

Medicaid at 50: A Look at the Long-Term Benefits of Childhood Medicaid

by Alisa Chester and Joan Alker

The Top Three Benefits

- As the Medicaid program turns 50 a growing body of research provides evidence that children with Medicaid coverage become healthier adults.
 - Using longitudinal data from Medicaid expansions in the 1980s and 1990s, researchers found that children with access to Medicaid showed a 26 percentage point decline in the incidence of high blood pressure in adulthood. In addition, children with Medicaid had lower rates of hospitalizations and emergency room visits in adulthood—leading the government to recoup between 3 and 5 percent of the initial cost of Medicaid eligibility expansions in just one year. Children with Medicaid are also healthier adolescents, with lower rates of eating disorders, drinking, and mortality.
- 2. Medicaid eligibility expansions for children also lead to greater academic achievements.
 - Children who benefited from the Medicaid eligibility expansions were less likely to drop out of high school (9.7 percent decline) and more likely to graduate from college (5.5 percent increase).
- 3. Children with access to Medicaid had greater economic success as adults.
 - Two new studies indicate that these children had higher incomes later in life and were more likely to surpass their families' economic status, making them less reliant on safety net programs and contributing to a strong government return on investment. Each additional year of Medicaid eligibility from birth to age 18 increased cumulative tax payments in adulthood of \$186 per person (a 0.9 percent increase) and reduced receipt of the Earned Income Tax Credit receipts by \$75 (a 2.4 percent decrease) by age 28. The increase in tax payments alone returned nearly one-third (32 cents on the dollar) of the initial cost of expanding childhood Medicaid by the time these children reached age 28, and 56 cents of each dollar by the time the children reached age 60. Medicaid-eligible children also had greater economic mobility, with a greater likelihood that their income exceeded that of their parents.





Medicaid provides coverage for nearly 33 million children, or 37 percent of all children living in the United States.

Medicaid: A Children's Program

Medicaid has served America's children for fifty years and has played a central role in our nation's successful efforts to reduce the uninsured rate for children. Today, Medicaid provides coverage for nearly 33 million children, or 37 percent of all children living in the United States. Children make up the largest group of Medicaid beneficiaries, accounting for nearly half (48 percent) of Medicaid enrollees but only one-fifth (21 percent) of expenditures.¹

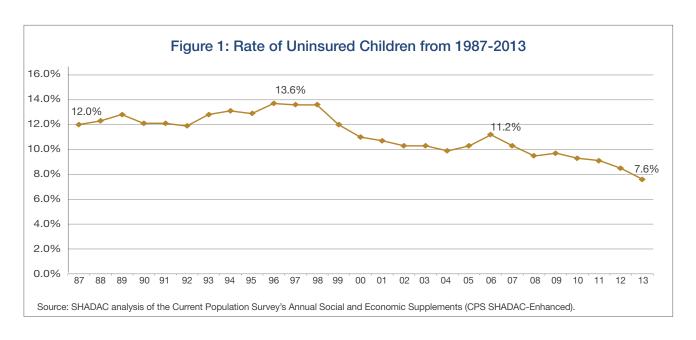
In 1945, President Harry Truman, the architect of Medicaid, made a special address to the Congress recommending a comprehensive health insurance program.² Truman argued that Americans deserve adequate medical care to achieve and enjoy good health in addition to protection from the financial costs of sickness:

"Millions of our citizens do not now have a full measure of opportunity to achieve and to enjoy good health. Millions do not now have protection or security against the economic effects of sickness. And the time has now arrived for action to help them attain that opportunity and to help them get that protection."

When Lyndon B. Johnson signed the Social Security Amendments of 1965, he repeated Truman's words.³

An emerging body of research underscores the significant role that Medicaid plays as a source of health coverage and financial protection for children and families—the benefits of which last through adulthood. New data highlight striking examples of the long-term effects of Medicaid—including better health, lower rates of mortality, better educational and economic outcomes, and many ways in which government recoups its investment in the long term. These findings underscore Medicaid's role as not only a foundational source of health coverage for children, but also an investment in their future.

