Essential National Health Research in Bangladesh

An ENHR country monograph

Prepared by

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Md. Monjur Hossain

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Abbreviations

ADDR	Applied Diarrhoeal Disease Research
AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infection
BARC	Bangladesh Agricultural Research Centre
BBF	Bangladesh Breastfeeding Foundation
BBS	Bangladesh Bureau of Statistics
BIDS	Bangladesh Institute of Development Studies
BIRDEM	Bangladesh Institute of Research for Diabetic, Endocrine and Metabolic Disorder
BIRPERHT	Bangladesh Institute of Research for Promotion of Essential Reproductive Health and Technologies
BMRC	Bangladesh Medical Research Council
BRAC	Formerly the *Bangladesh Rural Advancement Committee* currently known as BRAC
CDD	Control of Diarrhoeal Diseases
CHRD	Commission on Health Research for Development
CIRDAP	Centre for Integrated Rural Development in Asia and the Pacific
COHRED	Council on Health Research for Development
DALYs	Disability Adjusted Life Years
DFID	Department for International Development (UK)
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
DHMT	District Health Management Team
DMCH	Dhaka Medical College and Hospital
DOTs	Directly Observed Treatment, short-course (for tuberculosis)
DPHE	Directorate of Public Health Engineering (Bangladesh)
ENHR	Essential National Health Research
ENHR,B	Essential National Health Research, Bangladesh
EPI	Expanded Programme on Immunisation
FIMC	Further Improvement of Medical Colleges
GK	Gonoshasthya Kendra (People's Health Centre)
GOB	Government of Bangladesh
GRIPP	Getting Research into Policy and Practice
GTZ	German Technical Co-operation
HFA	Health for All
HIID	Harvard Institute for International Development
HIV	Human Immune-deficiency Virus
HKI	Helen Keller International
HPSP	Health and Population Sector Programme
HPSS	Health and Population Sector Strategy

HSPH	Harvard School of Public Health (at Boston, USA)
HSR	Health Systems/Services Research
ICDDR,B	International Centre for Diarrhoeal Disease Research in Bangladesh
ICMH	Institute of Child and Maternal Health
IEDCR	Institute of Epidemiological Disease Control and Research
IDRC	International Development Research Centre (Canada)
IMR	Infant Mortality Rate
INFS	Institute of Nutrition and Food Science (at Dhaka University in Bangladesh)
IPGMR	Institute of Post-graduate Medicine and Research (in Bangladesh)
IPH	Institute of Public Health
IPHN	Institute of Public Health Nutrition
LGS	Lobon (common salt) Gur (molasses) Solution (Oral Rehydration Therapy)
MCH-FP	Maternal and Child Health-Family Planning
MIS	Management Information System
MMR	Maternal Mortality Rate/Ratio
MOH&FW	Ministry of Health and Family Welfare (Bangladesh)
NGO	Non-governmental Organisation
NGOs	Non-governmental Organisations
NICVD	National Institute of Cardiovascular Disease
NIO	National Institute of Ophthalmology
NIPORT	National Institute of Population Research and Training (in Bangladesh)
NIPSOM	National Institute of Preventive and Social Medicine (in Bangladesh)
ORS	Oral Rehydration Salt/Solution
ORT	Oral Rehydration Therapy
PHC	Primary Health Care
PIACT,B	Programme for the Introduction and Adaptation of Contraceptives Technologies in Bangladesh
R&D	Research and Development
RAS	Research Award Scheme
RED	Research and Evaluation Division (of BRAC, Bangladesh)
RIHD	Rehabilitation Institute and Hospital for Disabled
RTI	Reproductive Tract Infections
SSMC	Sir-Salimullah Medical College (in Bangladesh)
STDs	Sexually Transmitted Diseases
THC	Thana (sub-district) Health Complex (in Bangladesh)
UK	United Kingdom
UN	United Nations
UNICEF	United Nations Children's Fund
URC,B	University Research Corporation, Bangladesh
USA	United States of America
WHO	World Health Organisation

Executive Summary

Essential National Health Research (ENHR)

The ENHR concept was initiated in 1989 as a strategy to attain the universal goal of equity in health and human development. It is also a process of planning and carrying out research to generate scientific data for planning purposes, decision-making and further research activities. The Council on Health Research for Development (COHRED) is the organisation responsible for ENHR worldwide. This country monograph describes the ongoing effort to implement ENHR in Bangladesh. COHRED makes this and similar country case studies available as examples to other countries wishing to implement ENHR.

Bangladesh: an overview of its health and health research

Bangladesh is a small, densely populated country in south Asia. A report published in 1998 indicated that, despite an extensive health infrastructure supplemented by NGOs and the private sector, the country still faces very high rates of mortality, fertility, and has limited access to care. The concept of Primary Health Care (PHC) is considered to be the nucleus of the policies and strategies for health and health systems development in Bangladesh. Yet, until the recent introduction of the Health and Population Sector Programme (HPSP) 1998-2003, there was limited evidence of the PHC approach in health sector planning, management and implementation. The National Health Policy recently approved by the Government will soon be implemented with broad consensus and with the participation of the relevant stakeholders.

National research capability in health and health-related sectors is not yet sufficiently developed to meet the policy or planning needs of the country. To date, health research has had little bearing on strategy and policy formulation. There is very little information available on health issues, such as regional causes of morbidity and mortality, health care financing and planning, management and use of health facilities, and human resources in the health sector.

The vast majority of health research in Bangladesh falls under the rubric of programme evaluation, especially family planning. Other notable examples of health research include national nutrition surveys, national censuses, health and demographic surveys, and epidemiology of diarrhoea, including oral rehydration therapy (ORT) evaluation. A number of biomedical research studies have also been undertaken with trials for a cholera vaccine and antibiotics for diarrhoea and pneumonia, development of oral rehydration solution (ORS), and micronutrients (vit-A, iron and zinc) supplementation.

Health research is not yet seen as a career option in Bangladesh. Moreover, the concept of health research and its significance has yet to become a crucial part of any undergraduate curriculum for medical education. The result is a lack of trained Bangladeshi health researchers, particularly in public health. In 1998, when the population reached 110 million, George Rubin estimated that there were fewer than 150 professionally trained public health researchers in Bangladesh. Today the situation is relatively unchanged. The number of researchers has failed to increase in proportion to population size and needs.

There are a number of institutions and organisations, in both the public and private sector, involved in health research in Bangladesh. These include ministries, agencies and institutions within the government, semi-governmental and autonomous institutions, and non-governmental organisations and private enterprises. Much of the research they carry out is in the context of specific projects. There appears to be no long-term co-ordinated research agenda and no clearly defined mechanism to make good use of research findings to influence health policy and action.

The introduction of ENHR in Bangladesh

The introduction of ENHR in Bangladesh was crucial for the co-ordination of a variety of health research activities and initiatives undertaken by many organisations and institutions. Although ENHR activity needs to be strengthened further, it has already provided a sense of direction to health research in Bangladesh. Two Bangladesh-based members of the Commission on Health Research for Development (CHRD), encouraged by the work of the Commission, supported Bangladesh's introduction of ENHR. Through their endeavours the concept was formally launched in January 1990 at a high-level national workshop that set up a working group to promote and implement ENHR.

National mechanism for ENHR in Bangladesh

The national mechanism for implementing ENHR in the country has taken the form of an independent non-governmental structure consisting of a Working Group, a National Forum and a secretariat. BRAC and ICDDR,B the prime movers of Bangladesh ENHR, have taken the lead in establishing the ENHR process. BRAC provides space and logistics for the Secretariat and ICDDR,B provides technical assistance. Currently the members of the ENHR,B Working Group represent all health sectors in Bangladesh, comprising members of government ministries and directorates of family planning, health, and planning, as well as post-graduate training, education and research organisations and NGOs.

The ENHR National Forum is the senior policy advocacy and networking body that provides support at the highest level in the country. Its members consist of top-level managers, administrators, planners, academicians and researchers. The secretariat is comprised of a small core staff of health professionals, led by a national co-ordinator under the guidance of the Working Group.

ENHR in Practice

The first steps in the implementation of ENHR in Bangladesh put particular emphasis on national capacity building, networking and resource mobilisation. Advocacy and promotion have been vital activities thanks to the many stakeholders brought under the umbrella of the national mechanism. Moreover, the secretariat organises seminars, workshops and orientation courses on ENHR, as well as other activities advocating ENHR through the media.

Priority-setting for research is also a critical concern. A number of stakeholder participation (STP) workshops and other meetings and consultations have been organised in order to identify and prioritise health and health research issues. An important achievement of ENHR,B has been its research capacity building programme, tailor-made for young professionals through a Research Award Scheme (RAS). Further achievements include training courses, workshops and strategic programmes.

The RAS is an important feature for young researchers, providing significant scope and opportunity for them to gain access to financial and technical support. As part of the long-term goal of enhancing national research capacity, it provides hands-on-training for high quality research crucial for influencing policy-making and action. The researchers work directly with nationally and internationally renowned experts. A total of eighteen research projects have been supported and completed and various materials have been developed for the training programmes and the RAS.

Through its in-country networking activities ENHR,B has been able to establish linkages between scattered individuals and institutes under the umbrella of the national mechanism. The networking activities communicate essential research findings through a number of channels, including publications, seminars and a database.

ENHR,B has played a pioneering role in establishing networks for the regional and global ENHR movement through its active involvement, participation and contribution as a member of the COHRED ENHR Task Force and as a founding member of the Asian ENHR Network.

Financing for ENHR work in Bangladesh has come from a number of domestic and external sources. Major donors include IDRC-Canada, DFID-UK, UNICEF, the Ford Foundation, the Population Council, and COHRED. However, a significant achievement of the ENHR process in Bangladesh has been the mobilisation of resources in assembling a critical mass of human resources for research. Although funding is scarce, the researchers have access to technical assistance from the ENHR,B Panel of Experts.

Although no formal evaluation of ENHR in Bangladesh has been undertaken, the analysis of reports and documents shows a notable change in health research initiatives since the application of the ENHR strategy.

Future plans and challenges

The initial 10-year work plan for the ENHR,B ended in July 1999. A further five year plan was recently published with activities covering priority-setting, strengthening research networks, translating results into action, special research for immediate health needs, promotion and advocacy, capacity building and better medical health education.

Negotiations with the MOH&FW to obtain additional support for the ENHR programme through HPSP illustrate the ENHR,B strategies and functions. The most immediate challenge is to help translate research results into useful action by incorporating the ENHR concept in the HPSP.

The critical capacity of human resources and lack of consistent and effective national policies, strategies and action are the major impediments to ENHR sustainability in Bangladesh. A foundation has been laid through the work of ENHR,B. The tasks ahead call for a variety of activities to enhance and reinforce health research in the country as set out in the following pages.

