

Health Research in Lebanon: a country report

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1. Introduction

During the past decade, Lebanon has been engaged in rehabilitating and restructuring its health care system, which was damaged by 16 years of war. With the limited resources available, it was necessary to take decisions based on sound scientific grounds. Lebanon therefore decided to undertake vigorously essential national health research to accelerate health action in diverse national and community settings, and to ensure that resources, available for the health sector, achieve maximum results.

Lebanon has always shown the flag for research, even during the war years. Most of the research was performed by professors and health professionals in many parts of the country, in particular the American University of Beirut (AUB). All types of research, in different areas and to various extents, were tackled, including:

- biomedical research to develop better preventive and/or treatment methods;
- engineering and biotechnology;
- health systems research;
- innovative health financing schemes;
- methods for policy making;
- social and behavioral research.

Each of the above areas entailed a range of research levels: basic, applied (clinical), epidemiology, social and behavioral, and operational (ref. survey Jurjus, 1996).

A task force for health research visited Lebanon between 10 and 14 December 1994. The terms of reference of the task force addressed the identification of a health research policy and research strategy, the drafting of a national plan of action to implement the strategy, and coordination and cooperation of all stakeholders for the promotion of health research. The findings of the task force were discussed in a meeting of managers and scientists from the Lebanese Research Council, the Ministry of Public Health, the Lebanese Association for the Advancement of Science, universities, and WHO. As a result, the following situational analysis and recommendations were adopted.

2. Situational Analysis

The universities and other institutions in Lebanon have a long history and tradition of carrying out health research. This activity, like many others, suffered during the 16-year war, especially as many scientists left the country and equipment and premises were damaged and not renewed. However, some research activity continued. Efforts are now being made to revive research, especially through the activities of the Lebanese National Council for Scientific Research (LNCSR), which is responsible for promoting, planning and supporting research in the country. This is an independent body affiliated to the Prime Minister. The Council has a growing budget for funding research in general and is also active in the field of health research. The universities (AUB, St. Joseph and Lebanese) are also actively engaged in reviving research, which covers not only clinical and biomedical subjects, but also health systems research. The Ministry of

Public Health is currently engaged in expanding and improving its primary health care network and is aware of the need for a health information system and health systems research in this programme to solve its problems.

The main constraints in the development of health systems research are the shortage of trained and motivated workers and the paucity of funds to support research. In view of the acknowledgement of the need for research by all those concerned in academia, and the Government policy to encourage it, the overall situation can be regarded as favourable.

2.1 Recommendations

- The Lebanese National Council for Scientific Research (LNCSR) is the preferred focal point for further development of health research.
- The Council needs to strengthen the mechanism for the planning, promotion, coordination and follow-up of health research. This may be done either by enlarging the present Board or by creating a Consultative Committee, which should have as members not only health scientists, but also members of health services, sociologists, NGOs and others. The Committee should advise the Council not only on the allocation of funds, but also on priorities and strategy, training and other aspects of capacity building and cooperation with outside bodies and organizations, including WHO.
- The Council may wish to convene a meeting of researchers and consumers of research (health care managers, industry, NGOs etc) to draw up an agenda of health research for the next few years.
- The Council and MOH should hold a meeting for the advocacy of HSR as a tool for health development (including hospital management) to be attended by health care personnel, university scientists, and others likely to use HSR. LAAS may join in organizing the meeting and publicizing the concepts developed there.
- Training courses in HSR methodology and protocol development, using the appropriate language, should be held in Beirut and other parts of the country for health care personnel, university scientists, and others.
- The information system, including library, bibliographic and similar services, should be strengthened, possibly using the existing facilities of the AUB as a base. These should be made available to all health workers. Clear information and guidelines are needed for researchers on the procedures for obtaining research grants from different institutions in Lebanon, as well as WHO and other international organizations.
- Arrangements should also be made to provide statistical and other data analysis facilities to research workers in MOH and institutions where these facilities do not exist.
- The Universities should give training in research methodology at both the undergraduate and postgraduate levels.

- Cooperation with WHO and its research-promoting system should be strengthened in developing various types of health research. The Council might send the official responsible for health research to its secretariat, to WHO/EMRO in Alexandria and WHO/HQ in Geneva, to familiarize her/himself with WHO systems and various possibilities of cooperation. The report of these visits should be disseminated widely to all concerned in the country.

2.2 Specific recommendations to WHO

- WHO should participate in elaborating research policy and setting the agenda for research.
- WHO support is required for holding the HSR advocacy meeting mentioned above and for planning the training courses in HSR methodology and protocol development.
- Advice and support should be provided for further development of the information (library) services.

