

# Research Brief



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## Profiles of Adolescents Who Are Not in Good Health

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### OVERVIEW

Health affects children's immediate well-being and success, and it also has lifelong implications for educational, social, and economic success.<sup>1</sup> This brief uses data from the 2011/2012 National Survey of Children's Health (NSCH) to describe adolescents who are in poor health and compare their personal, family, and neighborhood characteristics to those of healthier adolescents.

### KEY FINDINGS

Although only a small proportion of American adolescents are described by a parent as being only in fair or poor health (compared with good, very good, or excellent health), these adolescents differ markedly from those in better health. Compared to adolescents in good, very good, or excellent health, they are:

- more likely to be obese,
- more likely to have experienced multiple adverse childhood experiences,
- more likely to feel sad or unhappy and be disengaged from school,
- more likely to have parents who are in fair or poor health,
- more likely to have parents who feel aggravated by parenting, and
- more likely to live in neighborhoods with fewer resources.

They are also less likely to be white, non-Hispanic and are more likely to live in poverty than adolescents in very good or excellent health, but are similar in race/ethnicity or poverty status to their peers in good health.

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<sup>1</sup>National Research Council and Institute of Medicine. (2004). *Children's Health, the Nation's Wealth: Assessing and Improving Child Health*. Committee on Evaluation of Children's Health. Board on Children, Youth, and Families, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.



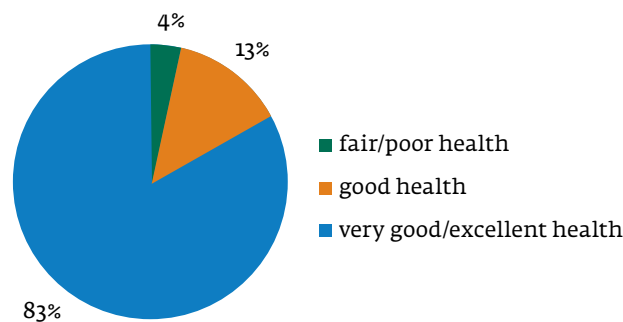
**BACKGROUND**

The NSCH is representative of children under 18 years old nationwide and also within each state. A total of 95,677 interviews were completed in 2011 and 2012, including 34,601 interviews of parents with adolescent children. An adult in the household knowledgeable about the child, usually the mother, answered questions about the child, the family, and the parents. Respondents were asked to rate the focal child’s health as “excellent,” “very good,” “good,” “fair,” or “poor.” In this analysis, we examined the characteristics of adolescents whose parents rated their health as “fair” or “poor.” We then compare those with the characteristics of children who are described by their parents to be in better health. We present results from multivariate analyses that take account of gender, age, race/ethnicity, level of poverty, family structure, and parental educational attainment. The tables present unadjusted percents and means; however, differences discussed throughout the text of this brief are significant at the  $p < 0.05$  level, except where noted. See the Data and Variables box on page 10 for more information.

**FINDINGS**

Nationally, the majority (83 percent) of adolescents are in very good or excellent health (Figure 1). Only four percent of adolescents are in fair or poor health.

**Figure 1: Four percent of adolescents (age 12-17) nationally are in fair or poor health**



Source: 2011/12 National Survey of Children’s Health, parent report

The percentage of adolescents described as being in fair or poor health varies by state (Table 1). The proportion in fair or poor health is highest in Arkansas (seven percent) and in Tennessee (nine percent). In four states – Connecticut, Massachusetts, North Dakota, and Virginia – only 1 percent of adolescents are in fair/poor health.

The lowest percentages of adolescents in very good/excellent health are in Arizona (74 percent), California (77 percent), New Mexico (76 percent), Nevada (76 percent), and the District of Columbia (77 percent). The highest proportions in very good/excellent health are Missouri and New Hampshire (both 90 percent), Virginia (91 percent), and South Dakota (92 percent).