Chapter One: The background to ENHR in Bangladesh

1.1 The current situation: an overview

Tragic inequalities in the level of, and progress towards, health and development still persist both between and within nations. The international scientific community pursues its efforts to close the gap between the universal goal of equitable health and human development and the reality through the use of various concepts and strategies. Before describing recent initiatives and programmes for the promotion and strengthening of health research in Bangladesh, especially the ENHR strategy, it is important to consider the status of health and health research in the country.

1.2 Current health scenario and health policy

For its size (147,570 km^2), Bangladesh is one of the most densely populated countries in the world, with 854 people per km^2. Population currently stands at approximately 126 million people, many of whom live in poverty. In spite of the lack of population and health indicators, the country achieved marked success in some areas of health between the 1970s and 1990s. The Contraceptive Prevalence Rate (CPR) increased from 8% in 1975 to 49.2% in 1996, and the Total Fertility Rate (TFR) declined from 6.4 live births in 1975 to 3.3 live births in 1996 (Mitra et al 1997). The Universal Coverage of Immunisation (UCI) among children under one year increased from 2% in 1978 to 62% in 1994 (EPI, 1994).

Nonetheless, Bangladesh still faces a significant challenge to further improve the health status and well-being of its people. Although the Infant Mortality Rate (IMR) has been reduced by 30% since 1990, it is still very high (66 per 1000 live births), and the trend is very slow in the case of the Maternal Mortality Ratio (MMR). In the early 1990s the MMR was reported to be 6-7 per 1000 live births, which was reduced to 4.2 per 1000 live births in 1997 (BBS, 1997). However, immunisation coverage has been declining since 1995 and was reported to be 51% in 1997 (EPI, 1997).

Although public spending on health and family welfare increased from 5.2% of total recurrent expenditure in 1980/81 to 6.2% in 1996/97, the annual per capita expenditure on health is still very low at around US$3 (GOB, 1997). These services are inadequate and most of the population has little access to modern health care facilities. As few as 12-13% of the sick in rural areas are treated at public health facilities (UNDP, 1998). Only 30% of the population have access to primary health care (PHC) facilities (Lovell, 1992); less than 5% of women have access to Emergency Obstetric Care (EOC) services; 23.2% of women receive ante-natal care; and less than 6% of births take place in hospital and health centres (MOH&FW, 1999). Despite an extensive governmental health infrastructure, the utilisation rate of government rural health facilities is reported to be only 40%. The main reason for this is ineffective service delivery resulting from non-availability of trained personnel, shortage of equipment and drugs, and absence of referral mechanisms and facilities (Khan, 1988). NGOs and private sector activities supplement this infrastructure throughout the country from division to community level.

Bangladesh, in common with its sub-continental neighbouring states, inherited a centralised, physician-dominated health infrastructure. Essentially, it has an urban curative focus, except for a handful of vertical programmes that extend into rural areas, such as:

- the successful smallpox eradication campaign;
- the expanded programme on immunisation (EPI);
- the micro-nutrient (vitamin-A and iron) supplementation;
- the oral rehydration therapy (ORT) campaign;

- ❖ acute respiratory infections (ARI) control; and
- ❖ malaria eradication programme (the somewhat less successful).

The Government enthusiastically embraced the 1978 Alma Ata declaration on "Health for All by the Year 2000" with its emphasis on the integrated Primary Health Care (PHC) approach. It is not clear, however, how much of the enthusiasm has been translated into effective policy. Development of a health system based on the PHC approach has been slow. Key issues, such as community involvement, equitable distribution of resources, mobilisation of local resources, and cross-sectoral participation, have not yet been fully addressed.

Nonetheless, the introduction of a series of national five-year plans undoubtedly gave direction to programme implementation and the involvement of other partners. The Health and Population Sector Programme (HPSP) for 1998-2003, now in its fifth cycle, has received government recognition for identifying the contribution and participation of other partners and stakeholders. It is proposed that NGOs and the private sector be involved in programme development and delivery, although details of strategic directions have not yet been clearly defined.

The fourth Five-Year Plan (1991-96) was the first to include a chapter on nutrition, and in 1997 the Government approved a National Food and Nutrition Policy. Although HIV/AIDS has not yet emerged as a serious problem, its global magnitude and epidemiological nature gave rise to a National HIV/AIDS and STD Policy that was approved in 1998. A Population Policy Committee was formed in 1998 and the Government has recently approved a National Health Policy. A National Drug Policy, formulated and activated in 1992, required liberalisation and updating in line with health policy in order to meet the requirements of the current health services. However, the country has not yet envisaged the need for a Research and Technology Policy. Since the new national health policy (based on broad consensus and the participation of stakeholders and partners) has yet to be put into action, it is not clear how much policy issues relating to health technology and research will be addressed.

National research capability in the health and health-related sectors is not sufficiently developed to meet the policy or planning needs of the Government. Consequently health research has little bearing on health policy. In the centralised health bureaucracy many decisions are made at the highest level without the benefit of adequate data and with little consultation with other ministries on the overall development process. For example, the doubling of medical school intake in the 1970s and 1980s took place in the absence of a development plan for overall health-manpower or a clear view of future employment opportunities for graduates. As a result the country is facing the serious impact of unemployment and under-utilisation of trained medical graduates. In addition, a major hospital expansion was undertaken without assurances that budget capacity could absorb the subsequent recurrent costs of the institution.

The most recent HPSP oversaw the construction of 13,500 community clinics in rural areas. The construction of these facilities was undertaken without studying, assessing, or analysing the current gross under utilisation of existing rural health facilities, such as rural dispensaries (RD), union health and family welfare centres (UH&FWC), and union health sub-centres (USC). Moreover, the sustainability of the infrastructure in the context of growing resource constraints has not yet been analysed.

1.3 Health research situation: review of past achievements

There is inadequate information about the wide range of health issues in Bangladesh. Areas of particular concern include regional causes of morbidity and mortality, socio-economic and cultural factors affecting health, the utilisation and financing of health care facilities, health manpower needs, and differentials in health status by the various high-risk groups (men vs. women, rural vs. urban etc.). In contrast to the paucity of information about health status, a substantial amount of research has been

carried out in recent years on the operational aspects of family planning programmes.

The vast majority of research on health in Bangladesh falls under the rubric of programme evaluation, especially in family planning. In the non-family-planning arena notable examples of health research include:

- Large-scale data collection efforts, including nation-wide nutritional surveys by the Institute of Public Health Nutrition (IPHN), Institute of Nutrition and Food Science (INFS) of the Dhaka University, and Helen Keller International (HKI);
- National censuses by the Bangladesh Bureau of Statistics (BBS);
- Investigation by Gonoshastya Kendra, a national NGO, of a number of issues, including the need for an essential surgical procedure;
- Oral Rehydration Therapy Project evaluation carried out by BRAC; and
- The detailed demographic and epidemiological work done at Matlab by the ICDDR,B.

A number of biomedical research projects have also been undertaken, including development of an oral rehydration therapy (ORT) technique; vaccine evaluation; and antibiotic trials for the treatment of different types of diarrhoea, and acute respiratory infection (ARI) among children under five years of age. Studies have also been undertaken to assess micro-nutrient supplementation with vitamin-A, iron and zinc as prophylactic measures. The vitamin-A study was particularly important for its prophylactic effect on ARI, persistent diarrhoea, and night-blindness.

Much of the research has, however, been somewhat piecemeal and limited to very specific projects or activities. It is fair to say that there has been no long-term co-ordinated research agenda and no clearly defined mechanism to use research findings to influence health policy decisions.

To date, health research is not seen as a career choice with favourable prospects. In fact very few students enter the profession. Health problems and research are still viewed as clinical or biomedical concerns with little or no input from other fields, such as the social sciences, economics or statistics. Moreover, the concept of health research and its importance is yet to be part of any undergraduate curriculum for medical studies. As a result, there is an acute shortage of trained Bangladeshi health researchers.

In 1988 there were, according to an estimate by George Rubin, less than 150 professionally trained community health/public health researchers in Bangladesh with a population of approximately 110 million. The following is a list of public health researchers in Bangladesh according to Rubin's study:

- Epidemiologists: approximately 10 engaged in actual research (mostly at ICDDR,B).
- Bio-statisticians: between 10 and 15 primarily trained as statisticians with little exposure to medical or health research (except family-planning-related research). Major employers: the Bureau of Statistics; University Department of Statistics.
- Demographers: probably one of the best represented disciplines, with approximately 50 engaged in research. Major employers: BIDS, ICDDR,B, the Planning Commission and various University Departments of Sociology/Anthropology and Statistics. Research output is mostly centred around evaluation of family planning programme indicators.
- Nutrition researchers: there is a substantial cadre of well-trained nutrition researchers (about 40) spanning a broad range of interests, including biochemistry. Major employers: the INFS of the Dhaka University, BRAC, ICDDR,B, and HKI.
- Health economists/Operational Research Scientists: virtually non-existent.
- Policy makers involved in research: this rather broad category comprises 40-50 professionally trained public health researchers, most of whom are in government service.

Since then the number of researchers in the country has increased, but not in proportion to the population. The Government has recently initiated health research training, as too have certain service delivery institutions, notably the Institute of Child and Maternal Health (ICMH), the Institute of Health Economics, and the Institute of Kidney Diseases. NGOs and the private sector have also directed their efforts towards developing health research capacity. They contribute to improving the national situation through human resource development programmes.

1.4 Role of the Government, semi-governmental and non-governmental sectors in health research

There are three semi-governmental/autonomous organisations in the country making significant contributions to health sector research. These are the Bangladesh Institute of Development Studies (BIDS), the Bangladesh Medical Research Council (BMRC), and the Bangladesh Institute of Research for Promotion of Essential Reproductive Health and Technology (BIRPERHT). The three large non-governmental organisations (NGOs) working on research and development issues are the ICDDR,B, BRAC and Gonoshasthya Kendra. One of the NGOs carries out epidemiological and demographic research on a wide range of topics. Another generates research limited to particular regions of the country. The third works in the area of health, particularly community-based intervention programmes.

There are several private research firms whose focus is on sponsor/donor interests and whose work to date has generally concentrated on population and family planning. These groups include the Associates for Community and Population Research, Mitra and Associates, and the Research and Evaluation Association for Development (READ).

The Government's four primary research institutions are described below. Among them health-related research has been scant, consisting only of a series of nutritional surveys.

- A Department of Community Medicine is attached to each of the country's thirteen medical colleges;
- The Bangabandhu Shikh Mujib Medical University (formerly the Institute of Post Graduate Medicine and Research - IPGMR);
- Specialised post-graduate institutions such as National Institute of Cardio-Vascular Diseases (NICVD), Rehabilitation Institute and Hospital for Disabled (RIHD), National Institute of Ophthalmology (NIO), Institute of Mental Health (IMH), Institute of Public Health (IPH), Institute of Public Health Nutrition (IPHN), and the Institute of Epidemiology, Disease Control and Research (IEDCR).

