HEALTHCARE COST AND UTILIZATION PROJECT

Agency for Healthcare Research and Quality

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Payers of Opioid-Related Inpatient Stays and Emergency Department Visits Nationally and by State, 2010 and 2015

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Introduction

The opioid epidemic in the United States is receiving significant attention at both the Federal and State levels. The Agency for Healthcare Research and Quality (AHRQ) is publishing a series of Statistical Briefs that provide descriptive information on opioid-related hospital use nationally and by State. In prior entries in this series, AHRQ reported the following:

- The national rate of opioid-related inpatient stays and emergency department (ED) visits increased 64.1 percent and 99.4 percent, respectively, between 2005 and 2014.[1]
- There was substantial variation across States in 2014 in the rate of opioid-related inpatient stays (more than five-fold) and ED visits (more than ten-fold).[2]
- Females and patients aged 65 years and older had the greatest increases in the rate of opioid-related inpatient stays between 2005 and 2014.[3]
- The highest rate of opioid-related inpatient stays and ED visits in most States in 2014 was among patients living in the lowest-income communities.[4]

This Healthcare Cost and Utilization Project (HCUP) Statistical Brief is the fourth report in AHRQ's series on opioid-related hospital use by State. It presents statistics based on HCUP Fast Stats on the primary expected payer of opioid-related hospital inpatient stays and ED visits in fiscal year (FY) 2010 (from quarter

Highlights

- Nationally, from 2010 to 2015, the share of opioid-related inpatient stays and emergency department (ED) visits shifted away from private payers and no insurance and toward public payers (Medicare and Medicaid).
- In 2015, the share of opioid-related stays by payer varied across 42 individual States. The range for each payer across States was as follows:
  - Medicare: 19.9–50.2 percent
  - Medicaid: 11.3–63.0 percent
  - Private insurance: 11.3–37.1 percent
  - Uninsured: 1.3–35.9 percent
- Similarly, in 2015, the share of opioid-related ED visits by payer varied across 23 individual States. The range for each payer across States was as follows:
  - Medicare: 10.9–31.7 percent
  - Medicaid: 10.1–59.9 percent
  - Private insurance: 12.2–48.8 percent
  - Uninsured: 5.7–44.5 percent
- The most consistent change from 2010 to 2015 across individual States was a decrease in the share of uninsured opioid-related stays and ED visits:
  - 34 of 42 States had a decrease in the share of uninsured opioid-related stays of 10 percent or more.
  - 18 of 23 States had a decrease in the share of uninsured opioid-related ED visits of 10 percent or more.

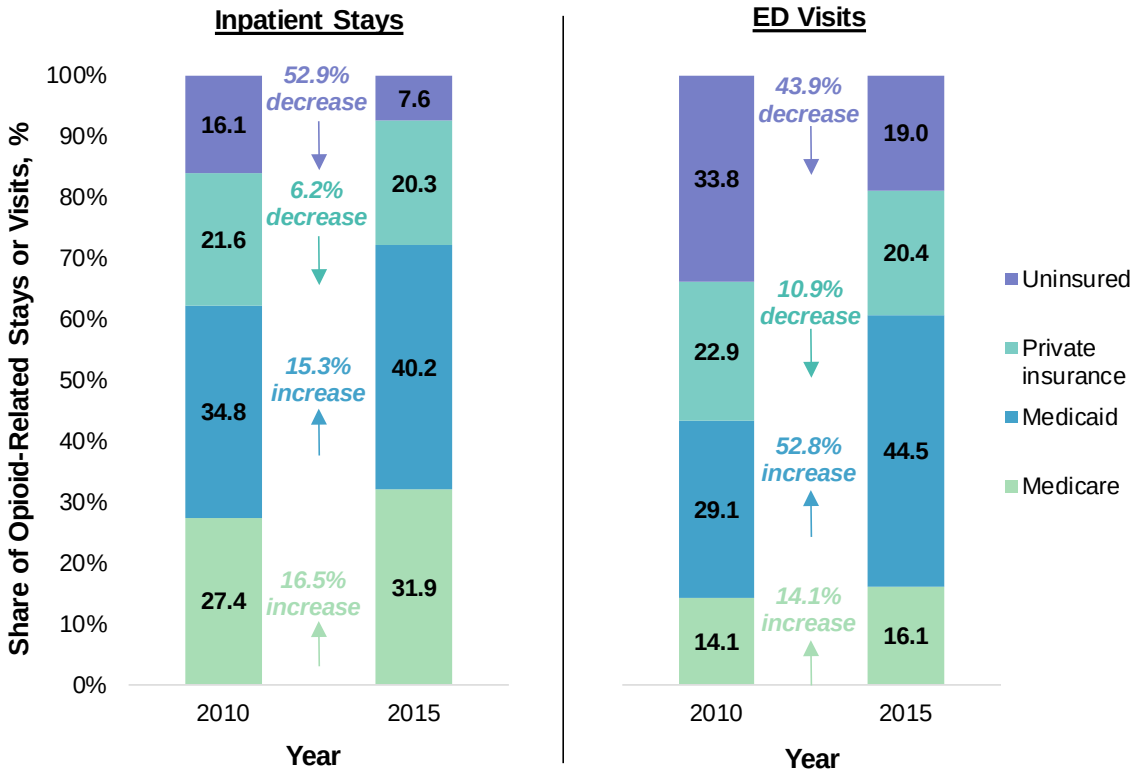
[1] Weiss AJ, Elixhauser A, Barrett ML, Steiner CA, Bailey MK, O'Malley L. Opioid-Related Inpatient Stays and Emergency Department Visits by State, 2009–2014. HCUP Statistical Brief #219. December 2016. Agency for Healthcare Research and Quality, Rockville, MD. www.hcup-us.ahrq.gov/reports/statbriefs/sb219-Opioid-Hospital-Stays-ED-Visits-by-State.pdf. Accessed February 13, 2018.
[2] Ibid.
[3] Weiss AJ, Bailey MK, O'Malley L, Barrett ML, Elixhauser A, Steiner CA. Patient Characteristics of Opioid-Related Inpatient Stays and Emergency Department Visits Nationally and by State, 2014. HCUP Statistical Brief #224. June 2017. Agency for Healthcare Research and Quality, Rockville, MD. www.hcup-us.ahrq.gov/reports/statbriefs/sb224-Patient-Characteristics-Opioid-Hospital-Stays-ED-Visits-by-State.pdf. Accessed February 13, 2018.
[4] Weiss AJ, Bailey MK, O'Malley L, Barrett ML, Elixhauser A, Steiner CA. Patient Residence Characteristics of Opioid-Related Inpatient Stays and Emergency Department Visits Nationally and by State, 2014. HCUP Statistical Brief #226. July 2017. Agency for Healthcare Research and Quality, Rockville, MD. www.hcup-us.ahrq.gov/reports/statbriefs/sb226-Patient-Residence-Opioid-Hospital-Stays-ED-Visits-by-State.pdf. Accessed February 13, 2018.

4 of 2009 through quarter 3 of 2010) and FY 2015 (from quarter 4 of 2014 through quarter 3 of 2015), hereinafter referred to as *2010* and *2015* in this Statistical Brief.[5,6] The percentage of opioid-related inpatient stays are presented by payer for each of the 42 States that provided inpatient data in 2010 and 2015. The percentage of opioid-related ED visits are presented by payer for each of the 23 States that provided ED visit data in 2010 and 2015. Identification of opioid-related stays and ED visits is based on all-listed diagnoses and includes events associated with prescription opioids or illicit opioids such as heroin.

Findings

National and State-level share of opioid-related inpatient stays and ED visits by payer, 2010 and 2015
Figure 1 presents the national distribution of opioid-related inpatient stays and emergency department (ED) visits by expected primary payer in 2010 and 2015.

Figure 1. Share[a] of opioid-related inpatient stays and ED visits by payer, 2010 and 2015



Abbreviation: ED, emergency department

[a] Opioid-related stays for which the expected payer was Other, missing, or invalid were excluded. The share of opioid-related hospital stays or ED visits was calculated based on only those records for which the expected payer was Medicare, Medicaid, private insurance, or uninsured; thus, the total is equal to 100 percent.

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), HCUP Fast Stats, Opioid-Related Hospital Use (www.hcup-us.ahrq.gov/faststats/landing.jsp) based on the HCUP National (Nationwide) Inpatient Sample (NIS) and the Nationwide Emergency Department Sample (NEDS)

[5] Agency for Healthcare Research and Quality. HCUP Fast Stats Web site, Opioid-Related Hospital Use path. www.hcup-us.ahrq.gov/faststats/landing.jsp. Accessed February 13, 2018.

[6] We used fiscal years (FYs) in this Statistical Brief because beginning FY 2016, on October 1, 2015, the United States transitioned from the ICD-9-CM clinical coding system to the ICD-10-CM/PCS clinical coding system. Although codes for opioid-related diagnoses are available in both coding systems, the change in coding systems resulted in a substantial shift in the number of opioid-related inpatient stays (ref. Heslin KC, Owens PL, Karaca Z, Barrett ML, Moore BJ, Elixhauser A. Trends in opioid-related inpatient stays shifted after the US transitioned to ICD-10-CM diagnosis coding in 2015. Medical Care. 2017;55(11):918–923). As a result, for comparability across years in this Statistical Brief, we used 2 FYs (2010 and 2015) with clinical coding entirely under the ICD-9-CM coding system.

- **From 2010 to 2015, the share of opioid-related inpatient stays and ED visits with Medicare or Medicaid increased while the share with private insurance or uninsured decreased.**

  From 2010 to 2015, the share of opioid-related stays increased 16.5 percent for Medicare, from 27.4 to 31.9 percent of all opioid-related stays, and increased 15.3 percent for Medicaid, from 34.8 to 40.2 percent of all opioid-related stays. Concurrently, the share of opioid-related stays decreased 6.2 percent for private insurance, from 21.6 to 20.3 percent of all opioid-related stays, and decreased 52.9 percent for the uninsured, from 16.1 to 7.6 percent of all opioid-related stays.

