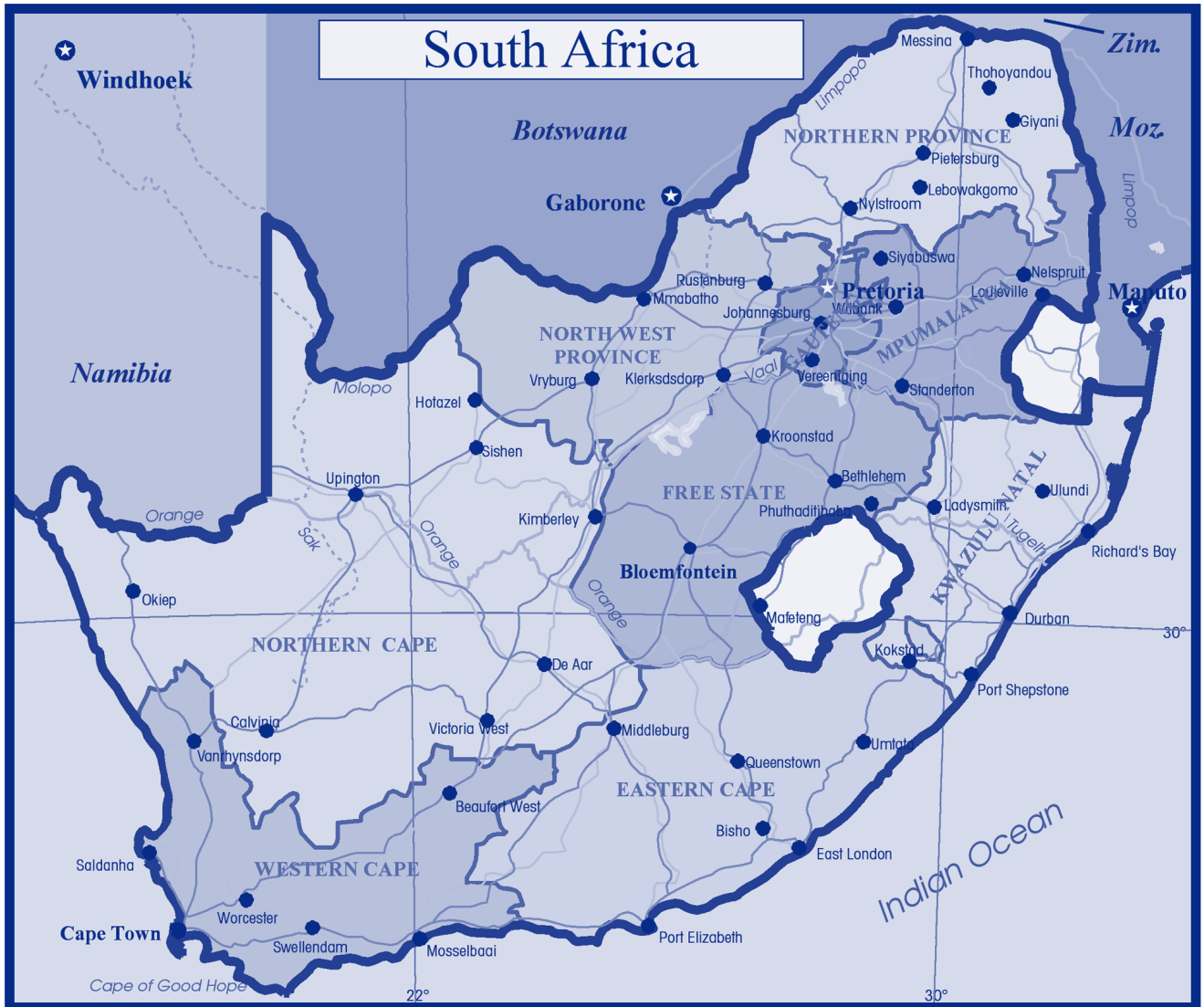


# Essential National Health Research in South Africa



The Council on Health Research for Development  
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DEPARTMENT OF HEALTH  
Republic of South Africa



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## Acronyms

AMREF SA	African Medical and Research Foundation South Africa
ANC	African National Congress
ARC	Agricultural Research Council
CASE	Community Agency for Social Enquiry
CBOs	Community Based Organisations
CDC	Centres for Disease Control
COHRED	Council on Health Research for Development
CSIR	Council for Scientific and Industrial Research
DACST	Department of Arts, Culture, Science and Technology
DFID	Department for International Development
DOH	National Department of Health
DOE	Department of Education
DOTS	Directly observed treatment-short course
DENOSA	Democratic Nursing Organisation of South Africa
ENHR	Essential National Health Research
ESSA	Epidemiological Society of Southern Africa
EU	European Union
FAO	Food and Agricultural Organisation
HEIs	Higher Education Institutions
HSRC	Human Sciences Research Council
HSRRCE	Health Systems Research, Research Co-ordination & Epidemiology
HST	Health Systems Trust
IDRC	International Development Research Centre
ISDS	Initiative for Sub-district Support
NACI	National Advisory Council on Innovation
NCOH	National Centre for Occupational Health
NEHAWU	National Education, Health and Allied Workers Union
NGOs	Non Governmental Organisations
NIV	National Institute for Virology
NPPHCN	National Progressive Primary Health Care Network
NRF	National Research Foundation
NTC	National Technical Committee
NTT	National Task Team (on ENHR)
MEDUNSA	Medical University of Southern Africa
MRC	Medical Research Council
PSSA	Pharmaceutical Association of South Africa
PsySSA	Psychological Society of South Africa
RAMS	Representatives of Medical Schemes
RDP	Reconstruction and Development Programme
RHRU	Reproductive Health Research Unit
SAHSSO	South African Health & Social Services Organisation
SAIMR	South African Institute for Medical Research
SAMA	South African Medical Association
UCT	University of Cape Town
UN	United Nations
UNICEF	United Nations Children s Fund
UNISA	University of South Africa
USAID	United States Agency for International Development
WHO	World Health Organization

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## Preface

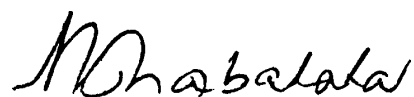
Research is one of the most important tools for health development. The ENHR approach is widely accepted both as a means to achieve equity in health development and to give direction and leadership towards priority driven research. Recognising the importance of health research, the White Paper for Transformation of the National Health Systems in South Africa formally adopted the Essential National Health Research strategy in 1997 as a mechanism to drive health research agenda setting.

The adoption of the ENHR strategy came as a culmination of both processes of wide consultation and a consensus on the value of a transforming approach to redress the historical imbalances in health research. This wide acceptance of the concept and practice of the ENHR strategy in both the government and non-government sectors was expressed in various policy conferences in the early 1990's notably the 1996 ENHR Priority Setting Workshop.

The 1996 ENHR Priority Setting workshop was the first attempt in South Africa to develop criteria for priority setting for the country's health research. Participants at this historical workshop also reached agreement on the priority research areas and issues. The ENHR priorities were then aligned with both the strategic priorities of the Reconstruction and Development Programme and health problems facing the country. Anecdotal evidence shows that a number of research projects have been funded and conducted on the basis of being ENHR priorities.

The ENHR committee, appointed in 2000, is consolidating the ENHR process in light of the achievements and challenges emerging from the past few years of new national health systems in order to advocate for a health research system driven by a priority health research agenda. A synergy is needed between research priorities emanating from ENHR and those identified through National Research and Technology Foresight of the DACST. A knowledge-based information indicating budget and expenditure on health research will also be needed.

The government social cluster, higher education institutions, statutory research councils, funders of health research, organs of civil society, private sector and many other actors are playing a crucial role in the setting up of ENHR in South Africa. Their commitment, participation and contribution to the ENHR concept and practice will always be the basis for making progress towards the goals of equitable and quality health care and improved health and well-being for all South Africans.



**Dr M E Tshabalala-Msimang**  
**Minister of Health**  
**August 2001**

## Executive Summary

This report highlights recent progress and challenges in the implementation of Essential National Health Research (ENHR) in South Africa. Since the production of the first report in 1997, the concept and practice of ENHR has become more widely accepted in both government and non-governmental circles. Government and other partners in health development have been quick to embrace ENHR as a guiding principle for the transformation of health research in ways that will contribute to the improvement of health status of all categories of the national population. There is consensus on the benefits of the ENHR approach as a means to achieve equity in health development. Key health and tertiary institutions in the country have built the ENHR orientation into the transformation of their research strategies.

Since 1994, the National Department of Health (DOH) has initiated discussions to raise awareness of ENHR in South Africa. This process has culminated in the appointment of an ENHR committee by the Minister of Health in 2000. The DOH, through the activities of its Health Systems Research, Research Co-ordination and Epidemiology Directorate is committed to promoting ENHR in South Africa. Major health research stakeholders such as Universities, the Medical Research Council (MRC), the Health Systems Trust (HST) and others have also pledged their commitment to ENHR.

In the past five years, the mechanism for ENHR in South Africa has been strengthened significantly. The DOH - in partnership with other role players - has taken a leadership role in the implementation of ENHR. The Department has been engaged in management and coordination of research in ways that re-allocate funds to emphasise key national health needs. A national committee for ENHR has been constituted with members drawn from different institutions, skills and expertise to ensure full participation from all relevant sectors and organisations.

A national workshop on priority setting for health research in South Africa was held in 1996. The aim of this workshop was to identify health research areas which address priority health problems, develop a process for consensus building, and facilitate the establishment of an ENHR committee. Following the recommendations of this national workshop, a working group was convened to assist in the development of the criteria and process for priority setting. These criteria included community perceptions, health status, burden of disease, unmet health care needs, availability of current interventions and responsiveness of a given condition to interventions. The DOH encourages researchers to engage in health research that is in line with identified national health research priorities.

As part of their commitment to develop capacity among health care workers and health information personnel, the DOH and provincial departments of health hold short courses on basic and applied epidemiology and public health data management. Tertiary institutions are also involved in developing research capacity among their students and research staff. Public health degrees, diplomas and short courses have been introduced in a number of universities. The MRC provides mentorship and scholarship programmes which aim to develop capacity in health research. The HST provides a number of internship opportunities and other skills development activities, and supports short courses.

In the area of networking for ENHR, the DOH promotes collaboration among researchers, policy makers, communities and other relevant stakeholders. The DOH's Health Systems Research, Research Coordination and Epidemiology Directorate, the MRC and other statutory and non-government organisations actively promote networking activities in health research within the country, within the ENHR African Regional Network and in the wider international community.

Government is the major source of research funding through the Science Councils, government departments and tertiary institutions. Other sources of funding for health research include United Nations agencies, foreign governments, non-governmental organisations and pharmaceutical companies.

There is no easy way to determine exactly the combined amount of funding which has gone towards research and research coordination applying the ENHR strategy from these sources. Amongst the government departments, the Department of Arts, Culture, Science and Technology and the Department of Health make significant contributions to ENHR.

In order to effectively evaluate ENHR in the country, South Africa has identified a number of health priority areas and health objectives. These include objectives related to improved health status, changing health risk behaviours, improvements in health services and development of health policies.

The policy environment has been generally supportive of ENHR. Since 1994, a wide range of Statutory Acts and policy documents has recognised the importance of research in support of policy. Both the White Paper on the Transformation of National Health Systems and the National Health Bill endorse ENHR. In the DOH, ENHR has been entrenched as the preferred approach for linking research to health development.