Annex 1 contains a more detailed inventory of these organisations and institutions, including their major activities and priority research areas.

Chapter Two: The introduction and adoption of ENHR in Bangladesh

2.1 The ENHR strategy

The Commission on Health Research for Development (CHRD), a twelve member independent international commission, was established in 1987 to recommend ways in which research could improve the health and well-being of people in the developing world. The Commission operated on the fundamental premise that research is an essential, but often neglected, link between human aspiration and action, and that there are many ways in which research could be applied to improve health. It assigned the highest priority to the generation of relevant and timely research to support informed and intelligent decision-making in health policy.

The Commission, in articulating the concept of ENHR, noted that the focus of health research should be national, and each country, no matter how poor, should have a good health research base to enable it to understand its own problems and make the most of its limited resources. Each country should set its priorities for national health research and should involve scientists, decision-makers and representatives of the people as equal partners in the process. Thus ENHR becomes both a strategy and a process of planning and carrying out research that generates scientific data as a basis for planning, decision-making and activities. The resulting agendas also serve as a starting point for global research.

The ENHR strategy offers an integrated approach with three simultaneous lines of action: (i) participation;(ii) informed decision-making; and (iii) a broad, inclusive view of health research. In principle the researchers, policy-makers and representatives of the community should participate in the ENHR process on an equal footing. The ENHR strategy comprises seven elements:

- advocacy and promotion;
- national ENHR mechanism;
- priority-setting;
- capacity development;
- networking;
- financing;
- evaluation.

Although these elements are separate entities, their complementarity is embraced by the ENHR strategy. A country's success depends upon the creation of a research culture, effective use of research results for policy and practice, and the nurturing of a critical mass of skilled researchers dedicated to equity in the health and development of their country.

The main focus of ENHR is on country-specific efforts, since the situation of health determinants and priorities, health development strategies, and even the perception of health differ from country to country. The Council on Health Research for Development (COHRED), the global prime mover of ENHR, emphasises the need for documentation on the experience of individual (country-specific) ENHR processes. This is crucial for COHRED and its member countries in promoting and implementing the strategy. The Bangladesh ENHR Country Monograph looks at the experiences of one of the three countries pioneering ENHR in Asia.

2.2 The beginning of ENHR in Bangladesh

Two Bangladesh-based members of the Commission on Health Research for Development commissioners, Mr. F.H. Abed, Founder and Executive Director of BRAC and Dr. Demissie Habte, Director of ICDDR,B were largely instrumental in initiating ENHR in Bangladesh. They played a pioneering role in launching the ENHR strategy in Bangladesh through a joint effort with other influential individuals, public and private organisations and institutions.

221 Initial ENHR activities

The CHRD and BRAC's joint initiative was instrumental in setting the stage for the ENHR strategy in Bangladesh. The initial efforts focused on creating an environment for a national mechanism to implement ENHR. The emphasis was on consensus building. Through the vision and guidance of CHRD, various workshops and other meetings were held to familiarise the governmental and NGO sector with the ENHR concept.

In January 1989 a meeting, jointly sponsored by BRAC and CHRD and attended by eminent and senior personalities from the health profession in Bangladesh, was organised in Dhaka. It called for urgent measures to promote health research in Bangladesh. There was explicit recognition that health care research and evaluation were not luxuries, but integral parts of the health system with the ultimate goal of improving the health of the target population.

In June 1989 BRAC, in cooperation with CHRD, staged a three-day workshop in Dhaka, which was opened by the Deputy Prime Minister, who was also head of the Ministry of Health and Family Welfare at that time. Forty participants attended from various medical colleges, universities, government ministries, the Planning Commission, UN agencies, international organisations and NGOs. The participants identified constraints and opportunities for improving the health and health research status and echoed the call for concerted action in applying the ENHR strategy.

In January 1990 a one-day follow-up workshop was organised for young health researchers and professionals in Dhaka. The participants set up a nine-member ENHR Bangladesh (ENHR,B) Working Group to respond to the need for an appropriate institutional response to promote ENHR in Bangladesh.

Chapter Four provides an overview of ENHR activities since 1990

Chapter Three: The national ENHR mechanism

3.1 The prime movers: non-governmental organisations (NGOs)

The situation in Bangladesh is unique in that the ENHR strategy has been adopted and is being promoted by a national NGO and an international research organisation, namely BRAC and ICDDR,B. BRAC assumed the leadership role in introducing ENHR in Bangladesh as part of its institutional commitment and response to the process of linking research to policy and practice. Within BRAC the ENHR strategy enjoys strong support. The other pillars of the organisational structure of the ENHR mechanism are an ENHR Working Group and an ENHR National Forum.

3.2 The ENHR,B Working Group

The ENHR,B (ENHR Bangladesh) Working Group is an independent body that promotes and implements ENHR. It represents all health sectors in Bangladesh and is comprised of members from the government sector and non-governmental organisations and institutions. The Working Group has built a consensus for data-based decision-making. Initially it had nine members, but has subsequently extended membership to NIPORT, the GoB Planning Commission, Dhaka University, and the Bangladesh Institute of Development Studies (BIDS). **A list of the members of the ENHR,B Working Group as of May 1999 is contained in Annex 2.** The Group is currently composed of thirteen members, all of whom are experts in various disciplines of health and health research with experience in basic and applied science, operations research, health care planning, implementation, and monitoring. The ENHR,B secretariat works under the direction of the Working Group.

The Working Group acts as a catalyst for the process of implementing health research crucial to the country's needs. It does not see itself, however, in competition with or parallel to other institutions, organisations or bodies active in health research in Bangladesh.

The broad vision of the Working Group is to promote ENHR in the country by raising research awareness and capability, creating a positive research environment, stimulating demand for research in policy-making, mobilising resources for ENHR and disseminating research results.

The Working Group has performed a number of activities since its formation as follows:

- Development and implementation of a 10-year plan (1990-99);
- Preparation of an inventory of recognised health research institutions and researchers in Bangladesh;
- Formulation of a list of research priorities for Bangladesh;
- Formation of an ENHR National Forum;
- Appointment of a full-time ENHR Co-ordinator.

3.3 The ENHR,B National Forum

The ENHR,B National Forum was constituted in September 1991 to broaden the perspective of networking and advocacy of ENHR at the highest level in the country. Its members represent the Ministry of Health and Family Welfare, the Planning Commission, Directorates of Health Services and Family Planning, Medical Colleges, including post-graduate institutions, universities, autonomous organisations and NGOs. The 22 members of the National Forum, not counting members of the Work-

ing Group, are top-level administrators, managers, planners, academicians and researchers. **A list of the members of the ENHR,B National Forum as of September 1991 is contained in Annex 3.**

3.4 The ENHR,B secretariat

The ENHR,B secretariat was established in August 1991 to ensure the smooth execution and co-ordination of ENHR programmes and activities identified and recommended by the Working Group. The priority of the Secretariat is to maintain linkages between decision-makers, managers, researchers and the people who ultimately experience the effects of health research. A full-time co-ordinator has been appointed with a small core staff of health professionals. A number of activities have been undertaken and implemented by the secretariat, notably:

- workshops/seminars on the promotion and advocacy of ENHR;
- the Research Award Scheme (RAS) for young researchers;
- community-based epidemiological training for young health professionals;
- training workshops on research capacity building; and
- ENHR publications to disseminate research results, networking and policy linkage.

3.5 ENHR,B objectives and strategies

The Essential National Health Research, Bangladesh (ENHR,B) has formulated objectives and strategies to attain its long-term goal of enhancing the impact of research on health and development by creating a positive environment and a sustainable research base.

3.5.1 Objectives

- *Advocacy and promotion of ENHR* to raise awareness among researchers, managers, policy-makers and communities of the use ENHR in identifying problems crucial for health and health system development and in executing programmes to deal with them.
- *National capacity building* among health researchers through hands-on training with actual research work on topics of national priority
- *ENHR networking* both at the national and international level for:
  - information sharing and dissemination;
  - exchange/transfer of technology;
  - cooperation between individuals, institutions and agencies to encourage Bangladeshi experts currently working overseas to contribute through collaborative research and the mobilisation of funds to the implementation of long-term ENHR programmes, leading to the broader application of research to health policy and action.

3.5.2 Strategies

- **Establish cross-sectoral co-ordination and collaboration** by developing various fora and groups (ENHR National Forum, ENHR Working Group, and ENHR Technical/Ethical Review Panel) and organising introductory and awareness raising workshops, seminars, other meetings and conventions on ENHR at the national and sub-national level.

- **Research capacity building** through a cross-sectoral and interdisciplinary approach in which multifaceted issues of health should be addressed and where researchers from various disciplines of health and allied fields generate problem-solving, action-oriented research. This can be accomplished through the Research Award Scheme (RAS) that offers various training courses/workshops, and by establishing cooperation with existing research organisations/institutions.
- **Linking research to policy and action** by communicating essential research findings (seminars/workshops; media awareness raising; publishing research compendiums, newsletters, brochures) and developing collaboration and partnerships in health research with other countries, institutions and groups.

Chapter Four: ENHR in practice

4.1 Promotion and advocacy of ENHR

Activities conducted by ENHR,B have so far included meetings and seminars devoted to crucial ENHR issues/competencies, such as research priority-setting; ENHR National Forum meetings; workshops on ENHR initiatives in Bangladesh; and media awareness raising (publishing articles) to disseminate information on the need for research on the development of health and health systems sectors. Advocacy of ENHR is an ongoing process conducted through various fora, peer groups and institutions. The National Forum facilitates the process and the prime mover, BRAC, plays the pivotal role as the convenor of various events.

ENHR,B has further initiated and participated in promotion and advocacy activities for ENHR at the regional and international levels.

4.1.1 Workshop on the ENHR strategy

An awareness raising workshop was organised in Dhaka on 13 June 1993 by the Directorate General of Health Services with the support of the Dhaka Office of UNICEF. The objectives of the workshop were to:

- develop better understanding of ENHR initiatives in Bangladesh;
- identify major problems and constraints for the promotion of health research;
- identify appropriate strategies to promote health research;
- define the primary roles of the organisations conducting health research.

Participants included officials from the DGHS and NIPSOM of the Ministry of Health and Family Welfare, the Planning Commission, universities, post-graduate medical institutes, representatives of donor and UN agencies and the non-government organisations (NGOs). They identified the constraints and opportunities for promoting and strengthening health research and reaffirmed the need for concerted efforts to apply the ENHR strategy.

4.1.2 Orientation seminar on ENHR strategy

An orientation seminar was organised jointly by the ENHR,B secretariat and the Further Improvement of Medical Colleges (FIMC) project of the Ministry of Health and Family Welfare for mid-level medical professionals and teachers.

