



# **TECHNCIAL CONSULTATION FOR DEVELOPING A TECHNCIAL GUIDE IN FOOD AND NUTRITION SURVEILLANCE SYSTEM FOR COUNTRIES IN THE EASTERN MEDITERRANEAN REGION**

**Ayoub Al Jawaldeh, PhD  
Regional Adviser, nutrition  
Health Protection and Promotion Directorate  
EMRO, Cairo**



## WHO Global Strategic focus

**Area 1 : Development and operationalization of integrated food and nutrition policies** - *Putting health back in the food and nutrition policy agenda*

**Area 2 : Intelligence of needs and response** - *Providing the factual dimension of nutrition issues*

**Area 3 : Development of evidence based programme guidance** - *Selecting effective options for each context*

**Area 4 : Advocacy** - *Providing the rationale for investment and action*



World Health  
Organization

Regional Office for the Eastern Mediterranean



## Identifying nutritional problems of a population in a clear and measurable way will help to:

Define needs, opportunities and constraints, and prioritize solutions.

Evaluate programme impact and improve efficiency.

Influence decision making in strategic planning, policy formulation and resource allocation.

Raise community awareness and participation to maximize long-term impact.

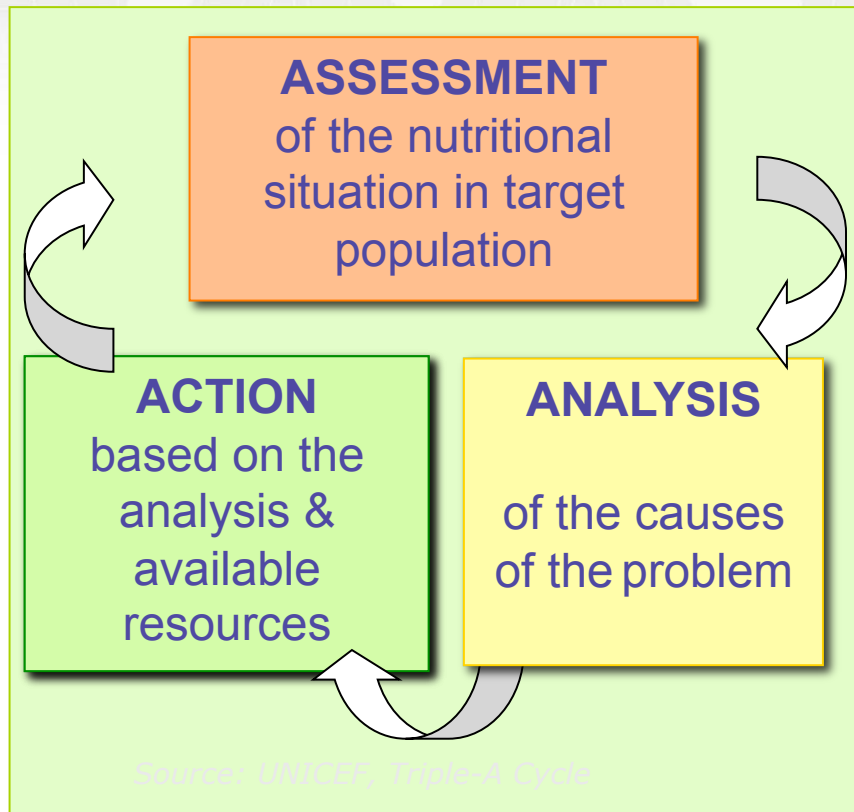


**World Health  
Organization**

Regional Office for the Eastern Mediterranean



## Nutrition Sassement ( Nutrition surveillance )



To define the nutritional problem of the targeted population, it is necessary to **measure** its **nutritional status**.

