

Fortification Monitoring as a Lynchpin to Success: An innovative excel-based tool to collate national fortification data

Project Healthy Children is working closely with agencies in Malawi, Liberia, Burundi, and Zimbabwe to put in place a comprehensive fortification monitoring system.



“The [PHC] monitoring tool currently used for reporting on the quality of iodized salt has raised the monitoring of Universal Salt Iodization to a higher level. More importantly it has resulted in increased reporting by inspectors at border sites and market levels in Malawi.” Fortification Specialist, UNICEF

Addressing the Situation

In 2010, at the request of Malawi’s Office of the President and Cabinet, PHC began an assessment of the country’s capabilities and constraints at three levels of inspection (border, factory, and market). The goal:

- To evaluate the flow of monitoring information from all points of collection to ensure coordination of actors, accurate compilation of data, and timely adjustment; and
- To create a reporting system that could improve monitoring efficiency and compliance and be replicated across country programs.

Information gaps and uncertain reporting channels were found to be rampant among the country’s monitoring agencies with little collaboration between institutions and no place to house all data necessary to understand the status of program implementation. Lines of reporting and information hand-offs were clarified and documented. Areas of training and equipment were identified.

However, monitoring gaps are not unique to Malawi. Similar assessments were completed in Liberia, Burundi, and Zimbabwe with similar results presenting a clear need for a simplified means of accurately housing and acting upon collected data.

The Fortification Monitor

As a result, PHC designed a set of excel workbooks as a stand-alone platform to capture, analyze, and pictorially display monitoring results at the national level.

After a set of trainings, the excel workbooks are “owned” by the Ministry of Health (Malawi), National Standards Laboratory (Liberia), the Bureau of Standards (Burundi), or

Understanding the Situation

The monitoring of fortified foods is arguably one of the most critical components to any program, yet it is often given little focused attention, posing one of the greatest threats to programmatic success. Fortification programs often have weak quality assurance and control systems preventing managers from correcting program shortcomings before long-term impact studies occur. This costs time, money, resources, and lives.

Monitoring results ensure:

- Fortified products are on the market and nutrient levels fall within the adequate range per the national standard to have a measurable impact;
- Results are understood and acted upon both in terms of non-compliant producers and necessary program alterations.

The collection of fortified food samples is often shared among multiple agencies and individuals. For example:

- Market level collection by Ministry of Health (MoH) and Bureau of Standards inspectors
- Border level by Bureau of Standards, MoH, Revenue Authority, Ministry of Finance or Commerce
- Industry level by Bureau of Standards and / or Ministry of Commerce

In many cases, there is no mechanism in place to ensure clear inspector roles and responsibilities and to ensure the appropriate number of samples are collected, tested, and

The Fortification Monitor (con't)

The tool allows for the capture of data from borders, industries, and markets to quickly understand data gaps and issues of non-compliance. With adequate information available, problem areas (e.g. a particular brand or border station) can quickly be honed in on and addressed. Since it is easy to determine which areas have provided adequate samples and which areas have not, countries often see an increase in the motivation of district officers to submit samples on time, a necessary step in the establishment of a reliable and efficient food control system.

How it Works

The tool can be adapted to any country-specific situation and used for any fortified staple foods found in the country. Once adjustments are made for a country's districts, importers, brands, type and origin of product, company, and fortificant levels, all raw data is entered in one tab. Graphs automatically generate after raw data entry displaying number of samples collected and range of test result disaggregated by selected category.

Country-specific 'input' tabs

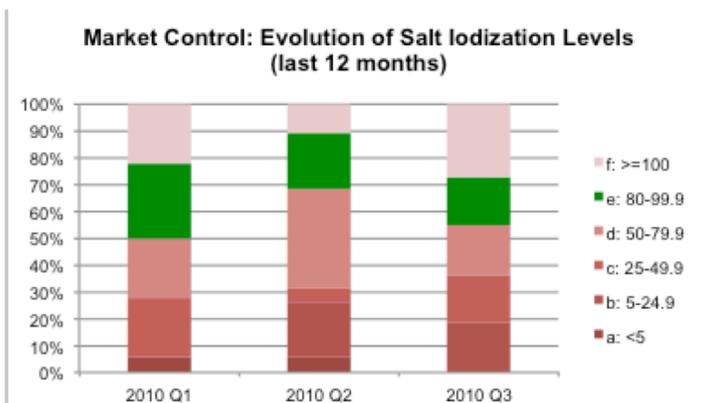
Before data is entered, the inputs tab needs to be adapted to the specific country situation. It includes information on staples being fortified, districts / counties where samples will be collected, and specifics related to source of each staple (import, brand, country, fortificant level, etc.).

Raw data

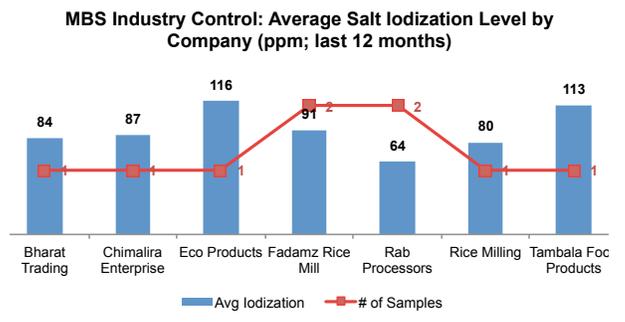
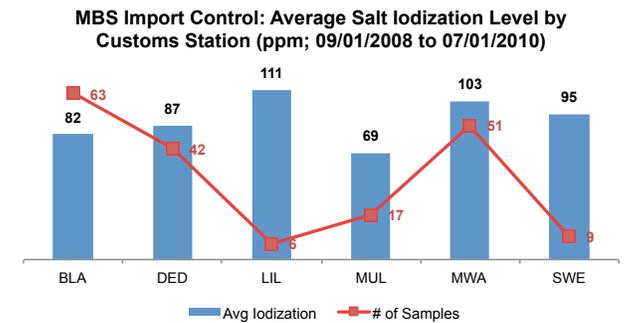
A trained individual where the tool is housed enters raw data collected from import, industry, and market level inspectors. This is the only point of data entry that is required by country staff.

Based on the entered data, graphs pertaining to compliance at the different levels are generated as seen over time, by number of samples collected, and by fortificant level found. The following charts are but a few of the graphical displays the tool can generate.

Graphical displays of compliance – by quarter



Graphic displays of compliance – by station and company
This graph displays number of samples collected at each custom station and company and their average iodization level. The number of samples collected is important to consider in relation to compliance levels.



Beyond Sample Collection

The hope is that this tool will allow program managers to understand quickly where data gaps and non-compliance issues exist so that action can be taken before impact is measured. This tool should be used as part of a broader fortification monitoring 'package' that includes:

- A clear picture of what is required from a budgetary perspective to ensure adequate inspector staffing and training required for fortification monitoring.
- Where applicable, a focused position within the government dedicated to addressing larger aspects of fortification monitoring post-implementation.
- The inclusion of fortification questions and appropriate analyses into HCES and / or other national food consumption surveys to understand how consumption, nutrient gaps, and usage patterns change over time to allow program adaptation.

About PHC

PHC is a US-based non-profit organization that provides technical assistance to governments in the design and implementation of national, mandatory food fortification programs. Past and current PHC countries of operation include Honduras, Rwanda, Malawi, Burundi, Zimbabwe, Liberia, Sierra Leone, Tanzania (small-scale) and Nepal (small-scale). For more information please contact Project Healthy Children at info@projecthealthychildren.org.