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ENHR
Development
in
Thailand

Council on Health Research for Development
(COHRED)

ENHR Development in Thailand

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List of Abbreviations / Acronyms

AIDS	Acquired Immuno-Deficiency Syndrome
ASEAN	Association of Southeast Asian Nations
CEUs	Clinical Epidemiology Units
COHRED	Council on Health Research for Development
COHRED	Communicable Diseases
DHF	Dengue Haemorrhagic Fever
DMPA	Injectable depoprovera contraceptive
ENHR	Essential National Health Research
FETP	Field Epidemiology Training Programme
FUO	Fever of Unknown Origin
HBR	Health Behaviour Research
HIV	Human Immuno-Deficiency Virus
HSRI	Health System Research Institute
IDD	Iodine Deficiency Disease
INCLEN	International Clinical Epidemiology Network
MOPH	Ministry of Public Health
NEBT	National Epidemiology Board of Thailand
NESDB	National Economic and Social Development Board
NGO	Nongovernmental Organisation
NHES	National Health Examination Survey
NHWS	National Health and Welfare Survey
NIC	Nosocomial Infection Control programme
NIDA	National Institute of Development Administration
NRCT	National Research Council of Thailand
NSO	National Statistical Office
PICT	Programme Implementation Co-ordinating Teams
SUDS	Sudden Unexplained Death Syndrome
SUNDS	Sudden Unexplained Nocturnal Death Syndrome
TDRI	Thailand Development Research Institute
THRI	Thailand Health Research Institute
TRF	Thailand Research Fund
TTN	Tetanus neonatorum
WHO	World Health Organization

Chapter One — INTRODUCTION

Valid information is an important component for decision-making and planning. Country-specific research generates specific information for national decision-making and planning. The information can be used by various stakeholders for various purposes. The values and perceptions of the stakeholders and the purposes of decisions will determine how each particular item of information will be used. The values and perceptions of the government are different from the private sectors, the providers of health care, the investors in health services, the consumers of care, the payers and the society at large. Therefore, conceptually, valid information can lead to many decisions, depending on the stakeholders and the purposes. A valid amount of information will not lead to the same decision being taken by the various stakeholders but, without information, decisions will be made purely on perceptions and values alone and there will be no common ground for conflict resolution.

Essential National Health Research (ENHR) helps to generate information which can be used as common ground for conflict resolution, particularly if the information from research can guide the allocation of resources in such a way as to improve health through various services and actions. ENHR is country-specific because health situations, their determinants, their control strategies and even the definition of health differ from country to country. The COHRED Secretary took the decision that there was a need for an ongoing critical documentation of ENHR activities in individual countries. The case studies can be used by COHRED as examples to other countries and in order to refine its role at the global, regional and country levels. The purpose of this document is to guide the further development of the ENHR process and at the same time to strengthen COHRED and its role in promoting ENHR.

It is envisaged that this document will be used by COHRED, the donors and the stakeholders at the national, regional and global levels.

Chapter Two — BACKGROUND

ENHR deals with information for planning, decision-making and activities. The fundamental rationale underlying planning and activities is the inevitable shortfall between available resources and the competing uses to which those resources could be allocated. Priority health problems and the feasibility of controlling them will figure high on the research agenda for ENHR. The generally accepted dimensions of health include physical, mental and social well-being, leading to a socially and economically productive life.

Most priority setting has focused on avoidable mortality and morbidity amongst people in the economically productive age group, but has paid less attention to the whole dimension of the spiritual life so much valued in Buddhist cultures. In many cultures, it is not necessary to be productive to be healthy. Entry into the priesthood can lead to spiritual and social well-being, yet it is economically unproductive. The Thai word for health is *sukaparp*. The word *suk* means happiness, and happiness and health, according to Thai semantics, are one and the same thing. We cannot be healthy without being happy. In Thailand, fortune tellers can play a key role in affecting physical and mental health. People accept disease as *kam* or destiny and might not seek treatment for curable ailments. Early Indian philosophy developed *ayurvedic* medicine, which is the science and art of longevity. A further concept of youthfulness, activeness or vigour is included as part of the *ayurvedic* idea of health.

The means by which we can live longer and more youthfully is part of a more complete formulation of the concept of health, and is wider than simply 'well-being'. The Western concept of 'quality of life' has only recently emerged, embracing some of the traditions of *ayurvedic* medicine. Thus the two concepts of health are slowly coming together, but it will be necessary for different cultures to accept that the goals implied by Health for All may not mean the same thing at the same time. It follows that the contents of Essential National Health Research (ENHR) should be country-specific, and should require sufficient ***information base, expertise and capability*** to produce a research agenda ***from within countries*** rather than being externally imposed. The target of ENHR is the ***reduction of health inequity***. The approach to ENHR is ***multisectoral, problem- or need-driven, and inclusive of important stakeholder participation***.

In general, it can be said that the health status of the population of Thailand has been constantly improving as a result of various interventions which started long before the concept of ENHR. Certain communicable diseases such as yaws, smallpox, poliomyelitis and filariasis have disappeared or are greatly diminished. Thai children are now much healthier and do not suffer as much from malnutrition. Life expectancy at birth has lengthened substantially. The infant mortality rate has declined dramatically, child survival has improved and child-bearing, once a dreadful event, has become safer.

In fact, the health situation in Thailand has fared very well compared to other countries at a similar social and economic level. This is largely due to the application of the former notion of public health which involves sanitation, immunisation, nutrition supplement and infectious disease control. Over the years, Thailand has modified the nature of public health. Many interventions have been added to the traditional public health measures, including population control (e.g. family planning), greater concern for mother and child health, community medicine, the concept of health for all, community participation, primary health care and the promotion of self-care. These added measures have continued to improve the public health situation throughout the country, since over half of the population still live in areas where

traditional and added public health approaches are still very important. If such successes have been documented, is there still a role for ENHR in a country like Thailand?

Despite this laudable progress, the country is facing a shifting pattern of health problems as a consequence of changes in disease pattern, population structure, migration, job opportunities within and outside the country, demographic transition, family structure, health technologies and economic growth. Health care costs have escalated, possibly due to better but more expensive technology and the recent growth of the private sector. The Gini-coefficient indices have revealed greater income disparities between various social groups. There is more inequity in health status and in financing of health services, and greater inequity in the distribution of health resources in different social groups and different regions of the country, all of which could lead to social unrest and instability in Thai society. Many new health and health services issues have arisen: emerging and re-emerging infections, environmental health, injuries, the changing role and status of women in the family and in society, urbanisation, migration from rural areas and from other neighbouring countries, changes in social structure, a greater proportion of the elderly, better access to the media, inappropriate advertisements and issues relating to consumer protection. Well-researched information for planning and action to which the various stakeholders can bring their different values and perceptions will help to reduce the gap between the available resources and the competing uses to which those resources could be put.

The ENHR approach may be initiated at different entry points, and these will depend on the available human resources who understand the ENHR concepts and have the will and skill to move all stakeholders towards the desired goal: i.e. the generation and use of information for planning and actions so as to optimise the use of resources for better health. Possible entry points include the government, the academic world, the nongovernmental organisations, industry and those who pay for health care. Since the changing contexts of health problems and the changing needs for action have occurred at different rates in different regions of the country, it is imperative to focus policy, research and action at the most appropriate administrative levels, including the public level (e.g. national or provincial government policy), the system level (e.g. policy pertaining to the public, private, and popular sectors of health care), the health facility level and the level of medical practice.

