

Report on the

**Technical consultation to establish a regional  
nutrition surveillance system with focus on  
micronutrient malnutrition**

Damascus, Syrian Arab Republic  
18–21 October 2009



**World Health  
Organization**

Regional Office for the Eastern Mediterranean

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## 1. INTRODUCTION

The World Health Organization (WHO) Regional Office for the Eastern Mediterranean held a technical consultation to establish a regional surveillance system with focus on micronutrient malnutrition in Damascus, Syrian Arab Republic on 18–21 October 2009. The overall objective of the consultation was to strengthen the regional nutrition monitoring and evaluation system. Specific objectives were to:

- Share country experiences in the area of nutrition surveillance;
- Present the draft report *Proposed surveillance system to assess nutrition status of people at the national level of countries of the Eastern Mediterranean Region* for final review by participants;
- Assist Member States to develop action plans in monitoring, evaluation and surveillance system in nutrition;
- Provide basic skills and tools to the participants to ensure efficient designing and implementation of national surveillance systems.

The consultation was attended by participants from 21 countries of the Eastern Mediterranean Region (only Djibouti was not represented) and by representatives of the Food and Agriculture Organization of the United Nations (FAO), United Nations Children's Fund (UNICEF), United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), World Food Programme (WFP), U.S. Centers for Disease Control and Prevention (CDC), International Council for the Control of Iodine Deficiency Disorders (ICCIDD), Qatar Foundation and WHO. The programme and list of participants are included as Annexes 1 and 2, respectively.

The consultation included a combination of presentations by experts and presentations by country representatives. It was noted that Kuwait and Morocco have functioning nutrition surveillance systems that can potentially serve as models for some countries of the Region.

## 2. HIGHLIGHTS OF TECHNICAL PRESENTATIONS

### 2.1 Resources for information on nutrition surveillance systems

#### *European nutrition surveillance system*

The European system was set up to monitor progress in the achievement of the goals set in the European Charter and Action Plan for Food and Nutrition Policy. The surveillance system aims to measure trends in overweight and obesity in primary school children at two-year intervals. The system provides a platform for harmonized data collection for inter-country comparison and a means to stimulate adequate political response and policies and monitoring of their impact. The system is simple and sustainable and tailored to the needs of the countries, but common protocols, analytical tools and databases are established at the international level in order to facilitate international comparisons. For more details, refer to: the European Charter on Counteracting Obesity and the WHO European Action Plan for Food and Nutrition Policy 2007–2012.

(<http://www.euro.who.int/Document/E89567.pdf> and <http://www.euro.who.int/Document/E91153.pdf>).

*WHO global databases* ([www.who.int/nutrition/databases](http://www.who.int/nutrition/databases))

WHO maintains five databases for different nutritional indicators:

- Breastfeeding and complementary feeding ([www.who.int/nutrition/databases/infantfeeding](http://www.who.int/nutrition/databases/infantfeeding))
- Vitamin and mineral nutrition information system ([www.who.int/vmnis](http://www.who.int/vmnis)), comprising vitamin A, iodine and iron deficiencies
- Body mass index for adults [www.who.int/bmi](http://www.who.int/bmi)
- Child growth and malnutrition [www.who.int/nutgrowthdb](http://www.who.int/nutgrowthdb)
- Nutrition policies and programmes

The overall objectives of the databases are to: show trends, enable international comparisons and raise political awareness about nutritional problems. These databases can now be accessed jointly via the new web site of the nutrition landscape information system (NLIS [www.who.int/nutrition/nlis](http://www.who.int/nutrition/nlis)) which also provides country nutrition profiles.

#### *Software*

Anthro ([www.who.int/childgrowth/software](http://www.who.int/childgrowth/software)) and AnthroPlus ([www.who.int/growthref/tools](http://www.who.int/growthref/tools)) software packages with their manuals are available online for downloading. These tools facilitate the analysis of under-nutrition and overweight analysis from birth to 19 years of individual and population survey data according to the WHO recommendations.