**Nutritional status assessments** enable to determine whether the individual is well-nourished or undernourished.



World Health  
Organization

Regional Office for the Eastern Mediterranean

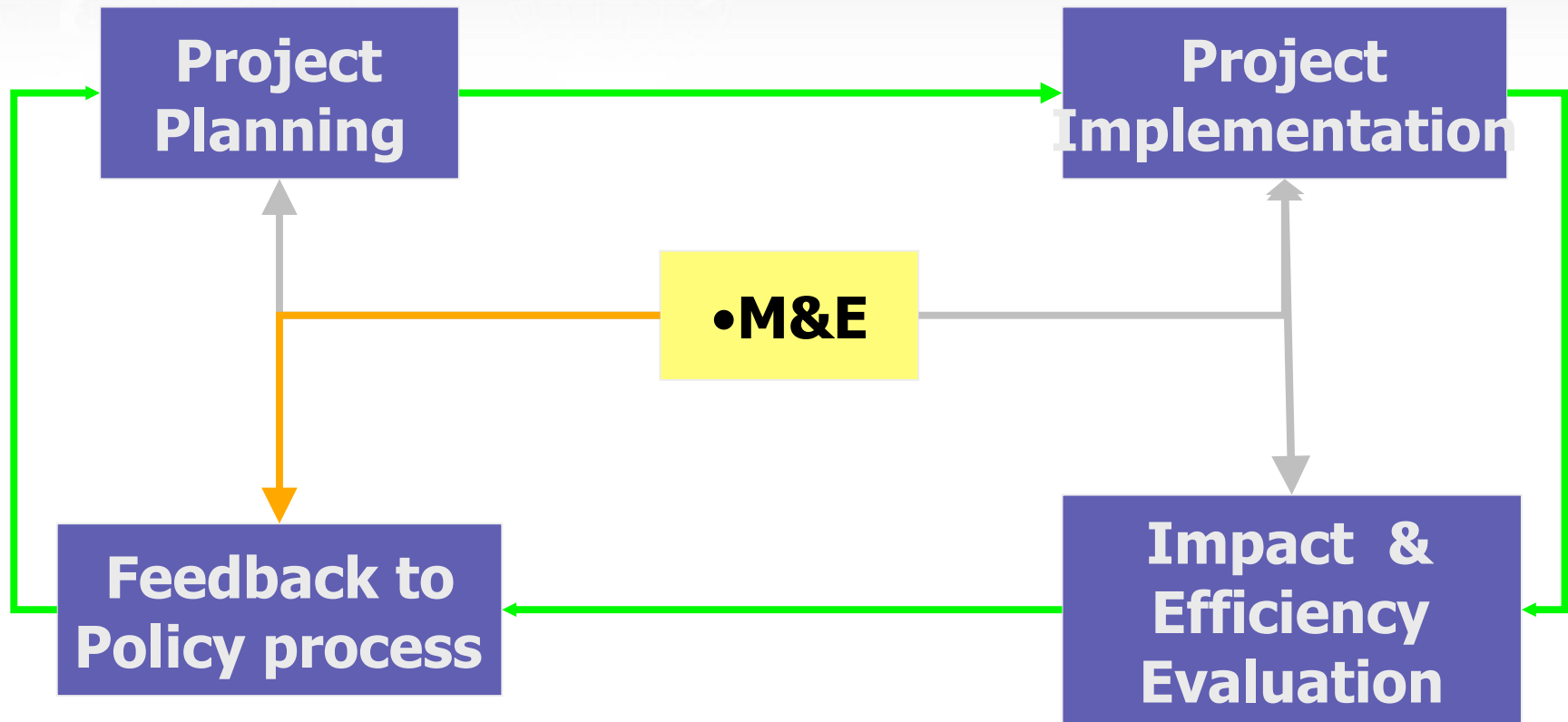


# Guidelines for Designing a Monitoring System

- **For whom the data are collected (stakeholders)?**
- **What data are collected (questions and indicators)?**
- **How data are collected (methodology)?**
- **Who collects the data (personnel)?**
- **When data are collected (frequency)?**
- **Who reports the data and when?**
- **Who does what based on the information?**



# Project management cycle



•Adapted from Valadez (1991)