Let us highlight some of the key factors that are needed if ENHR is to address the problems of Thailand. In brief, it is necessary to build ***a network of appropriate resources of information, expertise and capabilities for priority-setting of both problems and responses, through the generation of knowledge***. In addition, ***a series of dialogues*** among the key actors will be needed to balance their perceptions and values in the light of the information and knowledge generated. Skilful management and dialogue create inclusiveness and ownership of the decisions. The target of the planned activities is 'better health of the people' through approaches involving ***population-based perspectives and informed decisions***. 'Informed' implies having relevant information, and gathering more information through reasoning. The target of ***population-based*** perspectives is ***equity through the most efficient use of resources***, while the target of ***informed decisions*** is ***efficiency***. The inclusiveness of stakeholders will help to ensure that the product of the activities will be more responsive to the legitimate interests of all stakeholders in the country.

Chapter Three — RESEARCH AND POLICY LINKAGE IN THAILAND BEFORE THE ENHR ERA

The present review has been drawn up through the analysis of existing documents and reports as well as interviews with workers in various agencies in Thailand.

Research Demand and Supply

Two particularly important factors prevented the generation and use of valid information for planning and actions in resource allocation for health and development. Firstly, there was a lack of demand for valid information by decision-makers; and secondly, most researchers centred their efforts around available funding and the criteria likely to lead to academic promotion. Research has not been systematically used to determine and prioritise health needs, assess causation, evaluate the effectiveness of intervention strategies, nor has it been used to plan optimal facility and manpower in support of the health service system through policy formulation, planning, implementation, and evaluation. The research work most seriously neglected was country-specific research aimed at informing decision-making on health planning and actions.

National Research Bodies Before 1985

There were several attempts before 1985 to bring together more valid information for planning, and they resulted in various forms of coordination such as the National Bodies and Direct Coordination between the Ministry of Public Health and the Universities. It is important to note the reasons why these efforts were started and to understand why they could not fully serve to link valid information with planning and actions.

The National Bodies

These are government organisations formed to promote research for planning and practical application. They include:

The National Research Council of Thailand (NRCT)

Chaired by the Prime Minister, the Council was established in 1956. It has many functions, such as to advise on the policies and research programmes to be recommended to the Cabinet, to assign the conduct of particular research projects to the appropriate people, to coordinate research in various branches of science, to maintain a register of research workers and persons qualified in various branches of science, and to allot research grant and awards. Despite over 30 years of existence, many new research institutes and activities with different foci have emerged, challenging the role of the NRCT as the country's main research coordinator. The proportion of research funds handled by the NRCT is only a small proportion of the total research funds. This may be related to several factors, including funding constraints and bureaucratic rigidity within the government system in identifying research questions, allocating funds, and managing research projects and programmes. The efforts to form a national network of information, expertise and capabilities have not been systematic. Information needed for planning and action to promote health has not been adequately

discussed. The allocation of funding for research has not been based on information needs but rather on the interests of researchers mainly working in the academic institutions.

The Office of the National Economic and Social Development Board

The National Development Programmes have had three main elements: national security, economics and the social component. Health, education and law have been included in the social component. Theoretically, the Ministry of Public Health (the main implementor of health programmes) and the Bureau of the University Affairs (the main producer of knowledge and human resources for health) have to be responsive and to interact with the policies and plans of the NESDB, which comes administratively under the Office of the Prime Minister. In practice, the NESDB can foster more effective interactions between health planners and producers of knowledge for practical application. The Thailand Development Research Institute (TDRI) has been the main source of research information supplied to the NESDB and has been effective in guiding the economic and social policies of the NESDB. However, the TDRI has not emphasised health research as an essential link to development.

The Thai Medical Council

The Thai Medical Council is the first legal body established since 1968. In addition to overseeing the appropriate practice of physicians, the law allows the Medical Council to promote research for the improvement of health services. Research has not been the major component of the Medical Council, as it is in Medical Research Councils elsewhere. Other professional councils have been established recently, such as the Thai Pharmacy Council.

The Universities

The Centre for Health Policy Study, Mahidol University

The Centre for Health Policy Study has emphasised collaboration with the Ministry of Public Health, and the main focus of research has been primary health care and community participation. These areas have been among the primary interests of some top administrators in the Ministry of Public Health. In trying to define the appropriate concerns of the Ministry, it has been obvious that many planners and top executives did not have sufficient understanding of the information needed for planning. Different administrators have had different views on specific policies.

The Centre has held many consultative meetings with the Ministry of Public Health to clarify issues, and with some success. However, it was felt that many policy issues under study still reflect the interests of the Ministry of Public Health, which may or may not correspond to the needs for health and social development. The Centre has taken particular care in presentation of their research findings. When a critical evaluation of the Ministry's programmes was presented, the MOPH was disappointed. Clearance of the report was delayed, and certain results were asked not to be publicised 'for political and administrative reasons.' The Centre for Health Policy Study felt the need to study the process of policy formation and to redress the balance between the use of information and the vested interests of the politicians. This idea was viewed by some as threatening to some policy-makers. The efforts of the Centre in linking knowledge and actions have been laudable. What might be needed is the systematic formation of networks of information, expertise and capabilities, and also the creation of mechanisms to permit a wider spectrum of stakeholders to engage in

debates and dialogues so as to balance the information at hand with their values and perceptions.

The Faculty of Economics, Thammasat University

The main interest of the Faculty of Economics has been research on the financing of health services in Thailand. It has been collaborating with the Division of Planning of the Ministry of Public Health, the World Bank and the International Health Policy Program in its research activities. The results of a study, Financing of Health Service in Thailand, have been widely quoted and used as a baseline for comparisons with subsequent findings. These efforts represent a good example of linking competent researchers with policy-makers, and can be a cornerstone contributing to the network of expertise needed in the ENHR efforts.

The Faculty of Economics, Chulalongkorn University

The Faculty of Economics focuses mainly on a systematic analysis of National Health Policy. It has studied the mortality and morbidity pattern of health problems, and has analysed demographic and socio-economic trends with projections regarding the health implications. It has been interested in the possible impact of social insurance on health and has also helped the Ministry of Public Health in evaluating some health care policies. The Faculty is collaborating with the World Health Organization in assessing the economic impact of malaria control, including its policy implications. It collaborates closely with the Clinical Epidemiology Unit at Chulalongkorn University in the economic aspects of malaria research. The Unit can serve very well as part of the network of information, expertise and capabilities to mount a concerted ENHR thrust linking knowledge and its application for planning at the various levels of health care systems.

National Institute of Development Administration (NIDA)

The National Institute of Development Administration has been involved in many aspects of policy studies in general. It undertakes some health policy study, mainly through the interest of students in its graduate programmes in Health Economics and Environmental Economics. One of its staff members joined the TDRI to assess the strengths and weaknesses of the policies of the Ministry of Public Health. With appropriate management and focus, NIDA can help to generate knowledge and organise a forum for dialogues among stakeholders.

Thailand Development Research Institute (TDRI)

Health policy research comes theoretically within the human resources and social development field. A major contribution was the analysis of management for development made by the Ministry of Public Health. However, the TDRI tends to focus on the absorption of the labour force into meaningful and productive employment in both rural and urban areas, while most research work emphasises economic targets. It is currently thought by some researchers in TDRI that health policy receives lower emphasis. One of the reasons is that health policy study is extensively covered by the Ministry of Public Health and its commissioned institutions and researchers.

The Ministry of Public Health

When the Division of Planning (currently re-organised as the Bureau of Planning) sought help from the academic institutions in evaluating the effectiveness of the National Health Plans, it became clear that no institute was ready to take on the challenges. The Division of Planning had to carry out evaluation of its own plan. Currently, it is carrying out many research projects that might have policy implications. This illustrates the need for re-orientation of the interests, expertise and capabilities of academia for action-linked research.

The Institute of Health Research, Chulalongkorn University

The Institute of Health Research at Chulalongkorn University was created to mobilise multi-disciplinary efforts to tackle the country's health problems through research. It has identified family planning and drug abuse as among the priorities. Many of the research results have been incorporated into such policies as allowing nurses to perform tubal ligation after delivery and the reform of educational institutions to cope with the problem of drug dependence. Several strategies for policy changes have been pursued, including the involvement of policy-makers in identifying research questions and in discussions about the potential use of research findings. The Institute has suffered from the ability to retain its best personnel due to sub-optimal career paths for its researchers. Consequently, it has been difficult to sustain leadership once the initial leaders stepped down.

