FINAL DRAFT

DEVELOPING AND STRENGTHENING THE HEALTH RESEARCH SYSTEM IN PAKISTAN: GUIDELINES FOR ACTION AND OPERATIONAL PLAN 2001-2006

PAKISTAN MEDICAL RESEARCH COUNCIL GOVERNMENT OF PAKISTAN

ISLAMABAD, PAKISTAN

2001

<u>Title</u>

Developing and Strengthening the Health Research System in Pakistan: Guidelines for Action and Operational Plan 2001-2005

Prepared by

Pakistan Medical Research Council Government of Pakistan Islamabad, Pakistan

Executive Director

Dr. Tasleem Akhter

Consultant

Dr. Adnan A. Hyder

Dated

October 2001

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A. INTRODUCTION

The Pakistan Medical Research Council was established in 1962 to promote, organize and coordinate health research and to link health research to the development plans of Pakistan. As its main strategy the Council established research centres in the medical academic institutions of the country for assisting and facilitating the health research effort in these institutions, thereby achieving its own objectives. Over the years 18 research centers have been set-up in over 90% of the public sector undergraduate and all the postgraduate teaching institutions of the country. However, the strategy has not worked satisfactorily - the major reason being the neglect of research capacity building as an essential input into the system. The health research system thus requires a rethinking in the country and this process has global implications since less than 10% of resources for health research are being invested for 90% of the world's health problems.¹

In line with the current government policy of promoting research to help development in the country, the Pakistan Medical Research Council (PMRC) has started a comprehensive program to revive and invigorate the flagging research efforts in the health sector. As recommended in the report of the International Conference on Health Research for Development the key features of such an effort are to increase the capacity to prioritize country needs, improve work environment for researchers, develop strategic networks, partnerships and alliances and establish mechanisms to link health research to the development agenda of the country.² These are being incorporated in the current efforts to develop a more effective health research system. The restructured system is being based on the internationally agreed values of equity, ethics, ownership and participation of all stakeholders, the capacity for selfdetermination as regards to research priorities, solidarity, and the understanding that health research is not just generation of knowledge but part of a process of human development and empowerment and represents a critical investment. The system is being revitalized to undertake the functions of stewardship, knowledge generation, management and utilization, mobilization and effective and efficient use of finances, and capacity development for research.²

The process of strengthening the health research system in Pakistan began in early 2001. The **first** critical step in the process was the organization of a national seminar to develop priorities for health research. The seminar was held on February 26-27, 2001 with participation from the Health, Population Welfare, and Science and Technology Ministries, health academic institutions, university departments, the private sector and the NGO community. The participants of the seminar identified broad priorities in the critical areas of Health Services, Maternal and Child Health, Communicable Diseases, Non-Communicable Diseases, Mental Health and Health Systems Research.

The seminar explored the rationale and need for setting health research priorities at the national level. It involved available top intellectual and health research human resource of the country in plenary and group discussions on the health research needs

¹ Global Forum for Health Research. Financial Resource Flows for Health Research. Geneva: GFHR, 2001

² WHO/World Bank/Global Forum for Health Research/COHRED. Report on the International Conference on Health Research for Development. Geneva, 2001

and priorities of the country. The priorities were based on the values of equity and social justice and led to the development of a generic, relevant and essential national health research agenda. The entire deliberations were framed within the context of scarcity of resources for health in general and health research in particular in Pakistan.

This document –Developing and Strengthening the Health Research System in Pakistan: Guidelines for Action and Operational Plan – is based on the priorities identified is the **second** important step in the process. The operational plan includes the restructuring and strengthening plan of the Pakistan Medical Research Council to enable it to effectively undertake its leadership role in the field of health research in Pakistan. Guidelines for action are included for individuals and institutions, describing the process for undertaking required research, the different prerequisites to be undertaken prior to the actual conduct of research, and the means of identifying institutions, and resources needed (financial and others) for essential national research. This plan of action will guide activities such as the generation of funds, efforts for capacity development and consultations with national and international partners. The operational plan will also assist in monitoring the progress of PMRC in this enterprise.

