



SUMMARY

In 2014, the WFP Policy, Programme, and Innovation Division initiated a project to support Regional Bureaux and Country Offices in knowledge sharing through the documentation of a series of technical case studies in nutrition programming. The project was in response to numerous requests from programme and nutrition officers for examples of how WFP has implemented nutrition-specific and nutrition-sensitive interventions. The first phase of the project highlighted flour fortification in Egypt, local production of specialized nutritious food in Pakistan, nutrition-sensitive interventions in Ecuador and the Dominican Republic, and scaling-up nutrition interventions in Niger and Malawi. WFP headquarters sent officers to each of the countries to interview stakeholders, review programming documents, and visit implementation sites. The nutrition programmes were then summarized into these case studies, which focus on key success factors and lessons learned to date from each of the experiences. The project also developed a template and guidance for writing technical case studies in order to facilitate further documentation of other experiences. The goal in sharing these case studies is to commend the hard work and successes of WFP Country Offices, and to leverage the experiences to support nutrition programming globally.

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How WFP and the Government of Egypt Provide Micronutrients to over 60 Million Citizens

Overview:

Over the last two decades, the food and nutrition security needs of Egypt have changed as Egypt has moved from Low to Middle Income status. In response, the role of WFP in Egypt has shifted to less direct implementation of programmes and more capacity development and technical support. One example is WFP's support to the National Wheat Flour Fortification Programme of Egypt. With the primary objective of addressing the high population prevalence of anaemia, the programme reaches over 60 million Egyptians. WFP advocated for, launched and directly managed this programme until 2011. The Government of Egypt is now funding and managing the National Wheat Flour Fortification Programme and WFP continues to provide valuable technical support. An evaluation in 2013 confirmed that the programme has led to significant increases in the consumption of micronutrients by women of reproductive age. This case study provides lessons learned and recommendations for other WFP Country Offices supporting food fortification programs.

Key WFP Success Factors

- · Leadership with an innovative vision
- Strategic partnership for champion in Government
- Formation of a National Fortification Alliance
- Secured seed funding
- Ability to provide programming technical support

Baladi bread is the backbone of the Egyptian diet. Affordable, filling and ingrained into Egypt's culture, it forms a major part of the diet in many of Egypt's poorest households. That's why WFP and partners are enriching it with micronutrients to bring proper nutrition into the homes of over 60 million people.



Quick Facts:

- Egypt is a Middle Income Country with a population of 85 million people (2014).
- Anaemia has long been a public health problem, with 2005 prevalence values of 39.6% in children under five and 39% in women 15-49 years old.
- Since World War II, the Egyptian Government has maintained a food subsidy programme, including the wheat used to produce baladi bread.
- 76% of the Egyptian population consumes baladi bread.

Country Context

Nutrition surveys in Egypt have documented that micronutrient deficiency affects many Egyptians, especially children and pregnant and lactating women. According to the most recent national Egypt Demographic and Health Surveys of 2000 and 2005, the prevalence of anaemia has risen in recent years. Specifically, the prevalence of anaemia in pre-school aged children rose from 30% to 48% during that time. In non-pregnant, non-lactating women, prevalence rose from 26% in 2000 to 39% in 2005.

How big is the National Wheat Flour Fortification Programme in Egypt?

- 143 mills fortify their flour: 50% Government-owned and 50% Private.
- Every day, approximately 17, 000 MT of flour are distributed to 18,000 bakeries throughout Egypt.

Since World War II, the Egyptian government has maintained a country-wide food subsidy program including: wheat for use in baladi bread¹, tea, rice, sugar, and cooking oil. Baladi bread is available to and consumed daily in consistent amounts by over 60 million Egyptians regardless of economic status. Baladi bread is made from 82% extraction flour milled from wheat that is provided by the government to the mills at a subsidized price. From 1998-2000, the National Nutrition Institute carried out a feasibility and acceptance study of fortifying wheat flour used for baladi bread in the Fayoum Governate of Egypt. Results showed that fortification of the 82% extraction wheat flour was feasible and that consumers were highly accepting of the baladi bread made with the fortified flour. The existence of the nationwide baladi bread distribution system provided an opportunity to bring wheat flour

fortification to scale and provided a platform for distribution of micronutrients with enormous reach.

