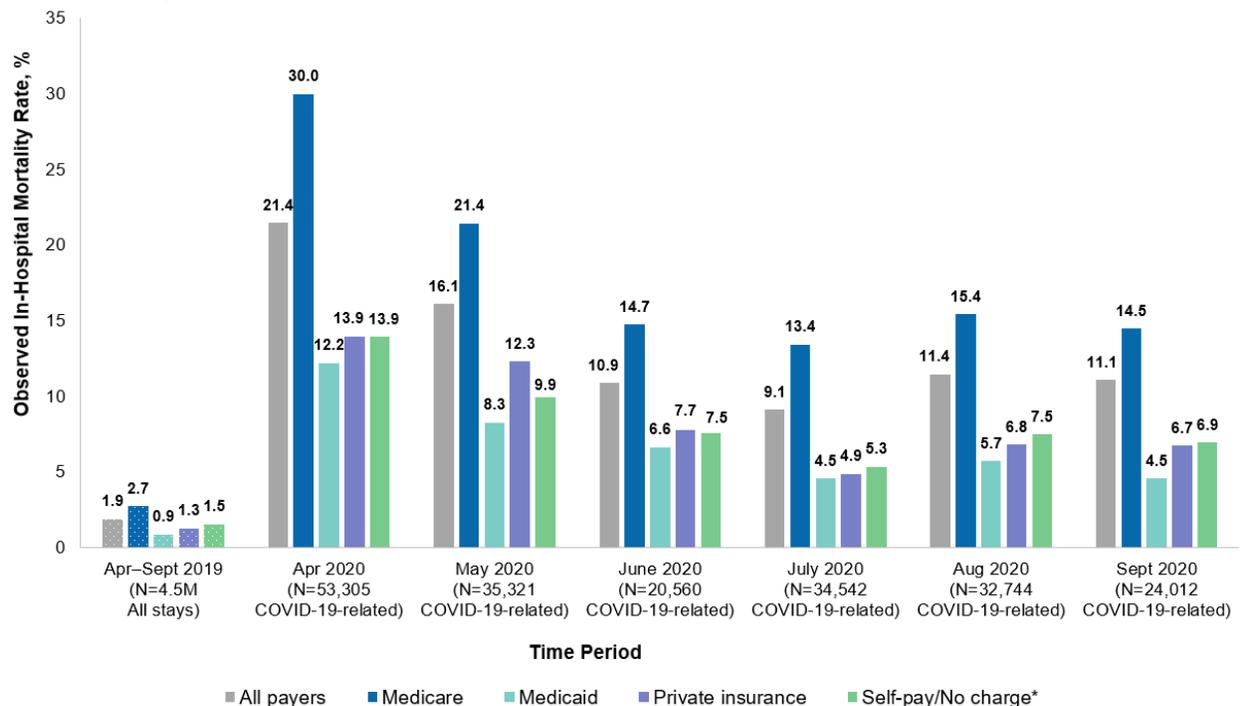
Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), 2019 State Inpatient Databases (SID) and 2020 quarterly data from 13 States (CO, GA, IA, KY, MD, MI, MN, MO, MS, NJ, OH, SC, and VT) (available as of March 2021)

- Regardless of expected payer, the average length of COVID-19-related hospitalizations across 13 States in April–September 2020 was longer than the average length of all hospitalizations during the same months in 2019.
- On average, from April to September 2020, COVID-19-related hospitalizations billed to Medicare were longer than hospitalizations billed to all other payers.
- In May 2020, the average length of stay for COVID-19-related hospitalizations billed to private insurance was longer than those billed to Medicaid and self-pay/no charge. In June 2020, the average length of COVID-19-related hospitalizations billed to private insurance was longer than those billed as self-pay/no charge. In April, July, August, and September 2020, there was a less than 10 percent difference in the average length of hospitalizations billed to private insurance, Medicaid, and self-pay/no charge.

Differences in in-hospital mortality for COVID-19-related hospitalizations, by expected payer, April–September 2020

Figure 3 displays the observed (unadjusted) in-hospital mortality rate for COVID-19-related hospitalizations for each month during April–September 2020 across 13 States, by primary expected payer (Medicare, Medicaid, private insurance, self-pay/no charge). As a reference, the all-cause observed (unadjusted) in-hospital mortality rates across the 13 States during April–September 2019 are also shown. The observed in-hospital mortality rates do not account for differences in the age distribution across population subgroups.

