

Background

The Ministry of Public Health requested the WHO country office in Lebanon in 2013 to assist in the mapping of health facilities in Lebanon using GIS technology. Such mapping will be beneficial in showing current distribution and disparities among existing health facilities and for taking decisions in the future while establishing or issuing licenses for new facilities.

The Ministry has undertaken similar efforts in the past to enhance capacity in the use of information technology and to introduce *carte sanitaire* under the health sector reform project. In addition, efforts have been made to strengthen the national health information system (HIS) to provide information on health facilities on a regular basis, as well as to establish a national health observatory.

Currently, the Ministry of Public Health in an effort to rationalize the uneven growth and distribution of health facilities and to streamline licensing procedures has requested WHO's support for a renewed effort to map health facilities using GIS technology. This brief proposal has been prepared to outline the purpose and a roadmap for realizing the project.

Goal and objectives

The mapping of health facilities in the country will provide health policy-makers with information to assist them in making better and more accurate decisions regarding the distribution of access to health care services.

The project's objectives are to develop a GIS map of health facilities across the country to provide:

- information on geographical distribution and the range of health services provided by these health facilities;
- evolve a system whereby such information is updated on a regular basis by the concerned unit in the Ministry of Public Health.

Scope

The project will cover all the 27 *qadas* in the country. All health facilities – primary, secondary and tertiary; laboratories, physiotherapy and rehabilitation centres and other allied facilities in the public and non-public sector [for-profit and not for profit] will be mapped.

Roadmap for project implementation

Organizational arrangements

- A steering committee composed of MOPH central team representatives (IT, HIS, and health facility units), WHO, and relevant orders and syndicates will be established to oversee and facilitate the implementation of the project.
- A technical team comprising Ministry IT staff, Minister's Office and WHO secretariat will provide technical oversight and monitor progress.
- Field supervisors will be assigned by the Ministry team for every *mohafaza*.
- A focal person will be identified in each *qada* to monitor day-to-day progress and ensure timely implementation.

Survey instrument and staff training

A standard survey form will be elaborated and used in all *qadas* to collect the information. Data will be collected concerning some basic parameters defining the health facility, such as facility name, staffing, summary of health services provided, GPS, contact person and contact including email, telephone, etc.

The *qada* unit health staff (IT and PH staff) will be the field team surveyors. They will be trained on use of the GPS machine and completing the survey tool. Honoraria will be provided to field staff as motivation for undertaking the survey.

Data collection and management

The project will be executed in five phases as follows:

Preparatory phase

It includes development and pretesting of the tool, selection of the field surveyors, and the supervisors, establishing the steering committee, and meeting with the relevant orders and syndicates to finalize the plan of action.

Expected duration: 2 months

Pilot phase

It includes piloting and finalization of the tools and the process of implementation and amendment of the plan of action if need be. This will be done in one medium-sized *qada*.

Expected duration: 1 month

- Data collection: phase one

During this phase staff training and data collection will be done in 50% of the *qadas*. Expected duration: 3 months

- Data collection: phase two

During this phase staff training and data collection will be done in the other 50% of the *qadas*.

Expected duration: 3 months

Data will be entered concurrently in data collection phases one and two. Data entry will be done at *qada* level and sent electronically to the steering committee for developing the health map. The data will be converted to ArcGIS system to feed the GIS unit at the Ministry of Public Health. The team in WHO will facilitate data validation.

Data analysis and dissemination phase

Data will be analysed and plotted to produce GIS map of health facilities. The results will be disseminated in a national workshop and online through the Ministry and WHO websites.

Expected duration: 2 months

WHO's technical support

WHO will provide technical support in:

- procurement of GPS machines
- finalization of the survey tool and the training of field surveyors and supervisors
- data analysis and in converting the data to optimize its use at the Ministry of Public Health

- establishment of a GIS station based on Health Mapper at the Ministry of Public Health
- dissemination workshop.

Expected benefits

At the end of project implementation, which is expected to take 12 months, the following benefits will be offered:

- health facilities mapped in the GIS across the country;
- GIS unit/station established and functional at the Ministry of Public Health, which will be in charge of feeding the system with new data in future;
- Ministry of Public Health policy to license new health centres revised and based on GIS mapping.

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