GLOBAL FORTIFICATION
DATA EXCHANGE

STAKEHOLDER CONSULTATION

Understanding the needs of partners and national implementers to make informed decisions about their fortification policies and programs

An in-country case study with Pakistan

15 July 2020

SPECIAL THANKS TO GAIN PAKISTAN FOR ORGANIZING THE CONSULATION AND CONSOLIDATING FEEDBACK IN THIS REPORT

www.FortificationData.org
Info@FortificationData.org

INTRODUCTION

Food fortification is one of the most scalable, sustainable and cost-effective interventions to combat micronutrient malnutrition.

Vitamin and mineral deficiencies affect people globally – impacting their health and limiting their ability to contribute to the economic well-being of their communities and countries.

The Global Alliance for Improved Nutrition (GAIN) and the Iodine Global Network (IGN) organized virtual orientation meetings in seven countries, to introduce the Global Fortification Data Exchange (GFDx) as a "one-stop shop" for harmonized data on fortification globally. The consultations were attended by representatives from government, development partners, donors, research and academic institutions, food regulators, and premix suppliers.

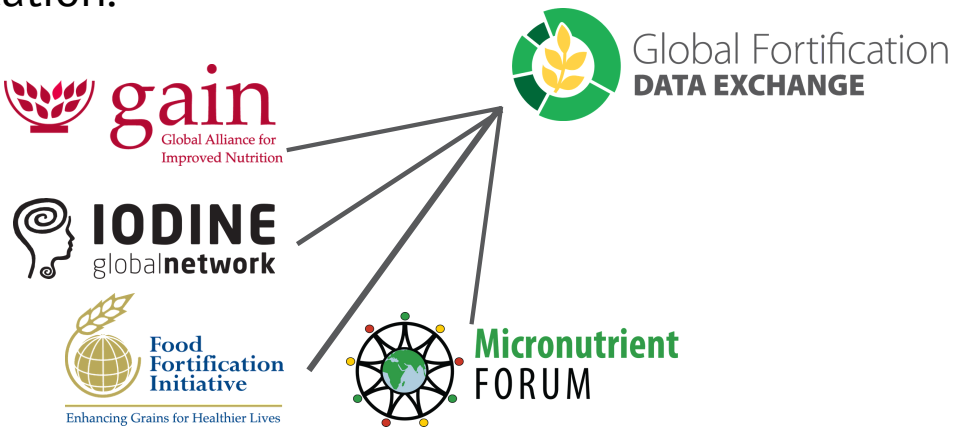
GOAL OF STAKEHOLDER MEETINGS

The goal during these virtual meetings was to get feedback on the GFDx platform from stakeholders, to understand their data needs and processes for decision making, and to find out how the GFDx website might be enhanced or refined to better support their decision-making processes.

RESPONDING TO A FORTIFICATION DATA CHALLENGE

During the first Global Summit on Food Fortification in Arusha, Tanzania, it was highlighted that there were many different stakeholders that collect and house data on fortification in different ways. There was no “one-stop shop” for harmonized data on fortification globally. As more countries began to adopt food fortification programs, stakeholders raised a call for better data accessibility to inform policy and identify populations in need, formalized in the 2015 Arusha Statement on Food Fortification.

As a response to this call for action, the Global Fortification Data Exchange (GFDx) was created, through a collaboration between various organizations: the Food Fortification Initiative (FFI), Global Alliance for Improved Nutrition (GAIN); Iodine Global Network (IGN), and the Micronutrient Forum (MNF), and supported by the Bill and Melinda Gates Foundation. Designed by the fortification community, the GFDx relies on the cooperation of both providers and users of data to help reach our aspiration for an improved data landscape in food fortification.



WHAT IS THE GFDx?

The GFDx is an online analysis and visualization tool for data on food fortification; it provides all the data necessary to track global progress on food fortification and to enable decision makers to use data to improve the quality of national fortification programs. The GFDx aggregates and visualizes data on five commonly fortified foods: **maize flour, oil, rice, salt, and wheat flour.**

The GFDx includes indicators on food fortification legislation from 1940 to present, fortification standards, food availability and intake, legislation scope, proportion of foods industrially processed, availability of regulatory monitoring protocols, fortification quality, health impact, comparison with WHO recommendations, and population coverage for 196 countries, among others. Within the GFDx site, users can generate custom maps, charts, tables, and plots or download data for offline analysis. The GFDx is continuously updated as new data and information become available.

WHERE DOES THE DATA COME FROM?

