Healthy diets, the double burden of malnutrition and COVID-19

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Impact of unhealthy diet

• ...responsible for more deaths than any other risks globally, including tobacco smoking...
• Unhealthy diets contribute to ever increasing rates of overweight and obesity and to several directly and/or indirectly via increased body weight including type 2 diabetes, certain types of cancers, dental caries and cardiovascular diseases which are now the number one killer in the world
Impact of unhealthy diets

Unhealthy diets, together with malnutrition in all its forms, have been identified as the leading risk factors for the Global Burden of Disease (GBD) and death by the last 2 GBD analyses.

Source: Lancet, Sept 2017

GBD 2016


UNICEF/WHO/World Bank Group
Joint Child Malnutrition Estimates (2020)

Source: WHO (Nutrition in universal health coverage, 2019)
Rising rural BMI: A main driver of the global obesity epidemic in adults

Africa and Asia bear the greatest share of all forms of malnutrition (in 2019)

More than half of all **stunted** children under 5 lived in Asia and two out of five lived in Africa.

More than two thirds of all **wasted** children under 5 lived in Asia and more than one quarter lived in Africa.

Almost half of all **overweight** children under 5 lived in Asia and one quarter lived in Africa.

Impact of COVID-19

Estimated increase in wasting prevalence would account for 18-23% of additional child deaths per month.

Early estimates of the indirect effects of the COVID-19 pandemic on maternal and child mortality in low-income and middle-income countries: a modelling study

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Summary

Background While the COVID-19 pandemic will increase mortality due to mortality indirectly. In this study, we estimate the additional maternal and potential disruption of health systems and decreased access to food.

Methods We modelled three scenarios in which the coverage of essential care reduced by 9-8-15% and the prevalence of wasting is increased by 10-50%. We sought to reflect real-world possibilities, given emerging reports of the pandemic. We used the Lives Saved Tool to estimate the additional child deaths, in 118 low-income and middle-income countries. We estimated extraplated for 3 months, 6 months, and 12 months.

Findings Our three scenarios (coverage reductions of 9-8-15%) and would result in 253,592 additional child deaths and 32,909 additional: (coverage reductions of 39-35-30% and wasting increase of 50%) over 12 in child deaths and 56,790 additional deaths. These additional deaths in under-5 child deaths per month, and an additional 6% increase in maternal. Across our three scenarios, the reduced coverage of four childbirth interventions, antibiotics, and vaccines, and clean birth environments.

The increase in wasting prevalence would account for an additional 29% of additional deaths in the scenario 3 (greatest reductions) resulting in an additional 8450 maternal deaths and 310,300 child deaths per month. Country-specific numbers are provided in the appendix (p. 443).

Table 2 and Figure 2 show additional deaths compared with baseline deaths in a no-change scenario. Currently, there are approximately 24,500 maternal deaths and 43,160 child deaths per month in the 118 countries.

The additional maternal deaths would represent relative increases of 8.3% (scenario 1), 14.6% (scenario 2), and 17.3% (scenario 3) in maternal deaths per month. The additional child deaths would represent relative increases of 9.8% (scenario 1), 17.3% (scenario 2), and 44.7% (scenario 3) in child deaths per month.

Tables 3 and 4 show the contributions of individual interventions to total additional maternal and child deaths.

This ranking is driven by the country-specific baseline coverage of each intervention, by the assumed coverage reductions for each intervention in our scenarios, and by the strength of each intervention on averting mortality (based on intervention efficacy and underlying country-specific causes of mortality). The reduced coverage of four childbirth interventions (namely, parenteral administration of uterotonic, antibiotics, and vaccines, and clean birth environments, which reduce mortality due to postpartum haemorrhage, maternal sepsis, and eclampsia) would account for approximately 60% of additional maternal deaths (table 3). In children, an increase in wasting prevalence would account for 18-23% of additional deaths, depending on the scenario, while reduced coverage...
What should a healthy diet look like? What should be the dietary guidance?

Which is the priority?
Improving MIYCN (Global Nutrition Targets 2025)?
VS
Combatting NCDs (NCD targets 2025)?