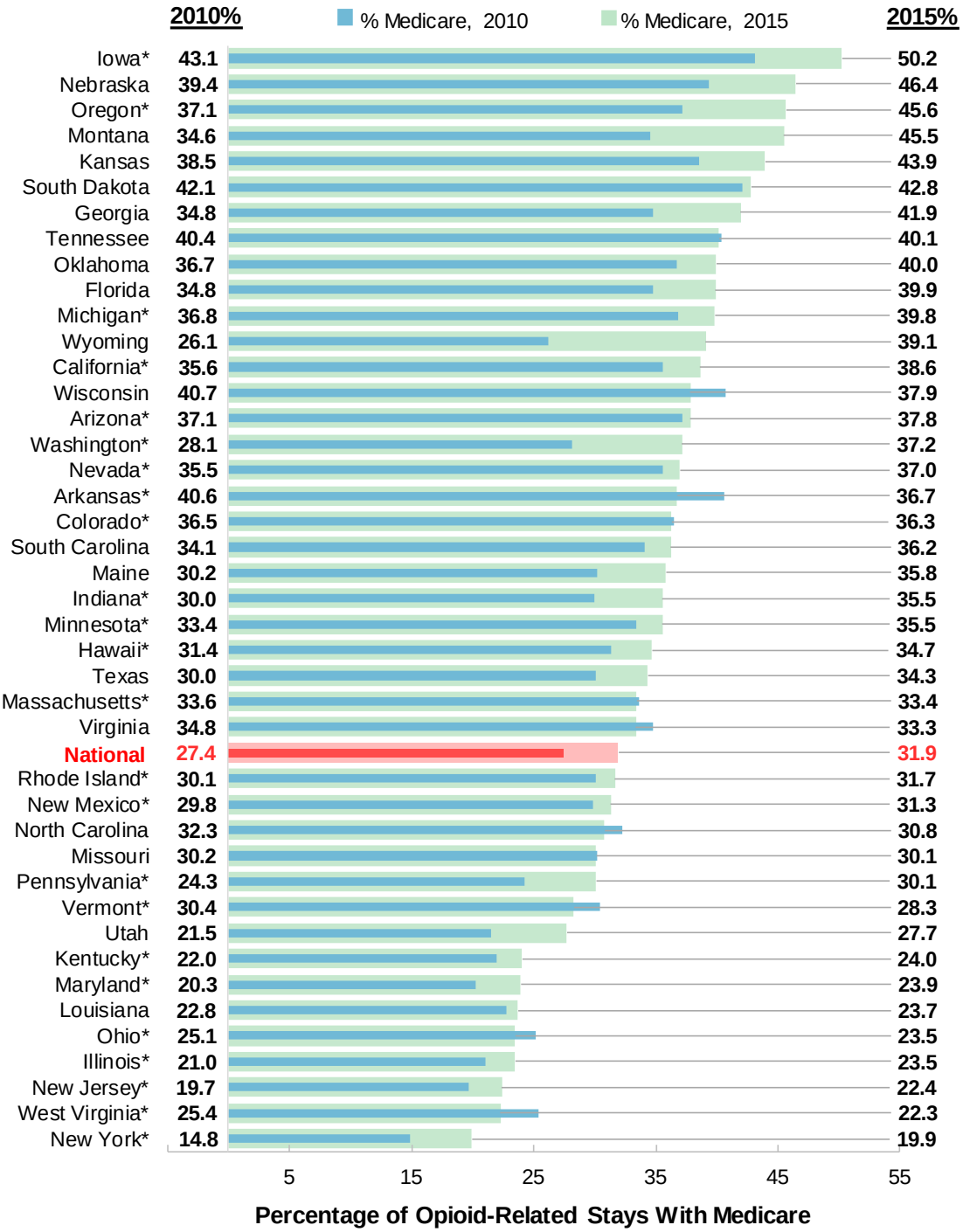
  Similarly, over the same 5-year period, the share of opioid-related ED visits increased 14.1 percent for Medicare, from 14.1 to 16.1 percent of all opioid-related ED visits, and increased 52.8 percent for Medicaid, from 29.1 to 44.5 percent of all opioid-related ED visits. The share of opioid-related ED visits decreased 10.9 percent for private insurance, from 22.9 to 20.4 percent of all opioid-related ED visits, and decreased 43.9 percent for the uninsured, from 33.8 to 19.0 percent of all opioid-related ED visits.

In the remainder of this Statistical Brief, the share of opioid-related inpatient stays and ED visits are presented by expected primary payer for each State that provided data in both 2010 and 2015.

Share of opioid-related inpatient stays by payer, by State, 2010 and 2015
Figures 2–5 present the percentage of opioid-related stays for 42 States in 2010 and 2015 with an expected primary payer of Medicare (Figure 2), Medicaid (Figure 3), private insurance (Figure 4), and uninsured (Figure 5). For each State, the percentage of stays in 2010 is shown in the left column and is represented by the thin blue line; the percentage of stays in 2015 is shown in the right column and is represented by the wide green line. The percentage of opioid-related stays nationally (encompassing all States that contributed data to HCUP in 2010 or 2015) is provided for comparison. Appendix A lists the percentage change in share of opioid-related inpatient stays by payer between 2010 and 2015 for each State.

Figure 2 presents the percentage of opioid-related inpatient stays with Medicare as the expected primary payer among the 42 States that provided data in 2010 and 2015. States are ordered according to their percentage of opioid-related stays with Medicare in 2015.

Figure 2. Percentage of opioid-related inpatient stays with Medicare by State, 2010 and 2015



Note: An asterisk denotes States that expanded Medicaid prior to fiscal year 2015, with the exception of Indiana, which expanded Medicaid on February 1, 2015, and Pennsylvania, which expanded Medicaid on January 1, 2015.

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), HCUP Fast Stats, Opioid-Related Hospital Use (www.hcup-us.ahrq.gov/faststats/landing.jsp) based on the HCUP National (Nationwide) Inpatient Sample (NIS) and the HCUP State Inpatient Databases (SID)

- **The share of opioid-related inpatient stays with Medicare in 2015 ranged from 50.2 percent to 19.9 percent across 42 States.**

  In 2015, the highest share of opioid-related stays with Medicare was in Iowa (50.2 percent), followed by Nebraska (46.4 percent), Oregon (45.6 percent), Montana (45.5 percent), and Kansas (43.9 percent). The lowest share of opioid-related stays with Medicare was in New York (19.9 percent), followed by West Virginia (22.3 percent), New Jersey (22.4 percent), Illinois (23.5 percent), and Ohio (23.5 percent). Nationally, in 2015, the share of opioid-related stays with Medicare was 31.9 percent.

- **Nearly all of the 42 States had either an increase or minimal change from 2010 to 2015 in the share of opioid-related stays with Medicare.**

  From 2010 to 2015, 19 of 42 States had an increase of 10 percent or more in the share of opioid-related stays with Medicare. Wyoming had the largest increase in share (49.5 percent), increasing from 26.1 to 39.1 percent of opioid-related stays with Medicare. New York and Washington had the next largest increases in share of opioid-related stays with Medicare (34.5 and 32.2 percent increases, respectively).

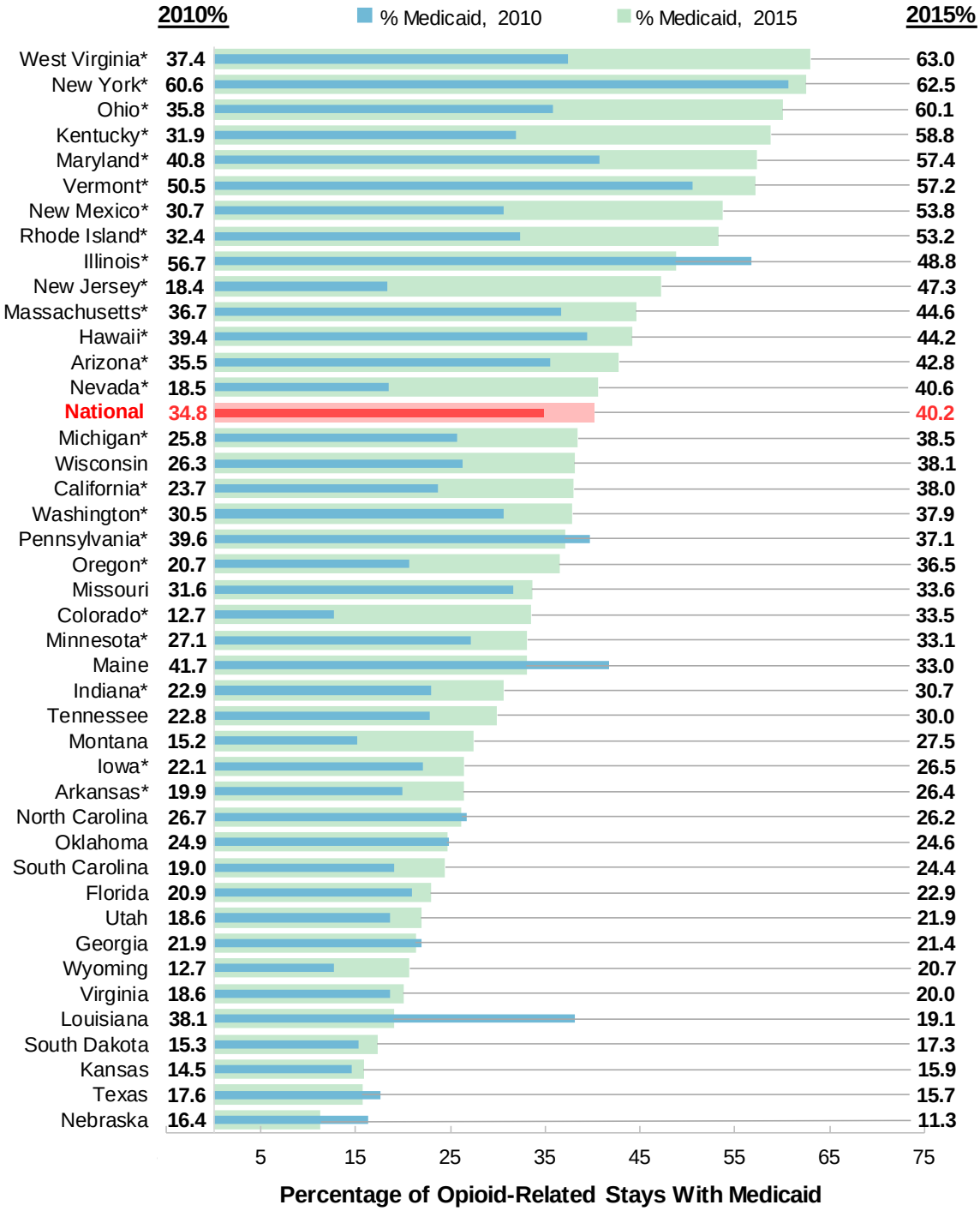
  Only one State had a decrease of 10 percent or more in the share of opioid-related stays with Medicare from 2010 to 2015. West Virginia had a 12.3 percent decrease in share, decreasing from 25.4 to 22.3 percent of opioid-related stays with Medicare.

