

Medicaid Access in Brief: Children's Dental Services

Medicaid and the State Children's Health Insurance Program (CHIP) are important sources of dental care for the children enrolled in those programs—about 43.7 million in fiscal year 2014 (CMS 2015). All states must provide comprehensive dental services to children with Medicaid coverage. In addition, separate CHIP has been required to provide dental health coverage since 2009, although many programs were doing so even before this date (CMS 2009).

Low-income children, including those covered by Medicaid or CHIP, are more likely than higher-income children to have dental diseases, including caries (NIDCR 2000). Although preventable, untreated dental caries can lead to pain and infection. Dental disease among children has been associated with lost days at school, and some studies suggest that dental disease may be associated with increased risk for or exacerbation of other health conditions, such as diabetes and lung disease (NIDCR 2000).

Appropriate use of dental services is important for prevention and treatment of dental disease. Although use of dental services by children enrolled in Medicaid or CHIP has improved over the last several years, overall utilization remains low (CMS 2014a; GAO 2010, 2000). In fiscal year 2012, fewer than half (48.1 percent) of children with Medicaid or Medicaid-expansion CHIP received any dental services (Steinmetz et al. 2014). There are also disparities in the use of dental services by race, income, and health insurance (CMS 2014a).

This issue brief compares dental service utilization by children with Medicaid or CHIP to utilization by children who are privately insured and uninsured, and presents usage trends by insurance status. We also examine differences in utilization by age, race and ethnicity, income, and special health care needs status, relying on survey data from the Medical Expenditure Panel Survey (MEPS, 2007–2013) and the National Health Interview Survey (NHIS, 2007–2014).

Children's Access to Dental Services by Insurance Status

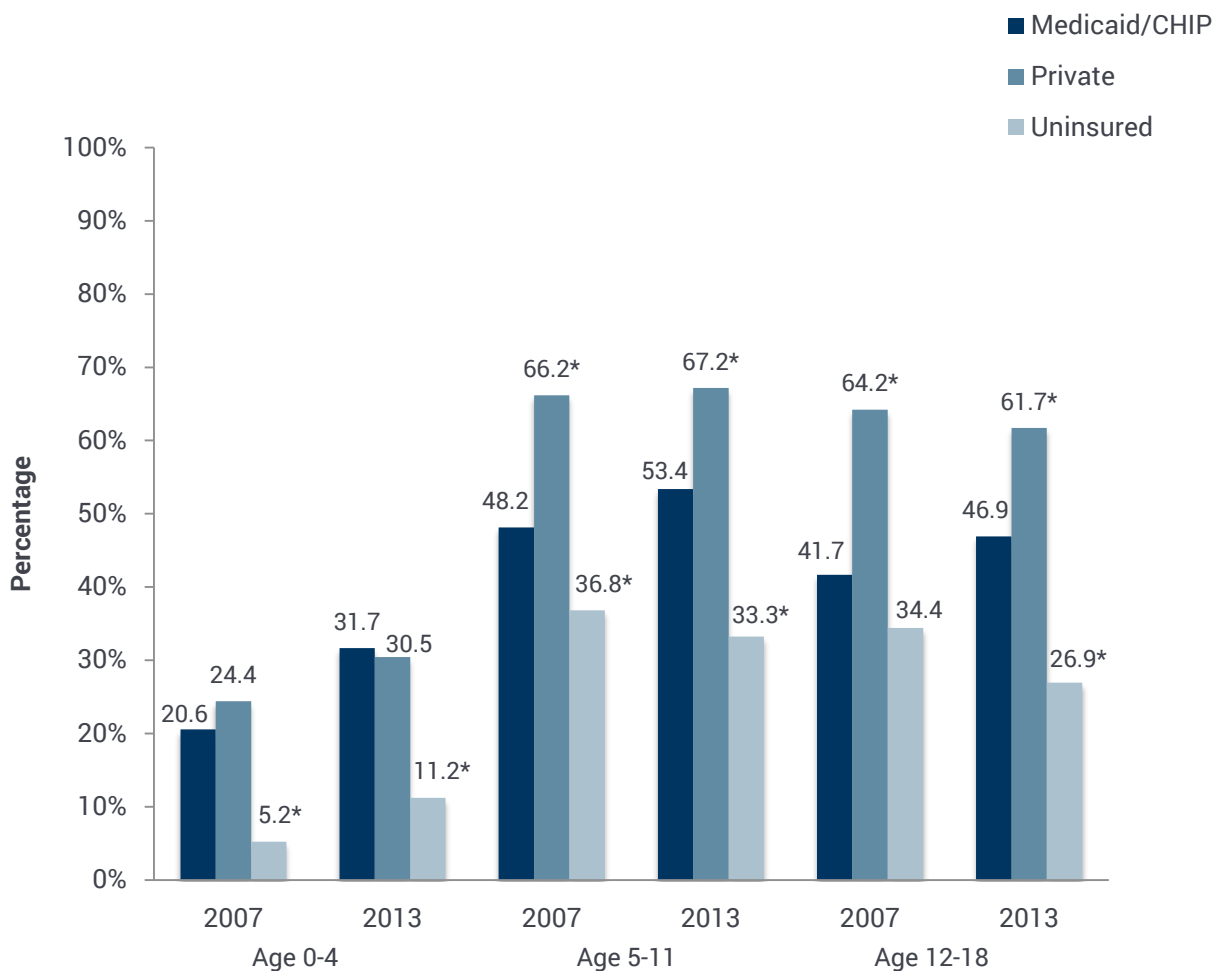
The share of children age 0–18 with Medicaid or CHIP reporting a dental visit in the past 12 months increased from 38.5 percent in 2007 to 45.9 percent in 2013. The share of privately insured children who were reported to have had a dental visit in the past 12 months was higher, but it did not change during the same time period (56.9 percent in 2007, 57.1 percent in 2013).¹