In light of these findings, the need to preserve and strengthen Medicaid for future generations of children has never been greater as the program reaches its fiftieth year. This paper highlights the mounting evidence underscoring the positive long-term effects of childhood Medicaid coverage that emerge later in life for adolescents and adults.





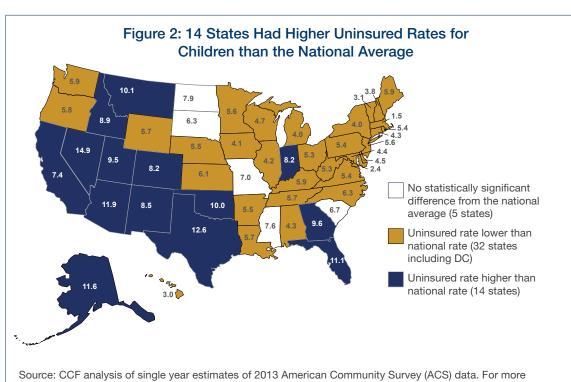
The Medicaid Program Today

At the core of the Medicaid program is a combined federal-state effort to finance health programs for low-income persons. Title XIX of the Social Security Act of 1965 provides matching federal funds to states to finance medical assistance to those "whose income and resources are insufficient to meet the costs of necessary medical services."

At a minimum, Medicaid now covers children in families earning under 133% of the Federal Poverty Level (FPL, \$26,720 annually for a family of three).⁵ In addition, states receive federal CHIP funds to finance coverage for children in families who earn too much to

qualify for Medicaid but too little to afford health insurance without financial assistance. Improvements to Medicaid eligibility and the enactment of CHIP lead the way to reducing children's uninsurance rates in half between 1997 and 2012.

While all states have shared in the remarkable success in reducing the uninsured rate for children ushered in by Medicaid and the Children's Health Insurance Program (CHIP), some states have been more successful than others in connecting uninsured children with affordable health coverage.



Source: CCF analysis of single year estimates of 2013 American Community Survey (ACS) data. For more information, see J. Alker & A. Chester, "Children's Coverage at a Crossroads: Progress Slows," Georgetown University Center for Children and Families (October 2014), available at http://ccf.georgetown.edu/wp-content/uploads/2014/10/Childrens-Coverage-at-a-Crossroads.pdf.



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Medicaid Eligibility Expansions and Their Effects

Since its original passage in 1965, Medicaid eligibility expansions have contributed to a significant decline in the national rate of uninsured children. Prior to Medicaid eligibility expansions that occurred in the 1980s and 1990s, only children eligible for Aid to Families with Dependent Children (AFDC), a cash assistance program and precursor to Temporary Aid to Needy Families (TANF), were eligible for Medicaid coverage. Few children and families were eligible for Medicaid due to restrictive eligibility cutoffs that varied across states. In 1985, the median income cutoff for AFDC was just 54 percent of the FPL, with eligibility in South Carolina set at just 25 percent of the FPL.

Between 1984 and 1991, a series of legislative acts expanded Medicaid eligibility to a larger group of children. The Omnibus Budget Reconciliation Act of 1986 delinked Medicaid from AFDC for children. It permitted states to provide Medicaid coverage to children under the age of six who were born after September 30, 1983 and had incomes below 100 percent of the FPL, even if their family did not receive AFDC benefits. By 1990, every state Medicaid program was required to offer coverage for all children under age 19 (born after September 30, 1983) with a family income up to 100 percent FPL. The percent of children eligible for Medicaid coverage doubled between 1984 and 1992, from 16 percent of children eligible for Medicaid in 1984 to 31 percent in 1992.7 Today, many states cover children with Medicaid and CHIP up to much higher incomes, with the median income eligibility limit at 255 percent of the FPL.8

Pregnant women saw similar gains in eligibility in the 1980s and 1990s. In 1985, Medicaid eligibility broadened to include low-income women who met the financial standards for

AFDC, whether they participated in the program or not. Legislative acts between 1986 and 1990 allowed states to expand coverage to pregnant women up to 100 percent of the FPL and, later, up to 185 percent of the FPL. Between 1979 and 1991, the fraction of 15 to 44 year old women who would have become eligible for Medicaid coverage had they become pregnant increased 31 percentage points, from 12 percent to 43 percent.⁹ Current Medicaid law requires states to cover pregnant women up to 185 percent of the FPL, with the median eligibility for pregnant women at 200 percent of the FPL.¹⁰

This national sea change in coverage provided an opportunity for researchers to explore the long-term impact of having Medicaid coverage.

