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The Role of Public Health Insurance in Reducing Child Poverty

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Abstract

Over the last thirty years, there have been major expansions in public health insurance for low-income children in the U.S. through Medicaid, the Children's Health Insurance Program (CHIP), and other state-based efforts. In addition, many low-income parents have gained Medicaid coverage since 2014 under the Affordable Care Act. Most of the research to date on health insurance coverage among low-income populations has focused on its impact on health care utilization and health outcomes, with much less attention to the financial protection it offers families. We review a growing body of evidence that public health insurance provides important financial benefits to low-income families. Expansions in public health insurance for low-income children and adults are associated with reduced out-of-pocket medical spending, increased financial stability, and improved material well-being for families. We also review the potential poverty-reducing effects of public health insurance coverage. When out-of-pocket medical expenses are taken into account in defining the poverty rate, Medicaid plays a significant role in decreasing poverty for many children and families. In addition, public health insurance programs connect families to other social supports such as food assistance programs that also help reduce poverty. We conclude by reviewing emerging evidence that access to public health insurance in childhood has long-term effects for both health and economic outcomes in adulthood. Exposure to Medicaid and CHIP during childhood has been linked to decreased mortality and fewer chronic health conditions, better educational attainment, and less reliance on government support later in life. In sum, the nation's public health insurance programs have many important short and long-term poverty-reducing benefits for low-income families with children.

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Keywords

Medicaid; CHIP; public health insurance; poverty

Introduction

The link between poor health and poverty has been well documented and the relationship is complex. Not only is poverty a contributing factor to poor health outcomes, but people in poor health often have low incomes as a result of their health problems. The financial burden of medical care, measured as out-of-pocket spending relative to total family income, is substantially higher for low-income families with children than for families with higher incomes and for families that have children or other family members with special health care needs.^{1–2} More than a quarter of poor families with children have total out-of-pocket expenditures exceeding 10% of family income,¹ a threshold commonly used to capture catastrophic spending or being “underinsured.”

By subsidizing many of the costs associated with medical care, public health insurance can play a critical role in improving the financial well-being of low-income families with children. Over the last thirty years, there have been major expansions in public health insurance for low-income children in the U.S. under Medicaid and the Children’s Health Insurance Program (CHIP). In addition, millions of low-income parents have gained coverage through the Medicaid expansion and subsidies available for marketplace coverage under the Affordable Care Act (ACA). In this article, we provide an overview of the public health insurance options available for poor and low-income families with children, and then review the evidence connecting public health insurance to financial and economic outcomes for families. We also discuss the role of public health insurance in reducing poverty in the U.S. We conclude with a review of emerging evidence indicating that health insurance coverage during childhood may help mitigate the harmful effects of childhood poverty later in life. Table 1 presents a summary of the main themes discussed in this article.

Health Insurance Options for Low-Income Families

To address disparities in child healthcare, U.S. policy has primarily focused on increasing access to medical care for children through expansions in eligibility for public health insurance. From the onset of the program in 1965, Medicaid coverage for non-disabled children was tied to family participation in the nation’s cash assistance program. Beginning in 1984, Congress took steps to de-link the Medicaid and cash assistance programs and expand Medicaid eligibility to children with family incomes at or below the federal poverty level (FPL) and to 133% of the FPL for children and infants under age six.

In 1997, the Children’s Health Insurance Program (CHIP) was created to address coverage gaps for children whose families had incomes that were too high to qualify for Medicaid but too little to afford private health insurance coverage.³ Under CHIP, states could expand coverage to higher income children through Medicaid, a separate non-Medicaid program, or a combination of both. While CHIP was funded as a block grant and not as an entitlement like Medicaid, states received higher federal matching funds under CHIP and had more

latitude over programmatic design features. CHIP also included policies designed to increase take up of Medicaid and CHIP coverage among uninsured children who were eligible but not enrolled, allowing states to disregard asset tests, eliminate face-to-face interview requirements, and grant children presumptive eligibility. The Children's Health Insurance Program Reauthorization Act (CHIPRA) of 2009 provided states with additional options for increasing take up of Medicaid and CHIP. Under Medicaid and CHIP, twenty-eight states currently cover children in families with incomes at or above 250% of the Federal Poverty Level (FPL), while 18 states and D.C. cover children with family incomes at or above 300% FPL, with a national median of 255% FPL.⁴