The **third** step will be the implementation of this operational plan with the help and support of national and international partners. PMRC will serve as the focal point for essential national health research in the country with a focus on stimulating, facilitating and enabling the conduct of research and the use of research. Participation, collaboration and cooperation of all the different stakeholders will be the central strategy of the implementation process with the focus on mobilizing to the maximum the commitment of the research community in Pakistan. A strong partnership of individuals, institutions and organizations will be engaged to further health research in the country.

B. RATIONALE

The plan is built around the following types of questions:

- What are the priority areas and types of research identified for Pakistan?
- Which institutions and organizations have the capacity (or interest) to conduct such research?
- What resources (technical, financial, material) are required to conduct this research in the country?
- How can the results of such research influence policy and health development?

The priorities generated by national researchers in the Feb 2001 seminar were based on the collective experience and input of over a hundred people. The criteria used by the sub-groups in each specific health area at the meeting differed somewhat, but in general they reflected concerns for the:

- Magnitude of the disease/condition burden
- Potential growth in the burden over time
- Current interventions in place for those conditions
- Potential impact of research on policies and interventions.

The list of areas and priorities identified in Feb 2001 were generally broad and intended to map the topics of concern for Pakistan. It is clear that specific research questions will have to be generated for each area and topic – and this will be part of the process of implementing this national health research operational plan.

Once funding is obtained for a specific area, then a call for proposals can be generated and specific research questions entertained that respond to the issue of concern. In a similar manner, as researchers from within Pakistan respond to requests for proposal from funding agencies in other countries, they will also have to define specific issues in their grant proposals. In other words, the process of defining a research agenda at the national level is to guide and catalyze researchers and institutions in the country to further define their own research interests and strengths. Therefore, the broad areas identified in Feb 2001 have to be further narrowed using a systematic process described below.

C. GUIDELINES FOR RESEARCH PRIORITIES

For each priority area defined at the priorities seminar of PMRC³ the following generic process will be implemented:

1. Establishing a Thematic Working Group

The first step would be to define a 8-10 member 'thematic working group' for each of the main themes for health research such as Communicable Conditions, Health Systems Research and Health Financing. An experienced researcher (preferably someone who has been a participant of the previous PMRC consultations) would serve as *convener* and ensure an appropriate record of all discussions and notes. The terms of reference for these groups will include:

- Defining specific essential research priorities for Pakistan within the thematic area using an evidence-based and systematic process
- Identifying national resources (technical, financial, material) that can be utilized for research in the country
- Listing of international resources, especially funding, that need to be accessed for the conduct of research
- Recommendations of immediate inputs required to initiate the writing of proposals for research.

These working groups will have a time frame of 6 months and will have continuous discussions using email/listserve with 2-3 in-person meetings. Members of the group should include individuals representing a breadth of relevant stakeholders in health research including:

- Academia/research institutions
- Private sector
- Public sector
- NGOs
- Medical/clinical
- Social science

³ Pakistan Medical Research Council. Report of the Seminar on Health Research Priorities. Islamabad: PMRC, 2001

- Public health
- Economics
- Policy makers
- Donors/funders

Each group will be staffed by a PMRC liaison who will be responsible for communication with PMRC, helping obtain evidence/data, and providing logistic support.

2. Identification of Research Priorities

This is an important part of the plan and will need to be done using a process, which is:

- Systematic (stepwise, rational)
- Evidence-based (uses national data, epidemiology)
- Transparent (clear criteria)
- Allows consideration of diseases, risk factors and determinants.

Methods such as the *5-step process* and other will be provided to each working group for their use in deliberations.^{4,5} Facilitation of the use of method may occur by technical assistance through PMRC of other facilitating institutions (see section under resource mobilizations).

This will lead to the identification of the most important (such as top 5) specific research questions within each thematic area, which are in need of a research response.

