



# Despite Recent Improvement, One in Six Children Lived in a Family with Problems Paying Medical Bills in 2017

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**Medical bills are a prime source of financial insecurity for families, making up much of the debt sent to collections and even contributing to bankruptcy in some cases (CFPB 2014; Gross and Notowidigdo 2011; Himmelstein et al. 2019; Karpman and Caswell 2017). But even in less drastic cases, high medical bills can contribute to family financial insecurity by making it more difficult to pay for other necessities, such as housing, food, and other bills, in addition to other needed medical care (Hamel et al. 2016).**

**Consequently, medical cost burdens can affect every member of the family, including children—potentially affecting not only their material circumstances but also their well-being and healthy development (Chaudry and Wimer 2016; Wherry, Kenney, and Sommers 2016). And consequences of financial insecurity for children’s health can extend beyond the short term and into their adulthood (American Academy of Pediatrics 2016).**

Health insurance coverage is intended to protect against large or unplanned medical costs, and research indicates that the likelihood of having problems affording medical bills is lower among those with insurance coverage than among the uninsured (Collins et al. 2015; Finkelstein et al. 2011; Gates et al. 2016; Hamel et al. 2016; Wherry, Kenney, and Sommers 2016). The Affordable Care Act (ACA) coverage provisions implemented in 2014 included expanding Medicaid eligibility for adults to 138 percent of the federal poverty level (FPL) in participating states, the availability of subsidized Marketplace coverage for those with incomes below 400 percent of FPL with additional cost-sharing subsidies for those with incomes below 250 percent of FPL, and efforts to increase take-up of available

coverage. These expansions were expected to reduce the financial burdens associated with obtaining medical care and thereby improve both health and financial security.

Parents and other nonelderly adults experienced large coverage gains following ACA implementation, and despite their already low uninsurance rates, children also gained coverage (Karpman and Kenney 2017; Karpman et al. 2016; McMorro, Gates, et al. 2017; McMorro, Kenney, et al. 2017). These more modest coverage gains for children have largely been categorized as spillover effects of the expansions to adults (Hudson and Moriya 2017). Consistent with prior coverage expansions, the ACA's coverage gains have also been associated with positive effects on families' ability to afford medical care and declines in financial burdens (Caswell and Waidmann 2017; Collins et al. 2015; Hu et al. 2018; Kominski, Nonzee, and Sorensen 2017). The share of families reporting problems paying medical bills fell following ACA implementation, particularly among low-income groups targeted by the law's coverage expansions (Cohen and Zammitti 2017b; McMorro, Gates, et al. 2017; Shartzter, Long, and Anderson 2016).

Still, about one in nine parents and other nonelderly adults remained uninsured in 2017, so despite children's low uninsurance rate, many live in families in which other members are uninsured (Berchick, Hood, and Barnett 2019; Haley et al. 2019). These children are vulnerable to the financial insecurity associated with having an uninsured family member and the related risks for their well-being, including food insecurity and housing instability. Moreover, having health insurance coverage is not always sufficient to protect against experiencing trouble paying medical bills; premiums, deductibles, and out-of-network costs can be burdensome, and research indicates a large share of medical debt is incurred while individuals are insured (Hamel et al. 2016; Karpman and Long 2015). In addition, some private plan types offer less financial protection than others. For instance, employer-sponsored and Marketplace plans with high deductibles may place enrollees at higher risk of problems affording care (Cohen and Zammitti 2017a; Hamel et al. 2016; Kominski, Nonzee, and Sorensen 2017). Problems with medical bills can also be greater for people with health problems, who may face higher out-of-pocket spending burdens (Hamel et al. 2016).

Using data from the National Health Interview Survey (NHIS), this brief examines changes between 2013 and 2017 in the share of children in families who reported having problems paying medical bills during the prior 12 months alongside changes in uninsurance among children and their family members. We examine trends for all children from birth to age 18 and by their family income. We also assess which low-income children are at greatest risk of being in families with trouble paying medical bills and, for low-income children with insurance coverage, we examine variation in problems paying medical bills across coverage and plan type. Finally, we examine the extent to which problems paying medical bills co-occur with other financial hardships among low-income families.

Our analysis finds the following:

- Though problems paying family medical bills declined by 20 percent between 2013 and 2017, one in six children—an estimated 13.0 million—lived in a family with problems paying medical bills in 2017.

- Differences across income groups in problems paying medical bills narrowed between 2013 and 2017, but low-income children remained more likely than higher-income children to be in families with problems paying medical bills. In 2016–17, 23.4 percent of children with family incomes at or below 250 percent of FPL were in families that had trouble paying medical bills, compared with 10.9 percent of children with family incomes above 250 percent of FPL.
- Among low-income children at or below 250 percent of FPL in 2016–17, the share in families with problems paying medical bills was much higher among those who lacked insurance coverage for all or part of the prior year (39.7 percent). Problems were also more common for children who had a family member who was uninsured during the prior year (34.1 percent). In addition, the rate of problems affording medical bills was higher among low-income children in fair or poor health (31.9 percent), with an activity limitation (29.2 percent), or who lived with a family member who was in fair or poor health (35.2 percent) or had an activity limitation (36.9 percent).
- Most (80.0 percent) low-income children in families with problems paying medical bills had either uninsurance or health problems in their family.<sup>1</sup>
- Among children with full-year insurance coverage, some health insurance plan types were associated with a higher likelihood of having problems paying medical bills; low-income children covered by employer-sponsored coverage were more likely to have family medical bill affordability problems if they were in a high-deductible health plan (30.9 percent) than a plan without a high deductible (18.0 percent).
- An estimated 9.2 million low-income children were in families that reported having problems paying medical bills in 2016–17, most of whom also experienced other financial hardships; 67.0 percent were living in families worried about paying monthly bills, 56.2 percent were in families worried about paying rent or housing costs, and 37.0 percent were in families reporting food insecurity.

Though uninsurance among children was low (5.2 percent), nearly one in five children (19.4 percent) lived with an uninsured family member, and four in five low-income children in families with problems paying medical bills had either uninsurance or health problems in the family. Despite children’s and adults’ coverage gains since 2013, many children remained vulnerable to the financial insecurity associated with family challenges obtaining coverage and affording medical care in 2017.