Age

Children up to age four with Medicaid or CHIP were just as likely as children with private coverage and more likely than uninsured children to have had a dental visit in 2007 and 2013 (Figure 1). However, among children age 5–11, those with Medicaid or CHIP were less likely than those with private coverage and more likely than those without insurance to have had a dental visit in both years. The same was true for children age 12–18 (although in 2007 the difference between children with Medicaid or CHIP and those who were uninsured was not statistically significant). Among children enrolled in Medicaid or CHIP, the share of children with a dental visit increased from 2007 to 2013 for children up to age four, but it did not change significantly for children in the two older age groups.²

FIGURE 1. Percentage of Children with a Dental Visit in the Past 12 Months, by Age Group and Insurance Status, 2007 and 2013



Note:

* Difference from Medicaid/CHIP, within a given year, is statistically significant at the 0.05 level.

Source: MACPAC 2015 analysis of the Household Component of the Medical Expenditure Panel Survey, 2007–2013.



Medicaid and CHIP Payment
and Access Commission

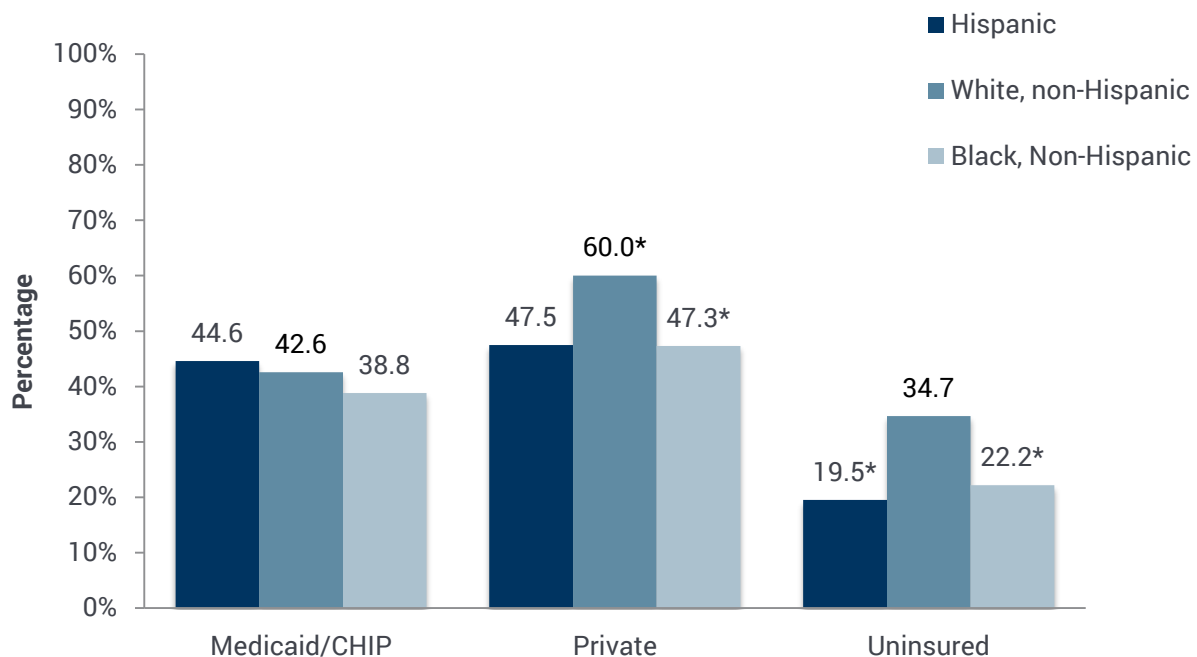
www.macpac.gov

Race and ethnicity