#### *Manual on indicators and methods for cross-sectional surveys for vitamin and mineral status of populations*

The Centers for Disease Control and Prevention published in 2007 a survey manual aimed at standardizing survey design, data collection and analysis and report writing. The manual is under revision and is expected to include iodine, and eventually zinc and folate. The manual is expected to be released in June/July 2010 to be part of WHO E-Library.

<http://www.micronutrient.org/CMFiles/PubLib/Indicators-for-Cross-Sectional-SurveysIYA-3242008-2823.pdf>

#### *Nutrition Survey Toolkit (IMMPaCt)*

The Nutrition Survey Toolkit (IMMPaCt) designed by the Centers for Disease Control and Prevention provides 14 steps for conducting nutrition surveys with generic tools for study design and examples of country-specific adaptations (includes sample size calculators, equipments and supplies, etc). This toolkit is expected to be available online in December 2009 (<http://www.cdc.gov/immimpact/tools/index.html>)

The Food Security and Nutrition Unit of Somalia (FSNAU) has been using SMART in particular for validation of nutrition data (part of SMART) which lead to great improvement in data quality ([www.smartmethodology.org](http://www.smartmethodology.org)).

Integrated Phase Classification system, which includes maps, have been developed by the unit using information collected through assessments a way to present consolidated data in a standard format including geographical distribution of populations affected by food insecurity population and the magnitude and severity of the crisis. The unit also has developed a nutrition situation framework based on international standards where available, using the information collected through the nutrition assessments which also provides maps illustrating the nutrition situation and the distribution of caseload of acutely malnourished children. This vulnerability analysis and mapping allows the UN system and donors to target resources. [www.fsnau.org](http://www.fsnau.org)

#### *Other models and tools*

Food balance sheets from countries are compiled at the Food and Agriculture Organization of the United Nations (FAO) to provide an overview of food availability in the country. FAOSTATS, available on the FAO website and on CD-ROM, has modules on diet profiles, food production, prices, trade, etc. It is possible to analyse trends over time, select blocks of countries for comparison, etc. However, FAOSTATS is only as good as the country data that are used to construct it (<http://faostat.fao.org/site/291/default.aspx>).

The Maldives offer a good example and success story of how the country transformed an old paper-based information system into an electronic health management information system with the implementation of the WHO standards. The re-engineered system makes it possible to follow children from gestation to the age of 5 years.

WHO and the International Council for the Control of Iodine Deficiency Disorders (ICCIDD) published in 2007 an iodine deficiency disorders (IDD) survey manual aimed at standardizing methods, survey design, data collection and indicators and analysis and report writing. The manual is available from the ICCIDD, Iodine Network and WHO. <http://www.iodinenetwork.net/> , <http://www.iccidd.org/>

## **2.2 Major steps in building a nutrition surveillance system**

### *Actions*

- Conduct a situation analysis (population's current nutrition profile and problems, associated short- and long-term health risks)
- Ensure that there is a strong policy framework to support nutrition surveillance (ownership/responsibility to sustain system and take action to address problems)
- Link analysis of surveillance data with strategic action

### *Challenges*

- Unclear ownership of the system
- Lack of involvement by some key stakeholders or negative competition among them
- Weak commitment and advocacy or leadership by primary owners
- Lack of understanding of why the nutrition surveillance system is being developed and the rationale for its application
- Failure to build into the whole system a monitoring and evaluation component

### *Importance of a strong policy framework*

- Underlying principle: The purpose of surveillance is to identify nutrition problems with a view to taking action to deal with them
- Political commitment must exist to reckon with the full extent of existing problems and take action
- All nutrition stakeholders must be involved and must commit to making a contribution to the different aspects of the system's operation and maintenance and the response.

## **2.3 Principles of monitoring and evaluation**

### *Planning*

- Case definition
- Case identification
- Data collection tools
- Data elements
- Coding and classification
- Field testing
- Data collection
- Sources of data
- Analysis and interpretation
- Data access policy
- Dissemination
- Communicating information for action

### *Evaluation*

- Quality improvement
- Ethical and legal issues
- Issues in developing countries
- Examples – case studies



### 3. GROUP WORK

The agency representatives, consultants and temporary advisors were asked to review the draft report *Proposed surveillance system to assess nutrition status of people at the national level of countries of the Eastern Mediterranean Region* and to make recommendations at the regional level (regional guidelines workgroup).