The objectives of the seminar were to:

- rouse and enhance interest, understanding and awareness of the ENHR concept and strategy and of ways in which it can be promoted and implemented;
- inform and make participants aware of the ENHR process, mechanism and its global and national activities;
- gauge participant interest in, commitment to, and scope for research activity.

The seminar, conducted in January 1998, was considered an important initiative for ENHR awareness raising. It aimed to persuade participants to get involved in research activities and to outline the importance of research in medical studies, training and services. The participants analysed and con-

ceptualised the research topics/issues to be undertaken in key areas and highlighted problems encountered in their own working environment.

4.1.3 Advocacy through the media

Several articles on ENHR were published in national daily newspapers to inform the public and advocate the use of ENHR strategy. The articles emphasised the need to apply ENHR to the development of health and health systems through effective conversion of research results into health action. Some of the articles also described the ENHR process in Bangladesh and other countries, and stressed the importance of establishing the concept as a norm in the organisations and bodies engaged in health research and service delivery.

Bangladesh Tries to Come to Grips With Health Problems

Md. Roushanuzzaman

The Bangladesh Observer, August 8, 1994

Thanks to an innovative programme, a group of young researchers are now hard at work trying to find indigenous solutions to Bangladesh's pressing health problems.

The Essential National Health Research (ENHR) Programme, launched in Bangladesh in 1991, is a joint undertaking between both national and international organisations. The ENHR programme, along with funding from IDRC (Canada), supports the Research Award Scheme (RAS) initiative, which has put young researchers on the trail of major health concerns such as malaria, drug addiction, maternal and child health, and even delivery of health services. The researchers are looking not just at the scientific aspect of the problems - something which has already been done both in and outside Bangladesh - but more importantly, at the socio-economic factors which contributed to the rise of the problems. In general, very little health sector research has been done in Bangladesh. Moreover, what little research was undertaken often ignored socio-economic aspects considered crucial to the promotion of the people's health and well being. "Most research initiatives in the past proved inappropriate to the critical needs of the country. And, in most cases the decision-makers ignored them in the policy formulation," according to Dr. Sadia A. Chowdhury, ENHR Bangladesh Co-ordinator. This resulted, she said, in a lack of required health actions.

In the town of Northern Rajshahi, Md. Golam Azam, a young university lecturer, is looking into the impact of drug addiction, a growing social problem in many parts of the country, on families. From an analysis of 145 selected cases so far, Mr Azam is trying to determine the socio-economic characteristics of the drug addicts, the factors responsible for their addiction and the nature and types of drugs used. Mr Azam, a sociologist, hopes his study will help develop measures to curb drug abuse and provide services to assist affected families.

At the campus of Jahangirnagar University near Dhaka, two teachers of statistics are analysing the determinants of maternal and child health care in urban slums. Ali Ahmed Howlader, and his co-investigator, Ajit Kumar Majumder, gathered information on the socio-economic and demographic characteristics of urban slums; the common maternal and child health problems as well as the most common sources of health care delivery for slum dwellers. The study, based on a sample survey of nearly 1,800 households at different Shantytowns in Dhaka, revealed the enormous health problems being faced by the poor slum dwellers.

Other projects nearing completion include: a study on public health sanitation in coastal Bangladesh; an evaluation of the efficiency of health care delivery at hospitals; and an assessment of the utilisation of water sealed latrines in rural areas.

Once finalised, the ENHR secretariat plans to disseminate research findings from the projects through seminars and workshops with top-level academics, health administrators, planners

and policy-makers. They also want to "sensitise" the policy-makers and media about the health problems identified by the researchers. A second phase of the RAS is now underway. Financial grants to at least 30 young researchers will be provided annually during this phase.

A programme such as ENHR is a welcome development in Bangladesh, an impoverished nation of some 120 million people - a country suffering from chronic under-development particularly in the health sector. ENHR was an offshoot of the Commission on Health Research for Development (CHRD), an international initiative intended to improve and expand the support for researchers that have a bearing on the health of people in developing countries.

The objectives of the ENHR programme in Bangladesh are: to identify the country's problems in the health sector; to improve health policy and management; to foster innovation and experimentation; and to establish and strengthen an appropriate health research base in the country. The overall target is to develop national capacity to carry out health sector research and to disseminate the results for use by other researchers, policy-makers, planners and administrators.

At the vanguard of the Bangladesh ENHR programme are two non-government organisations (NGOs) - the Bangladesh Rural Advancement Committee (BRAC) and the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), a Dhaka-based international institute for health and population research. ENHR in Bangladesh is supported by the United Nations Children's Fund (UNICEF) and a host of other foreign NGOs. The Bangladesh government is yet to formally recognise the programme. Since the initial introduction of the ENHR concept, a series of meetings and workshops have been held, leading to the formation of a 15-member ENHR Working Group and 21-member ENHR National Forum.

The Working Group has carried out a number of activities such as a 1-year perspective plan, an inventory of selected research institutions and investigators, and a list of research priorities. "I believe in our own capacity...each country should have its own research facilities and capacity to address its own health problems independently", said Dr Halida Hanum Akhter, a member of the ENHR Working Group. Dr Akhter also stressed the need to establish a linkage between research and policy formulation.

-Depthnews Asia

4.2 ENHR *priority-setting*

In the initial stages of ENHR in Bangladesh research areas were identified and ranked by the Working Group. This step, taken in collaboration with the National Forum and other relevant governmental and non-governmental organisations/institutions, helped to formulate the ENHR action plan for health research on nationally critical issues and capacity building through the RAS **(see Annex 5).** A process has been recently initiated to update the priority issues/areas. Previously the views of the community were not considered important in determining the various diseases and problems to be tackled.

Two further priority-setting workshops were organised as follows:

- Assessment of Health Research Needs and Priorities, organised by BMRC in collaboration with the World Health Organisation (WHO) in 1991.
- Research Priorities in Health and Population, organised by the National Institute of Population Research and Training in collaboration with the German Technical Co-operation (GTZ) and the Population Council in May 1995. A Follow-up workshop was held in December 1995 on translating priority research issues into research areas and topics.

4.2.1 Consultation with policy makers, researchers and communities

The survival and success of the ENHR movement depends largely upon strong support and commitment from all sectors of the community, including the Government. Thus, at every stage of ENHR activity various levels of governmental and non-government organisations, policy- makers, researchers and communities are consulted. This consultation process has been incorporated into government systems and has recently included stakeholder participation (STP) workshops to identify and rank health and health systems issues.

STP is a new initiative at the design and planning phase of the Government's health and population sector programme (HPSP) 1998-2003. In each thana (sub-district) a one-day workshop was held, where the representatives of the various levels of the community - village, local government and service providers, including NGOs - discussed their current concerns with health service delivery and its approaches.

These consultations are closely linked to ENHR priority-setting competency, where all stakeholders are encouraged to reach agreement on a finite list of research areas of high priority for the country, which becomes an agenda for action.

4.3 Research capacity building and strengthening

The capacity to carry out research is an important index of a nation's ability to deal with its problems. A country with strong research capabilities is expected to tackle its problems better and more consistently than a country with a weaker capability. As mentioned in the section above on national overview, there is a serious lack of adequate human resources and experts in Bangladesh, as well as effective measures to develop a future generation of health researchers.

Capacity building through regional co-operation is imperative. Not only do such exchanges result in lower costs, but the experts involved often have skills akin to the needs of the recipients. The programme of South-South cooperation has a multiplying effect. The steps to strengthen research capacity start by raising awareness among policy makers of the importance of health research and its link to health and development. The challenge is to attract and keep the very best scientists and minimise the "brain drain" phenomenon.

There is a need for a better understanding of what people see as the potential, the limits and the needs. The implications of such a definition imply a major shift from the prevailing capacity building paradigm.

To be effective capacity building should cover the whole spectrum of research as follows:

- the articulation of national problems in the field and the establishment of research capacities and programmes to deal with these;
- creating an enabling environment and a culture of enquiry at the national, programmatic and individual level;
- the creation of a national mechanism for interaction between all the stakeholders, as well as a mechanism to translate the findings into action;
- participation in global research; and
- the formulation of plans to enlist support for those resources lacking in the country. This takes into consideration the concerns of the individual with a specific problem as well as a government minister with a constituency to answer to.

These efforts should not only focus on training people in research methodology but should also go beyond to issues such as planning, implementation, evaluation and revision, policy-making and feed-back for those who will benefit from the findings.

National commitment is indispensable, if the ENHR strategy is to secure the necessary resources and create a positive research environment. Capacity building requires long-term investments in programmes, rather than in isolated projects. External agencies can assist more effectively by pledging support for 10-15 years.

4.3.1 Research Award Scheme (RAS)

In the context of the above scenario the ENHR,B Working Group launched the Research Award Scheme (RAS) in 1991, as a strategy to achieve the long term goal of national capacity building in the field of health research. RAS was a major step towards creating a positive research environment with opportunities for young health professionals to acquire hands-on-training through actual research in the form of financial and technical support for research projects. It also gave easier access to, and collaboration with, national and international experts and institutions.

Activities conducted under this programme included training courses and workshops on research proposal development; data analysis (quantitative and qualitative); report writing, and presentation as well as dissemination strategies. Seminars were organised for researchers, together with national and international research experts to explore and clarify particular issues of significance to the researchers.

ENHR,B initiated three phases of the RAS, in collaboration with BRAC and ICDDR,B with the support of the International Development Research Centre (IDRC). So far, six research projects under Phase-I, four under Phase-II, and eight under Phase-III have been supported and completed. The average duration of a research project was one year and the average size of the award was Taka 120,000 (US$ 2,500) per study.

In each phase of the RAS research projects were selected on the basis of a technical (by ENHR Technical Review Panel) and ethical (by ENHR Ethical Review Committee) review of the research proposals. Technically national and international experts (ENHR Supervisors) in the relevant field guided the researchers, while the secretariat provided management and co-ordination support throughout the research. Only proposals on issues considered to be of national relevance were funded.

The RAS is managed and executed in line with the RAS Implementation Plan (RIP) developed by the Working Group. The RIP makes provision for the selection of research concept papers, research proposal development, review and approval process, grant administration and management, as well as technical and management support for the researchers.

The RAS Phase-I was initiated in September 1991 through an advertisement in the national press. 118 concept papers were received, of which 10 were selected for development into full proposals. Six were eventually funded after a technical and ethical review by national experts.

The ENHR,B secretariat received a total of 17 proposals for Phase-II. Six of the proposals were developed at the Proposal Development Workshop organised for prospective young researchers. Four were approved for funding.

Phase III was initiated in mid-April 1995 through further newspaper advertisements. The prospective researchers were invited to attend a one-day workshop organised by ENHR,B and facilitated by an expert from Harvard University, where their proposals were reviewed and further developed. Of the 65 concept papers received, eight were finally approved for funding.