The Clinical Epidemiology Units (CEUs)

Partially supported by the Rockefeller Foundation, the Clinical Epidemiology Units in various medical schools consist of personnel capable of research towards policy orientation. Most researchers in the CEUs are clinicians and can contribute to research leading to practice or facility policies. However, only a few CEU members have the will and skills to take on research that will guide actions in the health care system and in public policies.

In addition, there are many other universities and research institutes which have made notable achievements in research. All these facilities can be mobilised for serious action-linked research.

Direct Coordination between the Ministry of Public Health and the Universities

The WHO Country Budget

The mechanism for allocation of the WHO country budget for Thailand has gone through several stages of development. At one stage, the Office for Technical Cooperation and Health Manpower Development was (in 1986) to be the coordinator and secretariat of many programmes, including the Research Committee of the Ministry of Public Health. The main activities were to appraise research projects submitted for funding from the WHO Country Budget. Later, research projects were mainly coordinated by key members of the Ministry of Health and academia known as the Programme Implementation Co-ordinating Teams (PICTs). The members of PICTs had significant control over how the WHO Country budget was allocated.

In view of many suggestions for improvement, a new method of budget planning and management has been developed recently by WHO in close consultation with the Ministry of

Health. More focus has been given to 'health' as distinct from 'medicine,' as evidenced by more emphasis in some areas such as health behaviours, dental health strategies, consumer protection, smoking and the appropriate production and use of medicines. Some appropriate use of the WHO Country Budget can be demonstrated such as the many excellent reviews of existing knowledge that were produced during the First Thai Health Assembly meeting, which covered various aspects of health issues including policy, health situation, health manpower, technology assessment, community participation and the health system. However, the recommendations in these excellent reviews were not followed through because of a change in the process of WHO fund allocation, which resulted from rivalry between pluralistic structures with similar ideologies, mandates and missions, as well as frequent changes in the MOPH leadership.

Direct Co-ordination at the Personal Level

At some institutional and individual levels, the Ministry of Public Health as well as the various universities have recognised the importance of research cooperation in order to increase the effectiveness of health services. Such interactions are important because the parties involved are usually willing to contribute to the respective programmes. For example, the Field Epidemiology Training Programme (FETP) and the Universities cooperate in training individuals from other programmes, thus broadening the perspectives of students. Direct coordination includes 'borrowing' expertise and invitations to serve as members of several committees or working groups, or as consultants or tutors in workshops, as well as taking part in brainstorming sessions. Such corporative ventures have been quite extensive and have had fruitful results.

The Family Planning Programme

Research documenting various family planning methods undertaken by Chulalongkorn University through the support of the World Health Organization made it possible for the Thai National Family Planning Programme to adopt a 'cafeteria-type' approach to different contraceptive methods to suit the preference of eligible women. Some methods used are unique to Thailand, e.g. the injectable depoprovera (DMPA) which was rejected by the United States, and postpartum tubal ligation performed by nurses. These contributed to a drop in the population growth rate from 2.5% in 1976 to 1.2% in 1992. The impact of research was established because the National Family Planning Board, which is the policy-making body, has included in its membership politicians, MOPH officers and researchers. Research questions could be defined according to expressed needs, while regular annual meetings of service providers and researchers were instrumental in linking research results and practices.

Direct Coordination at the Programme Level

Notable examples include the establishment of the ASEAN Centre for Training and Development of Primary Health Care and Health System Research. Direct coordination between researchers at the individual and programme levels represents efforts to link research and action. However, such attempts could be more concerted and could cover a more comprehensive range of action-oriented information needs.

Chapter Four — THE FIRST ENHR MECHANISM IN THAILAND: THE NATIONAL EPIDEMIOLOGY BOARD OF THAILAND (NEBT)

The idea of a country advisory board which creates conditions for undertaking high priority public health research was born in 1972 when Dr. Scott B. Halstead was helping to create the Epidemiology Division while working as a WHO consultant to the Ministry of Public Health in Thailand. The idea was actualised in 1985 when Dr. Prayura Kunasol became Division Director and Dr. Scott Halstead came to the Rockefeller Foundation. Important leadership in steering the Board into existence was provided by Dr. Prawase Wasi, first President of NEBT, and Dr. Theodore Woodward, President of the U.S. Armed Forces Epidemiology Board. The creation and structure of the NEBT were proposed to the Rockefeller Foundation in a communication dated 4 October 1986. In the proposals, mechanisms were described for the NEBT to identify the priority health problems in Thailand, to announce requests for proposals, to select appropriate projects and research activities, to allocate resources, and to accept and act upon the final results and recommendations.

With its proposed mission, NEBT is an example of a potential mechanism trying to promote ENHR, keeping in mind that different mechanisms might apply to suit specific situations in countries to guarantee the quality and relevancy of research. It is important to note that many key actors of the NEBT are previously prominent figures of the Centre for Co-ordination in Medicine and Health.

The NEBT represented one of the first efforts to identify critical information and research that might have policy implications in the most important areas of public policies. The NEBT was established by the government and worked in close connection with it while remaining free from bureaucracy. From the start, the financial support from the Rockefeller Foundation enabled it to operate in a most flexible way. There were a number of key elements which led to the initial prominence of the NEBT. *First, the vision and support of several academic leaders* in the country were crucial. *Second, so too was the existence of a critical mass of multi-disciplinary capacities in the country* through other programmes, such as the Thai Government Fellowship, the Field Epidemiology Training Programmes (FETP) and the International Clinical Epidemiology Network (INCLIN), while the expertise of several national bodies and universities was invaluable in promoting research as a basis of informed decisions. The pool of expertise includes academicians in non-health fields such as economists, anthropologists, social scientists and people from other health-related disciplines. Though not yet sufficient to tackle the whole dimensions of the problems, experts such as these have enabled Thailand to go into action immediately after the prime movers were assembled.

Third, members of the NEBT and its technical committees were drawn from several government bodies as well as the universities and the Ministry of Public Health and this helped to promote *inclusiveness, independence and access to important data bases* by the technical committees. These individuals, though not entirely representative of all the important stakeholders in the country, were crucial to ensure freedom of expression uninfluenced by any bureaucratic pressure to produce results that might be palatable to politicians and administrators in any specific institutions. Several technical committees reviewed the health situation of the country and established priorities for research: Communicable Diseases, Non-Communicable Diseases, Environmental Health and Health System Research. The Health System Research Scientific Programme and Commission have worked intensively on

identifying mismatches between the existing structure of the MOPH and emerging new problems so as to make recommendations for restructuring. It has also started a project on 'Good Health — Efficient Management' to improve the management of health services in the provinces. As a result of these activities, many items for the research agenda have been advocated.

Fourth, equally important was the initial establishment of mechanisms such as the joint secretariat or special programmes aimed at finding evidence to *tackle 'hot issues' as seen by the administrators and/or the public*. A recent change in the MOPH decision to invest in various facilities to deal with the problem of iodine deficiency is an example in point. *Fifth*, one important asset of the NEBT was the existence of *personnel with the 'right soul'*. Workers in technical committees were committed and dedicated people, putting national interest before self-interest. Many of them have worked relentlessly because they believed that they were doing something worthwhile for the people, particularly the underprivileged of the society.

Finally, an important key element was the existence of a *Peer Review Mechanism*. The work of the NEBT and its technical committees was subjected to peer reviews by many technical experts and high ranking administrators in the MOPH. Many leaders with vision gave excellent critical reviews of the activities and performance of the Technical Committees. In recent years, the NEBT has evolved its current structure. Although scientific commissions consisting of a combination of experts in appropriate fields are necessary, it is perceived by many key actors in the NEBT that a critical element is to have *a few professional experts* working full-time at the core to provide academic leadership and management for dialogue between stakeholders, both in the identifying research questions and in mobilising researchers to tackle them.