All data in the GFDx come from countries and national programs. Some had already been compiled globally, but independently managed, with separate databases for each food vehicle. Other important food fortification data only exist in national databases. Consolidating available data for the most commonly fortified foods allows national decision-makers to more holistically view their fortification programs, identify gaps, and make comparisons across foods and between countries. Importantly, compiling national and global data from various stakeholders and consolidating data sets across standardized indicators reflects collaboration and crosscutting partnership in the fortification sector to improve diets globally.

The GFDx represents a significant step forward in the effort to improve the availability, stewardship and presentation of fortification data. From non-profit organizations to governments to private industry, a broad range of actors must come together for fortification programs to be successful.

In thinking about this and the data value chain, the goal of the GFDx is to provide actionable information on fortification policies and programs that meets the diverse needs of stakeholders along the decision-making pathway

CONSULTATIVE DIALOGUES WITH IN-COUNTRY FORTIFICATION STAKEHOLDERS TO IMPROVE UPTAKE OF GFDx DATA

The GFDx was designed to empower governments, donors, implementing agencies, and other members of the global health and development community to reach populations affected by vitamin and mineral deficiencies with data-driven policy and programs. Despite global usage of the Global Fortification Data Exchange (GFDx) among various stakeholders (such as technical staff, academics, non-governmental organizations, donors and others) website analytics for the period between 2017-2019 demonstrate that usage is low among most low- and middle-income countries (LMIC).

To further increase usage and reinforce the value and use of the GFDx data for key stakeholders in-country for decision making, including governments, implementing agencies, and private sector partners to improve fortification programs, the GFDx held consultative dialogues with fortification stakeholders to better understand:

1. their processes for decision making regarding changes to fortification programs;

2. their data needs in order to facilitate discussions and decision making for fortification programs;

3. whether the GFDx meets those needs already, *or* whether a set of small tweaks/improvements to the site (in presentation of data, added visualizations or existing data as noted above) can be made to the GFDx to meet those decision-making needs; and

4. what emerges across country consultations and how do we integrate these elements into cross-country learnings.

TARGET STAKEHOLDERS

- Country stakeholders/key decision makers in government
- Regional fortification association stakeholders
- Development agencies or other implementing partners with broad presence and specific mandates in fortification
- Researchers/academic institutions
- National Fortification Alliance representatives
- Industry Associations/grain, salt, oil producers
- Civic associations that advocate for fortification such as consumer groups, parent associations and human rights groups
- Other fortification stakeholders and decision makers along the decision-making pathway

ATTENDEES

With the support of the GAIN Pakistan Office, the GFDx leveraged fortification stakeholder groups to better understand the data needs and their feedback on the GFDx platform.

Attendees included representatives from:

- Institute of Home and Food Sciences Government College University Faisalabad - Pakistan
- Pakistan Society of Food Scientists and Technologists (PSFST)
- Provincial Fortification Alliance (PFA) -Baluchistan
- Provincial Fortification Alliance (PFA) - KP
- Provincial Fortification Alliance (PFA) - Sindh
- Provincial Fortification Alliance (PFA) - Punjab
- National Fortification Alliance

KEY RECOMMENDATIONS

The following recommendations were considered important to the Pakistan Stakeholders group for improving the usage of GFDx database for programme discussions, reviews and decisions:

- **National level data is less helpful for Pakistan:** Our country is very different from others. The GFDx only shows national level data, but our data varies by province (such as legislation). We have the data collected. There is no province level data…once we have our province level legislation. Any data at the national level is not as useful. We encourage you to think about including data from provincial level, at leave for Pakistan where provinces operate very independently.

- **Linking with MIS systems:** We are in the process of developing the FortifyMIS which would give us more information about the processes, details and gaps in the country. It would make it easier to give data to the GFDx, instead of going to all the different provinces and NFA, you could just link to the FortifyMIS to get the data automatically.

- **Consumption/Demand-level data:** In Punjab we are working on legislation and we are always in contact with government (who are in contact with millers) and they are always asking for demand generation data, how much is the demand? So that we can estimate how much is needed to produce fortified staple foods. This would be incredibly helpful for us to provide a clear picture to the government.

KEY RECOMMENDATIONS (CTD.)

- **Subnational Level Data:** Coverage, legislation and monitoring data would be the most useful indicators at the subnational level. In terms of decision-making, these are priority because ultimately, they are tied to fortification in an area. This would be most helpful in budget and resource allocation. Particularly the administrative set up for Pakistan, where provinces are very independently managed. Even donors focus on certain areas over others; they tend to focus on state/province level/regional or sub-group decision-making and prioritizing budgets.