In the different phases of RAS, research projects have been supported on the following issues:

- public health, sanitation and hygiene;
- health services utilisation, and care seeking patterns;
- drug and substance abuse;
- urban health;
- endemic communicable diseases (Malaria, TB);
- social-anthropology on family planning;
- occupational and school health; and
- maternal and adolescent nutrition.

Researchers were from the directorates of health services and family planning, universities, medical colleges, post-graduate institutes, an academic teaching hospital, the Department of Public Health Engineering (DPHE), research and development institutes (e.g. BIDS) and NGOs. **A full list of studies supported by the RAS is contained in Annex 5.**

4.3.2 Research proposal development workshops

RAS Phase-I revealed certain shortcomings in the young researchers, such as an inability to properly identify research questions and methodology; and an inability to design an analysis plan and present findings. To address this issue the Working Group organised a Research proposal development workshop for Phase-II of the RAS. The workshop in August 1992 was based on the model of the ADDR Proposal Development Workshop. It targeted individuals interested in doing research on contemporary and essential health problems in Bangladesh.

The workshop was designed to help participating researchers to convert their concept paper into a research proposal and thus increase the likelihood of obtaining funding. Facilitators worked with the researchers to develop their ideas into an effective proposal; and present their proposal to their workshop colleagues. The proposals were subsequently submitted to the ENHR,B secretariat for funding. Proposals not developed at the workshop were also invited as a means of encouraging countrywide involvement in the ENHR strategy.

4.3.3 Data analysis and manuscript preparation workshop

The RAS training programme on Data analysis and manuscript preparation was organised after researchers had completed their data collection. It helped researchers to develop their skills in data cleaning, processing, analysing, report writing, and presentation. The nine participants in the workshop, held in October 1993, were those funded in the RAS Phase-I.

4.3.4 Course on applied epidemiology and biostatistics

Young health professionals, particularly those who work at district and sub-district levels in both the public and private sectors, underwent this two-week training course on applied epidemiology and biostatistics. The course aimed to assess and analyse their work situation, so as to identify health and allied problems, rank them in order of priority, decide on an action plan and implement and evaluate it. Skills in epidemiology and biostatistics are required on a regular basis at the district and thana (sub-district) level to monitor and evaluate health profile and programme activities.

The course provided participants with information and skills to conduct rapid community surveys for them to plan, develop, and implement primary health care programmes by analysing, interpreting and evaluating the findings. The participants also learned basic computer skills including the Epi-Info package for data entry and analysis. The first course of its kind in February 1993 was organised by ENHR,B for ten participants.

4.3.5 Establishment of ENHR as a norm through capacity development initiatives

As part of its long-term goal of establishing the ENHR concept in the country, ENHR,B has focused on establishing *ENHR* as a norm in organisations and other bodies. Action has been taken to establish a working partnership with the ICDDR,B and NIPSOM in Dhaka for this purpose, which supports small-scale research projects undertaken by the students and fellows who received training on research methodology from these institutions. Research proposals developed by trainees upon successful completion of the course are selected on the basis of the topic's coherence with ENHR.

4.3.6 Student paper competition

Activities have also been undertaken to introduce the ENHR concept to the universities in the form of seminars and a student paper competition. In January 1998 a one-day event was held at Dhaka University for students and recent graduates who undertook research as part of their Masters thesis to present research papers in public health, biostatistics and social science. Authors of the three best papers from each group were given an award by ENHR,B which jointly organised the seminar with the University of Dhaka. The participating students were from the Universities of Dhaka, Jahangir Nagar, Chittagong, Rajshahi, Khulna, and Shahjalal Science and Technology University and Sylhet.

Within the framework of this form of collaborative programmes and activities technical expertise is provided by the institutions, while the ENHR,B secretariat provides financial and management support. The secretariat plans to extend the initiative to institutions at divisional and district levels.

4.3.7 Development of training materials

The ENHR,B secretariat has prepared training materials for the various courses given - such as research proposal development, data analysis and report writing, epidemiology and biostatistics. As a part of its co-ordinating and facilitating role to promote ENHR in the country, ENHR,B provides support for health research activities undertaken by other institutions by distributing the training materials.

4.3.8 Other capacity building activities

Capacity building is an important national responsibility which governments of less developed countries have not adequately come to grips with. Their unwillingness or inability to mobilise resources and invest in the development of national capacity has been responsible for the difficulties encountered in capacity building initiatives (Karekezi, 1995).

Organisations and institutions in Bangladesh, other than the ENHR mechanism, conduct research capacity building activities. These organisations include the BMRC, BIRPERHT and ICDDR,B. BMRC conducts training workshops in biostatistics and epidemiology for the young and mid-level health professionals, while BIRPERHT conducts workshops and training courses on research methodologies in reproductive health. The ICDDR,B Centre for Population and Health Research conducts annual training programmes on research methodologies in public health.

4.4 Networking for ENHR

ENHR implies establishing networks as a means of disseminating information and exchanging ideas, keeping in mind the medium and language of communication that would facilitate learning for decision-makers and communities. Networking for ENHR is intended to connect scattered individuals and institutions, to maintain a regular flow of communication between them and to pool resources. ENHR Bangladesh has adopted networking strategies and activities along geographical (intra- and inter-country), institutional (partnership and collaboration) and programmatic (communication) lines.

4.4.1 In-country networking

Although networking at the national level is often more difficult to establish than at the regional and international levels, the ENHR mechanism in Bangladesh has mastered the prevailing situation. The ENHR model encourages and simplifies improved networking by gathering the country's organisations and institutions under the one umbrella of the ENHR national mechanism. Several communication channels function through this mechanism for in-country networking in Bangladesh, such as expert fora (Working Group, National Forum, Technical Experts Panel, Ethical Review Committee, RAS Supervisors Panel); communication materials and media (newsletter, brochure, newspaper article); and networking programmes (seminars, meeting).

(a) Linking Research to Policy and Action

The ENHR,B secretariat has developed different fora at the national level in which senior persons from all three constituencies are involved i.e. policy-makers, scientists and representatives of the health community. These fora facilitate promotion and increased usage of research results in policy making and health action both in the public and private sectors. Periodic meetings/seminars are held to raise the awareness of experts and professionals in developing and sustaining their commitment to ENHR. The outcomes of the networking meetings were:

- the identification and articulation of areas in the health sector where gaps or vital questions remain unanswered,
- the conversion of these questions into essential research needs and concerns for developing action plans and activities of the country
- the identification of the institutions with the capacity to conduct research on the topics identified in the above process.

(b) Communicating essential research findings

For the three constituencies of ENHR to interact with each other, it is essential to disseminate research findings in by compiling research compendiums (based on theses), through the issues of the ENHR,B newsletter, the ENHR,B brochure and Executive summaries of research completed on important national issues that are disseminated to decision-makers and to the press. A more detailed description of these publications is contained in section 4.7 below. The ENHR,B also maintains a database of health managers/practitioners within the country which lists health and family planning facilities at thana (sub-district) and union level and the Pally-Chikitshaks (village health practitioners). ENHR,B publications are mailed to them using this database.

(c) Research findings dissemination seminar for policy-makers

A Seminar on dissemination of research findings was held in October 1993. It was organised by ENHR,B following the successful completion of research done under RAS Phase-I. High level policy-makers, managers, health care providers and researchers attended the meeting. The researchers of RAS Phase-I presented their research findings to the seminar, chaired by the Director of NIPSOM. The participants discussed, analysed and explored opportunities to make use of the relevant findings which were crucial for health and health systems development, and to cater to the needs for further research.

The research results were also disseminated through the ENHR,B newsletter (*Liaison*) and Research Compendium published by the ENHR,B.

4.4.2 Regional and global networking

ENHR Bangladesh has played a pioneering role in setting up networks for regional and global ENHR strategy through its active involvement, participation and contribution to ENHR at a global level. As a member of the CHRD, the Task Force on ENHR and the Council on Health Research for Development (COHRED), ENHR,B has initiated regional ENHR networking in Asia in collaboration with, and with the support of, COHRED.

Between 1993 and 1994 three regions - Africa, Asia and the Caribbean - initiated regional ENHR networking activities with the support of the Council on Health Research for Development (COHRED) to promote, strengthen and implement the ENHR Strategy. Dr. Sadia A. Chowdhury initiated the process of developing the mechanism for the **Asian ENHR Network**. Its first meeting was held at the Subic Bay Free Port Zone, Olongapo City, Philippines on May 18-19, 1995. The meeting led to the formation of the Regional Network of Asian Countries engaged in ENHR. This network is a federation of like-minded countries, associations, and organisations that are national in character. At the meeting Bangladesh was chosen as the Asian Regional focal point for a two-year period

The regional meeting was held to initiate a process whereby all Asian countries involved in ENHR would share their experience of ENHR strategy and draw up a common agenda for action. The meeting was attended by thirty participants, representing the following countries and agencies: Bangladesh, China, India, Indonesia, Lao P.D.R., Nepal, Pakistan, Philippines, Thailand, Uganda (representing the African Region), the International Development Research Centre (IDRC), the International Health Policy Programme (IHPP) and COHRED. It was decided that the regional activities would concentrate on exploring new approaches to the involvement of other countries in the region.

Participants shared the experience of their national strategies and methodologies for implementing ENHR. They discussed progress in ENHR and identified the necessary country and institutional forms of cooperaton required to promote and implement the strategy. They went on to draw up an agenda for regional networking activities, such as information exchange, regional technical workshops on research management, joint publications/ documentation, and regional or joint research studies on common problems.

A regional action plan for 1994-1996 was developed which included the planning and organisation of a regional training workshop with its focus on research management for ENHR. ENHR,B co-ordinated the networking activities during 1994-96 as the focal point for the Asian ENHR Network.

As part of the regional work plan it was agreed that delegates from Thailand, Philippines and Bangladesh with experience in ENHR strategy would visit other Asian countries (i.e., Nepal, Cambodia, Indonesia, Lao PDR and Vietnam) with a view to:

- assess the countries' interest in ENHR; and
- identify the interest and support of the various stakeholders in health research in each country.

These visits showed that the countries visited had a genuine interest in ENHR strategy. Moreover, some of them had already initiated ENHR activities (e.g., Indonesia, Lao PDR). The visits also confirmed the need for further training, especially in research management for ENHR and other capacity building training, including research methodology.

The second Asian ENHR network meeting was held in Hanoi, Vietnam on 9-11 December 1997. Four participants from the ENHR,B Working Group and the Secretariat attended the meeting and shared the national strategies and process of research priority-setting. Two ENHR,B Working Group members and one member of the secretariat attended the 3rd Asian ENHR network meeting held in Vientiane, Lao PDR on 11-12 December 1998. The Bangladeshi delegation presented its experience of ENHR in community participation.