In 2011–2013, privately insured white non-Hispanic and black non-Hispanic children were more likely than their counterparts with Medicaid or CHIP to have had a dental visit in the past 12 months (Figure 2). However, among Hispanic children there was no significant difference between those covered by Medicaid or CHIP and those with private coverage. Uninsured Hispanic and black non-Hispanic children were less likely than Medicaid- or CHIP-covered children of the same race and ethnicity to have had a dental visit. Among white non-Hispanic children, there was no significant difference in likelihood of a dental visit in the past 12 months between those who were uninsured and those with Medicaid or CHIP.

Among children with Medicaid or CHIP coverage, race did not play a role in the likelihood of having a dental visit in the past 12 months. By contrast, among those who had private insurance or who were uninsured, white non-Hispanic children were more likely to have a dental visit in the past 12 months than either Hispanic or black non-Hispanic children.³

FIGURE 2. Percentage of Children with a Dental Visit in the Past 12 Months, by Race and Ethnicity and Insurance Status, 2011–2013



Note:

* Difference from Medicaid/CHIP among children of the same race and ethnicity is statistically significant at the 0.05 level.

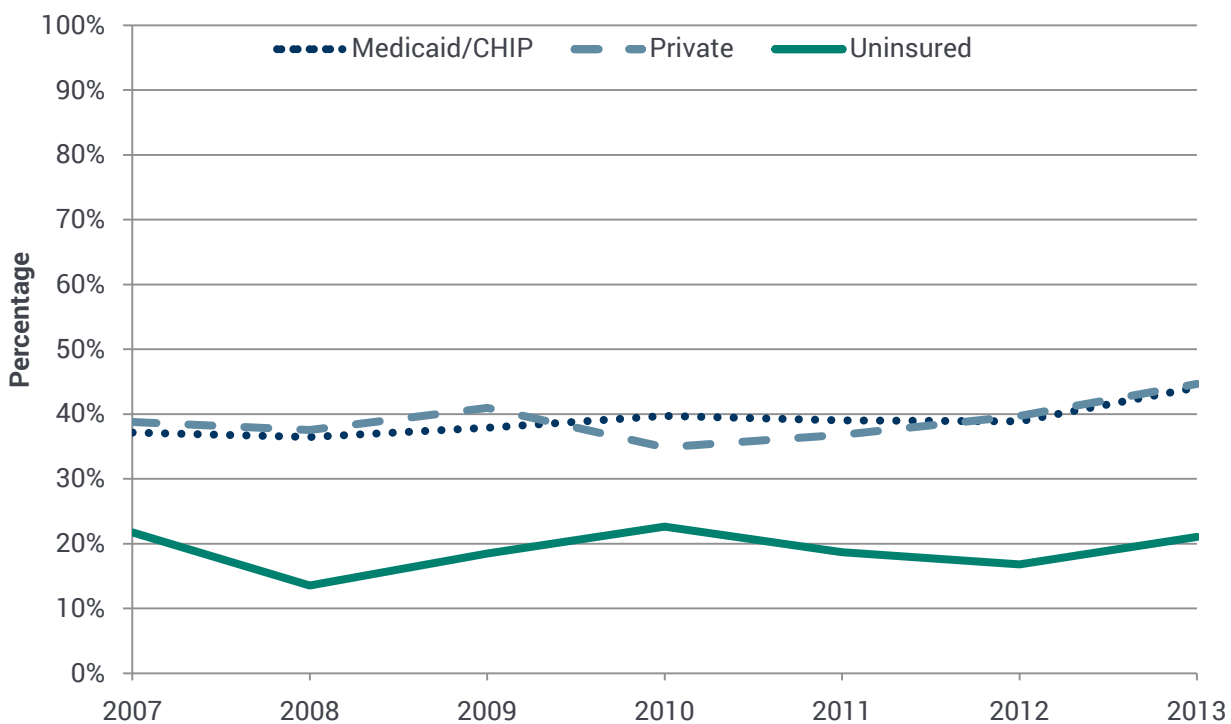
Source: MACPAC 2015 analysis of the Household Component of the Medical Expenditure Panel Survey, 2011–2013.