How were the studies conducted?

Researchers have begun to explore the effects of the dramatic change in eligibility for children and pregnant women, which differed by state based on implementation dates of eligibility expansions, has had on those who become eligible for Medicaid. Staggered implementation of Medicaid eligibility expansions across states created groups of children that varied in the length of time they were eligible for Medicaid. Medicaid expansions in the 1980s created two vastly different eligibility groups of children - those born before September 1983 and those born afterwards. Children in families with incomes at or below the poverty line born before September 30, 1983 gained about five additional years of Medicaid eligibility. 11, 12 Researchers use this discontinuity in coverage to explore the effect that expanding Medicaid eligibility had on the population of children. Similar study designs were applied to analyze the effect of Medicaid eligibility expansions for pregnant women.



Researchers use a simulated Medicaid eligibility approach pioneered in 1996 that measures the percent of children eligible for Medicaid coverage by birth cohort and based on the state's eligibility rules. ¹³ In many of the studies that consider the long-term effects of Medicaid, researchers measure eligibility or exposure, rather than coverage or participation. Tracking

changes in Medicaid eligibility policy, rather than Medicaid enrollment, excludes variations in external factors such as changing demographics or economic conditions (such as a recession), allowing researchers to analyze the effect of Medicaid eligibility on children's health, education, and economic outcomes.

Medicaid Eligibility Leads to Improved Long-Term Health

Children with access to Medicaid grow to become healthier adults. Two studies found that childhood Medicaid eligibility led to better health outcomes during adolescence, including a significant decrease in drinking, eating disorders, and deaths by internal (treatable) causes. Three studies measured the effect of Medicaid on adult health outcomes. In general, Medicaid eligibility during childhood led to overall better health as an adult, lower rates of obesity, and fewer catastrophic health needs—particularly for Black children. Reductions in costly hospitalizations and emergency room visits lead to future savings for hospitals.

Access to Medicaid in Childhood Leads to Better Health and Lower Rates of Mortality in Adolescence

Medicaid eligibility during early and middle childhood (under age 14) leads to better health outcomes as an adolescent (ages 14 to 18), according to researchers at Harvard and Cornell Universities. ¹⁴ Teenagers eligible for Medicaid as children had lower rates of risky sexual activity, drinking, and smoking cigarettes or marijuana as well as a lower body mass index (BMI) than their non-eligible peers. ¹⁵ Further, the study links Medicaid eligibility and better adolescent health outcomes to increased educational attainment in young adulthood (see below).

A 10-percentage point increase in average Medicaid income eligibility during a child's

youth reduced their engagement in risky sexual behavior (e.g., having sex without birth control, having sex under the influence of alcohol or drugs, or becoming pregnant) by 3.5 percent as teenagers and reduced their BMI by 3.9 percent. In addition, being eligible for Medicaid at a young age decreased the number of reported mental health issues and eating disorders during high school.¹⁶ While Medicaid eligibility translated into better teen health and behaviors across the board, results were only statistically significant in terms of reducing alcohol use (measured by the number of days that the individual drank in the past month) and eating disorders. Results were suggestive, rather than conclusive, for other measures, including "risky sex," "ever had sex," BMI, overweight, obese, "ever use marijuana," "ever smoke regularly," and "any mental health issue."

Additional research corroborates the positive effects that Medicaid eligibility in childhood has on adolescent health. Scholars from the University of Chicago found that Medicaid eligibility expansions for children in the 1980s decreased teenage fatalities caused by treatable illnesses. ¹⁷ This was especially so for Black children who were disproportionately represented in low-income and Medicaid populations. Because Black children were more likely to be poor than their non-Black peers, these children saw a greater increase in eligibility after Medicaid expansions for children in the

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1980s.¹⁸ Medicaid expansions reduced the mortality rate of Black teenagers (ages 15 to 18) born after September 30,1983 by 13 to 20 percent for internal (treatable) causes.¹⁹ Results were not statistically significant for all children or for only white children. A substantial reduction in internal causes of death suggests that childhood Medicaid eligibility improves access to medical care that prevents treatable causes of illness.