- **Documenting Country experiences and processes:** It would definitely help us when exploring new avenues for fortification, like new vehicles, to look at what and how it was done in another country with a similar context (e.g. similar geolocation, food consumption pattern, income level, governance).

- **Premix Procurement data and cost:** We have seen price hikes (30% more costly during COVID) this would definitely have an affect on producers and consumers. Especially during the lockdown situation, it is difficult. We have faced this issue for salt. For oil and wheat flour we have not had much issue, expect the initial 3-4 weeks of strict lockdown at the beginning. This would be difficult as it would need to be micro-level information. Same thing happened due to explosions in area; the prices hiked dramatically.

KEY RECOMMENDATIONS

"In [The GFDx], most of the global/national level data. But the more in depth it is, the better (like State of the World's Children). Many different ministries and departments contribute to these reports, which is why they are so thorough. The GFDx data comes from a very limited part of the sector (government and development organizations) these can contribute to the national picture, but if you got more players involved (industry, etc.) then you would get much more thorough information."
-Representative from the Provincial Fortification Alliance

"GFDx is an important tool for decision making and global understanding of fortification agenda. It also helps to showcase achievements of certain countries. It can create a positive competition to do better as a nation."
-Representative from the Provincial Fortification Alliance

"For Pakistan its easy-to-get subnational level, we only have 4 provinces. It may be easy for GFDx to show data. It is very important for decision making to get more granular. Its important for time, capacity and resource prioritization and decision-making."
-Representative from the Provincial Fortification Alliance

CATEGORIZING RECOMMENDATIONS

	MEDIUM PRIORITY	HIGH PRIORITY
WITHIN SCOPE		• Consumption/Demand-level data • Documenting Country experiences and processes: To help when exploring new avenues for fortification, like new vehicles, to look at what and how it was done in another country with a similar context
OUT OF SCOPE		• Subnational Level Data: Coverage, legislation and monitoring data would be the most useful indicators at the subnational level. • Premix Procurement data and cost. • Linking with MIS systems: Pakistan is in the process of developing the MIS which would give us more information about the processes, details and gaps in the country and could link and automatically update to the GFDx.

1. High Priority and Within Scope: The GFDx has the ability and resources to incorporate this recommendation now or in the near future.
2. High Priority and Out of Scope: The GFDx may fulfill this recommendation at a later time but the recommendation may require additional partners.
3. Medium Priority and Within Scope: The GFDx has the ability to complete this recommendation but may fulfill the recommendation at a later time with more resources.
4. Medium Priority and Out of Scope: The GFDx does not have the ability or resources to do this, but will consider this for future expansion of the GFDx.

CONCLUDING REMARKS

The Pakistan stakeholder group agreed on the usefulness of the database at a global level and possibly for other countries, and perhaps their own cross-country learning, but in terms of their decision-making process in Pakistan, they felt national-level data was less useful. Pakistan's provinces operate very independently. It was recommended that for countries with independent regions like states and provinces, that there be subnational-level data included. In fact, the stakeholders felt that it would only be necessary to get subnational level data on a select few indicators: legislation, consumption/coverage, and quality/compliance. Most of the other indicators remain unchanged.

The stakeholder group also thought it would behoove the GFDx to ascertain data from more than just development partners and the government, as they represent only a small proportion of the stakeholders involved in fortification.

As Pakistan rolls out the FortifyMIS, the Provincial Fortification Alliance stakeholders felt it would be good to link the FortifyMIS (province level data on compliance and quality) with the GFDx so that more granular data could be updated automatically. The full picture with this level of detail would provide a much stronger basis for decision-making.

ACKNOWLEDGMENTS

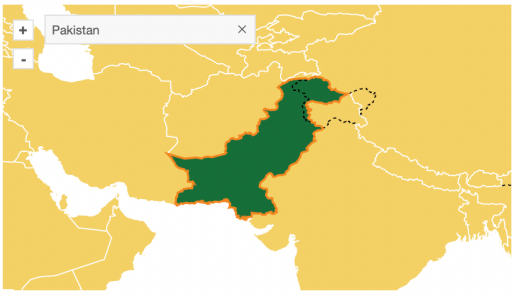
The GFDx team would like to thank the fortification community in coming together for this important meeting to discuss and identify how the GFDx can become beneficial and accessible to stakeholders involved with food fortification in Pakistan.

