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Youth homelessness: Prevalence and associations with weight in three regions

J. J. Cutuli

Caren Steinway

Staci Perlman, *University of Delaware*

Janette E. Herbers, *Villanova University*

Karin M. Eyrich-Garg, *Temple University*, et al.

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J. J. Cutuli, Caren Steinway, Staci Perlman, Janette E. Herbers, Karin M. Eyrich-Garg, and Joe Willard

This study investigated the utility of the Youth Risk Behavior Survey (YRBS) to document associations between homeless status and weight while estimating the prevalence of youth homelessness in three regions. A school-based survey, the YRBS includes youths who have been difficult to involve in past research. Analysis of 2011 YRBS data produced population-weighted estimates of youth homelessness prevalence separately for Connecticut, Delaware, and Philadelphia. Public high school students anonymously reported their housing status, height, and weight on the YRBS. Height and weight were converted to body mass index (BMI) percentile-for-age scores. Homelessness was associated with higher BMI percentile scores for youths compared with nonhomeless peers. Associations between BMI percentile and different forms of homelessness (homeless with family, unaccompanied homeless without family) were explored at each site. Estimates of one-month homelessness prevalence ranged from 3.9 percent to 5.9 percent at each site. Homelessness, especially family homelessness, is associated with risk for higher BMI. The YRBS is an informative tool for estimating the prevalence of youth homelessness, expanding on what is known through other, more commonly used methods.

KEY WORDS: *body mass index; unaccompanied youths; youth homelessness*

Youth homelessness is a problem in the United States and is associated with higher rates of disease that contribute to persistent socioeconomic and racial disparities in health. However, differences in definitions and challenges inherent to the circumstances of homeless youths make it difficult to estimate their number and understand their needs (Pergamit et al., 2013). This study analyzed data from the 2011 Youth Risk Behavior Survey (YRBS) to address these challenges. Data are population-representative from high school students in Connecticut, Delaware, and the city of Philadelphia, three regions that queried students about their housing status on the YRBS. We hypothesized a link between housing status and body mass index (BMI), and explored whether the YRBS can help to elucidate the needs of youths experiencing homelessness and to explain persistent health disparities beyond what is achieved by other approaches.

LITERATURE REVIEW

Research using a variety of methodologies has suggested that homeless children and youths are at risk for poor outcomes in the areas of health, mental health, and academics (Buckner, 2008; Cutuli et al.,

2013; Cutuli & Herbers, 2014; Perlman, Willard, Herbers, Cutuli, & Eyrich-Garg, 2014; Samuels, Shinn, & Buckner, 2010). With respect to physical health, homeless youths show higher rates of acute infections, dental disease, and chronic disease compared with more stably housed youths (Ensign & Santelli, 1997; Terry, Bedi, & Patel, 2010). Many factors likely contribute to these disparities in complex ways, including disconnection from routine medical care; poor management of identified conditions; substandard housing; risky interpersonal behaviors; substance use problems; and lasting alterations in stress physiology that may contribute to differences in metabolic, inflammatory, and immune functioning (Briggs et al., 2013; Cutuli & Herbers, 2014; Ensign & Santelli, 1997; Terry et al., 2010).

Given these disparities and burgeoning interest in the complex relations among stress, weight, and health among low-income youths (Schreier & Chen, 2013), weight status may be a negative outcome and a contributor to other various health problems among homeless youths. There are exceptionally few studies of weight status among homeless youths between the ages of 13 and 18 years, though a handful of studies have found high rates of unhealthy weight among

homeless children and youths. One study found that 45 percent of six- to 13-year-old children in family shelter had BMI scores that exceeded the 85th percentile (Richards & Smith, 2007). In a separate effort with nine- to 13-year-olds in family shelter, Richards, Smith, and Eggett (2013) again found that 45 percent of the sample exceeded the 85th percentile. In addition, Chiu, DiMarco, and Prokop (2013) documented an average BMI percentile of 77.2 in a younger sample, with about one-third of adolescents (over age 11 years) having BMIs over the 95th percentile. Findings were similar in a sample of children and youths in Baltimore, with shelter use associated with increased risk for unhealthy weight (Schwarz, Garrett, Hampsey, & Thompson, 2007).