Health research is increasingly playing a noticeable role in planning and implementation of national and provincial health programmes. More importantly, health researchers are increasingly re-aligning their work to be consistent with national research priorities. The DOH has recently produced a 10-point strategic plan for delivery in the next five years and recognises the importance of ENHR and partnership within the research community for achieving national health objectives.

The range of constituencies and partners involved in ENHR has also increased. A major landmark within the period of review is the successful constitution of the national ENHR committee including members from different institutions, which convened its first formal meeting in April 2000. An increasing number of institutions and researchers are becoming more aware of national health priorities and the contributions of health research.

Several partners and other institutions, including the DOH, the MRC and the HST have introduced programmes to develop capacity to engage in high quality research with an ENHR orientation. These include plans for collaborative activities with local and international agencies.

In conclusion, the introduction of ENHR in South Africa coincided positively with a period of rapid transformation in all spheres of health and development policy. Thus ENHR is a facilitator and beneficiary in the process of the transformation of health systems in South Africa. As a concept, ENHR has aided the mapping out of critical areas for attention in the new health services. As a process, it has guided decisions about rational utilisation of scarce resources, by emphasising action-oriented and problem-solving research.

The institutional mechanisms have been strengthened by the constitution of a functional, and widely representative national ENHR committee with a wide range of representation. Sustainability and expansion of ENHR activities are guaranteed by the continued support from the DOH, Department of Arts, Culture, Science and Technology, Department of Education and other government, international and private sector organisations. Several challenges remain and these include institutional roles and responsibilities, coordination of key components of ENHR among partners in health development, patterns of advocacy, capacity development and sources and levels of funding.



# Chapter 1: Background

## 1.1 Introduction

This chapter aims to:

- ◆ Provide background information on the global development of ENHR
- ◆ Document the historical context of health research in South Africa
- ◆ Provide an overview of the process and strategy used in South Africa with regard to ENHR implementation
- ◆ Summarise the recommendations of the ENHR task team
- ◆ Summarise the ENHR priority setting process
- ◆ Provide an update on the ENHR implementation process in South Africa from 1997-2000

## 1.2 Global Context

Essential National Health Research (ENHR) is an integrated strategy for organising and managing health-related research. It is a process whereby a country can direct its research towards its greatest health problems. The ENHR strategy promotes health and development as a means of achieving equity and social justice, and encompasses all fields of health research: including epidemiology, social and behavioural research, clinical and biomedical research, health systems and policy analysis.

ENHR functions at a number of levels. Whilst country-specific research is the strategy's major thrust, global research is also deemed important. The former refers to policy directed research, which seeks to address in the short or medium term, the priority health problems of a specific country. Global research, on the other hand, takes a longer-term view of these and other priority global health problems, seeking to address fundamental causes of ill-health through, for example, new vaccine development or recombinant DNA technology. In South Africa, the proportion of country-specific research to global research is yet to be determined.

The added value offered by ENHR lies in its emphasis on addressing priority health problems in an integrated manner using whichever range of methodologies is appropriate, and its commitment to linking research with implementation.

### 1.2.1 Development of Essential National Health Research

The first International Conference on Health Research for Development was hosted by the Nobel Institute and took place in Stockholm, Sweden, in February 1990. The conference was convened in order to consider the report of the Commission on Health Research for Development. The Commission had been established in 1987 to recommend how research might improve the health and well-being of the people of the world and identify the strengths, weaknesses and key gaps in health research.

The Commission concluded that research is an essential link between human aspiration and action and that there are many ways in which research can be applied to improve health. Research to support informed and intelligent decision-making for health action is of the highest priority. Good health can be seen as a driving force for development based upon equity and social justice (Commission on Health Research for Development, 1990).

The report recommended that the focus for health research should be national and each country, no matter how poor, should have a health research base that will enable it to grasp its own health problems and enhance the impact of limited resources. The process of setting priorities for national health research must be inclusive and involve scientists, decision-makers and representatives of the people as equal partners. The resulting national health research agendas should serve as a starting point for global health research efforts. The Commission called this concept Essential National Health Research (ENHR).

The Nobel conference endorsed the Commission's report and recommended the creation of a Task Force on Health Research for Development, with a life not exceeding two years. The Task Force would carry forward the recommendations of the Commission and propose longer-term arrangements for the coordination of ENHR. By 1993, eighteen countries were implementing ENHR strategies and another 18 were considering doing so. A second conference was held in March 1993 in Geneva and provided an appropriate conclusion for the activities of the Task Force: witnessing the launch of the current mechanism for support of ENHR at country and global level, the Council on Health Research for Development (COHRED).

### **1.3 History of Health Research in South Africa**

The history of health research in South Africa suggests that the implementation of ENHR represented not so much innovation as a reawakening of the pioneering concepts of the late 1930's and early 1940's. For visionaries like Dart, Cluver, Gale and Karks, research and careful documentation were fundamental to probing the frontiers of public health. Consequently, a strong tradition of community-based research was established in institutes such as the Social Medicine Research Unit at the University of Cape Town, the South African Institute for Medical Research, and the Institute of Family and Community Health in Durban, all supported by the Council for Scientific and Industrial Research (CSIR).

Many of the precepts of this public health research geared towards equity disappeared with the introduction of the apartheid policies of the 1950's. Disillusioned, many leading figures left South Africa to play significant roles in public health in other parts of the world, and the character of health research in South Africa changed from being predominantly community focused towards laboratory-based research in the 1960's and 1970's.

The Medical Research Council (MRC) was established as a statutory body to coordinate medical research in 1969, and assumed many of the health research functions which had until then, been the responsibility of the CSIR. A system of 'framework autonomy' for all statutory research councils (MRC, CSIR, Human Sciences Research Council, Mintek and the South African Bureau of Standards) was introduced in 1987, which provided greater management discretion but expected less reliance on State funding in return.

Under this new arrangement, the importance of basic research would continue to be recognised, but greater emphasis was placed on the marketability and applicability of the research undertaken. In line with this policy, the South African Medical Research Council Act (No 19 of 1969) was replaced with new legislation, which sought to associate health research more explicitly with improvements in health and quality of life.

## **1.4 Implementation and Progress of ENHR in South Africa**

A study conducted in 1991 by the MRC for the Henry J. Kaiser Family Foundation highlighted the deficiencies in public health research, particularly with regard to policy-directed health systems research. Furthermore, an earlier IDRC study had identified the lack of a coherent health research policy as an additional problem. These findings led to the establishment of the Trust for Health Systems Planning and Development (Health Systems Trust) funded jointly by the Department of Health (DOH) and a number of external donors. Its mission was to support the process of health sector restructuring by encouraging appropriate health systems research and research skills development.

As another outcome of these studies, the process of the adoption of ENHR in South Africa commenced with discussions between interested parties in 1991. ENHR was later discussed at an African National Congress (ANC) national workshop in November 1992, at a national policy conference (by non-government organisations) in December 1992, and at the ANC national executive level in February 1993. The ANC officially adopted ENHR in its health policy document - a document which also outlined a new strategy for poverty alleviation known as the Reconstruction and Development Programme (RDP). The primary purpose of the RDP was to jump-start government efforts to alleviate racial income disparities which arose as a direct result of the many years of apartheid policies (Mokaba and Bambo, 1996). The RDP embraced many of the elements of ENHR, including that of priority setting, and as such, ENHR would later be integrally linked to RDP research priorities in South Africa.

In 1993, five representatives of organisations involved in community-based research in South Africa attended the Geneva conference on ENHR. The representatives at this conference were from the MRC (a statutory council), and a number of leading NGOs in the country including the Health Systems Development Unit (HSDU), the Health Systems Trust (HST), South African Health & Social Services Organisation (SAHSSO), and the National Progressive Primary Health Care Network (NPPHCN).

The elements of ENHR that most interested the NGO sector were those of community participation and capacity building. The concerns of the MRC in its role as funder of, and participant in medical research were related to the reallocation of resources from biomedical research to applied community-based research, as well as the interactions between the other science councils in South Africa engaged in health research (networking).

In April 1994, the MRC and the alliance of progressive health NGO's, in line with the ANC endorsement, embraced the ENHR strategy. During December 1994 the new DOH took the initiative by organising a national meeting of stakeholders in research to plan the implementation of ENHR. This national workshop served to raise awareness about ENHR among the participants and highlighted the concern of many role-players regarding the future of health research in South Africa. It indicated that most were willing to consider the role of ENHR in South Africa and its relevance to their participatory constituency.

In March 1995, the Minister of Health appointed a National Technical Committee (NTC) to further develop recommendations for putting ENHR into practice. These recommendations were discussed at a workshop in 1996 whereby final consolidated options were presented within the seven-element framework of ENHR as defined by the Council on Health Research for Development (COHRED). These options were discussed in detail in the 1997 review. The final recommendations are outlined below.

### **1.4.1 Promotion and advocacy**

ENHR is a research management strategy that maximises health research investment. It is a strategy that will address the burden of disease and equity of health in the country. It will promote health and development on the basis of equity and social justice. It will address the current imbalances in the distribution of resources for health research.

The Chief Directorate: Health Information, Evaluation and Research of the DOH should promote and facilitate the setting up of the ENHR process and mechanism.

### **1.4.2 Essential National Health Research mechanism**

The mechanism should be a commission or office fully representative of all stakeholders, complementary to existing institutions mandated by government and accountable to all stakeholders. The mechanism would be responsible for formulating policy and structures on ENHR, monitor and evaluate ENHR, mobilise research expertise, coordinate private and public efforts in health-related research, facilitate curriculum development and ensure research decentralisation to the provincial levels, recruit funding from health research, ensure interdisciplinary and multi-sectoral participation, and manage and facilitate private, public and academic partnerships.

### **1.4.3 Priority setting**

The guiding principles should be in line with that of the Reconstruction and Development Programme (RDP). Priority areas of research included: water & sanitation, AIDS, violence, women's health, health systems research, development research and intersectoral research. Other areas of research could not be identified due to a shortage of burden of disease data. However, it was recommended that priority setting should be a continuous process guided by burden of disease data that funding should follow priority setting, that applied and basic research should not be split, that civil society should be involved at district level, and that priorities should be solution-orientated rather than disease-orientated. A framework would need to be developed to ensure that the priority setting process is effective. Recommendations were made regarding the accountability of various priority-setting committees and the relationship between them and the various departments of health.

### **1.4.4 Capacity building**

In order to address the most basic needs of the South African society, a strong research base is required. A culture of research and technology is essential for the future development of the country. The present infrastructure should be maintained. Educating the South African population about the benefits of science, and thereby producing more young scientists is a priority investment for the country. Capacity-building should be included as central to all research planning and execution. A strategy for human development should be underpinned by a well-coordinated health systems analysis to determine needs, priorities, staff requirements and plans for the future. South Africa should build capacity especially for technology applications needed to address health priorities. Research should be action-orientated to inform the country regarding strategies to be undertaken. The development of effective health policy should be informed by research.

Development needs to be directed to the historically disadvantaged institutions. Queries surrounded the level at which capacity building should be directed. The participatory approach to research should be the underlying principle of capacity building. There should be an understanding of ENHR amongst researchers. The development of new curricula, mentorship, internships, encouraging the return of emigrant researchers were a few of the issues addressed.

### **1.4.5 Networking**

Recommended actions included: firstly, defining all role-players; secondly, fostering networking through the use of electronic communication; thirdly, adapting the HST program HealthLink to channel information; fourthly, develop a central Information Centre on Health Matters.

