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# Zinc & Health Quarterly Newsletter

April 2015

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# Update: Zinc Saves Lives Battery Recycling Campaign

In January, Teck's Zinc Saves Lives Battery Recycling Campaign reached a new milestone, collecting more than 250,000 batteries at We Day events and at Call2Recycle locations across Canada.

Since the campaign launched in October 2014, student leaders in nearly every province have been collecting batteries and raising awareness about zinc deficiency in their schools and communities.

A special thanks to employees at our Sparwood and Calgary offices, as well as at our Trail, Elkview, Coal Mountain, Greenhills and Fording River operations for collecting and recycling 32,846 batteries for the campaign.

Have you joined the campaign? For every battery recycled, Teck will donate the value of zinc it contains to UNICEF in support of our Zinc & Health partnership that is saving the lives of children in India.

Until August 31, simply recycle your used household batteries at any Call2Recycle location across Canada or the U.S. and report the number of batteries recycled on our website, [www.zincsaveslives.com](http://www.zincsaveslives.com).

**Reducing zinc deficiency in children is something that is very important to me personally. I am thrilled that there are so many employees and students across Canada now helping raise awareness about this global health challenge.**

Don Lindsay, President and CEO



Opposite: Lynne Edmunds, Laura Nelson and Beth Scott stand with a Zinc Saves Lives Battery Recycling bin at Fording River Operations (FRO), where employees have recycled more than 12,000 batteries to support the campaign; Scott Rees and Curtis Young with a collection bucket at FRO.

Above, clockwise from top right: JoAnne Misquita and Denise Maigret with 400 pounds of batteries collected at the Calgary office; Todd Ferguson and Larry Relkoff with some of the batteries recycled at Trail Operations; Marty Hill and Glenda Hewitt with their collection box at the Sparwood office.



# Health Extension Workers Help Keep Children Healthy in Namibia

Success of Teck-UNICEF pilot project leads to scale-up.

In Opuwo, a village in northwest Namibia, Vemupomambo Tjivinda sits with a mother and infant daughter from the country's nomadic Ovahimba tribe. As they chat, Vemupomambo gently wraps a coloured plastic tape around the upper arm of the baby while her mother watches intently. The tape, marked with green, yellow and red sections, is a simple tool used by Health Extension Workers (HEWs) to quickly determine if a child is malnourished.

After the baby girl's arm is measured, Vemupomambo continues to check vital signs, listening to her breathing and checking her heartbeat. He then happily reports that she is healthy. As a HEW, Vemupomambo is at the forefront of ensuring that children in the region under the age of five do not die or become ill from preventable diseases, including malaria, measles or diarrhea. He provides health advice to parents, encouraging them to vaccinate their children, and dispenses free medication, including polio drops and vitamin pills.

Vemupomambo was one of the first Health Extension Workers trained in Namibia in 2012. That year, Teck provided funding to UNICEF for the pilot project in Opuwo, with the goal of training 34 Health Extension Workers to provide basic health care services to children under the age of five in remote and rural regions of Namibia.

Inaccessibility to health care is a major underlying cause of child mortality in Namibia, as most people in rural areas live at least 10 kilometres from the nearest health facility. The deployment of the Health Extension Workers into the Kunene region in 2012 was a critical step in addressing the situation, making it possible to reach households with life-saving interventions for children.

"This initiative has increased health awareness and built local communities' capacity for greater access, involvement and participation in primary health care interventions," says Namibia's Minister of Health and Social Services, Dr. Richard Kamwi.

The two-year pilot project was so successful that in 2013, Namibia's Ministry of Health committed \$18 million to scale up the Health Extension Worker project across the country. Better yet, Health Extension Workers are no longer volunteers; they now receive a government salary for their work.

Today, approximately 1,500 Health Extension Workers provide basic health care services to thousands of Namibians, bridging the gap between rural communities and urban health facilities, helping to reduce child mortality in the region. ■

## Health Extension Worker 101

- HEWs are at least 23 years old and have completed their 10th grade of schooling.
- HEWs receive six months of training and are now paid a government salary.
- HEWs are supervised by nurses or health professionals based at health centres in a nearby town.
- HEWs are responsible for providing family health services, improving disease prevention and control, and promoting improved hygiene and sanitation.
- HEWs conduct home visits during a woman's pregnancy and the first week of life to provide breast-feeding counselling and cord care, as well as identify any health issues for the mother and newborn that need further attention.

Right: A Namibian infant is checked by an HEW for signs of malnutrition.





# ZINC

## FOOD FORTIFICATION

Zinc is an essential micronutrient for human health. It is crucial for normal growth and brain development, and helps fight dangerous infections, especially in children.

### Daily Dose of Zinc

Two billion people worldwide do not get enough zinc in their diet. A diversified diet consisting of vegetables, fish, meat and dairy is fundamental to healthy development. But in many parts of the world, rice or grains alone make up 70–80% of the daily diet.