Figure 3. COVID-19-related in-hospital mortality rate (observed) in April–September 2020 compared with the all-cause in-hospital mortality rate (observed) in April–September 2019, by expected payer, 13 States



*Self-pay/No charge: includes self-pay, no charge, charity, and no expected payment.

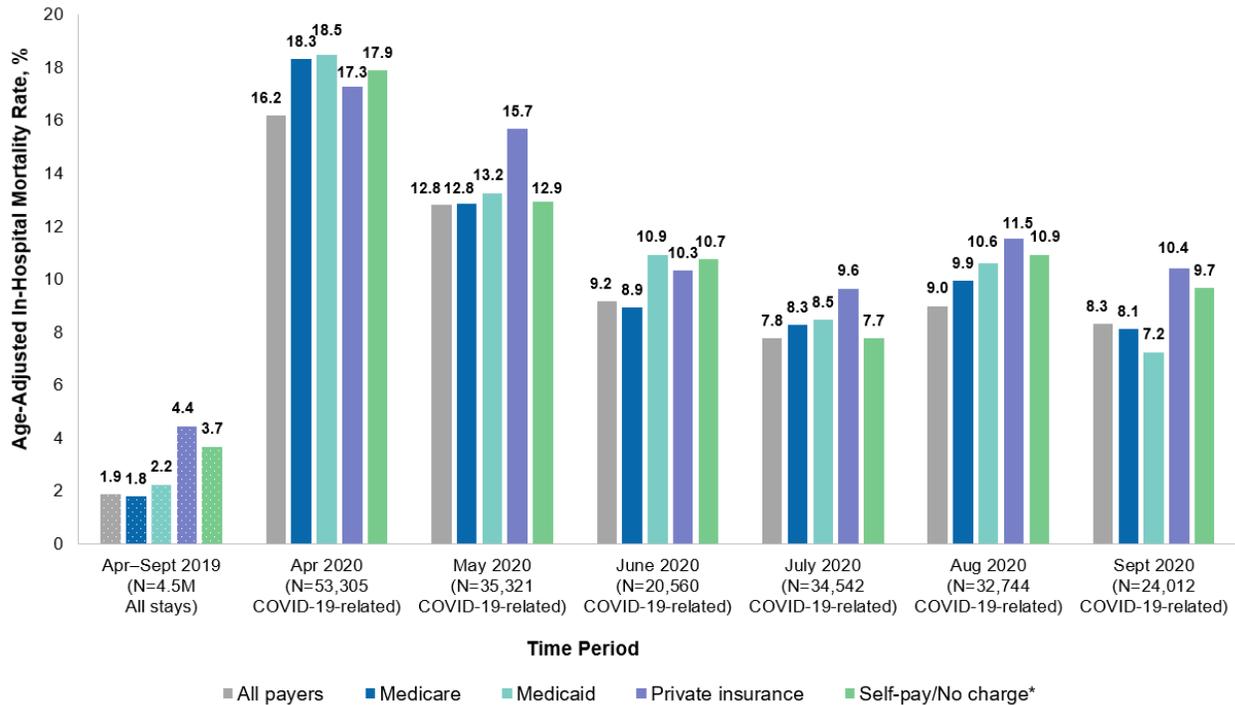
Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), 2019 State Inpatient Databases (SID) and 2020 quarterly data from 13 States (CO, GA, IA, KY, MD, MI, MN, MO, MS, NJ, OH, SC, and VT) (available as of March 2021)

- In each of the 6 months examined, 2020 COVID-19 in-hospital mortality rates for each payer were substantially higher than the overall in-hospital mortality rate for that payer during the same period in 2019.
- In April 2020, without accounting for differences by age, 30.0 percent of COVID-19-related hospitalizations billed to Medicare resulted in death in the hospital. The observed (unadjusted) in-hospital mortality rate dropped between April and June and remained relatively consistent through September 2020.
- In April 2020, 1 in 8 COVID-19-related hospitalizations billed to Medicaid resulted in an in-hospital death (12.2 percent), dropping to 1 in 22 in September 2020 (4.5 percent).
- The monthly observed in-hospital mortality rates for COVID-19-related hospitalizations billed to private insurance or as self-pay/no charge declined from April to July 2020 and then increased for August and September.

