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Introducing a new monitoring manual for home fortification and strengthening capacity to monitor nutrition interventions

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Abstract

Lack of monitoring capacity is a key barrier for nutrition interventions and limits programme management, decision making and programme effectiveness in many low-income and middle-income countries. A 2011 global assessment reported lack of monitoring capacity was the top barrier for home fortification interventions, such as micronutrient powders or lipid-based nutrient supplements. *A Manual for Developing and Implementing Monitoring Systems for Home Fortification Interventions* was recently disseminated. It is comprehensive and describes monitoring concepts and frameworks and includes monitoring tools and worksheets. The monitoring manual describes the steps of developing and implementing a monitoring system for home fortification interventions, including identifying and engaging stakeholders; developing a programme description including logic model and logical framework; refining the purpose of the monitoring system, identifying users and their monitoring needs; describing the design of the monitoring system; developing indicators; describing the core components of a comprehensive monitoring plan; and considering factors related to stage of programme development, sustainability and scale up. A fictional home fortification example is used throughout the monitoring manual to illustrate these steps. The monitoring manual is a useful tool to support the development and implementation of home fortification intervention monitoring systems. In the context of systematic capacity gaps to design, implement and monitor nutrition interventions in many low-income and middle-income countries, the dissemination of new tools, such as monitoring manuals may have limited impact without additional attention to strengthening other individual, organisational and systems levels capacities.

Keywords

programme monitoring; capacity development; home fortification interventions; micronutrient powders; lipid-based nutrient supplements

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Conflicts of interest

The authors declare that there are no conflicts of interest.

Contributions

MEJ and RF conceptualised, designed, analysed and interpreted the paper. MEJ drafted the paper.

Introduction

Micronutrient interventions are some of the most cost-effective, evidence-based approaches to improve child undernutrition (Copenhagen Consensus Center 2012), and have an important place in supporting global movements and initiatives aimed at improving maternal, infant and young child nutrition, such as the Scaling Up Nutrition (SUN 2012) and the new World Health Assembly 2025 global targets (World Health Assembly 2012). Programmes must be well designed, implemented and monitored in order to achieve and sustain impact. Programme monitoring has a fundamental role in improving programme management, decision making and programme effectiveness, and global movements have highlighted the priority role of programme monitoring to achieve global targets (SUN 2012; World Health Assembly 2012).

In a 2011 global assessment, lack of monitoring and evaluation capacity was reported as a key barrier for home fortification programmes, which have increased substantially in number and scale during the last 5 years (UNICEF-CDC 2013). To help improve capacity, a manual for monitoring home fortification interventions was recently disseminated (HF-TAG 2013) and this is one of several monitoring manuals under development for micronutrient interventions that should be available in the near future, including manuals on wheat flour fortification and vitamin A supplementation for children 6–59 months. These manuals should be useful tools to assist the development and implementation of intervention monitoring systems and contribute to improved programme design, implementation and impact.

The purpose of this short note is to introduce the home fortification monitoring manual and provide a brief overview of the content and tools, as well as discuss the place of this tool within the broader needs for the development of nutrition and monitoring capacities.

A new manual to design and implement monitoring systems for home fortification interventions: a tool to support capacity development

Home fortification, also called point-of-use fortification, is designed to enhance the nutritional quality of foods for nutritionally vulnerable populations 6 months of age and older. Examples of home fortification products include micronutrient powders, lipid-based nutrient supplements and powdered complementary food supplements. The home fortification product is mixed into food before consumption and includes vitamins and minerals; and depending on the product, it may also include energy, protein, essential fatty acids, amino acids, enzymes and/or macrominerals (HF-TAG 2013).

The Home Fortification Technical Advisory Group (HF-TAG) was established in 2009; it includes members from the public, private, academic and nongovernmental organisation sectors with the mission of providing expert technical guidance on the development, implementation and monitoring of home fortification programmes. The HF-TAG recently released *A Manual for Developing and Implementing Monitoring Systems for Home Fortification Interventions* (HF-TAG 2013). It was written by the US Centers for Disease Control and Prevention (CDC) and a working group, which included members from United

Nations Children's Fund, World Food Programme, Helen Keller International, Sight and Life and the Global Alliance for Improved Nutrition. The manual was developed to address the need for technical guidance for developing and implementing monitoring systems for home fortification interventions. CDC convened a 1-day meeting in January 2011 to define the audience, scope and level of detail of the manual, as well as a draft manual outline. The meeting participants included staff of organisations that support or implement home fortification programmes, including United Nations and international donor agencies, international non-governmental organisations and universities in order to learn from their vast experience developing and carrying out home fortification interventions in multiple countries and contexts.

The intended audience for the manual are those who develop and implement home fortification programmes, or who provide monitoring technical assistance to these programmes. The format is comprehensive and describes monitoring concepts and frameworks, and includes monitoring tools. The manual uses a fictional example of an integrated home fortification and infant and young child nutrition programme to walk the user through the steps involved in developing and implementing a monitoring system (Centers for Disease Control and Prevention 1999). The manual also highlights considerations that might vary depending on the stage of the programme development or because of factors related to feasibility or sustainability of the monitoring system. Worksheets are also included for each step of developing a monitoring system that can be applied and adapted to develop a system for a specific country home fortification project.

Overall, home fortification programmes are relatively new interventions, and particularly for micronutrient powders, their design and delivery are heterogeneous (UNICEF-CDC 2013). There is little documentation available of programmatic home fortification interventions or their monitoring systems, when they exist. As a result, the manual is not prescriptive as might be expected for more mature interventions with decades of programmatic experience and operational research. The manual discusses general monitoring frameworks and tools and includes illustrative examples and applications to home fortification; the examples and concepts are not meant to be adopted without adaptation or consideration of the local project, capacities or context.