  The remaining 22 of 42 States had a change of less than 10 percent in the share of opioid-related stays with Medicare from 2010 to 2015, ranging from a 9.4 percent increase in share in Kentucky to a 9.5 percent decrease in share in Arkansas.

  Appendix A lists the percentage change in share of opioid-related inpatient stays with Medicare between 2010 and 2015 for each State.

Figure 3 presents the percentage of opioid-related inpatient stays with Medicaid as the expected primary payer among the 42 States that provided data in 2010 and 2015. States are ordered according to their percentage of opioid-related stays with Medicaid in 2015.

Figure 3. Percentage of opioid-related inpatient stays with Medicaid by State, 2010 and 2015



Note: An asterisk denotes States that expanded Medicaid prior to fiscal year 2015, with the exception of Indiana, which expanded Medicaid on February 1, 2015, and Pennsylvania, which expanded Medicaid on January 1, 2015.

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), HCUP Fast Stats, Opioid-Related Hospital Use (www.hcup-us.ahrq.gov/faststats/landing.jsp) based on the HCUP National (Nationwide) Inpatient Sample (NIS) and the HCUP State Inpatient Databases (SID)

- **The share of opioid-related inpatient stays with Medicaid in 2015 ranged from 63.0 percent to 11.3 percent across 42 States.**

  In 2015, the highest share of opioid-related stays with Medicaid was in West Virginia (63.0 percent), followed by New York (62.5 percent), Ohio (60.1 percent), Kentucky (58.8 percent), and Maryland (57.4 percent). The lowest share of opioid-related stays with Medicaid was in Nebraska (11.3 percent), followed by Texas (15.7 percent), Kansas (15.9 percent), South Dakota (17.3 percent), and Louisiana (19.1 percent). Nationally, in 2015, the share of opioid-related stays with Medicaid was 40.2 percent.

- **The majority of 42 States had an increase from 2010 to 2015 in the share of opioid-related stays with Medicaid.**

  From 2010 to 2015, 28 of 42 States had an increase of 10 percent or more in the share of opioid-related stays with Medicaid. Colorado had the largest increase in share (163.6 percent), increasing from 12.7 to 33.5 percent of opioid-related stays with Medicaid. New Jersey and Nevada had the next largest increases in share of opioid-related stays with Medicaid (157.5 and 119.4 percent increases, respectively).

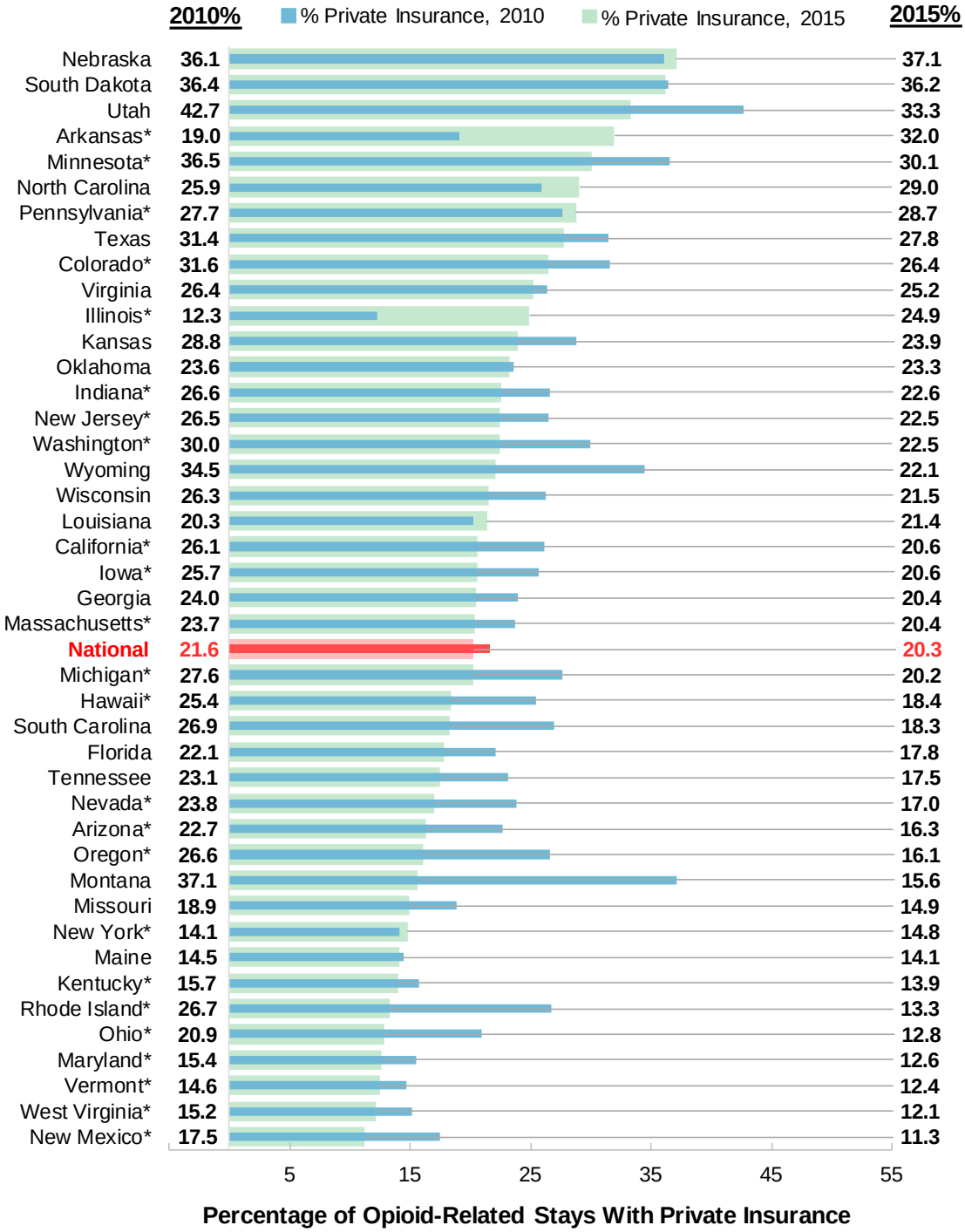
  A total of 5 of 42 States had a decrease of 10 percent or more in the share of opioid-related stays with Medicaid from 2010 to 2015. Louisiana had the largest decrease in share (50.0 percent), decreasing from 38.1 to 19.1 percent of opioid-related stays with Medicaid. Nebraska and Maine had the next largest decreases in share of opioid-related stays with Medicaid (31.1 and 20.9 percent decreases, respectively).

  The remaining 9 of 42 States had a change of less than 10 percent in the share of opioid-related stays with Medicaid from 2010 to 2015, ranging from a 9.4 percent increase in share in Florida to a 6.4 percent decrease in share in Pennsylvania.

  Appendix A lists the percentage change in share of opioid-related inpatient stays with Medicaid between 2010 and 2015 for each State.

Figure 4 presents the percentage of opioid-related inpatient stays with private insurance as the expected primary payer among the 42 States that provided data in 2010 and 2015. States are ordered according to their percentage of opioid-related stays with private insurance in 2015.

Figure 4. Percentage of opioid-related inpatient stays with private insurance by State, 2010 and 2015



Note: An asterisk denotes States that expanded Medicaid prior to fiscal year 2015, with the exception of Indiana, which expanded Medicaid on February 1, 2015, and Pennsylvania, which expanded Medicaid on January 1, 2015.

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), HCUP Fast Stats, Opioid-Related Hospital Use (www.hcup-us.ahrq.gov/faststats/landing.jsp) based on the HCUP National (Nationwide) Inpatient Sample (NIS) and the HCUP State Inpatient Databases (SID)

- **The share of opioid-related inpatient stays with private insurance in 2015 ranged from 37.1 percent to 11.3 percent across 42 States.**

  In 2015, the highest share of opioid-related stays with private insurance was in Nebraska (37.1 percent), followed by South Dakota (36.2 percent), Utah (33.3 percent), Arkansas (32.0 percent), and Minnesota (30.1 percent). The lowest share of opioid-related stays with private insurance was in New Mexico (11.3 percent), followed by West Virginia (12.1 percent), Vermont (12.4 percent), Maryland (12.6 percent), and Ohio (12.8 percent). Nationally, in 2015, the share of opioid-related stays with private insurance was 20.3 percent.

- **The majority of 42 States had a decrease from 2010 to 2015 in the share of opioid-related stays with private insurance.**

  From 2010 to 2015, 31 of 42 States had a decrease of 10 percent or more in the share of opioid-related stays with private insurance. Montana had the largest decrease in share (57.9 percent), decreasing from 37.1 to 15.6 percent of opioid-related stays with private insurance. Rhode Island and Oregon had the next largest decreases in share of opioid-related stays with private insurance (50.1 and 39.6 percent decreases, respectively).