### **1.4.6 Funding**

General consensus was that more clarity was required on health research expenditure in order to implement and evaluate an ENHR strategy. A bias was noted which favoured the funding of basic research. It was recommended that public health research be encouraged through an incentive-driven process, that a system of tendering for research be identified, that the DOH be responsible for coordinating public health research activities, that equal base-line funding for all technikons and universities be established, that most funding for health research occur within the framework of ENHR, and that funding of health research via an ENHR mechanism should be in the form of an alliance of funders.

The current funding system was not conducive to involving other researchers outside of the science councils and in order to overcome this, funding mechanisms should be diversified. It was recommended that a situational analysis be undertaken to determine the needs for coordination and integration of research funding. It was also recommended that the DOH assist the DACST to determine research priorities, to advocate for funding and to negotiate for funding between the different government departments. The funding agents should become more user-friendly. The Department of Education should make baseline funding available for capacity building. An intensive review of appropriate accountability mechanisms needed to be developed for the funding process. Funding for basic and applied research should not be separated. Research should be incentive-driven.

### **1.4.7 Evaluation**

Evaluation was approached in terms of both process and outcome. It was recommended that adequate funding be provided for evaluation, in which evaluation and monitoring should include indicators of input, process and output (short and long-term). The evaluation process should be linked to the accountable mechanism.

## **1.5 ENHR Priority Setting**

There have been a number of ENHR priority setting exercises undertaken in South Africa since ENHR was first introduced.

Participants at the first national ENHR workshop in 1994, using the principles set out by the Reconstruction and Development Programme (RDP), identified a number of priority research areas including water and sanitation, AIDS, violence, women's health, health systems research, and development research. The priority setting activity was however disadvantaged by lack of data on burden of disease.

In late 1995, participants at a further national workshop identified priority areas and formulated health goals and objectives again using the RDP framework. Participants included government and non-governmental organisations, community-based organisations, academic institutions, and other interested parties. Twenty health priority areas and seventy-seven health objectives, along with numerous indicators for monitoring and measurement purposes, were identified. Twenty-four objectives related to improved health status (e.g. reductions in child mortality and morbidity), fourteen objectives related to changing health risk behaviours (e.g. increases in breast feeding), thirty objectives related to

improvements in health services (e.g. improved access to comprehensive health services), and nine objectives related to developing health policies (e.g. promote the convergence of occupational health and safety legislation, standards and enforcement).

In September 1996, at a further ENHR workshop, an ENHR working group was established to assist in the development of the criteria and process of prioritisation which would be used in a major ENHR Congress which was planned for November of that year. This workshop stressed the importance of community involvement in the priority setting process. Participants agreed that community input could be obtained through the involvement of civil society organisations, and should aim to promote the development of solutions to problems found particularly at district level.

The ENHR working group consisted of representatives from the MRC, HSRC, HST, the Medical Association of South Africa (now known as the South African Medical Association: SAMA) and the DOH. The working group, in its task of developing the process and criteria for prioritisation to be used at the ENHR Congress later in the year, was requested to note all concerns raised at the previous ENHR workshops and take these into consideration.

The November 1996 ENHR Congress was attended by seventy-seven (77) organisations representing the country's statutory science councils, higher education institutions, parliament, private sector, NGO sector and funding community, and was hosted by the DOH. The purpose of the ENHR Congress was to:

- ◆ Identify health research areas that address priority health problems
- ◆ Develop a process for consensus building
- ◆ Facilitate the establishment of an ENHR Committee

The process followed in the priority setting exercise is described below (See also Figure 1).

### 1.5.1 Health research areas

Four key steps in the development of the process and criteria for prioritisation were:

- Step 1:** Ranking the Health status using data on morbidity, mortality trends and community perception. The product of this step was a list of top 20 health problems.
- Step 2:** *Identification of broad strategic research areas* for the top ten health problems (out of the list of 20 health problems defined in Step 1). Participants were randomly assigned to ten working groups to rank the top 20 health problems. Using four criteria, participants placed the 10 priority health problems into broad research areas and disciplines.
- Step 3:** *Identification of research opportunities.* This step was aimed at producing research questions for each of the top ten health problems (defined in Step 2). This process was guided by four issues: available human resources, chances of research success, funding infrastructure and possible impact on the quality of life.
- Step 4:** *Identification of global issues related to research.* Aimed at producing a list of priority research areas and disciplines which would include minimum levels of funding per discipline.

Figure 1: The Priority Setting Process



### 1.5.2 Consensus building

The 1996 ENHR congress reached consensus on a preliminary list of 46 health problems ranked in order of priority. Broad strategic research areas were identified for the top ten of the 46 health problems agreed upon. It was evident that these research areas showed a very strong concordance with the RDP priorities set in 1994 (see table 1).

The priority setting exercise indicated that it is important for any country in identifying real health priorities to draw attention to the importance of involving communities. This is not only important for focussing research efforts on bringing solutions to people's health problems, but also helps to ensure accountability.

**Table 1 Comparisons between top ten health conditions, as ranked by 1996 ENHR Congress participants , YPLL estimates for 1994 and the RDP priorities**

Condition	ENHR Congress Rank (1996)	RDP Priority
Injury (All Causes)	1	No
TB	2	Yes
Nutrition	3	Yes
HIV/AIDS	4	Yes
STDs	5	Yes
Cancer	6	Yes
Diarrhoea	7	Yes
Respiratory Infection	8	No
Mental Health	9	Yes
Malaria	10	No
Septicaemia	Not ranked in top 50	Yes
Perinatal Conditions	17	Yes
Stroke	14	Yes
IHD	14	Yes
Diabetes	13	Yes

**Source:** COHRED (1997) ENHR in South Africa



## **1.6 ENHR Implementation, Process and Update**

In the White Paper for the Transformation of the Health System in South Africa (April 1997) the ENHR strategy was officially adopted. In February 2000, an ENHR Committee was appointed by the Minister of Health and held its first meeting in April 2000. It is also intended that the ENHR mechanism will be formally legislated in the forthcoming National Health Bill.

As proposed by the NTC, the Health Systems Research, Research Co-ordination and Epidemiology directorate co-ordinated the development of the ENHR committee. It provides ongoing secretariat support and is committed to increasing the involvement of established networks in ENHR related activities in South Africa. The ENHR mechanism adopted by the committee adheres to the essential elements of ENHR as defined by COHRED and are outlined below:

### **1.6.1 Advocacy**

- ◆ Advocate and promote health research nationally and internationally
- ◆ Establish transparency and accountability mechanisms to all stakeholders
- ◆ Mobilise funding for ENHR through non-governmental and donor agencies

### **1.6.2 Priority setting**

- ◆ Establish a process to prioritise health research
- ◆ Redirection of country's health research to focus on priority health problems
- ◆ Develop and integrate national strategy for health research
- ◆ Facilitate the participation of all sectors and disciplines in the prioritisation and evaluation process of health research

### **1.6.3 Communication and dissemination**

- ◆ Ensure that research results are made known with the view to effective and efficient utilisation thereof for health purposes
- ◆ Disseminate relevant information among stakeholder constituencies

### **1.6.4 Review and evaluation**

- ◆ Audit and monitor research currently undertaken
- ◆ Review the policies and programmes that impact on health and health related research
- ◆ Facilitate the evaluation of national research
- ◆ Review the Acts of Science Councils and advise on issues related to national resource allocation and capacity development for research.

## Chapter 2: Health Research in South Africa

### 2.1 Introduction

This chapter aims to outline:

- ◆ Distribution and sources of funding for health research
- ◆ Health research policy, coordination and current projects
- ◆ Profile of researchers in South Africa.

### 2.2 Funding

Both public and private sources fund health research in South Africa. These sources include government, science councils, donations and business. The National Research and Technology Audit (1998) estimated that the government funds one third (R1.1 billion) of the country's research and development projects. However, more than half of the expenditure is directed at agriculture, the mining and metal industry and manufacturing (ARC, Mintek and CSIR).

A review of the national expenditure for the Department of Arts, Culture, Science and Technology's (DACST) 1999 Annual Report estimated that South Africa spent R4.1 billion on research and development in the financial year 1997/98, representing 0.69% of the gross domestic product. This figure is less than what was spent in the financial year 1991/92, which represented 1.04% of the GDP. Although South Africa conducts more research than many African countries, the percentage compares unfavourably with that of the developed countries. For example, the average for the European Union is 1.85%.

The DOH, DACST and the Department of Education (DOE) form the core of the governments' support of research and development. It is through these support structures that public funds are channelled.

The DACST is responsible for the management of the Science Vote, which distributes funds to the 8 science councils. It also manages the Innovation Fund which was allocated a R30 million for 1998 and R45million for 1999.

#### 2.2.1 The Department of Education (DOE)

The DOE funds most university research. The total subsidy from the DOE to Higher Education Institutions (HEIs) for 1999/00 was R6 550 225. The funds are directed either through the university subsidy, used to pay for infrastructure and grants, or indirectly through the South African Post School Education (SAPSE), the quota that the DOE allocates per student or per publication to the universities for research. It is not clear how much of the SAPSE allocations are actually spent on research and it is likely that in the future the DOE will call for much stricter auditing and control of how these funds are spent.

### 2.2.2 The National Department of Health (DOH)

The DOH spent R55.6m on research projects in 1997/98. There is a confirmation that fifteen of the Department of Health's Directorates spent 24.5m whilst spending of seven Directorates is estimated at about 7.7 m. The NIV spent 14.8m, State Vaccine Institute 3.6m, NCOH 3.0m and additional estimates were 2.0m. The said amounts represent 10,8% of DOH budget (or 7.2% if the NIV and NCOH are accounted for separately).

The DOH Directorate: Health Systems Research, Research Co-ordination and Epidemiology acts as a channel through which the DACST funds the MRC. The Directorate is responsible for the management of research contracts with the MRC and the HST. A total of R5 million was allocated to HST for 1999-2001 to commission health systems and policy research. The directorate also awards tenders for research where appropriate. The Directorate co-funds the South African Institute for Medical Research for the maintenance of the South African Cancer Registry.

The South African AIDS Vaccine Initiative is supported by the national Department of Health in collaboration with the Department of Arts, Culture, Science and Technology.

A programme to expand research by implementing a mother-to-child HIV transmission intervention in two sites per Province has also been established with major support from the DOH Directorate: HIV/AIDS, STIs which works in collaboration with Provinces and other research stakeholders in this regard.

A number of new and ongoing operational research projects supported are attempting to increase levels of condom use and improve STI management among sex workers and their clients. These projects include:

- ◆ Mothusimpilo Project in Carletonville
- ◆ Westonaria Randfontein AIDS Project (WRAP)
- ◆ Lesedi Project in Free State and
- ◆ Lechabile Project in Welkom

### 2.2.3 Medical Research Council (MRC)

The MRC received annual parliamentary allocations of R71.6 million in 1997/98, R78.4 million in 1998/99, R79.5 million in 1999/00 and R108 million in 2000/01. In addition, the MRC generates about 30% of its budget through partnerships with a number of organisations, which translated to about R36 million in 1998/1999. Some examples of the MRC partnership projects include:

- ◆ R3.9 million from WHO for 11 projects
- ◆ R32 million from Glaxo-Wellcome for new drugs and vaccines on TB
- ◆ R2.7 million from Hoechst Marion Russell for TB Chemotherapy Development
- ◆ R4.1 million from US National Institute for Health for HIVNET centre and amoebas project
- ◆ R7.8 million from Wellcome Trust UK for the Africa Centre for Population Studies and Reproductive Health.