The ENHR,B Working Group members and Secretariat staff have attended various international workshops, seminars and other meetings on ENHR. As part of the regional and global advocacy initiatives, two members of the ENHR,B working group attended the First International Workshop on ENHR in November 1990 at Pattaya, Thailand and the First African ENHR Conference at Kampala, Uganda held in April 1992.

A Regional ENHR Task Force, composed of representatives from Bangladesh, Philippines and Thailand, met in Dhaka for the Planning Meeting for Regional Workshop on Research Management, held from 30 June to 2 July 1995 to further discuss and plan the Regional Workshop on Health Research Management. After a systematic review of the health research situation in Asian (ENHR) countries and their capacity strengthening needs, a decision was made to hold an interactive workshop, focusing on a number of critical issues in the promotion and implementation of ENHR. The workshop was to be linked as much as possible to follow-up activities by participating countries. It was agreed that the ENHR team from Thailand should assume responsibility for the final technical, substantive and logistical arrangements for the workshop scheduled for the end of December in Thailand.

The Regional Workshop on Research Management for ENHR took place from 17 to 21 December 1995 in Kanchanaburi (Thailand) and brought together teams from nine countries of the region: Bangladesh, Cambodia, India, Indonesia, Lao PDR, Nepal, Pakistan, Vietnam and Thailand. The objectives of the workshop were to:

- identify critical issues and strategies for the promotion and implementation of ENHR;
- develop/review national and sub-national ENHR plans and to develop work plans for and by each country;
- identify strategic elements in the promotion and implementation of ENHR at the individual country level;
- share country experiences in ENHR; and
- enhance management skills relevant to ENHR.

The second meeting of the Regional ENHR Task Force was held in April 1995 in Manila, the Philippines and was attended by three participants from Bangladesh including the ENHR,B Co-ordinator, Dr. Sadia A Chowdhury. In her capacity as (former) co-chair and (former) member of the COHRED Board, Dr Chowdhury has attended COHRED board sessions on a regular basis during 1993-98 in

Geneva, Switzerland. She has also attended several other international meetings and seminars on ENHR to provide input on global ENHR strategy.

4.5 Resource mobilisation

4.5.1 Fundraising

Funding of ENHR activities in Bangladesh has come from a number of sources. ENHR,B mobilises resources from both domestic and external sources. In seeking support it organises high-level national workshops on ENHR to raise awareness among governmental, donor and other domestic sources. Funds are channelled through BRAC and ICDDR,B, both of which have provided financial support since the inception of ENHR activities. BRAC provides space for the ENHR,B Secretariat, logistics, vehicles, and administration and management. ICDDR,B provides technical expertise. The Working Group members also function as a catalyst for fund raising, and the National Forum facilitates the process at the highest level.

The project on Promoting and implementing ENHR in Bangladesh received an IDRC grant that was channelled through ICDDR,B for young researchers under the RAS from 1991 to 1998. The grant also provided seed money for the Working Group to promote ENHR in the country. Apart from IDRC, the DFID (UK) Bangladesh desk and the Population Council have supported programmes for research capacity building.

As part of its international commitment to ENHR the Dhaka office of UNICEF supported promotion and advocacy and in-country networking activities from 1991 to 1994. The Ford Foundation (Dhaka office) also provided support for in-country networking by publishing the ENHR,B Newsletter (Liaison) in 1995. ENHR,B has also received support from COHRED to co-ordinate the regional activities of the Asian ENHR Network from 1994 to 1996.

A Data analysis and manuscript preparation workshop and the Research findings dissemination seminar were funded by UNICEF. The Proposal development workshop was sponsored by UNICEF and the Population Council, and the Needs assessment workshop and the Community-based epidemiological and biostatistics training programme were funded by the Department for International Development (DFID). The Workshop on the ENHR initiative in Bangladesh, the Compendium (Vols. I - III), and the database were all funded by UNICEF. A separate Research compendium (Vol.IV) has been prepared for the ENHR,B funded research projects with UNICEF financial support. The Ford Foundation and UNICEF fund the ENHR newsletter and brochure.

The Government has not yet made a formal commitment to ENHR,B, although it is actively involved in the ENHR process through its different organisations and institutions. A long-term commitment and assurance of a steady flow of funds to render ENHR fully operational is still to be decided upon. The Government's commitment to match its words with actions would also guarantee that national research priorities are properly identified and programmes carried out.

4.5.2 Developing human resources

The ENHR,B secretariat has set a target to fund at least ten young researchers every year. So far, however, the secretariat has been unable to meet the target for each phase. Researchers in search of funding are not equipped with the skills required to develop a concept paper. They lack innovative research ideas, and have little knowledge of the impact of research. This perhaps reflects on the lack of appropriate curricula and student counselling at the various educational institutions. To overcome this difficulty, the ENHR,B has launched hands-on-training for prospective researchers through its Research Award Scheme (RAS) programmes and other efforts, including the course on applied epidemiology and biostatistics. This has produced positive results but also requires more time and funds.

The secretariat and the Working Group have taken various initiatives to establish the concept of ENHR as a norm through the RAS. This is linked with human resource development activities of different organisations and institutions (such as ICDDR,B; BIRPERHT; NIPSOM; BMRC; Universities), where researchers trained in research methodologies enjoy financial and technical support through this scheme. If a study fails to secure financial support for lack of funds, the researcher may still receive technical assistance from the ENHR,B Expert Panel and the secretariat through RAS. There is a continuous process of linking the young researchers to national and international experts for technical assistance.

4.6 Evaluation of ENHR

ENHR is a relatively new concept. It is still at the promotional stage in many countries. Although it has been implemented in Bangladesh since 1990, no formal evaluation has yet been made. An analysis of the reports and documents available shows that there have been growing changes in health research initiatives and status since the introduction of the ENHR strategy. The findings of the studies carried out under the RAS have provided useful information for national health policy adjustment and programme management. For example, while attending a Dissemination seminar for research findings on An assessment of Distribution and Utilisation of Water Seal Latrine in Selected Rural Areas of Bangladesh in 1993 (supported by RAS Phase-I), policy-makers of DPHE became aware of the need for change in programme management policies. They grasped the need for more decentralised management for the production and distribution of the water-seal latrine in rural Bangladesh by NGOs and the private sector. Today, the efforts of the NGOs and the private sector have made tremendous improvements in rural sanitation coverage.

The dynamic process of ENHR implies that it is not essential to implement all nine of its competencies one after another for ENHR to be present. The ENHR process in Bangladesh was started with the creation of an enabling environment for national consensus building and the development of a national co-ordinating mechanism. All of this was in the context of existing, scattered research activities. ENHR in Bangladesh has stressed efforts to step up national research capacity to produce high quality research results that have a bearing on policies and programmes that were previously lacking.

More use of research findings, health policy changes, greater community awareness of research and more interdisciplinary research capabilities are some of the long-term measures to be achieved. In Bangladesh the impact of ENHR can be observed through the analysis of progress and experience to date.

The latest phase of the Research Award Scheme (RAS) that was delayed by unavoidable circumstances (political unrest and natural disasters i.e. annual floods and cyclones), ended on 31 December 1998. There is growing interest in the RAS and young university graduates have shown genuine enthusiasm. There has been a marked improvement in the quality of the concept papers and proposals submitted to the secretariat. However, a formal evaluation of RAS would provide useful insight into the scheme's successes, failures and constraints in enhancing national research capacity.

4.7 ENHR,B publications

4.7.1 Research compendium

The publication is a compendium of studies undertaken from 1990 to 1994 by post-graduate students as part of their theses in health and allied subjects. The compendium aims to inform researchers of existing studies - and thus avoid duplication - and to identify important issues for future research. The volumes cover Public Health Research (Vol-I); Clinical Studies (Vol-II); and Biomedical research (Vol-III).

Volume-IV of the Compendium is based on research projects funded under the RAS Phase-I. It was compiled, edited and published with the support of UNICEF, Bangladesh. It provides a concise reference guide to research carried out under the RAS and brings researchers and the consumers of research findings into contact with each other. It is designed to help planners and managers take decisions based on research findings, and to help researchers identify areas that need their attention. Copies have been circulated to various governmental departments, research institutions, universities, libraries, medical colleges, NGOs and donor agencies.

4.7.2 The ENHR,B brochure

The brochure provides a brief description of the ENHR concept, including an introduction to the national mechanism and activities under way in Bangladesh. UNICEF has supported this initiative.

4.7.3 The ENHR,B newsletter , Liaison

This publication is an important element of the network that disseminates information between policy-makers, donors and NGOs working in the field of health and health research. It is distributed to member organisations of the Working Group in Bangladesh, to the National Forum, United Nations agencies, the GoB, research institutions, departments under the Ministry of Health, faculty members of each university Department of Medicine and institutions involved in health research. It is also circulated to organisations and institutions abroad, including IDRC, COHRED, WHO, UNICEF, other NGOs and the private sector. The information kit acts as a link between producers and users of health research and keeps its readership up to date with ENHR,B activities.

4.7.4 Handbook on research proposal development

A Handbook on research proposal development was prepared after a workshop on the subject and was based on the materials and handouts used by the facilitators. It is intended as a guide for young researchers' writing proposals – ranging from defining the objective of research to sampling, questionnaire construction, data collection techniques and preparation of the manuscript. An epidemiology glossary is appended. The Handbook was compiled and published by the secretariat with the technical assistance of the Applied Diarrhoeal Disease Research Project (ADDR) and Harvard Institute for International Development (HIID), USA, and was financed by UNICEF, Bangladesh.

4.8 Future plans and projections

The 10-year work plan of the ENHR,B expired in July 1999 with the completion of its work on two important projects: (i) Promoting Essential National Health Research (ENHR); and (ii) Networking and Advocacy for Essential National Health Research (ENHR). The projects were implemented in cooperation with BRAC, ICDDR,B, and UNICEF.

ENHR,B recently drew up a new five-year work plan (1999-2004) that includes the continuation of some past actions as well as new activities. The activities planned are as follows:

- preparation of health research compendium
- prioritisation of essential health research agenda
- implementation of essential health research and strengthening of research network
- translating research results into action
- research to meet immediate needs of health programme managers

- promotion and advocacy of health research
- capacity building for young researchers
- introducing systemic changes in medical health education

The Working Group is responsible for carrying out the programme. A full-time Co-ordinator will be responsible for day-to-day activities of the programme, assisted by a research associate. Short-term consultants will be appointed as required by the programme.

Negotiations with the MOH&FW to obtain additional support for the programme through HPSP illustrate the ENHR Working Group's strategies and functions. The HPSP was created in line with the Government's Health and Population Sector Strategy (HPSS). The latter focuses on providing the Essential Services Package (ESP) through a one-stop delivery approach. It aims to improve the health status of the population by fairly distributing and making efficient use of the country's scarce resources for equity in health care.

