Optima Nutrition

Developed by the Optima Consortium for Decision Science, the Burnet Institute and the World Bank

Optima Nutrition is a quantitative tool that can provide practical advice to governments to assist with the allocation of current or projected budgets across nutrition programs. The model contains a geospatial component to determine funding allocations that minimize stunting, wasting, anaemia or under-five mortality at both the national and regional levels.

The model has a flexible intervention set that includes a variety of vitamin supplementation programs, infant and young child feeding education, treatment of severe acute malnutrition, treatment and prevention of diarrhoea, fortification of foods, water sanitation and hygiene (WASH), family planning and malaria prevention interventions.

Key questions addressed

• How can a fixed budget be allocated across programs and geographical regions to minimize malnutrition and associated conditions?

• Which programs and geographical regions should receive priority additional funding, if it were available?

• How might trends in undernutrition change under different funding scenarios?

• How close is a country likely to get to their nutrition targets:

    -With the current volume of funding, allocated according to current expenditure?

    -With the current volume of funding, reallocated optimally?

•What is the minimum funding required, if allocated optimally, to meet the nutrition targets?

Figure 1: How can an additional US$10 million be optimally allocated across regions and programs in Bangladesh to minimize stunting?
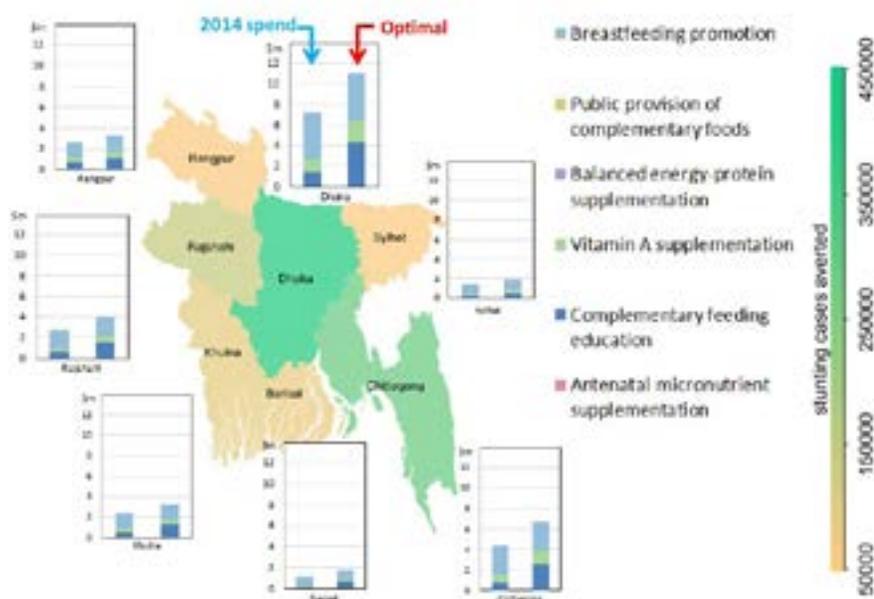
How does this help nutrition decision making?

The Optima Nutrition model can be of value to country stakeholders in several ways:

• Determining the optimal allocation of nutrition budgets for different levels of total funding.

• Projecting medium- to long-term impacts of current investments.

• Providing confidence among donors and stakeholders that funding is being used in a way that maximizes impact.

• Through its integrated analysis of long-term financial implications, the Optima Nutrition tool can make the case for appropriate domestic investment.

What indicators does it use, and what are the data needs?

The model requires setting-specific data on stunting, wasting, anaemia, diarrhoea, exclusive breast-feeding and demographics (population sizes, poverty), all of which are generally available from Demographic and Health Surveys or online sources (e.g. UN Population division). For each program being considered in an analysis, additional data typically needs to be sourced or estimated on the existing coverage of the program (proportion of the target population reached) and the cost per person reached (inclusive of commodity costs, delivery costs, staffing and infrastructure). Program coverage and cost estimates have the option to differ by delivery modality, or to include fractional costs where delivery platforms are shared.

What technical resources are needed and how long does it take to implement this tool?

To get the most out of an Optima Nutrition analysis, national finance/economic experts, monitoring and evaluation experts and other partners should run the model jointly with trained experts from the Optima Consortium and associated development partners. We advise that key development partners should be engaged in this analysis for joint ownership of the results. Regular training workshops are planned, targeted to representatives of Ministries of Health to facilitate model use or a collaborative analysis process.

Data availability varies between countries and there is flexibility for shortening or extending the process in line with requirements and availability of key in-country participants. Time and technical assistance needs can range from one to four months depending on the level of stakeholder engagement.

What are the strengths and limitations?

Strengths: Optima Nutrition can provide quantitative evidence for the prioritisation of nutrition programs in the context of limited funding. The model can also assist with the development of investment cases and national planning.

Limitations: The model is heavily influenced by the effect size estimates of each program, which are obtained from the sparse (but growing) academic literature and are not always setting-specific. Analyses also require estimates on the costs of scaling up interventions, which have inherent uncertainties.

Contact us:

CNM Secretariat

https://www.nyas.org/programs/consortium-of-nutrition-modelers/   Financial support from

The Sackler Institute
for **Nutrition Science**
The New York Academy of Sciences

BILL & MELINDA
GATES *foundation*