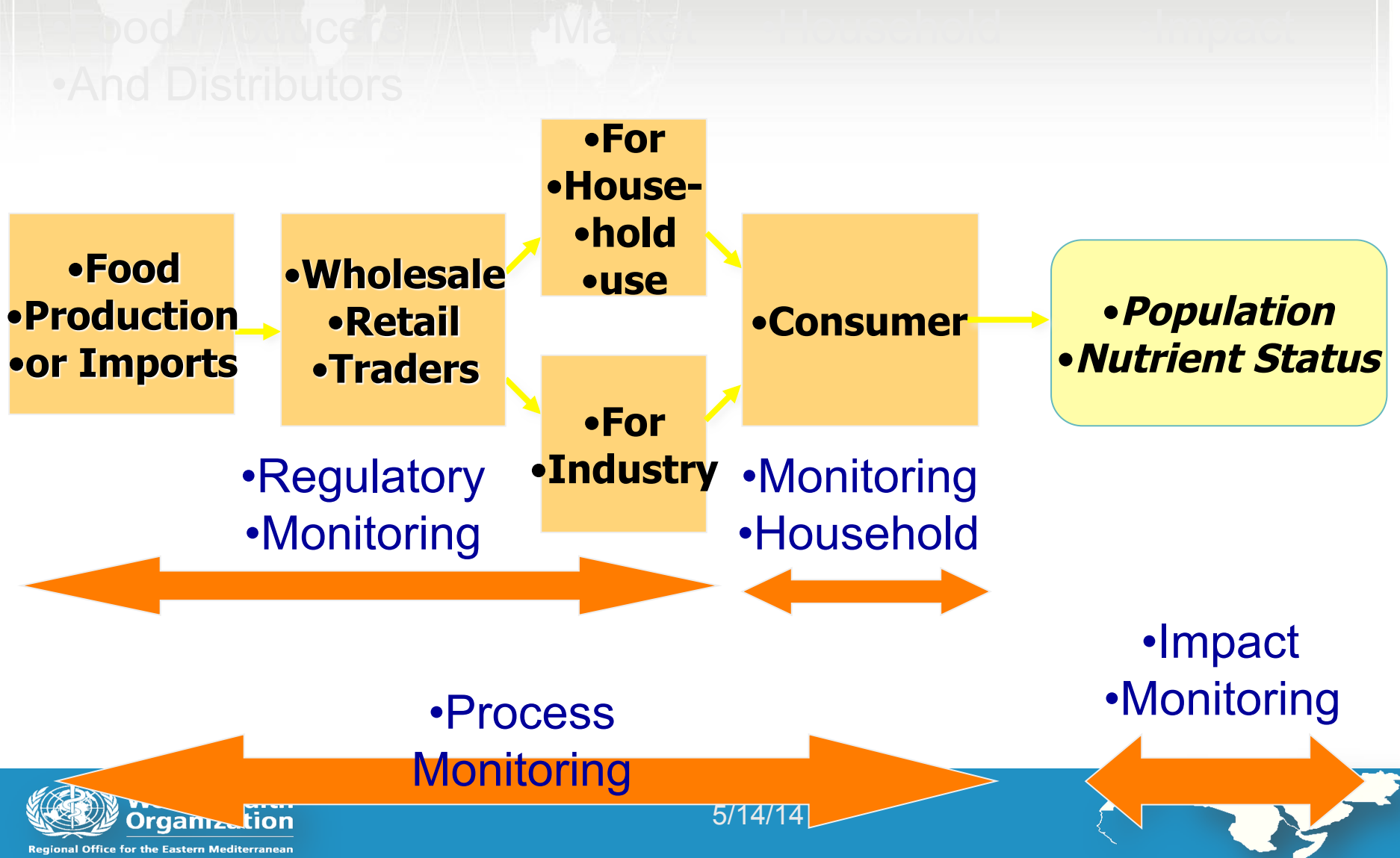


World Health  
Organization

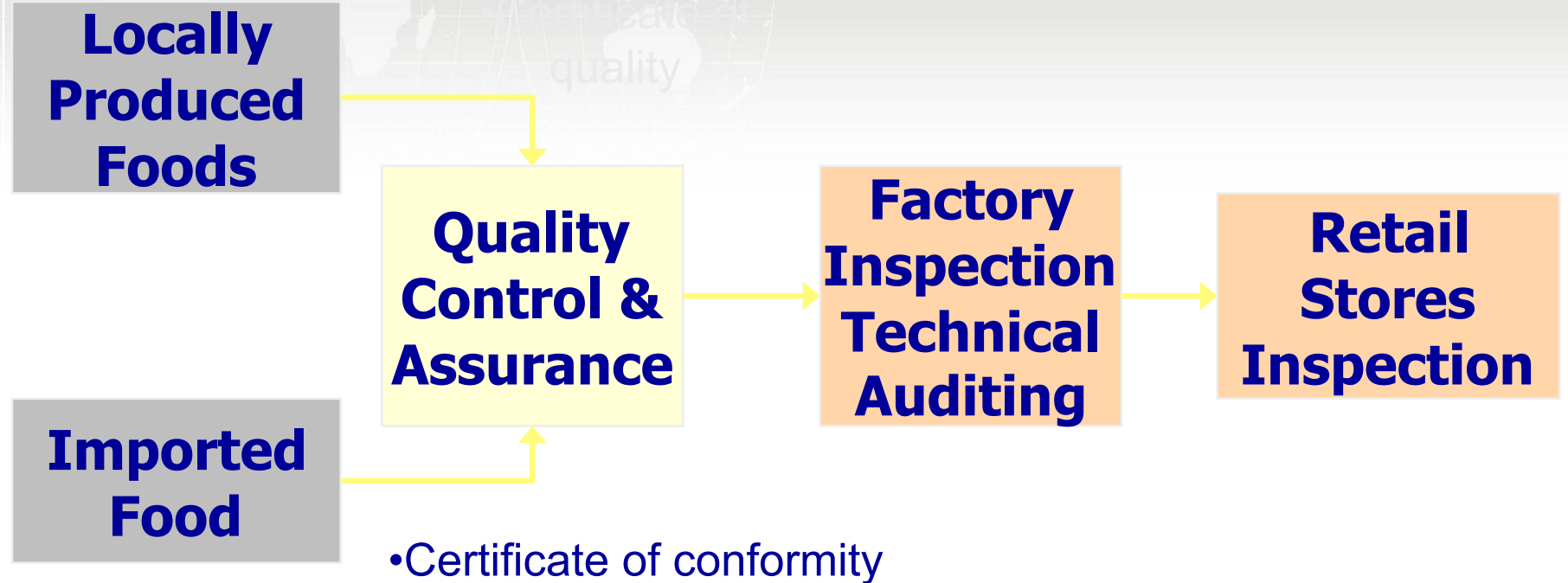
Regional Office for the Eastern Mediterranean