Income level

Dental visits in the past 12 months. From 2007 to 2013, children in families with family income at or below 138 percent of the federal poverty level (FPL) (low-income children) with Medicaid or CHIP were about as likely as those with private coverage to have had a dental visit in the past 12 months (Figure 3).⁴ Over the same time period, the share of low-income children with a dental visit increased similarly for children with Medicaid or CHIP and for children with private insurance. By contrast, low-income children without insurance were significantly less likely than others to have had a dental visit across the entire time period.⁵

FIGURE 3. Percentage of Children Age 0–18 at or below 138 Percent FPL Having a Dental Visit in the Past 12 Months, by Insurance Status, 2007–2013



Insurance status	2007	2008	2009	2010	2011	2012	2013
Medicaid/CHIP	37.2%	36.4%	37.9%	39.7%	39.0%	38.9%	44.1%*
Private	38.8	37.5	40.9	34.9	36.8	39.7	44.7
Uninsured	21.7	13.6	18.5	22.7	18.7	16.8	21.1

Notes: FPL is federal poverty level.

* Difference between 2007 and 2013, within insurance status, is statistically significant at the 0.05 level.

Source: MACPAC 2015 analysis of the Household Component of the Medical Expenditure Panel Survey, 2007–2013.

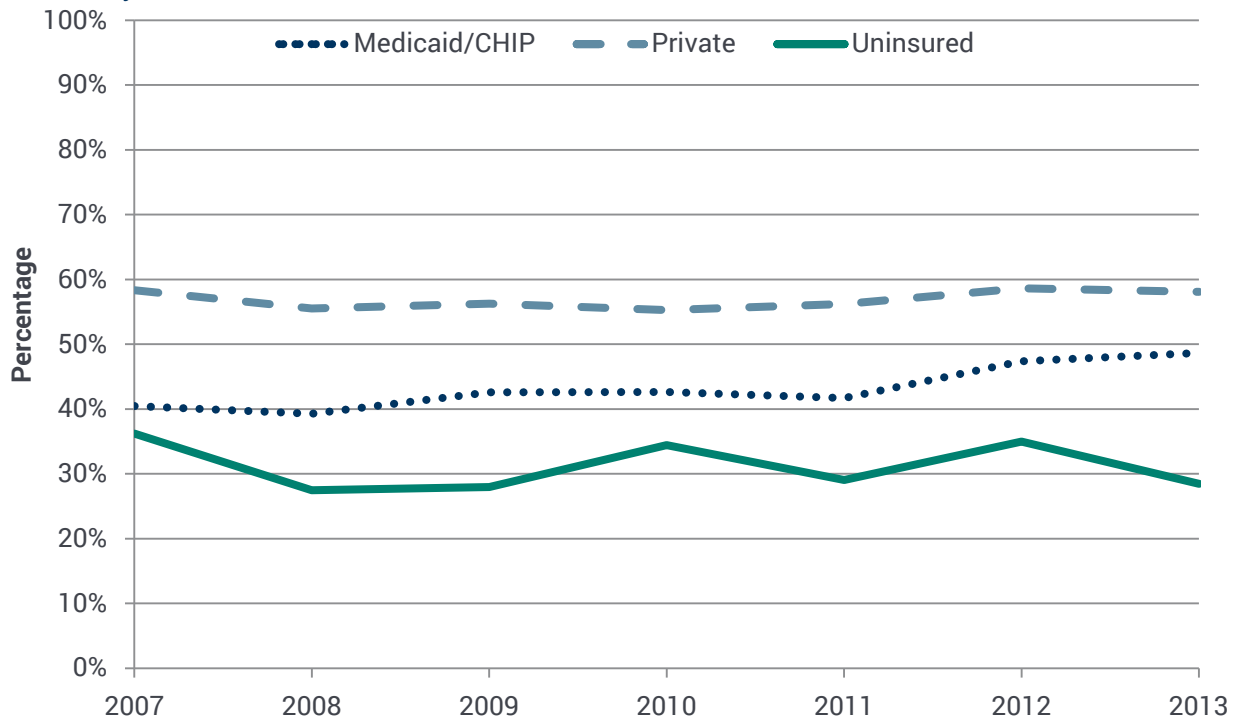


Medicaid and CHIP Payment
and Access Commission

www.macpac.gov

From 2007 to 2013, among children with household income above 138 percent FPL, those with private coverage were more likely than those with Medicaid or CHIP to have had a dental visit, and those who were uninsured were consistently the least likely to have had a visit (Figure 4). The difference in percentage of children with a dental visit between children with Medicaid or CHIP and those with private coverage narrowed in 2013 compared with 2007. While the likelihood of children in this higher income group having a dental visit in the last 12 months did not vary much from 2007 to 2013 for privately insured children, it increased for children with Medicaid or CHIP coverage.

FIGURE 4. Percentage of Children Age 0–18 above 138 Percent FPL Having a Dental Visit in the Past 12 Months, by Insurance Status, 2007–2013



Insurance status	2007	2008	2009	2010	2011	2012	2013
Medicaid/CHIP	40.5%	39.3%	42.6%	42.6%	41.7%	47.4%	48.7%*
Private	58.3	55.5	56.3	55.3	56.2	58.6	58.1
Uninsured	36.2	27.5	28.0	34.4	29.0	35.0	28.5

Notes: FPL is federal poverty level.

*Difference between 2013 and 2007, within insurance status, is statistically significant at the 0.05 level.