3. Health research policy and priorities

Health research policy was part of the General Research Policy, as set by the Lebanese National Council for Research. However, another important stage along this line was the workshop held in Beirut on 28-30 November 1997. The objectives of the workshop were as follows:

- to set national policies for health and medical research;
- to identify national health research priorities mainly in support of decision-making in health action;
- to identify mechanisms for the promotion of health research and research capacity building, including reinforcement of management and coordination.

The proceedings of the workshop were of great interest and drew the general outline for priority-setting criteria. Such general criteria were broken down into subtitles and research areas and disciplines, as it will appear later.

The infrastructure for health research exists in Lebanon, in terms of human and material resources, as well as information technology accessibility and facilities. The trends in funding have changed, however, over the past ten years, particularly during the last 3-4 years. There has been an increase in:

- international sources, promoting collaborative, and sometimes subject-oriented research, like the CEDRE, NIH, and drug companies;
- the national commitment from the American University, LNCSR, MOPH, and local drug companies, among others.

The task force report mentioned the various sources involved in health research. However, the most productive is the AUB and its various faculties and departments, be it in basic, applied (clinical), clinical trials, behavioural or health systems research.

The most productive groups in health research are:

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4. Stakeholders, interested parties in health research, the driving force for the National Health Research Agenda

It was clear to the Task Force for Health Research (EMRO/TFHR), which visited our country at the end of 1994, that Lebanon had gone a long way in establishing a mechanism that would guarantee the sustainability of active health research. One of its recommendations was the holding of a national meeting in order to complete the picture with policies and priorities for health research.

The research priorities of governments, universities and individual scientists may be very different, and there is no easy formula to do justice to all of them. The Ministry of Health will need information on the state of health of the nation and of susceptible groups together with studies on the efficiency and effectiveness of the health services. Within this framework there will be questions that require a quick, approximate answer and others, which are less urgent but where accuracy is important. The government may then give priority to operational research, fund it and even develop organizational frameworks to ensure that it is done.

Individual scientists and research establishments usually prefer to define their own priorities and will insist that identification of promising research areas is a highly skilled scientific judgement. Much health research is conducted by teachers and others in medical schools, who may need to justify their project in order to obtain the necessary funds and ultimately get their desired academic promotion. Clinicians may pursue their research interests, partly by diverting resources meant for the care of patients, and partly by seeking additional funds. Research directions were also influenced by provision of designated funds by the Ministry of Public Health and interested groups, such as pharmaceutical manufacturers or other national or foreign associations.

It would be ideal if it were possible to meet all the needs of basic and applied research, of short-term and long-term studies and of the requirements of specialized groups. Even for rich countries this is not always possible and decisions must be made to fund one line of research rather than another. For countries like Lebanon, and for those beginning to develop their research facilities, it will be necessary to take centralized decisions as to priorities and probably be a part of the driving force.

The ultimate goal of any national health-development process is to enable its people to reach a level of health that allows them to participate actively in the social and economic life of the community in which they live. To attain this objective, existing health systems must be redirected to achieve equitable reallocation of resources for total health coverage, increased accessibility to primary health care services, and effective referral to secondary and tertiary levels of care. It is also relevant to develop appropriate mechanisms to promote effective community participation in the promotion and maintenance of health. This was clear to some decision makers, who encouraged researchers in part to go into these domains.

Such redirection of health systems may require changes in health care planning and government policy; in the organization and administration of health and related services; in the financing and budgeting of systems and procedures, as well as in the selection and application of appropriate technology. The WHO and MOPH decision makers again motivated and supported research in these areas.

To effect the necessary changes, Lebanon must decide on the best approach to adopt. This requires detailed and accurate information on needs, possibilities and consequences of recommended actions. Such information is often lacking, inadequate or unreliable. As a result, decisions are based on assumptions and unjustified conclusions and often result in inappropriate policy choices, the consequences of which are only discovered after implementation. Such needs must drive our research.

5. Priority setting

The health problems of Lebanon have been prioritized in a workshop attended by 60 participants from different national universities and institutions. This was held in November 1997 and concluded with a two-page document signed by the LNCSR, the MOPH and WHO. It reads as follows:

- To establish a mechanism to develop, maintain, improve and make accessible a health information database and network:
 - LNCSR and MOPH will act as supervisory bodies with the universities and the health care institutions as the infrastructure for data collection.
 - A website and a bulletin board need to be established within LNCSR, through which researchers and policy makers can access health-related information, as well as contribute to such a database under the supervision of LNCSR.
- To consider the possibility of using WHO's Collaborating Centre mechanism to assist building research capacities in Lebanon.
- To hold a follow-up meeting within the coming year in order to advance the implementation of the recommendations and to encourage further cooperation between LNCSR, MOPH, WHO and other stakeholders.

