



MEDICAL RESEARCH  
COUNCIL

SETI REVIEW 2006

*A REPORT COMPILED BY THE MEDICAL  
RESEARCH COUNCIL FOR THE  
DEPARTMENT OF SCIENCE AND  
TECHNOLOGY (DST)*

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**SETI REVIEW REPORT  
FEBRUARY 2006**

**INTRODUCTION**

The MRC had SETI Reviews in 1997 and in 2001. This report considers how the recommendations from the first and second SETI Reviews were implemented in the period from 1997 to 2005. The Document is constructed in the following fashion:

1. What were the recommendations of the 1997 MRC SETI Review?
2. What was the MRC response to these recommendations and to the second SETI Review over the period 1997 – 2005?
3. What factors constrained the full implementation of these recommendations; what are the challenges envisaged for 2005 – 2010; and how does the MRC plan to address these challenges?

**1) MISSION & NAME**

**Recommendation in 1997**

The MRC should change its name to the Health Research Council of SA (HRCSA), and the mission statement should read:

*"To improve the nation's health status and quality of life through relevant and excellent health research aimed at promoting equity and development".*

**Response in 1997**

After a lengthy consultative process the Transformation Committee of the MRC Board recommended, with the approval of the Board, that the name of the organisation should be retained. A new logo was developed; and a revised mission statement was adopted: *"To improve the nation's health status and quality of life through relevant and excellent health research aimed at promoting equity and development".*

## Implementation: 1998 – 2005



Old Logo



New Logo

## Challenges for 2005 - 2010

Because the mission is dynamic in responding to new challenges facing the organisation, the Board of the MRC, in its new Strategic Plan 2005 – 2010, and based on the mandate of the MRC, have made changes in the previous mission suggested by the 1997 SETI Review. The new mission statement reflects the breadth of the MRC mandate, the impact the MRC seeks to make in South African society, and the duality of the MRC's work in both conducting and promoting health research.

## MRC Mandate: Statutory Council - Act 58 of 1991

*'the objects of the MRC are, through research, development and technology transfer, to promote the improvement of the health and quality of life of the population of the Republic, and to perform such functions as may be assigned to the MRC by or under this Act'.*

**MRC Vision:** *'building a healthy nation through research'*

**MRC Mission:** *'to improve the nation's health and quality of life through promoting and conducting relevant and responsive health research'*

## 2) BUDGET

### Recommendation in 1997

The review panel strongly recommended a substantial increase in the budget from R70 million to R250 million (to 1.5% of the total health budget)

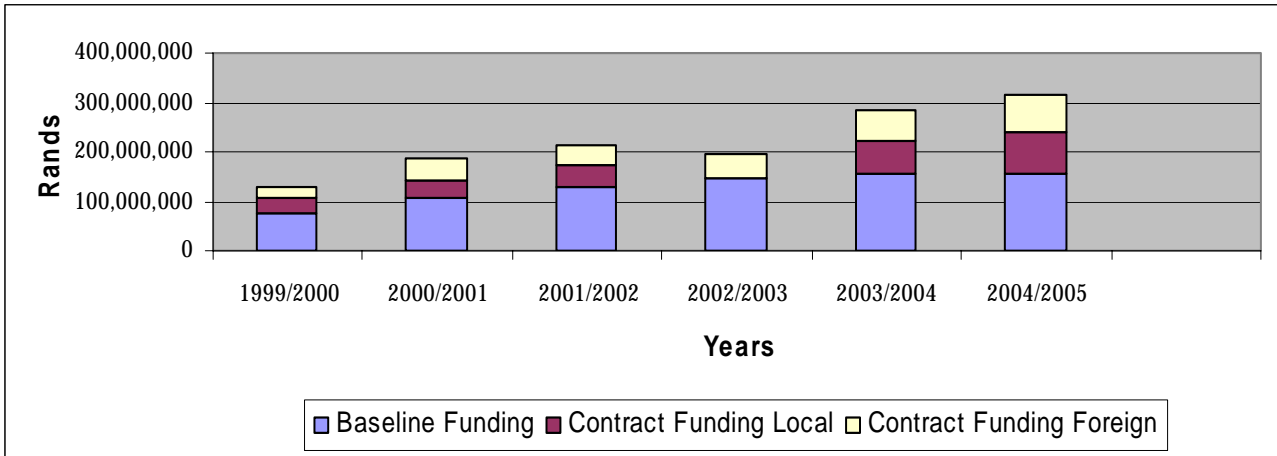
**Response in 1997**

The National Council for Innovation (NACI) and the Cabinet accepted the SETI Review Panel recommendation and agreed to double the MRC's baseline budget over a period of three years from R70 million in 1997/8 to R145 million in 2002/2003.