3. Identification of National Resources

As part of the priority setting process, the working group would need to assess the available capacity in the country to conduct essential research. These resources will include:

- Human resources: probably the most critical part, with an assessment of the type and number of technical and trained personnel in the country; special mention of institutions with a history of thematic research or with training programs on the theme would be important.
- Financial resources: which are either available or potentially available for research on the specific themes; the working groups will have to explore options in different sectors including public, private and non-governmental. Mobilizing national resources is a critical component of this process since the availability of national funds (no matter how limited) will not only help in the conduct of research but also instrumental in demonstrating the policy support for health research in the country.
- Equipment and other technical resources: may be generally important for research under some themes, especially those pertaining to basic clinical sciences and laboratory research.

 ⁴ Global Forum for Health Research. The 10/90 Report on Health Research. Geneva: GFHR, 2000
 ⁵ Council on Health Research for Development. Essential National Health Research. Geneva: COHRED, 2000

An evaluation of the availability of these resources would need to be done in the:

- public,
- non-profit private (non-governmental), and
- for-profit private sectors.

This is important as national health research should not be seen as a "governmental" enterprise rather it is a national mission for all stakeholders. Assessment of resources available within the private sector may be a sensitive aspect of this process and would require careful judgment. The pharmaceutical sector will be a major part of the private enterprise involved in research.

4. Assessment of International/Global Resources

This step involves the listing of potential resources outside the country at the regional or international level. Each thematic working group needs to list specific agencies, which have either a history of providing funds in the area of interest, or have the specific topics in their funding priorities. It is generally very difficult to stimulate donors to add new priorities to their topics for funding, or to convince such agencies to provide open-ended money. As a result, the search for funds needs to be both specific and targeted to those potential institutions that may be most likely to provide funds. In addition, the search for financial resources needs to be creative and explore the public, private, non-governmental and foundation sectors.

These resources would include:

- Technical resources: appropriate and affordable assistance in specific areas which is not available in the country; stress should be placed on making sure that the source of assistance is of high quality and the process is able to make the transfer of information and technology effectively (as part of capacity development)
- Material resources: such as sophisticated lab and other equipment; important to ensure that this is limited to technologically appropriate and essential items
- Financial resources: the most critical component from sources outside the country; the nature of any financial contribution, the conditionality of grants, and the ability to use funds for national health research development are important issues for consideration. These funds can be potentially obtained from the following types of organizations (table below):

Category	Examples	Types of Funds	Types of
	_		Priorities
Overseas National	NIH, USA	Grants Fellowships	All health
Funding	MRC, UK		Emerging issues
Organizations			such as bioethics
Private Institutions	Rockefeller	Grants,	Equity, infectious
	Foundation	Fellowships,	diseases
	Wellcome Trust	Development	
		funds	
Bilateral Aid	USAID, DFID, EU,	Loans, aid, grants	HIV/AIDS,
Agencies	JAICA, CIDA		communicable
International	WHO	Grants, loans, aid	Global priorities
Banks/Organizations	World Bank		Country-specific
Pharmaceuticals	Numerous	Grants	Careful scrutiny
			required
Private companies	Organizations	Grants and	Requires specific
	giving grants as	donations	resource
	social mission		development plan
International NGOs	GFHR	Seed grants,	Essential research,
	COHRED	collaborations	ignored issues
Networks	INCLEN	Platform for	Specific interests
	APPNA	publicity, small	of networks
		grants	
Developed World	Institutions in North	Collaborations,	Joint proposals
Academia	America and Europe	sharing resources	and MOUs
			required
Individuals	Philanthropists	Variable	Needs to be
			pursued

5. Initiating Work

As a result of the preceding steps, each thematic working group would have an "operational map" of the research needed for Pakistan, the resources within the country to conduct that research, and the additional inputs required from outside the country. The plans to move forward would then require the development of two types of approaches:

- Development proposals: for seeking resources for capacity development and infrastructure development in the specific area
- Research proposals: for the conduct of specific research studies; these may be addressed to national sources or international sources; in both cases, especially the latter, well written proposals may require some capacity development and may also require experienced and successful national researchers to take the lead and help other colleagues write such proposals as well.

