



Welcome

Data is Power

Pause and look around you. Data is everywhere.

From social media and navigation maps to mobile phone apps counting calories, robots fighting climate change and governments forecasting flu outbreaks using Google, data has transformed our society in unprecedented ways. The ongoing data revolution is increasingly shaping how we create, think, collaborate and act at an individual, institutional and administrative level. In his seminal book *The Data Revolution: Big Data, Open Data, Data Infrastructures and Their Consequences*, Rob Kitchin encapsulates how data now flows as a deep and wide torrent, is low in cost, is supported by robust infrastructures and is increasingly open and accessible.¹

While this global revolution is underway, data in nutrition lags behind. The frontline health worker on the cover of our magazine, manually inputting data into piles of registers, is an all-too-common sight in the developing world. The 2018 Global Nutrition Report affirms that “there are still vast gaps in the data available to help us better understand the nature and extent of malnutrition in all its forms. Many countries do not yet collect the necessary data to fully understand the nature of the burden of malnutrition, diet or indicators of progress.”² As we strive to end all forms of malnutrition by 2030, there is an urgent need to harness data to track progress, hold stakeholders accountable and foster rapid collaborations.

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So how do we unleash the power of data to achieve better outcomes for nutrition?

1. By stimulating ideas and providing key insights that enable us to identify and frame the issues to address.

The world is reeling from the triple burden of malnutrition. One billion people consume too few calories and are hungry, at least

3 billion don't have sufficient nutrients and over 2.5 billion consume too much³ – a compelling data point that helped reframe the entire discussion on nutrition and, subsequently, the development goals. The Millennium Development Goals (MDGs) that framed the nutrition challenge from 1990 to 2015 only in terms of “halving the proportion of people suffering from hunger”⁴ were reframed to “ending not just hunger, but malnutrition in all its forms”⁵ during the development of their successor, the Sustainable Development Goals (SDGs).

2. By employing robust data to inspire pledges and actions.

High-quality data providing the right inputs on the right indicators at the right time can galvanize decision-makers. Chattisgarh, a densely populated state in India, with a history of poor development indicators, performed spectacularly according to data collected by a national survey in 2016. It moved from being the state with the fourth worst proportion of stunted children to outscore the Indian average in just 10 years.⁶ This stellar data point galvanized the Government of India into setting similar targets for the entire country, as part of the National Nutrition Mission, which was released in 2018.

3. By tracking the right indicators to help us understand where we should start, in what are often very complex topics.

Low birth weight (< 2,500 grams at birth) is a critical marker for babies and also for women's health and wellbeing, both before and during pregnancy. A new study by the London School of Hygiene & Tropical Medicine, World Health Organization (WHO) and UNICEF has shown that there has been minimal progress on low birth weight reduction. At this rate, the world will fall short of the WHO target of a 30% reduction in the prevalence of low birth weight between 2012 and 2025. Unfortunately, however, 47 countries (including 40 low- and middle-income countries that account for almost a quarter of all births worldwide) have insufficient data. In the face of such a data vacuum, it becomes difficult to increase accountability and improve program decisions.⁷



The pervasiveness of mobile technology in low- and middle-income countries has been a major contributor to the ongoing data revolution

4. By developing institutional capacity to drive and implement data-led decisions.

A National Evaluation Platform (NEP) was set up in response to the United Nations' call for low-income countries to improve their capabilities in evidence-based decision-making in nutrition. The aim of this platform was to improve health and nutrition outcomes in women and children by strengthening the capabilities of government institutions to use data to guide related policies and programs. In the years that followed, multi-institutional teams in Malawi, Mali, Mozambique and Tanzania – countries that are diverse geographically, linguistically and epidemiologically – built their own NEP to increase the generalizability of the tools and lessons learned from the project. A team of faculty from the Institute for International Programs at Johns Hopkins Bloomberg School of Public Health (IIP-JHU) provided tools, training and mentorship to these teams as part of a capacity-building strategy that ensured the NEP was “country-led and country-owned.”⁸

These are just a few illustrative examples of the power of data for nutrition.