# Food Fortification Monitoring System



# • Food Fortification Monitoring System



**Industry (internal)**

**External**

**Commercial**



**Monitoring System**



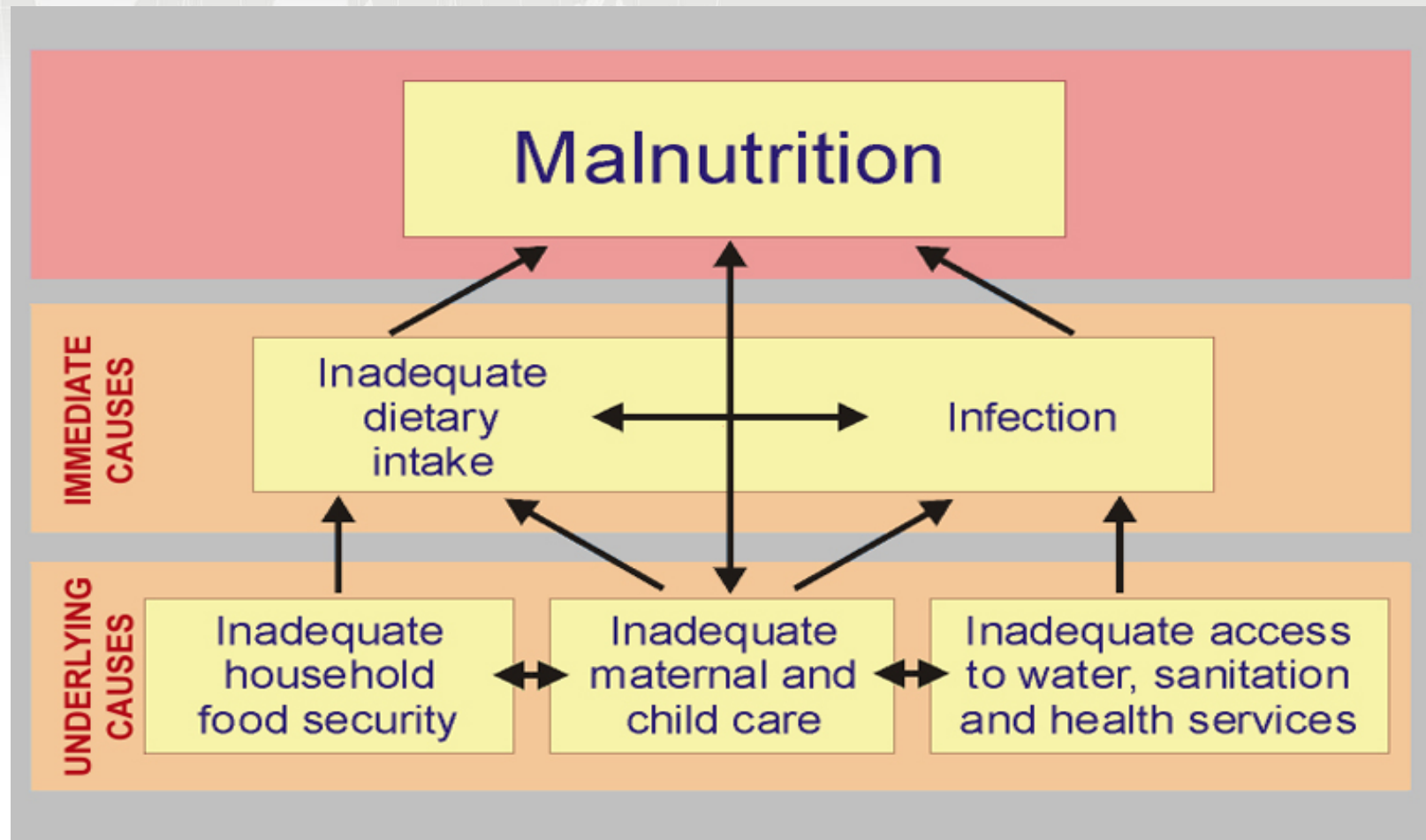
**World Health Organization**

Regional Office for the Eastern Mediterranean