PMRC may facilitate the process of writing proposals and may serve as the vehicle through which funds and other resources can be processed. The presence of the list of national priorities, the collaboration of national institutions and the partnership with PMRC will all be positive aspects of these potential research proposals. Each proposal will have to demonstrate how it responds to the national health problems of the country and contributes to policy and intervention development.

The steps described above are to serve as a guideline for further development and implementation of the national health research priorities. They are neither sequential nor mutually exclusive and serve to highlight the concerted and systematic efforts required to strengthen health research in the country.

D. CROSS CUTTING ISSUES FOR HEALTH RESEARCH

In the process of moving ahead with an operational research plan, there are some common issues for each priority area of health research. These will require special consideration and could be the content of work for a separate effort organized by the PMRC and potentially under the rubric of strengthening the infrastructure and environment for health research.

1. Basic Clinical Sciences

In general in the developing world, there is a lack of infrastructure and manpower for current research in the basic sciences. As the working groups define specific research priorities, the issues for consideration would include:

- Which type of basic science/clinical research is essential for Pakistan?
- Which type of research can be left for individual institutions to pursue?
- What is the relevance of this research?

2. Basic Public Health Sciences

The fields of epidemiology, biostatistics, demography and others have only recently gained recognition in Pakistan. There is a great need for further development of capacity in these areas and so research that spans these disciplines would require special assistance to train researchers in the country.

3. Special Study Designs

Research in Pakistan has largely been limited to cross-sectional surveys, retrospective record reviews and case studies. Randomized, controlled, double blind trials are rare and so the ability to conduct specific types of study may be limited. The types of research relevant for Pakistan should determine the nature and type of study.

4. Capacity Development

This issue of capacity development for health research in Pakistan has been reiterated throughout this operational plan and will also be the subject of a separate effort by PMRC. It is possibly the single most important aspects of health research for development in the country.

5. Ethical Review of Research

Research that is not scientific cannot be ethical; and all scientific research may not be ethical. It is important to protect the human subjects of research and to ensure that any research is a balance between the benefits it is likely to provide, and the risk that it entails. These and other fundamental issues of human protection, individual rights, and exploitation, make strong ethical procedures critical for the further development of health research in Pakistan. PMRC can play a pivotal role in this regard by stimulating action in this area in terms of promoting ethical review committees in institutions, developing a national ethics committee, and most importantly working on national ethical guidelines for research. Again this issue is common to all the thematic working groups and will require a special effort and major capacity development in the field of bioethics in the country.

6. Awareness Creation

The power of communication and public support should not be forgotten by researchers. The research enterprise is not for researchers alone; it responds to national problems, helps policy makers govern, and eventually improves the health of the population. As a result, the ultimate users of such research are the people and they need to recognize and appreciate the need for health research. As a result, the community needs to be included in all aspects of the research cycle. Each thematic area needs to decide how to achieve this and to use strategies such as the mass media to initiate a dialogue with the population about health research.

E. RESOURCE MOBILIZATION

Since funding is perceived to be limiting factor for health research in Pakistan, it is important to discuss this in some detail. Although that is true, what should be recognized is that the most critical limitation is the inability to convince the world that high quality, relevant research can be done in the country. This involves various elements of capacity development, capturing good ideas on paper, and insisting on high quality science for the conduct of research. Research in developing countries like Pakistan must not be regarded as 'second-rate'; it must be based on good science and be able to attract funds.

In developing plans for resource mobilization, there are specific characteristics of the process which need to be emphasized.

- The development of a 'national health research agenda' is a positive development; topics listed in such an agenda are considered more relevant and valid by potential donors.
- Use of organizations who will facilitate the process of national health research development such as the Global Forum for Health Research (Global Forum) and the Council on Health Research for Development (COHRED). Organizations like these have the capacity to assist in setting research priorities, helping locate funds, and providing a platform for regional and global consultations. This is important for funding agencies to see that research plans for Pakistan are being appreciated by other international partners.