## Data and Methods

**National Health Interview Survey.** We used data from the 2013–17 NHIS to examine family problems paying medical bills and child and family health insurance coverage among children from birth to age 18. The NHIS is a nationally representative survey conducted by the National Center for Health Statistics; we used public use data obtained through the University of Minnesota’s Integrated Public Use

Microdata Series. The annual sample size of children from birth to age 18 in the 2013–17 NHIS ranged from about 19,000 to just under 28,000.

**Problems paying medical bills.** Problems paying medical bills were measured based on a question asking, “In the past 12 months, did anyone in the family have problems paying or were unable to pay any medical bills? Include bills for doctors, dentists, hospitals, therapists, medication, equipment, nursing home, or home care.” The family respondent answered this question on behalf of everyone in the family.

**Child and family health insurance coverage.** We constructed two measures of uninsurance at the time of the survey. Uninsurance among children refers to the child’s coverage status, and uninsurance among anyone else in the family refers to the coverage status of any other related person in the NHIS family living in the household (i.e., the child’s parents and siblings, as well as other adult or child relatives and unmarried partners of the child’s parent), excluding the child. We included all family members in the measure of family-level uninsurance to align with the measure of problems paying medical bills; however, we also constructed alternative measures of family coverage reflecting only the parents’ coverage status.<sup>2</sup> Though uninsurance was lower when only including parents than when including all family members, the magnitude of changes over time was similar. We provide alternative estimates using only parents’ coverage status where applicable.

We also constructed two other measures of coverage among low-income children (defined as those with family incomes at or below 250 percent of FPL) throughout the year before the survey using data from 2016 and 2017. First, we separately assessed whether the child or any other family member (excluding the child) were uninsured at any point in the prior 12 months. Second, we categorized children who had coverage for all of the past 12 months (full-year coverage) by the coverage type they reported at the time of the survey (e.g., employer-sponsored, nongroup, Medicaid/Children’s Health Insurance Program [CHIP], other public or private coverage). In addition, to assess potential differences in affordability between private plan types, we categorized children with employer-sponsored insurance or nongroup coverage by whether they were enrolled in a “high-deductible” health plan, defined in the survey as a family plan with an annual deductible of \$2,600 or more.<sup>3</sup> Finally, we assessed whether the child had a family member with Medicaid/CHIP coverage at the time of the survey and whether the child lived with a parent who had Medicaid coverage at the time of the survey.

**Additional characteristics.** We assessed changes in child and family coverage and problems paying medical bills for all children and according to family income as a percentage of FPL (at or below 138 percent of FPL, 139 to 250 percent of FPL, 251 to 400 percent of FPL, or above 400 percent of FPL). We also estimated rates of problems paying medical bills across subgroups of low-income children (defined as those with family incomes at or below 250 percent of FPL), categorized by their and their family’s characteristics. Child demographic and socioeconomic characteristics included age (birth to age 5, 6 to 12, or 13 to 18), sex (male or female), race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, or other non-Hispanic race), and citizenship status (citizen or noncitizen). Family characteristics included family structure (presence of only one parent, neither parent, or both parents in the household); citizenship status (any or no noncitizens in the family); region of residence (Northeast, Midwest, South, or West); highest education level among adults in the family (less than high school, high

school graduate, some college, or college graduate); work status among adults in the family (two or more full-time workers, one full-time worker, only part-time workers, or no workers); and income group (at or below 138 percent of FPL or 139 to 250 percent of FPL).<sup>4</sup> Children's coverage and health characteristics included the child's coverage status, health status (fair/poor, good, or excellent/very good), and whether he or she had an activity limitation (defined as being limited in any way because of a physical, mental, or emotional problem). Family coverage and health characteristics included the presence of any uninsured family member, any family member with Medicaid/CHIP, any family member in fair/poor health, or any family member with an activity limitation in the household.

We also categorized low-income children in families with problems paying medical bills into four groups according to whether the child or family experienced uninsurance in the prior 12 months and/or health problems at the time of the survey:

- both uninsurance and health problems in the family (either the child and/or family members were uninsured and either the child and/or family members were in fair or poor health or had an activity limitation)
- uninsurance in the family, but no health problems (either the child and/or family members were uninsured, but neither the child nor family members were in fair or poor health or had an activity limitation)
- health problems in the family, but no uninsurance (either the child and/or family members were in fair or poor health or had an activity limitation, but neither the child nor any family members were uninsured)
- neither uninsurance nor health problems in the family (neither the child nor any family members were uninsured or in fair or poor health or had an activity limitation)

Further, to assess how problems paying medical bills coexist with other material hardships, we examined whether the sample adult in the child's family reported being worried about paying monthly bills (defined as being "very worried" or "moderately worried" based on a question asking, "How worried are you right now about not having enough to pay your normal monthly bills?") or rent/housing (defined as being "very worried" or "moderately worried" based on a question asking, "How worried are you right now about not being able to pay your rent, mortgage, or other housing costs?"), as well as a measure of family food insecurity during the past 30 days (defined as having low or very low food security based on 10 questions).<sup>5</sup>

**Analysis.** All analyses used NHIS survey weights, and standard errors were adjusted to account for the NHIS's complex survey design and the multiple imputation of income, where relevant. For some analyses, such as subgroup estimates among low-income children, we combined 2016 and 2017 data to ensure adequate sample size (weighted population estimates were computed as an average across the two data years). When examining differences in problems paying medical bills across subgroups of low-income children, we report unadjusted patterns in the text. Because differences in population demographics may contribute to differences in medical bill affordability, we used an ordinary least squares regression to assess whether patterns in child and family characteristics and problems paying

medical bills identified in the descriptive analysis held up when controlling for other observed characteristics (data not shown).