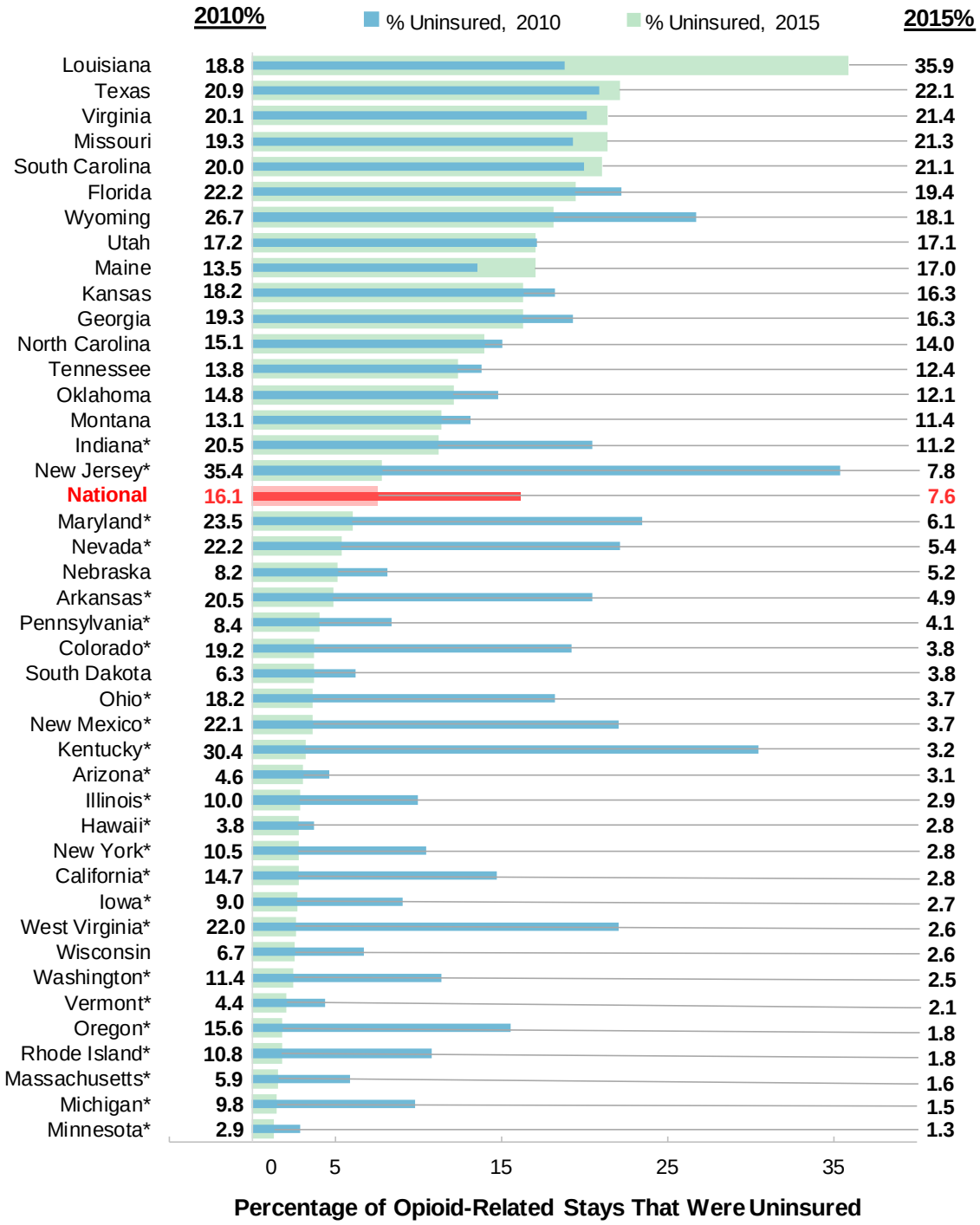
  Only three States had an increase of 10 percent or more in the share of opioid-related stays with private insurance from 2010 to 2015. Illinois had a 102.4 percent increase in share, increasing from 12.3 to 24.9 percent of opioid-related stays with private insurance. Arkansas and North Carolina also had notable increases in share of opioid-related stays with private insurance (67.9 and 11.9 percent increases, respectively).

  The remaining 8 of 42 States had a change of less than 10 percent in the share of opioid-related stays with private insurance from 2010 to 2015, ranging from a 5.6 percent increase in share in Louisiana to a 4.6 percent decrease in share in Virginia.

  Appendix A lists the percentage change in share of opioid-related inpatient stays with private insurance between 2010 and 2015 for each State.

Figure 5 presents the percentage of opioid-related inpatient stays that were uninsured among the 42 States that provided data in 2010 and 2015. States are ordered according to their percentage of opioid-related stays that were uninsured in 2015.

Figure 5. Percentage of opioid-related inpatient stays that were uninsured by State, 2010 and 2015



Note: An asterisk denotes States that expanded Medicaid prior to fiscal year 2015, with the exception of Indiana, which expanded Medicaid on February 1, 2015, and Pennsylvania, which expanded Medicaid on January 1, 2015.

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), HCUP Fast Stats, Opioid-Related Hospital Use (www.hcup-us.ahrq.gov/faststats/landing.jsp) based on the HCUP National (Nationwide) Inpatient Sample (NIS) and the HCUP State Inpatient Databases (SID)

- **The share of opioid-related inpatient stays that were uninsured in 2015 ranged from 35.9 percent to 1.3 percent across 42 States.**

  In 2015, the highest share of opioid-related stays that were uninsured was in Louisiana (35.9 percent), followed by Texas (22.1 percent), Virginia (21.4 percent), Missouri (21.3 percent), and South Carolina (21.1 percent). The lowest share of opioid-related stays that were uninsured was in Minnesota (1.3 percent), followed by Michigan (1.5 percent), Massachusetts (1.6 percent), Rhode Island (1.8 percent), and Oregon (1.8 percent). Nationally, in 2015, the share of opioid-related stays that were uninsured was 7.6 percent.

- **The majority of 42 States had a decrease from 2010 to 2015 in the share of opioid-related stays that were uninsured.**

  From 2010 to 2015, 34 of 42 States had a decrease of 10 percent or more in the share of opioid-related stays that were uninsured. Kentucky had the largest decrease in share (89.5 percent), decreasing from 30.4 to 3.2 percent of opioid-related stays that were uninsured. Oregon and West Virginia had the next largest decreases in share of opioid-related stays that were uninsured (88.2 and 88.1 percent decreases, respectively).

  Only three States had an increase of 10 percent or more in the share of opioid-related stays that were uninsured from 2010 to 2015. Louisiana had a 90.5 percent increase in share, increasing from 18.8 to 35.9 percent of opioid-related stays that were uninsured. Maine and Missouri also had notable increases in share of opioid-related stays that were uninsured (26.0 and 10.4 percent increases, respectively).

  The remaining 5 of 42 States had a change of less than 10 percent in the share of opioid-related stays that were uninsured from 2010 to 2015, ranging from a 6.4 percent increase in share in Virginia to a 7.1 percent decrease in share in North Carolina.

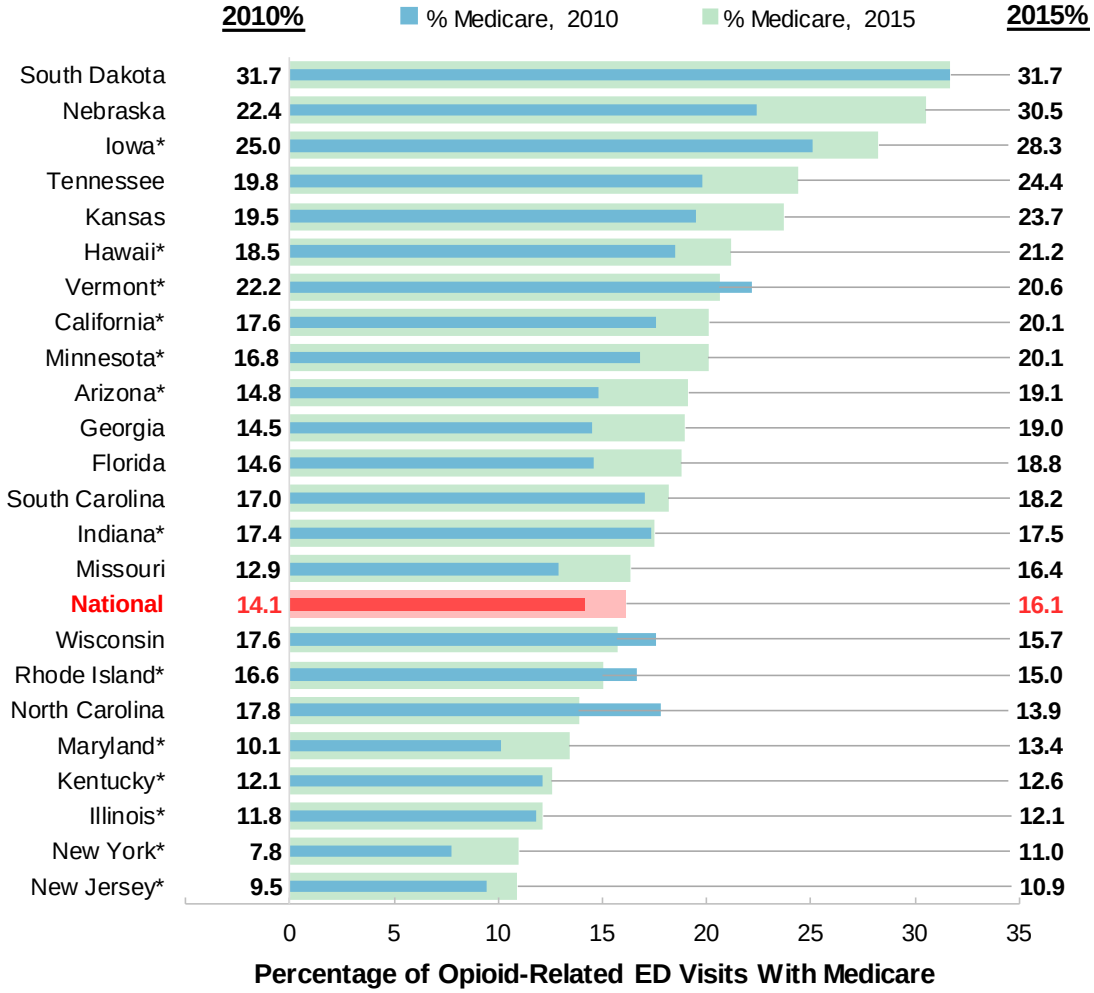
  Appendix A lists the percentage change in share of opioid-related inpatient stays that were uninsured between 2010 and 2015 for each State.