COUNTRY DASHBOARD

Last updated: 04-Feb-2021

Global Fortification DATA EXCHANGE

Pakistan Fortification Dashboard



(Click on Section Headings, Numbers, and Nutrients where you see the hand icon to view more information)

Maize flour

Fortification legislation status unknown

Nutrients in maize flour fortification standard in Pakistan
No fortification standards

0 Countries in Asia have maize flour fortification standards

Fortification opportunity for maize flour in Pakistan

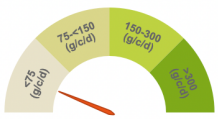
Population coverage of a food (whether fortified or not) represents the expected population that may benefit from fortification if it is implemented well. however, there are no data available on population coverage of maize flour in Pakistan.

Proportion of maize flour industrially processed

0.00 %

20 40 60 80 100 %

Source for industrially processed: Tausif Janjua, Nutrition International. Personal communication. Pakistan. 2017.



36.27
(grams/capita/day)
Daily food availability
[1, 3]

Oil

Mandatory Fortification since 1965 ✓

Source: Government of Pakistan. West Pakistan Pure Food Rules 1965 and the PSQCA Standards for Edible Oils. Pakistan. 1965.

7 Countries in Asia have legislation for mandatory fortification of oil

Legislation scope for oil in Pakistan	
Type of oil that must be fortified	All types (no exceptions)
Origins or destinations of oil that must be fortified	✓ Domestically produced ✓ Imported ✗ Exports
Intended use of oil that must be fortified	✓ Household ✓ Processed food ✓ Animal feed ✗ Donated food

Source: Punjab Food Authority, Government of the Punjab. Punjab Pure Food Regulations, 2018. Pakistan. June/2018.

Nutrients in oil fortification standard in Pakistan		
Vitamin A	Unspecified	11.70 mg/kg
Vitamin D	Unspecified	0.09 mg/kg

Source: Punjab Food Authority, Government of the Punjab. Punjab Pure Food Regulations, 2018. Pakistan. June/2018.

11 Countries in Asia have oil fortification standards

Fortification opportunity for oil in Pakistan

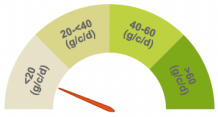
Population coverage of a food (whether fortified or not) represents the expected population that may benefit from fortification if it is implemented well. however, there are no data available on population coverage of oil in Pakistan.

Proportion of oil industrially processed

85.00 %

20 40 60 80 100 %

Source for industrially processed: Khawaja Masuood Ahmed, Ministry of National Health Services, Regulations and Coordination. Personal communication. Pakistan. 2019.



8.8
(grams/capita/day)
Daily food availability
[1]

Presence of monitoring protocols for oil fortification in Pakistan	
External monitoring of domestic production	Unknown
Import monitoring of imported food	Unknown

Source for external monitoring protocols: Not applicable

Source for import monitoring protocols: Not applicable

3 Countries in Asia with mandatory fortification of oil have external monitoring protocols

3 Countries in Asia with mandatory fortification of oil have import monitoring protocols

Oil fortification quality/compliance in Pakistan	
Oil in Pakistan that is fortified	68.00%

Source: Global Alliance for Improved Nutrition and Oxford Policy Management. Fortification Assessment Coverage Toolkit (FACT) Survey in Pakistan, 2017. Switzerland. 2018.

4 Countries in Asia have fortification quality/compliance data for oil

Oil fortification coverage in Pakistan

0 Countries in Asia have fortification coverage data for oil

Rice

Fortification legislation status unknown

Nutrients in rice fortification standard in Pakistan

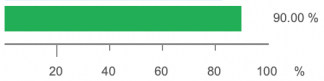
No fortification standards

5 Countries in Asia have rice fortification standards

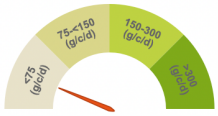
Fortification opportunity for rice in Pakistan

Population coverage of a food (whether fortified or not) represents the expected population that may benefit from fortification if it is implemented well. however, there are no data available on population coverage of rice in Pakistan.

Proportion of rice industrially processed



Source for industrially processed: Scott Montgomery, Food Fortification Initiative. Personal communication. United States of America. 2019.



46.85
(grams/capita/day)
Daily food availability
[1]

Salt

Voluntary fortification

Source: Pakistan Standards and Quality Control Authority. Pakistan Standard Specification for Iodized Food Grade Salt (2nd Rev), PS. 1669-2008 (ICS No. 67.220.20). Islamic Republic of Pakistan. 2008.

