Medicaid Access in Brief: Use of Emergency Departments by Children

Children covered by Medicaid or the State Children's Health Insurance Program (CHIP) visit the emergency department (ED) more frequently than privately insured and uninsured children (MACPAC 2014a). Studies have shown that ED use increases when there are barriers to timely care in other settings (MACPAC 2014b; O'Malley 2013; Cheung et al. 2012, 2011). Therefore, state Medicaid programs might be able to track ED use to determine where access can be improved so that families would be more likely to seek care in more appropriate and potentially more cost-effective settings.

We have found that regardless of age, race and ethnicity, income level, and special health care needs status, children with Medicaid or CHIP coverage were more likely than privately insured children to have visited an ED in the past 12 months. Reasons for visiting the ED, however, differed among population groups. When asked about their child's last visit to the ED, respondents for children in Medicaid or CHIP were more likely than respondents for privately insured children to report that their usual medical provider was not open or that they did not have another place to obtain care; this was also the case for families with incomes at or below 138 percent of the federal poverty level (FPL). By contrast, respondents of certain categories of privately insured children were more likely to report that the last ED visit was the result of the family's medical provider telling them to go to the ED or that the condition was too serious for treatment by the medical provider. One demographic category in which type of insurance did not affect most reported factors associated with the last ED visit was children with special health care needs, although children with special health care needs with Medicaid or CHIP coverage were more likely to be admitted to the hospital following their last ED visit than were privately insured children with special health care needs.

This issue brief examines children's ED use by insurance type, age, race and ethnicity, income, and special health care needs status, including reasons associated with going to the ED. The survey used for this analysis includes only non-institutionalized children.

Children's Emergency Department Use by Insurance Status

Age

In all age groups, children with Medicaid or CHIP coverage used the ED in higher percentages than did privately insured children (Table 1). Among children under age five, almost one-third of those covered by Medicaid or CHIP had an ED visit in the past 12 months compared to about one-fifth of privately insured children and uninsured children. Adolescents age 12–18 with Medicaid or CHIP coverage also had higher ED visit rates than uninsured children the same age.

When asked about the reason for the last trip to the ED, respondents for children under age five covered by Medicaid or CHIP were more likely to report their health care provider not being open or that they had no other place to go than were respondents for children in private insurance. By contrast, the respondents for children under age five with private insurance were more likely to say they went to the ED on the advice of their health care provider than were respondents for children in Medicaid or CHIP. Among adolescents age 12–18, a larger share of respondents for privately insured adolescents than for adolescents in Medicaid or CHIP reported that their problem was too serious to go to the doctor's office or clinic.

Rates of hospital admission following an ED visit for children under age 19 were not statistically different for children with Medicaid or CHIP and those with private insurance (data for uninsured children were not statistically reliable). The percentages of children's ED visits reported as occurring at night or on a weekend were also not statistically significantly different across all age and insurance categories.

TABLE 1. Characteristics of the Most Recent ED Visit among Children Age 0–18, by Age Group and Insurance Status, 2014

ED visit characteristics	Age 0–4			Age 5–11			Age 12–18		
	Medicaid / CHIP	Private	Uninsured	Medicaid / CHIP	Private	Uninsured / CHIP	Medicaid / CHIP	Private	Uninsured
Had at least 1 ED visit in past 12 months	31.4%	18.8%*	21.2%*	19.9%	10.4%*	16.9%	22.9%	11.7%*	12.3%*
Percentage of children at most recent ED visit for whom each statement applies[1]									
ED visit resulted in a hospital admission	15.8	13.7	N/A	14.0	8.7	N/A	14.3	13.0	N/A
Child's health provider advised them to go	24.4	40.9*	N/A	28.0	26.4	N/A	23.9	27.8	N/A
Problem was too serious for the doctor's office or clinic	42.2	46.0	44.3	44.7	50.7	24.9*	50.9	62.1*	42.2
Went to ED either at night or on the weekend	70.5	74.0	65.4	71.8	70.5	64.5	64.4	65.8	61.0
Doctor's office or clinic was not open	64.0	54.9*	59.6	63.3	58.0	44.2*	52.0	49.0	37.7