Childhood Medicaid Expansions Lead to Better Adult Health, Fewer Hospitalizations, and Cost Savings

Medicaid eligibility during early childhood (under age 6) is also associated with better health outcomes as adults (ages 25 to 54). Researchers at the University of Maryland and the University of Minnesota found that Medicaid exposure during childhood leads to better adult health (a 0.37 standard deviation improvement), as measured by a composite health index that examines the prevalence of high blood pressure, diabetes after age 18, heart disease or heart attack, and obesity.^{20,21} Children eligible for Medicaid had a 26-percentage point decline in incidence of high blood pressure as adults.²²

The authors point to two potential mechanisms by which a child's exposure to Medicaid leads to improved health as an adult. First, using a measure of hospital utilization based on National Health Interview Survey data, the authors found that exposure to Medicaid lead to increased health service utilization, which they posit is a likely manner in which Medicaid improves health outcomes in the long run. Second, using data from the Survey of Consumer Finances, the authors find that exposure to Medicaid is associated with a reduction of household debt for low-income individuals.

A study by researchers at the University of Michigan and the University of California, Los Angeles (UCLA) supports these findings in a study that suggests Medicaid expansions over thirty years ago have had lasting long-term health benefits.²³ Researchers examined the effect of Medicaid eligibility expansions on adult health outcomes with a unique focus on the effect of Medicaid exposure at different ages during childhood. For young children ages one through four, a 10-percentage point increase in Medicaid eligibility reduced hospitalizations in adulthood (ages 19 to 32) by 1.1 percent.²⁴

The same researchers found that children who benefited from Medicaid eligibility expansions in the 1980s had fewer hospitalizations and emergency room visits in their mid-twenties.²⁵ Results were only statistically significant for young Black children born after September 30, 1983; results for non-Black children were not significant nor were results for conditions that are unlikely to be affected by medical intervention (appendicitis or injury).²⁶ As noted earlier, Black children were particularly likely to benefit from Medicaid expansions and researchers measure a larger impact of those expansions among Black children.

Medicaid eligibility expansions for children reduced hospitalizations at age 25 for Black children eligible for Medicaid by 8 to 13 percent. This translates into an annual reduction of 2,700 to 4,400 hospitalizations and government savings of \$15 to \$25 million (based on the hospitals' cost of the visit). Black children eligible for Medicaid had 3 to 4 percent fewer emergency department visits at age 25, representing 10,600 to 15,100 fewer visits and savings of \$6.5 to \$9.2 million per year. Results were even more pronounced for Black children living in low-income zipcodes and for children with a chronic illness.²⁷

The decrease in hospitalizations and emergency rooms visits indicates that children with Medicaid are less likely to have catastrophic health needs and are receiving more regular and prompt care, particularly for

Medicaid expansions over thirty years have had lasting long-term health benefits.



chronic conditions. Because hospitalizations and emergency rooms visits are far more expensive than office-based or outpatient care visits, there are lower rates of costly services and money is returned to taxpayers over time.²⁸ Fewer health costs incurred by those children later in life saved the government \$22 to \$34 million in just one year, between 3 to 5 percent of the total cost of expansion. If benefits of childhood Medicaid eligibility continue after age 25, and if other financial benefits to the government were included in the authors' calculations (increased tax receipt, better educational outcomes, and lower mortality), the savings may be very substantial.

Prenatal Medicaid Eligibility Leads to Fewer Hospitalizations in Adulthood and Significant Cost Savings

In the study conducted by scholars at the University of Michigan and UCLA, researchers examined prenatal Medicaid exposure in addition to Medicaid exposure during childhood. Findings suggest that an increase in eligibility for prenatal care for mothers is associated with better health outcomes for their children as adults (ages 19 to 33), including a reduction in obesity and hospitalizations.²⁹ A 10-percentage point increase in prenatal Medicaid eligibility

reduced adulthood obesity by 7 percent.³⁰ A 10-percentage point increase in prenatal Medicaid eligibility is also associated with a 9 percent reduction in hospitalizations for endocrine, nutritional and metabolic diseases and immunity disorders (e.g., thyroid disorders, Cystic Fibrosis, diabetes), which includes an 11 percent reduction in hospitalizations for diabetes and obesity.