- Well developed and precise research proposals that highlight the priorities of the donor agency are critical.
- Careful scrutiny of grants to make sure that there are no conditions which can be regressive to health or health development in Pakistan
- Dissemination of ideas for research in national and international settings, conferences and meetings generate support for the conduct of specific research.
- Financial accountability will be important to provide confidence to donors that funds will be used as promised. Appropriate accounting systems, flexibility for receiving and moving funds, and the ability to control money will be important for principal investigators of research projects.
- Experienced and published researchers in the country need to play a leading and mentoring role. They need to take the lead in the development of specific proposals and in making sure that they partner with less experience and younger researchers to provide them with the necessary experience.

F. PMRC OPERATIONAL PLAN 2001 - 2006:

This operational plan describes the ongoing and future plans of PMRC for strengthening its capacity and creating an enabling research system in the country.

The planning for the reorganization and restructuring of the Pakistan Medical Research council with the objective of enabling it to more effectively play its stewardship role for health research in Pakistan, started in November 1998 with a national consultation titled, "the Role of Health Research in Development and the Restructuring of PMRC". Owing to certain reasons the recommendations of the consultation could not be implemented immediately. In 2001 with the commitment of the government to advancement of science and technology in the country, PMRC has been able to re-initiate action for invigorating the health research effort in the country. Building on the recommendations of the National consultation the following operational plan is being implemented.

I. REVIEW OF HEALTH RESEARCH INSTITUTIONS

This was undertaken by a three-member committee constituted by the Ministry of Science and Technology. The review was done from April – June 2001, and the results will be shared with partners soon.

II. MAPPING OF HEALTH RESEARCH RESOURCES

A proposal developed by PMRC with investigators from the Aga Khan University in Karachi, the Institute of Public Health in Lahore, and the federal and provincial Health Services Academies, has been submitted to WHO-EMRO for funding.

III. STRENGTHENING THE STEWARDSHIP OF THE SYSTEM

The Pakistan Medical Research Council with its focal role in the health research system of Pakistan will be restructured and strengthened according to the following plan:

1. STRENGTHENING OF THE GOVERNANCE STRUCTURE OF THE COUNCIL:

- 1.1. Award of full autonomous status to the Council: The Council was established and has been working under a notified Resolution of the government. This has prevented it from being fully autonomous (administratively and financially) and as a result effective functioning of the Council has been restricted. Following a Supreme Court ruling, the Council has developed a draft autonomy bill for presentation to Parliament for adoption as an Act. The draft has been approved in a recent meeting of the PMRC Board of Governors (BoG) and has been submitted for processing for presentation to the Federal Cabinet. If approved and adopted, PMRC will achieve full autonomy to plan and implement research coordination.
- 1.2. Merger of the authority of the posts of Chairman and Executive Director PMRC: The Council has been working under two executive authorities, the chairman and executive director. The post of chairman was being filled on honorary or contract basis, while that of the executive director on regular basis. The bifurcated authority was the cause of problems and potential friction. The PMRC draft autonomy Bill recommends the merger of the two posts into one, that of the Executive Director. The recent meeting of the PMRC BoG has approved the proposal and a notification from the Ministry of Health is awaited.
- **1.3. Reconstitution of PMRC boards, committees and panels with clear terms of reference reflecting the features, values and functions of the revitalized health research system:** The PMRC Technical Advisory Committee, the thematic groups (expert panels) and the newly proposed Finance and Resource Development Committee (proposed in the draft autonomy bill) will be reconstituted under more comprehensive and relevant terms of reference, as outlined in section C.

2. RESTRUCTURING OF THE COUNCIL:

2.1. Strengthening of the PMRC Head Office:

- 2.1.1. Establishment of a Research Capacity Development Unit: The unit will focus on research capacity building on a regular basis for the health research system of the country. The functions of the unit would be identification of needs, development of projects and proposals, and maintenance of a data base on health research capacity in the country.
- 2.1.2. **Establishment of a Research to Policy Unit:** This unit which will be closely linked to the Ministry of Health and the Health Section of the Planning Division will be proactively communicating recent findings of health research within country and abroad. The unit will undertake studies on different means of effectively communicating with health planners and policy-makers.

