Malnutrition in the Early Years

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In brief

Healthy nutrition is vital for young children’s development. What pregnant mothers, babies and toddlers eat and drink has lifelong impacts on their health, brain development and future eating behaviours. Yet millions of young children suffer from malnutrition, which includes being undernourished, obese or lacking key micronutrients. While some policy solutions exist, bolder experimentation and action are needed.

3 THINGS TO REMEMBER

- Malnutrition in all its forms can lead to lifelong problems, from poor brain development to chronic health issues.
- Undernutrition is still widespread while obesity is surging, leading to a ‘double burden’ in many countries.
- Policies like fortifying staple foods and encouraging breastfeeding can be effective, but policymakers don’t yet have all the answers.
What do we know?

Malnutrition is affected by several different factors, from diet and lifestyle to our genetic makeup. Nutritional problems in early life are directly connected to long-term issues.

This starts during pregnancy. When pregnant mothers don’t consume enough food or get enough specific micronutrients, like zinc and iron, their children are more likely to develop cognitive delays, attention deficit and psychiatric disorders.1

Following birth, exclusive breastfeeding provides children the vital nutrients they need, and greatly reduces the risks of infections and chronic diseases.2 Stunting, or impaired growth, which is linked to poor early nutrition, hampers children’s cognitive development and long-term health.3

When young children start eating solid foods, diet remains essential. Undernutrition doesn’t just include a lack of calories but the “hidden hunger” of micronutrient deficiencies. This can lead to poor growth, weakened immunity and tissue development, poor health, and risk of death.4 Important nutrients, such as protein, provide the building blocks in the brain for key processes like the growth of cells.5

Meanwhile, being overweight in the early years significantly increases the risk of obesity, hypertension, diabetes and other metabolic disorders in later life.6 This transfers across generations: parental obesity makes it more likely that their children will be obese, thus increasing the chances for their children.7

In numbers

1 in 3 children under five are undernourished or overweight globally8

21% chance of a severely obese two-year-old having a healthy weight at 359

340 million children under five suffer from micronutrient deficiencies globally10
Why does it matter?

Malnutrition affects a huge proportion of young children around the world. At least half of children under five suffer from one or more micronutrient deficiencies, and one-third are either undernourished or overweight. Malnutrition affects a huge proportion of young children around the world. At least half of children under five suffer from one or more micronutrient deficiencies, and one-third are either undernourished or overweight.11

This is not only hampering young children’s development: it is costing lives. Each year, over 400,000 young children die due to zinc deficiency,12 while more than one million child deaths are attributable to stunting.13

Malnutrition does not affect all children equally: it tends to occur primarily in families confronting poverty, with risk factors like poor feeding practices and inadequate healthcare.14

Economic growth and social interventions have begun to reduce undernutrition in the last two decades, albeit slowly.15 Obesity, however, is increasing at an alarming rate, meaning many countries have the ‘double burden’ of dealing with both undernutrition and overnutrition.16

In Africa, for example, where rates of stunting remain high, the number of obese children under five nearly doubled between 1990 and 2014.17 Obesity’s overall impact on the global economy is already estimated to be $2 trillion, or 2.8% of global GDP – around the same cost to healthcare as smoking or armed conflict.18

**KEY ISSUES**

- Breastfeeding
- Obesity
- Poverty
- Stunting
What can policymakers do?

Malnutrition is complex and requires comprehensive action. Importantly, caregivers like parents play a vital role in what and how they feed young children. Supporting them requires action from governments as well as the food industry itself.

Many countries and institutions are scaling promising interventions with the support of the Scaling Up Nutrition (SUN) movement, a collaboration of 61 countries and four Indian states, along with businesses, UN agencies and international donors.21

Here are some interventions with potential:

- **FORTIFY STAPLE FOODS** like flour, rice and salt with micronutrients such as iron, iodine, folic acid and zinc. These products must be regulated, and given support to become competitive.20

- **ENCOURAGE BREASTFEEDING** by giving mothers active support in the community and in the workplace. Read our Breastfeeding Policy Brief to find out how.

Amsterdam is integrating obesity prevention into its home-visiting health system for parents and infants. Midwives and nurses identify risk factors for obesity, such as maternal health, then offer tailored support like dietary advice. The city’s obesity drive cut overweight and obesity in school-age children by 12% from 2012 to 2015, but not yet for under-fives.25

- **TAX UNHEALTHY PRODUCTS**, like Mexico’s 2014 sugary drinks tax, which reduced purchases by 7.6%.22 However, evidence of its direct impact on obesity has been limited.23

- **SUBSIDISE HEALTHY FOOD** options and improve access. It must be combined with other interventions, though: studies show access alone does not boost healthy eating.24

- Integrate support and advice on nutrition and exercise into **HEALTH AND EDUCATION SERVICES** for young children, such as in health visits, nurseries and childcare centres.

- Improve nutritional choices with context-relevant **BEHAVIOURAL CHANGE** interventions, from national campaigns to targeted programmes.

Despite these policy ideas, there isn’t yet a definitive set of interventions to deal with all types of malnutrition. In particular, attempts to decrease obesity in young children have achieved mixed results, with the evidence base still unclear.26 More action and experimentation is needed.
CASE STUDY

Nutrition games in Indonesia

IMPROVING DIETS BY CHANGING BEHAVIOURS

HOW DOES IT WORK? Working with the Indonesian government and the London School of Hygiene and Tropical Medicine, the Global Alliance for Improved Nutrition (GAIN) developed “emo-demos” (“emotional demonstrations”) in targeted communities. These interactive games help mothers associate positive nutritional behaviours, such as breastfeeding, with strong emotions. This was combined with a national mass media campaign, including television and social media, promoting messages like the importance of eating a balanced diet.

"The problem was not knowledge, it was actually behaviour."
- Ravi Menon, Indonesia Country Director at the Global Alliance for Improved Nutrition (GAIN)

THE PROBLEM: In the East Java region, more than 40% of children under five suffer from malnutrition.27

THE SOLUTION: National TV commercials and targeted interactive "emo-demo" games in communities.

THE IMPACT: Exclusive breastfeeding increased by 14%, and 13% more toddlers consumed diverse diets.28 250,000 women have been reached so far.29

Focusing on the East Java region, with a high population of malnourished under-fives, GAIN’s work has focused on five issues: anaemia during pregnancy, low breastfeeding rates, un-diverse diets for young children, unhealthy snacks and poor sanitation.

Along with a national mass media campaign, the intervention looked to change behaviours through "emo-demo" sessions in local communities. Rather than handing out instructions, the aim of these games is to engage mothers emotionally. For example, blue lights are used to highlight bacteria on mothers’ hands, giving them a feeling of disgust which compels them to wash it off with soap.

So far, the programme has reached more than 250,000 women in East Java and is being expanded to more districts. An independent evaluation found that children aged 6–23 months were significantly more likely to achieve minimum dietary diversity and consume iron-rich foods, while rates of breastfeeding also increased.30 Anaemia during pregnancy hadn’t yet improved, but that intervention had been active for 12 months, whereas the other four focus areas were evaluated over a two-year period.

Indonesia’s national efforts have helped the rate of stunting start to drop in recent years.31 Though much more work needs to be done, this has been made possible by high-level political support: every district has to report on progress to central government.
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