The Structure of the NEBT

The NEBT has undergone various phases of organisational restructuring in response to the changing demand to fulfil its mission under existing constraints. Initially, it had an office in the Ministry of Health as a programme within the Ministry with flexibility for linkages with other stakeholders. Policy guidance was provided by the National Epidemiology Board whose members were health administrators and perceived experts in health development. The Technical Management Committee consisting of health development leaders provided technical direction. The Office of the NEBT provided secretarial assistance with minimal staffs. Technical Commissions helped to acquire the knowledge perceived as essential in different areas (Communicable Diseases, Non-Communicable Diseases and Environmental Health). In 1989, the Joint Secretariat was added to strengthen the supportive capability of the Office of NEBT and to deal with 'hot' issues as perceived by the government and/or the public. Its members consist of middle-level 'key actors' of the NEBT and clinical epidemiologists. Many of these 'key actors' were previous leaders of the Centre for Coordination in Medicine and Health. Through a series of critical reviews, the organisation structures of the NEBT have changed over time.

In 1993, due to the unforeseen political situation associated with the 1992 uprising in Thailand, the NEBT's status in the Ministry of Public Health was terminated. The Executive Committee and the Board decided to carry on with the activities within the umbrella of an NGO, the Thailand Health Foundation. This new status of the NEBT has changed its linkages

and its influence on the utilisation of research within the Ministry of Public Health. Despite the termination of funding from the Rockefeller Foundation, the NEBT or the THRI have continued to function, though on a more limited scale.

Process of Work

In working towards its goals, the NEBT has gone through different steps from problem identification to knowledge acquisition and application. Various mechanisms have been employed in acquiring a specified body of knowledge, including expert groups, research teams and critical reviews. Quality assurance and application of the knowledge are considered the essential components. Relevant and reliable information and knowledge have been used on various occasions to address priority issues perceived by the technical commissions and the Executive Committee.

The NEBT has mobilised some resources in the MOPH and universities by commissioning literature and situational reviews, organising experts meeting and workshops, and supporting research to generate essential knowledge. It has established communication with some policy-makers and administrators in the MOPH. It has met with ministers and secretaries of health and other relevant authorities. Efforts to set up networks of information, expertise and capabilities and attempts to create forums for stakeholders to dialogue and bring out their values and perceptions have been far more intensive through the NEBT than the coordination through direct communications between researchers, the MOPH, the policy-makers and the administrators.

Some Achievements

Overview

Policies Recommendation in Disease Control

Many policies and strategies advocated by the NEBT for disease control have been adopted by the government. These include:

- (i) Nationwide vaccination against Japanese encephalitis;
- (ii) withdrawal of injectable typhoid vaccines from the National EPI Programme;
- (iii) modification of national strategies in the control of iodine deficiency disease; and
- (iv) formulation of the Environmental Health Programme in the 7th National Health Development Plan (1991-1996).

Strengthening of linkages between MOPH and academic institutions through various working mechanisms

These include:

- (i) the creation of a Board of Trustees for the NEBT to discuss national priorities among the policy-makers and high-level administrators;
- (ii) the establishment of Technical Commissions in the four main programmes;

- (iii) the use of ad-hoc committees, expert groups or scientific working groups formed by various commissions.

Enhancing the visibility of researchers and experts interested in health development needs rather than merely pursuing their academic interests

Examples include:

- (i) a review of existing and appropriate technology for mosquito control, especially adopting community-based technology;
- (ii) a review of non-communicable diseases in Thailand, taking into consideration behavioural and management elements;
- (iii) the control of diabetes mellitus, emphasising patients' behaviour and the organisation of services; and
- (iv) the surveillance of hypertension in the community.

The visibility enhancement may have had an effect on the reorientation of other researchers and academic experts towards research addressing policy issues.

Prioritisation of the country's Health Problems

The NEBT organised a survey entitled Review of the Health Situation in Thailand: Priority Ranking of Diseases in 1987. The second edition is under revision. This book can be a useful complement to the excellent review of various aspects of health issues presented at the first Thai Health Assembly.

Specific Achievements

Stimulus for Sustainable Change

Most sustainable changes have been associated with the work of the General Infectious Disease Control Division in the Department of Health. An officer of the Division participated in the Communicable Disease Programme of the NEBT. Most of the proposals were within the scope of the Division. Other sources of funding have been acquired to continue the programme after the initial demonstration projects. Many programmes have secured regular government budget for their implementation.

Japanese encephalitis

A series of expert meetings was organised by the NEBT to develop an efficient delivery programme for mass vaccination against Japanese encephalitis in endemic areas. Studies were carried out to verify the immunogenicity and safety of vaccination schedules in infants and pre-school children. A region-wide vaccination programme in the northern region was carried out and resulted in a significant reduction in the incidence of encephalitis in the North. The vaccination programme was later taken over by the regular budget of the Department of Health.

Typhoid fever

Frequent adverse reactions to injectable typhoid vaccine and concerns about HIV or hepatitis infection associated with needles were the main arguments against this vaccine. An

expert committee assembled to examine the problem advocated the temporary withdrawal of the vaccine, with close surveillance to monitor the consequences of vaccine withdrawal. The Ministry of Public Health cancelled typhoid vaccination in 1990. Laboratory and case surveillance during the past four years have not revealed an increase in cases of Salmonella typhi.

Poliomyelitis

In response to the request by the Ministry of Public Health to eliminate paralytic poliomyelitis by the end of 1996, an expert committee was asked to produce guidelines for this, emphasising surveillance. Since 1992, the surveillance of acute paralysis has been instituted, with virus isolation from the stools of the affected. Immunisation coverage has been over 90% in areas where pockets of poliomyelitis outbreaks were detected. The surveillance strategy has been undertaken from the regular budget of the Department of Health.

Recommendation on appropriate Rabies Control

An NEBT-supported expert commission was set up to review rabies control programmes carried out in different provinces of Thailand, identify the contributing factors to the success or failure of the programmes and recommend appropriate community-based rabies control models. Funds have been set aside to support research for the development of local rabies control models at provincial level.

Dengue haemorrhagic fever

In 1978, Thailand reported more than 170,000 cases with over 1000 deaths from DHF. The rising trend of this disease may reflect the need for improvement of the existing national DHF control programme. Currently, community-based vector control with emphasis on reducing the breeding sources may be the most promising approach to DHF control. Several integrated vector control models have been developed and tested in different areas of the country. Most of them were effective, but unfortunately very few have been sustainable. The NEBT supported an expert committee to review aedes mosquito control technology and models, and provide recommendations on an appropriate community-based control model. The model has emphasised incorporating community-based mosquito control into the curriculum of primary and secondary schools. A major outbreak of DHF still occurs every two to three years, but the peak of attack rate has declined consistently during the past five years.

Tetanus Neonatorum

The incidence of tetanus neonatorum (TTN) reflects inadequate EPI activities. How to eradicate TTN from Thailand effectively is a big challenge, and research projects to identify risk factors and TTN prevention were funded by the NEBT. Significant risk factors were home delivery, delivery attended by non-health personnel, no antenatal care, and no tetanus toxoid vaccination during pregnancy. The idea of giving tetanus toxoid to all women of reproductive age as routine at health centres was judged feasible and effective; these findings might change the current policy for TTN prevention.

National antibiotics policies

Extensive abuse of antibiotics and increasing incidents of antibiotic resistance in Thailand have become a public health concern. Recommendations for a national antibiotics

policy were put forward by experts convened through the assistance of the NEBT. Other follow-up measures have helped to bring about more rational antibiotics use from both a technical and economic point of view. These measures were undertaken by other institutions such as the recently established Thai Network for Rational Use of Drugs and the Department of Paediatrics, Ramathibodi Hospital, Mahidol University.