Share of opioid-related ED visits by payer, by State, 2010 and 2015

Figures 6–9 present the share of opioid-related ED visits for 23 States in 2010 and 2015 with an expected primary payer of Medicare (Figure 6), Medicaid (Figure 7), private insurance (Figure 8), and uninsured (Figure 9). For each State, the percentage of visits in 2010 is shown in the left column and is represented by the thin blue line; the percentage of visits in 2015 is shown in the right column and is represented by the wide green line. The percentage of opioid-related ED visits nationally (encompassing all States that contributed data to HCUP in 2010 or 2015) is provided for comparison. Appendix B lists the percentage change in share of opioid-related ED visits by payer between 2010 and 2015 for each State.

Figure 6 presents the percentage of opioid-related ED visits with Medicare as the expected primary payer among the 23 States that provided data in 2010 and 2015. States are ordered according to their percentage of opioid-related ED visits with Medicare in 2015.

Figure 6. Percentage of opioid-related ED visits with Medicare by State, 2010 and 2015



Abbreviation: ED, emergency department

Note: An asterisk denotes States that expanded Medicaid prior to fiscal year 2015, with the exception of Indiana, which expanded Medicaid on February 1, 2015.

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), HCUP Fast Stats, Opioid-Related Hospital Use (www.hcup-us.ahrq.gov/faststats/landing.jsp) based on the HCUP National Emergency Department Sample (NEDS) and the HCUP State Emergency Department Databases (SEDD)

- **The share of opioid-related ED visits with Medicare in 2015 ranged from 31.7 percent to 10.9 percent across 23 States.**

  In 2015, the highest share of opioid-related ED visits with Medicare was in South Dakota (31.7 percent), followed by Nebraska (30.5 percent), Iowa (28.3 percent), Tennessee (24.4 percent), and Kansas (23.7 percent). The lowest share of opioid-related ED visits with Medicare was in New Jersey (10.9 percent), followed by New York (11.0 percent), Illinois (12.1 percent), Kentucky (12.6 percent), and Maryland (13.4 percent). Nationally, in 2015, the share of opioid-related ED visits with Medicare was 16.1 percent.

- **Nearly all of the 23 States had either an increase or minimal change from 2010 to 2015 in the share of opioid-related ED visits with Medicare.**

  From 2010 to 2015, 14 of 23 States had an increase of 10 percent or more in the share of opioid-related ED visits with Medicare. New York had the largest increase in share (41.6 percent), increasing from 7.8 to 11.0 percent of opioid-related ED visits with Medicare. Nebraska and Maryland had the next largest increases in share of opioid-related ED visits with Medicare (36.0 and 32.3 percent increases, respectively).

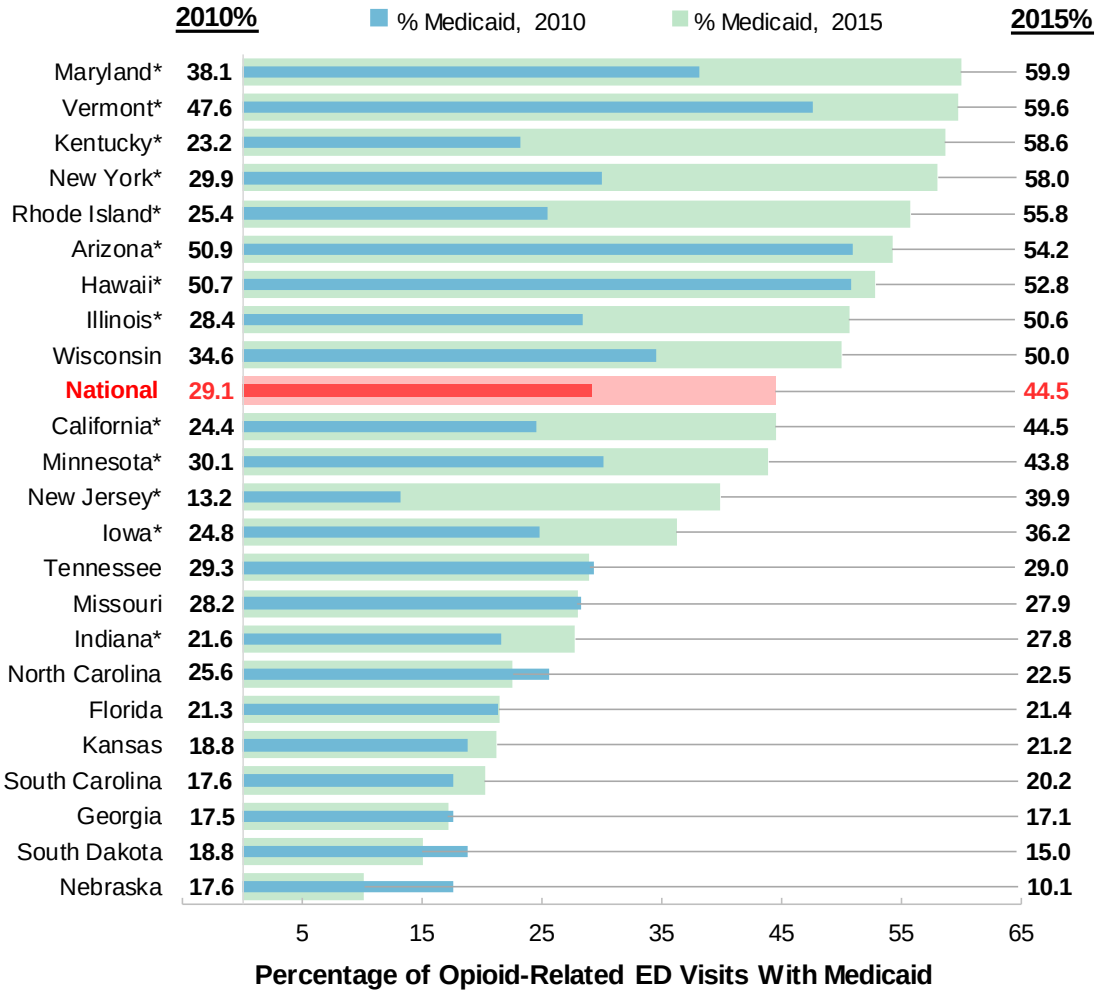
  Only two States had a decrease of 10 percent or more in the share of opioid-related ED visits with Medicare from 2010 to 2015. North Carolina had a 22.0 percent decrease in share, decreasing from 17.8 to 13.9 percent of opioid-related ED visits with Medicare. Wisconsin also had a notable decrease in share of opioid-related ED visits with Medicare (10.6 percent).

  The remaining 7 of 23 States had a change of less than 10 percent in the share of opioid-related ED visits with Medicare from 2010 to 2015, ranging from a 6.8 percent increase in share in South Carolina to a 9.8 percent decrease in share in Rhode Island.

  Appendix B lists the percentage change in share of opioid-related ED visits with Medicare between 2010 and 2015 for each State.

Figure 7 presents the percentage of opioid-related ED visits with Medicaid as the expected primary payer among the 23 States that provided data in 2010 and 2015. States are ordered according to their percentage of opioid-related ED visits with Medicaid in 2015.

Figure 7. Percentage of opioid-related ED visits with Medicaid by State, 2010 and 2015



Abbreviation: ED, emergency department

Note: An asterisk denotes States that expanded Medicaid prior to fiscal year 2015, with the exception of Indiana, which expanded Medicaid on February 1, 2015.

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), HCUP Fast Stats, Opioid-Related Hospital Use (www.hcup-us.ahrq.gov/faststats/landing.jsp) based on the HCUP National Emergency Department Sample (NEDS) and the HCUP State Emergency Department Databases (SEDD)

- **The share of opioid-related ED visits with Medicaid in 2015 ranged from 59.9 percent to 10.1 percent across 23 States.**

  In 2015, the highest share of opioid-related ED visits with Medicaid was in Maryland (59.9 percent), followed by Vermont (59.6 percent), Kentucky (58.6 percent), New York (58.0 percent), and Rhode Island (55.8 percent). The lowest share of opioid-related ED visits with Medicaid was in Nebraska (10.1 percent), followed by South Dakota (15.0 percent), Georgia (17.1 percent), South Carolina (20.2 percent), and Kansas (21.2 percent). Nationally, in 2015, the share of opioid-related ED visits with Medicaid was 44.5 percent.

- **Nearly all of the 23 States had either an increase or minimal change from 2010 to 2015 in the share of opioid-related ED visits with Medicaid.**

  From 2010 to 2015, 14 of 23 States had an increase of 10 percent or more in the share of opioid-related ED visits with Medicaid. New Jersey had the largest increase in share (201.7 percent), increasing from 13.2 to 39.9 percent of opioid-related ED visits with Medicaid. Kentucky and Rhode Island had the next largest increases in share of opioid-related ED visits with Medicaid (152.9 and 119.4 percent increases, respectively).