**Limitations.** This study has several limitations. First, because the NHIS family-level indicator of problems paying medical bills refers to the entire family living in the household and not just the child's parents and siblings, the extent to which reported problems directly affect the child and his or her parents may vary. And though we have defined other family-level indicators, such as uninsurance, to align with this definition, these may overstate the impact of family members' characteristics on children with more complex family structures. For example, the effects of high medical bills on children may differ if the bills are for an adult sibling or extended relative living in the household than if they are for the child or his or her parents or minor siblings. In addition, only one sample adult per family reported on worries about paying monthly bills and rent or housing costs. Other family members may have worries not indicated by the sample adult, so estimates could understate the presence of these worries in the family. Further, some children do not have a sample adult in their family, so these estimates are based on a slightly smaller sample of children.

We also note that though families report on problems paying medical bills in the past 12 months, those bills were not necessarily incurred in that period. Thus, some problematic medical bills may not have been incurred under the coverage type respondents indicated at the time of the survey or in the past year. Similarly, the family members' health status and activity limitations at the time of the survey may not align with those occurring when medical bills were incurred. Moreover, the person who incurred the family medical bills may be deceased or no longer living with the family and therefore would not be represented in the family coverage and health characteristics. For analyses of the full-year insured population, we do not know if children had the same coverage type for the whole year; they are defined by the coverage type they had at the time of the survey.

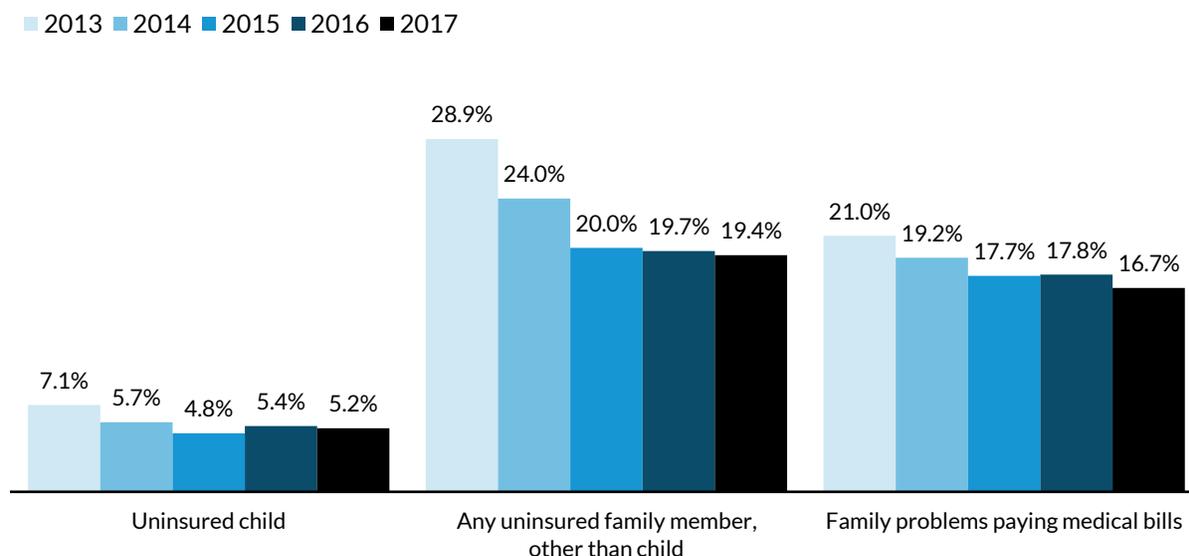
Finally, though we assess changes in insurance coverage and problems paying medical bills between 2013 and 2017, following implementation of the ACA's coverage provisions, we can neither determine whether the coverage changes contributed to the changes in affordability nor attribute changes to the policies instituted under the ACA because other changes, such as improvements in economic conditions, may have contributed. In addition, the NHIS sample design changed in 2016, and some differences between estimates from the new sample design period (2016 and later) and the earlier design period (2013 to 2015) may be attributable to these changes.

# Results

## How Have Children’s and Families’ Insurance Coverage and Problems Paying Medical Bills Changed between 2013 and 2017?

Uninsurance among children and their families fell between 2013 and 2017. Among children, the uninsurance rate fell from 7.1 percent in 2013 to 4.8 percent in 2015 and remained relatively steady at just over 5 percent in 2016 and 2017 (figure 1). The share of children with uninsured family members was consistently much higher than the uninsurance rate for children but declined even more substantially during this period. In 2013, 28.9 percent of children had an uninsured family member, falling to 19.4 percent in 2017.<sup>6</sup> Despite this decline, children were nearly four times as likely to have an uninsured family member than to be uninsured in 2017, and nearly one in five children lived with an uninsured family member.

**FIGURE 1**  
**Child and Family Health Insurance Coverage and Family Problems Paying Medical Bills among Children from Birth to Age 18, 2013–17**



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Source: Urban Institute analyses of 2013–17 National Health Interview Survey data.

Notes: Family-level indicators refer to all related people in the National Health Interview Survey family living in the household. Health insurance coverage is measured at the time of the survey. Problems paying medical bills refer to the prior 12 months.

Family problems paying medical bills also fell during this period. In 2013, 21.0 percent of children lived in families with problems paying medical bills. But by 2017, this share had fallen by about a fifth, to 16.7 percent. Nevertheless, in 2017, one in six children was in a family with problems paying medical bills—totaling approximately 13.0 million children nationally (data not shown). Thus, despite children’s

low uninsurance levels, many children lived in families facing financial risks because someone in the family lacked insurance coverage or the family had trouble affording medical bills.