Studies of older homeless youths are rarer, likely because older youths use shelter at lower rates and are therefore more difficult to recruit for studies. In one study of 14- to 18-year-olds staying in family shelter, Smith and Richards (2008) found that 53 percent of male youths were obese (above the 95th percentile for BMI) and 80 percent of female youths were either overweight or obese. The value of these findings, however, is qualified by the small sample size ($N = 27$) on which they are based. Another group (Tarasuk, Dachner, & Li, 2005) found a lower rate of overweight or obese status (22 percent) among homeless youths recruited from drop-in centers and outdoor locations. These youths were ages 16 to 25 years, though individuals age 19 years or older were overrepresented. In all of these studies, underweight status was rare among homeless youths.

It is difficult to know how many youths experience homelessness, despite the value of this information for practice and policy decision making. The U.S. Department of Housing and Urban Development (HUD) produces two annual estimates of the number of people who experience homelessness in the United States. The 2011 annual count of individuals who use shelter services estimated that 22 percent were children under the age of 18 years, about 330,483 children and youths. A second estimate reflects counts of homeless individuals who were either unsheltered or sheltered on a single night in January 2011. This second method noted 234,079 individuals in homeless families, and 6,825 specifically unaccompanied youths (under age 18) were homeless (HUD, 2011c, 2012). These data are drawn from counts at a single point in time that include reports from shelter providers and teams who attempt to identify unsheltered persons in each locality (HUD, 2012).

Applying the HUD definition and the corresponding methods for estimating the number of homeless youths produces implausibly low results in some jurisdictions. Counts of sheltered and unsheltered youths in the annual point-in-time count appears to underrepresent the number of youths who experience homelessness in Connecticut, Delaware, and Philadelphia (HUD, 2011a, 2011b, 2011c). Resulting prevalence estimates appear skewed and, consequently, have limited utility when it comes to local and national efforts. Considering Connecticut, Delaware, and the city of Philadelphia, results from this approach lead to the conclusion that unaccompanied youth homelessness is essentially nonexistent in these places (Connecticut: two individuals total; Delaware: zero individuals; Philadelphia: 17 individuals), and unsheltered unaccompanied youth homelessness is literally nonexistent (Connecticut: zero individuals; Delaware: zero individuals; Philadelphia: zero individuals) (HUD, 2011a, 2011b, 2011c). These rates have been met with skepticism from the provider, academic, and policy communities, resulting in calls for approaches that better estimate the prevalence and needs of children and youths experiencing homelessness (Pergamit et al., 2013; Perlman et al., 2014).

In comparison with the HUD counts, the U.S. Department of Education (DoE) monitors students who experience homelessness and qualify for services under the McKinney-Vento Homeless Assistance Act (42 U.S.C. § 11431 et seq.). The DoE definition of homelessness differs from that of HUD, most notably in the explicit inclusion of students who are sharing housing with others because of loss of housing, economic hardship, or a similar reason (referred to as “doubled-up”). Furthermore, the DoE counts involve students connected with the public education system and likely underrepresent the number of homeless children and youths who are not connected with public schools (for example, preschoolers and youths who have dropped out or are truant). Even so, school districts reported 1,065,794 homeless children and youths nationally during the 2010–2011 school year (about 2 percent of all public school students), with 275,291 being high school students experiencing homelessness (25.8 percent of all homeless students) (National Center for Homeless Education, 2014). Overall, about 27.7 percent of homeless students were staying in shelters, hotels or motels, or were unsheltered, and the remainder (73.3 percent) were doubled-up. Specifically considering Connecticut, only about 0.5 percent of all students experienced homelessness by the DoE

definition and count, with 52.9 percent doubled-up (National Center for Homeless Education, 2013), while 2.7 percent of Delaware public school students were homeless (68 percent doubled-up) (National Center for Homeless Education, 2013). Yet, considerable challenges exist for school district liaisons tasked with identifying youths experiencing homelessness. Many students are identified through entering shelter, through school enrollment, or the start of the school year in localities that periodically ask about housing districtwide. As a result, many homeless students go unrecognized because they begin living doubled-up during the school year, thereby further biasing estimates of student homelessness from the DoE (Miller, 2015). Consequently, the YRBS has been deemed a possible vehicle to monitor the prevalence of youth homelessness nationally and in individual localities, but demonstrations of its ability to do so are lacking in the literature (Pergamit et al., 2013).