Using administrative data on the cost of hospitalizations, the authors conservatively estimated savings in hospital costs that occurred as a result of reductions in adult hospitalizations. The study results suggest that increasing prenatal eligibility of a single cohort by 30 percentage points reduces hospitalization costs by \$280 million, which represents 58 percent of the total cost associated with increasing prenatal Medicaid eligibility. In other words, Medicaid eligibility leads to healthier mothers and babies, the effects of which carry into adulthood. These improved health outcomes lead to less demand for more expensive medical services later in life, which allows the state and federal governments to recoup much of the cost of providing coverage earlier in life.

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Medicaid Eligibility Leads to Better Educational Outcomes

Two studies provide evidence that Medicaid eligibility during childhood reduces high school drop out rates and three studies indicate that Medicaid eligibility during childhood increases rates of college attendance.

Adolescent health is an important factor in determining a teenager's educational success. A Brown University researcher found that poorer health during adolescence is negatively correlated with educational attainment, and that

this relationship is strong.³¹ In other words, adolescents in poorer health are both less likely to graduate from high school in a timely manner and less likely to attend two- and four-year colleges. Academic success in adolescence correlates with academic and occupational success later in life, further underscoring the important role that health coverage in childhood plays in shaping a child's future.



Researchers from Harvard and Cornell found that childhood Medicaid eligibility improves educational outcomes with fewer children dropping out of high school and more children graduating from college.³² A 24-percentage point increase in average Medicaid eligibility for children—an eligibility gain that closely aligns with historical Medicaid eligibility trends—correlated with a decrease in the high school drop out rate by 9.7 percent and an increase college graduation rates by 5.5 percent.

Importantly, the authors found that Medicaid eligibility expansions to older, school-age children also increased educational attainment, not just eligibility expansions for very young

children or newborns.³³ Access to health insurance in childhood proves a vital pathway to improve children's educational outcomes and long-term life outcomes.

Childhood Medicaid eligibility also increases the likelihood of attending college, according to economists from the U.S. Department of Treasury and Yale University.³⁴ An additional year of Medicaid eligibility during childhood (birth to age 18) increased the likelihood of women attending college by 0.4 percentage points and men attending college by 0.24 percentage points (although this result is suggestive, rather than statistically significant).

Medicaid's Implications for Economic Growth and Financial Security

Another benefit of Medicaid is greater financial security for families. Several studies have found that Medicaid protects families by reducing personal bankruptcies and increasing household expenditures.³⁵ Two new studies find that childhood Medicaid eligibility leads to improved economic outcomes.

Childhood Medicaid Eligibility Expansions Leads to Greater Earnings and Government Return on Investment

Economists from the Department of the Treasury and Yale University also found that increases in childhood Medicaid eligibility reduced future Earned Income Tax Credit (EITC) receipts.³⁶ In other words, children eligible for public health programs (born after September 30, 1983) had higher incomes and therefore required fewer tax subsidies targeted towards people with low incomes. Thus these children exposed to Medicaid also paid more taxes when they became adults. Medicaid eligibility increased overall earnings, and therefore government revenue, though the results are larger and more significant for women.³⁷

By age 28, young adults contribute an average of \$20,623 in cumulative income and payroll taxes. Each additional year of Medicaid eligibility from birth to age 18 increased cumulative tax payments by \$186 (0.9 percent increase) and reduced cumulative EITC receipts by \$75 (a 2.4 percent decrease). Put simply, this study found that Medicaid eligibility during childhood increases a person's wages during adulthood and therefore increases taxes paid and decreases EITC payments, both of which save the government money.

The increase in tax payments alone returned nearly one-third of the initial cost of expanding childhood Medicaid to the government. By the time these children reached age 28, the government had recouped 32 cents of each dollar spent on childhood Medicaid eligibility and 56 cents of each dollar by the time the children reached age 60 based on increased tax payments. These conservative estimates do not incorporate other study findings, including lower rates of mortality and increased rates of college attendance. In addition, authors

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found that each additional year of Medicaid eligibility during childhood resulted in 0.58 additional years of Medicaid receipt. A high take-up rate suggests that the government's return on investment is actually twice as large as reported.

