

**NEPAL HEALTH RESEARCH COUNCIL
AND
NATIONAL HEALTH RESEARCH PRIORITIES
IN NEPAL**



Nepal Health Research Council (NHRC)
Ramshah Path
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PREFACE

NHRC would like to work in close collaboration with MoHP, academic institutions and various national research institutions for the purpose of achieving the noble objective of providing basic health care to the people specially the deprived and underprivileged and ensuring universal health coverage. Health system research especially pertaining to various dimensions of health care delivery system such as essential health care services, health care financing as well as research related to various issues of communicable and non communicable diseases are of prime importance to us in the present scenario. Similarly sociological and anthropological research is important in our context especially to ensure the access to and universal coverage of basic health care services by the poor and underdeveloped.

This booklet describes the role of NHRC and the current priority areas of health research in Nepal. Any individual, organization or institution committed towards supporting the overall development of health system of Nepal would find this publication useful in order to stick to the national priority to generate quality evidences in health and finally contribute in evidence informed policy making.

The priorities set out in this booklet has come out as a product of National Consensus Workshop arranged by NHRC to define Health System Research Priorities; first phase held on June 06, 2012 and second phase on September 16, 2012 in Kathmandu, coupled with a series of consultative meetings and was technically and financially supported by World Health Organization country office Nepal.

NHRC would like to express its warm appreciation to all those who have contributed for the success of the workshop and the publication of this booklet.

Prof. Dr. Chop Lal Bhusal
Executive-Chairman
(NHRC)

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Introduction

Nepal Health Research Council (NHRC) was established in 1991 through parliament act 1991, with the aim of promoting quality and ethical standard of health research in the country. The scope of council is to approve and monitor health research, conduct and promote health research and improve use of health research in Nepal. Among several functions, duties and rights of Nepal Health Research Council as per the act of NHRC two of them directly relate to the national health research policy formulation and specifying the priority areas for health research. The first one is to formulate National health research policy and give a definite direction for the promotion, implementation, management, and utilization of all aspects of health research in Nepal. Second one is to specify the priority sectors of study and research relating to health.

Historical Background

The scenario of health research is changing with time and the paradigm has now shifted to newer areas such as Non Communicable Diseases and Climate change and health. In the changing scenario, NHRC has been involved in updating the health research priorities in Nepal at different times. First, it had identified health research priorities in 1998 by conducting a conference named “Prioritization of Essential National Health Research Agenda” in Kathmandu. It had identified research priorities in four different broad areas: Clinical Research, Health Policy and System Research, Behavioral and Social Research and Technology and Product Research. Within the four broad areas, it had also categorized different health problems and issues under high, moderate and low priority. Following that, NHRC organized a workshop “Development of Revised national Health Agenda” in 1999 at Kathmandu. This workshop identified different health problems as research priorities under 14 headings: Infectious disease, Reproductive health, Child and adolescent health, Nutritional diseases, Non Communicable Diseases (NCDs), Injuries and accidents, Substance abuse, Health economics, Mental Health, Indigenous medicine, Disabilities, Health care delivery system, Environmental health and Human resources for health. After a span of 9 years, NHRC again conducted an utmost meeting in 2008 involving different stakeholders, named as “Update priorities in health research” in Kathmandu. This meeting also prioritized various areas in health research under different headings. The broad headings given then were Communicable/Infectious Diseases, Non-communicable Diseases, Burden of Diseases, Neonatal and child health, Maternal Health, Adolescent Health, Geriatric Health, Food and Nutrition, Health Care Delivery System, Environment and Occupational Health, Burn/Road Traffic Accidents/Injuries/Violence, Substance Abuse, Mental Health, Traditional Medicine and Herbs, High Altitude Sickness/Illness, Ethics, Cross-cutting issues, Miscellaneous and Upcoming Issues.

Now, after four years of last update on prioritization of health research, NHRC has reviewed the previous situation considering current changing scenario of disease pattern and health problems as well as the Millennium Development Goals (MDGs).