The HPSP has planned research that will generate a scientific database for the best use of the country's scarce resources. In the context of HPSP's goals and strategies the Working Group's most immediate challenge will be assist in putting these research results to the best use and translating them into action by using the ENHR concept.

The efforts of ENHR,B have laid the foundation. Its Working Group will continue to improve national efforts to enhance and strengthen health research and the research base in the country by providing:

- a platform for the future generation of researchers;
- an information clearing house for all national and international essential research work;
- an essential link between the producers and users of research; and
- advocacy to establish the concept of ENHR as a norm in national organisations and bodies.

Chapter Five: Conclusions and lessons learned

5.1 Theory and practice of ENHR in Bangladesh

Like Primary Health Care (PHC), ENHR is one of the many concepts and strategies that the international scientific community has initiated in striving for the universal goal of equity in health and human development. It implements many of these strategies in a variety of ways that aim to achieve efficient and effective results by making the most of the world's scarce resources. This country monograph provides an overview of Bangladesh's efforts to make the best use of the ENHR concept and strategy.

5.1.1 Theory of ENHR

In the Bangladesh ENHR process, equity and participation of different stakeholders are considered the keys to achieving the goal of developing and sustaining a positive research base and environment. The process also aims to produce high quality research results – crucial for the country's needs - to guide its health policy and action for better health and human development. The ENHR concept has come into being because of distressing disparities in levels of health and health research status both between and within nations. Developing countries and people in disadvantaged situations suffer the most from these disparities. In Bangladesh evolution of the ENHR concept has been particularly due to these differences and disparities in the level of health initiatives and status. ENHR in Bangladesh has served as a vital approach to all the relevant issues that affect health and development through scientific inquiry.

The ENHR mode of operation, e.g. inclusiveness, is designed to ensure the effective participation of representatives from all sectors involved in setting health priorities, with particular emphasis on the disadvantaged and vulnerable groups, i.e. women, children and the poor. This country monograph shows clearly that ENHR in Bangladesh has brought changes to the research process and environment by creating an enabling atmosphere and forging close links between scientists, policy-makers, health care providers, communities and many other actors in the field of health, irrespective of their knowledge of research. The Stakeholder participation and opinion workshop implies a process of democratic decision-making through decentralisation and participation.

ENHR has reoriented the concept of health research towards a simplified, action-oriented and problem-solving approach that is closely linked to health and health systems development. This approach has been promoted by organisations in Bangladesh, notably BRAC and ICDDR,B.

ENHR has reaffirmed the need and the significance of translating research into policy and practice through its contribution to the scientific database, improved health policy and management, and fostering innovation and experimentation that promote global health research. Moreover, the global implications of establishing international and regional ENHR networks are among the most crucial developments of the ENHR strategy. It is a process that simplifies the mobilisation of global resources for health research and thereby helps to alleviate disparities between developing and developed nations. The ENHR,B process has made it easier to raise funds for research and has improved researchers' access (particularly young health professionals) to both financial and human resources.

5.1.2 Practice of ENHR

Bangladesh has emphasised the application of a particular competency of the ENHR strategy, based on the critical needs of national health and health system development. Despite the lack of effective research facilities, many institutions with a basic research framework exist in Bangladesh and are engaged in health research with little co-ordination between them. Each of these institutions/ organisations is engaged in the national ENHR mechanism where ENHR,B functions as a co-ordinating body rather than an implementing agency.

This national mechanism ENHR in Bangladesh is unique in as much as it is able to work independently. Although the ideal model for ENHR depends on the particular country context, an independent working group in a governmental, non-governmental or autonomous setting would be more flexible and effective. What really makes an effective national ENHR mechanism depends on the existing health research structure and culture.

In Bangladesh the ENHR reality is that many organisations and institutions at different levels use it to improve their programme policy and management. The Working Group has attempted to establish the ENHR concept as a norm in these organisations / institutions so that they can implement their programmes for national health and development needs.

The initiative of various stakeholder organisations in advocating ENHR through their interventions is unique to Bangladesh. As BRAC shows, considerable thought is given to the research-policy-action linkage. Within BRAC the village organisation (VO) members and BRAC staff at all levels - from the grass-roots workers to the researchers themselves - participate in conducting and facilitating research, formulating programme policies and strategies, and implementing programme activities. This participation takes place through periodic consultations, service-point discussions, programme review sessions, and joint discussions between service providers, researchers, programme managers and policy-makers at various national, district or sub-district levels.

The District Health Management Team (DHMT) can apply the ENHR strategy at the district level to generate feedback from field workers and communities. BRAC does this annually with the participation of its field managers/workers and the programme participants / beneficiaries to determine their priority health actions. This bottom-up approach to ENHR could be the precondition for its sustainability when it becomes an agenda for action at every stage of community development, initiated and maintained by the communities themselves. The efforts through RAS would make it possible to address this aspect of the ENHR mode of operation. The young researchers from sub-district level, trained through RAS, would multiply the efforts of a bottom-up approach in Bangladesh.

Although the tools used are similar (e.g. mortality/morbidity statistics, community‘s perception, informed views), the priority-setting process for each country is unique. The new tool, Disability Adjusted Life Years (DALYs), which has recently been developed and advocated for use in the priority-setting process, was not used by Bangladesh. The existing database was not adequate to calculate DALYs, but ENHR could improve this. By introducing ENHR the country has developed ways of avoiding many of the subjective biases of priority-setting, such as institutional traditions, domination by scientists or the critical influence of donors. Irrespective of the existing resources for health research in a country, research capacity development is the most vital element of the ENHR process. By launching RAS and other training programmes ENHR,B is trying to achieve this.

Many ENHR,B activities and initiatives such as the National Forum, the Research compendium, the newsletter and the development of a database of research facilities are pragmatic approaches to awareness raising among policy-makers and health managers and establishing effective links between research, policy and action. Although a number of initiatives are under way, the goal of creating a positive environment for the increased use of research still lags behind the targets set.

It is essential that inequity and disparity of resources within and between countries be significantly reduced. It is the responsibility of the international community to promote and strengthen research capability to address crucial problems through an effective strategy. ENHR, an appeal to advance towards global equity in health and human development, is expected to be an effective strategy for the appropriate transfer and adaptation of scientific knowledge and technology. Even within the country and among different sectors of health, the issue of equity in research requires that greater attention be given to making the most of scarce resources.

5.2 Challenges and sustainability of ENHR

The critical capacity of human resources for health research is one of the major impediments to the application of ENHR in Bangladesh. The available experts do not represent an adequately diverse range of disciplines. They work in different institutions and organisations. Multiple demands are made on their professional time. They perform several activities simultaneously. Their ability to fulfil all these demands and attend to ENHR activities is limited. The secretariat is often forced to adjust its training programmes to suit the availability of resource persons. This results in significant delays of planned activities. Interference from governmental and donor agencies sometimes restrains the formulation of an appropriate research agenda relevant to the major needs of the country. There is a lack of consistent and effective national government policies and strategies when it comes to science and technology, research, and research based infrastructure.

The national mechanism of ENHR,B enjoys greater flexibility by working on its own, since it is not under the control of any one organisation or institution. The ENHR,B model has also provided easier access to a wide range of institutional and organisational co-operation and support.

The secretariat has functioned under the umbrella of BRAC, the largest and most effective NGO in the country. This benefits ENHR development in Bangladesh, since it facilitates easy access and good communications, free from government interference and bureaucratic formalities.

The ENHR,B initiative provides broad scope to build a strong institution by raising awareness of research, its needs and usefulness in policy formulation, in decision-making and in action. The cross-sectoral and interdisciplinary approach has further reinforced the institution.

The international scientific community's endorsement of the concept of ENHR as an effective tool for health and development, has provided ENHR,B with opportunities to mobilise greater financial support from external sources. The regional/international networks within ENHR,B make it easier for research institutions and organisations to exchange information and technology. The national networking process facilitates a wide range of support in priority-setting, capacity building, as well as advocacy and promotion of ENHR.

The creation of a positive environment for health research, based on a new generation of health researchers, is under way. However, further incentives must be provided, since research has a poor reputation as a viable career. The future generation of health researchers who are currently being trained in the ENHR approach are enthusiastic about its mode of operation.

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Annex 1

Inventory of health research institutions/organisations in Bangladesh and their activities[1]

Bangladesh governmental organisations / institutions:

Name	***Priority research areas***	***Activities***
National Institute of Preventive and Social Medicine (NIPSOM)	community health; health services research; epidemiological studies	Established to train public health officials and conduct research on community health. Mandate to provide training for community health professionals through courses such as the MPH and M.Phil.; conduct health research; and act in an advisory capacity to the Ministry of Health and Family Welfare.
National Institute of Population Research and Training (NIPORT)	Demographic and health survey; population and family planning service delivery and systems	Established to co-ordinate population research. Disseminates findings through seminars and publications. Conducts family planning research. Responsible for conducting the fertility and contraceptive prevalence surveys by sub-contracting to other institutions, agencies, and commercial firms.
Bangabandhu Sheikh Mujib Medical University (former Institute of Post-Graduate Medicine and Research - IPGMR)	Hospital-based clinical and biomedical research	Post-graduate institute for medical and dental studies including basic science in human medicine. Research conducted mainly by the students and fellows as part of their thesis.
Institute of Nutrition and Food Science (INFS), Dhaka University	food and nutrition; community-based nutrition services	The primary nutrition research centres of the country. Have carried out national nutrition surveys and evaluated community nutrition projects. Very little action-oriented research has been undertaken.
Institute of Public Health Nutrition (IPHN)		
Health Information Unit (HIU), Directorate General of Health Services (DGHS)	health services delivery	The source of all information on the health system, vital events, and programme-related data of the respective wing (DGHS and DGFP) of the Ministry of Health Family Welfare (MOH&FW). Under the new Health and Population Sector Programme (HPSP) in the Fifth Five Year Plan these two units are now working as a unified MIS of MOH&FW.
Management Information System (MIS), Directorate General of Family Planning (DGFP)	population and family planning service delivery	
Bangladesh Bureau of Statistics (BBS)	health services / systems research	Attached to the Planning Ministry, the Bureau is largely composed of demographers but is gradually developing its capabilities in socio-economic and health research. It conducts household and national nutritional surveys. The PDEU is a small team of research professionals and is involved in development and evaluation of government programmes on population and family planning services.

1 This inventory is based on the following documents: Chowdhury SA (1991) *Essential National Health Research in Bangladesh: A Position Paper*, and Rahman O (1990) *Country Report on Bangladesh* – as well as the author's personal contacts and experience. The list is not meant to be exhaustive.

