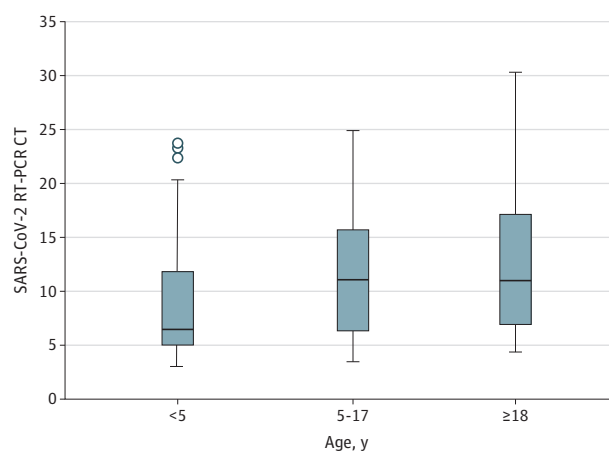


Figure. Distribution of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Reverse Transcriptase-Polymerase Chain Reaction (RT-PCR) Amplification Cycle Threshold (CT) Values From Nasopharyngeal Swabs Collected From Patients With Coronavirus Disease 2019



Children younger than 5 years had significantly lower CT values compared with children aged 5 to 17 years ($P = .02$) and adults 18 years and older ($P = .001$). CT values were similar between children aged 5 to 17 years and adults 18 years and older ($P = .34$). Midlines indicate the median, boxes indicate interquartile ranges, whiskers indicate the upper and lower adjacent values (within 1.5-fold the interquartile range), and isolated data points indicate outliers.

sitivity analysis and observed a similar statistical difference between groups when including those with unknown symptom duration. Additionally, we identified only a very weak correlation between symptom duration and CT in the overall cohort (Spearman $\rho = 0.22$) and in each subgroup (young children, Spearman $\rho = 0.20$; older children, Spearman $\rho = 0.19$; and adults, Spearman $\rho = 0.10$).

Discussion | Our analyses suggest children younger than 5 years with mild to moderate COVID-19 have high amounts of SARS-CoV-2 viral RNA in their nasopharynx compared with older children and adults. Our study is limited to detection of viral nucleic acid, rather than infectious virus, although SARS-CoV-2 pediatric studies reported a correlation between higher nucleic acid levels and the ability to culture infectious virus.⁵ Thus, young children can potentially be important drivers of SARS-CoV-2 spread in the general population, as has been demonstrated with respiratory syncytial virus, where children with high viral loads are more likely to transmit.⁶ Behavioral habits of young children and close quarters in school and day care settings raise concern for SARS-CoV-2 amplification in this population as public health restrictions are eased. In addition to public health implications, this population will be important for targeting immunization efforts as SARS-CoV-2 vaccines become available.

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Preventive Health Care Utilization Among Youths Who Have Run Away, Experienced Homelessness, or Been Stably Housed

Although it is well established that youths with unstable housing face increased health risks compared with peers with stable housing, there is considerable heterogeneity in youths' experiences of housing instability, with implications for health, clinical practice, and policy.^{1,2} For instance, adolescents who are homeless with their families may have unique health needs compared with those who are unaccompanied,³ and youths who run away may be at particularly high risk for poor health outcomes.⁴ Given that annual preventive visits are recommended for all adolescents, they may represent an opportunity to explore housing status and address health needs of

Table. Respondent Characteristics, 2016 Minnesota Student Survey

Characteristic	No. (%)
Preventive care utilization in the last year ^a	
Yes	76 754 (66.9)
No	37 901 (33.1)
Housing experience ^b	
Stable housing	103 489 (90.3)
Runaway	5039 (4.4)
Family homelessness	4972 (4.3)
Unaccompanied homelessness	940 (0.82)
Family and unaccompanied homelessness	215 (0.19)
Grade	
8th	40 815 (35.6)
9th	40 691 (35.5)
11th	33 149 (28.9)
Race/ethnicity ^c	
American Indian	1343 (1.2)
Asian	6571 (5.7)
Black	6097 (5.3)
Pacific Islander	166 (0.1)
White	81 554 (71.1)
Multiple races	8451 (7.4)
Hispanic	10 473 (9.1)
Birth-assigned sex	
Female	58 021 (50.6)
Male	56 634 (49.4)
Receives free or reduced-price lunch ^d	
Yes	30 810 (26.9)
No	83 845 (73.1)
Area of residence	
Twin Cities 7-county area ^e	60 260 (52.6)
Greater Minnesota	54 395 (47.4)

^a Based on response to a single question ("When was the last time you saw a doctor or nurse for a check-up or physical exam when you were not sick or injured?"), dichotomized by year based on recommendations by the American Academy of Pediatrics for annual well visits.⁵

^b Based on student responses to 2 questions about experiences of homelessness ("During the past 12 months, have you stayed in a shelter, somewhere not intended as a place to live, or someone else's home, because you had no other place to stay?") and running away ("During the last 12 months, how often have you run away from home?").

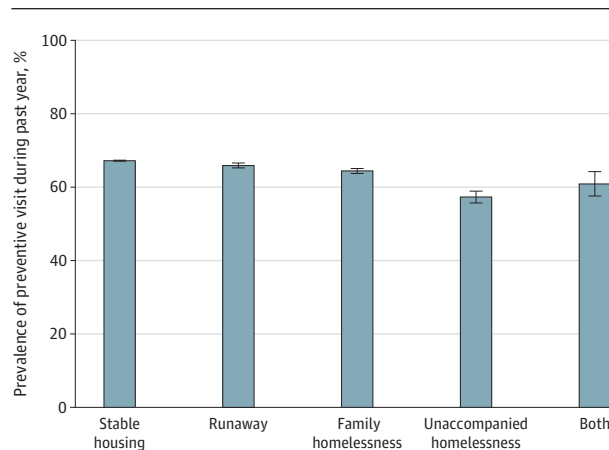
^c Participants of all racial/ethnic identities other than Hispanic self-identified as non-Hispanic.