The current study builds on past work in three ways. First, we explored descriptive statistics to determine whether the population-representative methods of the YRBS hold value in identifying youths experiencing varied sorts of homelessness, including both family and unaccompanied homelessness, and interpreted these rates in light of alternative counts from HUD and the DoE. This approach has been taken with the Philadelphia 2011 YRBS (Perlman et al., 2014) and the Massachusetts 2005 YRBS (Massachusetts DoE, 2007). We extended consideration of the 2011 YRBS data to the state level with Connecticut and Delaware. Second, we tested the hypothesis that homeless status will represent risk for higher BMI, reflected in higher mean percentile scores for youths experiencing homelessness relative to youths not experiencing homelessness. Finally, we explored potential differences in BMI between youths experiencing homelessness with their families and unaccompanied youths. We expected that family homelessness would be associated with the greatest risk for higher BMI, given the body of findings in past work suggesting increased risk for homeless youths relative to housed youths (Schwarz et al., 2007), and lower rates of overweight and obese status in studies of unaccompanied youths (Tarasuk et al., 2005) versus studies considering youths in family shelter (for example, Smith & Richards, 2008).

METHOD

This study involved secondary data analysis of YRBS results from Connecticut, Delaware, and

Philadelphia. An overview follows of the methodology used by the CDC to conduct the YRBS.

Participants

The CDC used a two-stage cluster sample design to select participants: First, schools were selected for participation on the basis of enrollment size (proportional to the overall school district), then representative classes within selected schools were identified. These procedures allow population weights to be applied to better reflect the characteristics and relations within each geography (weighted *n*s: Connecticut = 155,124, Delaware = 37,467, Philadelphia = 34,559). Weighted responses are based on race/ethnicity, sex, grade, and nonresponse rate. Sites were analyzed separately to produce actionable evidence that is more relevant to each locality, and to acknowledge differences in contexts (for example, city versus states; differences in broader social systems). At all sites, students completed anonymous paper-and-pencil surveys at school. Detailed information on the methodology of the YRBS is available elsewhere (CDC, 2012).

Variables

Students responded to items on the YRBS, providing information relevant to the current analyses on demographic characteristics, housing status, and height and weight.

Housing Status. Housing status was indexed by a single item asking where youths typically slept at night in the month prior to completing the survey. The response set for this item differed slightly in Delaware to reflect the preferences of local stakeholders. In Connecticut and Philadelphia, the response set included (1) typically at home with a parent/guardian; (2) typically with a parent/guardian at a friend's or relative's house; (3) typically without a parent/guardian at a friend's or relative's house; (4) in a supervised shelter with a parent/guardian; (5) in a supervised shelter without a parent/guardian; (6) in a hotel or motel, car, park, campground, or other public place with a parent/guardian; (7) in a hotel or motel, car, park, campground, or other public place without a parent/guardian; or (8) other.

In Delaware, the housing status item response set included (1) at home with your parent(s) or guardian(s), (2) at a friend's or relative's home with your parent(s) or guardian(s), (3) at a friend's or relative's home without your parent(s) or guardian(s), (4) somewhere else (such as shelter, transitional housing, public place, hotel, car) with your parent(s) or guardian(s),

and (5) somewhere else (such as shelter, transitional housing, public place, hotel, car) without your parent(s) or guardian(s).

Youths' responses were used to categorize each youth as "housed," "homeless with family," or "unaccompanied." Youths who reported typically sleeping at home with a parent or guardian were identified as being housed (that is, not homeless). Youths who reported typically sleeping somewhere other than home with a parent or guardian were identified as homeless with family. Those who reported typically sleeping somewhere other than home without a parent or guardian were identified as unaccompanied homeless.