Childhood Medicaid Eligibility Expansions Lead to Greater Intergenerational Economic Mobility

Harvard researchers found that expanding Medicaid eligibility to low-income pregnant women lead to upward economic mobility for their children in adulthood.³⁸ Increasing the proportion of women ages 15 to 44 eligible for Medicaid reduced the correlation between the income of parents and their children in adulthood and increased the probability that children had better economic outcomes than their parents.³⁹

Specifically, the authors demonstrated the following benefits associated with a 50 percent increase in Medicaid eligibility.

- Children who received Medicaid were more likely to attend college than would have otherwise been predicted by their parents' income. For children with Medicaid, their parent's income was 1.43 percent less likely to predict their enrollment in college at age 19.
- Low-income children with Medicaid were more likely to end up a in a higher income percentile than their parents. For the poorest 10 percent of children (e.g., children born to parents at the 10th percentile of income), Medicaid increased the likelihood that their incomes will surpass those of their parents by 1.34 percent.

Conclusion

For the past fifty years, Medicaid has been an important source of health coverage for this nation's children. A growing body of research, as summarized in this report, provides evidence that children with Medicaid coverage become healthier adults who have higher rates of success in terms of health, education, and earnings. Several of these studies indicate that childhood Medicaid is sound fiscal policy with a powerful return on government investment. In just one year, reductions in hospitalizations and emergency room visits led to savings of \$22 to \$34 million, or 3 to 5 percent of the initial cost of expanding Medicaid eligibility.⁴⁰ Another study found that the increase in tax payments

alone returned nearly one-third (32 cents on the dollar) of the initial cost of expanding childhood Medicaid. 41 Overall, these studies find compelling evidence linking Medicaid coverage during childhood with reduced government safety net expenditures and increased tax revenue over the long-term.

This research underscores Medicaid's role as a pillar of health coverage for children and a promising financial investment for the government. As Medicaid turns fifty, we must ensure that Medicaid remains robust in the years to come for future generations of children.



Children with Medicaid Coverage, 2012

in Medicaid Percent of Medicaid Beneficiaries Who Are Children 46%
51%
54%
46%
51%
36%
56%
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39%
35%
50%
57%
41%
61% 53%
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49%
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43%
50%
58%
51%
64%
58%
34%
53%
56%
47%
39% 65%

Note: Data above is reported for Fiscal Year 2012 based on MACPAC analysis of Medicaid Statistical Information System (MSIS) data as of September 2014. Enrollment numbers reflect Medicaid beneficiaries on the basis of eligibility (child, adult, disabled, and aged). See source notes for more information.

Source: Medicaid and CHIP Payment and Access Commission (MACPAC), "Medicaid Enrollment by State and Selected Characteristics, FY 2012," (March 25, 2015), available at https://www.macpac.gov/wp-content/uploads/2015/01/Medicaid-Enrollment-by-State-and-Selected-Characteristics-FY-2012.pdf.