Programme overview

The Egyptian National Wheat Flour Fortification Programme officially started in 2008 and was managed by WFP until 2011. In 2011, WFP handed over administration of the programme to the Government of Egypt. Since that time, it has been operational with ongoing technical support from WFP and is fully managed by the Ministry of Supply and Internal Trade of the Government of Egypt. There was a phased scale-up of the programme to cover 25 governorates in Egypt and full coverage was achieved in early 2010. The implementation plan for the National Wheat Flour Fortification Programme included training, advocacy, and communication campaigns and a strong monitoring and evaluation system. The Global Alliance for Improved Nutrition (GAIN) provided seed money through WFP for the implementation of this nutrition-sensitive programme to address malnutrition, specifically anaemia.

Since the establishment of the National Wheat Flour Fortification Programme there have been periods of both political and economic unrest in Egypt. Changes in Government have led to a large turnover of senior staff in almost all ministries

Fortification levels in wheat flour for *baladi* bread:

The wheat flour is fortified at 30 parts per million (ppm) of iron in the form of ferrous sulphate and 1.5 ppm folic acid.

Key Steps in Development of the National Wheat Flour Fortification Program New WFP Country Di-Electronic Monitor-Handover of National NNI conducts rector and Deputy Seed funding ing and Evaluation Wheat Flour Fortification feasibility and from GAIN se-Country Director in Platform goes online Programme to Government acceptance study. Egypt cured of Egypt 2004 2006 2007 2008 2009 2010 2011 2012 2013 2014 NNI National Launched National Wheat Launch of National **Nutrition Survey** Flour Fortification Pro-Fortification Alliance gramme in Egypt

¹Baladi bread is a round, thin, traditional bread widely eaten in Egypt.



including the Ministry of Supply and Internal Trade and the Ministry of Health and Population. Nonetheless, the Egyptian National Wheat Flour Fortification Programme continues.

Getting to Success: How WFP supported the National Wheat Flour Fortification Programme of Egypt (2004 - 2014)

Key Success Factors for WFPs support to the National Wheat Flour Fortification Programme:

- Leadership with an innovative vision
- Strategic partnership for champion in Government
- Formation of a National Fortification Alliance
- Secured seed funding
- Ability to provide programming technical support

WFP leadership with an innovative vision

Over the last two decades, the food and nutrition security needs of Egypt have changed as Egypt's Gross Domestic Product (GDP) has increased and the country has moved from Low to Middle Income status. In response, in 2004, the WFP Egypt Country Office was reducing the direct implementation of programmes managed by WFP, and recognized that the nature of WFP's role in Egypt needed to evolve to keep pace with the changing needs of Government and the people of Egypt. The newly arrived senior management explored opportunities to support food and nutrition security beyond direct programme implementation. Recognizing that the Egyptian National Nutrition Institute was advocating for flour fortification with only limited success in generating interest, and noting the success of the global Flour Fortification Initiative² in supporting country food fortification programmes, the WFP Country Director built upon existing relationships with experts and positioned WFP to support fortification in Egypt. Furthermore, the incoming Deputy Country Director was able to contribute valuable nutrition technical advice. Together WFP senior management developed a strong single voice to move forward with a strategy for wheat flour fortification.

Through WFP senior management commitment to promoting flour fortification in Egypt, WFP leveraged its global standing to contract two internationally and nationally recognized expert consultants. The consultants were tasked with

designing a strategy for effectively initiating and implementing a flour fortification programme in Egypt that would have wide reach and population impact on nutrition, specifically anemia. The work of these consultants heightened credibility of the WFP proposed flour fortification programming, generated important data for advocacy, identified crucial partnership opportunities, and proved invaluable in programme advancement.

Strategic partnership for champion in Government

A key recommendation from the expert consultants was for WFP to form a strategic partnership with the Ministry of Supply and Internal Trade in Government instead of the more traditional entry point for nutrition programmes of the Ministry of Health. This recommendation was informed by the consultants' situation analysis, which found that the Ministry of Supply and Internal Trade was responsible for the National Food Subsidy Programme and the National Wheat Flour Fortification Programme would naturally complement the existing work of this ministry.