Country representatives were divided into four working groups based on their subregional affiliation and were instructed to develop plans for establishing and implementing surveillance systems in their subregion. Country representatives were divided as follows:

- Gulf Cooperation Council countries, Yemen – (Leader: Nadia Gharib)
- North Africa, Sudan, Somalia (Leader: Victoria Eluzai)
- Pakistan, Afghanistan, Islamic Republic of Iran (Leader: Riffat Anis)
- Iraq, Jordan, Syrian Arab Republic, Lebanon, Palestine (Leader: Alaa Abu Rub)

The regional guidelines workgroup reviewed the proposed surveillance system to assess nutrition status of people at the national level in countries of the Region. The group noted that due to the diversity in populations, technical skills, needs and resources of countries, it may not be feasible to create one surveillance protocol that meets the needs of all countries. The group recommended that the Regional Office provide technical assistance to countries interested in developing a nutrition surveillance system. In addition, the group emphasized the importance of facilitating intercountry networking and support.

The workgroup suggested that the Regional Office recommend that all countries in the Region develop surveillance systems to monitor nutrition interventions and assess nutritional status of their populations. The workgroup further suggested that countries be encouraged to develop a comprehensive plan of action based on existing guidelines. At a minimum, it is recommended that the plan include the following information and actions:

- A description of current nutrition programmes in the country, including information systems and interventions
- Conducting a situation analysis and needs assessment
- Priority interventions may include: management of malnutrition, breastfeeding; infant and young child nutrition; vitamin and mineral supplementation and fortification, healthy growth promotion, and chronic disease prevention and specifically obesity prevention and control
- The goals and objectives of the proposed surveillance system
- Methods, which should be based on current WHO guidelines and recommendations for nutrition assessment
- A description of all the elements of the surveillance system, such as:
  - Planned uses and users of the data
  - Indicators
  - Existing policies or legal authorization of collection (or those needed)
  - Staff and resources
- Unit responsible for the system (e.g. Department in the Ministry of Health)

- How this information system fits within the existing information systems
- Flow chart of the system
- Target population, data collection, and sources of data
- Description of data management and analysis plan
- Description of dissemination plans
- Resources needed and where they come from
- Quality control
- Evaluation plan
- Utility
- Systems operations
- Simplicity, flexibility, data quality, acceptability, sensitivity, predictive value positive, representativeness, timeliness, stability.

#### **4. NEXT STEPS**

1. Each country should work with key partners involved in surveillance and develop a national plan considering the key elements of the surveillance system.
2. The national plan should be cleared by the concerned authorities and shared with the Regional Office and the subregional network for comments and feedback.
3. Countries that show progress in planning and implementation will receive further technical support and capacity building in the area to cope with the demands of the evolving system.

**Annex 1**

**PROGRAMME**

**Sunday, 18 October 2009**

- 09:00–09:30 Registration
- 09:30–10:30 Address of Dr Hussein A. Gezairy, Regional Director, WHO-EMRO  
Opening Address of H.E. Dr Rida Saeed, Minister of Health, Syria  
Opening remarks, objectives of the Consultation / *Dr Haifa Madi, Director Health Protection and Promotion, WHO/EMRO*  
Introduction of participants  
Review of agenda and programme

*Chairperson:*

First Half: Dr Mohamed Al-Thani

*Rapporteur:*

Ms Monika Bloesnner

- 11:00–11:30 Introduction to the surveillance system and monitoring and evaluation of the nutritional situation  
*By Dr Ayoub Aljawaldehy, WHO EMRO*
- 11:30–12:15 Planning and development of surveillance system  
*By Dr Maria Elena Jefferds, CDC Atlanta*
- 12:15–12:30 Discussion