**Table 2: Allocations by the Science Councils to health research in 1999**

Science Council	(R) million
Agricultural Research Council (ARC)	2.7
Council for Scientific and Industrial Research (CSIR)	1.5
Council for Geosciences	0
Human Sciences Research Council (HSRC)	1.9
Mintek	0
Medical Research Council (MRC)	102.0
National Research Foundation (NRF)	6.6
South African Bureau of Standards (SABS)	0

Source: South African Health Review 1999

The figures indicated above for the CSIR and HSRC would increase substantially if health-related research and development activities such as food research, biotechnology and indigenous medicines were included. The CSIR has recently been restructured and each division has to generate 70% of its operating budget from its activities as a business centre.

#### 2.2.4 Provincial Departments of Health

According to the 1999 South African Health Review, Provincial Departments of Health do not have accurate figures of their allocations to health research and it is difficult to distinguish between research and operational improvements in the provincial services. However, Free State has allocated R750 000 during 1999 (mostly sourced from donor funds). Northern Province has committed R640 000 to research. North West Province allocated R150 000 for 1999/2000 for health research, and projects that focus on provincial health research needs are funded from these funds. Northern Cape has allocated R100 000 and has entered into agreements with University of Oxford and the MRC to conduct specific research. Provincial health departments have been terminating funding of research posts in the light of increased budgetary demands in other healthcare sectors, causing severe difficulties for many university research departments.

#### 2.2.5 The National Research Foundation

The National Research Foundation (NRF) aims to promote and support research through funding, human resource development and the provision of necessary research facilities in order to facilitate knowledge creation, innovation and development in all fields of science and technology.

The NRF was established through the amalgamation of the Foundation for Research and Development (FRD) for the natural and engineering sciences with the Centre for Science and Development (CSD) for the human sciences. The amalgamation was instigated through the National Research Foundation Act No. 23 of 1998.

The NRF contributes substantially towards health research at Technikons. The South African Health Review (1999) reports that in 1998 the NRF granted research awards to the value of R1 771 240 to rated researchers across the 8 Technikons. Of this total, less than 10% (R144 630) was made available to the historically disadvantaged institutions. Cape Technikon and Wits Technikon spent R245 000 and R300 000 respectively on health research. The Medical Research Council also plans to fund health research in Technikons and Nursing Colleges. The majority of the Technikons are still awaiting the implementation of a Research Development Programme so that they can complete the development of their health research agendas.

### 2.2.6 Pharmaceutical Industry

The pharmaceutical industry spent R425 million on health research in South Africa in 1996. This figure is based on the extrapolation of responses from 50% of the Pharmaceutical Manufacturers Association (PMA) survey that was conducted in 1996. An informal survey of all pharmaceutical companies and Clinical Research Organisations in South Africa extrapolated that the clinical research budget was R826 million for 2000 and a capital investment of about R484 million was planned for the next two years (Wits Health Consortium 2000).

In most cases, the pharmaceutical industry is involved in research that focuses predominantly on clinical and drug trials. This research is done in both private and public health facilities by mainly universities and clinical research organisations.

### 2.2.7 Non-Governmental Organisations

The major funders of health research among NGOs include the Health Systems Trust (HST) and the National Progressive Primary Health Care Network (NPPHCN). The HST spent R8.66 million on research in 1998: R18.76 million on its Initiative for Sub-district Support (ISDS) and R6.01 million on other health development activities. HST sources its funds from both local and international sources including the European Union, the Kaiser Family Foundation and the DOH. The NPPHCN over a 3-year period (1997 to 1999) spent R18.8 million on health research and development activities.

### 2.2.8 International sources

International funding and support for health research over the past 5 years lies between US\$230 and US\$250 million. Following the 1994 elections there was a significant increase in development aid (grants and technical assistance) of about US\$3.8 billion by 1997 (Department of Finance 1997).

Major foreign donors include the United Nations (and related) agencies (UNFPA, UNICEF, UNDP, UNAIDS and WHO), European Union (EU), the UK's Department for International Development (DFID), the United States Agency for International Development (USAID), the Japanese International Co-operation Agency (JICA) and development agencies from a number of the Scandinavian countries. Philanthropic donors include the Henry J Kaiser Family Foundation, the Glaxo-Wellcome Trust and the WK Kellogg Foundation.

Over the years donors have shifted from operating largely within a non-governmental based framework to bilateral channels with South African government departments. South Africa and the EU have a bilateral agreement where EU donor funds are channelled through the European Programme for Reconstruction under the management of the European Investment Bank.

The EU contributes an annual figure of 125 million ECU towards the Programme. According to the 1999 South African Health Review, between 1996 and 1999 the EU supported 37 projects in health research co-ordination and health research, with a total expenditure of US\$23 million. Five of these projects were in the field of HIV/AIDS research, with a total expenditure of US\$11.5 million. The EU, like USAID and DFID, works closely within the policy frameworks and priorities established by the South African Government.

USAID has been in operation in South Africa since the establishment of its country office in 1985. Between 1985 and 1993 the US government disbursed US\$338 million to South African organisations. A significant portion of this transition support funding has been used for health research and health research aiding activities, such as capacity building and technical assistance.

Other international and local funders who have mostly supported AMREF projects include: Canadian International Development Authority (CIDA), Deutsche Stiftung Donat (Germany), First National Bank

(SA), Generalist Valenciana (Spain), Ministry of Foreign Affairs (Spain), Liberty Life Foundation (SA), McKenzie Family Foundation (SA), Southern Life (SA), Standard Bank (SA), Swedish International Development Authority (SIDA) and UNICEF South Africa.

The Department of Finance ensures the overall planning and co-ordination of donor aid and DACST and the DOH play roles in formulating policies and practices for the use of foreign donor aid for health research.

## **2.3 Health Research Policy, Coordination and Current Projects**

A survey conducted for the 1999 Annual Report of DACST indicates that the business sector performs about half of all research and development in South Africa whilst both the government and tertiary education sectors do the remaining half.

### **2.3.1 National Department of Health**

Many of the research activities of the National Department of Health (DOH) are co-ordinated through its Directorate: Health Systems Research, Research Coordination and Epidemiology. The directorate was responsible for co-ordinating the development of the ENHR committee and provides ongoing secretariat support. In addition the directorate is committed to increasing the involvement of established networks in ENHR related activities in South Africa.

The directorate is involved in the setting of priorities, prioritising operational/health systems research, auditing research activities and developing mechanisms to bridge the gap between researchers and policy makers.

Activities of the directorate include:

- ◆ Line function responsibility for the drafting of a National Health Research Policy document in collaboration with its major partners and the ENHR committee.
- ◆ Identification and documentation of research priority areas, drafting of priority research lists, dissemination to research institutions and postgraduate students. Study results assist the directorate in the assessment of research and propels policy drafting.

The directorate recognises that long-term priorities are needed for the determination of the necessary capacity to deal with future health and development needs of the South African population. The Directorate has committed human resources to the National Research and Technology Foresight Project 2020, the aim of which was to identify technology and market opportunities that are likely to generate maximum benefits for South Africa in the next 20 years.

The directorate is responsible for ensuring a co-ordinated and comprehensive vision of research across the DOH. Both the type of research conducted, and expenditure on research are monitored. An audit was conducted in 1998 to determine how much was being spent on research within the DOH.

Some of the international research conducted by the directorate includes:

- ◆ Annual National HIV/Syphilis Sero-Prevalence Survey of pregnant women attending antenatal clinics in South Africa. Conducted since 1990, the survey constitutes the main source of information about the prevalence and pattern of spread of HIV/AIDS in the country.
- ◆ In 1998, the Directorate in collaboration with the MRC and Macro International conducted the first South African Demographic and Health Survey. The fieldwork was co-ordinated by the Centre for Health Systems Research and Development based at the University of Free State.

Findings from this benchmark survey heralded a new era of reliable and relevant demographic and health information. The data are used to evaluate health programmes implemented by the Department and describe the health status of the South African population. The data provide a useful instrument for identifying new directions for the national and provincial health programmes.

In recognition of the need to strengthen ethical structures and processes in South Africa, the DOH has initiated the following activities:

◆ National Health Research Ethics Council

To date there has not been a formal structure or body empowered to promote and monitor ethical practice in the implementation of health research in South Africa. The Council shall be legislated under the National Health Bill, and will be the central body to advise the Ministry and DOH on matters regarding research ethics in South Africa. The Minister of Health appointed the Ministerial Committee on Health Research Ethics in June 2000 to operate until the National Health Research Ethics Council is established. The National Health Research Ethics Council will not replace existing ethics committees but will serve as the structure which sets standards, establishes links with, and/or arbitrates on matters of ethics in health research.

◆ Guidelines for Good Practice in the Conduct of Clinical Trials on Human Participants in South Africa

A working group convened by the Director-General: DOH has drafted the Guidelines for Good Practice in the Conduct of Clinical Trials in Human Participants in South Africa. The Guidelines are produced as a reference text for researchers, research sponsors, the general public and all those who have an interest in South African clinical trials research. They provide guidance on minimum standards that are acceptable for conducting such trials.

◆ Ethics in Health Research: Principles, Structures and Processes

The directorate, in collaboration with representatives and experts from various organisations, has also drafted a national statement on ethics in health research, entitled: "Ethics in Health Research: Principles, Structures and Processes". This document aims to: firstly, increase awareness of ethical issues in research; secondly, provide guidance to research ethics committees, researchers and the South African public on acceptable research practices; and thirdly to provide information on the current research and ethics structures and processes that are in place.

◆ HIV/AIDS Guidelines

Nine guidelines relating to the management of HIV/AIDS, STI were launched and published. These guidelines provide health care providers and the public with appropriate ways of managing HIV/AIDS including opportunistic infections.

The DOH launched the Equity Project, funded by USAID, in 1997. The Equity Project aims to support the development of an effective, efficient, sustainable PHC system in the country. It commenced its operations in the Eastern Cape with the view that after its first four years of operation, the project will be gradually rolled-out to the rest of the country. In its few years of existence, the project, in collaboration with the Eastern Cape Department of Health, completed the first survey of primary health care facilities in the province.

This survey was a milestone that set a firm baseline against which the objectives of the project would be measured. Since then the survey has now been institutionalised into the annual operations of the Eastern Cape Department of Health used not only to measure progress but also to support information-based annual health planning. In 1998, the Equity Project collaborated in a National Facilities Survey commissioned by the HST.

The Equity Project also conducted an audit of all clinics in the Eastern Cape in 1998, which was repeated in 1999 when the Eastern Cape annual clinic survey on quality of care was conducted. The project has also tried to ensure sustainability of annual surveys through capacity building of information officers at the provincial and district levels. The Equity Project, together with the Eastern Cape Department of Health, Universities of Port Elizabeth, Transkei and Fort Hare organised an Eastern Cape Health Research Conference in 1998. The Health Research Conference is now held every year.

### **2.3.2 Provincial Departments of Health**

Provincial departments have established committees to review and manage research to ensure that research in the provinces addresses priority areas. In 1999 there were seven provinces that had formal or ad hoc functional Provincial Research Committees (Northern Province, Eastern Cape, North West, Mpumalanga, Gauteng, Northern Cape and Free State). In 2000 a Committee was established in the Western Cape. Some of these committees have already completed the development of research priorities for their provinces.

The Provincial Research Committees mark the importance of establishing mechanisms for the coordination and management health research, and links appropriately with an attempt to decentralise health systems management.