- 2.1.3. Establishment of a Health Information Resource Centre: The existing library of the PMRC will be developed into a Health Information Resource Centre (HIRC) for the health research system of the country. The HIRC will not be a passive storer of information but will be identifying the information needs of the system and will be pro-actively disseminating information to different stakeholders and end-users within country and abroad. Electronic, internet, as well as publication facilities will be developed.
- **2.2. Reduction in the number of Research Centres and establishment of PMRC Specialized Centres:** The PMRC BoG has given approval for the following strategies to re-structure the Council:
- 2.2.1. The number of PMRC Research Centres will be reduced from 18 to 5.
- 2.2.2. The five centres will be developed in to specialised centres to generate information as identified by the priority seminar of Feb 2001. These may be: Communicable Diseases, Non Communicable Diseases, Mental Health and Perinatal and child Health.
- 2.2.3. The Specialized Centres will be administered and funded by the PMRC and 4 of the proposed 5 will be located in the regional federal government Institutions like the JPMC, Institute of Child Health, Sheikh Zayed Hospital Complex and National Institute of Health. The Mental Health Research Centre is proposed to be established at the Institute of Psychiatry Rawalpindi Medical College.
- 2.2.4. A proposed centre/institute on Research on Traditional/Herbal Medicine is also being considered. The Centre/Institute is proposed to be established at Khyber Medical College where collaboration with the Forest Institute, PCSIR, University of Agriculture will be established, all being on the same campus.

3. Collaborative Centres:

3.1 Health Systems Research Centres (HSRC)

HSRC will be established in collaboration with the Health Directorates of Provincial Health Departments and Azad Jummo and Kashmir (AJ&K).

- **3.1.1** PMRC will prepare and submit a proposal for funding for the establishment of these centres.
- **3.1.2** PMRC will help establish the Centres and there after extend technical assistance. Administration and recurrent costs will be the responsibility of the provincial and AJ&K governments.
- **3.1.3** The Centres are proposed to be established within the current Provincial Health Development Centres (PHDCs) in Punjab, Sindh and Baluchistan, In the Provincial Health Services Academy (PHSA) in NWFP and in the Health Directorate in AJ&K.

3.2 Infectious Disease Surveillance Sentinel Centres

A proposal for the establishment of an Infectious Diseases Surveillance System is being developed in collaboration with the National Institute of Health, Provincial Health Departments and Medical Colleges. The Ministry of Science and Technology has funded the hiring of a consultant for the preparation of the proposal. The establishment of Sentinel Centres is part of the system proposed. These Sentinel Centres will be located in Medical Colleges/teaching hospitals where microbiology facilities are available.

4 Staffing of the Council:

4.1 Regular Staff:

- The number of regularly hired staff is proposed to be reduced from the present 349 to 200.
- The number of regular staff per Specialized Research Centre would be 21.
- The professionals for regular hiring will be offered a range of salary scales for initial hiring e.g. for the Director of a Centre/Head of a Unit the range would be BS 19 21.
- The minimum salary scale for professional /technical staff will be BS 11.
- A career structure will be developed.
- A regular programme of training will be developed and implemented for all categories of staff.
- 4.2 Contract staff:

Additional professional/technical staff will be hired on contract basis against approved research projects in which provision for such hiring will be made.

4.3 Special Advisors for PMRC:

The PMRC suffers from a chronic shortage of technical expertise. To fill this gap in the short term researchers from within country and abroad will be associated with the Council as special advisors. The PMRC board has already approved the proposal.

IV. CAPACITY STRENGTHENING FOR HEALTH RESEARCH

1. Capacity Building within PMRC: A proposal for funding has ben submitted to the Ministry of Science and Technology for funding. A programme of two years duration will be undertaken for training of PMRC regular staff in programmes within country. The trainings include masters level and short courses in epidemiology, biostatistics, research management and computers.