Fever of Unknown Origin (FUO)

In the national diseases notification system, FUO has the second highest frequency among the notifiable communicable diseases. This unduly large reported incidence casts doubts on the quality of surveillance. In 1990, the NEBT arranged consultative meetings to scrutinise this reported illness entity. Major factors leading to questionable reporting were thought to be the inadequacy of laboratory support and negligence in complying with the diagnostic criteria for FUO. The NEBT has commissioned two multi-centre studies: the etiology of FUO at sentinel hospitals of different regions, and the development of diagnostic guidelines for FUO. The diagnostic packages have been developed and tested for validity on 4000 'FUO' cases in five provinces.

Chronic arsenic poisoning in Nakhon Si Thammarat

In 1987, a district in Nakhon Si Thammarat was found to be heavily affected by chronic arsenic poisoning. Various sectors of the government cooperated in solving the problem. Yet in 1990, many infants and people in the contaminated areas were found to have high levels of arsenic in their blood. The NEBT organised a meeting of concerned authorities to review the situation, and it was found that well water was heavily contaminated and inappropriate tin mining was still releasing arsenopyrite into ground water sources. Patients were not adequately treated. The executive committee of the NEBT contacted the Ministry of Interior and MOPH. A committee was formed in the MOPH and corrective actions were coordinated by the authorities at the provincial level with the provincial health officer providing secretarial support. A provincial plan has been formulated, and a working group was organised by the NEBT to recommend research activities that will be crucial for corrective action at the provincial level.

Iodine Deficiency Disorder (IDD)

The national programme for the control of Iodine Deficiency Disease (IDD) was formulated by the MOPH with a large input on the procurement of laboratory hardware for detection of the risk group. The research component which is essential to further improve the programme strategies was not well formulated. A national seminar on IDD control programme was organised, calling for research to improve control programme, a search for indicators for programme evaluation, the collaboration of various agencies, the use of appropriate technology, rehabilitation, and effective public relations. The recommendations have brought about changes in strategies and programmes from an emphasis on hardware procurement to human resource development.

Stimulus for Initial Change but Non-sustainable

Research priorities on communicable diseases

The NEBT has undertaken periodical reviews of the priority research in order to ensure better control of communicable diseases. Several workshops have been organised which resulted in recommendations for priority research areas and topics which have been used as guidelines for funding by the CD programme and the WHO country research budget. Since NEBT has to assume a much smaller scale of activities, a different approach has to be adopted for priority research support.

Nosocomial Infection

The nosocomial infections control (NIC) programme was launched by the MOPH in 1983. The NEBT supports expert meetings to clarify the definitions and guidelines for Nosocomial Infection Control (NIC) surveillance. It also supported a survey on human resource needs for nosocomial infection control at the regional and provincial hospitals which showed that their manpower was far from adequate in terms of quantity, availability, qualifications and training. A standard training schedule was put forward, although the recommendations from the survey findings have not been pursued in a systematic manner.

AIDS

To cope with the rapidly rising trend of AIDS and HIV infection, a health education campaign was initiated. In 1989, HIV sero-prevalent surveillance in sentinel provinces was carried out to monitor the dynamic of HIV infection among various risk groups. The NEBT facilitated this movement by providing initial funding for the development of an AIDS sentinel system. However, many other stakeholders have been taking over the AIDS and HIV control activities and strategies, largely because significant funding has been available for AIDS research from elsewhere.

Other activities which eventually lost their momentum included prevention of chronic leg ulcer, promotion of good latrine use and understanding of germ theory, the significance of sanitation indicators (sanitation index and level of sanitation) and pesticides, air pollution and occupational health problems, the health information system at the provincial level, the network of health behaviour research (HBR), traffic accidents, cardiovascular diseases, cancer control, diabetes mellitus, and a multi-disciplinary approach for the prevention and control of diarrhoeal disease.

Projects which had an immediate effect

Rapid health and sanitation assessment after floods in five southern provinces

During the 1988 monsoon season, big floods occurred in the southern region, affecting nearly 620,000 people in ten provinces. A rapid health and sanitation assessment in five heavily affected provinces was carried out. The study called for a central coordination centre to integrate the work of several agencies involved in order to lessen duplication and confusion. For long-term measures, it was recommended that the Ministry of Public Health should formulate a work plan for disaster relief.

The environmental health plan for 1992-1996

The Commission for Environmental Health played an active role in preparing the 7th five-year national environmental plan. Many experts were invited to join the working group.

National Health Surveys

Community-based data on the health status of the Thai Population, obtainable through the regular National Health and Welfare Survey (NHWS) made by the National Statistical Office (NSO), needed to be further modified to meet the requirements of health planners and policy-makers. But the NSO lacks experience in the related sciences. The NEBT worked along with the MOPH to help the NSO improve the next NHWS, and a smaller National Health Examination Survey (NHES) was also planned, taking a sub-sample from the NHWS which was based on interview.

Sudden Unexplained Death Syndrome (SUDS)

Thai labourers working abroad have sometimes been found dead without definite cause. This is comparable to the Sudden Unexplained Nocturnal Death Syndrome (SUNDS) found among Asian refugees in US and various refugee camps. The NEBT, among other agencies, supported activities focusing on the generation of a hypothesis on the cause of death, using available data. It helped to organise a meeting to prepare a monograph on the subject.

Review of the Health Situation in Thailand: Priority Ranking of Diseases

A Fact-Finding Commission was appointed by the NEBT in 1987 to review morbidity and mortality statistics from all available sources: reported, surveyed and research results. They were then compiled and analysed, and criteria for prioritising various diseases were introduced.

Health System Research Programme

Health is determined not only by the causal agents and the availability of technologies and services to cope with them, but also by complex socio-economic and human behavioural factors. The development of a knowledge-based strategy to respond to specific problems call for vigorous mobilisation of existing wisdom from community members as well as an intensive search for new wisdom. The Health System Research Programme was initiated to assist this development, and the projects under this programme have been followed up by a newly formed organisation, the Health System Research Institute.

Some of this achievement can be attributed to the dedication of individuals in the NEBT and to flexibility in the use of funds from the Rockefeller Foundation, but also to the involvement of the potential users in defining the questions and even in the analysis of the results. The dedication of the coordinators and researchers, the flexibility in the use of resources and partnerships with potential users have resulted in knowledge-based policy decisions being formulated in other programmes, such as family planning, immunisation, drug dependence and infectious disease control.

Chapter Five — THE TRANSITION OF NEBT INTO THE THAILAND HEALTH RESEARCH INSTITUTE (THRI)

Among the various agencies dealing with research coordination before the inception of the Health System Research Institute (HSRI), it is apparent that the activities of the National Epidemiology Board of Thailand are closest to the ideology and the advocates of essential national health research, or ENHR. Clearly, the NEBT has accumulated strengths which provide it with an excellent opportunity to open a new chapter linking health research to development. The problems outlined below were in part responsible for the transition of NEBT to an NGO's status as the Thailand Health Research Institute (THRI), under the umbrella of the National Health Foundation. The NGO status was one of the reasons for diminishing support from the Rockefeller Foundation. Due to reduced funding and limited manpower resources, the THRI changed its strategies from broad activities covering most areas of health research to a more focused agenda. It is interesting to document how this new approach will contribute to using research as advocacy for health and development of the people. Some of the factors which were thought to contribute to the transition include:

- a) The Maturing of the Thai Political System: The Thai political system has been changing in recent years. The power of the military has been balanced by that of the business sector. Investments by politicians in efforts to get elected have been high. The people do not have enough information and understanding to make the right choices, and some politicians come into power with varying commitments and expectations. The activities of some of the NEBT personnel did not meet the expectations of a high-level politician at a time when its activities were not recognised by the Ministry of Health.
- b) The Mentality of the government officers: The past immaturity of the Thai political system induced many government officers to seek favour from the politicians, and this led to frequent transfer of officers. The success of some of the Communicable Disease programmes indicated that the long-term commitment of some officers to ensure that programmes are carried out as planned is important if research results are to be translated into policies.