Name	***Priority research areas***	***Activities***
Population Development and Evaluation Unit (PDEU)		
Departments of Statistics, Sociology, Anthropology, and Economics at Dhaka, Rajshahi, Jahangirnagar, Chittagong, Sylhet and Khulna University	population and family planning	Involved in research activities on their own initiative, mostly in the areas of population and family planning.

Semi-governmental/ autonomous research organisations / institutions

Name	***Priority research areas***	***Activities***
Bangladesh Institute of Development Studies (BIDS)	health economics; health systems research; poverty and health	Perhaps the premier academic development research institution in the country. Has had substantial impact on a wide range of policy issues. Has a reputation for conducting quality development research, and attracts the best development researchers, who are almost exclusively economists. The demographic research division shows little interest in health research, although in recent years, BIDS has done some work on the economic evaluation of health programmes.
Bangladesh Medical Research Council (BMRC)	biomedical and clinical research	No independent research undertaken. BMRC is essentially an autonomous co-ordinating body consisting of the leading health policy makers in the country. To date there is no evidence to document any impact it may have had on the country's health policy. The organisation channels government funds for research, arranges workshops and produces research publications. It gets a small allocation of the national health budget to provide research grants. Research findings from such studies are rarely published.
Bangladesh Institute of Research for Diabetic, Endocrine and Metabolic Disorders (BIRDEM)	Hospital-based clinical and biomedical research	An autonomous post-graduate teaching institute attached to a hospital and a World Health Organisation (WHO) collaboration centre for diabetes services and research. BIRDEM undertakes hospital based clinical and laboratory based biomedical research on diabetic, endocrine and metabolic disorders.
Bangladesh Institute of Research for Promotion of Essential Reproductive Health and Technologies (BIRPERHT)	health services research on women's and reproductive health	A research organisation which focuses on reproductive health care technologies, and the service delivery strategies and policies. It conducts research on applied reproductive health technologies including trials on family planning methods mix.

Non-governmental and private organisations / institutions involved in health research

Name	***Priority research areas***	***Activities***
BRAC	community health; nutrition and care; health systems research; reproductive health; disease control	Research conducted by BRAC is mostly related to its programmes. Some research is undertaken on national policy-making issues such as Palli Rationing Systems, ORT communication campaign, and the nationally adaptable techniques and implementation strategies of the WHO's Directly Observed Therapy, short-course (DOTs) for Tuberculosis treatment. However, the amount of research undertaken is not always representative of the needs of the whole country. BRAC prefers to concentrate on programme development, implementation, and evaluation for learning and application through experimentation and innovation.
Programme for the Introduction and Adaptation of Contraceptive Technologies, Bangladesh (PIACT,B)	health and family planning services; contraceptive technologies	A private research organisation on family planning (FP) involved particularly with quality control of FP contraceptives (i.e. condoms) and behavioural research.
Gonshasthya Kendra (GK)	community health; health care delivery; pharmaceutical services and drug policy	GK has pioneered research into innovative health care delivery, focusing on the use of auxiliary health personnel (especially women) to provide a wide range of medical and surgical services. They have also focused on issues related to an essential drug policy. Very little of their experience, however, has been documented.
University Research Corporation, Bangladesh (URC,B)	population and family planning services / systems and policies; health economics	A private body consisting of university professionals, it conducts research and evaluation studies for the government and other organisations / institutions. Most research deals with social-anthropology, policy and strategic aspects of family planning, and population programmes.
Mitra & Associates	population and demographic survey	These are some of the more obvious private research firms with a focus related to the sponsor/donor interests. Work to date has mostly concentrated on population and family planning.
Associates of Community & Population Research (ACPR)	population and family planning	
Research & Evaluation Associates for Development (READ)	population and family planning	

Two key international research organisations

Name	***Priority research Areas***	***Activities***
International Centre for Diarrhoeal Diseases Research, Bangladesh (ICDDR,B) - The Centre for Health and Population Research	Biomedical research; epidemiological; community health; disease control; urban health; health care financing; health services /systems research	The leading research organisation with multinational funding and a mandate to conduct research on a wide range of health issues including diarrhoea, childhood disease, reproductive health, family planning, demography, and vaccine evaluation. Produces epidemiological and demographic research on a wide range of topics utilising the database from Matlab, one of the richest sources of health and demographic information in the world. Apart from hospital facilities, the Centre has several field facilities in rural areas. In comparison to other local institutions, it is well-funded and equipped with resources for health research. It has skilled and professional staff. There is a history of biomedical bias on health research with less focus on country-specific research on the social sciences and health systems / services development.
Helen Keller International (HKI)	food and nutrition	HKI is an international organisation focusing on issues of blindness prevention, conducts the national nutrition survey in collaboration with IPHN, community-based studies on Vitamin-A and night blindness.

Annex 2

ENHR,B (ENHR Bangladesh) Working Group (May, 1999)

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Annex 3

ENHR,B National Forum (September 1991)

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2.	Dr A I Begum	Consultant, MCH-FP, WHO (Currently Co-ordinator, BBF)
3.	Prof. A K Azad Khan	Director, Research, BIRDEM (Now Director General, BIRDEM)
4.	Prof. A. M. Das	Head, Dept. of Biostatistics, NIPSOM (Now Consultant, ADB)
5.	Prof. Anwara Begum	Professor, Obstetrics and Gynaecology, DMCH
6.	Prof. Demissie Habte	Director, ICDDR,B
7.	Prof. Kazi Saleh Ahmed	Vice Chancellor, Jahangir Nagar University, Dhaka
8.	Dr K M A Aziz	Senior Research Anthropologist, ICDDR,B (Currently Senior Anthropologist, RED, BRAC)
9.	Mr Mokammel Haque	Member, Planning Commission, GOB (Currently Executive Chairman, Board of Investment, GOB)
10.	Prof. Najmun Nahar	Professor and Head, Department of Paediatrics, DMCH
11.	Dr Salehuddin Ahmed	Director, Programmes, BRAC (Currently Deputy Executive Director, BRAC)
12.	Secretary	Ministry of Health and Family Welfare (MOH&FW)
13.	Chairman	Bangladesh Medical Research Council (BMRC)
14.	Director General	Directorate of Health Services
15.	Director General	Directorate of Family Planning
16.	Director General	National Institute of Population Research and Training (NIPORT)
17.	Director General	Bangladesh Institute of Development Studies (BIDS)
18.	Executive Vice-Chairman	Bangladesh Agriculture Research Council (BARC)
19.	Director	IPGMR (Now VC, Bangabandhu Sheik Mujib Medical University)
20.	Director	National Institute of Preventive and Social Medicine (NIPSOM)
21.	Director	Centre for Integrated Rural Development in Asia and the Pacific (CIRDAP)
22.	Chairperson	Women for Women
23.	Member	ENHR,B Working Group

Annex 4

Priority research areas in Bangladesh identified by the ENHR,B Working Group in 1991

- Community-based research on the incidence and/or prevalence of avoidable diseases;
- Intervention/action/operation research on ARI, diarrhoea, tuberculosis, leprosy, malaria, HIV/AIDS, STD/RTI, vaccine preventable diseases, MCH and nutrition;
- Social-anthropological, economic and behavioural studies in relation to public health programmes/problems;
- Health care delivery systems, health services utilisation, health policy / health services policy;
- Health care financing;
- Urban health care;
- Environmental and occupational health;
- Substance (drugs / alcohol) abuse;
- Nutrition of high risk groups: children, adolescents, pregnant mothers;
- Cost-benefit analysis and cost-effectiveness studies of various health programme models / components;
- Studies on the development of and use of appropriate research methodologies in public health;
- Biomedical research on the currently identified critical issues like malaria, ARI, diarrhoea, tuberculosis, leprosy, HIV/AIDS, STD/RTI, micro-nutrient deficiency.

Annex 5

ENHR,B Research Projects supported by the Research Award Scheme (RAS)

RAS Phase-I:

1. Mr. Md. Golam Azam, *Impact of drug addiction on families in Rajshahi City, Bangladesh;*
2. Dr. Shafinaz F. Chowdhury, *Study on the serodiagnosis of plasmodium falciparum and status of cell mediated immune response of falciparum infected person;*
3. Mr. M A Hashem, *The pattern of public health situations of the coastal people in Bangladesh: A study in Urir Char in Chittagong District;*
4. Mr. Ali Ahmed Howlader and Ajit Kumar Majumder, *Determinants of maternal and child health in urban slums;*
5. Mr. Md. Abdur Rashid Sikder, and Dr. Abdul Mannnan Bangali, *An assessment of distribution and utilisation of water seal latrine in selected rural areas of Bangladesh;*
6. Dr. Md. Shahidullah Sikder and Dr. Mustafa Abdur Rahim, *Study on the operational feasibility of outdoor health care delivery system at some static facilities in Dhaka City;*

RAS Phase-II:

1. Dr. Chowdhury Md. Haider Ali, *Factors influencing non-compliance with standard tuberculosis treatment in follow-up clinic of Dhaka Shishu hospital;*
2. Dr. Md. Aftab Uddin, *Care seeking pattern of patients in rural communities of Bangladesh;*
3. Dr. AKM Shariful Islam, Dr. AKM Anisul Haque, and Dr. Vikarunnissa Begum, *Prevalence and types of skin diseases among the slum dwellers of Dhaka City and risk factors for their spread ;*
4. Dr. Abdul Haque Talukder, *Consequences of family size on family health and well-being: A study on the experiences of ruralfFamilies in Bangladesh;*

RAS Phase-III:

1. Ms. Nargis Akhter, Mr. Ghulam Murtaza, Dr. Rafiqul Islam, Mr. MNH Siddiqui, and Mr. Md. Abdus Sattar, *Role of NGOs in delivering health services to the urban poor of Khulna City;*
2. Ms. Syeda Sarah Jesmin, *A sociological study on pregnancy and health seeking behaviour of the urban slum women in Dhaka City;*
3. Dr. Mohibul Abrar, Dr. Rejuan Hossain Bhuiyan, and Mr. Kamal Islam Sony, *Prevalence of substance abuse among residential students of higher educational institution in Dhaka City;*
4. Dr. Sheik Asiruddin, and Dr. Mamunur Rahman, *Nutritional status of primary school children of BRAC, Dhaka City;*
5. Dr. Gul A. Anar, and Dr. Zahidul Islam, *A study of twenty four hour dietary recall of pregnant women;*
6. Dr. Mafroza Pervin, and Dr. Abdur Rahman, *Household environment and episodes of acute respiratory tract infection (ARI) of children under two years ;*

7. Dr. Zahidul Islam, Dr Shamsi A. Chowdhury, Dr. Disha Ali, and Dr. Shafi Ahmed, A s*tudy to assess the* nutritional status of the adolescent (14-19) female workers in the garment factories of Dhaka city;
8. Dr. Afroza Begum, and Dr. HT Abdullah Khan, *Obstetric related gynaecological conditions among post-menopausal women;*