Though previous discussions around flour fortification had centered on the Ministry of Health, WFP took the advice of the consultants and approached the Ministry of Supply and Internal Trade with a proposal for flour fortification. WFP highlighted that nutrition surveys conducted by the Egyptian National Nutrition Institute showed a persistent and pervasive problem of anemia in the population and that flour fortification can be an effective strategy to combat anemia and other micronutrient deficiencies. Furthermore, WFP highlighted the results of the large feasibility and acceptance study that the National Nutrition Institute conducted in 2000, which suggested that fortifying flour for baladi bread was feasible and highly accepted and, therefore, would not adversely affect business. WFP also emphasized the business case surrounding the relatively small investment into fortification that could reap large benefits in economic indicators such as GDP because of improved nutritional status and improved productivity in the population. Convinced by the justification provided by WFP, the Ministry of Supply and Internal Trade agreed to partner with WFP and became an advocate in Government for the National Wheat Flour Fortification Programme. WFP's willingness to explore innovative partnerships was advantageous for advancing the National Wheat Flour Fortification Programme in Egypt.

²The Food Fortification Initiative (http://www.ffinetwork.org/), formerly known as the Flour Fortification Initiative, is a Public-Private-Civic partnership advancing fortification of grains globally.

Formation of a National Fortification Alliance

Another recommendation of the technical consultants was a proposal to create a National Fortification Alliance consisting of all partners and stakeholders. WFP catalysed the creation of this alliance by hosting and launching the National Fortification Alliance in 2006. The National Fortification Alliance included the National Nutrition Institute, the Ministry of Supply and Internal Trade (the lead ministry of the alliance), the Ministry of Health and Population, Ministry of Agriculture, Ministry of Education, the National Academy of Scientific Research, the National Research Centre, Ministry of Finance, Faculty of Medicine, Faculty of Agriculture, and private and public sector partners including Egyptian nutrition researchers and the Food Industry Holding Company³. WFP dedicated significant time and effort in forming an inclusive group of partners in the National Fortification Alliance; however, the investment was essential in advancing flour fortification in Egypt. The National Fortification Alliance set the national flour fortification action plan, policy guidelines, and budget. It also drafted proposals for funding, compiled research on benefits and feasibility of fortification and conducted trainings for programme supporters and implementers.

Subsequent to the work of the National Fortification Alliance, the Minister of Supply and Internal Trade, secured an appointment with the Prime Minister. Because of the collaboration forged among the partners of the National Fortification Alliance, the director of the National Nutrition Institute and WFP Country Office leadership also attended this high level meeting. The National Wheat Flour Fortification Programme proposal for the Prime Minister included: a) the results of the feasibility and acceptability study in Fayoum Governate (2000); b) the technical report of the two expert consultants, and c) the National Fortification

Key lessons learned from achieving political support:

- The importance of ensuring the appropriate technical persons (in this case external consultants) are involved in the process with full support from WFP senior management
- The understanding and creative use of WFP's flexibility in choosing a 'non-traditional' governmental partner (champion)
- The necessity of creating an alliance to support the programme
- The critical role of highest level government support

Alliance national plan for fortified flour. The Prime Minister approved the National Wheat Flour Fortification Programme proposal, and later it was approved by the Health Committee of the People's Assembly.

WFP secured seed funding

At the onset of planning for the National Wheat Flour Fortification Programme, the Egyptian government lacked the financial resources for implementing the programme. The cost of fortifying the flour of baladi bread in Egypt was approximately US\$4.5 million per year, a small cost compared to the overall baladi bread programme, approximately US\$2.5 billion per year. Nonetheless, this expense, to be bore by Government, was outstanding. WFP supported Government through a strategic alliance with a funding agency. WFP approached the Global Alliance for Improved Nutrition (GAIN) for funding and worked with the National Fortification Alliance to draft a proposal for GAIN. The proposal included: 1) the evidence and justification for flour fortification to address micronutrient deficiencies; 2) a supply chain study; and 3) a cost-benefit analysis of flour fortification.