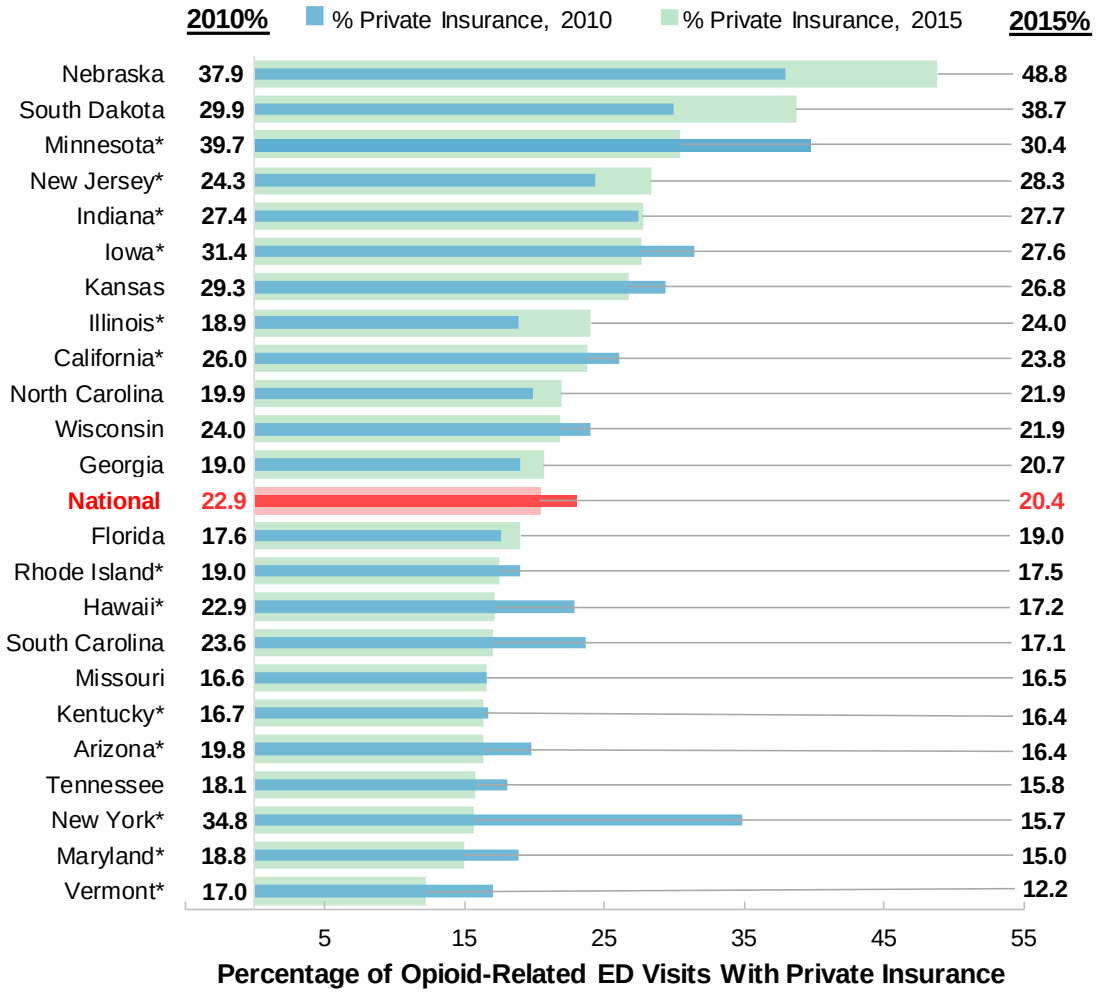
  Only three States had a decrease of 10 percent or more in the share of opioid-related ED visits with Medicaid from 2010 to 2015. Nebraska had a 42.4 percent decrease in share, decreasing from 17.6 to 10.1 percent of opioid-related ED visits with Medicaid. South Dakota and North Carolina also had notable decreases in share of opioid-related ED visits with Medicaid (20.3 and 11.8 percent decreases, respectively).

  The remaining 6 of 23 States had a change of less than 10 percent in the share of opioid-related ED visits with Medicaid from 2010 to 2015, ranging from a 6.5 percent increase in share in Arizona to a 2.3 percent decrease in share in Georgia.

  Appendix B lists the percentage change in share of opioid-related ED visits with Medicaid between 2010 and 2015 for each State.

Figure 8 presents the percentage of opioid-related ED visits with private insurance as the expected primary payer among the 23 States that provided data in 2010 and 2015. States are ordered according to their percentage of opioid-related ED visits with private insurance in 2015.

Figure 8. Percentage of opioid-related ED visits with private insurance by State, 2010 and 2015



Abbreviation: ED, emergency department

Note: An asterisk denotes States that expanded Medicaid prior to fiscal year 2015, with the exception of Indiana, which expanded Medicaid on February 1, 2015.

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), HCUP Fast Stats, Opioid-Related Hospital Use (www.hcup-us.ahrq.gov/faststats/landing.jsp) based on the HCUP National Emergency Department Sample (NEDS) and the HCUP State Emergency Department Databases (SEDD)

- **The share of opioid-related ED visits with private insurance in 2015 ranged from 48.8 percent to 12.2 percent across 23 States.**

  In 2015, the highest share of opioid-related ED visits with private insurance was in Nebraska (48.8 percent), followed by South Dakota (38.7 percent), Minnesota (30.4 percent), New Jersey (28.3 percent), and Indiana (27.7 percent). The lowest share of opioid-related ED visits with private insurance was in Vermont (12.2 percent), followed by Maryland (15.0 percent), New York (15.7 percent), Tennessee (15.8 percent), and Arizona (16.4 percent). Nationally, in 2015, the share of opioid-related ED visits with private insurance was 20.4 percent.

- **The majority of 23 States had either a decrease or minimal change from 2010 to 2015 in the share of opioid-related ED visits with private insurance.**

  From 2010 to 2015, 9 of 23 States had a decrease of 10 percent or more in the share of opioid-related ED visits with private insurance. New York had the largest decrease in share (54.9 percent), decreasing from 34.8 to 15.7 percent of opioid-related ED visits with private insurance. Vermont and South Carolina had the next largest decreases in share of opioid-related ED visits with private insurance (28.1 and 27.7 percent decreases, respectively).

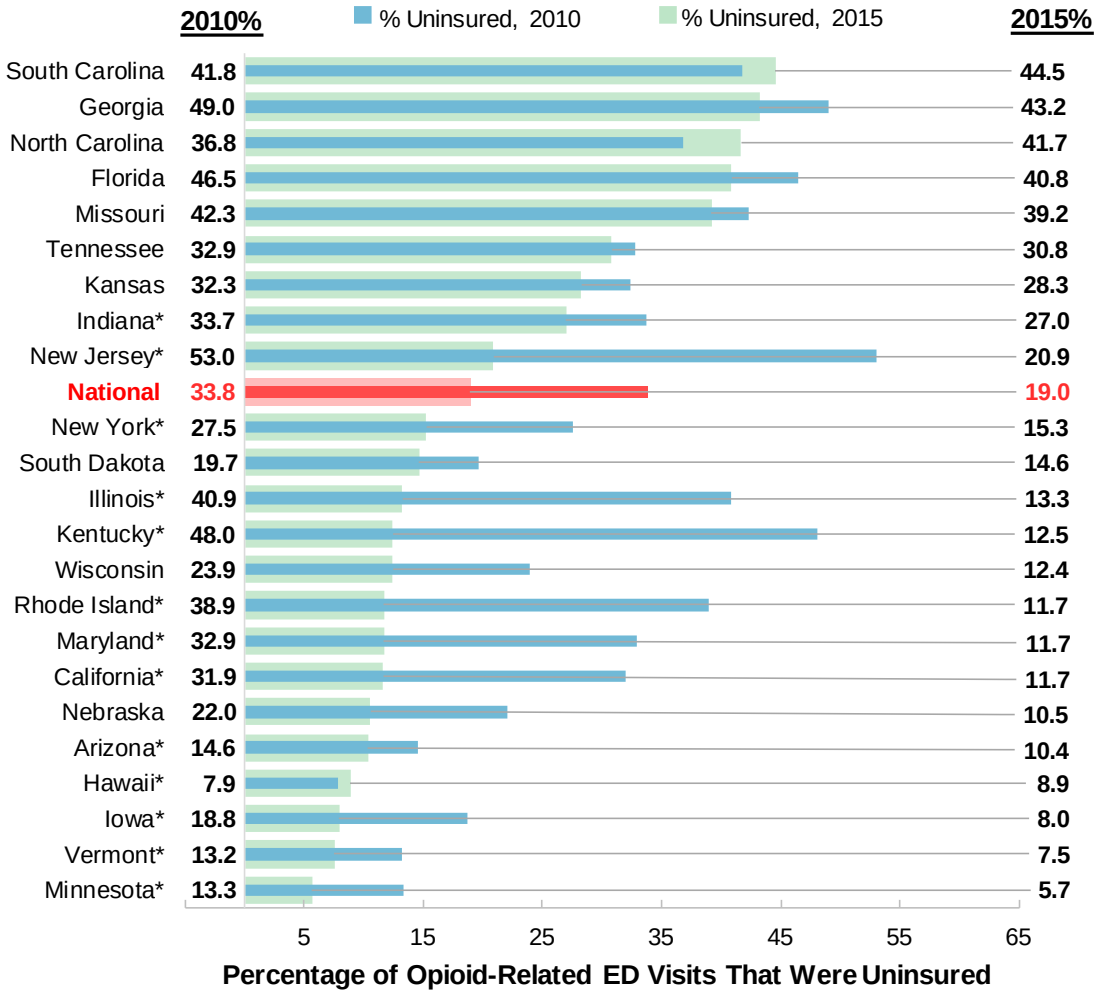
  A total of 5 of 23 States had an increase of 10 percent or more in the share of opioid-related ED visits with private insurance from 2010 to 2015. South Dakota had a 29.5 percent increase in share, increasing from 29.9 to 38.7 percent of opioid-related ED visits with private insurance. Nebraska and Illinois had the next largest increases in share of opioid-related ED visits with private insurance (28.8 and 27.0 percent increases, respectively).

  The remaining 9 of 23 States had a change of less than 10 percent in the share of opioid-related ED visits with private insurance from 2010 to 2015, ranging from an 8.9 percent increase in share in Georgia to an 8.7 percent decrease in share in Wisconsin, Kansas, and California.

  Appendix B lists the percentage change in share of opioid-related ED visits with private insurance between 2010 and 2015 for each State.

Figure 9 presents the percentage of opioid-related ED visits that were uninsured among the 23 States that provided data in 2010 and 2015. States are ordered according to their percentage of opioid-related ED visits that were uninsured in 2015.

Figure 9. Percentage of opioid-related ED visits that were uninsured by State, 2010 and 2015



Abbreviation: ED, emergency department

Note: An asterisk denotes States that expanded Medicaid prior to fiscal year 2015, with the exception of Indiana, which expanded Medicaid on February 1, 2015.