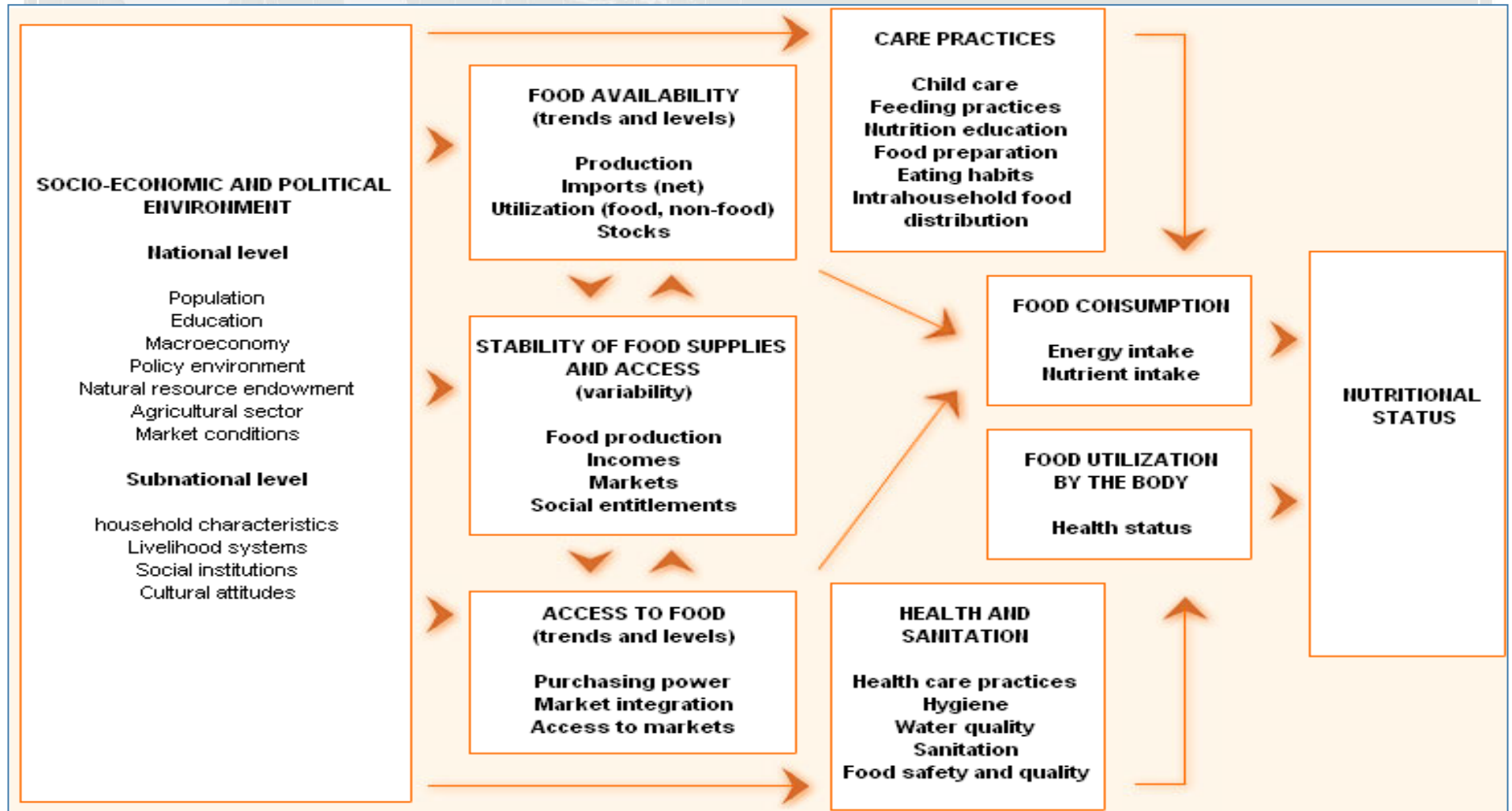


# What causes malnutrition?



## Nutrition surveillance system

The conceptual framework developed by FAO's Food Insecurity and Vulnerability Information and Mapping Systems (FIVIMS):