2. Development of a Programme for Health Research Capacity Building in Pakistan:

The PMRC will prepare a proposal for a Programme for capacity building in collaboration with different health teaching and training institutions. The plan will include long, medium and short courses for the different competencies necessary for undertaking Essential National Health Research, which include priority setting, advocacy, bioethics, communication skills, research management, epidemiology, biostatistics, research methodology and proposal development etc. Contacts are being made for international funding for the programme.

V. STRENGTHENING OF THE ETHICAL BASIS OF HEALTH RESEARCH:

- 1. Development of Guidelines for Ethical Review of Research Proposals and Conduct of Health Research: The process has been started by the PMRC and the Aga Khan University in collaboration. Available guidelines developed by international agencies like the WHO and CIOMS are being reviewed and adapted according to the social and religious requirements of the country. All stakeholders are planned to be consulted in the development and finalization of the guidelines.
- 2. Development of Terms of Reference for a National and Institutional Ethical Review Committees: This is also being done in collaboration with relevant stakeholders.
- **3. Constitution of a National Ethical Review Committee and Institutional Ethical Review Committees:** PMRC will constitute the National Ethical Review Committee and work with the medical academic and research institutions to establish institutional committees.

VI. FINACIAL RESOURCES MOBLIZATION AND DEVELOPMENT:

- **1. Establishment of Endowment Fund for Health Research:** The PMRC has submitted proposals to both the Ministry of Health and that of Science and Technology for grants to establish an Endowment Fund for Health Research.
- 2. Development of Capacity for Mobilizing and Generating funds for Research: Specific attention will be paid in the Capacity Development Programme to the development of capacity of individuals and organizations/institutions for mobilizing and generating funds for their proposed research.

OPERATIONAL PLAN FOR HEALTH RESEARCH SYSTEM STRENGTHENING AND DEVELOPMENT:

	ACTION	TIME PERIOD	EXECUTING AGENCY	FUNDING
1.	Review of Health Research Institutions	April – July 2001	Pakistan council of Science and Technology' three member committee. Coordinated by PMRC	Ministry of Science and Technology
2.	Mapping of Health Research Resources: Proposal development	Mar. – Apr. 2001	PMRC in consultation with Aga Khan University, Institute of Public Health Lahore, Federal and Provincial Health services Academies	Submitted to WHO Eastern Mediteranean Region
3.	PMRC Re-organization and Restructuring:			
3.1.	Autonomous Status	1997 – 2002	PMRC, Ministry of Health, Law Division, Cabinet Division	Nil required
3.2.	Merging of posts of Chairman and Ex. Director	Nov. 2002 – Dec. 2001	Ministry of Health, Finance division	Nil required
3.3.	Strengthening of Head Office	2001 - 2003	PMRC, Ministry of Health, Ministry of Planning, Funding Agencies	Ministry of Science and Technology, Planning Division, International Donors
3.4.	Est. of Specialized Centres	2001 - 2003	PMRC, Medical Institutions, Funding Agencies	PMRC, WHO, Science Foundation, Research Donor Agencies
4.	Research Capacity Strengthening Programme:			
4.1.	Development of Proposal	Oct. 2001 – Jan. 2002	PMRC, Health Training Institutions, Johns Hopkins University, USA	Ministry of Science and Technology, NIH USA, Global Forum

4.2. Funding for Programme4.3. Implementation	mid 2002 2002 - 2006	PMRC PMRC, Health Training Institution, Johns Hopkins University	Potential funders National Institute of Health USA, Gates Foundation, USAID
 5. Establishment of Ethical Basis of Health Research: 5.1. Dev. of Guidelines 5.2. Dev. of ToR for Ethical Review committees 5.3. Constitution of Committees 	Jul.2001 - March 2002 Oct. – Dec. 2001 2002	PMRC, Aga Khan University, stakeholders PMRC, Aga Khan University, stakeholders PMRC, Medical Institutions	PMRC, Aga Khan University, Global Forum, COHRED PMRC, AKU PMRC
 6. Finances mobilization: 6.1. Creation of Endowment Fund: 6.2. Capacity Dev. for Resource generation 	2002 2002 - 2006	PMRC PMRC, Institutions	Ministry of Science and Technology, Ministry of Health Capacity Development Programme