WFP presented the proposal, and GAIN provided US\$3 million for initial set-up costs to launch the programme. With the seed money secured, Government agreed to contribute sufficient funds (US\$23 million) to run the programme for 5 years. To formalize a long-term commitment, Government, GAIN and WFP signed a tripartite Memorandum of Understanding defining the roles and responsibilities of each party and committing to the common goal of providing fortified wheat flour to the population of Egypt.

Ability to provide programming technical support

Coordinating role

Once programme implementation began, the National Fortification Alliance became even more important than during the planning stage because of its role as the coordinating body for the programme. The National Fortification Alliance set up social marketing, training, and monitoring and evaluation technical working groups to provide an organizational structure for programme implementation and to provide technical assistance. This structure permitted the National Wheat Flour Fortification Programme to begin within 2 years of the formation of the alliance. WFP played a leadership and execution role in each of these working groups. Because of WFP's constant

³Manages the government-owned mills

involvement since 2004 in the process of advancing the National Wheat Flour Fortification Programme, coupled with its role in obtaining seed funding and its recognized expertise in international tendering and procurement, the National Fortification Alliance assigned WFP the role of executing agency for the programme during the first three years of programme implementation (2008 - 2011).

The "Your food...Your Life" social marketing campaign



Primary Audience: Mainly women of childbearing age (18-40) and youth.

The behavioral change messages included:

- Sensitization on iron deficiency anaemia and the concept of hidden hunger.
- Healthy eating starts from pregnancy and continues throughout life.
- Healthy eating can be done on a limited budget.
- Malnutrition hinders the future of Egyptian children and the development of the country.

Channels of Communication inlcuded:

- TV Spots
- Radio Channels
- Newspapers

Advocacy and Social Marketing

Early in the implementation phase of the National Wheat Flour Fortification Programme, detractors raised fears around the fortification of wheat flour. WFP, along with key ministers from Government, addressed the concerns in the Egyptian parliament. As a result, the Government of Egypt released an official decree on the safety of the National Wheat Flour Fortification Programme, which successfully mitigated initial concerns.

Furthermore, with some of the seed money from GAIN, WFP developed a comprehensive communication strategy including advocacy and social marketing. The social marketing campaign, "Your food...Your life", aimed to induce behavioural change among the Egyptian society particularly those with little access to information regarding anaemia and micronutrient deficiencies. The

advocacy campaign included similar messages and was targeted at Government and stakeholders with the goal of sustaining investments in food fortification programmes. The key messages for the communication campaign leveraged data on the problem of micronutrient deficiencies in Egypt and the importance of wheat flour fortification to help reduce micronutrient deficiencies. The campaign focused on the causes and impact of iron deficiency anaemia, the significance of fortifying the baladi bread, and the importance of consuming iron-rich foods. As a member of the technical committee on social marketing of the National Fortification Alliance, the National Nutrition Institute of the Ministry of Health and Population developed and approved all messages.

Monitoring and Evaluation

The Ministry of Supply and Internal Trade initially used a paper-based monitoring system to track both the procurement of the wheat and the fortification of wheat flour within the mills. The size of the National Wheat Flour Fortification Programme, with 143 private and public mills participating, quickly made this paper monitoring system unwieldy. WFP and the Ministry of Supply and Internal Trade explored the feasibility of an electronic monitoring system. An Egyptian company developed an electronic monitoring system with WFP support, which went online in 2010. This electronic system permits the direct input of information from each mill and these data allow the Ministry of Supply and Internal Trade to make rapid course corrections, as necessary, and facilitate continuous programme support. This highly sophisticated system is now seen as one of the important developments of the programme. WFP and GAIN have showcased the system with other countries in the region as a good example of an electronic monitoring and evaluation system for food fortification programmes.