### **2.3.3 South African Institute for Medical Research (SAIMR)**

The South African Institute for Medical Research (SAIMR) is now fully government owned (Department of Health). Associated with the University of Witwatersrand's School of Pathology, SAIMR has been offering diagnostic services to public and private sector institutions through its chain of laboratories for many years. Academic staff members of the SAIMR are also involved in teaching activities: particularly medical students from the University of Witwatersrand. One of the programmes of the SAIMR is the National Cancer Registry, which is partly funded by the DOH. The National Cancer Registry collects and analyses basic data on cancer cases.

### **2.3.4 National Institute for Virology (NIV)**

The National Institute for Virology (NIV) is a component of the DOH and provides a reference laboratory for diagnosis of viral diseases. Its areas of research include HIV/AIDS, special pathogens, molecular virology and public health surveillance. The largest research programme of the NIV is its involvement in the South African AIDS Vaccine Initiative that aims to build scientific capacity in the HIV vaccinology. The NIV is recognised by WHO as one of the leading virology laboratories in the world and is the major virology facility in sub-Saharan Africa. In the HIV/AIDS field it serves as a supporting laboratory to the Southern African HIVNET sites. The Special Pathogen Unit has provided laboratory diagnostic services for the viral haemorrhagic fever outbreaks in Sudan and Gabon, and members of staff, along with scientists from WHO and the CDC, investigated the Marburg outbreak in Durba, Democratic Republic of Congo. In its capacity as the WHO Regional Reference Laboratory for Polio, 428 specimens of polio or acute flaccid paralysis cases throughout Africa were analysed and the data contributed to the international data bank as part of the international polio eradication initiative. Influenza isolates submitted to WHO were investigated as a possible seed virus for the Southern Hemisphere influenza vaccine formulation.

### **2.3.5 Medical Bureau for Occupational Diseases (MBOD)**

The role and responsibilities of the Medical Bureau of Occupational Diseases (MBOD) flow from the Occupational Diseases and Mines Act (Act 208 of 1993). MBOD is a component of the DOH.



### **2.3.6 National Centre for Occupational Health (NCOH)**

The National Centre for Occupational Health (NCOH) is primarily a service oriented research institution with a focus on all forms of occupational illness. It is a component of the DOH and has been instrumental in the development of occupational health research and indicators in South Africa. Some staff members of the NCOH are also involved in teaching. NCOH undertakes research on occupational diseases and their implications for public health. Some of the achievements of the NCOH during 1999/2000 included:

- ◆ Three thousand statutory autopsy evaluations done for occupational lung diseases for compensation of dependants of deceased former mine workers;
- ◆ Development of eight testing methodologies for various substances that trigger allergic reaction;
- ◆ Analysis of 6000 samples of chemicals and metals found in occupational exposures; 15 health hazards evaluation were undertaken; and
- ◆ Thirty research projects on hazardous workplace agents and impact studies of occupational diseases and injury on public health and the national economy were completed.

The National Health Laboratory Service (NHLS) Bill was published in 2000. It proposes the establishment of a legal entity, the NHLS, which will incorporate all provincial health laboratory services, the SAIMR, NIV, the Forensic Chemistry Laboratories (FFCL) and the laboratories of the NCOH.

### **2.3.7 Department of Arts, Culture, Science and Technology (DACST)**

The Department of Arts, Culture, Science and Technology (DACST) is responsible for the administration of the Science Vote. Funds are distributed to science councils on recommendation of the National Council on Innovation. The National Advisory Council on Innovation (NACI) was formed in 1998 to advise the Minister of Arts, Culture, Science and Technology on matters pertaining to the National System of Innovation, especially the eight Science Councils. The aim of the Innovation Fund of the DACST is to foster collaboration and the introduction of a trans-disciplinary and intersectoral approach by calling for proposals from consortia to deliver specific research and technology products in the science and development arena. NACI is currently investigating the state of science and technology funding in South Africa.

Some of the important policy changes and institutional changes introduced by the DACST include:

- ◆ White Paper on Science and Technology: Preparing for the 21st Century;
- ◆ The National Research and Technology Foresight Project;
- ◆ The National Advisory Council Act;
- ◆ Science, Engineering and Technology Institutes (SETI) Systems-Wide Review.

#### ***White Paper on Science and Technology: Preparing for the 21st Century***

The White Paper on Science and Technology: Preparing for the 21st Century published in September 1996 sets out a 21st century vision, mission, strategic goals and objectives on science, knowledge and technology for the country. The White Paper also put in motion a fundamental review of governance and management structures for government-funded science and technology institutions in order to establish how these institutions could be restructured to meet broad national goals.

## **The National Research and Technology Foresight Project**

The DACST launched the National Research and Technology Foresight project in July 1996, which was completed in 1999. The DACST committed itself to using the results of the project as an important input into its investment in research and development within the science budget. The objectives of the project included:

- ◆ Identifying those technologies and latent market opportunities that are likely to improve the decisions made by government and the private sector in the allocation of funds;
- ◆ Ensuring that full advantage is taken of existing technologies;
- ◆ Building on the strengths and redressing the weaknesses identified through the Technology Audit; and
- ◆ Encouraging greater spending on research and development by both government and the private sector.

The health sector was one of twelve sectors selected to participate in the Foresight exercise. A Health Sector Working Group was formed comprising 19 members of the DOH, representatives from the MRC, University of Western Cape, UNISA/WHO Collaborating Centre on Mental Health, University of Durban-Westville, Representative Association of Medical Schemes (RAMS), University of Natal, University of Cape Town, Pharmaceutical Society of South Africa (PSSA), Department of Trade and Industry, NEHAWU, MacMed and South African Medical Services.

The Working Group's mandate was to prioritise strategies for research and technology in the South African Health Sector which would ensure sustainable development in the country. Its focus areas included health policy and legislation, measurement and health information, education and training, health promotion activities, health technology and health services.

The Foresight exercise used a variety of techniques including:

- ◆ A local overview to provide the background and current situation on the status of the sector in South Africa. An international overview to provide information about what is happening internationally in the relevant sector;
- ◆ Local and international strengths, weaknesses, opportunities and threats (SWOT) analysis;
- ◆ Identification of major social, technological, economic, ecological and political (STEEP) factors within the sector;
- ◆ Sector-specific scenario analysis;
- ◆ Surveys of opinions on research and technology; and
- ◆ Strategic analyses and recommendations.

Based on the outcome of surveys and a series of workshops, 23 research and development issues were identified (See Box 1, below). These issues were grouped under four main themes with the recommendation that they form the core Science and Technology research and development activities for health for the next ten years, and act as a complementary measure to ENHR research priorities in terms of innovations. The four major themes are: health information systems, health service delivery, self-management technologies and cost-effective prevention and treatment technologies.

**Box 1 : Top Research and Development Issues (as identified by the National Research and Technology Foresight Project, 1999)**

1. Development of an AIDS vaccine
2. Development of barrier methods and microbicides for sexually transmitted diseases and HIV
3. Development of a TB vaccine
4. Development of new TB drugs
5. Development of malaria vaccine
6. Development of malaria drugs
7. Food fortification
8. Injuries and prevention of violence
9. Health promotion targeted at youth
10. Safer fertility regulation (male and female)
11. Self management tools for chronic diseases (e.g. hypertension, diabetes, diarrhoea, psychiatric conditions)
12. Rehabilitation
13. New methods for development effective public/private partnerships for health care
14. Cost-effective on-site diagnostics
15. Telemedicine
16. Southern African CDC
17. Health and safety assessment techniques
18. National Health Information System
19. Use of smart cards
20. Commercial application of indigenous knowledge
21. Research into the effectiveness of alternative therapies
22. Tissue regeneration and gene therapy
23. Rational drug design and delivery

Source: *The National Research and Technology Foresight Project*

### ***The National Advisory Council Act***

In 1997, Parliament passed The National Advisory Council Act 55 to establish the National Council on Innovation (NACI). NACI is mandated to respond to the constant need for informed advice on the development and implementation of science and technology policy and stimulation of innovation. During 1998/1999 NACI was involved firstly, in the development and implementation of the allocation of science vote and secondly, in an investigation into health research funding.

### ***Science, Engineering and Technology Institutes (SETI) Systems-Wide Review***

During 1997, DACST conducted the SETI review of ten government-funded institutions. Included in the review were the following organisations:

- ◆ The Africa Institute of South Africa
- ◆ The Agricultural Research Council
- ◆ The Atomic Energy Corporation
- ◆ The Council for Geosciences
- ◆ The Council for Scientific and Industrial Research
- ◆ The Human Sciences Research Council
- ◆ The Council for Minerals and Energy
- ◆ The South African Bureau of Standards
- ◆ The South African Weather Bureau
- ◆ The South African Medical Research Council.

The SETI Review made a wide range of recommendations. Those recommendations specific to the MRC focused on:

- ◆ Change of name and mission statement
- ◆ Its participation/role in the ENHR process
- ◆ Its core competencies
- ◆ Intellectual property rights/technology transfer
- ◆ Centralised facilities/resources established by MRC
- ◆ Participation in the drafting of the National Health Research Policy
- ◆ Its role in strengthening ethics in health research
- ◆ Participation in National Health Information Systems.

Ongoing restructuring programmes currently taking place in these institutions stem mainly from the recommendations of the report on the SETI Review which was published in 1998.

### **2.3.8 Department of Education**

South Africa has a total of 36 Higher Education Institutions (HEIs) comprising 21 universities and 15 technikons. Though the majority of health/medical research has been carried out particularly by about five of the eight medical faculties in the country, recent policy and institutional changes ensure that technikons become more involved in doing research. Particularly, the National Research Foundation aims to ensure that research funds at its disposal are also made available to technikons and historically disadvantaged universities. Similarly the country's eight medical schools are traditional centres of excellence in medical research.

#### ***Higher Education Institutions***

By far most research activities in support of national health goals and development in South Africa are performed by the Departments, Institutes, Centres, Groups and individuals in over a dozen universities and other tertiary institutions. The National Research and Technology Audit 1998 found that 40% of

researchers are in the natural science and engineering fields (based on headcount), while based on full time equivalents, researchers on these fields represent 55% of the research and development capacity.

The social and behavioural sciences have made a considerable contribution to health research in the last decade. Table 3 provides an indication of the types of research carried out in the higher education sector during 1996. While research in the field of medical and health sciences was amongst the lowest 4, fifty (50) percent of research in this field was of an applied nature - the highest compared to other fields. The table also shows that research on humanities was the third largest field in which research was undertaken in 1996.

**Table 3: Type of research and development in higher education sector by broad scientific field: 1996**

Broad Scientific Field	Type of Research and Development			Number of research projects
	Basic (%)	Applied (%)	Development (%)	
Arts	64	24	12	87
Economic and business sciences	43	39	18	369
Engineering Sciences	29	44	27	473
Humanities	67	25	8	1256
Medical & health sciences	34	50	16	696
Natural sciences	53	37	10	1746
Social sciences	47	38	15	1502
<b>Average of all research projects</b>	<b>48</b>	<b>37</b>	<b>15</b>	

**Source:** *Synthesis Report of the National Research and Technology Audit 1998*

The audit also pointed out that the higher education sector spends the largest proportion of research time on basic research. However, it was also reported that there has been a decline in the portion of total basic research undertaken by the higher education sector: from 75% in 1991, to 55% in 1995/96. At the same time, there has been no significant change in the portion of applied research being done, however there has been an increase in the amount of development work being undertaken.

The following Centres have contributed to policy and health systems research in the country: the Centre for Health Policy; Women's Health Project; Reproductive Health Research Unit at the University of the Witwatersrand; the Health Systems Research and Development Unit at the University of Free State; Child Health Unit and Health Economics Unit of the University of Cape Town; the Centre for Health and Social Studies at the University of Natal. Much of the research arising from these Centres focuses on priority research areas. During 1999, the Centre for Health Policy at the University of Witwatersrand became the MRC Centre, which entitled it to receive MRC funding.