To account for the differences in in-hospital mortality due to age, Figure 4 displays the age-adjusted in-hospital mortality rate for COVID-19-related hospitalizations in April–September 2020 across 13 States, by primary expected payer (Medicare, Medicaid, private insurance, self-pay / no charge). The magnitude of

the rates presented in this figure is dependent on the standard population used to adjust for age. In this case, the standard population is the nationwide hospitalized population in 2018. These age-adjusted in-hospital mortality rates are useful for comparisons across groups or time after accounting for the age distribution of the population. As a reference, the all-cause age-adjusted in-hospital mortality rates across these 13 States during April–September 2019 are also shown.

Figure 4. COVID-19-related age-adjusted in-hospital mortality rate in April–September 2020 compared with the all-cause in-hospital mortality rate in April–September 2019, by expected payer, 13 States



Note: In-hospital mortality rates were adjusted for age based on the national age distribution of hospitalizations for patients in the 2018 Healthcare Cost and Utilization Project (HCUP) National Inpatient Sample (NIS).

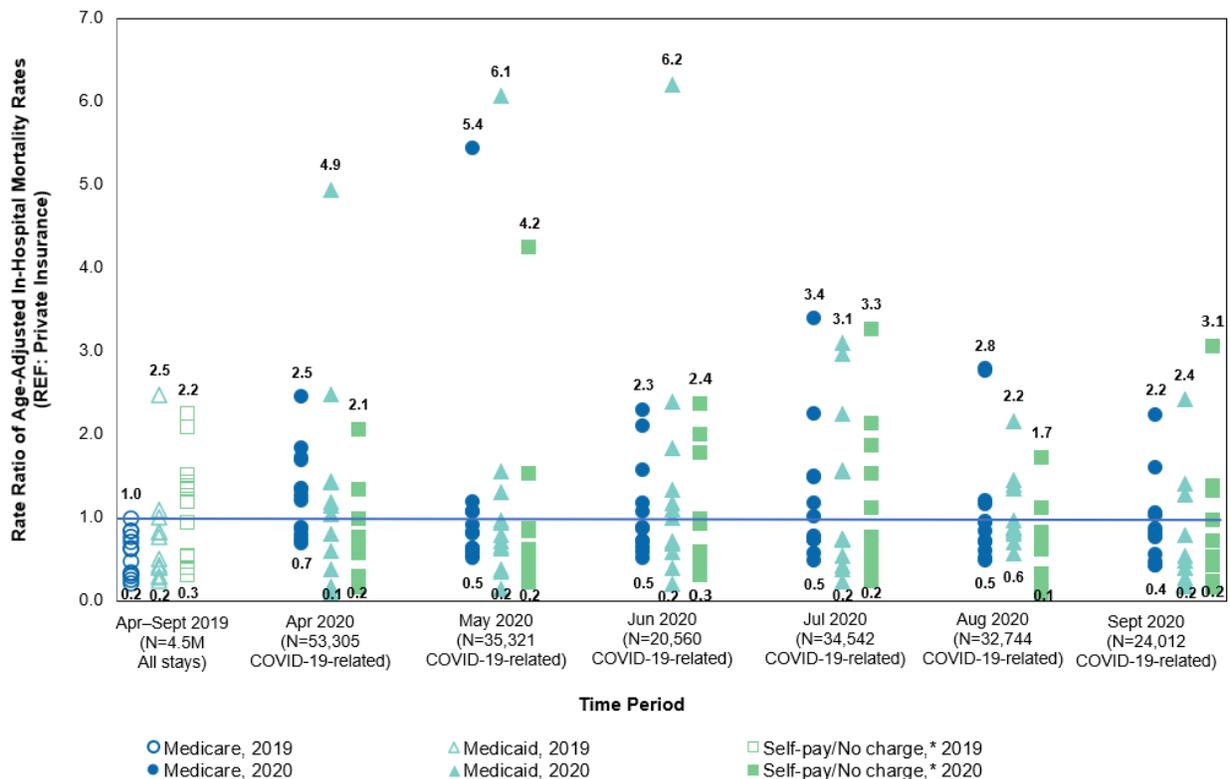
*Self-pay/No charge: includes self-pay, no charge, charity, and no expected payment.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), 2019 State Inpatient Databases (SID) and 2020 quarterly data from 13 States (CO, GA, IA, KY, MD, MI, MN, MO, MS, NJ, OH, SC, and VT) (available as of March 2021)