5.1 Workshop recommendations

The participants also recommended the following prioritization criteria to LNCSR:

- Research is encouraged in the area of intervention studies to alleviate major disease burdens affecting or threatening large population groups.
 - After extensive discussions, the participants deliberately avoided specifying a list of disease entities to avoid both irrelevant inclusions and exclusions, since this would have generated controversial discussion. Based on the agreed criteria of prioritization and the objective evidence presented by the researchers, LNCSR will judge the merits of research proposals for financial support. The investigator will have to present clearly evidence of compliance in the proposal.
- To meet present and future challenges to, and consumer expectations of, health services, research is encouraged in the areas of equity, quality care, management and organizational aspects, human resources, and health care financing and economics.
- Cross-sectoral and multidisciplinary research is encouraged for identification and intervention studies pertaining to determinants of health and disease:
 - This shall include studies of risk factors in such areas as behaviour, lifestyle and the environment.

5.2 Top ten health problems

- ***Non-communicable Diseases***
 - Cardiovascular disease and hypertension
 - Cancer
 - Mental health
 - Drug use
 - Genetic diseases
 - Reproductive health

- Oral health
- ***Communicable Diseases***
 - Viral infections: HBV, HIV
 - Tuberculosis
 - Antibiotic resistance
- ***Intervention research: burden of disease***
- ***Health systems research.***

6. Health research support

Health research is supported by the Government, which annually allocates a given percentage of its budget to the LNCSR. Although this is by no means enough, it could be of some assistance. We have not yet reached the point where we can say that research is being accorded priority status by the Government. On the other hand, in a presidential address, President Lahoud spoke highly of research and researchers in general, and considered research as an indicator of the progress of nations. It should be encouraged. On the other hand, some health research results have reached the decision makers and changes in health policy have followed, e.g., in cardiovascular diseases, medical technology availability, radiotherapy, and household expenses.

Although health research priorities have been established through a national consensus workshop, nowadays, only a small proportion of the total national health research effort is in direct response to the priority health needs of the country. The existing national coordinating mechanisms for health research should be in the hands of LNCSR and the focal point for health research at the MOPH. However, little coordination is being practised. More commitment is needed from the decision makers at the MOPH not to bypass the system in practice for reviewing proposals at the LNCSR or by the focal point at the Ministry.

Research networking does not exist in Lebanon. However, efforts are being deployed by the Medical Library at the AUB in this direction, e.g., Lebanese corner.

There is no registry for external collaboration in health research. However, French teams in particular have participated in a dozen or so studies and the World Bank project had a strong component for health research. Studies covered, among others, include:

- the health map;
- the DRG system;
- the household survey;
- other interventional studies.

It is thought that the international agencies, if used properly, could play an effective role in supporting health research in developing countries.

Systematic attempts to strengthen national capacities for health research were not obvious, except for the continuous request from university administrations for more research of international value as a prerequisite for faculty promotion and consequently their career maintenance and upgrading. We can add to that the task force in 1994, the national policies and strategies workshop in 1997, and the national workshop on writing research proposals and reviewing scientific papers, and editing medical journals in July 1999.

7. Constraints

A list of four major constraints to further development of health research and practical suggestions for overcoming them are as follows:

- Lack of an accessible health information database and network for Lebanon.
- The journals and media instruments available in Lebanon and the region are not recognized by the authorities of the universities for academic promotion.
- International financial support not earmarked for a specific subject but serving the priorities in general (tropical diseases).
- Need for more collaboration and coordination among health researchers.

8. Conclusions

National health development is an incremental, cumulative and dynamic process that requires inputs from the various social and economic development sectors in addition to the health sector, e.g. education, agriculture, industry, housing, water and environmental sanitation, as well as local government. The organized contributions of all these sectors form the components of the health system and their combined efforts lead to changes and improvements in the health status of the population. The health care delivery system is the component of the health system which provides the population with various types of preventive, curative and rehabilitative health services.

The adoption of the Health for All strategy requires countries to gear their national health development process accordingly. Thus, the adoption of the health strategy will require fundamental changes in the management of national health development at all levels, i.e. policy, planning, organization, administration, financing and budgeting, as well as evaluation.

To effect such changes, Lebanon has to decide on the best approaches to adopt. For this purpose, managers at all levels need detailed and accurate information on a large variety of issues, such as priority health needs, availability of health and related resources in terms of the technology and strategies that are available and their respective effectiveness, cost and acceptability. However, such information is often lacking, inadequate or unreliable. As a result, decision making is often based on assumptions and unjustified opinions, and can result in inappropriate choices and decisions, the consequences of which are discovered too late and only after implementation. The undesirable consequences are then usually corrected through a system of trial and error, without a factual assessment of the actual reasons behind

these consequences. This is what research should be geared for and its results properly disseminated and used by decision makers.