BMI. Youths self-reported age, height, and weight. BMI scores were computed and transformed into BMI percentiles for age.

Analyses

To accommodate heterogeneity of variance between groups for BMI, we used multiple regression techniques to test hypotheses and pairwise comparisons of groups in separate models to better accommodate the data and reduce the likelihood of Type I error. Effects were evaluated using an alpha of .001 to further guard against Type I error given the effects of population weighting and multiple comparisons.

Consistent with the first aim, individuals were categorized as housed or homeless (housed = 0, homeless = 1), and descriptive statistics are provided. Associations between homelessness and BMI percentile (aim 2) were tested using multiple regression, controlling for sex (male = 0, female = 1), grade, and race (white = 0, minority = 1). Separate regressions were conducted for each site.

To test for differences between subgroups of homeless and nonhomeless youths, we conducted three additional regressions to compare youths who were homeless with family, youths who were homeless unaccompanied, and youths who were more stably housed at each site.

RESULTS

Prevalence of Youth Homelessness

Demographic characteristics by site are provided in Table 1, and rates of youth homelessness by site are provided in Table 2. In Connecticut, 5.4 percent of youths (8,394 individuals) reported experiencing homelessness in the preceding month, consisting of 3.2 percent who were homeless with their families and 2.2 percent who were unaccompanied. This compares to 3.9 percent of youths (1,480 individuals)

who reported being homeless in Delaware (1.0 percent with family and 2.9 percent unaccompanied) and 5.9 percent (2,163 individuals) homeless in Philadelphia (3.4 percent with family and 2.5 percent unaccompanied).

Homelessness and BMI Percentile

Controlling for sex, grade, and racial/ethnic minority status, experiencing any sort of homelessness in the past month was related to higher BMI percentile at each site (Connecticut: $B = 1.983$, $SE = 0.333$, 95 percent confidence interval [CI]: 1.329, 2.636; Delaware: $B = 7.972$, $SE = 0.862$, 95 percent CI: 6.282, 9.663; Philadelphia: $B = 3.863$, $SE = 0.688$, 95 percent CI: 2.514, 5.212; all $ps < .001$) (see Table 3).

Separate multiple regression models compared youths who were housed, unaccompanied, or experiencing family homelessness at each site, controlling for sex, grade, and racial/ethnic minority status (see Table 4). Low numbers of youths experiencing family homelessness in Delaware prevented comparisons involving this group, a limitation of the population weighting approach. Youths experiencing family homelessness had higher BMI percentile scores as a group compared with housed youths in Connecticut ($B = 7.534$, $SE = 0.431$, 95 percent CI: 6.690, 8.378; $p < .001$) and in Philadelphia ($B = 3.356$, $SE = 0.893$, 95 percent CI: 1.605, 5.107; $p < .001$). Unaccompanied homeless youths had lower BMI percentile scores as a group compared with housed youths in Connecticut ($B = -2.934$, $SE = 0.254$, 95 percent CI: -3.432, -2.437; $p < .001$), and higher BMI percentile scores in the same model when using Delaware data ($B = 4.622$, $SE = 0.478$, 95 percent CI: 3.685, 5.560; $p < .001$) and using Philadelphia data ($B = 2.261$, $SE = 0.527$, 95 percent CI: 1.227, 3.295; $p < .001$). When including just the two groups of homeless youths, the group experiencing unaccompanied youth homelessness had lower BMI percentile scores compared with those experiencing family homelessness in Connecticut ($B = -12.946$, $SE = 0.710$, 95 percent CI: -14.337, -11.555; $p < .001$), but no association in Philadelphia ($B = 1.832$, $SE = 1.058$, 95 percent CI: -0.243, 3.908; not significant).