- In April 2020, the age-adjusted in-hospital mortality rate was similar across all expected payer groups (17.3–18.5 per 100 standard hospitalized population).
- The monthly age-adjusted in-hospital mortality rates for COVID-19-related hospitalizations billed to Medicare and Medicaid declined during April–July 2020, increased in August 2020, and declined in September 2020. In June 2020, the age-adjusted in-hospital mortality rate for COVID-19-related hospitalizations billed to Medicare was more than 10 percent lower than those billed to all other payers (8.9 vs. 10.3–10.9 per 100 standard hospitalized population). In September 2020, the age-adjusted in-hospital mortality rate for COVID-19-related hospitalizations billed to Medicaid was more than 10 percent lower than those billed to all other payers (7.2 vs. 8.1–10.4 per 100 standard hospitalized population).
- The monthly COVID-19-related age-adjusted in-hospital mortality rates for hospitalizations billed to private insurance were higher than those billed to all other payers in May 2020 and September 2020 (May: 15.7 vs. 12.8–13.2; September: 10.4 vs. 7.2–9.7 per 100 standard population).
- In April, May, July, and August 2020, the monthly age-adjusted in-hospital mortality rates for COVID-19-related hospitalizations billed as self-pay/no charge were similar to the rates for hospitalizations billed to Medicare and Medicaid.

Figure 5 displays the State variation in the rate ratio (RR) of COVID-19-related age-adjusted in-hospital mortality rates in April–September 2020, by primary expected payer. As a reference, age-adjusted in-hospital mortality RRs for all hospitalizations during April–September 2019 in each State are shown. Each dot in the figure represents one State’s age-adjusted in-hospital mortality RR for a specific expected payer group (i.e., State-specific age-adjusted in-hospital mortality rate for a specific expected payer group divided by the age-adjusted in-hospital mortality rate for private insurance). If there were fewer than 30 discharges in a State-specific expected payer category, the corresponding age-adjusted State-specific in-hospital mortality RR is suppressed.

Figure 5. State-specific COVID-19-related age-adjusted in-hospital mortality rate ratios in April–September 2020 compared with the State-specific all-cause in-hospital mortality rate ratios in April–September 2019, by expected payer, 13 States



Abbreviation: REF, reference group

Note: If there were fewer than 30 discharges in a State-specific primary expected payer category, the corresponding age-adjusted State-specific in-hospital mortality rate ratio is suppressed. In-hospital mortality rates were adjusted for age based on the national age distribution of hospitalizations for patients in the 2018 Healthcare Cost and Utilization Project (HCUP) National Inpatient Sample (NIS).

*Self-pay/No charge: includes self-pay, no charge, charity, and no expected payment.

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), 2019 State Inpatient Databases (SID) and 2020 quarterly data from 13 States (CO, GA, IA, KY, MD, MI, MN, MO, MS, NJ, OH, SC, and VT) (available as of March 2021)

- State-specific COVID-19-related age-adjusted in-hospital mortality RRs varied by expected payer and across time.
- In April, May, and June 2020, several States had notable outliers in the COVID-19-related age-adjusted in-hospital mortality rate ratios, that is, RRs > 4.0 (three State-specific RRs for Medicaid vs. private insurance, one State-specific RR for Medicare vs. private insurance, and one State-specific RR for self-pay/no charge vs. private insurance).

References

¹ Annual Estimates of the Resident Population by Sex, Race, and Hispanic Origin for the United States: April 1, 2010 to July 1, 2019 (NC-EST2019-SR11H). U.S. Census Bureau, Population Division. Release Date: June 2020. www.census.gov/newsroom/press-kits/2020/population-estimates-detailed.html. Accessed March 1, 2021.

² Annual Estimates of the Resident Population by Sex, Race, and Hispanic Origin for Colorado, Georgia, Iowa, Kentucky, Maryland, Michigan, Minnesota, Mississippi, Missouri, New Jersey, Ohio, South Carolina, and Vermont: April 1, 2010 to July 1, 2019 (NC-EST2019-SR11H-nn). U.S. Census Bureau, Population Division. Release Date: June 2020. www.census.gov/data/tables/time-series/demo/popest/2010s-state-detail.html. Accessed March 1, 2021.

