

# A Message from the Editor

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A theme that emerges from this issue of *Public Health Reports* is maternal and infant health. In the lead research article by Sullivan et al., the authors summarize multivitamin use among pregnant and non-pregnant women of childbearing age. Overall, the authors found significant differences in the reported use of multivitamins between pregnant and non-pregnant women. Using national data from the Behavioral Risk Factor Surveillance System, the authors found that 78% of pregnant women reported multivitamin use compared with 47% of women who were not pregnant. In pregnant women, the study found a significant association between income and marital status and multivitamin use. Among non-pregnant women, the authors found several significant predictors for multivitamin use, including age, income, physical activity, education level, desire for a child in the near future, race/ethnicity, body mass index, and cigarette smoking status.

In the *Surgeon General's Perspectives*, RADM Galson takes a look at another important choice for women of childbearing age: whether or not to breastfeed their infants. RADM Galson presents documented evidence that breastfeeding is the optimal form of infant nutrition with well-known maternal and child health benefits. The health benefits among newborns include lower rates of respiratory infections, Sudden Infant Death Syndrome, type 2 diabetes, and leukemia. Maternal health benefits that accrue from breastfeeding include reduced risks of type 2 diabetes, as well as breast and ovarian cancers. Although there is increased awareness of the value of breastfeeding, Galson notes that rates of breastfeeding in the U.S. remain low—less than one-third of infants breastfeed exclusively and almost 80% of infants are not breastfed until the recommended minimum age of 1 year. Furthermore, he notes that unacceptable racial/ethnic and socioeconomic disparities in breastfeeding persist.

On the larger scale of human public health, a recent *New York Times* editorial<sup>1</sup> described the importance of iodized salt as a cost-effective method for improving human health worldwide. In this editorial, the author estimated that one-third of the world's population does not get enough iodine from food and water. This deficiency results in goiters, mental impairment, and lower intelligence quotients among iodine-deficient populations. For a few pennies per person per year, iodine and other micronutrients (e.g., niacin, vitamin A, iron, folic acid, and zinc) could be added to the world's food supply with enormous health benefits.

As summarized by Backstrand, food fortification began in the U.S. in 1924, when iodized salt was first introduced in Michigan.<sup>2</sup> Its introduction led to the virtual elimination of iodine deficiency as a serious public health problem in the U.S. by the 1930s. Iodization of salt paralleled the rapid growth of research in nutritional sciences during the 1920s and 1930s, including the association of beriberi, pellagra, scurvy, anemia, and growth impairment with vitamin, mineral, and other nutrient deficiencies.

In response to this research, the continued high rates of malnutrition in the 1930s and 1940s, and fears of U.S. involvement in World War II, President Franklin Roosevelt called a National Nutrition Conference for Defense in 1941. A major outcome from this conference was the first set of Recommended Dietary Allowances (RDAs) based on research studies and scientific data. The first RDAs were for energy, protein, two minerals (iron and calcium), and six vitamins (thiamin, riboflavin, niacin, ascorbic acid, and vitamins A and D). Since the early 1940s, the Food and Drug Administration (FDA) has been charged with regulatory oversight of food fortification under the authority of the Federal Food, Drug and Cosmetic Act of 1938.

Although the RDAs and the FDA regulatory process are far from perfect, they have helped to eliminate or greatly mitigate most diseases related to nutritional deficiencies in the U.S. Now, however, Americans suffer from diseases of nutritional excess. In addition, problems related to the availability of cheap, calorie-dense foods with little nutritional value have emerged among inner-city populations with limited budgets and limited access to supermarkets and their bounty of fresh fruits and vegetables. Much can be done worldwide with simple, cost-effective solutions to reduce diseases and adverse health conditions resulting from deficiencies in vitamins and micronutrients. Conquering obesity-related diseases and providing access to nutritious foods, however, remain a challenge for the U.S.

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## REFERENCES

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2. Backstrand JR. The history and future of food fortification in the United States: a public health perspective. *Nutr Rev* 2002;60:15-26.