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), HCUP Fast Stats, Opioid-Related Hospital Use (www.hcup-us.ahrq.gov/faststats/landing.jsp) based on the HCUP National Emergency Department Sample (NEDS) and the HCUP State Emergency Department Databases (SEDD)

- **The share of opioid-related ED visits that were uninsured in 2015 ranged from 44.5 percent to 5.7 percent across 23 States.**

  In 2015, the highest share of opioid-related ED visits that were uninsured was in South Carolina (44.5 percent), followed by Georgia (43.2 percent), North Carolina (41.7 percent), Florida (40.8 percent), and Missouri (39.2 percent). The lowest share of opioid-related ED visits that were uninsured was in Minnesota (5.7 percent), followed by Vermont (7.5 percent), Iowa (8.0 percent), Hawaii (8.9 percent), and Arizona (10.4 percent). Nationally, in 2015, the share of opioid-related ED visits that were uninsured was 19.0 percent.

- **The majority of 23 States had a decrease from 2010 to 2015 in the share of opioid-related ED visits that were uninsured.**

  From 2010 to 2015, 18 of 23 States had a decrease of 10 percent or more in the share of opioid-related ED visits that were uninsured. Kentucky had the largest decrease in share (74.1 percent), decreasing from 48.0 to 12.5 percent of opioid-related ED visits that were uninsured. Rhode Island and Illinois had the next largest decreases in share of opioid-related ED visits that were uninsured (69.9 and 67.6 percent decreases, respectively).

  Only two States had an increase of 10 percent or more in the share of opioid-related ED visits that were uninsured from 2010 to 2015. North Carolina had a 13.3 percent increase in share, increasing from 36.8 to 41.7 percent of opioid-related ED visits that were uninsured. Hawaii also had a notable increase in share of opioid-related ED visits that were uninsured (12.3 percent increase).

  The remaining three States had a change of less than 10 percent in the share of opioid-related ED visits that were uninsured from 2010 to 2015: a 6.7 percent increase in share in South Carolina, a 6.1 percent decrease in share in Tennessee, and a 7.5 percent decrease in share in Missouri.

  Appendix B lists the percentage change in share of opioid-related ED visits that were uninsured between 2010 and 2015 for each State.

Appendix A. Percentage change in share of opioid-related inpatient stays by State, 2010 versus 2015

State	Medicare	Medicaid	Private insurance	Uninsured
National	**16.5**	**15.3**	**–6.2**	**–52.9**
Arizona*	2.0	20.3	–28.1	–33.6
Arkansas*	–9.5	32.8	67.9	–76.2
California*	8.6	60.5	–21.0	–81.1
Colorado*	–0.6	163.6	–16.3	–80.4
Florida	14.8	9.4	–19.7	–12.4
Georgia	20.6	–2.6	–14.7	–15.8
Hawaii*	10.4	12.0	–27.8	–25.3
Illinois*	11.5	–13.9	102.4	–71.2
Indiana*	18.5	33.8	–15.0	–45.4
Iowa*	16.5	19.7	–19.9	–70.3
Kansas	14.1	9.2	–16.9	–10.3
Kentucky*	9.4	84.4	–11.2	–89.5
Louisiana*	3.9	–50.0	5.6	90.5
Maine	18.4	–20.9	–2.5	26.0
Maryland*	17.9	40.7	–18.1	–74.2
Massachusetts*	–0.7	21.5	–14.1	–72.8
Michigan*	8.2	49.2	–26.8	–84.7
Minnesota*	6.2	22.2	–17.7	–55.0
Missouri	–0.2	6.4	–20.9	10.4
Montana*	31.5	80.9	–57.9	–12.8
Nebraska	17.9	–31.1	2.8	–36.5
Nevada*	4.1	119.4	–28.5	–75.8
New Jersey*	13.5	157.5	–15.2	–77.8
New Mexico*	5.0	75.3	–35.5	–83.4
New York*	34.5	3.2	4.6	–73.3
North Carolina	–4.7	–1.8	11.9	–7.1
Ohio*	–6.6	68.0	–38.7	–79.9
Oklahoma	8.9	–1.0	–1.3	–18.2
Oregon*	22.9	76.4	–39.6	–88.2
Pennsylvania*	24.1	–6.4	3.8	–51.8
Rhode Island*	5.2	64.5	–50.1	–83.6
South Carolina	6.3	28.4	–32.1	5.5
South Dakota	1.7	13.2	–0.6	–40.1
Tennessee	–0.5	31.6	–24.1	–10.2
Texas	14.3	–10.8	–11.6	5.9
Utah	28.8	17.9	–22.1	–0.6
Vermont*	–7.1	13.2	–15.1	–52.7
Virginia	–4.3	7.5	–4.6	6.4
Washington*	32.2	24.1	–25.1	–78.1
West Virginia*	–12.3	68.6	–20.4	–88.1
Wisconsin	–7.1	44.9	–18.1	–61.9
Wyoming	49.5	62.9	–35.9	–32.0

Note: An asterisk denotes States that expanded Medicaid prior to fiscal year 2015, with the exception of Indiana, which expanded Medicaid on February 1, 2015, and Pennsylvania, which expanded Medicaid on January 1, 2015.

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), HCUP Fast Stats, Opioid-Related Hospital Use (www.hcup-us.ahrq.gov/faststats/landing.jsp) based on the HCUP National (Nationwide) Inpatient Sample (NIS) and the HCUP State Inpatient Databases (SID)

Appendix B. Percentage change in share of opioid-related ED visits by State, 2010 versus 2015

State	Medicare	Medicaid	Private insurance	Uninsured
National	**14.1**	**52.8**	**–10.9**	**–43.9**
Arizona*	29.1	6.5	–17.2	–29.0
California*	14.3	81.9	–8.7	–63.5
Florida	28.8	0.5	7.7	–12.2
Georgia	30.7	–2.3	8.9	–11.7
Hawaii*	14.4	4.1	–25.0	12.3
Illinois*	2.8	78.1	27.0	–67.6
Indiana*	0.8	28.6	1.3	–19.8
Iowa*	12.8	45.9	–12.1	–57.5
Kansas	21.8	12.5	–8.7	–12.5
Kentucky*	3.6	152.9	–1.9	–74.1
Maryland*	32.3	57.1	–20.5	–64.4
Minnesota*	19.3	45.6	–23.5	–57.3
Missouri	27.0	–1.0	–0.1	–7.5
Nebraska	36.0	–42.4	28.8	–52.2
New Jersey*	15.4	201.7	16.5	–60.6
New York*	41.6	93.9	–54.9	–44.4
North Carolina	–22.0	–11.8	10.2	13.3
Rhode Island*	–9.8	119.4	–7.9	–69.9
South Carolina	6.8	14.7	–27.7	6.7
South Dakota	0.1	–20.3	29.5	–25.6
Tennessee	23.4	–1.2	–12.5	–6.1
Vermont*	–7.1	25.2	–28.1	–42.9
Wisconsin	–10.6	44.6	–8.7	–48.0

Abbreviation: ED, emergency department

Note: An asterisk denotes States that expanded Medicaid prior to fiscal year 2015, with the exception of Indiana, which expanded Medicaid on February 1, 2015.

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), HCUP Fast Stats, Opioid-Related Hospital Use (www.hcup-us.ahrq.gov/faststats/landing.jsp) based on the HCUP National Emergency Department Sample (NEDS) and the HCUP State Emergency Department Databases (SEDD)

About Statistical Briefs

Healthcare Cost and Utilization Project (HCUP) Statistical Briefs provide basic descriptive statistics on a variety of topics using HCUP administrative health care 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 2010 and 2015 National (Nationwide) Inpatient Sample (NIS), Nationwide Emergency Department Sample (NEDS), State Inpatient Databases (SID), and State Emergency Department Databases (SEDD). The statistics were based upon information from HCUP Fast Stats, a free, online tool that provides users with easy access to the latest HCUP-based statistics for health information topics, including opioid-related hospital use.[7] Emergency department (ED) visits (State and national) are restricted to those ED visits that do not result in an admission to the same hospital. ED visits resulting in admission to the same hospital are included in the inpatient stay statistics.

Inpatient statistics from HCUP Fast Stats were available for the following 42 States in 2010 and 2015: Arizona, Arkansas, California, Colorado, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

ED statistics from HCUP Fast Stats were available for the following 23 States in 2010 and 2015: Arizona, California, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Minnesota, Missouri, Nebraska, New Jersey, New York, North Carolina, Rhode Island, South Carolina, South Dakota, Tennessee, Vermont, and Wisconsin.

Definitions

Diagnoses and ICD-9-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 concomitant conditions that coexist at the time of admission or develop during the stay. *All-listed diagnoses* include the principal diagnosis plus these additional secondary conditions.

ICD-9-CM is the International Classification of Diseases, Ninth Revision, Clinical Modification, which assigns numeric codes to diagnoses. There are approximately 14,000 ICD-9-CM diagnosis codes.

Case definition
Opioid-related hospital use was identified using the following all-listed ICD-9-CM diagnosis codes:

- 304.00–304.02: Opioid type dependence (unspecified; continuous; episodic)
- 304.70–304.72: Combinations of opioid type drug with any other drug dependence (unspecified; continuous; episodic)
- 305.50–305.52: Opioid abuse (unspecified; continuous; episodic)
- 965.00–965.02; 965.09: Poisoning by opium (alkaloids), unspecified; heroin; methadone; other opiates and related narcotics
- 970.1: Poisoning by opiate antagonists
- E850.0–E850.2: Accidental poisoning by heroin; methadone; other opiates and related narcotics

[7] Agency for Healthcare Research and Quality. HCUP Fast Stats Web site, Opioid-Related Hospital Use path. www.hcup-us.ahrq.gov/faststats/landing.jsp. Accessed January 26, 2017.

- E935.0–E935.2: Heroin, methadone, other opiates and related narcotics causing adverse effects in therapeutic use
- E940.1: Opiate antagonists causing adverse effects in therapeutic use

It should be noted that ICD-9-CM diagnosis codes related to opioid dependence or abuse "in remission" were not used to identify opioid-related hospital use because remission does not indicate active use of opioids. Potential changes in the use of ICD-9-CM codes identifying opioid use cannot be isolated in these analyses.

These codes include opioid-related use stemming from illicit opioids such as heroin, illegal use of prescription opioids, and the use of opioids as prescribed. Each type of opioid use is important for understanding and addressing the opioid epidemic in the United States.[8] Although there may be interest in examining how much each type of opioid use contributes to the overall opioid problem, many of the opioid-related codes under the ICD-9-CM clinical coding system do not allow heroin-related cases to be explicitly identified (e.g., in the 304.0x series, heroin is not distinguished from other opioids). In addition, the codes do not distinguish between illegal use of prescription drugs and their use as prescribed.