Source: MACPAC 2015 analysis of the Household Component of the Medical Expenditure Panel Survey, 2007–2013.



Medicaid and CHIP Payment
and Access Commission

www.macpac.gov

Affordability and use of dental services. Children in families at or below 138 percent FPL with private insurance were more likely to be unable to afford dental care than those with Medicaid or CHIP in 2012–2014 (Table 1).⁶ However, for children above 138 percent FPL, the relationship was reversed: such children with Medicaid or CHIP coverage were more likely to report being unable to afford dental care than privately insured children.

Although it is generally recommended that children have a dental check-up every six months, some children were reported as not having had a dental appointment for more than two years.⁷ Among low-income children, there was no significant difference between those covered by Medicaid or CHIP and those privately insured in the percentage with no visit in the past two years. Higher-income children with Medicaid or CHIP were somewhat more likely to report not having seen a dentist for more than two years compared to privately insured children, although the overall percentage was quite low for both coverage groups.

In 2012–2014, among low-income children, there was no difference between those with Medicaid or CHIP and those with private coverage in the percentage that had cleaning, prophylaxis, or polishing. In the same time period, children in the higher income group with private coverage were more likely than those with Medicaid or CHIP to have had cleaning, prophylaxis, or polishing during their visits. These services are recommended to prevent dental diseases and caries (AAPD 2015b).

TABLE 1. Selected Measures of Dental Care Affordability and Use for Children Age 0–18, by Income and Insurance Status, 2012–2014

Measure	≤ 138 percent FPL			> 138 percent FPL		
	Medicaid/CHIP	Private	Uninsured	Medicaid/CHIP	Private	Uninsured
Could not afford dental care in past 12 months	5.0%	7.5%*	22.2%*	6.2%	2.9%*	16.8%*
More than 2 years since last dental appointment	3.3	3.4	16.8*	2.6	1.7*	13.4*
Had cleaning, prophylaxis, or polishing during dental visit ^a	79.7	82.6	66.1*	81.3	85.5*	67.2*

Notes: FPL is federal poverty level.

*Difference from Medicaid/CHIP within income groups is statistically significant at the 0.05 level.

^aData are for 2011–2013.

Source: MACPAC 2015 analysis of National Health Interview Survey, 2012–2014, and the Household Component of the Medical Expenditure Panel Survey, 2011–2013.