**Table 1: The percent of adolescents (age 12 to 17) reported to be in fair/poor, good, or very good/excellent health varies across states**

	fair/poor	good	very good/excellent		fair/poor	good	very good/excellent
Alaska	3%	12%	85%	Missouri	2%	8%	90%
Alabama	5%	12%	83%	Mississippi	5%	15%	80%
Arkansas	7%	14%	79%	Montana	2%	9%	89%
Arizona	4%	22%	74%	North Carolina	4%	15%	81%
California	4%	19%	77%	North Dakota	1%	7%	92%
Colorado	3%	12%	86%	Nebraska	3%	8%	88%
Connecticut	1%	13%	85%	New Hampshire	2%	8%	90%
District of Columbia	5%	18%	77%	New Jersey	3%	13%	84%
Delaware	6%	13%	82%	Nevada	6%	17%	76%
Florida	4%	13%	83%	New York	3%	14%	83%
Georgia	2%	11%	86%	Ohio	3%	12%	85%
Hawaii	4%	16%	80%	Oklahoma	4%	12%	84%
Iowa	2%	11%	87%	Oregon	3%	14%	83%
Idaho	3%	10%	87%	Pennsylvania	2%	9%	89%
Illinois	2%	14%	84%	Rhode Island	4%	12%	84%
Indiana	5%	13%	83%	South Carolina	4%	11%	85%
Kansas	2%	11%	87%	South Dakota	2%	6%	92%
Kentucky	5%	12%	83%	Tennessee	9%	13%	78%
Louisiana	5%	11%	84%	Texas	4%	14%	82%
Massachusetts	1%	10%	89%	Utah	5%	10%	86%
Maryland	2%	11%	86%	Virginia	1%	8%	91%
Maine	4%	8%	88%	Vermont	3%	8%	89%
Michigan	4%	8%	88%	Washington	2%	15%	83%
Minnesota	4%	10%	87%	Wisconsin	3%	8%	89%
				West Virginia	6%	10%	84%
				Wyoming	4%	12%	84%

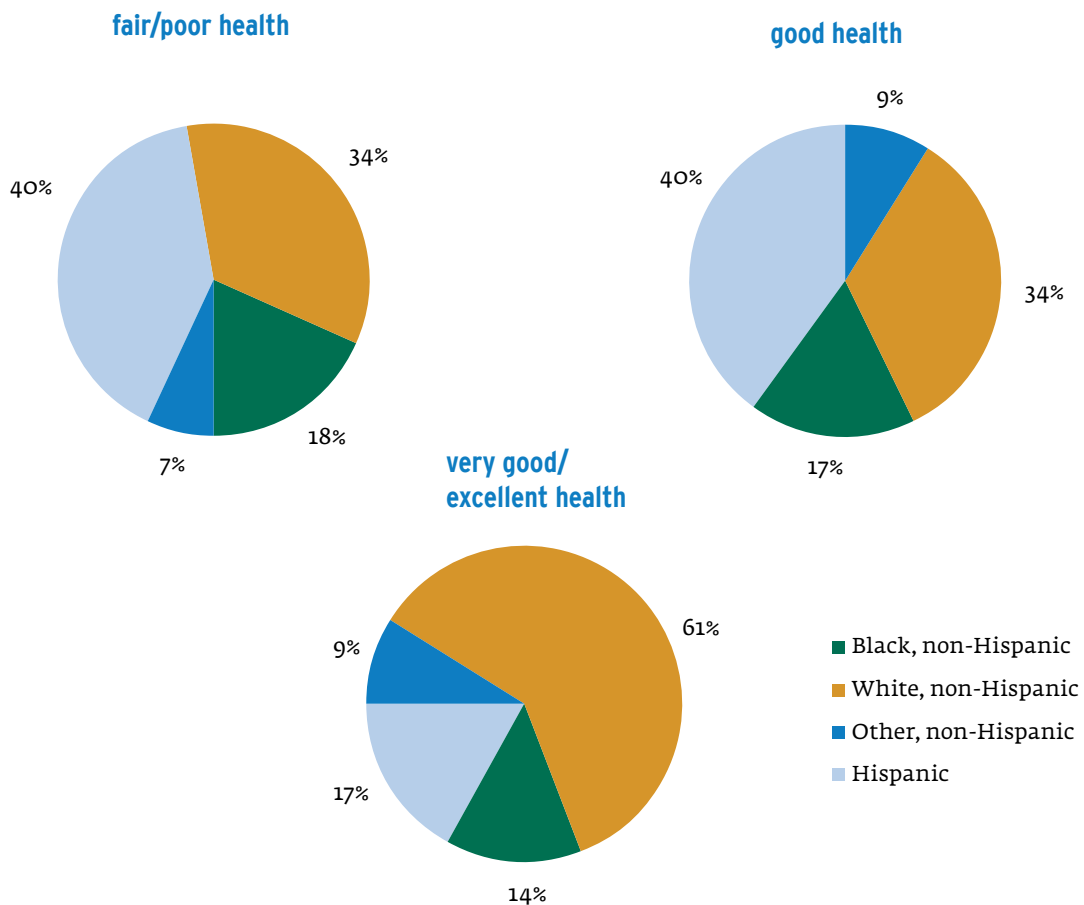
Source: 2011/12 National Survey of Children's Health, parent report