³ Agency for Healthcare Research and Quality. HCUP Summary Trend Tables. Healthcare Cost and Utilization Project (HCUP). Agency for Healthcare Research and Quality. Updated December 2020. www.hcup-us.ahrq.gov/reports/trendtables/summarytrendtables.jsp. Accessed February 10, 2021.

About Statistical Briefs

Healthcare Cost and Utilization Project (HCUP) Statistical Briefs provide basic descriptive statistics on a variety of topics using HCUP administrative healthcare data. Topics include hospital inpatient, ambulatory surgery, and emergency department use and costs, quality of care, access to care, medical conditions, procedures, and patient populations, among other topics. The reports are intended to generate hypotheses that can be further explored in other research; the reports are not designed to answer in-depth research questions using multivariate methods.

Data Source

The estimates in this Statistical Brief are based upon data from the HCUP 2019 State Inpatient Databases (SID) and 2020 quarterly inpatient data. Information based on quarterly data should be considered preliminary, as additional quarterly data may become available over time. This analysis is limited to patients treated in community, nonrehabilitation hospitals in 13 States (Colorado, Georgia, Iowa, Kentucky, Maryland, Michigan, Minnesota, Mississippi, Missouri, New Jersey, Ohio, South Carolina, and Vermont) for which HCUP data were available for April–September 2019 and April–September 2020. These States account for 24.7 percent of the total U.S. population.^{1,2} All of the information contained in this Statistical Brief (except age-adjusted rates) can be found in the HCUP Summary Trend Tables at www.hcup-us.ahrq.gov/reports/trendtables/summarytrendtables.jsp.

The HCUP inpatient data contain the universe of the inpatient discharge abstracts in the participating HCUP States, translated into a uniform format to facilitate multistate comparisons and analyses. In the aggregate, the inpatient data encompass more than 95 percent of all U.S. community hospital discharges. The inpatient data can be used to investigate questions unique to one State, to compare data from two or more States, to conduct market-area variation analyses, and to identify State-specific trends in inpatient care utilization, access, charges, and outcomes.

Types of hospitals included in HCUP State Inpatient Databases (and quarterly inpatient data)

This analysis used SID and quarterly inpatient data limited to information from community hospitals, which are defined as short-term, non-Federal, general, and other hospitals, excluding hospital units of other institutions (e.g., prisons). Community hospitals include obstetrics and gynecology, otolaryngology, orthopedic, cancer, pediatric, public, and academic medical center hospitals. Excluded for this analysis are long-term care facilities such as rehabilitation, psychiatric, and alcoholism and chemical dependency hospitals. However, if a patient received long-term care, rehabilitation, or treatment for a psychiatric or chemical dependency condition in a community hospital, the discharge record for that stay was included in the analysis.

Definitions

Diagnoses and ICD-10-CM

The *principal diagnosis* is that condition established after study to be chiefly responsible for the patient's admission to the hospital. *Secondary diagnoses* are conditions that coexist at the time of admission that require or affect patient care treatment received or management, or that develop during the inpatient stay. *All-listed diagnoses* include the principal diagnosis plus the secondary conditions.

ICD-10-CM is the International Classification of Diseases, Tenth Revision, Clinical Modification. There are over 70,000 ICD-10-CM diagnosis codes.

Case definition

COVID-19-related hospitalizations are identified by any-listed ICD-10-CM code of U07.1 (2019 novel coronavirus disease) on the discharge record. Per coding guidelines,^b the use of U07.1 is based on documentation by the provider or documentation of a positive COVID-19 test result. The ICD-10-CM code for COVID-19 was implemented beginning April 1, 2020. As such, there may be some measurement error in the identification of cases.

Unit of analysis

The unit of analysis is the hospital discharge (i.e., the hospital stay), not a person or patient. This means that a person who is admitted to the hospital multiple times in 1 year will be counted each time as a separate discharge from the hospital.

Expected payer

To make coding uniform across all HCUP data sources, the primary expected payer for the hospital stay combines detailed categories into general groups:

- Medicare: includes fee-for-service and managed care Medicare
- Medicaid: includes fee-for-service and managed care Medicaid
- Private insurance: includes commercial nongovernmental payers, regardless of the type of plan (e.g., private health maintenance organizations [HMOs], preferred provider organizations [PPOs])
- Self-pay/No charge: includes self-pay, no charge, charity, and no expected payment
- Other payers: includes other Federal and local government programs (e.g., TRICARE, CHAMPVA, Indian Health Service, Black Lung, Title V) and Workers' Compensation

Due to variability in coding in "other" payer by State (from 1.6 to 7.4 percent) and difficulty with interpretation, estimates of "other" expected payers were excluded from the Statistical Brief. Less than 0.01 percent of discharges were missing information on expected payer.