Special health care needs status

Dental care is frequently identified as an unmet need among children with special health care needs (Lewis et al. 2005). Children with special health care needs are those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and also require health and related services of a type or amount beyond that required by children generally (Bethell et al. 2008).⁸ These



Medicaid and CHIP Payment
and Access Commission

www.macpac.gov

children face particular access barriers when it comes to obtaining dental services, such as physical inaccessibility of dental offices and difficulty finding a dentist willing to treat them (Holt et al. 2014).

In 2013, children with special health care needs who were privately insured were more likely to have had a dental visit in the past year than those enrolled in Medicaid or CHIP (Table 2). In the same year, among children who were reported to have special health care needs, the percentage of children with Medicaid or CHIP that could not afford dental care did not differ significantly from the percentage of children with private coverage. However, among children with no reported special health care needs, children with Medicaid or CHIP had more reported difficulties affording needed dental care than those with private coverage. Children with special health care needs were more likely than children without special health care needs to have a dental visit in the past 12 months and were also more likely to report being unable to afford dental care.

TABLE 2. Selected Measures of Dental Care Affordability and Use for Children 0–18, by Special Health Care Needs and Insurance Status, 2013

Measure	Has special health care needs			No special health care needs		
	Medicaid/CHIP	Private	Uninsured	Medicaid/CHIP	Private	Uninsured
Had a dental visit in the past 12 months	51.5%	62.6%*	38.3%	44.3%	56.0%*	24.9%*
Could not afford dental care in past 12 months	7.3	5.6	32.8*	4.8	2.9*	16.5*

Note:

* Difference from Medicaid/CHIP, within special health care needs status, is statistically significant at the 0.05 level.

Source: MACPAC 2015 analysis of the Household Component of the Medical Expenditure Panel Survey and National Health Interview Survey, 2013.

To improve access to and utilization of dental services, both preventive and treatment, among children with Medicaid or CHIP, the Centers for Medicare & Medicaid Services (CMS) launched an oral health initiative in April 2010. CMS identified several barriers to dental services for children, such as lack of availability of dental providers, low payment rates, and lack of clear information about dental benefits (CMS 2011), which the initiative is working to address. CMS also established baselines in each state for children’s use of preventive oral health services, and set two performance goals for states to reach by federal fiscal year 2015: (1) to increase by 10 percentage points the proportion of children in Medicaid or CHIP age 1–20 receiving preventive dental services; and (2) to increase by 10 percentage points the proportion of children age 6–9 receiving dental sealants on a permanent molar tooth (CMS 2011). In 2014, CMS reported that many states had made progress toward these goals, but said that more work was needed (CMS 2014b).

Data and Methods

All differences discussed in the text of this brief are 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.

Dental service use and access questions

This analysis used NHIS questions about affordability of dental care services and time between dental visits and MEPS-HC questions concerning children’s dental visits in the past 12 months, difficulty obtaining needed dental care, and dental insurance. Point estimates were calculated using sample weights, and corresponding variances accounted for the complex sample design of the NHIS and MEPS. All estimates shown in this report have a relative standard error of less than or equal to 30 percent.

Endnotes

¹ These estimates may differ from others because of differences in data sources. Data used in this brief are based on self-reported survey data (others may use administrative data).

² In 2007, 43.2 percent of 5–11 year olds with Medicaid or CHIP coverage had a dental visit compared to 53.4 percent in 2013; however, the difference between the years is not statistically significant due to small sample size.

³ Statistically significant at the 0.05 level.

⁴ In the lower 48 states and the District of Columbia, 100 percent of the 2014 federal poverty level (FPL) for a family of four was \$23,850, and the income threshold for 138 percent of FPL was \$32,913.

⁵ Beginning in 2014, children with household income at or below 138 percent FPL are income eligible for Medicaid. 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).

⁶ Data used in this analysis combine children with Medicaid or CHIP coverage. Children with Medicaid coverage are exempt from cost sharing, but children enrolled in separate CHIP are not. Thus those reporting being unable to afford dental care services may be from families with children enrolled in separate CHIP.

⁷ The American Academy of Pediatric Dentistry generally recommends dental visits every six months. CMS requires states to adopt a pediatric dental periodicity schedule in consultation with a recognized dental organization involved in child health care (AAPD 2015a, CMS 2014a).