Need for Research

Nepal is confronting a changing health scenario characterized in part by a demographic transition, changes in the health environment and the “multiple burden of disease” in which the old problems of communicable disease still pose a significant challenge, while there is a rapid emergence of lifestyle related non-communicable disease. Further, there are threats of emerging and reemerging diseases. To meet the commitment of Government of Nepal in developing efficient health care delivery system so as to ensure equitable access to basic health care and to ensure universal coverage within this changing environment, it is necessary to reorient the existing health system to: (i) achieve an equitable re-allocation of resources to obtain fuller coverage; (ii) increase accessibility to effective, quality primary health care services; (iii) provide effective referral system (iv) develop appropriate mechanism; and (v) promote effective community participation. To determine the most appropriate approaches for realizing such change, decision-makers and managers require appropriate, accurate and detailed information. Unfortunately, such information is often lacking, inadequate or unreliable¹. *Through NHSP IP II GoN expresses its commitment towards access to essential health care services especially by the poor and excluded with a vision to improve the health and nutritional status of Nepali population, especially the poor and excluded.* Too often, the result is inappropriate choices and decisions, with the undesirable consequences corrected through a painful process of trial and error without understanding of what led to those consequences and the potential for repeating such mistakes. NHSP IP II further stresses upon the need of policy research and special studies to support routine monitoring and evaluation and inform the development of policies and programs based on evidence. Hence, Nepal largely needs to be informed by evidence for making new policies or revising the old ones. As we almost make decisions till date except in few circumstances on ad hoc basis every areas of health care system requires to be informed by quality evidences in order to make required decisions and thus reform. In this scenario, we will not be able to focus on all the areas of health system research at once and hence the need of research on priority basis.

As the World Health Assembly² has noted, all health policies should be based on valid scientific evidence; such evidence requires health research.

•¹ The role of health research in the strategy for Health for by the year 2000:Background Document, Technical Discussions May 1990, WHO.

•² Preamble to the EHA Resolution (WHA43.19) 43rd World Health Assembly 1990.

However, research is still sometimes thought to be a luxury in our country but that should not be the case. Health research through specifically designed studies provides the requisite data, analysis and interpretation necessary for informed decision-making. The need for health research thus lies in its contribution to improving the decision-making process at all levels (central, regional, district and below) and in optimizing the use of available resources, maximizing efficiency, effectiveness, quality and coverage of health services.

Establishment of Nepal Health Research Council

To strengthen the national capacity for carrying out health research and to promote its use, the Nepal Health Research Council was established in 1991 with a view towards:

- Promoting health research within health and related sectors, creating awareness and demand for health research – incorporating health research and the utilization of research findings in the health system’s management and health policy development processes;
- Maintaining ethical, scientific and technical standards in health research;
- Updating the research priorities and establishing a national health research agenda;
- Coordinating research within health and related sectors; focusing research activities on the national health research agenda and avoiding duplication;
- Assisting researchers in their efforts to enhance their research skills.

Focus for strengthening the national capacity for carrying out health research and to promote its use

In pursuit of its mandate to strengthen the national capacity for carrying out health research and promoting its use, the Council has focused its activities in the following five principal areas:

- Consensus and National Commitment Building for Health Research
- Institutional Strengthening
- Building Research Capacity
- Creating Awareness and Demand for Health Research Activities
- Promotion of Health Research

Consensus and National Commitment Building for Health Research

To support and promote research, and to raise the awareness of the importance and necessity for research as a tool in health program management and health policy development, it is necessary to forge a consensus among the relevant parties. Consensus building must occur among the Ministry of Health, Planning Commission, Universities, Professional Associations and Social Organizations in order to create the necessary supportive environment for health research at all levels of the health care system. Similarly, a commitment from the national health program planners and implementers must be generated. As part of the consensus and commitment building process, it will be necessary to “bridge the gap” between:

- The researchers and the most users of health service research, and The two categories of health researchers, that is, the research scientists from academic institutions a group which places greater emphasis on the philosophy and methodology of scientific research and the “new breed of investigators” – the program managers, and more concerned with the utility of research findings for making rational operational decisions.³

Institutional Strengthening

In the past, whatever has been accomplished in health research in Nepal is mainly attributable to the interest and commitment of the individual researchers. The contribution of the individual researcher notwithstanding, the continued encouragement and sustainability of health research requires a strong institutional presence that can provide the necessary leadership, identify needs, provide support and coordinate health research activities in the country. To strengthen the NHRC- the national focal point for health research – emphasis will have to be placed on expanding the council’s existing infrastructure (administrative and library facilities, data processing facilities), training and upgrading the professional staff’s research skills and providing direct support for Research. Similarly, every departments and divisions within the MoHP will have to be strengthened to carry out research at their level especially operational research and in coordination with NHRC.

Building Research Capacity

The focus of research capacity building is the development of a critical mass of researchers with the appropriate research skills. This requires a systematic and sustained effort to train health services personnel, program managers

•³ Task Force on Health System Research: Report to the Regional Director, Yangon, 27-29 October 1993.

and academic researchers as well as provide support while they gain experience in using the skills acquired during training. Cutting across these categories are the “young researchers, “ that is, persons who demonstrate a basic level of research competence but who are not yet accomplished researchers”. The Young Researchers in particular requires support.

