

Smart ideas

Eat your vitamins

A very Canadian way to solve a world problem

Last Updated: Monday, August 18, 2008 | 2:47 PM ET

By Robert Sheppard, [CBC News](#)



Malagasy women and children wait at a makeshift clinic in Antanetikely, Madagascar, for a simple treatment that the government hopes will save 40,000 children this year alone. Twice a year, medical teams visit to give children a dose of vitamin A, de-worming tablets, a measles vaccination and a chemically treated anti-mosquito bed net. (Jerome Delay/Associated Press)

If Bill Gates, say, offered you \$10 billion to solve the big problems of the world, what would you spend it on? Counterterrorism? Global warming? World hunger?

What about on the three great plagues of the modern era: HIV, malaria, TB? Where do you think you would get the most bang for your buck?

These are exactly the questions a think-tank called the Copenhagen Consensus has been asking, on three occasions now, over the past four years, with the support of such influential publications as *The Economist* magazine and, this year, the *Wall Street Journal*.

It farms the questions out to a bevy of top-ranked academics, turns their papers over to others for vigorous discussion and then asks a panel of leading economists — including five Nobel Prize winners — to rank the winners according to the return you would get on your investment.

This year's winner was something of a surprise: micronutrients, specifically vitamin A, zinc, iron, iodine and folic acid.

Together they form the basis of what is often called "hidden hunger," the deforming element of malnutrition that stunts children's growth and can dramatically shorten the lives of youngsters and pregnant women throughout much of Africa and southeast Asia.



Wilfrid Laurier University economics professor Susan Horton with Dr. Venkatesh Mannar, director of the Ottawa-based Micronutrient Initiative. (Courtesy Susan Horton)

The other surprise was that the person advocating the investment is a Canadian: Susan Horton, an economics professor at Wilfrid Laurier University in Waterloo, Ont., who has been involved with Third World nutrition issues since a graduate-student stint at Bangladesh's International Centre for Diarrheal Disease Research about 30 years ago.

Her plan: An investment of \$347 million a year over five years to scale up the delivery of vitamin A, iron and iodine, and to add zinc and folic acid to the majority of diets in sub-Saharan Africa and much of Asia. She believes the result would be an estimated \$5 billion in health-care savings and future earnings — and saving something in the order of 3.5 million lives.

"Actually, they didn't tell us what the budget was when we started out," Horton said. "Or maybe I would have been more ambitious."

"On a world scale, this is a relatively modest investment, yet the benefits are very large. I think that's why it came out on top."

The Canadian connection

Indeed, the evaluating panel estimated that every dollar spent on micronutrients would generate a \$17 return in health and productivity costs, which is far greater, it said, than investments in global warming or counterterrorism, which require enormous amounts of public money to make even a modest amount of headway.

As Bjorn Lomborg, the political economist who created the Copenhagen Consensus, has argued (to the ire of environmentalists), every dollar spent combating climate change generates less than a dollar in direct public benefits.



Bjorn Lomborg, founder of the Copenhagen Consensus at a World Trade Organization meeting. (WTO)

He also points out that Western democracies have spent approximately \$70 billion on increased security and counterterrorism since 2001, and that while there has been a drop in international terror attacks since then, there has also been an average of about 67 more terror-related deaths each year.

The cost-benefit analysis for fighting terrorism suggests the West gains only nine cents of value for every dollar spent on the cause, though how that is measured, of course, may well depend on where you sit.

Investing in micronutrients, on the other hand, is not only cost-effective, it turns out to be decidedly Canadian.

As Horton happily notes, her work builds on the efforts of a host of other Canadians who have been in the business of fortifying Third World diets since the early 1990s.

These include:

- The Ottawa-based Micronutrient Initiative, which is coming close to distributing its five billionth vitamin A capsule to Third World families.

- Government aid programs that insist on iron-and-vitamin fortified flour and vegetable oils if they are to be sent abroad.
- And the famous iron-fortified Sprinkles packets developed by pediatrician Stanley Zlotkin at Toronto's Hospital for Sick Children in the late 1990s to combat the scourge of childhood anemia.

In our own quiet way — who knew? — Canadians have been trying to save the world one vitamin at a time.

Micronutrients

Landing at the top of the Copenhagen Consensus has propelled Sue Horton into the spotlight.

Even if the mainstream press has been slow to catch on to the issue, her phone has been ringing, she says, with people asking how can we do this.

She is now planning to spend her sabbatical, which began earlier this month, working at the Micronutrients Initiative detailing some of the best practices that have been tried so far.

Thankfully, she says, there are many to choose from, including service groups such as the Kiwanis that have helped raise money in the past for iodized salt, as well as big flour milling and food corporations, which have been helpful in transferring fortification technology to developing countries.

The problems are immense.

According to the Micronutrient Initiative, millions of children — an estimated 50 per cent of child deaths in the impoverished countries — die unnecessarily from illnesses such as measles and diarrhea because they lack the resistance to disease that proper nutrition can confer.

As well, an estimated 43 million babies are born each year with at least some mental impairment caused by iodine deficiency, something we in the developed world have not thought about for decades.

According to Horton, the cost of the fix is not high: Iodized salt can be produced for five cents per person per year; vitamin A capsules cost 20 cents per person per year; flour fortification is in the range of 10 cents per person per year.

The biggest barrier is not the will of donors but the delivery mechanism for getting capsules, packets or fortification plants running in small, out of the way communities.

Canada and other big donor countries have pushed for iron and vitamin fortification plants wherever they can be set up. So has the real Bill Gates: His foundation has already given seed money to at least a dozen countries, mostly in Africa, to try to deal with the micronutrient problem.

"He didn't have to wait for me," Horton joked. Nor for the Copenhagen Consensus, which has often used Gates's mega-wealth as the enticement to urge developed nations to play along.

Bill Gates for a day

Begun in 2004 as an exercise in prioritizing world problems and, as Lomborg says, pricing the menu, the Copenhagen Consensus tries to narrow the scope of what can be fixed to ten broad agenda items.

The 2008 list: Terrorism, conflict, malnutrition and hunger, education, the role of women, air pollution, subsidies and trade barriers, disease, sanitation and water, and global warming.

These items, and their proposed solutions, have changed in subtle but significant ways over the three exercises in 2004, 2006 and 2008.

For example, the top-ranked problem to be fixed in 2004 was HIV/AIDS. It fell to 19th spot this time.

The top-ranked problems to be fixed in 2008, on a cost-effective basis, are malnutrition, the Doha world trade agenda (which just collapsed when China and India pulled out of a last-minute compromise), child immunization, de-worming and expanding access to schools, particularly for girls in developing countries.

- [See the full list](#)

Lomborg, author of *The Skeptical Environmentalist: Measuring the Real State of the World*, has been criticized in the past by such economic luminaries as Columbia University's Jeffrey Sachs for narrowing the fix-it agenda too much and turning it into an either-or game in which participants get to play at being Bill Gates for a day.

But Horton, for one, thinks this is a very useful exercise.

"Since I am an economist, thinking about cost effectiveness is really important.," she said. "So getting other people to think that way could be really useful, to put aside some of the hype that surrounds big issues like terrorism."

Malnutrition is a big issue, too. But if we can put our minds to it, Horton says, it can be solved in a more bite-sized way — one vitamin capsule at a time.