Training

The National Fortification Alliance created a policy regarding technical training and the Egyptian Milling Technical Center (part of the Food Industry Holding Company) conducted trainings of all personnel involved in the National Wheat Flour Fortification Programme. The trainings occurred at three levels: national, governorate, and locally at the mills. Laboratory technicians from the central laboratory, the Ministry of Supply and Internal Trade, and Ministry of Health and Population inspectors attended the governmental level training for quality assurance. These trainings were held in the premises of the health directorate in the respective governorate. The National Nutrition Institute and the National Research Centre

conducted quality control trainings at the mill level. The two groups jointly visited all participating mills on two occasions for quality control trainings and trained approximately 500 millers and inspectors. Mill managers, laboratory technicians, production managers, the Ministry of Supply and Internal Trade, and the Ministry of Health and Population inspectors attended these trainings.

Lessons learned from implementation:

- Importance of elaborating and implementing an appropriate and audience specific communication strategy to engage collaborators and persuade detractors
- Need to develop and implement a comprehensive training strategy at all levels to be able to complete and sustain programme
- Importance of a sophisticated and wellfunctioning electronic monitoring and evaluation system for a large scale programme

Summary

As of March 2011, as agreed to in the tripartite Memorandum of Understanding, the Government of Egypt assumed complete managerial responsibility for the National Wheat Flour Fortification Programme in the country. The transfer was facilitated by the commitment from Government at programme outset. The strong collaboration between WFP and Government ensured consistent communication and a strategy for the handover. WFP supported the Ministry of Supply and Internal Trade to develop the Follow-up Unit for Food Fortification, which is now the lead executing agency for the National Wheat Flour Fortification Programme. The WFP Country Office still provides continued support to the programme through such activities as technical assistance in preparing international tenders to procure additional premix from international providers and troubleshooting problems.

In 2013, as part of programme evaluation, an external consultant analyzed food consumption data using the Household Income Expenditure and Consumption Survey and compared it to data collected by the National Nutrition Institute on consumption from 2008. The results revealed that fortification contributed significantly to an increase in the micronutrient intake of women 15-49 years of age. Nonetheless, a number of challenges remain, such as maintaining the Government of Egypt's support for the program during financial

and political upheavals, and successfully reporting the health impact of the programme. Additionally, the high turnover of staff within Government challenges knowledge retention and may impact the continuity of the programme. Some new staff members are unaware of the dynamics of the National Wheat Flour Fortification Programme and specifically the use of the electronic monitoring and evaluation system. WFP's continued engagement through provision of technical assistance and concentration of knowledge is crucial for programme continuation.

The key success of the Egypt baladi bread initiative is that, via the assistance of WFP, the Government of Egypt capitalized on an existing food program to provide fortified bread to over 60 million citizens. Furthermore, the Government of Egypt has taken control of the National Wheat Flour Fortification Programme and has guaranteed financial support for 5 additional years. WFP helped accomplish these achievements by leveraging its global standing to engage international experts to clearly define the case for fortification in Egypt and develop a strategic implementation plan. The support to the Government of Egypt with flour fortification built upon WFP's comparative advantage in technical expertise and was aligned with a key component of WFP's Nutrition Policy: addressing micronutrient deficiencies. WFP obtained the initial funding for the National Wheat Flour Fortification Programme. The key support and leadership of Ministry of Supply and Internal Trade, a non-traditional partner in health and nutrition programming, was pivotal for programme approval and implementation. WFPs willingness to engage in innovative partnerships catalysed the National Wheat Flour Fortification Programme. The communication campaign of advocacy and social marketing garnered political and public support for the programme. The development of the electronic monitoring and evaluation system supported the smooth execution of this large programme. WFP's flexibility, innovation, and leadership have supported the Government of Egypt in responding to a serious public health problem through large-scale flour fortification.

Key success factors, lessons learned and recommendations

Tables 1 and 2 summarize the key success factors, main lessons learned, ongoing challenges and recommendations that were identified in the Egypt case study that can be applied to other fortification programmes.

Table 1:

Key success factors used in the WFP Country Office in Egypt and recommendations for applying them in other programmatic settings.