In-hospital mortality rate, age-adjusted in-hospital mortality rate, and in-hospital mortality rate ratio

The simplest in-hospital mortality rate is the observed in-hospital mortality rate, defined as the total number of COVID-19-related deaths in the hospital divided by the number of patients hospitalized with COVID-19. However, the observed in-hospital mortality rate does not account for the age distribution of the population.

Because in-hospital mortality rates generally increase with age, another important measure is the age-adjusted mortality rate. The age-adjusted in-hospital mortality rate (in-hospital mortality per 100 standard population) is the proportion of patients with COVID-19 who died while in the hospital, standardized using the direct method and the age distribution of a standard population. The standard population is the nationwide hospitalized population in 2018, using data from the 2018 HCUP National Inpatient Sample (NIS). The rates represent the expected in-hospital mortality rates if the observed age-specific rates were applied to the same standard population.

^b Centers for Disease Control and Prevention, National Center for Health Statistics. ICD-10-CM Official Guidelines for Coding and Reporting FY 2021 (October 1, 2020 - September 30, 2021). www.cdc.gov/nchs/data/icd/10cmguidelines-FY2021.pdf. Accessed February 10, 2021.

The age-adjusted in-hospital mortality rate ratio is defined as the age-adjusted in-hospital mortality rate of one group divided by the age-adjusted in-hospital mortality rate of the comparison, or reference, group. State-specific age-adjusted in-hospital mortality rates are suppressed for groups with fewer than 30 discharges.

About HCUP

The Healthcare Cost and Utilization Project (HCUP, pronounced "H-Cup") 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 healthcare 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.

HCUP would not be possible without the contributions of the following data collection Partners from across the United States:

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

For More Information

For information on COVID-19 resources at AHRQ, refer to the AHRQ COVID-19 Resources page at www.ahrq.gov/coronavirus/index.html. For other information on COVID-19 healthcare utilization, refer to the HCUP Statistical Briefs located at www.hcup-us.ahrq.gov/reports/statbriefs/sb_covid.jsp.

For additional HCUP statistics, visit:

- HCUP Fast Stats at www.hcup-us.ahrq.gov/faststats/landing.jsp for easy access to the latest HCUP-based statistics for healthcare information topics
- HCUPnet, HCUP's interactive query system, at www.hcupnet.ahrq.gov/
- HCUP Summary Trend Tables at www.hcup-us.ahrq.gov/reports/trendtables/summarytrendtables.jsp for monthly information on hospital utilization

For more information about HCUP, visit www.hcup-us.ahrq.gov/.

For a detailed description of HCUP and more information on the design of the State Inpatient Databases (SID), please refer to the following database documentation:

Agency for Healthcare Research and Quality. Overview of the State Inpatient Databases (SID). Healthcare Cost and Utilization Project (HCUP). Rockville, MD: Agency for Healthcare Research and Quality. Updated October 2020. www.hcup-us.ahrq.gov/sidoverview.jsp. Accessed January 22, 2021.

Suggested Citation

Owens PL (AHRQ). COVID-19-Related Hospitalizations in 13 States, by Expected Payer, 2020. HCUP Statistical Brief #274. June 2021. Agency for Healthcare Research and Quality, Rockville, MD. www.hcup-us.ahrq.gov/reports/statbriefs/sb274-COVID19-Hospital-Payer.pdf.

Acknowledgments

The author would like to acknowledge the contributions of Marguerite Barrett of M.L. Barrett, Inc., in addition to Molly Hensche, Brendan Leonard, Minya Sheng, and Jennifer Welch of IBM Watson Health.

* * *

AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of healthcare in the United States. We also invite you to tell us how you are using this Statistical Brief and other HCUP data and tools, and to share suggestions on how HCUP products might be enhanced to further meet your needs. Please email us at hcup@ahrq.gov or send a letter to the address below:

Joel W. Cohen, Ph.D., Director
Center for Financing, Access and Cost Trends
Agency for Healthcare Research and Quality
5600 Fishers Lane
Rockville, MD 20857

This Statistical Brief was posted online on June 14, 2021.