

Fifty Years Ago in The Journal of Pediatrics

Anemia as a Marker of Social Determinants of Health: Then and Now

Brown K, et al. Prevalence of anemia among preadolescent and young adolescent urban black Americans. *J Pediatr* 1972; 81:714-717.

Iron deficiency anemia (IDA) is a routine diagnosis in pediatrics. In 1972, Brown et al screened approximately 1800 Black adolescents in Philadelphia using hemoglobin and MCV to quantify prevalence of anemia. They found high percentages of both males and females with IDA, thought to be predominantly nutritional and menstrual.

Today, IDA is well recognized with multiple treatment modalities. Though we now have a better understanding of IDA management and importance, there are many similar inequities that continue to contribute to its prevalence. The US Department of Agriculture estimates that in 2020 about 13.8 million Americans were food insecure¹, with widening racial inequities. Despite governmental assistance, food insecurity for black families increased from 2019-2020 while it decreased for white families. This problem seems to be getting worse with the current record-breaking economic inflation. Similar racial inequities can be seen in access to care, as many non-white adolescents have less access to routine screening, well-adolescent care, or gynecological care for menstrual management.

There is a lack of consensus about IDA screening. The American Academy of Pediatrics anemia screening guidelines are silent on patients older than 2 years, while the CDC

recommends routine screening in all non-pregnant women of childbearing years every 5-10 years. None of these guidelines discuss risk stratification based on social determinants (ie geography, food insecurity). And although more accurate tests for iron deficiency exist (e.g. ferritin), the emphasis on continued screening via non-specific hemoglobin and MCV likely leads to missing patients with iron deficiency².

Although hemoglobin is only one component of overall health, it exerts a significant influence on wellbeing – adolescents with IDA experience increased levels of fatigue and difficulty with concentration. Fixing this inequity will require pediatricians to go beyond iron supplementation or menstrual suppression; we must advocate for the societal changes in food availability and health care access necessary to address the root of the problem.

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[1] Coleman-Jensen et al. Household Food Security in the United States in 2020. USDA Economic Research Service. <https://www.ers.usda.gov/webdocs/publications/102076/err-298_summary.pdf?v=115>; Accessed 20 July 2022

[2] Sekhar et al. Identifying factors predicting iron deficiency in United States adolescent females using the ferritin and the body iron models. *Clin Nutr ESPEN*. 2015;10(3):e118-e123.