As a result of these eligibility expansions and related policy changes, the Medicaid and CHIP programs play a major role in the health insurance coverage of children in the U.S. In 2011, 38% of all children were enrolled in Medicaid or CHIP.⁵ Furthermore, the proportion of children without health insurance coverage declined substantially over this period from 15% in 1984 to 6.6% in 2012, even as the uninsured rate for non-elderly adults climbed.⁵ Figure 1 shows drastic changes in rates of insurance and access to care for children from 1997 to 2012 by household income level. A large literature has demonstrated that expansions in Medicaid and CHIP eligibility have resulted in improved access and utilization of health care services for children, while a smaller number of studies have examined the impact on child health and mortality.⁶

The majority of uninsured children are eligible for but not participating in either Medicaid or CHIP.⁷ However, eligibility for Medicaid and CHIP is not universal among low-income children. Most children who are undocumented immigrants remain ineligible for these programs, and only certain groups of immigrants qualify for public coverage depending on their state of residence. In addition, there is uncertainty about children's coverage going forward given that federal funding for the CHIP program is set to expire in 2017 and the ACA maintenance-of-effort requirement that states maintain the level of generosity of Medicaid and CHIP eligibility thresholds for children expires in 2019. Given that the ACA prevents families from receiving subsidized coverage through state marketplaces if their employer offers "affordable" coverage for the worker but not necessarily the family (i.e. the "family glitch"), some families who stand to lose Medicaid and CHIP eligibility could find themselves facing large financial burdens to maintain coverage for their children.⁸ In addition, coverage for children available under marketplace plans is typically less generous than coverage under CHIP.⁹

In contrast to children, public health insurance eligibility for low-income adults has historically been much more limited. While all state Medicaid programs covered some low-income parents prior to the ACA, income-related eligibility thresholds were quite low in many states. As of January 2013, only 33 states covered parents with family incomes up to 100% FPL and 16 states limited eligibility to parents with incomes less than 50% FPL.¹⁰ Under the ACA's Medicaid expansion – originally intended to occur in all states, before the Supreme Court rendered it a state option de facto in 2012 – 30 states and the District of Columbia have chosen to expand Medicaid to adults with family incomes at or below 138% FPL as of December 2015. In states expanding Medicaid, there was a sizeable increase in parental coverage immediately following the expansions with the uninsured rate dropping by

33%.¹¹ Parental coverage is expected to continue to increase as more parents obtain Medicaid and subsidized coverage through the new ACA marketplaces.

Optional state expansions in Medicaid eligibility prior to the ACA, using existing flexibility in federal statute or via demonstration waivers from the federal government, provided researchers with opportunities to study the impact of expanded coverage for low-income adults. The landmark Oregon Health Insurance Experiment (OHIE) studied a randomized Medicaid expansion for low-income adults in Oregon conducted through a lottery. The OHIE and a number of quasi-experimental studies that examined expansions for low-income adults have found evidence of increased insurance coverage and health care utilization,^{12–16} improved general health status,^{14,16–17} better mental health,^{14–15,17} and reduced mortality.¹⁶ In addition, there is significant evidence that predates the ACA that parental Medicaid coverage is an important determinant of whether eligible children enroll in coverage.^{12,18–20}

Financial Benefits of Expanded Health Insurance Coverage

To date, most of the research on health insurance coverage among low-income populations has focused on its impact on health care utilization and health outcomes, with much less attention to the financial protection it offers families. Yet, the primary economic purpose of insurance, in general, is to protect those covered from financial risk. In the case of health insurance, these risks take the form of becoming sick or injured and needing expensive medical care. Health insurance – particularly generous coverage with little cost-sharing, as in Medicaid and CHIP – may also help with the affordability of non-catastrophic medical care, such as routine preventive care and chronic disease management. A small but growing number of quasi-experimental and experimental studies indicate that expanded health insurance coverage provides important financial benefits to the low-income or uninsured families who gain coverage.