## **How Have Changes in Insurance Coverage and Problems Paying Medical Bills Varied by Income Group?**

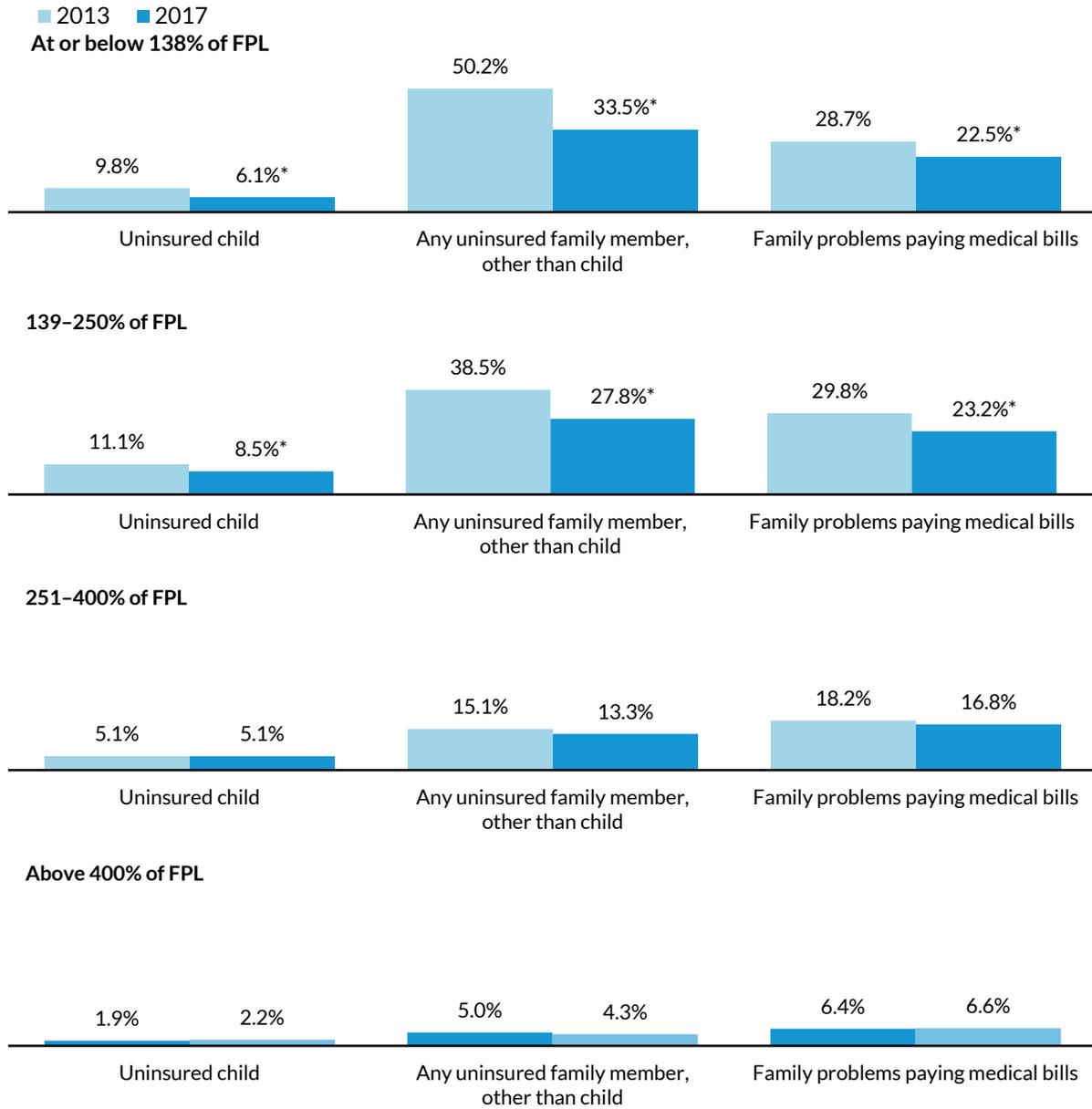
The growth in child and family health insurance coverage during this period was concentrated among low-income children. Uninsurance fell by over a third among children with family incomes at or below 138 percent of FPL (from 9.8 percent in 2013 to 6.1 percent in 2017) and by nearly a quarter among children with family incomes between 139 and 250 percent of FPL (from 11.1 percent to 8.5 percent). However, uninsurance remained more stable for higher-income children, staying at 5.1 percent in both years for children with family incomes between 251 and 400 percent of FPL and at about 2 percent for those with family incomes above 400 percent of FPL (figure 2). Uninsurance among low-income children's family members decreased even more, by 16.7 and 10.7 percentage points for children with family incomes at or below 138 percent of FPL and between 139 and 250 percent of FPL, respectively. But uninsurance did not change significantly for those with incomes between 251 and 400 percent of FPL or above 400 percent of FPL.<sup>7</sup>

Consistent with these coverage gains, declines in problems paying medical bills were larger for low-income children than higher-income children between 2013 and 2017, falling by more than 6 percentage points for those with family incomes at or below 138 percent of FPL and between 139 and 250 percent of FPL while remaining statistically unchanged for the other two higher-income groups. Thus, the gap in problems paying medical bills between children in the two lower-income groups and children with family incomes above 400 percent of FPL narrowed between 2013 and 2017. But problems paying medical bills remained much more prevalent among low-income children than higher-income children. In 2017, 22.5 percent of children with family incomes at or below 138 percent of FPL and 23.2 percent of children with family incomes between 139 and 250 percent of FPL lived in families with problems paying medical bills. Conversely, these rates were 16.8 percent for those with family incomes between 250 and 400 percent of FPL and 6.6 percent for those with incomes above 400 percent of FPL.

Overall, during 2016–17, we find 23.4 percent of low-income children (at or below 250 percent of FPL) were in families that had trouble paying medical bills, compared with 10.9 percent of children with incomes above 250 percent of FPL (table 1). About two-thirds of children in families with problems paying medical bills in 2016–17 had low incomes—totaling 9.2 million children nationally (data not shown).

FIGURE 2

Child and Family Health Insurance Coverage and Family Problems Paying Medical Bills, by Family Income, 2013 and 2017



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Source: Urban Institute analyses of 2013-17 National Health Interview Survey data.

Notes: FPL = federal poverty level. Children are from birth to age 18. Family-level indicators refer to all related people in the National Health Interview Survey family living in the household. Health insurance coverage is measured at the time of the survey. Problems paying medical bills refer to the prior 12 months.

\* Indicates changes between 2013 and 2017 were statistically significant at the 0.05 level.