Endnotes

- ¹ J. Tallon, D. Rowland, and B. Lyons, "Medicaid at 50," Kaiser Commission on Medicaid and the Uninsured, (May 2015).
- ² H. Truman, "Special Message to the Congress Recommending a Comprehensive Health Program," (speech, Washington, D.C., November 19, 1945), available at http://www.trumanlibrary.org/ publicpapers/index.php?pid=483.
- ³ L. Johnson, "Remarks with President Truman at the Signing in Independence of the Medicare Bill," (speech, Washington, D.C., July 30, 1965), available at http://www.presidency.ucsb.edu/ws/ index.php?pid=27123&st=&st1.
- ⁴ 42 U.S.C. § 1396 (1965), available at http://www.ssa.gov/OP Home/ssact/title19/1901.htm.
- ⁵ As a result of the Affordable Care Act, Medicaid eligibility was aligned for all ages at this minimum level with a 5 percent income disregard establishing an effective income level of 138 percent. Some of these children (the so-called "stairstep children") are financed through Title XXI CHIP funds.
- ⁶ U.S. Government Publishing Office (GPO), "Section 8. Aid to Families with Dependent Children and Related Programs (Title IV-A)," Background Material and Data on Programs within the Jurisdiction of the Committee on Ways and Means (Green Book) (November 1996), available at http://www.gpo.gov/fdsys/pkg/GPO-<u>CPRT-104WPRT23609/pdf/GPO-CPRT-104WPRT23609-2-8.pdf;</u> "Prior HHS Poverty Guidelines and Federal Register References," Office of The Assistant Secretary for Planning and Evaluation, 50 Federal Register 9517-9518 (March 8, 1985), available at http:// aspe.hhs.gov/poverty/figures-fed-reg.cfm.
- ⁷ J. Currie and J. Gruber, "Health Insurance Eligibility, Utilization of Medical Care, and Child Health," Quarterly Journal of Economics, 111: 431-466 (1996).
- 8 T. Brooks, et al., "Modern Era Medicaid: Findings from a 50-State Survey of Eligibility, Enrollment, Renewal, and Cost-Sharing Policies in Medicaid and CHIP as of January 2015," Kaiser Commission on Medicaid and the Uninsured and Georgetown University Center for Children and Families (January 2015), available at http://ccf. georgetown.edu/wp-content/uploads/2015/01/Modern-Era-Medicaid-January-2015.pdf.
- ⁹ J. Currie and J. Gruber, "Saving Babies: The Efficacy and Cost of Recent Changes in the Medicaid Eligibility of Pregnant Women," The Journal of Political Economy, 104(6): 1263-1296 (1996).
- 10 Op. cit. (8).
- ¹¹ B. Meyer and L. Wherry, "Saving Teens: Using a Policy Discontinuity to Estimate the Effects of Medicaid Eligibility," National Bureau of Economic Research (August 2012).
- ¹² Black children were more likely to be affected by Medicaid expansions and gained twice the number of years of eligibility as white children.
- ¹³ D. Cutler and Gruber, "Does Public Insurance Crowd Out Private Insurance," Quarterly Journal of Economics, 111: 391-439 (1996).

- ¹⁴ S. Cohodes, et al., "The Effect of Child Health Insurance Access on Schooling: Evidence from Public Insurance Expansions," National Bureau of Economic Research (May 2014).
- ¹⁵ Authors used estimates from teenage reported health between 1995 and 2007. According to the authors, "While these estimates typically are not statistically significantly different from zero at conventional levels, they provide support for the idea that better health is an important mechanism that drives at least part of the increased educational attainment we document."
- ¹⁶ In this study, a mental health issue is recorded if a teenager considered suicide, planned suicide, attempted suicide, hurt self attempting suicide, and number of suicide attempts. Eating disorders include bulimia and use of diet pills.
- 17 Op. cit. (11).
- ¹⁸ The same study found that all children born after the cutoff date were 9 percentage points more likely to gain Medicaid eligibility, compared to 17 percentage points for Black children and 8 percentage points for non-Black children.
- ¹⁹ The study authors measured mortality outcomes by cohort (pre or post Medicaid expansions), race (white or Black), cause of death (internal or external), age (period of coverage at age 8 to 14 or later life at ages 15 to 18), and state of residence (high or low eligibility). External causes of death are those caused by something outside the body (e.g., car accident, drowning, suicide, homicide) while internal causes of death are those caused by something inside the body (e.g., tumors, cardiovascular or respiratory diseases, infections). Results were not significant to measure a decline in mortality rates among black children during the period of coverage (ages 8 to 14), for white children at any age by any cause of death, for external cause of death in Black children, and for children living in states with largest gains in public health insurance eligibility under the expansions.
- ²⁰ M. Boudreaux, E. Golberstein, and D. McAlpine, "The Long-Term Impacts of Medicaid Exposure in Early Childhood: Evidence from the Program's Origin," Unpublished manuscript (2015).
- ²¹ Note that this study does not distinguish between prenatal care and early childhood care for low-income children (those under 150 percent of FPL).
- ²² Results were not significant for other chronic conditions (fair health or worse, heart disease/heart attack, adult onset diabetes, and obesity) and economic outcomes measured by economic index, years of education, ratio of family income to poverty line, and decline of family wealth.
- ²³ S. Miller and L. Wherry, "The Long Term Health Effects of Early Life Medicaid Coverage," Forthcoming (2015).
- ²⁴ Researchers looked at Medicaid coverage by age (prenatal and ages 1 to 4, 5 to 9, 10 to 14, and 15 to 18) and later life hospitalizations categorized by (1) all visits excluding pregnancyrelated, (2) endocrine, nutritional and metabolic diseases, and immunity disorders, (3) diabetes and obesity, and (4) mental health. No other results were significant.