Six Global Nutrition Targets 2025 (2012)

1. **Zero hunger**
2. **Zero stunting**
3. **Zero anaemia in women of reproductive age**
4. **Zero overweight in children under 5 years of age**
5. **Increase the rate of exclusive breastfeeding in the first 6 months up to at least 50%**
6. **Reduce and maintain childhood wasting to less than 5%**

Salt/sodium intake 30%

Raised blood pressure 25%

Diabetes/obesity 0%
A healthy diet according to WHO

- **Breastfeed** exclusively babies for the first 6 months and continuously breastfeed until two years and beyond

- **Energy** intake should **balance** energy expenditure

- Keep **total fat** intake to less than 30% of total energy intake, with a shift in fat consumption away from **saturated fats** to **unsaturated fats**, and towards the elimination of industrial **trans fats**

- Limit intake of **free sugars** to less than 10% (or even less than 5%) of total energy intake

- Keep **salt** intake to less than 5 g/day
  Eat at least 400g of **fruit and vegetable** a day
Translating into food-based dietary guidelines (FBDGs)

- Are tools for communication and education
  - promote desirable food consumption patterns
  - promote nutritional well-being
  - prevent and controlling diet-related diseases

- Should be based on scientific evidence on diet and health relationship

- Should be part of an integrated strategy to improve food security, nutrition and health

- Serve as a tool for implementing food & nutrition policies & programmes

- Serve as guidance for food, agriculture, and trade policies
Healthy diets to maintain nutritional well-being during the COVID-19 pandemic

1. **Breastfeed infants and young children**
   - Infants should initiate BF in the first hour of life and exclusively breastfed for the first 6 months.
   - From 6 months of age, breast milk should be complemented with a variety of adequate, safe and nutrient-dense foods to complement BF, and BF should continue up to 2 years of age or beyond.
   - Salt or sugars should not be added to foods for infants and young children.
   - WHO recommends that all mothers, including those with confirmed or suspected COVID-19 continue to breastfeed as the benefits of BF outweigh any potential transmission of COVID-19.

2. **Eat a variety of foods**
   - To ensure a healthy and balanced diet, eat a combination of foods, including wholegrains (e.g. cereals such as wheat, barley, rye, maize or rice), tubers or roots (e.g. potato, yam, taro or cassava), legumes (e.g. lentils, beans), vegetables and fruit and foods from animal sources (e.g. meat, fish, eggs and milk)
   - A well-balanced and diversified diet provides good sources of micronutrients (vitamins and minerals) which are critical for a well-functioning immune system and play a vital role in disease prevention.
   - Thus far, there is no evidence that micronutrient supplementation for healthy populations can prevent or cure COVID-19.
   - When access to a variety of foods is limited due to COVID-19, options may be to:
     - look for available home deliver offers from local producers (esp. vegetables, fruits) or from shops
     - use some canned or frozen products which have a long shelf-life, where affordable and accessible, but need to:
       - Read nutrition labels and choose products lower in saturated fats, sugars and salt
       - Avoid products with industrially produced trans fats
       - Look for some key phrases – e.g. packed in water; unsweetened; no added sugars; no salt added; reduced sodium; no trans fats
       - Check the expiry date and be sure to use it before it expires
       - For canned foods: 1) Avoid cans with dents, bulges, cracks or leaks; 2) Wash cans before opening them
Healthy diets to maintain nutritional well-being during the COVID-19 pandemic

3. Eat less salt and sugars
   ➢ Limit the intake of salt
     • Diets high in sodium (including salt) increase the risk of high blood pressure, which lead to heart disease and stroke. Preventing these conditions related to CVD can help reducing the severity of illness from COVID-19.
     • WHO recommends consuming less than 5 g of salt per day (i.e. less than 2 g of sodium per day) for adults. For children, this recommended level of less than 5g of salt per in adults should be reduced based on their lower energy requirements.
   ➢ Limit the intake of sugars
     • Diets high in sugars have a greater risk of causing overweight or obesity, diabetes, heart disease and stroke, as well as an increased risk of tooth decay. People with pre-existing medical conditions (e.g. heart disease and diabetes) appear to be more vulnerable to becoming severely ill with COVID-19.
     • WHO recommends reducing the intake of free sugars to less than 10% of total energy intake and suggests a further reduction of the intake of free sugars to below 5% of total energy intake for additional health benefits.
     • Limit the intake of SSB including fruit juices, cordials and syrups, flavoured milks and yogurt drinks as they are high in sugars.

4. Eat moderate amounts of fats and oils
   • Eating too much fats, esp. unhealthy fats (i.e. saturated fats and trans fats), can increase the risk of heart disease and stroke. People with pre-existing medical conditions (including heart disease) appear to be more vulnerable to becoming severely ill with the COVID-19.
   • WHO recommends limiting total fat intake to less than 30% of total energy intake, of which no more than 10% should come from saturated fat and the consumption of trans fats should be limited to less than 1% of total energy intake.