TABLE 1

**Family Problems Paying Medical Bills among All Children and Subgroups of Low-Income Children, 2016–17**

	Percent
<b>All children</b>	<b>17.3</b>
Children with family incomes above 250% of FPL <sup>^</sup>	10.9
Low-income children with family incomes at or below 250% of FPL	23.4*
<b>Low-income child characteristics</b>	
<i>Age</i>	
Birth to age 5 <sup>^</sup>	23.8
6–12	23.1
13–18	23.3
<i>Sex</i>	
Male <sup>^</sup>	23.0
Female	23.8
<i>Race/ethnicity</i>	
Non-Hispanic white <sup>^</sup>	26.2
Non-Hispanic black	23.8
Hispanic	21.4*
Other, non-Hispanic	18.6*
<i>Citizenship status</i>	
Citizen <sup>^</sup>	23.4
Noncitizen	22.8
<b>Low-income family characteristics</b>	
<i>Parents present</i>	
One	24.1
None	21.0
Both <sup>^</sup>	23.2
<i>Citizenship status</i>	
Any noncitizens	22.6
No noncitizens <sup>^</sup>	23.7
<i>Region</i>	
Northeast <sup>^</sup>	18.4
Midwest	25.4*
South	27.7*
West	17.7
<i>Highest education level</i>	
Less than a high school degree	20.8
High school graduate	21.7
Some college education	27.5*
College graduate <sup>^</sup>	21.7
<i>Work status</i>	
Two or more full-time workers <sup>^</sup>	24.7
One full-time worker	23.6
Only part-time workers	22.5
No workers	23.5
<i>Income level</i>	
≤138% FPL	23.0
139–250% FPL <sup>^</sup>	23.9
<i>Child insurance coverage</i>	
Insured for all of past 12 months <sup>^</sup>	21.6
Uninsured in past 12 months	39.7*

	Percent
<i>Family insurance coverage</i>	
Family member other than child uninsured in past 12 months	34.1*
No family member other than child uninsured in past 12 months <sup>^</sup>	17.4
<i>Child health and activity limitations</i>	
Fair/poor health	31.9*
Good health	27.1*
Excellent/very good health <sup>^</sup>	22.2
Has an activity limitation	29.2*
Has no activity limitation <sup>^</sup>	22.7
<i>Family health and activity limitations</i>	
Any family member in fair/poor health, other than child	35.2*
No family member in fair/poor health, other than child <sup>^</sup>	19.9
Any family member with an activity limitation, other than child	32.0*
No family member with an activity limitation, other than child <sup>^</sup>	19.9

**Source:** Urban Institute analyses of 2016–17 National Health Interview Survey data.

**Notes:** FPL = federal poverty level. Low income is at or below 250 percent of the federal poverty level. Family-level indicators refer to all related people in the National Health Interview Survey family living in the household. Problems paying medical bills refer to the prior 12 months.

<sup>^</sup> Indicates reference group.

\* Indicates rate for subgroup is statistically different from rate for reference group at the 0.05 level.

## How Do Family Problems Paying Medical Bills among Low-Income Children Vary across Child and Family Coverage, Health Status, and Other Characteristics?

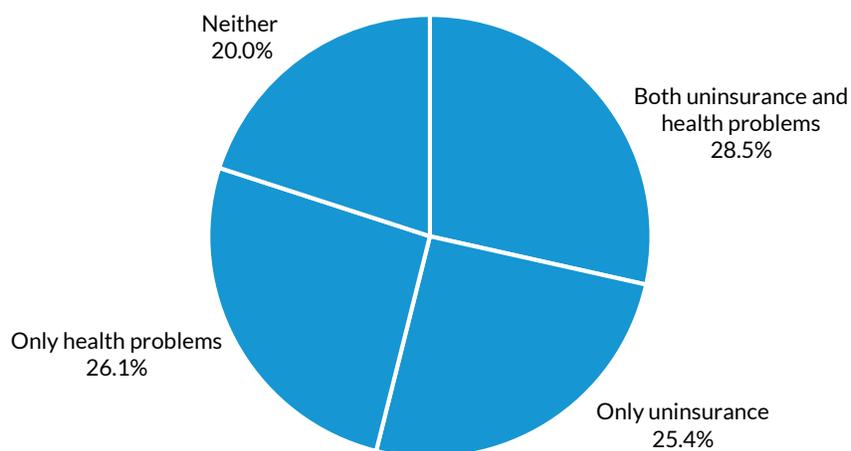
Focusing on low-income children (with family incomes at or below 250 percent of FPL, the income group with the highest rates of problems affording medical bills), table 1 examines variation in problems paying medical bills by child and family characteristics in 2016–17. We observed large differences according to child and family health insurance coverage statuses. Low-income children were much more likely to have family problems paying medical bills if they lacked health insurance coverage for all or part of the prior 12 months (39.7 percent) than if they had insurance coverage for the entire year (21.6 percent). This was the case whether they were uninsured for the full year (41.8 percent) or were insured for only part of the year (36.7 percent; data not shown). They were also more likely to experience family problems paying medical bills if any other family member was uninsured (34.1 percent) than if no other family members were uninsured (17.4 percent). Though the magnitude of some of the differences declined in the multivariate analysis, these patterns persisted when controlling for other child and family characteristics (data not shown).

We also found differences in problems paying medical bills according to low-income children’s and family members’ health statuses (table 1). A higher share of children in fair or poor health (31.9 percent) or with an activity limitation (29.2 percent) or who lived with a family member in fair or poor health (35.2 percent) or with an activity limitation (32.0 percent) had family medical bill affordability problems, compared with children in excellent or very good health (22.2 percent), children with no activity limitation (22.7 percent), or children without a family member reporting fair or poor health or an activity limitation (19.9 percent). Moreover, differences by family members’ health status and activity limitations declined somewhat but persisted when controlling for other factors (data not shown).

Problems paying medical bills also differed across other characteristics of low-income children (table 1): non-Hispanic white children were more likely to have problems paying medical bills than Hispanic children and children of other non-Hispanic races, and children living in the South and Midwest had higher rates of problems paying medical bills than those living in the Northeast—differences that persisted when controlling for other differences across subgroups (data not shown).