**Who are the adolescents in fair or poor health?**

Adolescents reported by a parent to be in fair or poor health are statistically more likely to be black or Hispanic. In fact, forty percent are Hispanic, compared with 17 percent of adolescents in very good or excellent health (Figure 2). Adolescents in very good or excellent health are more likely to be white, non-Hispanic (61 percent) than adolescents in fair or poor health (34 percent). Adolescents in good health are more similar to those in fair/poor health in their racial/ethnic make-up.

**Figure 2: Adolescents in fair/poor health are less likely to be white, non-Hispanic and more likely to be Hispanic than adolescents in very good/excellent health**



Source: 2011/12 National Survey of Children’s Health, parent report



Adolescents in fair or poor health experience a number of disadvantages (see Table 2). For example, 44 percent of adolescents in fair/poor health, and 40 percent of those in good health, live in families with a household income at or below the poverty line. In contrast, only 15 percent of adolescents in very good or excellent health are in poverty.

Almost 70 percent of adolescents in fair/poor health have a special health care need, defined as an emotional or behavioral health problem, a health problem requiring physical or occupational therapy, or a limitation in abilities due to a health or behavioral problem.<sup>11</sup> Not surprisingly, adolescents in better health are much less likely to have a special health care need.

A small percentage of adolescents lack health insurance coverage, regardless of health status (12 percent of adolescents in fair/poor health, 12 percent of those in good health, and five percent of those in very good/excellent health – not a statistically significant difference). Adolescents in fair or poor health are much more likely to be covered by Medicaid or a state Children’s Health Insurance Program (CHIP), even when controlling for family level of poverty, than adolescents in very good/excellent health, who are more likely to be covered by some other type of health insurance, including private plans.

About one in three adolescents in fair or poor health is obese (has a body mass index, or BMI, in the 95th percentile or higher), compared with one in four adolescents in good health, and only one in ten adolescents in very good or excellent health.

Many adolescents in fair or poor health (54 percent) have low levels of engagement with school or are at least sometimes sad, depressed, or unhappy (54 percent). Adolescents who are in good health or in very good/excellent health are less likely to be described this way by their parents. In particular, about half as many (22 percent) adolescents in very good/excellent health are said to feel sad, depressed, or unhappy.

While the majority of adolescents in fair/poor health are involved in some kind of extracurricular activity (60 percent), whether sports, clubs, or lessons, a greater percentage of those in good health (72 percent) or very good/excellent health (86 percent) participate in these kinds of activities.

In addition, adolescents in fair or poor health are more likely to have had adverse childhood experiences (ACEs), such as having parents who are divorced, economic hardship, and living with someone who abuses drugs and/or alcohol. ACEs have been linked to a host of negative outcomes in adults. Further, people who have experienced multiple ACEs are at greater risk of poor health and well-being. While just over half of adolescents in very good or excellent health have experienced at least one ACE, according to parents’ report, more than three-quarters of adolescents in fair or poor health have. About one in three adolescents in fair or poor health have experienced three or more ACEs, compared to only one in seven adolescents in very good or excellent health.