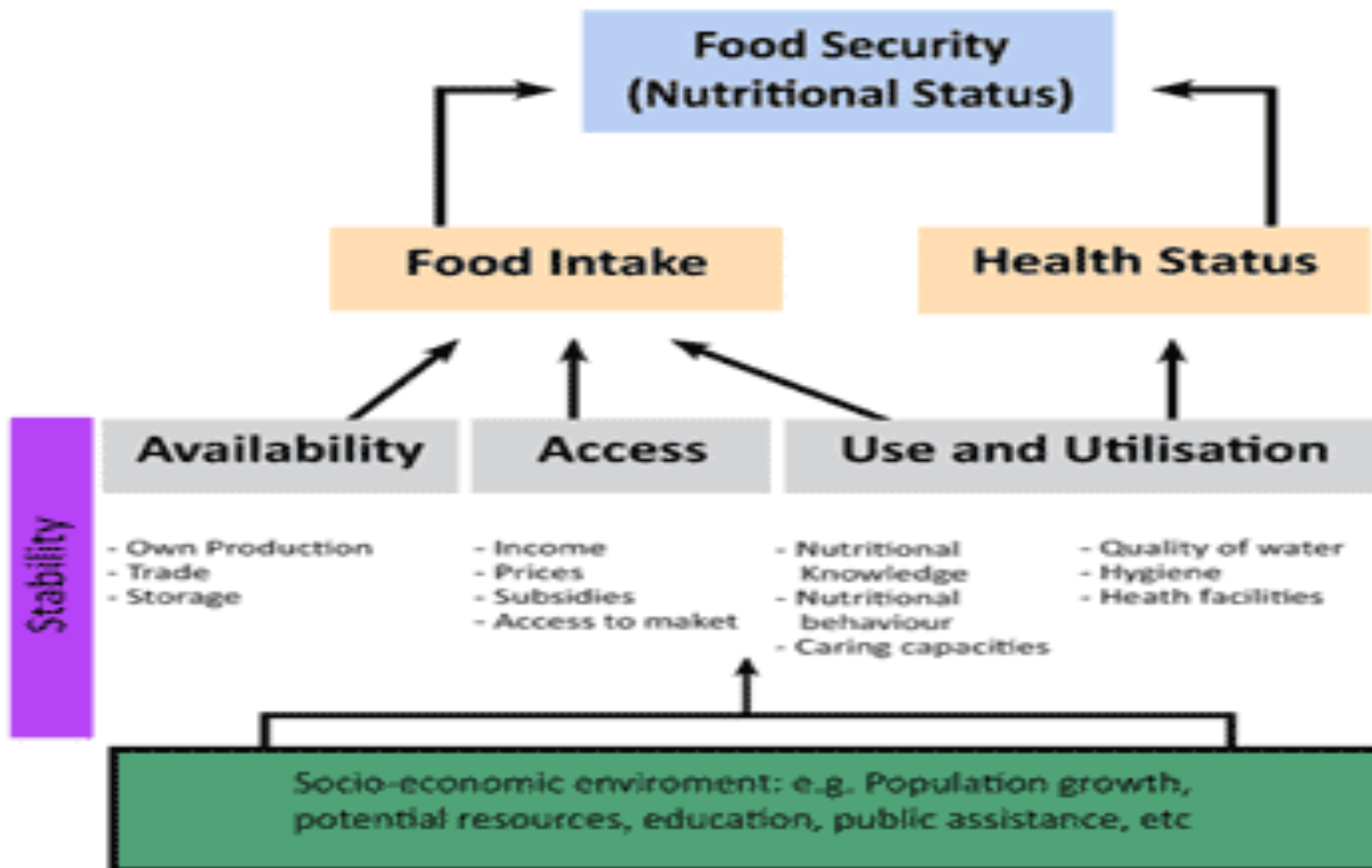


**World Health Organization**

Regional Office for the Eastern Mediterranean



# Link between Food Security and Nutrition Status



## Target of the Nutrition Surveillance



- Women in the reproductive age 15-49 year
- Children less than 5 years
- School age children

### Other groups

- Adolescent
- Elderly



World Health  
Organization

Regional Office for the Eastern Mediterranean



## Methods of FNSS

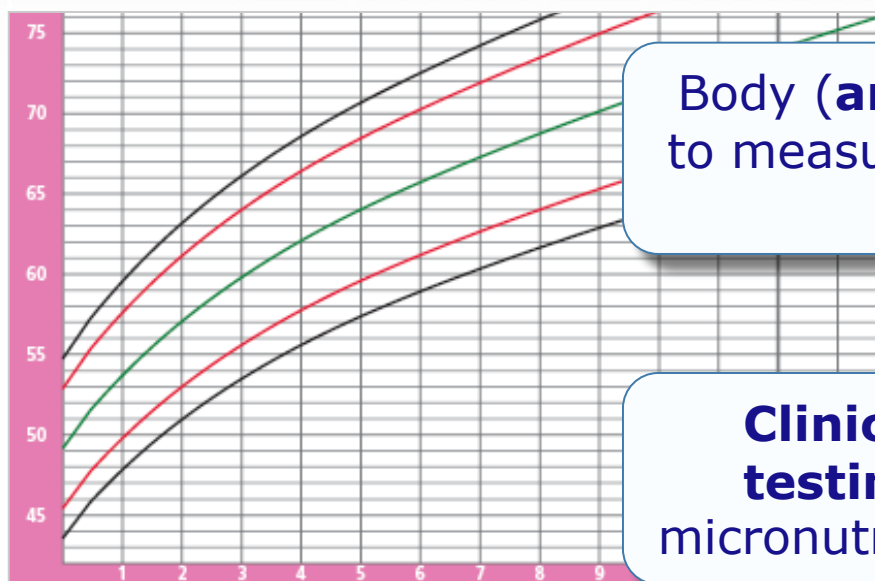
- 1. large scale national surveys***
- 2. repeated small scale surveys***
- 3. clinic-based monitoring***
- 4. Sentinel site surveillance***
- 5. school census data***

***In an emergency setting additional sources of data can be obtained from:***

- 1. rapid nutrition assessments***
- 2. rapid screening based on mid-upper arm circumference (MUAC)***



## Nutritional status can be assessed through:



Body (**anthropometric**) measurements, used to measure growth in children and body weight changes in adults.

**Clinical examination** and **biochemical testing**, used to diagnose deficiencies of micronutrients (e.g. iodine, vitamin A and iron).



World Health  
Organization

Regional Office for the Eastern Mediterranean



Two major **sources of anthropometric information** are:

**Demographic and Health Surveys (DHS)**

**Multiple Indicator Cluster Survey (MICS)**

Four main **data collection methodologies**  
that provide anthropometric information are :

**Repeated Surveys**

**Growth Monitoring**

**Sentinel Site Surveillance**

**School Census Data**

## SENTINEL SITE SURVEILLANCE

**Sentinel site surveillance** involves surveillance in a limited number of sites, to detect trends in the overall well-being of the population.