When we categorized the estimated 9.2 million low-income children in families with problems paying medical bills in 2016–17 by whether they or someone in their family was uninsured in the past year, had a health problem at the time of the survey (i.e., was in fair or poor health or had an activity limitation), or both, we found most of those with medical bill affordability problems were in families with uninsurance and/or health problems (figure 3). Among children in families with problems paying medical bills, 28.5 percent had both uninsurance and a health problem in their family, and more than half had only uninsurance (25.4 percent) or only health problems (26.1 percent). The remaining 20.0 percent of children in families with problems paying medical bills had neither problem. Thus, 53.9 percent of children with family trouble paying medical bills were uninsured or had uninsured family members, with uninsurance much more common among children’s family members than among the children.<sup>8</sup>

**FIGURE 3**  
**Child and Family Uninsurance and Health Problems among Low-Income Children in Families with Problems Paying Medical Bills, 2016–17**  
*Of an estimated 9.2 million children*



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**Source:** Urban Institute analyses of 2016–17 National Health Interview Survey data.

**Notes:** FPL = federal poverty level. Low income is at or above 250 percent of the federal poverty level. Family-level indicators refer to all related people in the National Health Interview Survey family living in the household. Health problems indicate family member with fair or poor health or an activity limitation; see text for definitions. Weighted population estimate is computed as an average across the two data years. Health problems are measured at the time of the survey. Health insurance coverage and problems paying medical bills refer to the prior 12 months.

## How Do Family Problems Paying Medical Bills among Low-Income Children with Full-Year Insurance Coverage Vary across Coverage and Plan Types?

Though family problems paying for medical bills were less common among low-income children who had insurance coverage for the full year before the survey than those uninsured all or part of the year, we also found some variation by coverage type among insured low-income children (table 2). Children with nongroup coverage and no uninsurance in the past year were less likely to have family medical bill affordability problems (16.2 percent) than children with employer-sponsored insurance coverage and no uninsurance in the past year (21.3 percent), but this difference did not persist when adjusting for other child and family characteristics (data not shown).

In addition, low-income children with employer-sponsored coverage were more likely to have such problems if they were in a high-deductible health plan (30.9 percent) than if they were in an employer-sponsored plan without a high deductible (18.0 percent), but this pattern was not present among children with nongroup coverage.<sup>9</sup>

Rates of problems paying medical bills did not differ significantly between children with and without any other family member with Medicaid/CHIP at the time of the survey (figure 4). However, the families of low-income children with a parent with Medicaid were less likely to report problems paying medical bills (17.4 percent) than those where no parent had Medicaid (26.5 percent).

TABLE 2

### Share of Low-Income Children Insured All Year in Families with Problems Paying Medical Bills, by Children's Coverage Type and Plan Characteristics, 2016–17

	Percent
<b>ESI<sup>^</sup></b>	<b>21.3</b>
Annual family deductible of \$2,600 or more	30.9*
Annual family deductible less than \$2,600 <sup>^</sup>	18.0
<b>Nongroup coverage</b>	<b>16.2*</b>
Annual family deductible of \$2,600 or more	13.7
Annual family deductible less than \$2,600 <sup>^</sup>	16.8
<b>Medicaid/CHIP</b>	<b>22.3</b>
<b>Other coverage type</b>	<b>17.2</b>

Source: Urban Institute analyses of 2016–17 National Health Interview Survey.

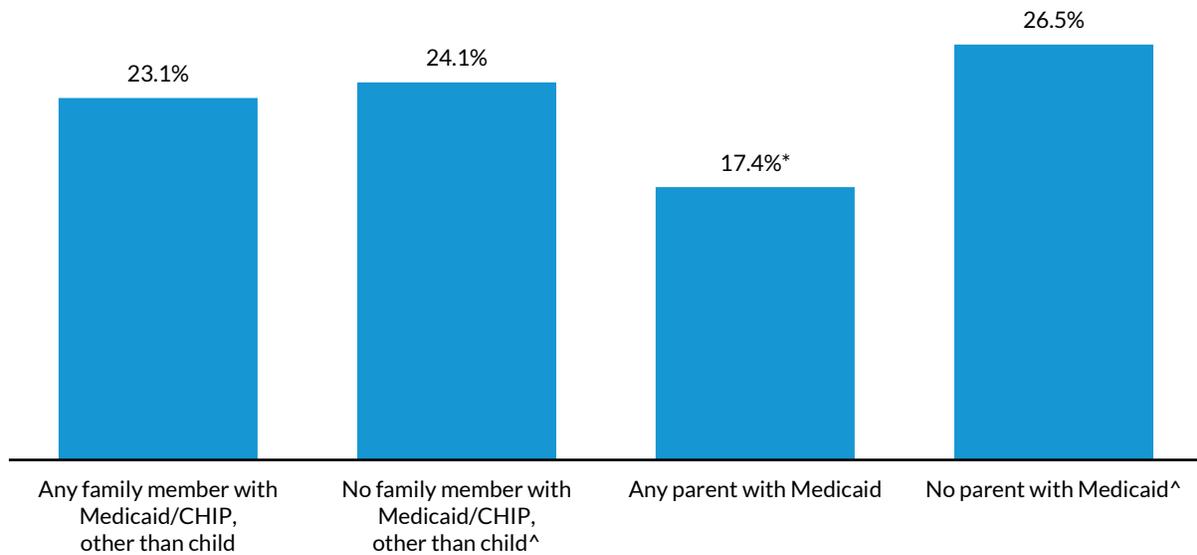
Notes: ESI = employer-sponsored insurance. CHIP = Children's Health Insurance Program. Low income is at or below 250 percent of the federal poverty level. Includes children who had coverage for all of the past 12 months (full-year coverage), classified by the coverage type they reported at the time of the survey. Family plans with an annual deductible of \$2,600 or more are defined in the 2016–17 National Health Interview Survey as high-deductible health plans; children with high-deductible self-only plans (with an annual deductible of \$1,300 or more) are also included in this category. Family-level indicators refer to all related people in the National Health Interview Survey family living in the household. Problems paying medical bills refer to the prior 12 months.

<sup>^</sup> Indicates reference group. Employer-sponsored insurance is the reference group for bolded coverage types. Annual deductible less than \$2,600 is the reference group within private coverage types.

\* Indicates rate for subgroup is significantly different from rate for reference group at the 0.05 level.

FIGURE 4

**Family Problems Paying Medical Bills among Low-Income Children, by Whether Family or Parent Had Medicaid Coverage at the Time of the Survey, 2016–17**



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Source: Urban Institute analyses of 2016–17 National Health Interview Survey.