<sup>11</sup> The NSCH uses the CSHCN Screener®, a five item, parent-report tool, to identify children with special health care needs. It is designed around the Maternal and Child Health Bureau’s consequences-based definition of children with special health care needs. More detail can be found on the NSCH website: <http://www.childhealthdata.org/browse/survey/results?q=2625&r=1>



Table 2: What are the characteristics of adolescents, by health status?

	fair/poor	good	very good/excellent
White, non-Hispanic	34%	34%	61%
Black, non-Hispanic	18%	17%	14%
Hispanic	40%	40%	17%
Other, non-Hispanic	7%	9%	9%
Total	100%	100%	100%
At/below poverty	44%	40%	15%
Above poverty	56%	60%	85%
Total	100%	100%	100%
Have special health care needs	69%	38%	21%
Does not have special health care needs	31%	62%	79%
Total	100%	100%	100%
No health insurance	12%	12%	5%
Medicaid/CHIP	62%	51%	26%
Other health insurance	26%	37%	69%
Total	100%	100%	100%
Body mass index < 95th percentile	66%	75%	89%
Body mass index 95th percentile or greater	34%	25%	11%
Total	100%	100%	100%
Low school engagement	54%	45%	31%
High school engagement	46%	55%	69%
Total	100%	100%	100%



	fair/poor	good	very good/excellent
Sometimes, usually, or always sad/depressed/unhappy	54%	39%	22%
Rarely or never sad/depressed/unhappy	46%	61%	78%
Total	100%	100%	100%
No extracurricular activities	41%	29%	15%
One or more extracurricular activities	60%	71%	85%
Total	100%	100%	100%
0 ACEs	23%	35%	48%
1 ACE	32%	28%	26%
2 ACEs	16%	16%	12%
3 or more ACEs	29%	21%	14%
Total	100%	100%	100%

Source: 2011/12 National Survey of Children’s Health, parent report

**What are their families like?**

As Table 3 shows, adolescents in fair or poor health are more likely to have parents who are also in poor health, and more likely to have parents who say they have no one to turn to for support, compared with healthier adolescents. Almost half of adolescents in fair or poor health have a mother who is in fair or poor health, compared with only 11 percent of adolescents in very good/excellent health.

The majority of adolescents in fair or poor health (65 percent) have a parent who feels aggravated—for example, often feeling angry with their child (see the Data and Variables box on page 10), compared with half of adolescents in good health and about a third of adolescents in very good/excellent health. However, adolescents in fair or poor health are just as likely to eat meals with their family six or seven days a week as those in better health, and to have parents who say they are coping somewhat or very well with the day-to-day demands of parenting.



Table 3: What are the characteristics of adolescents' families, by adolescents' health status?

	fair/poor	good	very good/excellent
Mother's health is fair/poor	49%	29%	11%
Mother's health is good/very good/excellent	51%	71%	89%
Total	100%	100%	100%
Father's health is fair/poor	40%	24%	8%
Father's health is good/very good/excellent	60%	76%	92%
Total	100%	100%	100%
Parental aggravation is high	65%	51%	34%
Parental aggravation is not high	35%	49%	66%
Total	100%	100%	100%
Parent is coping not very/not well	9%	8%	2%
Parent is coping somewhat/very well	91%	92%	98%
Total	100%	100%	100%
Parent does not have someone to turn to	29%	22%	11%
Parent has someone to turn to	71%	78%	89%
Total	100%	100%	100%
Parent/child can talk about things not very/not well	3%	15%	9%
Parent/child can talk about things somewhat/very well	85%	91%	97%
Total	100%	100%	100%
Eat meals together 6+ days/week	46%	42%	40%
Eat meals together 5 or fewer days/week	54%	58%	60%
Total	100%	100%	100%

Source: 2011/12 National Survey of Children's Health, parent report



**What are their neighborhoods like?**

Adolescents in fair/poor health live in neighborhoods with about the same number of amenities – such as a playground, library, recreational center, and sidewalks or walking paths – as adolescents in good health, but fewer than adolescents in very good/excellent health (Table 4). Adolescents in fair/poor health live in neighborhoods that are in worse condition than those in better health, for example, neighborhoods that have litter on the street, are perceived as unsafe for children, and have rundown housing. Adolescents in fair or poor health also live in neighborhoods marked by slightly lower levels of social capital (having neighbors who look out for them and adults that parents trust with their children) than their healthier peers.