The sites may be specific population groups or villages that cover **populations at risk**.

It can be:

- **centrally-based sentinel site surveillance**, or
- **community-based sentinel site surveillance**.



On page 9 of the Learner Notes you may find a table describing the features of sentinel site surveillance.

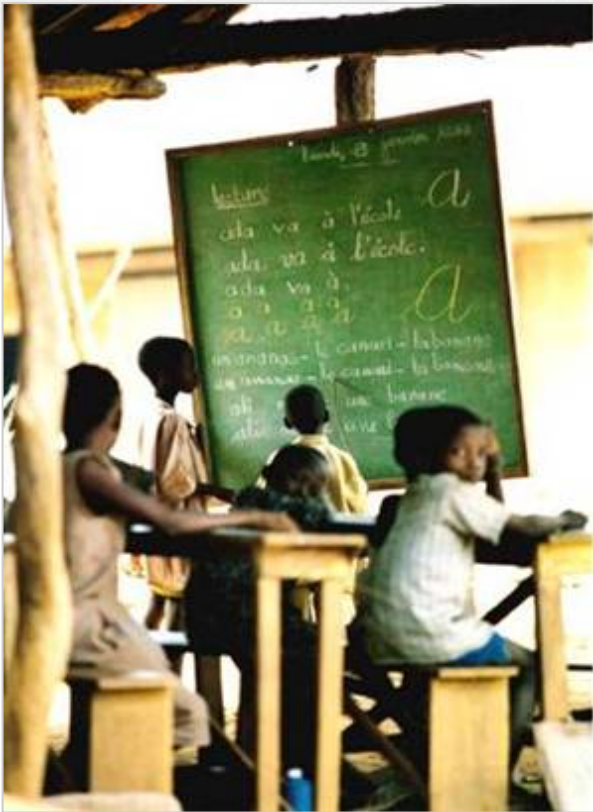


**Organization**

Regional Office for the Eastern Mediterranean



## SCHOOL CENSUS DATA



**School census data** relates to nutritional assessment **occasionally undertaken in schools**.

The objective is to **identify high-risk children** with poor health, malnutrition and low socio-economic status.



On page 10 of the Learner Notes you may find a table describing the features of school census data.



**World Health  
Organization**

Regional Office for the Eastern Mediterranean



## Other key factors to consider are:

**Response capacity** at different levels (household, community, district, national and international).

**Environmental factors**, such as security, geographical terrain and infrastructure.

**Seasonality** of malnutrition in most developing countries.

**Emergency versus non-emergency** contexts.

**Organizational mandate** and implementation capacity



## Selection Nutrition and Food Surveillance System

When deciding which type of information source should be used, one must match **costs with resource availability.**



Before undertaking any survey, consider:

- are there any existing data?
- national surveys are very expensive and time-consuming compared to community based systems: is it necessary to look for donor funding?
- is there a need to sustain a system over a period of time?



World Health  
Organization

Regional Office for the Eastern Mediterranean



# Monitoring system

- **Access:** are the fortified products available and affordable to the target population?
- **Utilization:** are the fortified products being purchased by the target households?
- **Coverage:** are the fortified products being consumed by the target population?
- **Impact:** has the nutritional status of the target population improved?

# Internal, External and Commercial Monitoring

Purpose	Examples of aspects to be monitored
<p><b>To ensure that fortified foods meet nutrient quality and safety standards (from factory to retail store).</b></p>	<ol style="list-style-type: none"><li data-bbox="863 630 1776 743">1. Are Good Manufacturing Practices (GMP) applied?</li><li data-bbox="863 768 1822 1003">2. Are Hazard Analysis Critical Control Points (HACCP) in place? Is Quality Assurance/Quality Control (QA/QC) correctly done?</li><li data-bbox="863 1027 1892 1206">3. Are inspection and technical auditing at factory and packers levels implemented satisfactorily?</li><li data-bbox="863 1230 1808 1344">4. Is verification of legal compliance at retail stores done as planned?</li></ol>



# Monitoring Flour Fortification\*

• Does target population purchase fortified flour?

• Determine what you need to know to answer question

• Determine what, who, where to survey

• Determine how and who collect information

• Determine frequency of data collection

• Question

• Indicator

• Method

• Who collects

• Frequency

• Is fortified flour available in household?

• Product label; iron content

• Households

• Spot test for iron

• Health Department team

• Depends on maturity of program; less frequently over time

• \*Parvanta, 2003



World Health Organization

Regional Office for the Eastern Mediterranean



# Impact Monitoring

- **Impact: expected effects (changes) of a project/program on a target population**
- **To assess if prevalence of a micronutrient deficiency is at or below pre-determined level – e.g.**
  - **Reduce prevalence of iron deficiency in non-pregnant women to 20% or less**
- **Likely sufficient for most country program evaluations**



# When to do impact monitoring?

- Once process monitoring system indicates:
  - Adequate program implementation
  - Adequate program coverage for minimum period (depends on target nutrient)

• **Not Before!**





# Impact monitoring\*\*

•Is iron status of target population improving?