Notes: CHIP = Children’s Health Insurance Program. Family-level indicators refer to all related people in the National Health Interview Survey family living in the household.

^ Indicates reference group.

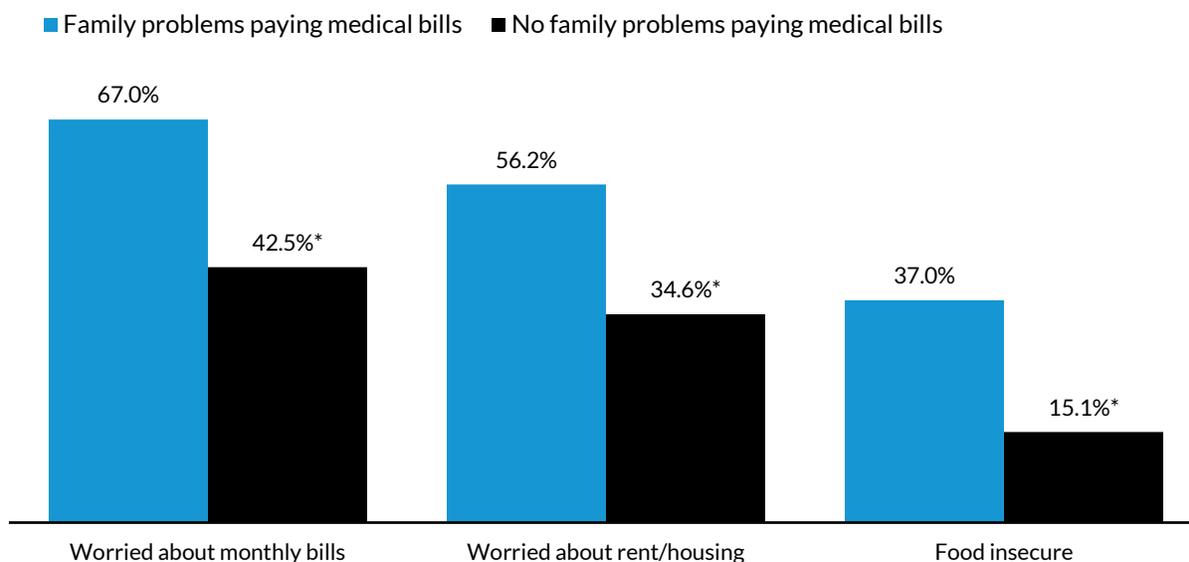
\* Indicates rate for subgroup is significantly different from rate for reference group at the 0.05 level.

**How Are Family Problems Paying Medical Bills among Children Associated with Other Material Hardships?**

Most families of low-income children struggling with medical bills also reported worrying about or experiencing other material hardships.<sup>10</sup> Among low-income children in families with problems paying medical bills, 67.0 percent were in families worried about not being able to pay monthly bills, 56.2 percent were in families worried about not being able to pay rent/housing costs, and 37.0 percent were in families with low or very low food security (figure 5). Low-income children without family problems paying medical bills were less likely to be in families worrying about monthly bills (42.5 percent) or rent/housing (34.6 percent) or experiencing food insecurity (15.1 percent).

FIGURE 5

**Financial Hardships among Families of Low-Income Children, by Whether Families Had Problems Paying Medical Bills, 2016–17**



Source: Urban Institute analyses of 2016–17 National Health Interview Survey data.

Notes: Low income is at or above 250 percent of the federal poverty level. Problems paying medical bills and food insecurity refer to all related people in the National Health Interview Survey family living in the household. Worries about monthly bills and rent or housing are reported by one sample adult in the family and do not necessarily reflect other family members' concerns. Problems paying medical bills refer to the prior 12 months. Worries about monthly bills and housing refer to the time of the survey, and food insecurity refers to the prior 30 days.

\* Indicates rate is significantly lower than rate for those with problems paying medical bills at the 0.05 level.

## Discussion

Though uninsurance among children and their family members and problems paying medical bills fell between 2013 and 2017, one in six children was in a family with problems paying medical bills in 2017. Problems varied across subgroups of children; low-income children were over twice as likely as higher-income children to be in a family with problems paying medical bills. Low-income children were also about twice as likely to have family medical bill affordability problems if they were uninsured, even if for only part of the year, than if they had coverage all year.

Low-income children were also more likely to be in families with problems paying medical bills if another family member lacked health insurance coverage, reinforcing the impact of parental and family characteristics on children's well-being (Burak 2017). Our findings that children were nearly four times as likely to have an uninsured family member than to be uninsured and that children with family uninsurance experienced higher rates of problems paying medical bills suggest the currently low levels of uninsurance among children are not sufficient to protect them from the financial insecurity associated with uninsurance in their families.

Most low-income children in families with problems paying medical bills also experienced family concerns about other material hardships, consistent with previous studies indicating high levels of material hardship among low-income families (Karpman et al. 2018). We found the rate of worries about paying other monthly bills and housing costs was 20 percentage points higher for children in families with problems paying medical bills than for those in families without such problems, and low-income children were about twice as likely to live in families that were food insecure if their families had problems paying medical bills. Thus, even if medical bills could be reduced within these families, their financial challenges may remain; additional safety net supports, such as housing, utilities, or food assistance, may be needed to improve families' financial stability. Though we cannot disentangle cause and effect across health care affordability problems and other material hardships, the coexistence of these challenges may reinforce and enhance hardships. For example, food insecurity is associated with increased risks of certain health conditions (Food Research and Action Center 2017), so if problems affording medical bills increase food insecurity, medical bills could, in turn, grow even higher.

We found large declines in uninsurance and problems paying medical bills in the income groups targeted by the ACA's coverage expansions, particularly among those with incomes below 138 percent of FPL (the income range to which adults' Medicaid eligibility was expanded in participating states) and those with incomes below 250 percent of FPL (some of whom became newly eligible for subsidized Marketplace premiums and cost-sharing reductions). This suggests increased coverage availability may have contributed to these declines. And consistent with other research (Hamel et al. 2016), lacking insurance coverage was a strong predictor of trouble paying medical bills. Thus, efforts to further reduce uninsurance could also further reduce problems paying medical bills. However, recent data indicate coverage gains among both children and parents under the ACA have stalled, with uninsurance among children apparently rising, and policy changes currently being enacted could reduce coverage further (Haley et al. 2019). This suggests the observed declines in problems paying medical bills could plateau or even reverse in the future.