### 2.3.9 Medical Research Council (MRC)

Recommendations made by the SETI review have been incorporated into the MRC Strategic Plan for 1999-2002. This include the expansion of the organisation's mission statement, participation in the ENHR process, drafting of a Health Research Policy, and restructuring of its intra- and extra-mural programmes. The MRC is also actively involved in national initiatives and consultations to strengthen and promote ethics in the implementation of health research in the country. The South African Medical Research Council Act No. 58 of 1991 empowers the MRC to undertake and support research of its

own accord. In terms of this Act, the MRC is also obligated to undertake research assigned to it by the Minister of Health. To accomplish this mission the MRC held a priority setting workshop in April 2000.

Core activities in the MRC aim to address the following:

- ◆ Health research for development, and involvement in active multi-sectoral and multi-disciplinary research that addresses national health problems
- ◆ Facilitation and management of research activities in the broad areas of health and medical sciences
- ◆ Capacity development for health research at the individual and institutional levels
- ◆ Innovation and health technology transfer
- ◆ Health information and easy access and use of health information for policy making

Both at the advisory level and in practical research activities, the MRC has made a substantial contribution to the implementation of ENHR in South Africa. The MRC has over the years made tremendous efforts to align its research priorities with those which emerged out of the 1996 ENHR Priority Setting Congress. The MRC has streamlined its priority activities into six national programmes, namely:

- ◆ Environment and Development
- ◆ Health Systems and Policy
- ◆ Women and Child Health
- ◆ Infection and Immunity
- ◆ Molecules to Diseases
- ◆ Non-communicable Diseases

The MRC has an extensive research capacity and infrastructure with offices in Cape Town, Pretoria and Durban. Research programmes of the MRC have continued to make significant contributions at all levels and programmatic areas of the national health systems. Research studies on HIV/AIDS, effects of smoking, unsafe abortion, alcohol, violence against women, malnutrition are but a few examples of MRC research which informed policy and legislation. The MRC has also been instrumental in setting up the Africa Centre for Population Studies and Reproductive Health in the Hlabisa district of KwaZulu-Natal.

The MRC's programmes on surveillance of malaria, TB, HIV/AIDS, deaths and injuries are also counted as some of the contributions of the MRC. Furthermore, the MRC is involved in supporting implementation of programmes found at national, provincial and district levels.

For example, Mpumalanga's Provincial Department of Health together with the MRC National TB Research programme has implemented, as part of a demonstration intervention, the WHO directly observed treatment strategy for TB.

Capacity development forms part of the MRC strategy and is targeted to develop capacity at individual, institutional and national levels. Its Research Trainee Internship Programme, which was started with a special grant from the DACST for human resource development, had 17 research trainees by 1999, 11 of whom were registered for postgraduate degrees.

In November 1998, the MRC and University of Durban Westville hosted the first international colloquium on Public Health Law in the African Region and a research agenda and framework were developed for a postgraduate programme in Public Health Law.

A distance learning Healthcare Technology Management Programme for health technology managers and decision makers was started at the University of Cape Town under the auspices of the MRC/WHO Collaborating Centre for Essential Technologies in Health. This programme is part of an international collaboration with the Flemish Government. Through the Glaxo-Wellcome grant to MRC for medical research for new drugs and vaccines on TB, 15 doctorates and 12 Masters of Science degrees have been produced since 1993.

The MRC's Centre for Molecular and Cellular Biology ran a training workshop for researchers from 6 African countries whereas the annual postgraduate course on Urbanisation and Health in Developing Countries was attended by 17 postgraduate students.

### **2.3.10 Private sector**

Private sector research agencies carry out studies in health, usually as commissioned research or in partnership with local or international organisations. These include non-governmental organisations with research abilities, specialised research and development and commercial market research companies.

### **2.3.11 Private-for-profit research sector**

There are myriad private-for-profit research and consultancy organisations conducting high quality research in South Africa. With the emergence of HIV/AIDS some private organisations and individuals have found a niche as freelancers for example in specialties such as actuarial and modelling of HIV/AIDS impact.

### **2.3.12 Not-for-profit NGO sector**

In addition to the government statutory and tertiary institutions, other research agencies undertake health-related studies on a regular or ad-hoc basis. Prominent among the NGO's are the Health Systems Trust, the National Progressive Primary Health Care Network and Community Agency for Social Enquiry (CASE). Health research is also conducted in specific areas by private non-governmental organisations as well as commercial institutions with fully-fledged market interest and profit motives.

#### **Health Systems Trust (HST)**

In its relatively short life span, the Health Systems Trust has become a major role player in the facilitation of health research and the use of research information for policy in South Africa. Its annual South African Health Review, which was first published in 1995, has become a good one-stop source for tracking developments in health status and services in the country. Two of its annual reviews published so far have devoted chapters to reports and reviews of the state of health research in South Africa.

HST supports mainly health systems and policy research aimed at achieving equity and the development of district health systems. HST also supports reproductive health, skills and capacity development, and futures planning. The three main programmes of the HST are research, ISDS and HealthLink: Information, Communication and Advocacy. The HST capacity development programme has financially supported the training of 160 intern researchers from 1993-1999. During the course of

their internships, the intern researchers are either attached to, or associated with, a reputable research institution to work on an ongoing research project. Many of these researchers are now occupying senior positions either as implementers, planners or health managers in both the public and private sectors.

HealthLink is a project of the HST which aims to provide a reliable source of information about health and health policy development in South Africa. The project serves as a channel through which health systems research results and recommendations can be shared. The key outputs of HealthLink are:

- ◆ HST Update: a monthly publication which provides information on current topical issues in health systems
- ◆ The Equity Gauge Project: monitoring the move towards equity in health and health care in South Africa
- ◆ HealthLink projects: promoting the use of electronic information and communication in health
- ◆ The South African Health Review: a publication which provides an annual and longer term review of health policy developments and implementation

The Initiative for Sub-District Support (ISDS) - a programme of HST - was established in 1996 with financial support from the European Union (EU). The ISDS is described as a participatory action/operational research strategy aimed at identifying factors which affect health care delivery at sub-district levels to develop a means of changing those factors in order to bring about better service delivery. ISDS applies a combination of strategies including research, evaluation, communication, technical support, information, facilitation, and individual input. ISDS is implemented in 19 sites, across the nine South African provinces. ISDS facilitators assist with the identification of factors for improvement, and planning of implementation strategies. Some examples of ISDS interventions and activities undertaken in various sites are provided in Box 2.



**Box 2: Some examples of ISDS interventions being undertaken in some South African provinces**

<b>Provinces</b>	
Free State (2 sites), KwaZulu-Natal (3 sites), Eastern Cape (2 sites), Mpumalanga (2 sites), Northern Cape (2 sites)	
<b>Interventions</b>	
<p><i>Creation of an effective Management Structure</i></p> <ul style="list-style-type: none"> <li>◆ Creation of interim district management teams</li> <li>◆ Definitions of roles and responsibilities</li> <li>◆ Strengthen communication and ability to plan, implement and monitor</li> </ul> <p><i>Implementation of a communication strategy</i></p> <ul style="list-style-type: none"> <li>◆ Telephone installations</li> <li>◆ Installation of computers</li> <li>◆ Applications development</li> <li>◆ User support</li> </ul> <p><i>Access to information</i></p> <ul style="list-style-type: none"> <li>◆ Access to information via Healthlink medical libraries and discussion groups</li> <li>◆ Establishment of local (district) resource centres</li> <li>◆ Training in essential skills</li> <li>◆ Health workers trained in rationale drug use and essential management</li> <li>◆ New nursing process</li> <li>◆ Training in information collection and use</li> <li>◆ Clinic stock management system</li> <li>◆ Review and provision of adequate physical and financial resources</li> <li>◆ Analysis of district health expenditure and resource allocation</li> <li>◆ Strengthening Community Participation</li> <li>◆ Evaluation of existing structures of community participation</li> <li>◆ Management training for community health committee</li> <li>◆ Clinic stock management system</li> <li>◆ Review and provision of adequate physical and financial resources</li> <li>◆ Analysis of district health expenditure and resource allocation</li> <li>◆ Strengthening Community Participation</li> <li>◆ Evaluation of existing structures of community participation</li> <li>◆ Management training for community health committee</li> </ul>	<p><i>Improved Supervision and Support</i></p> <ul style="list-style-type: none"> <li>◆ Definitions of functions of PHC and Programme Co-ordinators</li> <li>◆ Training of PHC trainers in rational drug use</li> <li>◆ Strengthening Community Participation</li> <li>◆ Evaluation of existing structures of community participation</li> <li>◆ Commissioning of NGOs to support health sector development</li> </ul> <p><i>Improved management systems</i></p> <ul style="list-style-type: none"> <li>◆ Clinic stock management system</li> <li>◆ Review of district drug management system</li> <li>◆ Simplified record keeping systems at clinics</li> </ul> <p><i>Review and provision of adequate physical and financial resources</i></p> <ul style="list-style-type: none"> <li>◆ Determination of human resources needs for the district</li> </ul> <p><i>Strengthening Community Participation</i></p> <ul style="list-style-type: none"> <li>◆ Evaluation of existing structures of community participation</li> <li>◆ Commissioning of NGOs to support health sector development</li> </ul> <p><i>Integrated Sectoral Strategies</i></p> <ul style="list-style-type: none"> <li>◆ Involvement of local development forum in planning for telecommunications roll-out</li> <li>◆ Establishment of intersectoral sub-district action teams</li> </ul> <p><i>Training in essential skills</i></p> <ul style="list-style-type: none"> <li>◆ Health workers trained in rational drug use and essential management</li> <li>◆ New nursing process</li> <li>◆ Training in information collection and use</li> </ul>

**Source:** Health Systems Trust. Adapted from <http://www.hst.org.za>

### **National Progressive Primary Health Care Network (NPPHCN)**

The National Progressive Primary Health Care Network (NPPHCN) is a national non-government health advocacy organisation established in 1987. Its areas of focus include collaboration, participatory research and policy formulation, legislative analysis, community participation, training and organisational development. NPPHCN undertakes specific contract work to develop essential research and to build research capacity within the Network and its members.

Recent projects that it has been involved in include:

- ◆ Community Involvement in Health: Assessing the first steps in Mpumalanga and the Western Cape
- ◆ School Feeding Programme
- ◆ Free Health Care Study
- ◆ Community involvement in hospitals
- ◆ Mpumalanga District Development Process
- ◆ UNICEF Youth Sexuality Report “Youth Speak Out”

The Youth Sexuality Study commissioned by UNICEF examined experiences, perceptions, knowledge and attitudes with regard to sexuality of young people in South Africa between ages of 10 and 20 . The study was aimed at recommending strategies and interventions to address issues of sexuality and life skills education, social services, public health education, law reform and promotion of gender.

The NPPHCN's activities in policy and legislative processes are carried out through the Public Health Intervention through Legislative Advocacy (PHILA) programme, which was launched in April 1995. Since its inception, PHILA has been receiving support from the Henry J. Kaiser Family Foundation. PHILA facilitates dialogue between policy makers and communities, translates legislative proposals into languages that communities understand and feeds back community comments and concerns to policy makers.

