

Health research in Egypt – a country report

June 2000

1. Introduction

Egypt is a country with a population of some 65 million people. It has been passing through a period of economic and developmental transition for the past decades. The country has an extensive health care system and a wealth of research capacity. Several research institutions exist, including 15 universities and several institutes. The mass of experienced researchers has contributed considerably for decades to carrying out research at both academic and applied levels. Commitment to Health Systems Research (HSR), i.e. operational/applied research that addresses both community and system problems, has been increasing in recent years. This is evident from the increasing awareness of the need for and use of HSR, as well as from the efforts made to increase capacity-building. Research plans are designed to render major policy decisions more objective in the health sector reforms. In September 1999 a presidential commitment was announced to increase research activities to address all problems, including health.

2. The Ministry of Health and Population (MOHP)

The MOHP pursues a policy of building linkages between health research programmes and policy formulation by decision-makers. A major thrust of policy is to reform the health care system by building on the creation of an effective integrated system that ensures the main objectives of reform, in terms of equity, efficiency, quality and sustainability. Examples of research activities in this area are:

- technical auditing to identify gaps in resource allocations in order to build up a national master plan;
- epidemiological and demographic studies to identify the targeted priorities;
- client satisfaction studies in order to start a QI policy programme;
- assessment to identify the training needs for family practice, referral and integrated PHC programmes. This includes testing the outcome of two medical television channels and the use of telemedicine as tools for continuous medical education.

2.1 Scientific Committee

Recently, the MOHP has established a Scientific Committee responsible for health research with the following objectives:

- to assess health needs at all levels of care;
- to assess the most common health problems in the country;
- to monitor and evaluate health programmes;
- to study the design of new health research activities and their appropriateness within the MOHP plan and priorities;

- to evaluate the results of new research activities and documentation.

3. The National Academy of Science and Technology (NAST)

The NAST was founded 50 years ago and is the main organization in the country for the planning of national research. The Academy formulates the 5-year plan for the conduct of research projects on major health problems, as prioritized by MOHP and the Health Council.

3.1 National Research Plan (1998-2002)

Current research areas included in the National Research Plan of the Egyptian National Academy of Science and Technology (1998-2002):

- Health system research.
- Evaluation of urban/rural maternal and child health services.
- Epidemiology of priority diseases and health services in remote areas.
- Pathogenic microorganisms and drug resistance.
- Prevention and disability control of accidents to children, IEC programmes.
- Disaster management.
- Local drug industry development.
- Outcomes and impacts of environmental sanitation programmes on schistosomiasis.
- Geriatrics needs, life and health care.

4. Universities

Universities have carried out several applied research projects in addition to their ongoing academic research activities. The Department of Community Medicine in the Assiut and the Suez Canal Universities are good examples of that. These two universities in particular were also involved in integrated multi-centre research projects with MOHP and NAST.

5. The most productive national health research institutes

5.1 Medical Research Council of the NAST

The Medical Research Council develops a five-year national health research plan (currently 1998 -2002), which is based on:

- national needs assessment;
- prioritization process;
- research capacity building;
- budget for contract research;
- monitoring and evaluation mechanism.

5.2 Ministry of Health and Population Research Centres

5.2.1 Centre for Field and Applied Research

This centre was established more than 45 years ago. Its activities are in applied and field research dealing with priority health problems and environmental impact. In 1996, a Health Systems Research Unit was created within this centre with the main objectives of:

- supporting the decision-making mechanism;
- planning cost-effective studies;
- developing health management indicators;
- advocating with NGOs and mobilizing the community;
- identifying health system problems and prioritizing them, as well as research on test solutions, and evaluation efforts.

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5.2.2 National Institute for Nutrition

This is an autonomous body promoting national research in the area of nutrition and nutritional problems.

Address: Kaser Elaieny St, Cairo, Egypt.

5.2.3 National Institute of Diabetes Mellitus and Endocrinology

This is a research centre, including a hospital, for research in the area of diabetes mellitus and endocrinal diseases. One of the major research activities in the early 90s was a National Survey of Diabetes Mellitus

Address: Kaser Elaieny St, Cairo, Egypt.

5.2.4 National Population Council

This is the supportive body for population policy, services and research.

Address : Kornish Elnile, Elmaady, Egypt, Cairo.

6 Ministry of Scientific Research and Technology Institutes

These institutes were established 40 years ago by the Ministry of Education as scientific bodies promoting and implementing research in special medical fields.

6.1 Theodor Bilharz Research Institute: dealing with research on bilharzia (schistosomiasis) and tropical diseases. Address :Kornish Elnile St, Elwarak, Egypt, Cairo.

6.2 Institute of Ophthalmology, dealing with research on eye diseases.

Address: Kornish ElNile, Guiza, Egypt.

6.3 National Centre for Research, with units dealing with medical and environmental research.

Address: Dokki, Guiza, Egypt.

6.4 Higher Institute of Public Health and Medical Research (Alexandria) dealing with various aspects of medical research, especially those of epidemiological importance.

7 Presidential Advisory Councils (health development sector)

These councils were established 20 years ago by the government to provide centres of high expertise to work together in areas of common interest. A Unit for Health and Population services is involved in the study of improving health policy and the utility of the health service. It also serves to disseminate information to decision-makers.

8. Professional NGOs

These implement community-based research according to local needs, and include:

- Egyptian Community Medicine Association.
- Egyptian Medical Women Association.
- Egyptian Breast Milk Friends Association.
- Egyptian Fertility Society.
- The Society for Health Research for Development.
- Egyptian Medical Association and 46 affiliated member societies.

The stakeholders of research at the national level include: MOHP, National Academy of Science and Technology, National Research Centre, Universities, NGOs active in research, especially the Egyptian Medical Association.