Three papers have employed quasi-experimental methods to show reduced family financial burdens associated with expanded child eligibility for public health insurance. Using a difference-in-differences design, Banthin and Selden found that child Medicaid expansions in the 1990s decreased the share of Medicaid-eligible children in families spending 10% or more of their income on medical care and premiums by 7.4 percentage points (a relative reduction of 25%) when compared to higher income children.²¹ Davidoff, Kenney, and Dubay used a similar research design and found that eligibility expansions occurring under CHIP between 1997 and 2001 were associated with lower out-of-pocket spending levels on health care.²² Finally, Leininger, Levy, and Schanzenbach examined the impact of later expansions under CHIP relying on a natural experiment design that used variation across states and time in CHIP-related eligibility expansions.²³ The authors found that child eligibility for CHIP was associated with a dramatic decline in family spending on insurance and medical care of about \$300 to \$400 per quarter, compared to a baseline spending amount of \$457.

Several additional studies have focused on children who switch to public health insurance from either private insurance coverage or being uninsured and demonstrate decreased financial strain for families. Clemans Cope et al. used a survey of parents of children

participating in CHIP to compare the experiences of families of established CHIP enrollees and the newly enrolled.²⁴ Parents of established CHIP enrollees reported lower out-of-pocket costs and fewer difficulties paying their child's medical bills when compared to the experiences of parents with recently uninsured and privately-insured children. This reduced financial burden was accompanied by higher confidence and less worry associated with meeting their child's health care needs. In addition, parents of CHIP enrollees were more likely to report adequate insurance benefits and financial protection when compared to the parents of privately-insured children. In a similar study, Zickafoose, Smith, and Dye found that parents of CHIP enrollees with special health care needs reported less difficulty in meeting these needs than parents of uninsured and privately-insured children.²⁵

Shaefer, Grogan, and Pollack also found evidence of reduced family medical spending when children transitioned from private to public health insurance coverage.²⁶ Using variation in Medicaid and CHIP eligibility rules across states to examine these transitions in panel data, the authors estimated that families with children switching to public coverage saved \$1,500 in annual premiums and out-of-pocket costs, compared to children who remain on private health insurance throughout the year. These findings are consistent with fewer cost-sharing requirements and more comprehensive coverage under public health insurance as compared to some private plans. However, it is important to bear in mind that the families who are motivated to switch to public from private coverage are also the families most likely to benefit in terms of financial or other benefits.

The available evidence also indicates reduced financial burden associated with public coverage for low-income parents and adults. Using variation within states over time in the Medicaid income eligibility criteria for parents before 2010, McMorro and coauthors estimated a significant association between expanded Medicaid eligibility for low-income parents and reduced family out-of-pocket spending for medical care.¹⁵ The authors found that low-income parents were less likely to spend \$500 or more or \$2,000 or more over a 12-month period in states with more generous Medicaid eligibility for parents. Examining expanded Medicaid for low-income adults (including parents), the OHIE found decreased financial strain on a number of self-reported measures among adults gaining Medicaid. Adults enrolled in Medicaid were 35% less likely to have any out-of-pocket medical expenses and 40% less likely to borrow money or skip bills to pay for medical expenses.¹⁴ In addition, the incidence of catastrophic expenditures, defined as out-of-pocket medical expenses exceeding 40% of household income, decreased by more than 80% among the new Medicaid enrollees.¹⁷