DISCUSSION

Youth homelessness is not a rare problem. One-month prevalence estimates of homelessness among public high school students ranged from 3.9 percent to 5.9 percent of all students in Connecticut, Delaware, and Philadelphia. In Connecticut and Philadelphia, about

Table 1: Population-Weighted Demographic Characteristics by Site

Characteristic	Homeless with Family			Unaccompanied		
	Connecticut (n = 4,911)	Delaware (n = 386)	Philadelphia (n = 1,214)	Connecticut (n = 3,483)	Delaware (n = 1,094)	Philadelphia (n = 948)
Sex						
Female	31.1	39.5	44.5	35.2	62.9	41.3
Male	66.5	51.5	55.5	62.2	37.1	58.8
Grade						
9th	36.7	42.2	32.3	19.5	32.6	31.8
10th	18.7	4.7	29.5	13.3	19.7	12.6
11th	22.7	29.1	23.3	30.4	13.4	9.8
12th	20.3	12.7	15.0	32.4	32.7	41.0
Ungraded/ other	0.0	0.0	0.0	1.8	1.3	4.8
Race/ethnicity						
White	55.9	31.7	5.4	52.1	30.3	7.8
Black/African American	16.9	12.4	69.3	16.1	23.1	65.2
Hispanic/ Latino	5.5	0.0	2.4	7.1	4.9	15.0
Other/ multiracial	21.6	46.9	23.0	24.7	38.9	11.9
BMI percentile, M (SD)	70.3 (28.9)	66.9 (33.6)	69.1 (24.4)	56.9 (28.4)	72.5 (25.2)	69.0 (24.4)
	Housed			Total		
	Connecticut (n = 146,730)	Delaware (n = 35,987)	Philadelphia (n = 32,397)	Connecticut (n = 155,124)	Delaware (n = 37,467)	Philadelphia (n = 34,559)
Sex						
Female	50.2	50.0	53.1	49.0	50.7	50.9
Male	49.2	49.0	46.9	51.0	49.3	49.1
Grade						
9th	25.7	28.5	28.2	26.3	29.6	28.1
10th	26.1	26.2	26.8	25.2	26.3	26.5
11th	24.7	22.6	23.6	24.4	22.9	22.8
12th	22.6	20.3	21.4	23.7	21.0	22.4
Ungraded/ other	0.2	0.1	0.0	0.3	0.1	0.2
Race/ethnicity						
White	67.3	47.7	15.4	65.4	48.0	13.1
Black/African American	11.8	27.1	57.5	13.1	27.6	61.1
Hispanic/ Latino	5.2	6.8	7.3	5.8	6.9	6.6
Other/ multiracial	15.7	16.1	19.8	15.7	17.5	19.3
BMI percentile, M (SD)	60.7 (28.0)	63.1 (27.9)	65.6 (28.5)	61.2 (28.0)	63.3 (27.9)	65.6 (28.5)

Note: BMI = body mass index.

Table 2: Rates (Percentages) of Youth Homelessness by Site

Housing Status	Connecticut	Delaware	Philadelphia
Housed	93.6	96.1	91.6
Homeless with family	3.2	1.0	3.4
Unaccompanied	2.2	2.9	2.5
Somewhere else	1.0	— ^a	2.6

^a“Somewhere else” was not a response option in the Delaware version of the Youth Risk Behavior Survey.

Table 3: Results of Multiple Regression Analyses Predicting BMI Percentile Comparing Housed versus (Any) Homeless Group

	Connecticut	Delaware	Philadelphia
Housed versus homeless	1.983 (.333)***	7.927 (.862)***	3.863 (.688)***
Covariates			
Sex	6.384 (.145)***	-2.198 (.304)***	-1.781 (.317)***
Grade	-1.638 (.065)***	-1.916 (.137)***	-1.132 (.142)***
Minority status	7.766 (.157)***	3.604 (.305)***	5.986 (.440)***
R ²	.033***	.015***	.009***

Note: Unless otherwise specified, values denote B (standard error). BMI = body mass index. ***p < .001.

