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Commentary on "Household Hardships, Public Programs, and Their Associations with the Health and Development of Very Young Children: Insights from Children's HealthWatch"

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Malnutrition continues to be an urgent problem across the globe, and in the 1990s the US Department of Agriculture developed a Food Insecurity Scale to monitor undernutrition. Although the concept of food insecurity has existed for only two decades, much research has documented its prevalence and association with myriad concerns of child and adult health. Food security is defined as having access, at all times, to enough food for an active, healthy life, including the ready availability of nutritionally adequate foods and the ability to acquire such foods in socially acceptable ways.[1] Hence, food insecurity exists when the availability of nutritionally adequate foods, or the ability to acquire such foods, is limited or uncertain.[1] The most recent US Department of Agriculture report on food security showed that in 2010, 14.5% of all households were food insecure, and that approximately 1 in 10 US children lived in food-insecure households.[2]

In their paper, Katherine Joyce and colleagues discuss food insecurity and the positive contributions of Children's HealthWatch on improving the health of young children by demonstrating the necessity of such programs to provide much-needed information for clinicians and policymakers, so that programs that aid economically challenged families in raising healthy children can be implemented and supported. Specifically, since 1998, Children's HealthWatch has amassed and analyzed a data set comprised of one-on-one surveys on 42,000 households with a child under four years of age. This sentinel, cross-sectional convenience sample allows Children's HealthWatch to report upon food insecurity at both the household and child levels and to document the relationship of food insecurity to a number of health and family well-being indicators. Over the years, Children's HealthWatch investigators have drawn attention to the negative impact that food insecurity has on children, the impact of public assistance programs in mitigating these impacts, and to the plight of many low income families who must regularly juggle the cost of paying for basic needs like food, shelter, utilities and medical care. In addition to this paper by Katherine Joyce and colleagues, a complete list of all the work related to Children's HealthWatch can be found at www.childrenshealthwatch.org.

Numerous studies have identified the association between childhood food insecurity and adverse health consequences, including developmental, physical, and psychological.[3] Food insecurity disproportionately affects children and families at the highest risk for obesity, including those living in low-income households and members of racial/ethnic minority groups.[4-10] To explain the seeming paradox that food insecure children are more likely to be obese, it is hypothesized that food-

insecure households consume more low-cost, high-energy dense foods that are often nutrient-poor, as well as utilizing more calorie-dense snacks.[11]

Not surprisingly, food insecurity is also linked with undernutrition worldwide. The study cited involving Minnesotan homeless youths found inadequate intakes of vitamin D, calcium, and potassium, and the majority consumed less than optimal amounts of phosphorous, folate, zinc, and vitamins A, C, and E, in addition to fruits, vegetables, and dairy products.[12] Similar findings are reported outside of the US, such as in Canada and Ghana.[13, 14]

Food insecurity is also associated with poor or delayed child development,[15] and it negatively impacts attachment behavior and mental proficiency in very young children. Such children have lower IQ scores,[17] poorer physical function,[18] poorer health status, more frequent stomach aches, headaches, and colds,[19] and increased rates of iron deficiency anemia, vitamin deficiencies,[19, 20] and acute and diet-sensitive chronic illness,[21, 22] with overall lower health-related quality of life.[18]

Compounding the negative physiological and developmental effects are the social and psychological consequences. Studies show increased rates of depressive disorders and suicidal symptoms in adolescents,[23] declines in social skills,[10] and increased rates of behavioral and emotional problems.[17, 24] Academically, food insecure children are more likely to repeat a grade and be suspended from school.[25]

It is essential that clinicians and policymakers address food insecurity. Advocacy groups desperately need data-providing efforts such as those of Children's HealthWatch, to help in addressing food insecurity and associated hardships. Governmental assistance programs such as SNAP and WIC are essential in that they benefit families struggling to raise healthy children, resulting in improved child health, development and function. With the goal of bringing "evidence and analysis from the front lines of pediatric care to policymakers and the public," Children's HealthWatch provides profoundly important data needed by public and private agencies and child advocates at local and national levels so as to monitor threats to our children's well-being and address problems with effective interventions.

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