The statistics for share of opioid-related inpatient stays and ED visits reported in this Statistical Brief are rounded to the nearest tenth. The statistics reported for the percentage change in share are calculated based on nonrounded share values.

Types of hospitals included in the HCUP National (Nationwide) Inpatient Sample
The National (Nationwide) Inpatient Sample (NIS) is based on data from community hospitals, which are defined as short-term, non-Federal, general, and other hospitals, excluding hospital units of other institutions (e.g., prisons). The NIS includes obstetrics and gynecology, otolaryngology, orthopedic, cancer, pediatric, public, and academic medical hospitals. Excluded are long-term care facilities such as rehabilitation, psychiatric, and alcoholism and chemical dependency hospitals. Beginning in 2012, long-term acute care hospitals are also excluded. 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 will be included in the NIS.

Types of hospitals included in the HCUP Nationwide Emergency Department Sample
The Nationwide Emergency Department Sample (NEDS) is based on data from community hospitals, which are defined as short-term, non-Federal, general, and other hospitals, excluding hospital units of other institutions (e.g., prisons). The NEDS includes specialty, pediatric, public, and academic medical hospitals. Excluded are long-term care facilities such as rehabilitation, psychiatric, and alcoholism and chemical dependency hospitals. Hospitals included in the NEDS have hospital-owned emergency departments (EDs) and no more than 90 percent of their ED visits resulting in admission.

Types of hospitals included in HCUP State Inpatient Databases
This analysis used State Inpatient Databases (SID) limited to data 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 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.

Types of hospitals included in HCUP State Emergency Department Databases
This analysis used State Emergency Department Databases (SEDD) limited to data from community hospitals with a hospital-owned ED. Community hospitals are defined as short-term, non-Federal, general, and other hospitals, excluding hospital units of other institutions (e.g., prisons). Community hospitals include specialty, pediatric, public, and academic medical hospitals. Excluded for this analysis

[8] Compton WM, Jones CM, Baldwin GT. Relationship between nonmedical prescription-opioid use and heroin use. The New England Journal of Medicine. 2016;374:154–63.

are long-term care facilities such as rehabilitation, psychiatric, and alcoholism and chemical dependency hospitals.

Unit of analysis
The unit of analysis for inpatient data 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. Inpatient stays include those for patients admitted through the ED. Patients transferred between inpatient hospitals are counted only once.

The unit of analysis for ED data is the ED visit, not a person or patient. This means that a person who is seen in the ED multiple times in 1 year will be counted each time as a separate visit in the ED. ED visits exclude those for patients admitted to the same hospital and also exclude patients transferred to another hospital.

Payer
Payer is the expected payer for the hospital stay or ED visit. To make coding uniform across all HCUP data sources, payer combines detailed categories into general groups:

- Medicare: includes patients covered by fee-for-service and managed care Medicare
- Medicaid: includes patients covered by fee-for-service and managed care Medicaid
- Private Insurance: includes Blue Cross, commercial carriers, and private health maintenance organizations (HMOs) and preferred provider organizations (PPOs)
- Uninsured: includes an insurance status of *self-pay* and *no charge*
- Other: includes Workers' Compensation, TRICARE/CHAMPUS, CHAMPVA, Title V, and other government programs

Hospital stays billed to the State Children's Health Insurance Program (SCHIP) may be classified as Medicaid, Private Insurance, or Other, depending on the structure of the State program. Because most State data do not identify patients in SCHIP specifically, it is not possible to present this information separately.

For this Statistical Brief, uninsured patients may also include those with an expected payer of Indian Health Services, county indigent, migrant health programs, Ryan White Act, Hill-Burton Free Care, or other State or local programs for the indigent when those programs are identifiable in the Partner-provided coding of expected payer. This reclassification of patients from the "Other" group to the "Uninsured" group is possible only for some States and not for national estimates.

Opioid-related stays for which the expected payer was Other, missing, or invalid were excluded. The share of opioid-related hospital stays or ED visits was calculated based only on those records for which the expected payer was Medicare, Medicaid, private insurance, or uninsured; thus, the total is equal to 100 percent. When more than one payer is listed for a hospital discharge or ED visit, the first-listed payer is used.

About HCUP

The Healthcare Cost and Utilization Project (HCUP, pronounced "H-Cup") is a family of health care 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 health care 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
Alaska State Hospital and Nursing Home Association
Arizona Department of Health Services
Arkansas Department of Health
California Office of Statewide Health Planning and Development
Colorado Hospital Association
Connecticut Hospital Association
District of Columbia Hospital Association
Florida Agency for Health Care Administration
Georgia Hospital Association
Hawaii Health Information Corporation
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
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
Oregon Office of Health Analytics
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

About the NIS

The HCUP National (Nationwide) Inpatient Sample (NIS) is a nationwide database of hospital inpatient stays. The NIS is nationally representative of all community hospitals (i.e., short-term, non-Federal, nonrehabilitation hospitals). The NIS includes all payers. It is drawn from a sampling frame that contains hospitals comprising more than 95 percent of all discharges in the United States. The vast size of the NIS allows the study of topics at the national and regional levels for specific subgroups of patients. In addition, NIS data are standardized across years to facilitate ease of use. Over time, the sampling frame for the NIS has changed; thus, the number of States contributing to the NIS varies from year to year. The NIS is intended for national estimates only; no State-level estimates can be produced.

The 2012 NIS was redesigned to optimize national estimates. The redesign incorporates two critical changes:

- Revisions to the sample design—starting with 2012, the NIS is now a *sample of discharge records from all HCUP-participating hospitals*, rather than a sample of hospitals from which all discharges were retained (as is the case for NIS years before 2012).

- Revisions to how hospitals are defined—the NIS now uses the *definition of hospitals and discharges supplied by the statewide data organizations* that contribute to HCUP, rather than the definitions used by the American Hospital Association (AHA) Annual Survey of Hospitals.

The new sampling strategy is expected to result in more precise estimates than those that resulted from the previous NIS design by reducing sampling error: for many estimates, confidence intervals under the new design are about half the length of confidence intervals under the previous design. The change in sample design for 2012 necessitates recomputation of prior years' NIS data to enable analyses of trends that use the same definitions of discharges and hospitals.

About the NEDS

The HCUP Nationwide Emergency Department Database (NEDS) is a unique and powerful database that yields national estimates of emergency department (ED) visits. The NEDS was constructed using records from both the HCUP State Emergency Department Databases (SEDD) and the State Inpatient Databases (SID). The SEDD capture information on 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 initially seen in the ED and then admitted to the same hospital. The NEDS was created to enable analyses of ED utilization patterns and support public health professionals, administrators, policymakers, and clinicians in their decisionmaking regarding this critical source of care. The NEDS is produced annually beginning in 2006. Over time, the sampling frame for the NEDS has changed; thus, the number of States contributing to the NEDS varies from year to year. The NEDS is intended for national estimates only; no State-level estimates can be produced.

About the SID

The HCUP State Inpatient Databases (SID) are hospital inpatient databases from data organizations participating in HCUP. The SID contain the universe of the inpatient discharge abstracts in the participating HCUP States, translated into a uniform format to facilitate multistate comparisons and analyses. Together, the SID encompass more than 95 percent of all U.S. community hospital discharges. The SID 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.

About the SEDD

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). The SEDD contain a core set of clinical and nonclinical information on all patients, including individuals covered by Medicare, Medicaid, or private insurance, as well as those who are uninsured. The SEDD 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 injury surveillance, emerging infections, and other conditions treated in the ED.

About HCUP Fast Stats

HCUP Fast Stats (www.hcup-us.ahrq.gov/faststats/landing.jsp) is an interactive, online tool that provides easy access to the quarterly HCUP-based statistics for select State and national health information topics. HCUP Fast Stats uses side-by-side comparisons of visual statistical displays, trend figures, or simple tables to convey complex information at a glance. Topics currently available in HCUP Fast Stats include State Trends in Hospital Use by Payer; National Hospital Utilization and Costs; and Opioid-Related Hospital Use, National and State. HCUP Fast Stats presents statistics using data from HCUP's National (Nationwide) Inpatient Sample (NIS), the Nationwide Emergency Department Sample (NEDS), the State Inpatient Databases (SID), and the State Emergency Department Databases (SEDD).

For More Information

For other information on mental health and substance abuse, including opioids, refer to the HCUP Statistical Briefs located at www.hcup-us.ahrq.gov/reports/statbriefs/sb_mhsa.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 health information topics
- HCUPnet, HCUP's interactive query system, at www.hcupnet.ahrq.gov/

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 National (Nationwide) Inpatient Sample (NIS), Nationwide Emergency Department Sample (NEDS), State Inpatient Databases (SID), or State Emergency Department Databases (SEDD), please refer to the following database documentation:

Agency for Healthcare Research and Quality. Overview of the National (Nationwide) Inpatient Sample (NIS). Healthcare Cost and Utilization Project (HCUP). Rockville, MD: Agency for Healthcare Research and Quality. Updated February 2018. www.hcup-us.ahrq.gov/nisoverview.jsp. Accessed February 12, 2018.

Agency for Healthcare Research and Quality. Overview of the Nationwide Emergency Department Sample (NEDS). Healthcare Cost and Utilization Project (HCUP). Rockville, MD: Agency for Healthcare Research and Quality. Updated December 2017. www.hcup-us.ahrq.gov/nedsoverview.jsp. Accessed January 18, 2018.

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 April 2017. www.hcup-us.ahrq.gov/sidoverview.jsp. Accessed January 18, 2018.

Agency for Healthcare Research and Quality. Overview of the State Emergency Department Databases (SEDD). Healthcare Cost and Utilization Project (HCUP). Rockville, MD: Agency for Healthcare Research and Quality. Updated September 2017. www.hcup-us.ahrq.gov/seddoverview.jsp. Accessed January 18, 2018.

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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 health care 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 e-mail us at hcup@ahrq.gov or send a letter to the address below:

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