9. Priority-setting exercises

Health problems in Egypt have been prioritised several times in recent decades. In 1993, the ESHRD Task Force on Priority Setting relied heavily on analysis of expert opinions and documents. Last year, given the changes occurring in the country, the MOHP, in the context of health sector reform, organized a workshop to update the list of research priorities, including the following areas:

- Development of the health system for health promotion, and provision of quality services, particularly of Primary Health Care (PHC) and Family Practice.
- Development of human resources for health, through equitable distribution, continuing education, and economics of their employment.
- Empowering the district health system approach.

9.1 The Centre for Field and Applied Research (MOHP)

The Centre in recent years has gone through the same process and ended up with the following list of high priority health problems:

- schistosomiasis;
- diarrhoeal diseases;
- tuberculosis;
- acute respiratory infections;
- hepatitis B/C/E virus infections.;
- diabetes mellitus;
- cardiovascular diseases;
- vector-borne viral and rickettsial diseases.
- health system research;
- infection control in dental clinics;
- smoking among young adults;
- development of medical teams' capabilities;
- investigations into the causes of non-functioning medical equipment.
- snail control studies;
- breast cancer epidemiology;
- quality assurance research to evaluate medical services.

Another task force was set up in the year 2000 under the guidance of the Minister of Health and Population to prepare an Egyptian agenda for health research.

9.2 Technical Support Office of the MOHP

Research was conducted under the guidance of the TSO (Technical Support Office of the MOHP) Director, Dr Wagida Anwer. The aim was to identify the priority research areas in Egypt in order to formulate a national research agenda. Its conclusions were as follows:

9.2.1 Top ten priorities of Health Systems Research

- Human resources development

- Quality of health care (assessment and Indicators).
- Information System.
- Evaluation of referral system.
- Health team & leadership.
- Planning of health services & administration.
- Incentive system for health personnel.
- Health care coverage.
- Costing of health care
- Sustainability of health programmes.

9.2.2 Top ten priorities of health behavioural topics

- Patient /doctor relationship.
- Female genital mutilation.
- Health education messages to different target groups.
- Hazards of smoking.
- Addiction problems.
- Effect of social/education/behaviour on health and disease.
- Drug consumption behaviour.
- Doctors/local authorities relationship.
- Refuse disposal.
- Dietary habits among different at risk groups.

9.2.3 The top ten biomedical research topics

- Hepatitis C infection.
- Bilharzia (schistosomiasis).
- Typhoid fever infection.
- Renal failure.
- Tuberculosis.
- Chest allergic conditions.
- Tumours.
- Environmental sanitation.
- Diabetes mellitus.
- AIDS.

10. Research into action

In September 1999 there was a presidential declaration urging all parties in the country to accord top priority to research activities and to use new technologies. Health research is being given a firm commitment at the highest political level, especially in the latest development plan for technology. Health research results have been used in many decisions taken at the national level to reformulate national health plans.

- Health sector reform now under way was heavily dependent upon in-depth studies done at different levels.
- The extensive use of ORS therapy in the control of diarrhoeal diseases was based on research studies conducted by the Centre for Field and Applied Research.
- The introduction of compulsory vaccination of children.
- Measles vaccination for one-year old children.
- Management scheme for primary and secondary prophylaxis of rheumatic heart disease using long acting penicillin.

11. National coordinating mechanism

The national coordinating mechanism for health research is the National Academy for Science and Technology. According to a five-year plan, research budgets are being distributed to different stakeholders. Still a lot of gaps exist within the areas of networking and dissemination of results. Through the national coordinating mechanism for health research many decisions have been taken to improve health services. These include scientific support in the form of:

- technical assistance;
- budgetary support;
- training programmes;
- transfer of technology systems.

National partners include:

- MOHP organizations;
- NAST;
- universities;
- research institutes of the Ministry of Scientific Research and Technology.

International partners include:

- WHO (HSR, IMCI);
- UNICEF (IMCI, Material mortality);

- USAID (SRP, DDM, DDP, HCP);
- JICA: funding establishment of the new children's hospital with different research units.

There are weak points in these coordinating systems, which lie mainly in the extensive bureaucratic rules of different agencies, which are often incompatible. Nonetheless, the outcome of these coordination activities is appreciated and has proved fruitful in many areas, especially HSR, IMCI & DDP.

12. National Capacity Building

In the last decade many attempts were made to strengthen the national capacity for health research. The establishment of many new departments has helped each institute to develop health research and to broaden the field of research activities. For example:

- marked development of data handling and transfer e.g. databanks, information units;
- introduction of new technology in diagnosis and treatment e.g. use of nuclear medicine and laser technology;
- use of mass media as a tool for health education in the form of a variety of interventions. e.g. control of diarrhoeal diseases., schistosomiasis, addiction, smoking;
- the increased and extended use of Health Systems Research.

In the coming decade, we feel that more collaborative efforts between national research institutes, centres and universities will be of great importance, especially if a good network for technology and the transfer of experience can be set up, with heavier reliance on, and a better use of, the already available expertise and equipment. Raising awareness of younger generations of medical teams is also crucial, and encouraging them to be involved in research activities, as well as the use of the already available findings of on-going research activities.

13. Budgeting for health research

There are no clear figures as to how much of the national budget is devoted to health research. But, in general, Egypt is spending less on health care than other comparable income countries. Less than 3-5 % of government expenditure is devoted to health. External funds were used for the development of some research activities (as mentioned above).

14. Constraints

The search for solutions to persisting major constraints on the further development of this field will determine the challenges to be addressed in health research for the coming decade, as follows:

- Limited national funding of research, due to competing national demands.
- Increasing cost of interventional and applied research in the communities.
- Inadequate networking among research centres.
- Poor dissemination and use of research findings.
- Insufficient coordination between different research organizations