

Summary report on the

**Consultative meeting to develop
basic epidemiological concepts in
public health practice for emerging
and re-emerging diseases**

Beirut, Lebanon
14–16 November 2011



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Contents

1.	Introduction.....	1
2.	Summary of discussions	2
3.	The way forward.....	8

1. Introduction

The WHO Regional Office for the Eastern Mediterranean organized a consultative meeting to develop basic epidemiological concepts for emerging and re-emerging diseases in public health practice in Beirut, Lebanon, from 14 to 16 November 2011. The objective of the consultation was to agree on an outline and way forward for the development of a guidance document for health care providers in the WHO Eastern Mediterranean Region to apply contemporary epidemiological principles and tools in public health management.

The consultation was attended by senior medical epidemiologists, public health professionals and public health practitioners from academia and public health management involved in providing epidemiological services in the field of public health from Egypt, Islamic Republic of Iran, Lebanon, Oman, Sudan and Tunisia.

The meeting was opened by Dr Sameen Siddiqi, WHO Representative, Lebanon, who noted that health care managers were increasingly faced with complex questions that required the availability of certain information to respond. The ongoing evolution of health care administration and increasing involvement of health workers in public health management mandated the application of contemporary epidemiological and other principles and applications that affected policy formulation, which were fully dependent on epidemiological data. It was hoped that the consultation would emerge with an outline for the principles and tools that would assist health care workers in applying epidemiological methods and principles in their day-to-day work.

During the meeting, the participants discussed the outline of a guidance document under seven broad areas: the role of epidemiology

in public health practice; community diagnosis; surveillance; setting health priorities and targets; developing health programmes; basic community interventions; and monitoring and evaluation of health services and programmes. The participants agreed on key concepts to be communicated under each subject area. They also identified volunteers to contribute to development of each subject area and agreed on a timetable for follow-up action.

2. Summary of discussions

Uses of epidemiology in public health practice

(Dr Mohamed Genedy, Dr Rana Jawad Asghar, Dr Samir Refaey Abu Zid)

- Basic epidemiological principles (concepts) are needed by all health workers and communities at large in the process of improving their health status.
- Epidemiology is a fundamental discipline for all public health workers. It is used for producing evidence for decision-making, planning, monitoring and evaluating public health programmes and their cost effectiveness.
- In order for public health workers to apply epidemiological concepts in their work, it should be presented to them in a simple, short, concrete and accurate form.
- Key terms to consider include: strong teamwork; active involvement and empowerment of all members of the communities; advocacy and “social marketing”; ethics; public health laws; transparency; publications; human ecology; assisting other specialties to be part of public health medicine; cross-border collaboration; determinants of diseases; health services;

epidemiology of health itself (accessibility and equity); lifestyle and health.

- Tools should be developed for training public health workers on basic epidemiological concepts required for performing their work. Structured training programmes, including pre-service and in-service training, should be developed.

Community diagnosis

(Dr Mohammed AR Nour, Dr Abdel Rahman El Tom)

- Operational definition: A comprehensive participatory identification and quantification of a community's dynamics and its health status and health services in relation to its social, economic, cultural, physical and environmental correlates, with the purpose of defining those at risk or in need of health care over a specific time period.
- Community diagnosis requires applying the descriptive epidemiological concepts of time, person and place.
- Community diagnosis is a must for public health action. The tool for descriptive epidemiology should be developed to train all health care workers.
- The scope of participants in community diagnosis is very wide and includes many different groups in the community, making it a challenging process. The use of basic descriptive epidemiological concepts will be a converging (unifying) factor.
- Descriptive epidemiological tools are currently available; however, they should be adapted to the various groups and levels of health workers.
- Key terms to consider: political problems, focus group discussions, sustainability through surveillance system,

simplifying methods, peripheral health workers, main partners, media, community leaders, key predictors of major public health problems, data generated by health professionals, use of data produced through community diagnosis.

Surveillance

(Dr Ahmed Zidouh, Dr Mohamed Genedy, Dr M Medhi Gouya, Dr Nada Ghosn, Dr Payman Hemmati, Dr Rana Jawad Asghar, Dr Salah Al Awaidy, Dr Samir Refaey Abu Zid)

- Definitions:
 - Classical: public health surveillance is the ongoing systematic collection, analysis, interpretation, and dissemination of health data
 - Operational definition: Surveillance produces information for action.
- Surveillance data are essential for identifying and updating public health problems, defining their determinants and their control measures, and how to evaluate those. Surveillance data as such have a different purpose from data collected for the health information system.
- Tools to introduce surveillance to public health workers are currently available and need to be tailored to different levels. Structured training programmes should be developed including pre-service and in-service training.
- Key terms to consider: high turnover of the health workers, pre-service training, in-service refresher courses, results of the evaluation.