In training health services personnel the focus should be on providing the knowledge and basic skills to carry out simple research projects at the operational level. Training for health services managers would develop management skills that use research findings in problem solving. For young researchers, the focus should be on supporting research studies as a practical learning mechanism to develop and improve their research skills. The research questions addressed and the results obtained would be secondary to the learning process engendered by the guided research process. As part of that process, the young researchers would be guided by a more senior researcher who will review the researcher’s work and provide technical support and guidance during each phase of the research study. With academic and established researchers the emphasis should be on promoting interdisciplinary research and developing skills in participatory research activities involving health personnel and health service managers. Underpinning these capacity building activities is the introduction of health research skills into curriculum of major institutions that produce health workforce such as IoM, BPKIHS, PAHS, NAMS and into the basic and post basic training of health personnel. Facilities for data processing and statistical consultations should be developed.

Creating Awareness and Demand for Health Research Activities

Though it is a known fact that health research is highly valuable as a management tool for effective decision - making at all levels of the health system; it is rarely used in the policy or decision – making process. To counter the negative and indifferent attitudes of decision – makers and managers towards health research, efforts will be focused on increasing their knowledge of the potential uses of health research for informed decision-making. These efforts will be supplemented by providing training to the policy makers and people at the program level to enhance their capacity to grasp and utilize research findings for decision-making, and then wider dissemination of research findings.

Promotion of Health Research

With limited resources available for research the effective promotion of health research requires researchers to focus on areas that have been

identified as priorities and for which solutions can be found through health research. The researchers must also be made aware of the need to interact with managers and policy makers in the research process and of the frequent need to adopt a multi – disciplinary approach. Finally, in promoting research at all levels of the health systems, the establishment of peripheral research centers in coordination with health directorates becomes a valuable tool.

Priorities Area in Health Research

The priorities Area in health research set this time was through a rigorous and continuous process of discussion through workshops, consultative meetings as well as expert meetings and past and present policy makers' meetings. In the course of finalization there has been involvement of all the departments, divisions, centers, and hospitals within the MoHP including Directors and other representatives as well as representatives from various other hospitals, I/NGOs and civil society. Besides the meetings and workshops, there were other mechanisms followed such as feedback through email in order to ensure that the important areas Nepal's health care systems are incorporated.

Ultimately, the following areas have come out and are listed in ranking descending order or priority, the areas with highest priority being listed first and so on. Within the broad topics as well the specific areas of research are also listed in similar ranking order, the ones with highest priority are listed first and so on.

Priority topics

- 1. Health Care Delivery System**
- 2. Communicable Diseases**
- 3. Non Communicable Diseases**
- 4. Neonatal and Child Health**
- 5. Reproductive Health**
- 6. Mental Health and Substance Abuse**
- 7. Injuries, Accidents and Violence**
- 8. Nutrition and Food Safety**
- 9. Environmental and Occupational Health**
- 10. Traditional Medicine**
- 11. Urban Health**
- 12. Geriatric Health**
- 13. Miscellaneous**

Research related to following aspects in the priority areas wherever applicable

- Magnitude of the problem, prevalence, incidence, risk factors: immune status, race and genetics
- Burden of Diseases (DALY, QALY)
- Etiology: agents risk factors and environmental factors, understanding pathogens (biomedical research)
- Course: morbidity, disability, mortality, survival
- Surveillance and early diagnosis
- Management of control program: diagnosis, outbreak and carrier management, transmission methods, case management and treatment, vector, pathogenesis, resistance to drugs

- Socioeconomic and cultural factors
- Health promotion and education, behavior change and rehabilitation

1. Health Care Delivery System

- **Free health care services:** coverage, efficacy, equity and justice, impact evaluation, evaluation of free drug policy
- **Human resources for health:** production, recruitment, deployment, retention, training, attrition etc. and Operational research in HRM
- **Drugs/vaccines/technology:** Quality, access, procurement, rational use, pharmaco vigilance, AE/SAE, Drug resistance, drug storage & safety, prescription assessment, inventory management, Regulation of drug production and supply including traditional medicine
- **Health sector information system:** HMIS, LMIS, FMIS, DMIS, RMIS, Information gaps in health system
- **Health Economics:** NHA (DHA), Sub-national accounting e.g. MNCH, HIV/AIDS, health care financing, health insurance, health care financing, Out of pocket expenditures, demand based financing, cost sharing, PP mix, public sector expenditure, Health cooperatives, Socio economic impact of diseases and – Financing sustainability
- **Quality and decentralization:** Quality of services (assessment), quality of care, quality control (Hospitals and laboratories), MDG need assessment, client satisfaction , quality assurance
- **Other issues in Health care delivery system**
 - Infrastructure and logistics
 - Barriers to utilization of peripheral Health Facilities, Community empowerment for active participation in health delivery issues at local level, Right to health issues, Health Seeking Behavior, Socio cultural determinants
 - Health systems research: policy, programs and their evaluation
 - Socio behavioral and qualitative studies, evaluation (program and training),
 - Migrant population: Health problems
 - Operational research – research within the program
 - Hospital management: relevance, quality, equity, effectiveness, feasibility
 - Intersectoral coordination (health and non health sectors)
 - Privatization and monitoring private sectors/NGOs
 - Coverage, Equity and Cost effective implementation of basic services
 - Records keeping – including birth and death register, hospital statistics
 - Health policy and policy for health
 - Issues of Polio and other Immunization Preventable Diseases (IPDs)