The manual is likely most useful to review when starting the intervention planning process, when the monitoring system is also being designed, and can be used for reference as needed when developing or designing specific aspects. While a reader new to monitoring might read all the chapters in sequence, an experienced reader might use it as a reference only to review the illustrative examples or specific sections, such as for the logic model, logical framework, data sources, indicators and indicator matrix or components of a comprehensive monitoring plan.

The manual includes eight chapters and seven appendices. The first chapter provides an introduction to the manual and background information on home fortification, the HF-TAG, and the purpose of the manual. Chapter two describes key concepts and background information on programme monitoring, including the use of frameworks to develop a monitoring system and the standards and attributes of an effective system. The remaining

chapters describe the steps to design and implement a monitoring system for a home fortification intervention. Chapter three explains how to identify and engage stakeholders for the intervention and monitoring system and how to develop a programme description including logic models and logical frameworks. Chapter four focuses on refining the purpose of the monitoring system, identifying users and their monitoring data needs, and describing the design of the monitoring system, including data collection methods and sources. Chapter five discusses how to develop indicators, including the use of logic models and logical frameworks for this purpose; an indicator matrix tool; and programmatic considerations when developing indicators specifically for home fortification programmes. Chapter six describes a comprehensive monitoring plan and the core components including the human resource needs and the processes for data collection, management, analysis, dissemination and use for decision making. Chapter seven considers factors associated with successfully scaling up monitoring systems as programmes expand and the sustainability of a monitoring system. Chapter eight is a summary of the steps to develop a home fortification monitoring system and includes worksheets and templates for each step that can be applied and adapted to a specific home fortification project.

Considerations for strengthening capacity to monitor nutrition interventions

The release of *A Manual for Developing and Implementing Monitoring Systems for Home Fortification Interventions* (HF-TAG 2013) aims to support monitoring capacity, which has been identified as a key challenge for home fortification interventions (UNICEF-CDC 2013). The purpose of strengthening and maintaining monitoring capacity is to improve the effectiveness and performance of monitoring systems and ultimately interventions; this involves building capacities at individual, organisational and systems levels. Tools, such as monitoring manuals, have an important role in helping to address some types of capacity gaps for monitoring, while recognising that many low-income and middle-income countries implementing home fortification interventions have systemic capacity gaps (Potter & Brough 2004). These go beyond specific knowledge or skill gaps and involve weaknesses at multiple levels, for example, in the administrative and organisational systems that limit the ability to make decisions, move information or resources, or effectively supervise (Potter & Brough 2004). As a result, the monitoring challenges identified may not be resolved simply with the development of new tools and would likely need to be addressed through additional efforts to systematically strengthen capacity at multiple levels. Because monitoring is one component of nutrition interventions and is linked to nutrition programme management and intervention processes (and often health system processes), monitoring systems depend on similar leadership skills, organisational structures and systems processes as other components of nutrition interventions. Thus, effective monitoring capacity development relies on and is linked with broader nutrition capacity development.

Capacity building conceptual frameworks published over the last decade describe multiple types of capacities required to effectively implement and scale up public health interventions (Potter & Brough 2004; Preskill & Boyle 2008; Baillie *et al*. 2009; Bourgeois & Cousins 2013; Gillespie *et al*. 2013; Shrimpton *et al*. 2013). These frameworks are useful for

building national public health nutrition capacity, including monitoring capacity, as well as for designing nutrition specific interventions. They describe the relationships and illustrate the interdependencies among capacities found at the individual, workforce, organisational and systems levels. Some areas of monitoring capacity development can be achieved in the shorter term through the development of tools, such as monitoring manuals, the *eCatalogue of indicators for micronutrient intervention programmes* currently under development by World Health Organization and CDC, or other technical tools; or by strengthening specific staff skills through direct technical assistance, trainings and networking at workshops, webinars or through web-based communities of practice. Other components found at the workforce, organisational and systems levels may be longer term endeavours and reflect broader capacities not limited to monitoring, such as the quality and availability of training at the undergraduate and graduate levels, availability of personnel, resources, governance, management structures and organisational systems, for example. The impact of new technical monitoring tools or skills will be limited in the context of weak organisational and systems capacities (Potter & Brough 2004).

Monitoring and nutrition capacity building should be country led and owned with the aim of continuous strengthening of capacities at the various levels (Bezanson & Isenman 2010; Shrimpton *et al*. 2013). Systematic assessments of national or regional capacities specific to public health nutrition or monitoring are valuable to understand existing capacities and gaps, and to plan effective strengthening of capacities over the short, medium and long term (Shrimpton *et al*. 2013). Regional capacity assessments and planning may serve as useful models with recent examples occurring in west Africa (Brown *et al*. 2010) and for South and Southeast Asia (UNICEF and European Union 2013).

Capacity development is a key component of global nutrition movements and goals (SUN 2012; World Health Organization 2013). The interest and support for the development of the home fortification monitoring manual (HF-TAG 2013), and others now under development, are a reflection of the importance of strengthening monitoring capacity, which is linked to nutrition and health systems broader capacity needs.

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Key messages

- A new manual to design and implement monitoring systems for home fortification projects was recently disseminated.
- The manual is comprehensive and describes monitoring concepts and frameworks, and includes monitoring tools and worksheets.
- The release of this manual is an important tool to address monitoring capacity gaps, a key challenge identified by home fortification interventions.
- The purpose of strengthening and maintaining monitoring capacity is to improve the effectiveness and performance of monitoring systems and ultimately interventions; this involves building capacities at individual, organisational and systems levels.