Table 4: Results of Multiple Regression Analyses Predicting BMI Percentile Comparing Housed, Homeless with Family, and Unaccompanied Groups

Variable	Housed versus Family Homeless	Housed versus Unaccompanied Homeless	Family versus Unaccompanied Homeless
		Connecticut	
Housing status	7.534 (.431)	-2.934 (.254)	-12.946 (.710)
Covariates			
Sex	6.349 (.288)	6.494 (.147)	2.900 (.730)
Grade	-1.542 (.066)	-1.528 (.066)	-2.388 (.310)
Minority status	7.687 (.159)	8.005 (.159)	4.859 (.715)
		Delaware	
Housing status	—	4.622 (.478)	—
Covariates			
Sex	—	-2.411 (.305)	—
Grade	—	-1.918 (.138)	—
Minority status	—	3.484 (.306)	—
		Philadelphia	
Housing status	3.356 (.893)	2.261 (.527)	1.832 (1.058)
Covariates			
Sex	-1.767 (.321)	-1.763 (.325)	-3.363 (1.052)
Grade	-1.011 (.145)	-1.056 (.145)	4.300 (0.437)
Minority status	6.451 (.444)	5.906 (.447)	-7.303 (2.013)

Notes: BMI = body mass index. Values denote B (standard error). Low numbers of youths experiencing family homelessness prevented comparisons involving this group in Delaware, represented by dashes. All results significant at p < .001.

3.2 percent to 3.4 percent of students were homeless with their families; rates of unaccompanied youth homelessness ranged from 2.2 percent to 2.9 percent. Using the YRBS as an anonymous, self-report survey uncovered many more homeless youths in high school compared with state DoE reports of the percentage of homeless students statewide over the course of an entire school year. For example, in 2010 to 2011, the Connecticut DoE identified about 0.5 percent of all students as experiencing homelessness compared with 5.4 percent of high school students identified as experiencing homelessness in the month preceding the 2011 YRBS. Similarly, though the difference was less pronounced, Delaware identified 2.7 percent of all students as experiencing homelessness over the entire 2000 to 2011 school year, while the 2011 YRBS iden-

tified 3.9 percent of all high school students as having experienced homelessness. These findings echo others in the literature, suggesting that this approach has unique value for estimating the prevalence of youth homelessness within a jurisdiction (Massachusetts DoE, 2007; Perlman et al., 2014). By asking youths to report on their housing status, educational authorities may be able to get a more comprehensive estimate of youth homelessness in their schools. Moreover, this approach gives local housing providers and policy decision makers another tool that extends beyond annual shelter-based and point-in-time counts.

Youth homelessness, in general, is associated with greater weight. In all three sites, groups of students who experienced homelessness had higher average BMI percentile scores relative to students who were

more stably housed, controlling for sex, grade, and racial/ethnic minority status. Specifically, the youths experiencing family homelessness had higher average BMI percentile scores compared with housed peers in Connecticut and Philadelphia, the only two jurisdictions in which this comparison could be made. The pattern of results becomes more complicated when considering unaccompanied homeless youths, as this group had lower average BMI percentile scores in Connecticut when compared with housed youths, but higher average scores in Delaware and Philadelphia. Unaccompanied homeless youths also had lower scores compared with youths experiencing family homelessness in Connecticut, but there was no difference between these two groups in Philadelphia. These findings underscore the need for future efforts to more deeply understand the experiences of homeless youths and the social contexts they face, especially considering differential effects for unaccompanied youths that are specific to Connecticut.

Youth homelessness represents a context in which individuals and families encounter complex adversities, then requiring whatever social, psychological, and concrete resources are at their disposal to respond (Haber & Toro, 2004). Though there are relatively few studies with homeless children and youths, past work has found an inverse relationship between food security and weight. Less food security has been related to an increased likelihood of being overweight or obese as a function of child sex, age, and coping resources, a phenomena termed “the food insecurity-obesity paradox” (Dinour, Bergen, & Yeh, 2007). The current data do not include information on youths’ experience with food insecurity. However, this may be an important factor to consider in future work, as food insecurity related to poverty and homelessness likely contributes to families and youths eating more processed, less nutritious foods, resulting in increased risk for unhealthy weight. This is consistent with preliminary analyses (results not reported) in the current study, which found that almost no homeless youths had very low BMI or were underweight, a finding that is typical in studies of youth homelessness in the United States. Similarly, youths and families experiencing homelessness might have limited control over the food that they eat for other reasons, such as dependence on soup kitchens, shelter cafeterias, or school-based meal programs, coupled with challenges in shelters or other contexts of homelessness that might limit opportunities to exercise. Whatever the etiological factors, youth homelessness was associated

with greater weight status and is likely a contributor to or index of risk for unhealthy weight and related health problems in high school students.