5. Eat plenty of vegetables and fruit
   • Eat a wide variety of vegetables and fruit.
   • There is currently no evidence suggesting that food (incl. fresh vegetables and fruit) is associated with transmission of COVID-19.
   • Wholegrains, pulses, vegetables and fruits are important sources of dietary fibre, vitamins, minerals, plant protein and antioxidants. Fibre contributes to a healthy digestive system and enhances the feeling of fullness, which helps to prevent overeating.
   • Before eating vegetables and fruit, wash them thoroughly with safe and clean water, as should be done under any circumstance, especially if they are going to be eaten raw.
Healthy diets to maintain nutritional well-being during the COVID-19 pandemic

6. *Eat family meals when possible*
   - The COVID-19 pandemic is providing new opportunities to have family meals and strengthen family relationships. Family meals are an important opportunity for parents to be role models for healthy eating. Continuous nibbling and snacking between meals, particularly of energy-dense, processed foods, should be discouraged as it could contribute to unhealthy weight gain in periods of confinement.
   - Increased time at home presents opportunities to involve children in healthy meal preparation including good food safety practices (i.e. hand washing, cleaning surfaces and avoiding consumption of certain raw ingredients).

7. *Drink enough water every day*
   - Approximately 2 litres per capita per day (i.e. 6 – 8 glasses per day) can meet hydration needs of adults although actual quantities needed for health vary widely according to climate, activity level and diets. Life stage will also influence quantities needed (e.g. increased amounts needed during pregnancy and lactation).
   - Drinking water instead of SSB helps to avoid high intake of sugars and excess calories which contributes to unhealthy weight gain and NCDs.
   - The COVID-19 virus has not been detected in drinking-water and existing WHO guidance on the safe management of drinking-water applies during the COVID-19 pandemic.

8. *Avoid drinking alcohol during the COVID-19 pandemic or drink less if you drink*
   - The use of alcoholic beverages is associated with health risks and can lead to the development of alcohol use disorders and other health conditions due to intoxication, toxicity or other long-lasting effects.
   - Regular heavy drinking can lead to malnutrition which in turn can result in liver damage and impaired liver function.
   - The use of alcohol can impair judgement and behaviour and this, in turn, can interfere with the ability to take precautions to protect against infection, such as compliance with physical distancing or hand hygiene required to prevent COVID-19.
   - There is no evidence that drinking alcohol protects from viral or other infections. Rather, the harmful use of alcohol is associated with an increased risk of infectious diseases and/or worse treatment outcomes.
   - During the COVID-19 pandemic and quarantine measures, avoid using alcohol as a way of dealing with fear, anxiety, boredom and social isolation.
WHO’s work ahead (2020 – 2021)

Leadership

Developing guidelines for improving food environment and promoting healthy diets

- Improving food environment:
  - Nutrition labelling policies
  - Marketing policies
  - Fiscal policies
  - School f & n policies
  - Trade & investment policies

- Promoting healthy diets
  - SFA/TFA, PUFA, total fat, CHO, non-sugar sweeteners
  - Dietary patterns
  - Use of low sodium salt

Developing policy/guideline implementation tools

- FOPL guiding principles
- Marketing tools (jointly with UNICEF)
- SSB taxation tools (jointly with EURO & HP)
- TFA elimination (REPLACE, food analysis lab protocol)
- Sodium reduction – global sodium benchmark
- Public food procurement action framework
- Global nutrient profile model

Support adoption & implementation of guidelines and policy actions

Through

- 3-level aligned support
- Regulatory capacity strengthening

Dialogue with industry (IFBA) to facilitate reformulation of products to reduce sodium content

Global Goods

- Improving nutrition
  - Management of childhood obesity
  - Management of acute undernutrition
  - Complementary feeding
  - RUTF
  - Nutrient requirements for children aged 0 – 36 months
Policy measures for promoting healthy diet (in 163 countries)

Policy measures for promoting healthy diet
(in 163 countries)

- Countries in all regions are implementing policy measures, but regional variation is large.

Key take home message

- Good nutrition is important for health and well-being

- Healthy diets can help:
  - support the body’s immune system
  - fight infections
  - protect against:
    - all forms of malnutrition – undernutrition, vitamins and mineral deficiencies, overweight and obesity
    - NCDs – diabetes, heart disease, stroke and cancer

- People with pre-existing conditions (i.e. NCDs) should take extra precautions to protect themselves from COVID-19 as evidence thus far suggests they are more vulnerable to becoming severely ill with the virus

Promoting healthy diets to maintain nutritional well-being is critically important than ever in the fight against the COVID-19 pandemic.