ED visit characteristics	Age 0–4			Age 5–11			Age 12–18		
	Medicaid / CHIP	Private	Uninsured	Medicaid / CHIP	Private	Uninsured / CHIP	Medicaid / CHIP	Private	Uninsured
Had at least 1 ED visit in past 12 months	31.4%	18.8%*	21.2%*	19.9%	10.4%*	16.9%	22.9%	11.7%*	12.3%*
Percentage of children at most recent ED visit for whom each statement applies[1]									
Did not have another place to go	47.8	38.0*	41.5	51.6	38.8*	64.5	38.0	37.3	52.3

Notes: ED is emergency department. N/A indicates that the estimate has a relative standard error of more than 30 percent and is too unreliable to present. Percentages for the visit characteristics do not sum to 100 percent because respondents could answer yes to multiple items.
[1] Includes only those children with an ED visit in the past 12 months.
* Difference in percentage from Medicaid/CHIP is statistically significant at the 0.05 level.
Source: MACPAC 2015 analysis of National Health Interview Survey, 2012–2014.

Race and ethnicity

Children enrolled in Medicaid or CHIP were more likely to visit an ED than children with private insurance in all race and ethnicity categories. Hispanic children were less likely than black non-Hispanic children and about as likely as white non-Hispanic children overall to have visited an ED in the past year (data not shown).

Among black non-Hispanic children, there were no significant differences between children with Medicaid or CHIP coverage and those with private coverage in any of the characteristics associated with the last ED visit, such as whether their doctor's office was open or whether they had another place to go for care. Among respondents for white non-Hispanic children and Hispanic children, those with private insurance were more likely to report that a doctor advised them to go to the ED than were respondents with children in Medicaid or CHIP. Conversely, among respondents for white non-Hispanic children and Hispanic children, those covered by Medicaid or CHIP were more likely to report having no other place to go, or that their providers' offices were not open, than were respondents for children with private insurance. Respondents for white non-Hispanic children with private coverage were also more likely to say that the child's problem was too serious to go to a doctor's office than were respondents for white non-Hispanic children with Medicaid or CHIP.

TABLE 2. Characteristics of the Most Recent ED Visit among Children Age 0–18, by Race and Ethnicity and Insurance Status, 2012–2014

ED visit characteristics	White non-Hispanic		Black non-Hispanic		Hispanic	
	Medicaid/ CHIP	Private	Medicaid/ CHIP	Private	Medicaid/ CHIP	Private
Had at least 1 ED visit in past 12 months	29.6%	13.4%*	27.3%	14.9%*	20.3%	11.8%*
Percentage of children at most recent ED visit for whom each statement applies[1]						
ED visit resulted in a hospital admission	10.7	12.2	14.4	12.3	19.8	11.1*
Child's health provider advised them to go	22.0	31.0*	25.1	24.7	22.2	29.3*
Problem was too serious for the doctor's office or clinic	40.3	51.9*	42.5	40.2	43.9	43.0
Went to ED either at night or on the weekend	74.0	71.6	69.9	76.5	74.4	72.2
Doctor's office or clinic was not open	63.1	55.1*	62.6	60.2	62.0	54.5*
Did not have another place to go	45.2	39.2*	39.8	44.7	48.9	37.2*

Notes: ED is emergency department. Percentages for the visit characteristics do not sum to 100 percent because respondents could answer yes to multiple items.
[1] Includes only those children with an ED visit in the past 12 months.
* Difference in percentage from Medicaid/CHIP is statistically significant at the 0.05 level.
Source: MACPAC 2015 analysis of National Health Interview Survey, 2012–2014.

Income level

About one in four children with Medicaid or CHIP coverage—both low income (at or below 138 percent FPL) and higher income (greater than 138 percent FPL)—visited an ED in the past year.[1] This rate is significantly greater than privately insured and uninsured children in both income groups and almost double that of privately insured and uninsured children in the higher income group.

Among low-income children, respondents for children with Medicaid or CHIP coverage were more likely than respondents for privately insured children to report having no place to go aside from an ED. Respondents for Medicaid- or CHIP-covered children in both income categories were more likely than respondents for privately insured children to say that their doctor's office was not open.

There was little difference across income groups either in the share of respondents reporting that they went to the ED on a night or weekend or in the share reporting a hospital admission resulting from the ED visit. In the higher income category, privately insured children were more likely to go to the ED on a provider's suggestion than were Medicaid- or CHIP-covered children; there was little difference in this question between respondents for privately insured children and Medicaid- or CHIP-covered children in the lower income category.