The mentality of the government officers has been related to the frequent transfer of government officers to new positions. Consequently, the officers often do not have enough time to make an impact while working in each of their posts. Many officers accept a position only to move to the next one rather than trying to improve the work under their responsibility.

- c) The Inclusion of Middle-Level Managers as Partners for Research Formulation and Utilisation: The Compositions of the 'Experts': The importance of the groups of experts who reviewed the existing data and helped to identify research questions from the list of health problems needs special mention. Most experts in the NEBT and the Technical Committees were dedicated physicians and academics from other fields. Most of the directors of the various Divisions in the Ministry of Health were not involved. It must be mentioned here that the sustainability of some communicable disease programmes was associated with the involvement of the directors of the Division of General Communicable Diseases in the Department of Health. These middle-level managers have made sure that the model and catalysts initially provided by the NEBT were maintained through the regular budget after the

termination of funding from the NEBT. For the ENHR mechanism to succeed, the full potential of existing human resources in the country in general, and the middle-level managers of the Ministry of Health in particular, has yet to be explored. Opportunities need to be given to include those who can reflect the real need of the people rather than the wishes of specific interest groups.

Thus, when an unfortunate political decision cost the NEBT its existence within the Ministry of Health, there were very few middle- and high-level managers who were willing to speak out in defence of the importance and contribution of the NEBT to the Ministry of Health.

Capacity Strengthening: Mechanisms for building, strengthening and retention of 'national' scientists have yet to be planned. The NEBT might have to consider whether it wants to be instrumental in improving the research environment, career structures and physical environment in support of ENHR. Much more work is needed to improve research management so that scientists of various disciplines can understand and work with other disciplines in a team and with a team spirit. As part of the capacity-strengthening efforts, whether scientists of moderate capability should be involved in problem- and need-driven research deserves careful consideration, particularly if research needs arise in their locality. The extent and strategies for inclusion of ENHR training into medical, paramedical and health-related social science curricula for long-term sustainability have yet to be discussed and planned.

Decentralisation of planning and management (including resource allocation) to bodies where data are being collected is a crucial manpower-strengthening strategy to ensure long-term sustainability. It might be emphasised here that the more rapidly a society changes, the shorter will be the half-life of the product of country-specific research. Therefore, a focus of NEBT or other ENHR mechanisms should not merely be the generation of new but less sustainable knowledge. Rather, the focus should be put on developing and disseminating the capability so that policy-makers, researchers, the people and other stakeholders will be able to grasp the key issues encountered and will generate the necessary knowledge to respond accordingly.

Ongoing Promotion of ENHR: More Emphasis on How to Increase Demand and Supply for Research: If the lack of demand for research is a critical gap, then ENHR could be used to create demand for research and to bring in processes that respond to the demand. The achievement of certain processes could be viewed as possible targets. For example, if we are able to change the mentality of decision-makers so that they the need for reliable information in order to decide, we have already come a long way. In this respect, it is important to note that many of the senior 'technical experts' in the Ministry of Public Health whose direct responsibility it was to help to promote knowledge-based and informed decision-making had not been aware of the mandates, missions and activities of the NEBT in such a way that they could be involved. In addition to policy-makers, there are many in the various levels of the health service systems who need informed decision-making: administrators, health care providers (modern and traditional), traditional birth attendants, as well as the consumers of health services. In some ways, all the actors and consumers of health service systems are decision-makers.

This is not to play down the importance of changing the mentality of researchers so that they ask relevant questions, and the importance of establishing credible peer review so as to have an impact on policy formulation, implementation and evaluation. When the MOPH called for research findings that might have policy implications, very few research works were

submitted, and some of those submitted were not the most appropriate for policy guidance and incorporation.

As regards resistance to making use of research findings, the 'real target' of interaction between researchers and decision-makers is to enhance the quality of decisions that will result in an improved quality of life, particularly among underprivileged groups of society, so as to attain equity. Therefore, the possibility of targeting our efforts, not only towards the government, but also towards the opposition party and thus to influence policies, should not be excluded. This has to be balanced against the overuse of research for political purposes.

Finance and Sustainability: Finally, most of the key challenges facing the NEBT and the ENHR concepts have been mentioned. One of the key challenges is the question of sustainability. The initial and current support by the Rockefeller Foundation of the NEBT will not go on forever. The NEBT may have to explore other areas of funding from international agencies in support of the country's ENHR mechanisms:

- (i) resources are necessary to disseminate or market ENHR concepts to more groups of workers so as to broaden inclusiveness and challenge check-and-balance mechanisms;
- (ii) support is needed for capacity strengthening in research management and essential interdisciplinary work;
- (iii) mechanisms should be developed for interacting within and between countries to document ideas, experiences and cross-fertilisation so that effective national, regional and international collaboration will be ensured; and
- (iv) both short-term and long-term support for research projects and other activities leading to eventual self-reliance should be considered according to needs. Although the NEBT should encourage the reorientation of the donor-country relationship towards supporting ENHR, it is important that the concerned countries understand the factors or ideological biases that impel some donors not to be responsive to the ENHR ideology to the optimal extent.

On the national front, it is gratifying that the NEBT has recommended to the Minister of Public Health to allot one percent of the MOPH budget to support NGOs working in health, including NEBT. The Division of Health Planning has put this item in the budget list. Although the proportion of this amount going to research is still an issue, this is a positive step towards eventually convincing the Thai government to earmark 2% of its health budget for ENHR research.

To ensure sustainability, we have to mobilise the power of research and sound judgement within our country to strengthen health action and discover new and more effective ways to meet health needs. Our power lies in the effective national networking of research groups, the MOPH, universities, representatives from donor agencies, NGOs, economists, social scientists and representatives from the people. Our power could substantially be reinforced by international scientific and financial resources for technical and research capacity building. However, in the final analysis, the real power for sustainability lies in the ability for us to search our own soul and seek evidence that our actions have, in fact, influenced policy decisions in ways that respond to the real needs of the people.

The evolution of the NEBT has emphasised the importance of creating networks of information, expertise and capabilities for knowledge review and knowledge generation

through relevant research. Equally important is the formation of mechanisms for dialogue between stakeholders at the various levels. The failure to win support from some stakeholders could change the status and achievements of a good ENHR mechanism such as the NEBT. In developing countries, where the political systems have been maturing, such a failure may be unavoidable. The challenge for sincere workers is to adhere to their ideology and seek opportunities to overcome obstacles that result from the immaturity of the political systems.

Chapter Six — THE HEALTH SYSTEM RESEARCH INSTITUTE (HSRI)

Background

The HSRI was established by law in 1992. In 1995, the Board assigned an evaluation team to report on whether the HSRI had met its objective and to use the document as a vehicle of exchange between the various stakeholders for research and development in Thailand. One of the important characteristics of the HSRI mandate is to promote health system development through multi-disciplinary approaches: social sciences, health sciences, economics, psychology and anthropology. This is necessary to bring about a comprehensive framework for a systematic and efficient development of the Thai health system. Although the written mandate does not mention human resource development, this should be understood as part of the infrastructure development for normal functioning of health systems.

HSRI also carries out research according to the needs of national and international agencies and institutions which focus on the promotion of quality and efficiency of care. It works with various provinces to improve the quality of health personnel in each province so that health system research will form part of efficient planning and management appropriate for local needs.

