

INTERNATIONAL MICRONUTRIENT MALNUTRITION PREVENTION AND CONTROL PROGRAM

WHAT IS THE PUBLIC HEALTH ISSUE?

Deficiencies of micronutrients such as iron, iodine, vitamin A, and folate affect nearly one-third of the world's population, and the consequences can be devastating. For example, iron deficiency among 6 to 24 month olds is impairing the mental development of 40% to 60% of children in developing countries, while more than 50,000 young women die each year during pregnancy and childbirth as a result of severe iron deficiency anemia. Because of iodine deficiency in pregnancy, as many as 20 million babies annually are born mentally impaired. Vitamin A deficiency compromises the immune systems of about 40% of preschool children in developing countries and results in the deaths of nearly 1 million children every year. Folate deficiency in pregnancy is the cause of severe birth defects in about 200,000 children and is associated with approximately 1 of every 10 adult deaths from heart disease per year. Effective and inexpensive interventions such as food fortification, supplementation, and dietary diversification have eliminated most cases of micronutrient deficiencies in developed countries. These interventions can be replicated in the developing world.

WHAT HAS CDC ACCOMPLISHED?

CDC has been working with the United Nations Children's Fund, the World Health Organization, the U.S. Agency for International Development (USAID), and the Global Alliance for improved nutrition to assist countries to assess the burden of micronutrient deficiencies through national surveys and implementation of surveillance systems to monitor food fortification and micronutrient supplementation programs and track the micronutrient status of target populations. CDC also has supported regional training workshops on micronutrient survey methods, food fortification monitoring, and micronutrient program communication planning. In addition, CDC has developed computer-based tools to train public health professionals in micronutrient program planning and management; micronutrient survey methods; and health communication planning in support of micronutrient intervention programs. Through its International Micronutrient Reference Laboratory, CDC has collaborated with partners to establish a global network of resource laboratories to enhance and monitor the quality of national micronutrient laboratories.

Example of Program in Action

Under an interagency agreement with USAID, CDC's International Micronutrient Malnutrition Prevention and Control (IMMPaCt) Program has been collaborating with Micronutrient Operational Strategies and Technology (MOST), the Micronutrient Initiative, and the Ministry of Health in Nicaragua to strengthen the national nutrition monitoring system in that country. The purpose of the monitoring system is to obtain regular and reliable process and impact data to strengthen the management of the national food fortification (salt with iodine, flour with iron and folic acid, and sugar with vitamin A) and supplementation (iron and vitamin A) programs in Nicaragua.

WHAT ARE THE NEXT STEPS?

CDC will continue to support selected countries in their efforts to better assess micronutrient status of their populations and monitor and evaluate the process and impact of their intervention programs, especially food fortification. CDC will expand its regional training programs and laboratory improvement activities. CDC also will collaborate with international and national wheat and flour industries, and public and civic organizations at the global, regional, and national levels through the Flour Fortification Initiative to promote fortification of flour with vitamins and minerals.

For additional information on this or other CDC programs, visit www.cdc.gov/program

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