### **Africa Centre for Population Studies and Reproductive Health**

This Centre has been formed through a collaborative partnership between the Universities of Natal and Durban-Westville and the MRC. The Centre is funded by the Wellcome Trust. The centre focuses on population-based reproductive health, tuberculosis, HIV/AIDS/STDs and teenage pregnancy studies. All studies are conducted in the Hlabisa District in Northern KwaZulu-Natal over a five-year period with the aim of strengthening the health services within this area.

### **African Medical and Research Foundation South Africa (AMREF)**

The African Medical and Research Foundation (AMREF) has been involved in South Africa since 1990 and opened its South African office in 1995. Rapid participatory research and baseline studies form one of the main research strategies which AMREF employs to guide programme planning and implementation. Projects rely upon the sharing of lessons. AMREF's current projects in SA include:

- ◆ Youth and Sexual Reproductive Health Project in Ubombo District, KwaZulu-Natal: a 3-year project which ran from January 1998 to December 2000. Anglo-American Chairman's Fund DSW-Germany and Corporate AMREF funded the project. The project aims to strengthen capacity of the government, community and church based organisations in providing reproductive health services. Forming part of the project was the Participatory Rural Appraisal Training conducted in Jozini and a rapid assessment of the sanitation situation in Ingwavuma, conducted in 1999.

- ◆ STDs/HIV intervention among the youth in Elliot District in the Eastern Cape was a partnership between AMREF, Eastern Cape DOH and the Health Care Trust. The project was targeted at the youth and was jointly funded by AMREF and South African Breweries.
- ◆ Networking Community Based Health Promotion: This is a national project funded by the Interchurch Canada involving 14 NGOs, CBOs and church based organisations. The project aims to assist community health and development personnel in formulating and implementing small-scale community based health promotion projects. AMREF and NPPHCN jointly co-ordinated a workshop to promote collaboration and networking for health promotion in Uthungulu Region, KwaZulu-Natal.
- ◆ In May 1999, AMREF in collaboration with the community of Philadelphia district, NGOs, Mpumalanga Department of Health begun a project to strengthen capacity of institutional and community structures to implement the Integrated Management of Childhood Illnesses in Philadelphia district. A participatory needs assessment was done to inform policy and service delivery. NEDCOR Community Development Foundation and UNICEF South Africa fund the project.
- ◆ NEDCOR is funding a two-year project co-ordinated by AMREF to develop human resources for implementing PHC and community based health care programmes in Kwa-Mhlanga District, Mpumalanga Province.

### **2.3.13 Pharmaceutical Industry**

The pharmaceutical industry comprises 96 companies who play a major role in health research in South Africa. Most pharmaceutical company “research expenditure” in South Africa is in clinical trials, some of them part of larger multi-national trials. The multinational and local pharmaceutical industry funds mainly market driven clinical research.

### **2.3.14 Other health research institutions**

The CSIR, HSRC, ARC, Statistics South Africa (StatsSA) and others are all actively involved in research that impacts on health and determinants of ill-health in South Africa. For example, CSIR has recently conducted a study on the effects of home-brewed concoctions on health.

## **2.4 Profile of Researchers**

A survey of resources conducted by the DACST (2000) indicated that South Africa has a research rate of 0.72 per 1000 labour force as compared to 4.60 per 1000 in the European Union.

The National Research and Technology Audit 1998 found that, based on a headcount which excluded the business sector, approximately 19 000 scientists were working on research and development: of whom 63% were employed by universities.

Given the legacies of the South Africa’s political past, the nature and intensity of research, access to research funds, volume, scale and quality of research conducted by tertiary institutions vary considerably. While a few privileged universities continue to improve the scope and quality of their health research, historically disadvantaged institutions remain less endowed with expertise and financial resources for high quality output in health research. Table 4 shows the year 2000 ratings of researchers working in universities.

**Table 4: NRF Researcher ratings per Higher Education Institution as of year 2000**

University	A	B	C	P	Y	L	NR	TOTAL
Cape Town (M)	17	52	75	1	10	5	8	168
Durban Westville	0	3	25	0	2	5	5	40
Fort Hare	0	0	4	0	0	0	3	7
Free State (M)	0	6	47	0	9	1	12	75
MEDUNSA (M)	0	0	2	0	1	0	1	4
Natal (M)	3	38	46	3	15	4	18	127
North	0	0	6	0	2	0	6	14
North (Qwaqwa Campus)	0	0	1	0	0	2	1	4
North West	1	0	0	0	1	0	1	3
Pretoria (M)	4	31	63	1	16	2	20	137
Port Elizabeth	0	3	19	0	2	0	11	35
Potchefstroom	0	9	31	0	5	1	8	54
Rand Afrikaans University	3	9	22	0	3	0	4	41
Rhodes	0	12	23	1	5	1	3	45
Stellenbosch (M)	6	30	58	2	11	7	18	132
Transkei (M)	0	0	5	0	1	3	2	11
UNISA	1	4	8	0	2	0	2	17
Venda	0	0	3	0	0	1	0	4
Vista	0	0	3	0	0	1	3	7
Witwatersrand (M)	10	38	58	2	8	1	11	128
Western Cape	0	3	13	1	8	5	2	32
Zululand	0	0	3	0	0	0	2	5
<b>Total</b>	<b>45</b>	<b>238</b>	<b>516</b>	<b>11</b>	<b>101</b>	<b>39</b>	<b>141</b>	<b>1091</b>

**Source:** National Research Foundation 2000

KEY: M = Universities with Medical Schools/Faculties of Medicine

- A: Academic is recognised as a world leader in his/her field
- B: Academic has attained international recognition for work
- C: Work is of international standard
- P: Refers to a number of President's awards made to young scientists of exceptional quality
- Y: Awarded to young researchers with a doctoral degree who have the potential to become established researchers by the next evaluation
- L: Previously disadvantaged university researcher
- NR: Refers to the number of academics for whom applications were submitted, but were not rated

## Chapter 3: Emerging Issues in ENHR in South Africa

This chapter presents:

- ◆ Key findings of a primary rapid assessment study on the emerging issues in ENHR

### 3.1 Introduction

A study conducted in March 2000 identified the major issues arising from ENHR implementation. These issues are summarised in eight broad categories, and include:

- ◆ The development of a policy framework for ENHR
- ◆ Government and public support for ENHR
- ◆ Priorities for research
- ◆ Capacity development
- ◆ Equity in health research
- ◆ Mechanisms for co-ordination and monitoring
- ◆ Networking
- ◆ Linking research to action and dissemination of research

### 3.2 Policy Framework

Within various policy-making circles in government, the ENHR approach is explicitly and implicitly supported. A number of policy frameworks and pieces of legislation are generally favourable to health research in South Africa. Several sectors have White Papers, which contain policy statements specific to research. There is ongoing collaboration between the DOH and stakeholders to draft a health research policy.

### 3.3 Government and Public Support for Health Research

The South African government has assigned a high priority to research. This is reflected in:

- ◆ A doubling of the research budget over the next 3 years (6% of science research to 12%).
- ◆ The review of Science, Engineering and Technology Institutes in South Africa.
- ◆ Establishment of the National Advisory Council on Innovation and the National Research Foundation.
- ◆ The Foresight exercise, using a priority setting approach instigated by the Department of Arts, Culture, Science and Technology.
- ◆ The ENHR priority setting, equity and development approach adopted by the DOH

The South African public is supportive of research. Public awareness of the value and role of research is, although still quite low, growing - partly due to increasing media attention to the issue. There is little public demand for more support for research. An exception is the issue of AIDS that has witnessed increased public support, in particular, for AIDS vaccine research.

### 3.4 Priorities for Health Research

The process of setting national health research priorities to guide decisions on allocation of resources includes the ENHR and the Foresight exercise. During the exercise, research stakeholders participated in workshops and meetings for setting research priorities for the country.

The top ten priorities (listed in Box 3) were arrived at by following the step-wise approach advocated by the burden of disease priority setting process. These priorities were agreed upon following a two-day workshop on the subject. Information which was taken into account in order to guide the process of priority setting include:

- ◆ Accepting that the process of prioritisation should lead to consensus building among all research stakeholders.
- ◆ Principles of attaining equity in health and development were considered.
- ◆ Burden of disease, mortality data and patient perception.

The outcome of the process represented the views and conclusions of a wide range of stakeholder groups (both producers and users) involved in research. Community concerns are reflected within the priorities identified. However, it was noted that the concept of community needs further clarification.

#### Box 3: Top ten research priorities in South Africa as identified in 1996

- ◆ Injury/trauma/violence (including rape)
- ◆ Tuberculosis
- ◆ Nutrition
- ◆ HIV/AIDS & STDs
- ◆ Cancer (all)
- ◆ Diarrhoeal Diseases
- ◆ Respiratory infection (including COAD)
- ◆ Mental health (including substance abuse)
- ◆ Malaria
- ◆ Diabetes

**Source:** COHRED (1997) ENHR in South Africa.

The country has been involved in setting sub-national (regional and district) priorities. Sub-national priorities differ from national priorities because they specifically aim at answering the questions of implementation of programmes at the district level. The provinces have established Provincial Health Research Committees. These committees are responsible for monitoring and determining the research priorities within the various provinces, regions and districts. The district health systems task teams, the DOH and other research stakeholders participated in the process.

### 3.5 Capacity Development and Equity

The availability of equitably distributed capacity for health research is one of the major challenges facing ENHR in South Africa. There is limited capacity to enable multidisciplinary research. Historically disadvantaged institutions lack the infrastructure, funding and personnel to complete good research that is needed for health development. The critical areas that need capacity development are shown in Box 4.

There are plans to strengthen research disciplines that are considered to be weak. The DACST will be developing new areas of research. The recently established schools of public health and short courses on Health Systems and Policy Research target individuals who were not previously exposed to research such as nurses, doctors, employees of the DOH. The MRC's internship programmes, HST development programmes and the Schools of Public Health are some of the programmes established to develop and support leaders for health research in the country. These programmes offer courses for leadership development and research management. The HST has set up a research database and the MRC has been funded by DACST to develop a national health knowledge network.

#### Box 4: Areas that need capacity building in health research

- ◆ Public health research
- ◆ Health Systems and Policy Research
- ◆ Health, Demography and Statistics
- ◆ Public health epidemiology
- ◆ Capacity development for researchers from previously disadvantaged areas
- ◆ Operational research
- ◆ Capacity development for doctors co-ordinating research in communities.

Some of the efforts directed at capacity building for users of research include:

- ◆ Oliver Tambo fellowship programme
- ◆ HST website (HealthLink Programme)
- ◆ Health Systems Research Conferences
- ◆ Research Forums
- ◆ Schools of Public Health
- ◆ Professional journals
- ◆ DOH information centre/clearing house
- ◆ Department of Health website and other websites.

Retention of expertise is a major concern. The problem of brain drain is very high, particularly among health professionals such as nurses and doctors. An estimated twenty percent of medical doctors and senior scientists leave the country annually. The main causes of the brain drain include:

- ◆ Monetary: movement from public to private sector
- ◆ Recruitment/scouting by wealthy nations
- ◆ Personal reasons for wanting to emigrate
- ◆ The state of transition in the country

The introduction of a one-year Community Service Programme for medical graduates by the Ministry of Health is one of the measures implemented to try and lessen the “brain drain” and to address health service needs. There is also a commitment by government to improve the working conditions of health professionals.

Although training for leadership in health research is important to build a skills base and develop capacity, especially among the historically disadvantaged members of South African society, implementation programmes are yet to be developed.