Setting priorities and targets

Priority-setting (Dr Zuhair Hallaj)

- Operational definition: priority-setting is a participatory evidence-based country-led process based on epidemiological and economical considerations that should be performed by all relevant stakeholders.
- All public health workers should know epidemiological concepts for priority-setting corresponding to their level of responsibility.
- The epidemiological concepts for priority-setting are: burden of disease, international importance of the disease, social preferences, ethical issues including equity, public pressure, cost effectiveness, feasibility of control and predictions.
- All relevant stakeholders should be involved in setting priorities. Orientation on epidemiological concepts and active involvement of stakeholders (including the media and communities) in setting priorities are essential for developing appropriate priorities.
- A simple tool should be developed for priority-setting by public health workers. Structured training programmes should be developed including pre-service and in-service training.

Target-setting (Dr Payman Hemmati, Dr Zuhair Hallaj)

- Operational definition: Target is time-bound desired level of improvement. Targets can be in performance (process) or impact (reduction) categories.
- Target-setting is an important part of planning public health interventions. It indicates areas of high priority, helps to define agreed action, focuses attention and resources on achieving the

target, motivates the staff and provides a way to involve the community in the process.

- A number of epidemiological concepts are required for setting the targets. These include defining the problem, defining the strategic approaches for control of disease, effectiveness, assessing the resources (human, financial, physical, etc.) and reviewing international experience, among others.
- Tools for training the public health workers on setting the targets should be developed. Structured training programmes should be developed including pre-service and in-service training.

Developing health programmes

(Dr M. Mehdi Gouya, Dr Payman Hemmati, Dr Zuhair Hallaj)

- Operational definition: A set of targets and planned activities to reach specific health objectives.
- Epidemiological concepts are required for all those who participate in the health programming. These concepts are: setting the targets (interim), identifying strategic approaches, defining expected results, identifying required activities for achieving the expected results, developing indicators, identifying resources and obstacles.
- Tools should be developed for training the public health workers on developing public health programmes. Structured training programmes should be developed including pre-service and in-service training.

Basic community interventions

(Dr M. Mehdi Gouya, Dr Nada Ghosn, Dr Payman Hemmati, Dr Salah Al Awaidy)

- Operational definition: Measures applied on a community scale to prevent or control a specific health problem.
- Basic community interventions in general includes the following:
 - Case management including isolation of cases and known carriers
 - Eradication of the reservoir or risk factors (non-human)
 - Environmental sanitation
 - Increasing the defense mechanisms of the host.
- Basic epidemiological concepts that will help the public health workers in their work are: choosing the right intervention, the right way of applying them, and how to ensure their acceptability, accessibility, equity and cost effectiveness.
- Tools should be developed for training the public health workers on developing and applying basic community interventions. Structured training programmes should be developed including pre-service and in-service training.
- The keywords to be considered are:
 - Lifestyle
 - Sustainability
 - Health for all by all
 - Legislation (public health laws)
 - Preparedness
 - Intersectoral collaboration
 - Motivating and involving private sector in public health action
 - Rapid surveys are required to answer programmatic questions.
 - Developing marketing business approaches

Monitoring and evaluation

(Dr Ahmed Zidouh, Dr Nada Ghosn)

- Operational definitions: Monitoring is an ongoing systematic follow up of programme activities (process); Evaluation is a periodic assessment of the achievement towards the targets (outcome/impact)
- Public health workers should monitor and evaluate their own programs regularly using limited number of carefully selected indicators.
- Setting the indicators is an epidemiological concept. As all public health workers have to participate in the process, therefore a tool has to be developed. Structured training programs including pre-service and in-service training should be developed.
- Key concepts to be considered are:
 - Evaluation should be built in
 - Planning and evaluation is a dynamic process
 - Supportive culture and attitude are needed
 - Checklists are important
 - Need to avoid over burdening the health system.

3. The way forward

Participants agreed the following timetable to follow up action agreed during the consultation.

Distribution of summary report	2 weeks
Draft final report	1 month
Distribution of guidelines for contributors	2 weeks
Development of contents	6 months