

New study assesses the impact of soft drink availability in elementary schools on consumption

September 2 2008

The consumption of soft drinks is generally considered to be a contributing factor in childhood obesity. Because children spend a substantial amount of time at school, the school food environment plays a central part in shaping eating behaviors. While the availability of soft drinks in middle and high schools has been investigated previously, a study published in the September 2008 issue of the *Journal of the American Dietetic Association* systematically assesses how the availability of soft drinks in elementary schools across the United States relates to school-based and overall consumption. A broader question raised by this investigation is how limiting soft drink availability at an early age may alter eating behaviors over time.

While the National School Breakfast and Lunch Programs are federally regulated, no similar standards exist for "competitive foods," that is foods and beverages sold through a la carte lines, vending machines, school stores and school fund raisers. Guidelines and legislation to fill this gap have been developing in private schools as well as at the school district- and state-level.

Voluntary sales restrictions are another new development, such as the agreement reached between the Alliance for a Healthier Generation and the American Beverage Association; Cadbury Schweppes; Coca-Cola and PepsiCo in May 2006. As a result, some school districts and even the states of California and Connecticut have already banned soft drink sales

in public elementary schools.

Meenakshi M Fernandes, Pardee RAND Graduate School, Santa Monica, CA, analyzed data from the Early Childhood Longitudinal Study from close to 11,000 fifth graders in 2,303 schools in 40 states. The study investigated socio-demographic differences in how availability of soft drinks at elementary schools relates to consumption of soft drinks at school and overall. Fernandes found that limiting availability of soft drinks at school is associated with a 4% decrease in the rate of any consumption overall.

However, the author further reports that when soft drinks are available at school, about one out of four children consume at least one soft drink over the course of a week. For these children, school-based consumption represents about one-half their total consumption. Black non-Hispanic and low-income children tend to consume more. Furthermore, those consuming a high level of soft drinks at school, typically low-income children and children attending rural schools, are more likely to consume a higher level of soft drinks overall.

While these findings suggest that soft drink availability at school may have limited impact on overall consumption for elementary school children, a previous study found that an additional serving of a non-diet soft drink per day can increase body mass index among adolescents. Therefore, even a modest increase in daily soft drink consumption could contribute to the development of obesity over the course of adolescence, especially among vulnerable subgroups. Children in elementary school often have less free time, less pocket money and more teacher oversight regarding when and where they can go during school hours. Older children are more likely to be affected by competitive foods at school.

Writing in the article, Fernandes states, "While competitive food sales restrictions at school are an important step in decreasing the

consumption of unhealthy foods, attention should also be granted to other approaches for limiting availability or attenuating the relationship between availability and consumption. Greater reductions in children's consumption of soft drinks will require policy changes that go beyond food availability at school if we aim to significantly reduce children's consumption of soft drinks."

Findings based on this analysis can serve as a benchmark for future evaluations of the effects of school food environment changes on eating behaviors. The author stresses that further research into predictors of consumption, how children respond to reduced availability, as well as food environments at home and at school, may identify next steps towards improving the diet of children.

Source: Elsevier

Citation: New study assesses the impact of soft drink availability in elementary schools on consumption (2008, September 2) retrieved 5 May 2024 from <https://medicalxpress.com/news/2008-09-impact-soft-availability-elementary-schools.html>

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