Protection against catastrophic medical costs is an important benefit of health insurance and may improve the financial stability of low-income households. Recent research examines the impact of health insurance on the financial security of households using previously unexplored datasets on consumer bankruptcies and credit. Using a quasi-experimental approach that relied on variation within states over time in Medicaid eligibility for pregnant women and children, Gross and Notowidigdo found that a 10-percentage point increase in Medicaid eligibility was associated with an 8% decrease in household bankruptcy.²⁷ Their estimates implied that 26% of bankruptcies among low-income households could be attributed to a lack of health insurance. Additional analyses of the OHIE that relied on

administrative credit report data found a 25% decrease in the probability of having unpaid medical bills sent to collections agencies for recovery attempts among low-income adults gaining Medicaid. The study found no impact, however, on more severe (and infrequent) measures of financial distress including personal bankruptcy, tax liens, and judgments for unpaid bills.¹⁴

Finally, public health insurance programs may also improve family economic well-being in other ways. By subsidizing medical care for family members, public health insurance programs may increase the availability of household resources for non-health spending. In addition, the protection from financial risk may reduce the need for precautionary saving, in the form of asset holdings, in response to uncertainty about future needs. However, only a small number of studies have examined changes in household savings and non-medical expenditures under the Medicaid and CHIP programs. Using variation in state Medicaid eligibility for pregnant women and children, Gruber and Yelowitz examined the impact of Medicaid expansions on changes in family saving and spending behavior.²⁸ The authors found evidence that expanded Medicaid decreased asset holdings and increased non-medical spending among low-income families. Leininger, Levy, and Schanzenbach used a similar approach to analyze later expansions in public insurance for children under CHIP and also found evidence that low-income households increased their expenditures on non-medical goods.²³ In particular, households tended to shift their spending toward transportation and retirement savings. Saloner also examined the impact of CHIP expansions on the well-being of families but relied on measures of material hardships such as food and housing insecurity.²⁹ Similar to other studies in this area, he used a quasi-experimental design that relied on variation in income eligibility cutoffs within states over time. He found no impact on these more severe measures of financial strain.

Poverty-Reducing Effects of Public Health Insurance

By reducing the financial burden and risk of medical spending, public health insurance has the potential to reduce the extent to which families live in poverty, as defined using the Supplemental Poverty Measure (SPM). Official poverty rates in the U.S. are determined by comparing pre-tax income to a standard threshold historically based on the cost of food. In response to longstanding criticisms that this measure does not accurately represent the needed resources or expenses of the most disadvantaged, the U.S. Census Bureau introduced the SPM in 2011. Notable differences between the two measures are that (1) the SPM calculates family resources as the total of pre-tax income and the cash-value of transfers under government assistance programs (although not public health insurance), and (2) the SPM subtracts family out-of-pocket medical spending from each family's resources.

Sommers and Oellerich assessed the poverty-reducing impact of Medicaid prior to the ACA under the SPM measure.³⁰ The authors modeled the counterfactual of what the medical out-of-pocket costs and poverty status would be for individuals covered by Medicaid as of 2011 if the program did not exist. Their methodology relied on propensity score matching to compare Medicaid enrollees to those without Medicaid and randomly assigned out-of-pocket medical spending under this counterfactual scenario based on the distribution of spending among matched controls. The authors found that eliminating Medicaid would have

increased the supplemental poverty rate by 0.7 percentage points from 16.1% to 16.8% in 2010. This corresponded to an additional 2.12 million people living in poverty of whom 810,000 are children. The authors calculated that, based on the SPM measure, Medicaid is the third largest poverty-reducing program in the country following the Earned Income Tax Credit (EITC) and the Supplemental Nutrition Assistance Program (SNAP). The ACA Medicaid expansions for low-income adults that have occurred since this paper was published almost certainly has further increased the program's poverty-reducing effects.

In addition to decreasing out-of-pocket medical expenses, Medicaid and CHIP may also reduce poverty by connecting families to other social support programs. Expanded enrollment in public health insurance has been shown to increase awareness of and family participation in other means-tested public programs. The Oregon HIE found that enrolling in Medicaid under the lottery led to a 15% increase in participation in SNAP among low-income adults.³¹ This is consistent with an earlier quasi-experimental study by Yelowitz that found an increase in household food stamp receipt under Medicaid eligibility expansions for children in the 1980s.³²

Attenuating the Long-Term Effects of Poverty

Public health insurance for low-income children could influence their long-term outcomes by improving access to care related to chronic conditions associated with poverty. In addition, the financial benefits of Medicaid and CHIP in the form of reduced medical spending and risk protection may free up resources in the household that may be directed towards other investments in children. Relying on quasi-experimental methods, a recent literature provides new evidence that access to public health insurance during childhood leads to improvements in later life health and economic outcomes.

