National Monitoring and Evaluation Systems: Experiences from Iran

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June, 2012, Ankara, Turkey
Fortification program in Iran was started from a pilot project in Busher province in 2001

The main objectives of this project were:

- To confirm the effectiveness of the program
- To test the QA/QC system
  This project helped us to establish an effective and sustainable monitoring system
- To determine potential barriers to scaling up the project
  Use of automatic feeders
  Local production of premix
The success of this project resulted in:

- Scaling up the project to other provinces (Fars in 2003, Kerman in 2004, Systan & Golestan in 2005, ...)
- Formation of a National Flour Fortification Committee (NFFC)
  A multi-stakeholder committee including both the private and public sector
- Building capacity of milling industry for national program
- Providing a guideline for national program
Stakeholders involved in NFFC

NNFC is responsible for planning and making policy decisions. It is composed of representatives from the following stakeholders:

- MOHME
- ISIRI (Institute of Standards and Industrial Research of Iran)
- MPO (Management & Planning Organization)
- National Nutrition & Food Technology Research Institute
- Ministry of Commerce (industry, Mine and Trade)
- Private sector
  - National federation of flour mills societies
  - Premix producers in the country
- Ministry of Agriculture
- Ministry of Industry
- Ministry of Judiciary
- Scientific members of universities
- International Organizations: MI/UNICEF/ WHO
NFFC: Scope of work

- Justification of the plan and mobilization of financial resources for expansion of program
- Cooperation with educational programs as the main nucleus of social mobilization
- Creating awareness among the population regarding the safety and quality of fortified flour
- Addressing a public health problem through fortification and harmonizing the flour industry
- Identifying roles and responsibilities of the key stakeholders
- Ensuring adequate monitoring and supervision of the process
- Conducting a cost benefit analysis of fortification
- Conducting research and presenting scientific and experts’ opinions regarding fortification
Two other committees at the provincial level

- **Provincial Committee of Flour Fortification (PCFF)**
  - supports relevant private and governmental units and executive activities done in the provinces
  - works under the supervision of NFFC executing all activities per country’s agenda

- **Provincial Sub-Committee Monitoring (PSCM)**
  - formed under the supervision of PCFF under the directorship of Food & Drug Deputy at the provincial level
  - members include:
    - health deputy
    - nutrition unit expert
    - office of Food safety
    - food laboratory
    - representative of grain and commercial services in the Department of Commerce
Some activities of the NFCC committee

- Coordinate multi-sectoral meetings for all the relevant official authorities (education, TV, radio, literacy movement, agriculture, industry, commerce, etc.)

- Develop educational materials about flour fortification

- Carry out trainings for physicians and health workers about anemia, Iron Deficiency, their prevention and consequences

- Build capacity of the provincial Food and Drug Laboratories and flour mills to measure the level of iron in flour
Management Structure

At the national level

At the provincial level
Partnership to end “Hidden Hunger”

**Government**
- Policy
- Resources
- Program management
- Accountability
- Consumer protection & education

**NGO’s**
- Education
- Innovations
- Advocacy
- Service delivery
- Funds

**Consumers**
- Awareness
- Participation
- Social organizations
- Demand for food quality

**Food & Pharmaceutical Industries**
- Product development
- Quality control
- Delivery
- Consumer education

**Bilateral & Multilateral Organizations**
- Funds
- Technical assistance
- Program support
- Advocacy
Country Milling Background

The average bread consumption in Iran is 9.6 kg/month

<table>
<thead>
<tr>
<th>Specifications and consumption of flour produced in Iran</th>
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<tbody>
<tr>
<td>Type of flour</td>
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<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Whole wheat</td>
</tr>
<tr>
<td>Sabbos-gereftek</td>
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<tr>
<td>Setareh</td>
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<tr>
<td>Nil or white flour</td>
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The cost of flour fortification with iron and folic acid per person is about $ 0.10 per year
Monitoring system based on Busher experience

- Regular reporting of laboratory testing at the provincial level
- Quality assurance data from mills
- Periodic data collection of fortified flour consumption and bread at market and household level
Quality control of fortified flour

**Factory Labs:**

- Semi-quantitative
  (Spot test compared with standard)

**Governmental Food Labs:**

1. Semi-quantitative
   (Spot test compared with standard)
2. Quantitative
   (Spectrophotometric)

- At least 3 times/day
  
- 1. Result check for all factory samples
  2. Random check
Guidance for the national system

In 2005, with WHO support, seven working groups were organized according to the following themes:

1. Characteristics of micronutrient deficiencies
2. Assessment of milling industry and cost analysis
3. Legislation/Legal and Regulatory Framework
4. Inspection, control and monitoring system
5. Quality Control/Quality Assurance
6. Communication, advocacy and social marketing
7. Institutional role and plan formulation
Guidance for the national system (Cont’d)

A technical consultation reviewed the recommendations of the working groups in October 2006

A preliminary Draft of National Plan on Iron Deficiency and Flour/Food Fortification in Islamic Republic of Iran was prepared by the Tabriz University of Medical Sciences
NATIONAL PLAN ON
Iron Malnutrition and Flour/Food Fortification in Iran

Prepared by:
Dr. S. Mahboob, Ph.D
Dr. Z. Abdollahi, MSPH, PhD
Dr. H. Pouraram, MSc, PhD,
The success and strengths of this program can be attributed to a number of factors:

- Commitment of the government in International Assemblies and workshops for implementing flour fortification.
- Establishment of national multi-sectoral committee for flour fortification (NFFC).
- Regular consultations and dialogue with stakeholders.
- Scientific support of schools of Nutritional Sciences and Food Technology for capacity building.
- Involvement of private sector in fortification programs.
- Familiarization of Iranian millers with the importance of flour fortification through participation at regional International Association of Operative Millers (IAOM) meetings.
Strengths

• Designing and implementing efficient QA/QC system for fortified flour at provincial level
• Upgrading the equipment of all mills
• 332 mills producing fortified flour using high technology
• Availability of the code of practice and related standards for flour
• Possibility of local premix and micro-feeder production
• Available population-based data on food consumption and micronutrient status for providing an epidemiological situation
Weaknesses

• Limited data on various enhancers and inhibitors of iron absorption in Iranian diet

• Repeated changes in managerial positions in health and other related sectors

• Inadequate bread technology
Program Sustainability

• Initially the cost of the flour fortification program was covered by government (with special budget allocation).

• But when targeted subsidies program started, all subsidies from food were omitted.

• In order to make the program sustainable we added the cost of fortification to the price of flour.

• Since the cost of fortification is very small and due to bread subsidies paid to households, the cost of fortified bread is still affordable.
Lessons Learned

In areas where anemia is not mainly due to iron deficiency, an iron fortification program might decrease the prevalence of iron deficiency without changing the prevalence of anemia.

To control and prevent anemia we need to consider micronutrients besides iron such as Vitamin A, B12, and B6.
Thank you for your attention