

# Health Experts Looking for Way to Fight World's 'Hidden Hunger'

By Lee Siegel  
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The gaunt faces and distended bellies of starving people grab the world's attention. But they obscure a bigger problem: vitamin and mineral deficiencies that stunt, sicken or disable more than 1 billion people, a sixth of the Earth's population.

About 100 experts from 29 nations are meeting in Salt Lake City this week to plan how to combat such "hidden hunger," which also puts another 1 billion people at risk of anemia, blindness, deafness, goiter, intellectual impairment and retardation, stunted growth and infectious disease.

All told, 2 billion of the world's 5.7 billion people don't consume enough iron, iodine, vitamin A or other micronutrients, which are nutrients essential in tiny amounts, said Ross Welch, a U.S. Department of Agriculture scientist. By comparison, 800 million people don't get enough to eat daily and suffer protein and calorie malnutrition, he added.

"People need more than just calories, they need nutrients," said conference organizer Gerald Combs Jr., a nutrition professor at Cornell University in Ithaca, N.Y.

Welch said economic development and the "green revolution" reduced starvation by boosting food production but failed to stem micronutrient malnutrition. In southern Asia for example, greater yields of wheat and rice worsened micronutrient deficiencies by reducing production of more nutritious vegetables, lentils and beans, he added.

The four-day conference, which opened Monday at the Joseph Smith Memorial Building, is focused largely on research to develop ways to cultivate, breed or otherwise manipulate crops to increase levels of essential micronutrients.

Researchers said such "food-based" approaches often are preferable to fortified processed foods, iodizing salt or drinking water, or handing out vitamins and mineral pills — techniques that are difficult to implement permanently in impoverished nations.

The conference is sponsored by the Mormon Church-run Thrasher Research Fund, Cornell University, the United Nations Food and Agriculture Organization (FAO) and UNICEF. The Thrasher Research Fund, established in 1977 with \$14 million from lumberman E.W. "Al" Thrasher, finances research to improve children's health.

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**ISAAC FERGUSON**  
Thrasher Research Fund director

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"We hope to make a difference in relieving suffering throughout the world," said Richard C Edgley, head of the fund's executive committee and second counselor in the presiding bishopric of The Church of Jesus Christ of Latter-day Saints.

The estimate that 2 billion people get inadequate micronutrients came from a 1994 World Bank report. All 2 billion don't consume enough iron, 1 billion also are deficient in iodine and 400 million get inadequate vitamin A, said John Lupien, food policy and nutrition director at the FAO in Rome.

"We have many people walking around in developing countries who are essentially sick because they are not getting these nutrients," said Isaac Ferguson, director of the Thrasher Research Fund.

The World Bank said iron deficiency causes anemia in 1 billion people; iodine deficiency kills five to 10 babies in every 1,000 pregnancies and leaves countless others deaf, mute or retarded. Vitamin A deficiency has blinded 13 million people and kills six of every 10 affected preschool-age children.

David Alnwick, head of micronutrient nutrition at UNICEF in New York, said micronutrient deficiencies contribute to low birth weights, stunt children's growth and intellectual development, and make them more susceptible to environmental pollutants and death from infectious diseases.

Combs said a third of the world's children under age 5 are stunted by malnutrition, making them more likely to develop chronic illness later in life. He said 44 percent of women are anemic due to iron deficiency. Anemia, a lack of adequate red-blood cells, causes fatigue and reduces productivity.

Most micronutrient-deprived people live in developing nations, particularly in southern Asia and sub-Saharan Africa. But even "the United States is affected,

with anemia afflicting 14 percent of all this nation's women and 25 percent of pregnant black women, Welch said.

He said the nutrient content of crops can be increased by breeding varieties that extract more micronutrients from soil. Also, crop diversity should be increased so nutritious vegetables and legumes are produced along with less nutritious wheat and rice.

Genetic engineering also holds promise for increasing the concentration of micronutrients in crops and making it easier for such nutrients to be absorbed by the digestive system, he added.

Meeting participants lacked firm figures for how many people die from outright starvation and from micronutrient malnutrition.

Alnwick said that during 1993, 13 million children under age 5 died, out of 624 million children in that age group world wide. A recent study estimated that half of those deaths were due to diseases fostered by malnutrition and that 80 percent of such malnutrition was mild to moderate rather than severe.

Some estimates put annual starvation deaths at 13 million to 18 million. Lopian said the true number is much smaller, but is difficult to determine because many starving people are killed by diarrhea and other infectious diseases.

Even though the world now produces enough food for everyone, starvation still happens because poverty and social disorder prevent adequate food distribution and access, he said.