- ²⁵ L. Wherry, et al., "Childhood Medicaid Coverage and Later Life Health Care Utilization," National Bureau of Economic Research (February 2015).
- ²⁶ There was no significant decrease in hospitalizations and emergency room visits at age 15 (as opposed to age 25) suggesting that the benefits of Medicaid in childhood may take years to take hold.
- ²⁷ For Black children living in low-income zipcodes, Medicaid eligibility during childhood reduced hospitalizations at age 25 by 15 to 21 percent, hospitalizations for chronic illnesses by 22 to 29 percent, and emergency department visits by 14 percent.
- ²⁸ It is important to note that children with Medicaid coverage use the emergency department for reasons that reflect the "seriousness of the medical problem" and most likely because "only a hospital could help." R. Gindi and L. Jones, "Reasons for Emergency Room Use Among U.S. Children: National Health Interview Survey, 2012," National Center for Health Statistics (NCHS) Data Brief, no 160 (July 2014).
- ²⁹ Op.cit. (23).
- 30 Researchers looked at Medicaid coverage by age (prenatal and ages 1 to 4, 5 to 9, 10 to 14, and 15 to 18) and the effect on adult health measures (ages 19 to 33) including very good/ excellent health, health limitations, BMI, obesity, presence of one more chronic health conditions, Kessler score (a mental health measure of psychological distress). A 10-percentage point increase in prenatal Medicaid eligibility provides suggestive, but not significant, evidence in a decrease in chronic conditions and BMI. A 10-percentage point increase in Medicaid eligibility at ages 1 to 4 is also suggestive, but not significant, in terms of improving Kessler scores. No other results were significant.
- ³¹ M. Jackson, "Understanding Links Between Adolescent Health and Educational Attainment," Demography, 46:671-694 (2009).
- 32 Op. cit. (14).
- 33 The study does not provide precise results for the effects of health insurance by age (0 to 3, 4 to 8, 9 to 13, and 14 to 17), but they do provide evidence that educational outcomes in the long run are sensitive to Medicaid expansions that target school-age children. The effects of high school completion are largest among nonwhite groups while the effects of college attendance and completion are largest among white children.
- ³⁴ D. Brown, A. Kowalski, and I. Lurie, "Medicaid as an Investment in Children: What is the Long Term Impact on Tax Receipts?" National Bureau of Economic Research (January 2015).
- 35 T. Gross, and M. Notowidigdo, "Health Insurance and the Consumer Bankruptcy Decision: Evidence from Expansions of Medicaid," Journal of Public Economics, 95:767-778 (August 2011).
- 36 Op. cit. (34).

- ³⁷ Authors examined Internal Revenue Service (IRS) Compliance Data Warehouse (CDW) data to examine the impact of Medicaid eligibility from birth through age 18 on life outcomes (cumulative) including tax payments, EITC receipt, wages, mortality, college attendance, Medicaid spending, and Medicaid take-up.
- 38 R. O'Brien& C. Robertson, "Medicaid and Intergenerational Economic Mobility," Institute for Research on Poverty (April 2015).
- ³⁹ Results were not significant to children born to parents in the top half of the income distribution, which is expected given the type of program. Policy shifts at the state and local level do not account for the effect between Medicaid expansion and intergenerational economic mobility.
- 40 Op. cit. (25).
- 41 Op. cit. (34).

Authors: Alisa Chester and Joan Alker

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Center for Children and Families Health Policy Institute Georgetown University Box 571444 3300 Whitehaven Street, NW, Suite 5000 Washington, DC 20057-1485 Phone (202) 687-0880 Email childhealth@georgetown.edu



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