Since many members of the HSRI have worked extensively in the NEBT, their experiences have been valuable in helping the HSRI to further strengthen the ENHR mechanisms in Thailand. For example, the HSRI has a flexible management and budget system despite the fact that most of its budget has come from the government. It has put a significant effort into working closely with policy-makers and administrators. At the same time, mechanisms have been adopted to consider viewpoints among the various research groups dealing with health system development. The use of peer review mechanisms to award projects and to earmark budgets for long-term projects can be cited as examples of strategies adopted as a result of previous experiences with the NEBT.

Directions Given by the Board of Policy

The Board of Policy has given policy guidance to HSRI to perform its role according to the law. The Board appoints the Director of HSRI. The Board consists of many prominent academics and administrators both in health and non-health areas. It recommended that the HSRI should take a holistic approach to health system development and avoid piecemeal research, and that the HSRI should develop a proactive research to deal with the expected health problems of the future rather than only supporting research in response to requests from institutions. One of the important recommendations is for the HSRI *to strengthen area-based research*. In other words, the HSRI should focus its support on increasing the capacity of the workers in various provinces to undertake research relevant to health system development within specific catchment areas.

In terms of the use of research funds, the Board advised the HSRI to use most of the government budget to address key health system issues but at the same time suggested some smaller amount should be allotted to address 'hot' issues, i.e. those that are particular concerns

of the administrators, the public and other key stakeholders. The Board also expects the HSRI to find external funding to supplement the government budget.

At the same time, the HSRI should not be bogged down by the need to raise funds, and it therefore has to take on activities required by the donors which may or may not bear a direct relationship to the country's health system development. The real cost-effective use of the budget is the 'quality' and the 'utility' of the research result.

The Process of Work

Support for Policy-linked Research

The funding of research projects has been carried out according to several methods and has changed over time. The following have been some of the important developments.

Requests for Research Proposals according to a Pre-defined Conceptual Framework

Initially, the HSRI researchers developed a framework for the research plan in consultation with academics from the university and the Ministry of Health. The framework was discussed in a forum consisting of key technical experts from various agencies. An officer of the HSRI was assigned the role of a programme director for each of the programme areas. The programme director is responsible for developing a 'term of reference' which was distributed to various agencies and organisations which were invited to submit research proposals and these in turn were then submitted for peer reviews. The HSRI invited those who submitted proposals to discuss the review for possible modification and eventual funding.

The proposals submitted by researchers outside the HSRI may not cover the key topics in a given programme area according to the perceptions of the HSRI. In such a case, the project director will develop a possible research topic and invite the researchers to work on the proposal. On many occasions, the project director or the researchers within HSRI were finally taken on as principal investigators.

The above arrangement encountered some difficulties because the projects submitted by the researchers were not in line with the objectives of the HSRI but reflected only the interests of the researchers themselves rather than any emphasis on the policy alternatives. The issues which the HSRI thought important have not had enough appeal to most researchers and consequently the HSRI officers have had to do the work themselves.

The Research Package

The 'research package' idea was developed recently. Individual researchers within the HSRI changed their role as researchers to become the programme directors. The main function of a programme director is to co-ordinate the creation of 'Research Packages' targeted towards the development of research policies. Examples of the existing research packages include: the essential service package, health care financing and expenditure, health behaviours, the accreditation and quality of services, human resources for health, health situations and trends, and the HIV and AIDS epidemics.

Area-Based Research

The HSRI has supported area-based research to strengthen the quality of questions asked and the capacity of the local researchers to answer them. In general, good results were achieved from the development of a good information system for the management of specific situations within the province. Other key elements of success are the calibre of leaders, the teamwork and the dedication of the team to carrying out research.

This area-based research has consumed the time of the HSRI but the returns have had mixed results. In a highly centralised system with policy dictated from the central government, area-based research may have little utility because the Provincial Chief Medical Officer may have to adhere to the central government policy. Nevertheless, assuming that decentralisation will eventually take place, capacity strengthening through area-based research will help to speed up successful decentralisation, particularly if the political will is in place.

The frequent transfer of civil servants in the provinces has had negative impact on the health system development within the provinces. A possible criteria for the selection of a catchment area for research support is the relative stability of the civil servants in the area.

At the moment, the HSRI is reorganising its work strategies, focusing less on carrying out its own research and trying to contract it out to other research groups. The HSRI is putting emphasis on the synthesis of existing information both within and outside the country for use by policy-makers and administrators

Networking

Capitalising on the experiences of the NEBT, the HSRI has tried to establish many research networks. At present, the functions of these networks vary. Some networks have not met for a long time. Others have met with some success, in that meetings and the funding of research projects occur on a regular basis. It is important to take stock of the lessons learnt from these networks.

The Training of New Researchers for Health System Development

In an attempt to increase the research capacity of health care providers, practitioners with the potential to do good research are paired with institutions for supervision. The activities have aimed at orienting already established researchers towards addressing health system and ENHR issues. Some recipients of funds have significantly improved in their ability to formulate questions and develop innovative ways to solve them. One desirable consequence of this arrangement is the establishment of long-term linkages between providers at different levels of the health care system and academic staff. This can help to reorient the academics towards the reality of public health issues in the real world.

The Dissemination of Research Results

This has taken several forms:

Presentations to the Forum of Academics and the Administrators

The academics and administrators have been assembled from time to time to examine the results of research findings and discuss their potential applications for public policy. Examples of these findings have included: **Contracting out of CT Scanners by Facilities in the Ministry of Health; the DRG Charge for Car Accident Victims; the Impact of**

Cigarette Tax on Government Revenue; the Evaluation of the Performance of BMA Health Services Stations; and the legal standard to reduce traffic accidents. Of these, the projection of the impact of increased cigarette taxation has been adopted by the policy-makers. The results illustrate that the presentation of research findings alone must be supplemented by other factors to guarantee their consideration by policy-makers. It will be interesting to see what the effect would be of introducing a political mapping methodology for the analysis of the factors influencing the probable use of research findings.

Projects Undertaken in Direct Response to the Administrators and Policy-makers

Some policy-makers need information before taking action and have requested the HSRI to examine the issues in a comprehensive manner. Examples of the issues in this category included: the criteria for transfer of civil servants of the Ministry of Health; assistance for the underprivileged, and the advantages and disadvantages of extending the retirement age from 60 to 65 years. The findings from these studies are taken into account by the policy-makers who requested them. For example, the criteria for transfer of civil servants have been used by the authorities at least at certain times and a new version of the criteria is being reproduced. Likewise, the retirement age of civil servants will not be extended but further employment can be negotiated with the retired person on a case-by-case basis. However, this policy change has not been sustained due to frequent changes in the government. The criteria for transfer of the civil servants are not being followed at the moment because incoming policy-makers have disagreed with the criteria.

The lessons from these experiences confirm that translating research findings into action is a complex process. The question still arises as to how much effort the HSRI should make to ensure that the research findings are being considered by relevant bodies. It is possible that the relevant consumers of the research findings might be broader than the government; they might include other stakeholders such as the media, the public, the purchasers of health services, investors in health care and civil servants in general. The timeliness of the information given to the various target groups might be worthy of exploration.

Perceptions of the Middle-Level Manager (Head of Division) in the Ministry of Public Health

Most middle-level managers have not requested support from the HSRI and most have thought that the projects supported by the HSRI have limited values to guide policy options, resource allocation and improvement of the efficiency and quality of their divisions. Most of the Divisions have their own research unit and believed that they could benefit from the activities of the HSRI in areas such as research consultation, updating data and information, funding, and analysis including training of young researchers. The HSRI may need to explore the reasons behind these perceptions and to intensify its interactions with middle-level managers since these people will help to prepare policy alternatives for consideration by higher level administrators. Given the current dedication of the HSRI staff, these undesirable perceptions can be dealt with.

The Composition and Strengthening of HSRI Personnel

The medical officers of the HSRI are technically very competent but might not enjoy the coordinating roles, particularly in arranging forums aimed at capturing the perceptions of various stakeholders. Most of the key technical planning and activities are designed and carried out by medical officers who are likely to be non-stable higher officials of the personnel of HSRI because they have many more opportunities to move elsewhere. Some important skills of HSRI are non-medical skills such as political economy, health system economics,

anthropology, management, conflict resolution techniques. These skills are being developed in officers who are likely to work permanently as long-term HSRI staffs.