^d Free and reduced-price lunch reflects family income and is an indicator for socioeconomic status.

^e The Twin Cities are Minneapolis and St Paul. The 7-county area includes Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties.

youths facing housing instability.^{1,5} To inform clinical practice and interventions, we sought to compare preventive health care utilization among subgroups of youths who have run away, experienced homelessness, or been stably housed.

Methods | We conducted a secondary analysis of data from the Minnesota Student Survey, a statewide survey that anonymously assesses health and well-being among students in public schools, and this has been described in detail

Figure. Prevalence of Recommended Preventive Visit in Past Year by Housing Experience

The Figure shows the prevalence of preventive visits for 5 mutually exclusive groups: (1) stable housing (youths who had neither run away nor experienced homelessness); (2) runaway (youths who had run away but had not experienced homelessness); (3) family homelessness (youths who had experienced homelessness with family); (4) unaccompanied homelessness (youths who had experienced homelessness alone, without family); and (5) both family and unaccompanied homelessness. Bars indicate standard errors.

elsewhere.⁴ Eighty-five percent of school districts participated from January 2016 to May 2016, the period used for this analysis. In accordance with federal laws, the Minnesota Student Survey uses passive written parental consent. The University of Minnesota's institutional review board determined that this secondary analysis of deidentified data was not human subjects research.

Our analytic sample included 8th-grade, 9th-grade, and 11th-grade students who answered all questions regarding housing status, health care use, and demographics. We created 5 mutually exclusive housing groups by combining 2 measures of adolescents' report of homelessness and runaway experiences in the prior year: (1) stable housing (for youths who had neither run away nor experienced homelessness); (2) runaway (for youths who had run away but had not experienced homelessness); (3) family homelessness (for youths who had experienced family homelessness); (4) unaccompanied homelessness (for youths who had experienced homelessness alone, without family); and (5) both family and unaccompanied homelessness. The survey also assessed students' preventive health care utilization and demographic characteristics.

We assessed the association between housing experience and receipt of preventive health services using multivariable logistic regression, controlling for demographics (grade in school, sex, race/ethnicity, socioeconomic status, and area of residence). We conducted data analyses from September 2019 to January 2020 using Stata version 15.1 (StataCorp) with 2-tailed tests and an α of .05.

Results | Of the 114 655 youths included in the sample, 40 815 (35.6%) were in 8th grade, 40 691 (35.5%) in 9th grade, and 33 149 (28.9%) in 11th grade. Most participants (81 554 [71.1%]) were white (Table). The Figure shows the prevalence of pre-

ventive health services by housing experience. In multivariable models, the odds of receiving preventive visits was not statistically different for youths who had run away (adjusted odds ratio [aOR], 0.94 [95% CI, 0.89-1.00]) and youths who had experienced both family and unaccompanied homelessness (aOR, 0.77 [95% CI, 0.58-1.01]) compared with youths who had been stably housed. Preventive visits were less likely among youths who experienced either family homelessness (aOR, 0.86 [95% CI, 0.81-0.91]) or unaccompanied homelessness (aOR, 0.70 [95% CI, 0.62-0.80]).

Discussion | This population-based study is among the first examining preventive health services among youths who had experienced homelessness and/or run away that takes the heterogeneity of these populations into account. Despite small but statistically significant differences among some groups, our findings demonstrate that youths who have run away or experienced homelessness are, in fact, connected with preventive care at generally similar levels as their peers in stable housing. Although many youths across groups are not receiving guideline-recommended annual well visits, primary care may represent a natural point of intervention to identify and mitigate the risk of unstable housing.⁵

Study limitations include a cross-sectional design, self-reported data, and a school-based sample that may underrepresent housing instability. Generalizability to other contexts needs to be established. Despite these limitations, findings from this large, statewide sample suggest that pediatric primary care clinicians are well positioned to screen adolescents for risk or experience of unstable housing and/or running away, connect adolescents and their families with resources, address health concerns, and foster protective factors.⁶ Research is needed regarding clinical best practices for supporting youths and families who face unstable housing and targeted community interventions and policies to improve health and health care access among youths across a range of housing experiences.

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COMMENT & RESPONSE

More Details Needed on Association of Placental Weight With Risk of Neonatal Death

To the Editor Maternal and neonatal mortality and stillbirths have received gradually increased attention all over the world. It is urgent to count every mother and infant and understand the causes of death and the contributing factors.¹ Dypvik et al² cast eyes on this topic and found that preterm infants with either high or low placental weight had an increased risk of neonatal death. These findings may help to identify infants at increased risk of neonatal death, which is of great significance in clinical and public health. However, we have some concerns about the results and we are eager to see more explorations.

First, maternal childbearing age is a large influencing factor of stillbirth, which had been widely recognized, and many cohort and case-control studies proved that stillbirth risk increases with increasing maternal age.³ In Norway, a population-based study⁴ had found that the mean placental weight increased with maternal age, and the causes of adverse events were associated with high maternal age. With such a large sample size, which contains 868 617 singleton infants without congenital malformations and 38 229 singleton infants with congenital malformations in the Dypvik et al study,² we are curious about more explorations on the association between different age groups, placental weight, and risk of neonatal death. Second, some researchers⁵ suggested that maternal obesity has a negative influence on placental development and function, resulting in adverse maternal and neonatal outcomes. Meanwhile, pregnancies in obese mothers have increased risk for complications, including gestational diabetes, hypertensive disorders, preterm birth, and caesarian delivery, which are closely con-