To take effective decisions and track progress, nutrition change agents around the globe need help answering key questions:⁹

- > What data is needed, and how can that data be effectively used, across global, national and subnational institutions?
- > What is the status of nutrition and food systems in particular geographies, and how can data be used to inform strategic planning and financial investment planning efforts?
- > What is the progress of particular programs and initiatives, and how can data be used to help track and improve their performance?
- > How can progress be measured and different parties be held accountable for systemic efforts?

The nutrition data value chain

Simplifying the relevant nutrition knowledge helps us process information and take important decisions. In this edition of our

magazine, we propose an end-to-end approach and examine complex challenges and innovative responses at every step of the value chain.

The data value chain, first proposed by the Data for Decisions to Expand Nutrition Transformation (DataDENT)¹⁰ initiative in 2017, describes the step-by-step process from identifying the data to be collected to using processed data to make evidence-based decisions. We briefly describe the links below:

- > **Prioritization:** Define priorities and standard indicators.
- > **Creation and Collection:** Generate high-quality national and subnational data.
- > **Curation:** Aggregate, structure and report field data.
- > **Analysis:** Synthesize data and build analytical tools and models to derive insights.
- > **Translation and Dissemination:** Translate into program and policy recommendations.
- > **Decision-Making:** Make evidence-based decisions and implement policy.

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In this issue

In this issue, we used the data value chain as the organizing framework and invited authors who are thought leaders and practitioners not just to highlight the challenges along each step of the value chain but also to offer viable solutions that are pushing the envelope.

Ellen Piwoz and Rahul Rawat, from the Gates Foundation, and Patrizia Fracassi and David Kim, from the SUN Movement Secretariat, take us through the data value chain and illustrate each link with country and global examples of progress and next steps. Gilles Bergeron from The New York Academy of Sciences lays out possibilities offered by modelling tools in *prioritizing* optimal investments in nutrition by policymakers.

Deepak Singhania and colleagues from Evidence for Policy Design (EPoD) address the *data creation and collection* component by highlighting the importance of administrative data and proposing a systemic strengthening of data collection procedures that can produce accurate and actionable information. André Laperrière and colleagues from GODAN and NNEdPro explore a method of producing and curating nutrition data that is openly available and accessible to other researchers. Roxana Elliott and colleagues from GeoPoll shed light on the power of

mobile platforms to collect data and present a practical guide for incorporating mobile methods into research.

Janosch Klemm and Saskia de Pee from the World Food Programme tackle the *data analysis* component by outlining an assessment tool that collates information from multiple sectors to help policymakers take evidence-based decisions to prevent malnutrition. Stephen Kodish from Pennsylvania State University explains how cultural domain analysis can be used by practitioners and researchers alike to generate ethnographic data for the culturally appropriate design and implementation of interventions.

Our colleague Anne Milan takes us through a practical journey of *translating* insights into powerful and visually appealing infographics. Renee Manorat and colleagues from the Results for Development Institute explain how data visualization tools could include more actionable indicators. Claudia Schauer and colleagues write about how sound technical guidance can inform decision-making for critical interventions. Jessica Fanzo, Associate Professor at Johns Hopkins University, explores the crucial but oft forgotten topic of considering ethics along the nutrition data value chain.

We also feature a range of scientific articles and field reports. In a thoughtful book review, Jonathan Steffen explores the power and also the potential dangers of big data. He also reflects on the evolution of the science of nutrition in an essay in the Nutrition in Literature series. The potential of partnerships, key lessons to be learned and the efforts required to make such partnerships work are themes explored in an account of an innovative public-private-private research partnership. This discussion reflects the consensus of GAIN, DSM, Unilever, JB Consultancy, *Sight and Life* and North-Western University, South Africa. In the Day in the Life article, we hear from innovator Shantanu Pathak and a frontline health worker, Papitha, whose day-to-day work, collecting lifesaving data, has been made simpler and more effective thanks to Shantanu's innovation.

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We truly hope that the contributions you read in this issue will give you the motivation and knowledge to ride the data revolution wave, and that they will enhance the important work you do in freeing the world of malnutrition. Godspeed!

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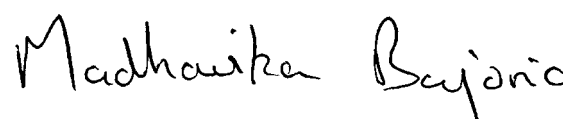
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With warm regards,

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