⁸ The type and degree of medical, therapeutic, and social service needs vary among children with special health care needs. Some children require routine services to maintain their health, some need periodic care to treat chronic conditions, and some require frequent subspecialist visits.

References

American Academy of Pediatric Dentistry (AAPD). 2015a. Frequently asked questions. Chicago, IL: AAPD. http://www.aapd.org/resources/frequently_asked_questions/#43.



American Academy of Pediatric Dentistry (AAPD). 2015b. *2015–16 Guideline on periodicity of examination, preventive dental services, anticipatory guidance/counseling, and oral treatment of infants, children, and adolescents*. Chicago, IL: AAPD. http://www.aapd.org/media/Policies_Guidelines/G_Periodicity.pdf.

Bethell, C.D., D. Read, S.J. Blumberg, et al. 2008. What is the prevalence of children with special health care needs? Toward an understanding of variations in findings and methods across three national surveys. *Maternal and Child Health Journal* 12, no. 1: 1–14. <http://www.ncbi.nlm.nih.gov/pubmed/17566855>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2015. FY 2014 unduplicated number of children ever enrolled in Medicaid and CHIP. Washington, DC: CMS. <http://www.medicaid.gov/chip/downloads/fy-2014-childrens-enrollment-report.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2014a. *Improving oral health care delivery in Medicaid and CHIP: A toolkit for states*. <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Benefits/Downloads/Oral-Health-Quality-Improvement-Toolkit-for-States.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2014b. CMCS informational bulletin regarding “Update on CMS oral health initiative and other oral health related items.” July 10, 2014. <http://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-10-2014.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2014c. CMCS informational bulletin regarding “2015 updates to the child and adult core health care quality measurement sets.” December 30, 2014. <https://www.medicaid.gov/federal-policy-guidance/downloads/cib-12-30-2014.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2011. CMS oral health strategy. April 11, 2011. <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Downloads/CMS-Oral-Health-Strategy.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2009. Letter from Cindy Mann to state health officials regarding “Dental coverage in CHIP.” October 7, 2009. <http://www.medicaid.gov/medicaid-chip-program-information/by-topics/benefits/downloads/finaldentalsho100709.pdf>.

Holt, K., R. Barzel, J. Bertness. 2014. *Oral health for children and adolescents with special health care needs: Challenges and opportunities*, 2nd ed. Washington, DC: National Maternal and Child Oral Health Resource Center. mchoralhealth.org/PDFs/SHCNfactsheet.pdf.

Kenney, G.M., J.M. Haley, N. Anderson, et al. 2015. Children eligible for Medicaid or CHIP: Who remains uninsured and why? *Academic Pediatrics* 15, no. 3S: S36–S43. [http://www.academicpedsjnl.net/article/S1876-2859\(15\)00010-8/pdf](http://www.academicpedsjnl.net/article/S1876-2859(15)00010-8/pdf).

Lewis, C., A. Robertson, and S. Phelps. 2005. Unmet dental care needs among children with special health care needs: Implications for the medical home. *Pediatrics* 116, no. 3: e426–e431. <http://pediatrics.aappublications.org/content/116/3/e426.full>.

National Institute of Dental and Craniofacial Research (NIDCR), Office of the Surgeon General, U.S. Department of Health and Human Services. 2000. *Oral health in America: A report of the Surgeon General*. Washington, DC: NIDCR. <http://profiles.nlm.nih.gov/ps/retrieve/ResourceMetadata/NNBBJT/>.



Steinmetz, E., B. Bruen, and L. Ku. 2014. *Children's use of dental care in Medicaid: Federal fiscal years 2000–2012*. Washington, DC: Milikin Institute School of Public Health, George Washington University. <http://www.medicaid.gov/medicaid-chip-program-information/by-topics/benefits/downloads/dental-trends-2000-to-2012.pdf>.

U.S. Government Accountability Office (GAO). 2010. *Oral health: Efforts under way to improve children's access to dental services, but sustained attention needed to address ongoing concerns*. Report no. GAO 11-96. Washington, DC: GAO. www.gao.gov/assets/320/312818.pdf.

U.S. Government Accountability Office (GAO). 2000. *Oral health: Dental disease is a chronic problem among low-income populations*. Report no. GAO/HEHS-00-72. Washington, DC: GAO. <http://www.gao.gov/products/GAO/HEHS-00-72>.