**Table 4: What are the characteristics of adolescents' neighborhoods, by health status?**

	fair/poor	good	very good/excellent
Amenities, 0-4 (average number)	2.8	3.0	3.2
Positive conditions, 0-5 (average number)	3.7	4.1	4.4
Social capital, 0-4 scale (average)	3.0	3.2	3.6

Source: 2011/12 National Survey of Children’s Health, parent report

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### Data Source and Variables

#### DATA SOURCE

##### National Survey of Children's Health

The National Survey of Children's Health (NSCH) was conducted in 2003, 2007 and 2011/12 in all 50 states and the District of Columbia by the National Center for Health Statistics, with funding from the Maternal and Child Health Bureau. Telephone numbers selected by a random sampling process were used to contact households, and one child in each household with children was randomly selected to be the focus of the study. An adult in the household knowledgeable about the child answered questions about the child and family, and other topics. The survey is representative of children under 18 years old, nationwide and also within each state. A total of 95,677 interviews (34,601 with parents of adolescents aged 12 to 17) were completed in 2011/12, the most current wave of data collection. Cell phone numbers were included in the survey for the first time in 2011/12.

#### VARIABLES

For the multivariate analysis we included as controls the child's gender, single year of age, and race/ethnicity; the parent or guardian's highest education level, family structure, and family level of poverty. Race/ethnicity was coded as "white, non-Hispanic," "black, non-Hispanic," "other, non-Hispanic," and "Hispanic." Parent or guardian's educational attainment was coded as "less than high school" "high school graduate" or "more than high school." Family structure was coded as either "two biological married or cohabiting parents," "single mother," or "some other arrangement." Family income was coded using multiples of the federal poverty level (FPL): 100 percent or below, 100-133 percent, 133-150 percent, 150-185 percent, 185-200 percent, 200-300 percent, 300-400 percent, and more than 400 percent of FPL.

##### Child Health Status

Parents were asked: In general, how would you describe [S.C.]'s health? Would you say [his/her] health is excellent, very good, good, fair, or poor? For this analysis, we combined "excellent" and "very good" into one category and "fair" and "poor" into one category.

##### Special Health Care Needs

The NSCH uses the CSHCN Screener®, a five-item parent-report tool, to identify children with special health care needs. It is designed around the Maternal and Child Health Bureau's consequences-based definition of children with special health care needs. More detail can be found on the NSCH website: <http://www.childhealthdata.org/browse/survey/results?q=2625&r=1>. In this analysis, children were coded as having a special health care need or not.

##### Health Insurance

Parents were asked:

- Does [S.C.] have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicaid?
- [Is that coverage/Is [he/she] insured by] Medicaid or the Children's Health Insurance Program, CHIP?

##### Body Mass Index (BMI)

The NSCH asks parents to report their child's height and weight. BMI is calculated and provided in the public use data file by the National Center for Health Statistics.

##### School Engagement

Parents were asked to describe, in the past month, whether their child never, rarely, sometimes, usually, or always



### Data Source and Variables

- [He/She] cares about doing well in school,
- [He/She] does all required homework, and
- [He/She] shows interest and curiosity in learning new things.

For each item, we coded a response of “never,” “rarely,” or “sometimes” as “1” and a response of “usually” or “always” as “0.” Answers were summed to create a summary scale from 0 to 3. Low school engagement was defined as 1 or greater on the summary scale and high school engagement was defined as zero on the summary scale.

#### Unhappy, Sad, Depressed

Parents were asked to describe whether, in the past month, their child was never, rarely, sometimes, usually, or always unhappy, sad, or depressed. We coded a response of “sometimes,” “usually,” or “always” as “1” and a response of “rarely” or “never” as “0.”

#### Extracurricular Activities

Parents were asked, during the past 12 months, whether their child

- was on a sports team or took sports lessons after school or on weekends,
- participated in any clubs or organizations after school or on weekends, and
- participated in any other organized activities or lessons, such as music, dance, language, or other arts.

For each item, a response of “Yes” was coded as “1” and each response of “No” was coded as “0.” Answers were summed and we report the percent who participated in at least one of the three extracurricular activities.

#### Adverse Childhood Experiences (ACEs)

The prevalence of ACEs is derived from the following questions asked of parents:

- Did [SAMPLE CHILD] ever live with a parent or guardian who got divorced or separated after [SAMPLE CHILD] was born? (Yes/No)
- Did [SAMPLE CHILD] ever live with a parent or guardian who died? (Yes/No)
- Did [SAMPLE CHILD] ever live with a parent or guardian who served time in jail or prison after [SAMPLE CHILD] was born? (Yes/No)
- Did [SAMPLE CHILD] ever see or hear any parents, guardians, or any other adults in [his/her] home slap, hit, kick, punch, or beat each other up? (Yes/No)
- Was [SAMPLE CHILD] ever the victim of violence or witnessed any violence in [his/her] neighborhood? (Yes/No)
- Did [SAMPLE CHILD] ever live with anyone who was mentally ill or suicidal, or severely depressed for more than a couple of weeks? (Yes/No)
- Did [SAMPLE CHILD] ever live with anyone who had a problem with alcohol or drugs? (Yes/No)
- Since [SAMPLE CHILD] was born, how often has it been very hard to get by on your family's income, for example, it was hard to cover the basics like food or housing? (1: Very Often, 2: Somewhat Often, 3: Not Very Often, 4: Never)



### Data Source and Variables

#### Parental Health Status

Parents were asked to rate whether, in general, their health was excellent, very good, good, fair, or poor. We coded responses of “fair” or “poor” as “1” and responses of “good,” “very good,” or “excellent” as “0.”

#### Parental Aggravation

Parents were asked, during the past month

- how often have you felt [CHILD’S NAME] is much harder to care for than most children [his/her] age?;
- how often have you felt [he/she] does things that really bother you a lot?; and
- how often have you felt angry with [him/her]? (Never, Rarely, Sometimes, Usually, Always)

For each item, “never” was scored as “0,” “rarely” and “sometimes” were scored as “1,” and the remaining options were scored as “2,” “3,” and “4,” respectively. Answers were summed to create a summary scale from 0 - 9. Parental aggravation was defined as 3 or greater on the summary scale. For more information about this measure and its prevalence among parents, see Murphey, D., Bandy, T., Moore, K.A., & Cooper, P.M. (2014). Do Parents Feel More Aggravated These Days? Child Trends Research Brief #2104-14. Bethesda, MD: Child Trends, available at: <http://www.childtrends.org/wp-content/uploads/2014/04/2014-14ParentalAggravation.pdf>.

#### Parent is Coping

Parents were asked, in general, how well do you feel you are coping with the day to day demands of [parenthood / raising children]? Responses of “not very well” and “not well” were coded as “1” and responses of “somewhat well” and “very well” were coded as “0.”

#### Parent has Someone to Turn To

Parents were asked whether there is someone that they can turn to for day-to-day emotional help with [parenthood / raising children].

#### Parent and Child can Talk about Things that Matter

Parents were asked: How well can you and [S.C.] share ideas or talk about things that really matter? We coded responses of “not very well” and “not well” as “1” and responses of “somewhat well” and “very well” as “0.”

#### Neighborhood Amenities

Parents were asked: are the following places and things available to children in your neighborhood, even if [S.C.] does not actually use them:

- Sidewalks or walking paths?
- A park or playground area?
- A recreation center, community center, or boys’ or girls’ club?
- A library or bookmobile?

For each item, a response of “Yes” was coded as “1” and each response of “No” was coded as “0.” Answers were then summed to create a summary score of neighborhood amenities from 0 to 4.

#### Neighborhood Quality

Parents were asked, in your neighborhood, is there



### Data Source and Variables

- litter or garbage on the street or sidewalk?
- poorly kept or rundown housing?
- vandalism such as broken windows or graffiti?

For each of these three items, a response of “No” was coded as “1” and each response of “Yes” was coded as “0.”

Parents were asked:

- How often do you feel [S.C.] is safe in your community or neighborhood? Would you say never sometimes, usually, or always?
- How often do you feel [he/she] is safe at school? (Never, Sometimes, Usually, Always) For each of these two items a response of “usually” or “always” was coded as “1” and a response of “sometimes” or “never” was coded as “0.”

We summed answers to all five items to create a summary score of neighborhood quality from 0 to 5.

#### Neighborhood Social Capital

Parents were asked how much they agreed or disagreed with each of these statements about their neighborhood or community

- “People in this neighborhood help each other out.”
- “We watch out for each other’s children in this neighborhood.”
- “There are people I can count on in this neighborhood.”
- “If my child were outside playing and got hurt or scared, there are adults nearby who I trust to help my child.”

Response options were “definitely agree,” “somewhat agree,” “somewhat disagree,” and “definitely disagree.” For each item, we coded responses of “somewhat agree” or “definitely agree” as “1” and responses of “somewhat disagree” or “definitely disagree” as “0.” Answers were then summed to create a summary score of neighborhood social capital from 0 to 4.