*Chairperson:*

Second Half: Dr Hani Al Atrash

*Rapporteur:*

Ms Victoria Eluzai

- 13:30–14:30 Presentations of the countries about the status of national nutritional surveillance system (Afghanistan, Bahrain, Egypt, Iraq)
- 15:00–17:00 Continue presentations of the countries about the status of national nutritional surveillance system (Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Morocco, Oman)
- 17:00–17:30 Discussions and wrap-up

**Monday, 19 October 2009**

*Chairperson:*

First Half: Dr Nawal Al-Hamad

*Rapporteur:*

Ms Wisam Qarqash

- 09:00–09:15 Summary presentation on the work done in the previous day / *Ms Monika Bloessner*
- 09:15–10:30 Continue presentations of the countries about the status of national nutritional surveillance system (Palestine, Pakistan, Qatar, Saudi Arabia, Sudan, Somalia, Syrian Arab Republic, Tunisia, United Arab Emirates, Yemen)

- 10:30–11:00 Feedback from the team visited Kuwait–Nutrition Surveillance / *Ms Tatyana El Kour, WHO Jordan*
- 11:30–12:15 Develop monitoring and evaluation for school system related to school feeding programme / *Eng. Wissam Qarqash, Johns Hopkins University in Jordan*
- 12:15–13:00 Childhood Obesity Surveillance Initiative / *Ms Trudy Wijnhoven, WHO EUROe*
- 13:00–13:15 Discussions

*Chairperson:*

Second Half:

Dr Salah El Badawi

*Rapporteur:*

Dr Adelheid Onyango

- 13:45–14:30 Software and database used by WHO / *Monika Barbara, WHO HQ*
- 14:30–15:00 Indicators and methods for cross sectional surveys for vitamin nutrition surveillance and minerals status of population / *Dr Maria Jefferds, CDC Atlanta*
- 15:00–15:30 Food security monitoring system in the Region / *Mr Asif Niazi, WFP*
- 15:30–16:00 Introduction to Food Security Unit in Somalia / *Ms Grainne Molony, FSNAU*
- 16:00–16:30 Software and database used by FAO for data base analysis / *Dr Fatimah Hachem, FAO*
- 16:30–17:00 Software and database used by UNICEF for data base analysis / *Ms Piyalli Mustaphi, UNICEF Jordan*
- 17:00–17:30 Nutrition surveillance using WHO standards from birth to children under five years old and 5 to 19 y reference / *Dr Adelheid Onyango, WHO HQ*
- 17:30–17:45 Discussions and Wrap-Up

**Tuesday, 20 October 2009***Chairperson:*

First Half: Dr Vijayakumar Moses

*Rapporteur:*

Dr Iman Bahnasi

- 09:00–09:15 Summary presentation on the work done in the previous day / *Ms Wissam Qarqash*
- 09:15–09:45 Overview of monitoring and evaluation of vitamin and mineral interventions/ *Dr Maria Elena Jefferds, CDC Atlanta*
- 09:45–10:30 Iodine deficiency and universal salt iodization programmes, data and progress status in the Region / *Dr Izzeldine Hussein, Regional Coordinator, ICCIDD*
- 11:00–11:45 Food fortification programmes in the region and the need for monitoring and evaluation / *Dr Mohamed Mansour, GAIN*
- 11:45–12:30 Guidelines for conducting birth defects surveillance / *Dr Hani Atrash, CDC Atlanta*

*Chairperson:*

Second Half: Dr Izzeldine Osman

*Rapporteur:*

Ms Piyali Mustaphi

- 13:30–14:15      Establishing a registry for birth defects and NTD at national levels / *Dr Hani Atrash, CDC Atlanta*
- 14:15–15:45      Four working groups to develop regional and subregional action plan and network
- 16:15–17:30      Presentation of working groups

**Wednesday, 21 October 2009**

*Chairperson:*

First Half: Dr Fatima Hachem

*Rapporteur:*

Ms Grainne Moloney

- 09:00–09:15      Summary presentation on the work done in the previous day / *Dr Iman Bahnasi*
- 09:00–10:30      Country working groups to develop national plans
- 11:00–13:00      Country presentations on specific nutrition surveillance work plan
- 13:00–13:30      Closing ceremony and distribution of certificates

**Annex 2**

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