Other Research Support Efforts

Other efforts are being made to promote the country's research capacity. The most notable of these is the Thailand Research Fund (TRF). The TRF has supported several activities to promote mainly basic research in all branches of science, but with little emphasis on health system issues because it was perceived that policy-linked research for the health system is the responsibility of the HSRI. Recently, the TRF has received approval from the Thai Cabinet to carry out the Royal Golden Jubilee Project aimed at supporting the production of more research work and more PhD researchers for the country's needs in the next 25 years. The main strategy is to give sufficient not-bonded research grants to each student for PhD studies in Thai universities. Each grant covers not only the student's stipend, tuition and research allowance, but also a budget to pursue PhD study and research in collaborating universities abroad. This will help to reinforce many complementary projects to strengthen the research infrastructures of Thai universities, such as the education loan projects, the government supported reverse-brain drain project, and research in biodiversity and tropical drug research among others. These efforts will enable Thailand to improve its research capacity in both hard and soft sciences and will put the country in a better position to respond to the need for ENHR.

Chapter Seven — CONCLUSIONS AND LESSONS LEARNED

The health status of the Thais had been constantly improving even before the concept of ENHR. However, the recent rapid changes in the health and non-health sectors have been associated with less equitable access to care among various social groups, more inefficiency and poorer quality services. The notion of the social accountability of the health system to society is still in its infancy. New knowledge linked to action is needed to cope with the changing contexts.

Many efforts to generate knowledge through research have been made by setting up a number of national bodies. The lack of coordination at the personal and programme levels gives evidence of the need to establish linkages between knowledge and actions. The national bodies and various research programmes have provided the country with expertise and capabilities but they are scattered in various university and institutions.

The first systematic approach to linking knowledge and action has been undertaken by the National Epidemiology Board of Thailand (NEBT). Two key principles characterise these efforts. The first principle was to establish networks of information, expertise and capabilities for planning. Secondly, strong emphasis has been placed on the creation of a forum for dialogue among stakeholders. These two key principles, i.e. the formation of networks for knowledge and a structure to balance the perceptions and values of stakeholders, were later adopted by the Health System Research Institute (HSRI). The flexibility of budgetary management and the dedication of key people in the NEBT have been some of the determinants of success. Despite adhering to the key principles, unforeseen events sometimes prevail, particularly in countries where the maturity of the political system and of society at large could be better cultivated, enriched and enhanced.

HSRI has been in existence for only three years. This is too short a time to evaluate the impact of this organisation on health system development. ***However, it is clear that the HSRI staff are dedicated individuals and have produced many good research results with potential policy implications. The HSRI staff are ready to learn from their successes and failures. Therefore, the staff are one of the most suitable groups to be charged with responsible tasks.*** The HSRI, related agencies and the country at large are learning from an organisation which receives a major source of funds from the government budget with a very flexible fund auditing and management system. The experience will be very useful and everyone has a stake in making this experience a success so that the research results generated will have an optimal impact on the development and evolution of the country's health system. This is particularly critical when the speed and nature of changes and evolution are becoming more and more complex.

The ***Creation of Ownership for the ENHR Process*** is a key lesson learnt from the experiences of the NEBT and HSRI. To create ownership of the ENHR mechanism, it is important for the coordinating body to review its mandate and its mission and to communicate with the various stakeholders. The expectations of the various stakeholders from the ENHR coordinating body may well not be clear. Proactive sincere and transparent dialogue among stakeholders will be critical to create ownership of the ENHR mechanism, particularly when the use of resources can be flexible. The objectives of dialogue can vary, depending on the nature of the stakeholders. The policy-makers must be convinced about the need to balance evidence from research and the perceptions of stakeholders in shaping decisions and alternatives so that the process of policy formulation can be as transparent as possible.

The academics need to be more policy-oriented and should be given opportunities to partake in the development of criteria for the identification of research questions, research review and criteria for funding or not funding proposals. The local practitioners in area-based programmes should be included in the process of linking knowledge and actions regardless of whether their development activities are supported by the ENHR mechanisms, and should take stock of the successes and failures of similar efforts in health system development. Area-based research should be promoted, capitalising on the existing strengths of local practitioners and experts. Appropriate criteria for selection of appropriate sites for area-based research include the ability of leaders, quality of teamwork, willingness to spend time and the availability of local experts. The development of an information system and training by doing might be among the initial activities for area-based research.

It is clear that the role of a Country ENHR mechanism is not mainly as an agency carrying out its own research but rather to involve the research and action community in 'owning' the ENHR mechanism. Ownership can be tested by the attitude of the community of stakeholders (i.e. the researchers and the users of research results) towards the successes and failures of the ENHR coordinating mechanism. If the stakeholder community is indifferent to the success or failure of the ENHR coordinating body, this would indicate that they do not have ownership of the ENHR process. Ownership can be built up if the ENHR process takes seriously its task of dealing with the partnership and participation of the research community so that the potentials of the research community may be tapped to the fullest capacity. Similar development of ownership should be fostered among other groups of stakeholders including the policy-makers and the potential users of research results.

The ENHR process advocates the use of research as an important link to development. Development implies changes, and changes can be for better or for worse. There are a number of ways that things can change: revolution (change in ideas or concepts); reform (change in structure while ideas and concept remain unchanged); repairing or restoring (improvement of what is wrong while maintaining both ideas and structure); evolution (a progressive change without any apparent need to change fundamental ideas and structures). With today's dramatic changes in technology, disease pattern, population structure, socio-economic environment, politics and people's expectations of medicine, the pressure for development is obvious. We must recognise that ENHR is going to have to deal with political process, with prioritisation and with resource allocation. Not everyone will gain from the ENHR process. There is a tendency to be cautious in both the political and research environment — risk-taking is not normal behaviour. Evolutionary change appears more attractive because no fundamental changes are involved and, perhaps more importantly, no one can be blamed for what happens. However, relationships with government and with the general public will become ever more strained unless researchers live up to expectations. Development through changes in both ideas and structures will be inevitable if health researchers are to grasp the nettle of making things better.

Development requires a force for movement, much more than for simple continuation. The fact that the ENHR movement is gaining momentum despite certain odds means that we are pursuing the development lifestyle. In the bureaucratic system, people tend to lead a continuation lifestyle, and many are actually resistant to the development lifestyle. In many countries, politics in the government, universities and the community may not be very compatible with the development lifestyle. The immaturity of the Thai political system, the inappropriate mentality of government officers, and unhealthy transfers of officers in the Ministry of Health and the university have slowed the ENHR process. Yet the readiness of

countries to pursue ENHR is crucial for success. Readiness can be broadly categorised into four areas: technology, manpower, management structure and supportive system. Integration of technology and manpower is needed within the appropriate frame of management structure and supportive system.

In this context, the ENHR mechanisms should constantly review their mission, mandate, stakeholders, strengths, weaknesses, opportunities and threats. The strategic plans of the ENHR mechanisms must be constantly changing to accommodate the need for development. The ENHR mechanisms themselves should strike a balance between two possible perceptions: i.e. that it is the 'central' mechanism of ENHR in Thailand; and that it has to work with other existing mechanisms of cooperation both at the national and individual levels. The perception that the ENHR bodies are 'central' for ENHR may be counter-productive if it leads to an unwillingness to acknowledge the reciprocal nature of the two perceptions. In practice, the ENHR bodies need to move backwards and forwards between the two. The ENHR bodies, in being central to the ENHR mechanism, help the organisation to see what has to be done; ENHR bodies, as small but vital parts of the ENHR mechanism, help the organisation to achieve new solutions using alternative strategies.

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