Boudreaux, Golberstein, and McAlpine took advantage of the staggered timing of Medicaid's adoption across states in the 1960s to estimate the impact of exposure to Medicaid during early childhood on adult health and economic status at ages 25–54.³³ The authors found that cohorts who gained exposure to Medicaid between conception and age 6 had significantly better adult health, as measured by a 0.35 standard-deviation change in a composite index measure of high blood pressure, diabetes, heart disease/heart attack, and obesity. They did not observe significant changes in an economic index combining data on years of educational attainment, family income, and wealth, but their estimates were imprecise and did not rule out reasonable effect sizes.

Other papers in this literature examine the long-term impact of later expansions in public health insurance for children in the 1980s and 1990s under Medicaid and CHIP. Although the cohorts affected by these expansions are still relatively young, this strand of research shows evidence of promising changes in the trajectories of health and economic status in early adulthood for those gaining expanded access to Medicaid. In a series of papers, Wherry and colleagues examined the long-term health effects of additional Medicaid coverage in childhood using a natural experiment design that exploited a feature of the Medicaid expansions that extended eligibility only to children who were born after September 30, 1983.^{34–35} This resulted in a large discontinuity in the lifetime years of Medicaid eligibility for children born before and after this birthdate cutoff. They compared

later life mortality, hospitalizations, and emergency department use among cohorts born just before and after this date to determine how additional Medicaid eligibility was related to health in early adulthood. The authors found evidence of a decrease in teenage mortality and reduced health care utilization in early adulthood among African American cohorts gaining childhood Medicaid eligibility.

The remaining studies in this area rely on within state variation over time in the generosity of income eligibility thresholds for Medicaid and CHIP in order to estimate the association between childhood exposure to these programs and later life outcomes. Using a variant of a difference-in-differences design, this research found evidence of better teenage health,³⁶ reduced mortality,³⁷ lower rates of obesity, and fewer hospitalizations and emergency department visits related to chronic conditions in early adulthood associated with exposure to expanded public health insurance in childhood.³⁸ There was also evidence of improved educational attainment for cohorts gaining eligibility with higher reading test scores later in childhood and increased rates of high school and college completion.^{38–40} Finally, one study found that the U.S. government might recover some of the original cost of providing expanded Medicaid coverage. Using longitudinal Internal Revenue Service data, Brown, Kowalski, and Lurie found that children who gained additional years of eligibility under the expansions paid more in cumulative taxes by age 28 and were less likely to collect EITC payments than children who did not gain additional eligibility.³⁷

Summary

Over the past two decades, a growing body of literature has documented the significant and wide-ranging benefits of public health insurance. Expansions in Medicaid and CHIP for low-income children and adults are associated with reduced out-of-pocket medical spending, increased financial stability, and improved material well-being for families. When out-of-pocket medical expenses are taken into account in defining the poverty rate, Medicaid plays a significant role in decreasing poverty for many children and families and is one of the country's largest anti-poverty programs. Public health insurance also connects families to other social supports including food assistance programs. Finally, access to public health insurance in childhood appears to have positive long-term effects for both health and economic outcomes in adulthood. As the nation embarks on a new major chapter of coverage expansion under the ACA and debate continues over the future of CHIP, this body of research provides important evidence to inform policymakers as they weigh the multifaceted impacts of public health insurance programs.