As with any study, these analyses are limited by the approach and methods. First, the data are drawn from public high school students and do represent youths who have dropped out or are otherwise not attending public school. The literature needs additional means of representing these youths in the knowledge base. In addition, low rates of certain classifications prevented their consideration in targeted analyses (that is, youths experiencing family homelessness in Delaware). This is a limitation of the population-weighting approach and can be rectified in future work that combines multiple jurisdictions, or the same jurisdiction over multiple years, to better understand less common phenomena. Similarly, treating weight status as a categorical variable (underweight, healthy, overweight, obese) was not possible in the current analyses because relatively few students were classified in extreme categories. The average BMI percentiles for the groups considered in the current study are in excess of the 50th percentile. However, analyses considered BMI percentile as a continuous outcome, and the risk associated with housing status might not correspond with unhealthy weight classifications (overweight or obese). A related concern involves the self-reporting of height and weight status by adolescents, who might be poor reporters of their true anthropometrics for a variety of reasons. Similarly, youths might have underreported homelessness in the current study due to concerns related to stigma or other sources of negative perceptions, or homeless status might be overrepresented in cases of families who voluntarily choose to live with friends or family for reasons that are not related to finances or housing availability. Future work needs to better examine the clinical significance of the risks documented here, including how housing status contributes to weight over time as children and adolescents mature.

Multiple disciplines and agencies are specifically focused on homeless youths, underscoring the need for more accurate estimates of prevalence and associated needs. The American Academy of Pediatrics, for example, recently renewed its efforts to assist pediatricians in meeting the needs of children and adolescents experiencing homelessness and housing insecurity (Briggs et al., 2013). Meanwhile, the U.S. Interagency Council on Homelessness (USICH) has set a goal of ending family and youth homelessness by 2020 (USICH, 2012). Composed of representatives from

19 federal agencies, including HUD, DoE, the Departments of Health and Human Services and Labor, and others, the council remains committed to furthering the Opening Doors federal strategic plan to prevent and end homelessness through meeting the complex needs of individuals and families. Despite national interest, relatively little reliable evidence exists with respect to homeless youths, especially those between the ages of 13 and 18 years. The current findings help fill this gap in the literature by using population-weighted methods.

Youth homelessness is a prevalent problem among high school students, with rates ranging from 3.9 percent to 5.9 percent in Connecticut, Delaware, and Philadelphia. School-based surveys appear to uncover greater numbers of youths experiencing homelessness compared with other methods more commonly used in practice and policy decision making. Furthermore, surveys can ask about additional public health issues that hold local relevance, permitting monitoring of programs that aim to mitigate the risk associated with housing instability in a jurisdiction. For example, the current study documents risk for increased BMI among homeless youths, particularly youths experiencing family homelessness. Practitioners and policymakers can use this information to ensure that nutrition and exercise programs accommodate youths experiencing homelessness, and then analyze future data collected biennially to track changes in the local well-being of youths. School-based surveys like the YRBS can be an important tool for forming more accurate estimates of youth homelessness and understanding the needs of this population. **HSW**

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J. J. Cutuli, PhD, is assistant professor, Department of Psychology, Faculty of Arts & Sciences, Rutgers University, 345 Armitage Hall, 311 North Fifth Street, Camden, NJ 08102; e-mail: JJ.Cutuli@Rutgers.edu. **Caren Steinway, MSW, MPH**, is clinical research coordinator, Division of Adolescent Medicine, Children's Hospital of Philadelphia. **Staci Perlman, PhD**, is assistant professor, Human Development & Family Studies, University of Delaware, Newark. **Janette E. Herbers, PhD, LP**, is assistant professor, Department of Psychology, Villanova University, Villanova, PA. **Karin M. Eyrich-Garg, PhD, LCSW**, is associate professor, College of Public Health, Temple University, Philadelphia. **Joe Willard, MS**, is vice president of policy and advocacy, People's Emergency Center, Philadelphia.

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