### Zinc for Growth

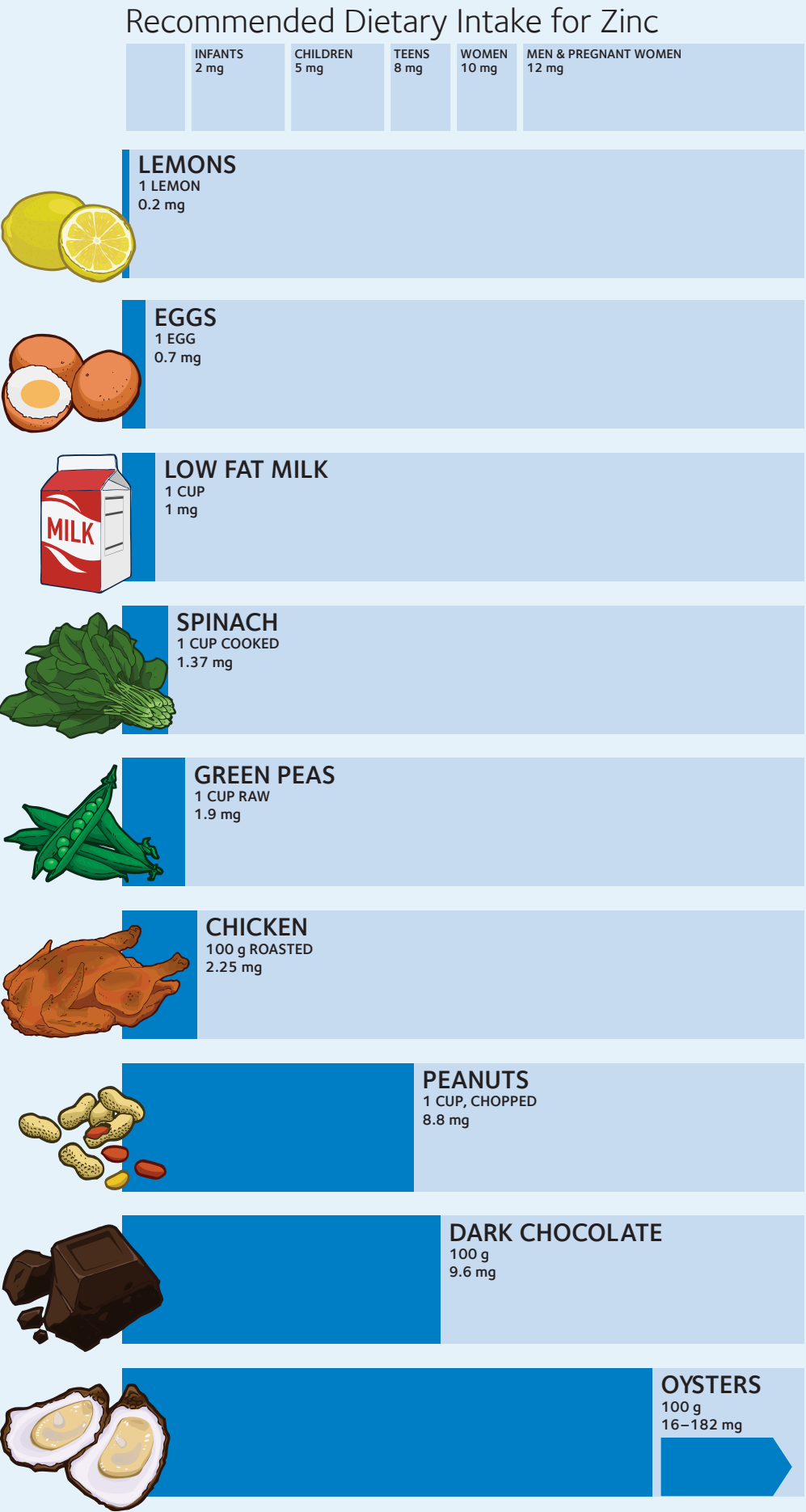
Stunting is a key indicator of malnutrition in children. Stunted growth indicates that a child is not properly nourished, which can lead to permanent delays in brain function. Globally, 26% of children under five years old are stunted, amounting to 165 million children worldwide.

### Boosting Nutrients

Food fortification is the simple and cost-effective practice of adding essential vitamins and minerals, such as zinc, to wheat, maize and rice to improve nutrition. Fortification provides a boost of nutrients without the consumer having to change their consumption habits. This leads to improved health, increased productivity and overall benefits to a country's economy.

### Scaling Up Zinc

Since 2012, Teck has partnered with the chemical company BASF to scale up access to zinc-fortified staple food products to improve the nutrition of people at risk of zinc deficiency. To date, the partnership has reached 100 million people worldwide.



### 1. Zinc Extraction

The food fortification process begins with the extraction of high-quality zinc at Teck's Trail Operations in southeastern British Columbia.

### 2. Zinc Oxide

From Teck, the high-quality zinc is sent to GH Chemicals in Montreal, Canada, where it is processed into zinc oxide. Zinc oxide is a white, odourless powder that is used for pharmaceutical products, including lotions, sunscreens and dietary supplements.

### 3. Premix

The zinc oxide is sent from GH Chemicals to premix companies in Germany, China and Mexico. Premix is a blend of vitamins and minerals, such as calcium, iron and folic acid, that are added to flour in the milling process or used to make fortified rice kernels. Premix does not affect taste, smell, texture or baking quality.

### 4. Food Producers

Premix is sold to flour, rice and maize producers in countries where food fortification is mandatory due to large-scale micronutrient deficiencies.

### 5. Food Products

Zinc-fortified staple food products made from flour, rice and maize are sold to consumers in areas where micronutrient deficiencies are widespread.