Several states of Pakistan have mandatory salt iodization legislation. This voluntary standard is national.

Nutrients in salt fortification standard in Pakistan

Iodine	Calcium iodate, potassium iodate, potassium iodide	30.00 mg/kg

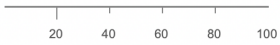
Source: Pakistan Standards and Quality Control Authority. Pakistan Standard Specification for Iodized Food Grade Salt (2nd Rev), PS. 1669-2008 (ICS No. 67.220.20). Islamic Republic of Pakistan. 2008.

38 Countries in Asia have salt fortification standards

Fortification opportunity for salt in Pakistan

Population coverage of a food (whether fortified or not) represents the expected population that may benefit from fortification if it is implemented well. however, there are no data available on population coverage of salt in Pakistan.

Industrial processing of a food represents the industry's feasibility to fortify. however, there are no data available on industrial processing of salt in Pakistan.



Source: From UNICEF database: UNICEF_Expanded_Global_Databases_Salt_HH_with_Salt_Jan_2018

9.9
(grams/capita/day)
Daily food intake
[2, 3]

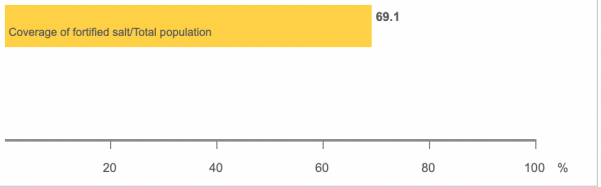
Salt fortification quality/compliance in Pakistan

Salt in Pakistan that is fortified	87.00%

Source: Global Alliance for Improved Nutrition and Oxford Policy Management. Fortification Assessment Coverage Toolkit (FACT) Survey in Pakistan, 2017. Global Alliance for Improved Nutrition: Geneva, Switzerland. 2018.

13 Countries in Asia have fortification quality/compliance data for salt

Salt fortification coverage in Pakistan



31 Countries in Asia have fortification coverage data for salt

Wheat flour

Fortification legislation status unknown

Nutrients in wheat flour fortification standard in Pakistan

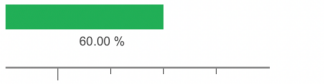
No fortification standards

23 Countries in Asia have wheat flour fortification standards

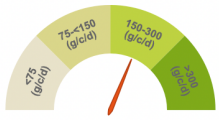
Fortification opportunity for wheat flour in Pakistan

Population coverage of a food (whether fortified or not) represents the expected population that may benefit from fortification if it is implemented well. however, there are no data available on population coverage of wheat flour in Pakistan.

Proportion of wheat flour industrially processed



Source for industrially processed: Scott Montgomery, Food Fortification Initiative. Personal communication. United States of America. 2019.



287.12
(grams/capita/day)
Daily food availability
[1, 3]

References

1. ***Food Availability (Total and Daily)*** *figures are from the most recent year available in the FAO Food Balance Sheets: http://www.fao.org/faostat/en/#data/CL/metadata.*
2. ***Daily Food Intake*** *for salt is from Powles J et al. BMJ Open 2013;3:e003733. doi:10.1136/bmjopen-2013-003733.*
3. ***Daily Food Availability/Intake*** *categories reflect WHO guidelines for the fortification of wheat and maize flour (http://www.who.int/nutrition/publications/micronutrients/wheat_maize_fortification/en) and for salt (http://www.who.int/nutrition/publications/guidelines/fortification_foodgrade_saltwithiodine/en).*

Notes

- ***Total Food Availability*** *refers to the total amount of the commodity available for human consumption during the year, whereas* ***Daily Food Availability*** *converts this volume into per capita per day estimates.*
- ***Daily Food Availability*** *can be considered a proxy for* ***Daily Food Intake****;* ***Daily Food Intake*** *is a measured estimate of human consumption, usually obtained through dietary surveys.*
- ***Year*** *noted refers to the year mandatory fortification legislation was originally passed.*
- ***Regions*** *reflect regional definitions by the World Bank: https://unstats.un.org/unsd/methodology/m49/.*
- *Industrial production of foods in manufacturing facilities is defined as: Oil – 5 MT/day rated capacity; Salt – 5,000 MT/year raw salt rated capacity; Rice – 5 MT/hour paddy processing rated capacity; Wheat and Maize Flours - 20 MT/day grain processing rated capacity.*