

School children's consumption of fat-free, low added sugar flavored milk

Bethany A. Yon, MS and Rachel K. Johnson, PhD, MPH, RD

Nutrition and Food Sciences Department, University of Vermont, Burlington, VT

USDA's final rule for school meals issued on January 25, 2012 requires flavored milk (FM) to be fat-free as of July 2012. The IOM report on competitive foods limits added sugar in FM to 10 gm/8 oz. Milk is an important source of shortfall nutrients. As most elementary children choose FM, it is important to know how well children consume FM meeting these standards. Plate waste studies were conducted in May 2010 and 2011 in 2 southern schools (grades 3-5) using FM meeting both standards. In 2010, FM was USDA compliant (fat-free). In 2011, added sugar was lowered to meet IOM guidance. FM consumption was highly skewed, thus categorized as a binary variable (0-7oz, >7oz). Excluding unopened cartons (27% in 2010, 20% in 2011), 37% of children in school A (Urban; 97% Hispanic; 88% eligible for free/reduced meals) consumed >7 oz of milk in 2010 compared to 44% in 2011 ($p=0.19$). School B (Rural; 52% White, 41% Hispanic; 61% eligible for free/reduced meals) changed from plastic bottles to paper cartons in 2011. The number of unopened FM containers increased in 2011 (3% to 16%, $p=0.001$). Excluding unopened containers, 68% of children consumed >7 oz of milk in 2010 compared to 46% in 2011 ($p=0.03$). Consistent with earlier research, children drink more milk from plastic bottles. When packaging was consistent, children consumed similar amounts of fat-free FMs with higher vs lower added sugar. Funding: USDA Hatch and National Dairy Council administered by the Dairy Research Institute.