2. Communicable/Infectious Diseases

- Tropical diseases
 - Kalazar, Malaria, Different dimensions of TB (BoD, Socio economic burden, open border issue, MDR, XDR), TB/HIV co infection
- Disease pattern, Pathogen understanding, Biomedical research
- Emerging infections: dengue, brucellosis, avian influenza
- Nosocomial Infection/Hospital acquired Infection
- Diarrheal diseases, Cholera
- ARI, Pneumonia, Influenza, Measles, Rubella
- Skin diseases
- HIV/AIDS/STI
- Zoonotic diseases
- Enteric fever, hepatitis
- Leprosy and Disability
- Acute encephalitis syndrome, Meningitis

3. Non-Communicable Diseases

- Cardiovascular diseases
- Cancer
- Diabetes
- Chronic respiratory diseases
- Cerebro vascular diseases
- Other Conditions
 - Renal diseases
 - Hearing and Visual Disability
 - Connective tissue, immunological disorders, osteoporosis

4. Neonatal and Child Health

- Diarrheal diseases, Enteric Fever
- Neonatal Health
- Childhood Asthma
- Child survival and development: mortality, morbidity, neonatal and child health programmes
- New born care problem – hypothermia, LBW, sepsis, prematurity, birth asphyxia
- Congenital anomalies/diseases
- Nutritional status and trends
- Immunization coverage
- Hemato oncological problem
- Childhood mental health problem
- Referral and transport of sick neonates and children
- Development and provision of neonatal and pediatric high and intensive care in district hospitals

5. Reproductive Health

- Safe motherhood program, effectiveness and utilization
- Maternal health – mortality, morbidity, health seeking behavior
- Pregnancy and delivery – place of delivery, safe delivery incentive program, availability, accessibility and utilization of ante natal, intra natal and post natal care and services
- FP services: Unmet needs for contraception and services, Contraceptive Prevalence Rate, Emergency Contraception
- Unwanted pregnancy, Abortion
- Adolescent health including reproductive health: sexuality, early marriages and pregnancy

6. Mental Health and Substance Abuse

- National psychiatry morbidity survey
- Psycho-epidemiology
- Alcohol, tobacco and substance abuse
- Mental health service system
- Community mental health program
- Stress and anxiety
- Post traumatic stress disorders
- Shock and depression
- Mental Health Legislation and policy
- Suicides

7. Injuries, Accidents & Violence

- RTAs, Burns, Trauma and Injuries,
- Suicide, Poisoning (such as Mushroom)
- Disaster (natural and anthropogenic)

8. Nutrition and Food safety

- Nutritional disorders: Malnutrition (Under nutrition, Overweight & Obesity)
- Micronutrient deficiency disorders
- Community programmes for nutrition, different approaches to improve nutrition
- Food security and safety
- Food adulteration, food poisoning
- Nutrition education and evaluation
- Management of different nutritional disorders
- Myths and Misconceptions

9. Environment and Occupational Health

- Water, Sanitation and Hygiene (WASH)
- Air pollution: outdoor and indoor
- Climate change and health
- Occupational health and safety: child labour, People in uniforms, hazardous industries and occupation, workplace safety, laboratory

and radiological staffs

- Domestic and industrial waste: solid or liquid waste management, industrial Pollution
- Hospital safety and health facility waste management
- Lead, Mercury and other heavy metal poisoning, childhood poisoning
- Pesticides & health
- Emerging diseases relating to climate change
- Quality of water: Arsenicosis, water pollution
- Burden of diseases of environmental origin

10. Traditional Medicine

- Traditional Practices
- Ayurvedic medicine/ Regulations of drug production and supply
- Medicinal plants
- Other systems of medicine: Homeopathy, Naturopathy, Unani, Amchi, Acupuncture (Utilization patterns, effectiveness studies)
- Intellectual property rights
- Resource mapping
- Herbal treatment for various chronic diseases

11. Urban Health

- Institutional arrangement and service delivery system

12. Geriatric Health

- Social protection and rehabilitation
- Health services for geriatric population
- Geriatric health problems

13. Miscellaneous

- **Epidemics:** Surveillance, Outbreak Investigation, Screening, surveillance of Adverse events following immunization (AEFI), Sentinel surveillance
- **School Health:** Physical and psychological health, adolescent health, immunization
- **Ethics:** Professional, medical and research ethics
- **High altitude sickness:** Acute mountain sickness, high altitude pulmonary and cerebral edema
- **Vulnerable Populations:** Sex workers, drug users, migrant workers, prisoner's, women, children, etc.