Capacity for health research is supplemented by visiting researchers. Some research areas where there is collaboration currently include:

- ◆ The IAVI and SAAVI collaborations
- ◆ The HIV/AIDS collaboration with the Liverpool School of Tropical Hygiene at Hlabisa in KwaZulu-Natal
- ◆ Telemedicine research projects, US-SA Bi-national agreements

Visiting researchers contribute significantly to capacity building. For example, the Equity project in the Eastern Cape is actively participating in the development of capacity among health professionals. Visiting researchers often work in collaboration with South African researchers (either through the government or with research organisations).

### **3.6 Equity in Health Research**

The achievement of equity is an essential goal of ENHR in South Africa. There are government policy statements on equity which are actively advocated by government departments, politicians, NGOs, communities, and legislators.

Current national research priorities are reflective of the equity agenda. There are national and sub-national research programmes and projects which seek to monitor the health of vulnerable/poor/disadvantaged groups. These include the nutritional surveillance system and the South African Demographic and Health Survey. Some research programmes specifically aim to clarify issues of inequity in health. There are health equity watch groups in the country (e.g. the work of HST equity gauge team).

### **3.7 Mechanisms for Co-ordination and Monitoring**

#### **3.7.1 Research co-ordination**

Research co-ordination mechanisms are effective with respect to the relationship between the DOH and major public sector stakeholders. At national level, the Health Systems Research, Research Co-ordination and Epidemiology Directorate co-ordinates health research.

The national DOH manages the MRC parliamentary allocation. The HST and the MRC meet regularly with the DOH on a number of issues in health research. At the provincial level, provincial Departments of Health have directorates that are responsible for information, research and epidemiology.

The establishment of the national ENHR committee is an important step in improving the existing mechanisms. The development of an accessible and user friendly health research database of all research planned, ongoing and completed incorporating smaller research organisations and individuals will also contribute significantly to improving the existing mechanism.



In contrast with progress made in the public sector, co-ordination of research in the private sector and smaller non-governmental organisations remains a challenge for the DOH.

### **3.7.2 Networking and collaboration**

Major partners such as the DOH, MRC and HST have established networking records. However, active networking among the wider community of health researchers remains a challenge in South Africa.

The MRC and the HST both collaborate with the DOH in their research activities. In the case of the MRC, collaboration is in the form of a Memorandum of Understanding between the organisation and the national DOH, which ensures that the MRC receives an annual transfer of funds from the DOH. Collaboration with the HST is in the form of a Contractual Agreement, which has been in place since 1996 and was jointly initiated by the DOH and the HST.

Projects selected for funding are consistent with national health research priorities and the collaborations include research capacity building in the area of health systems research for the HST and biomedical research for MRC. The collaborations have resulted in publications and reports, some of which can be found on the HST website, in the South African Medical Journal, and the British Medical Journal.

At the regional level, the DOH is involved in North-South and South-South collaboration. The main benefit of these regional networks to the country is collaborative research. The North-South links have provided technical advice, consultancies, research funding and capacity development. The South-South linkages have provided regional collaboration in areas of common interest e.g. malaria, HIV/AIDS research. In addition, it has led to exchanges of ideas and information e.g. SA-Uganda link on HIV. The following regional (African based) networks collaborate with South African national health research institutions:

- ◆ WHO/AFRO
- ◆ AMREF
- ◆ Blair Institute, Zimbabwe

An important aspect of networking is the encouragement of the activities of the health related professional bodies in South Africa. These include the South African Medical Association (SAMA), the Democratic Nursing Association of South Africa (DENOSA), the Psychological Society of South Africa (PsySSA), South African Clinical Research Association, just to mention a few.

The associations provide leadership and sustain the culture of good quality health research. Advocacy activities for the promotion of health research only take place in a very limited manner in just a few of the health-related professional bodies. For example, the South African Medical Journal - a scientific medical journal - is a product of the SAMA.

## **3.8 Linking Research to Action**

One of the ways to link research to action is by effective dissemination of the products of research. In line with the ENHR principles, progress has been made by research institutions in finding a balance between the traditional journal-based audience and other more powerful policy-oriented audience. In the recent years, the HST has directed attention to targeting different audiences. The majority of HST publications are aimed at health workers and policy makers at all levels of government.

Use of research findings for action is more successful among policy makers than among communities. Some barriers between the generators of research and users of their findings in community-level health interventions include:

- ◆ Use of technical, scientific language, and the production of big, thick reports results in poor communication between researchers and the community.
- ◆ Lack of a central database for recent research findings, and
- ◆ Lack of proper dissemination mechanisms and strategies for the implementation of research findings.

However, research forums within a number of institutions aim to address these shortcomings. Specific funding has been set aside to finance activities that promote the use of research findings. Measures which could promote close interaction between researchers and users of their findings include forums, conferences, and workshops for sharing ideas and information. Research projects are also being designed in such a way that the implementation of findings is a part of the research process.

Health programs need to stimulate a demand for research so that they obtain feedback for more effective program implementation. Simpler means of communication and information exchange between health researchers and ministries, the media, legislative structures and advocacy groups will need to be established.

### 3.9 Summary

Despite the many challenges facing health research in South Africa, ENHR is making a positive difference in health development in South Africa. Examples of national-level research projects which have made significant contributions to the knowledge base in the country are shown in Box 5. The ENHR concept has resulted in more funding for health research from public funds. The concept has also resulted in the mobilisation of more funds for research from external sources. In addition, the ENHR concept has led to greater consultation by researchers with government and the community. It has also resulted in greater flow of research results into policy making and other decision-making and priority setting.

#### **Box 5: Examples of recent national-level health research**

- ◆ Health Care Financing and Expenditure Reviews
- ◆ South African Demographic Health Survey
- ◆ Health Policy and Systems Research
- ◆ Tobacco control research in MRC/HSRC
- ◆ Health policy change
- ◆ Micronutrient friendly research
- ◆ Facilities survey
- ◆ Antenatal HIV survey

**Source:** Directorate: Health Systems Research, Research Coordination and Epidemiology, DOH.

A fundamental characteristic of ENHR is the focus on the promotion of networking among researchers, policy makers, communities and other relevant stakeholders. The South African ENHR committee is ideally placed to facilitate networking, as members are drawn from across the research spectrum. The

DOH's Health Systems Research, Research Co-ordination and Epidemiology Directorate is also committed to promoting South Africa's research products and activities in the international arena by participation in activities such as the Global Forum for Health Research, Regional ENHR network meetings, and regional activities in both Africa and the SADC sub-region.

In an ongoing commitment to developing capacity among health care workers and health information personnel, the DOH together with provincial health departments provides short courses in epidemiology and public health data management. Tertiary institutions (colleges, technikons, universities) are also involved in developing research capacity among their students. Masters of Public Health degrees and other public health-related short courses and diplomas have been introduced at a number of universities in South Africa.

The MRC also plays a significant role in building capacity, particularly at Historically Disadvantaged Institutions (HDIs) by awarding scholarships and bursaries to deserving students and running mentorship programmes. The HST runs internship programmes and supports short courses. The DOH has continued to build partnership and sound working relationship with stakeholders including the MRC, HST, EU, WHO, UNICEF, USAID Equity Project, Higher Education Institutions, etc. With the concerns around the HIV/AIDS epidemic, and questions on market oriented pharmaceutical research, its products are gaining much attention.

The constitutional and broader political changes have firmly entrenched the approach to health and reproductive health as a right, as is the right to a healthy environment, the protection of children and women against any form of violence and abuse, etc. Concomitantly, the research community has responded to these new challenges by forming new entities such as the RHRU, and by strengthening existing institutions by realigning them with emerging policy challenges. During this period, programmes of the MRC, HST, AMREF, NPPHCN, universities and donor agencies have supported action oriented health research directed at strengthening and supporting service delivery - particularly the PHC and DHS approaches.

The DACST Foresight Review was instrumental in devising new terms and frameworks for the realignment of the various science councils. Both the NRF and NACI are new public entities that have been instituted for research prioritisation and funding.

## Chapter 4: The Future of ENHR in South Africa

### 4.1 Introduction

Although ENHR has been permanently established as the preferred approach to linking research to health development in South Africa, its future course will depend largely on how it responds to existing challenges. These challenges range from lack of adequate capacity for health research to problems of networking, co-ordination and funding. Two of these challenges, namely co-ordination and funding are particularly important at this stage in the development of ENHR in South Africa

### 4.2 Coordination of Health Research

Health research interests are highly diverse in South Africa. A major challenge for ENHR is to develop a stable and all-embracing co-ordinating mechanism that will represent the diverse interests of the vast array of partners and stakeholders. In the review period, the DOH has successfully taken the lead to facilitate the ENHR process at the national level.

Future success will depend largely on the co-operative participation of all organisations and institutions involved in ENHR. The DOH has demonstrated commitment to ENHR by taking a lead in co-ordinating aspects of ENHR in the country in partnership with other major institutions - particularly the MRC - in the period under review.

As ENHR gains greater acceptance and interest, it is important that all partners and stakeholders develop a clear understanding of their statutory roles and responsibilities. The DOH, the MRC and other major government and non-government sectors will have to continue negotiations about the roles and responsibilities for various aspects of ENHR in South Africa. It is noteworthy that the national ENHR committee has been formally constituted. This committee is expected to play a major role in this regard.

### 4.3 Funding Level and Flows

The challenge presented by financing ENHR in South Africa is two-pronged. First, although government plans to increase funds for research, the level of funding available for health research remains inadequate. A major problem for South Africa with respect to research funding is the disproportionate spending on non health-related research, in comparison with health research within institutions. Internationally, approximately thirty percent of the research budget is spent on health-related research, compared to five percent in South Africa. Secondly, funding flows present another major challenge. Although the statutory regulations on funding flows are clear, at least within the government, in practice, problems still exist with the equitable distribution of funding for health research received from the donor community.

A further concern is the skewed nature of the flow of funds to various types of research. This remains a challenge to the country. In part, the skewed nature of funds results from the fact that sources of funding for health research vary, and in most cases, each source has strictly identified goals to which funds are committed.

This is particularly true of private commercial sector funds. Whereas, it is easy to address the equity in the distribution of government, multilateral and bilateral funds to areas of national health research priorities, research, and hence, the funding priorities of pharmaceutical companies and corporate donors (which constitute by far the greatest percentage of health research in South Africa) are not easily regulated.

In this regard, the role of the private commercial sector, which in most cases have commercially-driven health research agendas, is an important one in the South African context, and should be carefully considered in order to establish roles and relationships among all partners in ENHR.

#### **4.4 Equity in Funding Allocations**

Equity in the flow of funds for different components of ENHR remains a major challenge in South Africa. Arising from this problem, one of the major issues which is widely debated is the extent to which funding for health research should be centralised. The advantages of centralisation include the identification of national and regional priorities, the ability to introduce research results into current policy and programmes of government, the determination of the national feasibility and appropriateness of research and the identification of the policy relevance of research.

On the other hand in a highly centralised funding system, bureaucracy can slow down the process of vital decision-making. Specific existing and new priority needs of specific provinces or local areas may sometimes be given less attention than they demand. On balance, it appears that centralised funding of health research has more potential to facilitate the implementation of research in areas of national priority research. It will be necessary to build in safeguards against the potential pitfalls for centralised funding of essential national health research in South Africa.

In conclusion, despite challenges including co-ordination, funding and several others, ENHR has taken solid root in the South African health system. The State, and specifically the National Department of Health has a demonstrable and unwavering commitment to ENHR as an effective strategy for using research to contribute to the development of the health of its population. As more concrete data become available on specific research programmes, co-ordination arrangements, flow of funds and capacity building in support of research, the contribution of ENHR to health development in the country will be more easily and better assessed.

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