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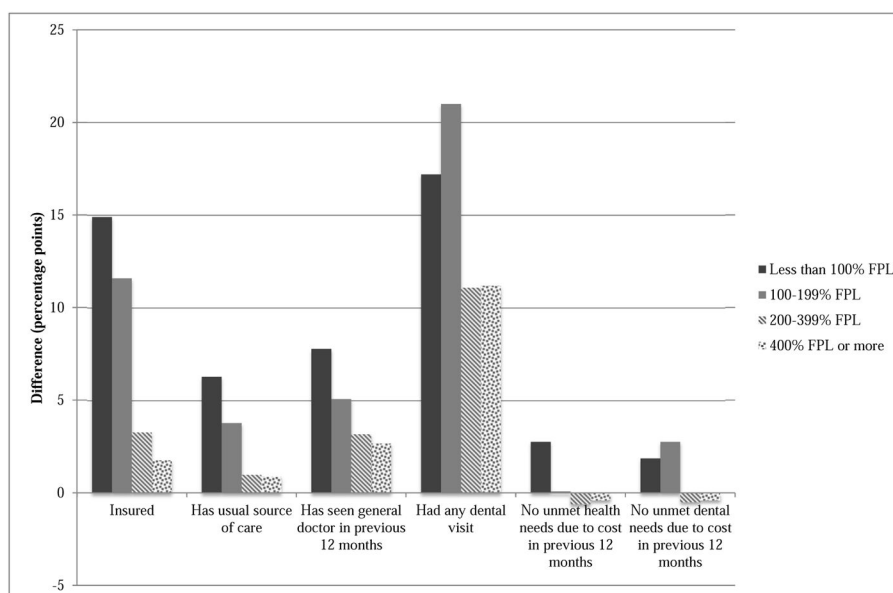


Figure 1. Change in Rates of Insurance and Access to Care for Children from 1997 to 2012, By Household Income (percent of poverty)

Source: Rosenbaum and Kenney (8); authors' analysis of data from the 1997 and 2012 National Health Interview Surveys.

Table 1
The Role of Public Health Insurance in Improving Family Financial Well-Being

Key Lesson	Research Findings	Sources
Public health insurance provides financial protection to families	<ul style="list-style-type: none"> Less out-of-pocket medical spending and decreased household bankruptcy are associated with expansions in public health insurance for children. Families with children who switch to public health insurance from either private insurance or being uninsured experience lower out-of-pocket costs, fewer difficulties paying medical bills, and less difficulty meeting their child's health care needs. Expansions in public health insurance for low-income parents and adults decrease out-of-pocket medical expenses, difficulties paying medical bills, catastrophic expenditures, and the frequency of unpaid medical bills sent to collections agencies for recovery. 	<p>Finkelstein et al. (14) McMorrow et al. (15) Baicker et al. (17) Bathin and Selden (21) Davidoff, Kenney, and Dubay (22) Leininger, Levy, and Schanzenbach (23) Clemans Cope et al. (24) Zickkafoose, Smith, and Dye (25) Shaefer, Grogan, and Pollack (26) Gross and Notowidigdo (27) Gruber and Yelowitz (28)</p>
Fewer families live in poverty as a result of decreased out-of-pocket medical spending under public health insurance	<ul style="list-style-type: none"> More children and families meet the Supplemental Poverty Measure definition of poverty in the absence of Medicaid. 	Sommers and Oellerich (30)
Public health insurance connects families to other social support programs	<ul style="list-style-type: none"> Increased participation in food assistance programs is associated with expanded eligibility for public health insurance. 	Baicker et al. (31) Yelowitz (32)
Public health insurance for children influences long-term health and economic outcomes	<ul style="list-style-type: none"> Improved teenage and adult health including better self-reported health, lower mortality, fewer chronic conditions, and less frequent hospitalization associated with increased exposure to public health insurance during childhood. Improved educational attainment including higher reading test scores and increased rates of high school and college completion also associated with exposure to public health insurance during childhood. 	<p>Boudreaux, Golberstein, and McAlpine (33) Wherry and Meyer (34) Wherry et al. (35) Currie, Decker, and Lin (36) Brown, Kowalski, and Lurie (37) Miller and Wherry (38) Levine and Schanzenbach (39) Cohodes et al. (40)</p>