TABLE 3. Characteristics of the Most Recent ED Visit Among Children Age 0–18, by Income Level and Insurance Status, 2012–2014

ED visit characteristics	Less than or equal to 138% FPL			Greater than 138% FPL		
	Medicaid/ CHIP	Private	Uninsured	Medicaid/ CHIP	Private	Uninsured
Had at least 1 ED visit in past 12 months	24.5%	19.0%*	17.3%*	23.5%	12.4%*	13.8%*
Percentage of children at most recent ED visit for whom each statement applies[1]						
ED visit resulted in a hospital admission	15.0	14.3	19.6	13.8	12.1	13.5
Child's health provider advised them to go	23.5	26.6	N/A	21.5	30.5*	N/A
Problem was too serious for the doctor's office or clinic	42.5	46.2	43.2	41.5	49.7*	43.7
Went to ED either at night or on the weekend	72.0	70.9	63.3	74.9	72.6	72.5
Doctor's office or clinic was not open	62.7	51.1*	38.6*	61.8	56.1*	51.5
Did not have another place to go	45.4	34.8*	53.3	43.5	40.0	47.7

Notes: ED is emergency department. Percentages for the visit characteristics do not sum to 100 percent because respondents could answer yes to multiple items.
N/A indicates that the estimate has a relative standard error of more than 20 percent and is too unreliable to present.
[1] Includes only those children with an ED visit in the past 12 months.
* Difference in percentage from Medicaid/CHIP is statistically significant at the 0.05 level.
Source: MACPAC 2015 analysis of National Health Interview Survey, 2012–2014.

Special health care needs

Children with special health care needs were twice as likely to have visited an ED in the past year as children with no special health care needs.[2] Children with Medicaid or CHIP coverage were twice as likely as privately insured children to have visited an ED.

The only difference in characteristics associated with the most recent ED visit among children with special health care needs is the percentage that resulted in hospitalization, which was higher for children with Medicaid or CHIP than for privately insured children. We note that differences between insurance groups are harder to detect among children with special health care needs because the number of children in this group is relatively small.

Among children without special health care needs, respondents for children with private insurance were more likely than respondents for Medicaid- or CHIP-covered children to say they went to the ED on the advice of their health care provider and that their child's problem was too serious to go to a doctor's office; respondents for children with Medicaid or CHIP coverage were more likely to report that their doctor's office or clinic was not open and that they had no other place to go.

TABLE 4. Characteristics of the Most Recent ED Visit Among Children Age 0–18, by Poverty Level and Special Health Care Needs Status, 2014

ED visit characteristics	Has special health care needs		No special health care needs	
	Medicaid/ CHIP	Private	Medicaid/ CHIP	Private
Had at least 1 ED visit in past 12 months	40.1%	23.1%*	20.1%	11.9*%
Percentage of children at most recent ED visit for whom each statement applies[1]				
ED visit resulted in a hospital admission	19.2	14.4*	12.9	11.6
Child's health provider advised them to go	30.4	33.9	21.7	31.9*
Problem was too serious for the doctor's office or clinic	48.2	58.4	44.3	51.8*
Went to ED either at night or on the weekend	70.8	70.6	68.2	70.0
Doctor's office or clinic was not open	59.6	52.8	60.5	53.8*
Did not have another place to go	42.9	37.7	47.3	38.0*

Notes: ED is emergency department. Percentages for the visit characteristics do not sum to 100 percent because respondents could answer yes to multiple items.
[1] Includes only those children with an ED visit in the past 12 months.
* Difference in percentage from Medicaid/CHIP is statistically significant at the 0.05 level.
Source: MACPAC 2015 analysis of National Health Interview Survey, 2012–2014.

Data and Methods

All differences discussed in the text of this brief were computed using Z-tests and are significant at the 0.05 level.

Data sources

Data for this report come from the National Health Interview Survey (NHIS) and the Household Component of the Medical Expenditures Panel Survey (MEPS-HC). NHIS data were collected continuously throughout the year for the Centers for Disease Control and Prevention's National Center for Health Statistics by interviewers from the U.S. Census Bureau. The NHIS collects information about the health and health care of the U.S. civilian non-institutionalized population. Interviews are conducted at respondents' homes, and follow-up interviews may be conducted by phone. The MEPS-HC is a nationally representative longitudinal survey that collects detailed information on health care utilization and expenditures, health insurance, and health status, as well as on a wide variety of social, demographic, and economic characteristics for the U.S. civilian non-institutionalized population. For more information on the NHIS, see http://www.cdc.gov/nchs/nhis/about_nhis.htm. For more information on the MEPS-HC see http://www.meps.ahrq.gov/mepsweb/about_meps/survey_back.jsp.