ACTIVITIES

Used by WFP Egypt to scale-up flour fortification

Or LESSON LEARNED

RECOMMENDATIONS

For applying success factors or lessons learned

Right Team at the Right Time

- The Country Office leadership had both technical expertise in nutrition and experience with food fortification. In addition, WFP Egypt strategically contracted specific required expertise.
- Because of scale of programme, the Country Office created both technical and managerial positions to implement the programme.
- Full engagement by senior management is crucial for success in novel programming.
- When developing and implementing a programme, examine the type of staff currently employed and look externally, if necessary, to assist with political, communications, or technical challenges.
- Look to staff office appropriately. Besides having a committed and dedicated team, consider the importance of having technical expertise, in particular, as part of your staffing plan (e.g. nutrition, food fortification, economics). Consider that project managers can be just as important, especially in larger programmes.
- If expertise in country is low, look to hire specific and strategic consultants with expertise in flour fortification, nutrition, etc. to assist team (look for Regional Bureau/ Headquarters advice on potential candidates).

Find the Right Champion

Consultants were hired to conduct research and worked with key stakeholders to find the right champion within the government.

Advocate and work with partners to determine right champion.

Consult with all relevant stakeholders to determine the best strategic partner or government ministry to help champion project and achieve success. Be innovative because the project champion might not be the Ministry of Health even for nutritionrelated issues, but in fact may be an outside partner or a different government ministry.

Form an Alliance

- Formed a National Fortification Alliance with key stakeholders.
- Used National Fortification Alliance to bring key partners on board.
- Used National Fortification Alliance to provide structure and organization to programme.
- Used National Fortification Alliance to conduct trainings and advocate for the programme as needed.

Form a strategic inclusive alliance involving all stakeholders.

- Alliance should be an inclusive group.
- If there is an existing nutrition-focused alliance explore potential of this group to become technical advisory group; or form new alliance.
- In addition, the following data are useful for supporting the work of such an alliance:
- a cost-benefit analysis of food fortification;
- recent and historical information on the burden of micronutrient deficiency or undernutrition in the population;
- information on the importance of fortification to address micronutrient deficiencies; and
- a supply chain study to demonstrate potential project design scenarios.

Develop a Communication Strategy

- Developed a comprehensive communication strategy including advocacy and social marketing.
- Worked with Government allies to write a decree from Parliament addressing key concerns of the public.
- Develop an advocacy, social marketing and communication campaign.
- Directly address concerns of detractors.
- Develop a comprehensive communication plan that includes advocacy targeting government officials and social marketing targeting the general public and key stakeholders.
- Involve critics in communications and alliances to thwart potential effort to halt programme.

Create an adequate monitoring and evaluation system

Realized that a traditional paper based monitoring and evaluation system wasn't sufficient to run nationwide programme and developed an electronic system. Always consider importance of monitoring and evaluation system performance. Be critical about monitoring and evaluation performance. Assist government in improving existing systems or creating a new one, if necessary, especially important for large-scale programmes.



Table 2:

List of challenges that surfaced during initial implementation of the National Wheat Flour Fortification Programme in Egypt and possible solutions that other programmes could consider.

Challenges

Possible Solution (s)

High Staff Turnover leading to knowledge loss

With the political unrest in Egypt, institutional knowledge at the Government of Egypt level was lost due to staff turnover.

- Proper and thorough documentation and development of a database for the program.
- Keep training program ongoing, so that new staff know how program works, specifically around the monitoring and evaluation system to cope with the interruption of flour fortification programming.
- Consider writing policies that mandate ongoing trainings.
- WFP can, with qualified and long-term national staff and a good hand-over between international staff, play a role as knowledge hub to keep information about programme and processes alive even with staffing changes at partner level.

Evaluation Challenges

Originally the WFP Egypt Country Office planned to conduct a follow-up survey to document the impact of the programme on anaemia and micronutrient deficiency. But due to political unrest and security concerns, it was not possible. However, WFP hired an international consultant to conduct a more extensive, qualitative programme evaluation that was very useful for WFP and Government.

- Conduct various types of evaluations and design relevant surveys carefully, i.e. baseline and follow-up comparisons can be more informative when data are triangulated with qualitative information and data from other sources.
- Launching a large fortification programme and conducting different types of evaluations might not align with standard grant and/or WFP programming cycle length and, procedures and therefore, should be discussed before start of programme/project within WFP and with donors.