•Determine what you need to know to answer question

•Determine what, who, where to survey

•Determine who, how to collect the information

•Determine frequency of data collection

•Question

•Has anemia decreased?\*

•Indicator

•Hb\*

•Method

•Mothers of children in growth monitoring clinics\*

•Who collects

•Growth monitoring clinic nurses\*

•Frequency

•Bi-annually\*

•HemoCue system\*

\*Sample answers

•\*\*Parvanta, 2003



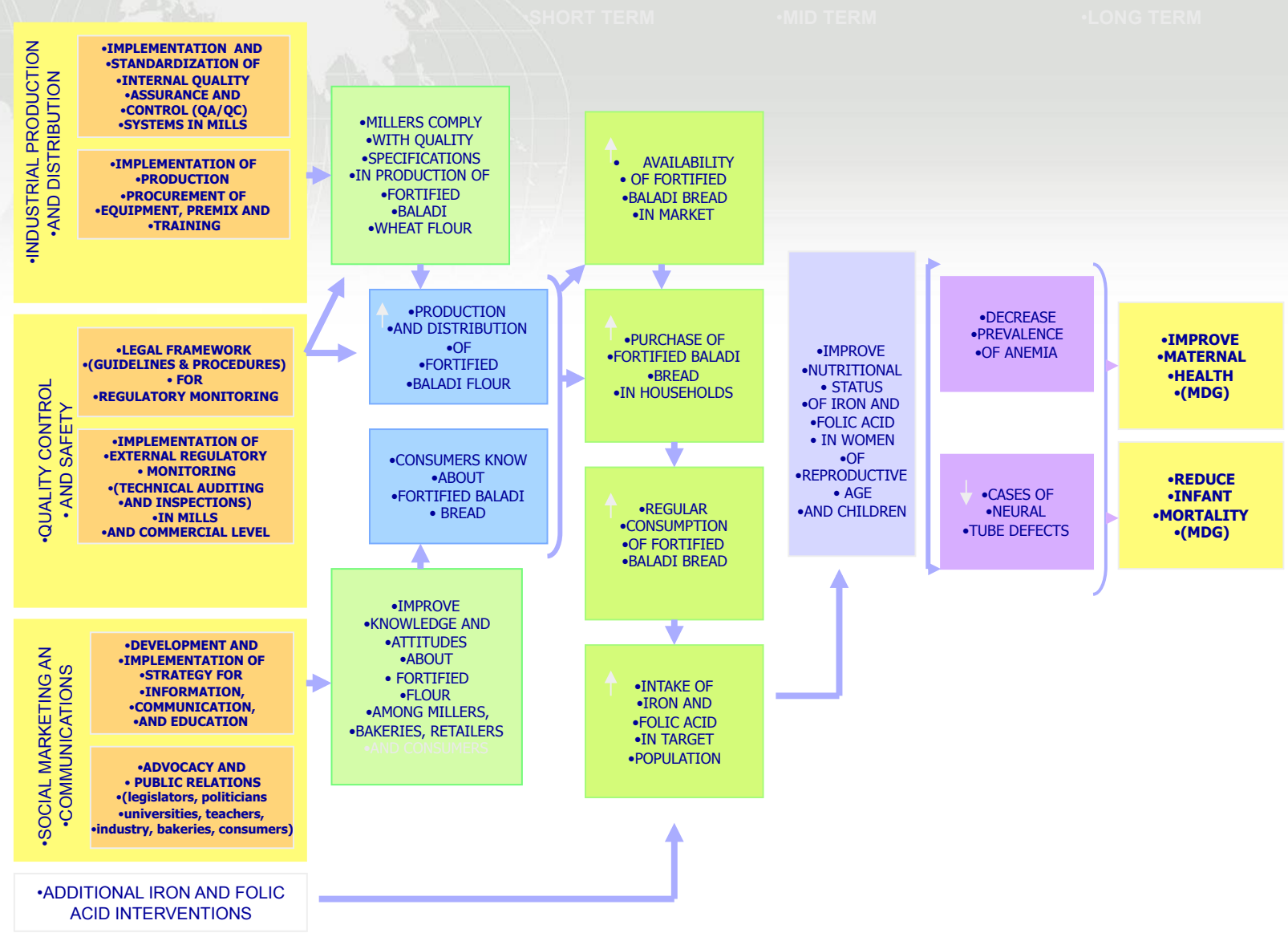
World Health Organization

Regional Office for the Eastern Mediterranean

Workshop March 2004

**•OUTCOMES**

•National Fortification Alliance (private sector, government sector, international development agencies, NGOs, research institutions), GAIN grant, other contributions in-kind from partners



**• LOGIC MODEL**

•BALADI FLOUR FORTIFICATION, EGYPT 2008 ; Designad by Pena Roses



Regional Office for the Eastern Mediterranean