Insurance coverage

The following hierarchy was used to assign individuals with multiple coverage sources to a primary source: Medicare, private, Medicaid or CHIP, other, uninsured for the past 12 months. Not separately shown are the estimates for those covered by any type of military health plan or other government-sponsored programs. Coverage source is defined as of the time of the survey interview. Because an individual may have multiple coverage sources and because sources of coverage may change over time, responses to survey questions may reflect characteristics or experiences associated with a coverage source other than the one assigned in this brief. Private health insurance coverage excludes plans that cover only one type of service, such as accident or dental insurance. The Medicaid or CHIP category also includes persons covered by other state-sponsored health plans. Medicaid and CHIP coverage are combined because it was determined through validation processes that respondents could not accurately distinguish between the two programs. Individuals were defined as uninsured if they did not have any private health insurance, Medicaid, CHIP, Medicare, state- or other government-sponsored health plan, or military plan during the past year. Individuals were also defined as uninsured if they had only Indian Health Service coverage or had only a private plan that paid for one type of service, such as accident or dental coverage only.

Children with special health care needs

In both the NHIS and the MEPS, children with special health care needs are identified through a series of questions that ask about the need for or use of medicines prescribed by a doctor; the need for or use of more medical care, mental health, or education services than is usual for most children; being limited in or prevented from doing things most children can do; the need for or use of special therapy such as physical, occupational, or speech therapy; and the need for or use of treatment or counseling for emotional, developmental, or behavioral problems. Parents or other respondents who responded yes to any of the initial questions in the sequence were then asked to respond to up to two follow-up questions about whether the health consequence was attributable to a medical, behavioral, or other health condition lasting or expected to last at least 12 months. Children with positive responses to all of the follow-up questions for at least one of the five health consequences were identified as having a special health care need.

Emergency department visit questions

Information about the most recent ED visit became available in the NHIS beginning in 2011. Respondents for a child having an ED visit in the past 12 months were asked a series of yes or no questions about the child's most recent ED visit. They were first asked if they went to the ED at night or on a weekend and if the ED visit resulted in a hospital admission. They were then asked whether any of a series of statements applied to the child's last ED visit and were read the following statements (not necessarily in this order):

- the child's health provider advised that they go;
- the problem was too serious for the doctor's office or clinic;
- the doctor's office or clinic was not open;
- the child did not have another place to go;
- only a hospital could help;
- the emergency room is the closest provider;
- the child gets the most care at the emergency room; and
- the child arrived by ambulance or other emergency vehicle.

The first four statements in this list were used in our analysis. Responses to the other statements are not reported because they do not provide additional information about the accessibility of the child's health provider and do not clarify the role that serious health problems might have played in the decision to go to the ED.

Endnotes

[1] The Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended) set the mandatory income eligibility threshold for all children at 138 percent FPL; prior to the ACA, the mandatory eligibility levels for children in Medicaid differed by age—states were required to cover infants and children age 1–5 in Medicaid up to 133 percent FPL and children age 6–18 up to 100 percent FPL. Despite being eligible, some children do not enroll and remain uninsured. In 2012, an estimated 2.4 million uninsured children (45.1 percent of uninsured children) were eligible for public coverage and had income under 138 percent FPL (Kenney et al. 2015). The ACA set a single income eligibility disregard equal to 5 percentage points of the FPL. For this reason, eligibility is often referred to at its effective level of 138 percent FPL, even though the federal statute specifies 133 percent FPL.

[2] This definition includes children with at least one diagnosed or parent-reported condition expected to be an ongoing health condition, who also meet at least one of five criteria related to elevated service use or elevated need: The child is limited or prevented in his or her ability to do things most children of the same age can do; the child needs or uses medications prescribed by a doctor (other than vitamins); the child needs or uses specialized therapies such as physical, occupational, or speech therapy; the child has above-routine need for or use of medical, mental health, home care, or education services; or the child needs or receives treatment or counseling for an emotional, behavioral, or developmental problem.

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