These findings also indicate insurance coverage is not sufficient to protect families from burdens affording medical care, consistent with other research finding that many families with insurance coverage face high financial burdens for premiums and out-of-pocket costs (Hayes, Collins, and Radley 2019). About one in five low-income children with full-year insurance coverage was in a family experiencing problems paying medical bills in 2016–17, and about one in six had such problems even if he or she had no uninsured family members in the past year. Even among the highest-income group we examined, which had very low uninsurance levels among children and their families and presumably greater overall financial stability, one in fifteen children lived in a family with problems paying medical bills. Further, financial protections varied across different plan types; children with employer-sponsored coverage were more likely to experience problems paying medical bills if they were enrolled in high-deductible health plans. This suggests families with insurance coverage could benefit from more protections from high out-of-pocket costs. Congress is considering some legislation to reduce such costs; recent bipartisan bills targeting “surprise medical bills” would limit patients' responsibility for unexpected costs for out-of-network care (Pollitz 2016; Sun et al. 2019).<sup>11</sup>

An estimated 9.2 million low-income children were in families with problems paying medical bills in 2016–17. Because children’s and families’ access to timely, affordable health care affects children’s healthy development, further reducing the financial burdens of medical care would likely have significant benefits for children not only during childhood but also into adulthood (Burak 2017; Howell and Kenney 2012; Wherry, Kenney, and Sommers 2016).

## Notes

<sup>1</sup> We categorized low-income children in families with problems paying medical bills by whether they or someone in their family was uninsured during the prior year, had a health problem (i.e., was in fair or poor health or had an activity limitation) at the time of the survey, both, or neither; see data and methods.

<sup>2</sup> We identified children as having an uninsured parent if the family included at least one uninsured parent of a child from birth to age 18 and the child’s parents were present in the family. Because of measurement error linking children and their parents, some children may be incorrectly assigned an uninsured parent when multiple related subfamilies live together in a household and another child’s parent is uninsured.

<sup>3</sup> For cases with self-only coverage, the annual deductible for high-deductible health plans was defined as at least \$1,300.

<sup>4</sup> A small number of children live in families without adults over age 18, so we create a separate category for these children when calculating adult education and employment. We do not report separate estimates for this small group of children, but they are included in the sample.

<sup>5</sup> A score of 3–5 on the food security scale represents low food security, and a score of 6–10 represents very low food security.

<sup>6</sup> Estimates differ when using alternative definitions of coverage, but patterns are similar. When examining uninsurance at any point during the prior year, rather than at the time of the survey, children’s uninsurance would be higher, but the magnitude of change would be similar, declining from 10.0 percent in 2013 to 7.6 percent in 2017. Likewise, uninsurance among family members would be higher and would decline from 33.1 percent to 22.9 percent. When restricting to only parents in the family, rather than all family members, we found 24.0 percent of children had an uninsured parent in the family at the time of the survey in 2013, compared with 15.9 percent in 2017.

<sup>7</sup> When defining uninsurance as lacking coverage at any point in the prior year, rather than at the time of the survey, the shares of uninsured children were 14.0 percent, 14.6 percent, 7.9 percent, and 2.8 percent in 2013 and 9.5 percent, 11.1 percent, 7.3 percent, and 3.6 percent in 2017 for children with family incomes below 138 percent of FPL, between 139 and 250 percent of FPL, between 251 and 400 percent of FPL, and higher than 400 percent of FPL, respectively. Likewise, the shares of children with a family member uninsured at any point in the prior year would be 56.0 percent, 43.9 percent, 19.0 percent, and 6.5 percent in 2013 and 37.8 percent, 33.2 percent, 16.7 percent, and 5.9 percent in 2017, respectively.

When including only parents’ uninsurance at the time of the survey, the shares of children with any uninsured parent were 42.4 percent, 31.7 percent, 12.3 percent, and 3.5 percent in 2013 and 28.6 percent, 22.5 percent, 10.4 percent, and 3.0 percent in 2017 for children with family incomes below 138 percent of FPL, between 139 and 250 percent of FPL, between 251 and 400 percent of FPL, and higher than 400 percent of FPL, respectively. Low-income parents’ uninsurance declined significantly (by 13.8 percentage points among children with family incomes below 138 percent of FPL and by 9.2 percentage points among children with family incomes between 139 and 250 percent of FPL), but the changes over time for higher-income children were not statistically significant.

<sup>8</sup> When categorizing using uninsurance at the time of the survey, rather than during the prior year, we found that for 22.8 percent of children, they or their family members had both uninsurance and a health problem; 20.5 percent had only uninsurance; 31.7 percent had only health problems; and 25.0 percent had neither problem. Thus, 43.3 percent of children with family trouble paying medical bills were uninsured or had uninsured family members, with uninsurance much more common among children’s family members than among the children.

Consistent with the lower uninsurance rates among children than among their family members, most children who had both family uninsurance and health problems or family uninsurance without health problems (whether at the time of the survey or in the prior year) were insured but lived with an uninsured family member.

<sup>9</sup> As noted, high-deductible health plans were defined in the 2016–17 NHIS as a family plan with an annual deductible of \$2,600 or more or a self-only plan with an annual deductible of \$1,300 or more.

<sup>10</sup> A sample adult in the child’s family reported worries about monthly bills and rent or housing costs.

<sup>11</sup> Rachel Bluth, “Surprise Medical Bills Are Driving People into Debt: Will Congress Act to Stop Them?” *NPR*, May 22, 2019, <https://www.npr.org/sections/health-shots/2019/05/22/725796114/surprise-medical-bills-are-driving-people-into-debt-will-congress-act-to-stop-th>; Rachel Bluth, “Sen. Alexander Details His Plan to Fix Surprise Medical Bills,” *Kaiser Health News*, June 19, 2019, <https://khn.org/news/sen-alexander-details-his-plan-to-fix-surprise-medical-bills/>.

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