

CDC Global Health Initiative

X to
Gary

Working with Partners to Eliminate Micronutrient Malnutrition

Defining and Reducing Global Disease Burden from Micronutrient Malnutrition

Background

Due to its world-wide reputation, previous achievements and experience in global disease eradication, and record of success in fostering multi-sectoral collaboration, CDC is ideally suited to catalyze a coordinated global effort to eliminate micronutrient malnutrition and thus, help improve the health and well-being of people throughout the world.

Micronutrient malnutrition affects more than 2 billion people worldwide, especially children and women. Its acute and chronic effects include increased rates of mental retardation, reduced learning capacity, increased morbidity, and premature death. The three micronutrients targeted for elimination are vitamin A, iron and iodine. Populations affected by iron and vitamin A deficiency may suffer an estimated 40% increase in childhood deaths and nearly 30% increase in maternal deaths. A 10% prevalence of goiter in school children due to insufficient iodine intake is associated with a 10-15 point reduction in their IQ. All of this leads to reduced economic productivity and continued poverty and deprivation among a vast proportion of the world's population.

Because of the lack of coordination at the global and the country level, efforts to eliminate, prevent and control, micronutrient malnutrition have not been very successful despite the availability of feasible, effective and low cost interventions. Inadequate and uncoordinated funding for micronutrient elimination programs has usually led to short-term unsustainable interventions, and progress has been halted or even reversed. For example, integration with related child health and survival activities have not been adequately pursued. This is particularly important given the relationship of micronutrient status to the epidemiology of infectious disease. Most importantly, collaboration with the agricultural and food industry sectors, which are the key partners in the elimination of micronutrient malnutrition, has been essentially non-existent.

Justification

This initiative emphasizes the significant contribution that CDC can make to provide leadership and continuity in the global effort to eliminate micronutrient malnutrition. We propose to reduce micronutrient malnutrition associated with vitamin A, iron and iodine through the broad expertise of several CIO's, including NCCDPHP (epidemiology, surveillance, intervention, evaluation), NCEH (laboratory assessment and monitoring, including field instrumentation), NIP (immunization efficacy and potential program integration), NCID and NCHSTP (related infectious disease and parasitic infestation issues), NCHS (population surveys), PHPPO (public health program management capacity building) EPO (training and health system infrastructure, Data for Decision Making), and the Office of Global Health.

The overall CDC program on micronutrient malnutrition (**need a good acronym**) will be managed at the NCCDPHP within the Division of Nutrition and Physical Activity, with close coordination with participating CIO's (see Annex A for organizational chart, and Annex B for examples of CIO specific plans). A micronutrient malnutrition "Working Group", composed of program and technical staff of the CIO's, will meet regularly to help develop and update CDC-wide plans and strategies. A CDC "Executive Committee" composed of relevant CIO deputy directors and Division Directors will meet quarterly to provide overall policy guidance to the program and advocate for CDC's continued role in this global effort to improve people's health and lives. To develop the necessary national and international multisectoral collaboration, an annual "Conference on Elimination of Micronutrient Malnutrition" (CEMM) will be convened by the CDC to bring together U.S. and international donor agencies (e.g. USAID and UN agencies), NGO's, service organizations (e.g. Kiwanis and Rotary International), agricultural organizations (e.g. USDA and FAO), and food industry leaders and representatives so that each group will be better able to advocate within its own constituency for sustained efforts to eliminate micronutrient malnutrition. This conference will also provide ongoing advice and criticism regarding the direction of the CDC efforts.

To build on progress to date, CDC will convene the first CEMM in early Fall of 1999 to develop a plan of action and secure collaboration, support, commitment, and funding, emphasizing non-traditional partners such as the agricultural and food production sectors. The CDC's strong working relationship with international health agencies (WHO, UNICEF, UNHCR, UNRWA), domestic donors (USAID) and NGO's (CARE and others), the MI, and PAMM will help catalyze this effort. One outstanding example of a CDC-catalyzed national and local government and industry collaboration with international support, is the recent activities in Russia (implemented under the auspices of the Gore-Primakov Commission), where CDC, FDA and SUSTAIN representatives from the U.S. worked with counterparts in the Russian Institute of Nutrition, a private Russian nutrient premix manufacturer, and health, government, and bakery administrators in Ivanovo Oblast to develop and implement a program to fortify bread and cereal products produced by the three major bakeries in the Oblast. To help assess the impact of the program, UNICEF provided funding for a rapid population anemia/nutrition survey and an on-going surveillance system with technical assistance from CDC. This activity provides a model for the role the CDC will play in the global effort to eliminate micronutrient malnutrition.

In addition to providing global leadership and advocacy toward the global elimination of micronutrient malnutrition, the CDC will contribute its recognized expertise in epidemiology and laboratory support, both through various training opportunities and project implementation. For example, with regard to epidemiological support, the CDC will work with its global partners to:

- 1) develop and promote standard methods and tools for rapid quantitative and qualitative assessment and surveillance of micronutrient status and needs of populations.
- 2) develop and implement public health intervention and applied research projects.
- 3) implement research to assess the impact of micronutrient intervention programs on various aspects of the population's well-being; e.g. on children's school performance, on childhood morbidity, and on mothers' ability to care for their children, etc.

- 4) develop local public health capacity and infrastructure to implement sustainable micronutrient elimination programs

With regard to laboratory support, the CDC will utilize its considerable expertise and historical relationship with the clinical chemistry industry to develop low-cost and "user friendly" field and other laboratory technology and methods for biochemical assessment of nutritional status, especially with regard to vitamin A, iodine and iron status. CDC will also work with its global partners to strengthen the local and regional laboratory capacity and infrastructure so that quantitative assessment of micronutrient status of populations can be carried out efficiently and effectively.

CDC has a unique opportunity to make a major contribution to the control of micronutrient malnutrition around the world. With its partners, CDC will help build international commitment and capacity to sustain programs with a lasting impact on maternal and child health, and enhancing human capital and economic development.

Annex A - CDC Program on Micronutrient Malnutrition: Organizational chart