**Implementation: 1998 – 2005**

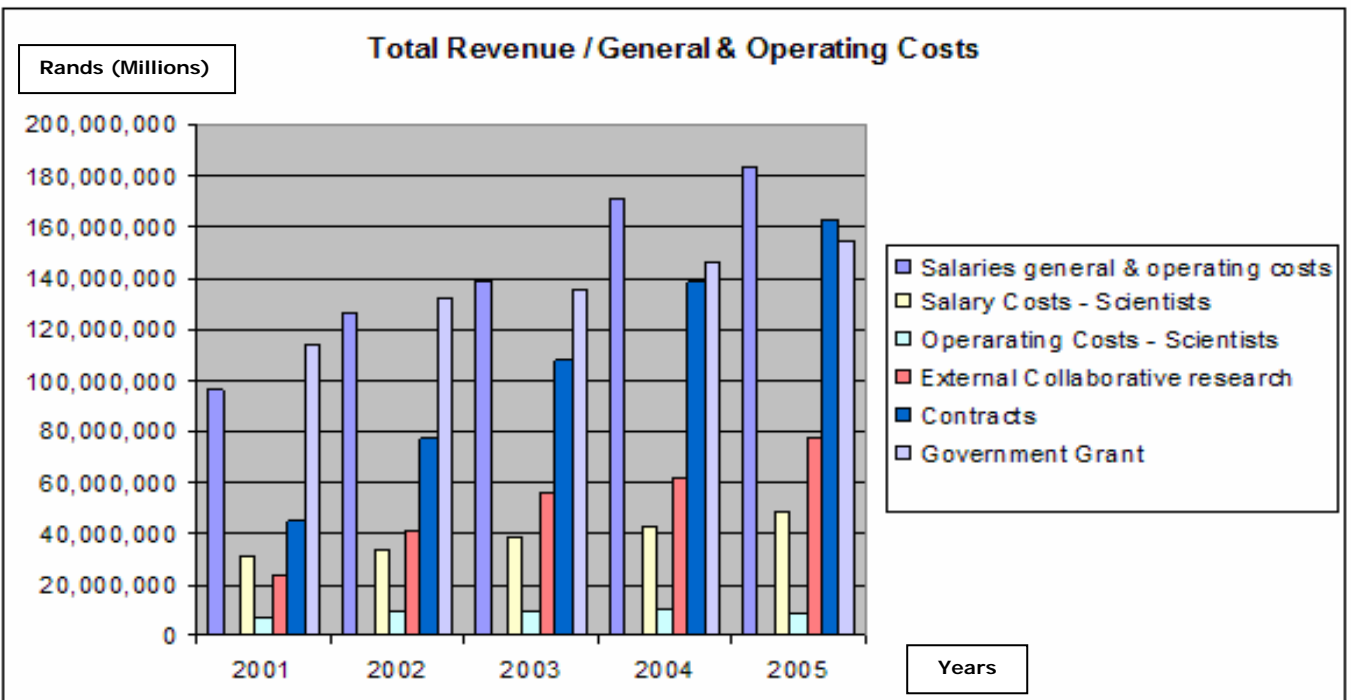
**Growth in Baseline Budget and Contract Funding from 1998 to 2005**

**Figure 1: Sources of Funding**



**Growth in various categories of the MRC Budget over the period 2001 to 2005**

**Figure 2: Total Revenue / General & Operating Costs**



## Challenges for 2005 – 2010

The MRC's baseline budget reached R164 million in 2005 – which equates to 0.3% of the total health budget; and 18% of government health research expenditure.

This contrasts with the MRC's sister institution the British MRC whose budget of 487 million pounds equates to 40% of British government health research expenditure; or the NIH whose budget represents over 50% of US Government health research expenditure.

The recommendation of the Ad Hoc Committee on health research, and of the Mexico Declaration of 2004, and the World Health Assembly of 2005 was that governments of developing countries should spend 1.5 to 2.0% of their total health budget on health research which would in South Africa equate to R675 to R900 million per annum.

For the MRC the challenge is to derive a baseline budget sufficient to address the Strategic Health Research Priorities that the Executive and Board of the MRC have identified for the period 2005 – 2010. Two funding scenarios were mapped:

To fully address the health research priorities of South Africa, without being donor-driven, in order to improve the health and quality of life of South Africans (scenario one in table below) in addition, to exploit all the opportunities available in health research, biotechnology and development (scenario two in table below)

Scenario one would take the MRC Baseline budget to R337 million (0.7% of the total health budget; or 37% of government health research expenditure).

Scenario two would take the MRC Baseline budget to R512 million (1.1% of the total health budget; or 56% of government health research expenditure).

Table 1: Strategic Health Research Priorities 2006 – 2010

Strategic Health Research Priorities	<i>Scenario One :</i> Address all Health Research Priorities (double baseline to R350 million)	<i>Scenario Two :</i> Seize all Health Research Opportunities (treble baseline R540 million)
Capacity Development	25	50
Hospital-acquired Infection	3	8
Cardiovascular Disease	5	25
Budget of MRC Units and Projects	60	100
Public Health Research	5	15
Capital Expenditure	5	20
Human Resource Development	30	50
Refurbishment	30	30
Innovation & Technology Transfer	10	50
Increment (Total Baseline)	173 (337)	348 (512)

### 3) DECISION-MAKING FRAMEWORK OF THE MRC: **Autonomy**

#### **Recommendation in 1997**

The MRC and DOH should retain the current habit and customary practices which ensure a mutually beneficial relationship, and which allow considerable autonomy and independence to the MRC.

#### **Response in 1997**

The MRC has strengthened its relationship with the DOH. Regular meetings with the DOH are held at three levels:

- *strategic meetings* between the President and the Director-General;
- *operational meetings* between the MRC Executive Director for Research and the Chief Director for Research at the DOH; and DST
- *research meetings* between MRC researchers and their counterparts at the DOH and DST.

#### **Implementation: 1998 – 2005**

The 1997 SETI Review reiterated that the MRC is a Statutory Science Council functioning within the ambit of the South African Medical Research Council Act (No. 58 of 1991). In addition, the MRC functions under the aegis of the Public Finance Management Act (PFMA).

Health research is the core business of the MRC. This research must be validated and of high quality if it is to impact on the health of South Africans. The MRC has systems of peer review and audit that ensure such high standards are met. MRC research, development and technology transfer encompass all spheres of knowledge generation that impact on health and quality of life - from basic to applied research. Following international best practice the MRC functions in a dual mode of both funding and conducting research. All the broad disciplines of human health research are within the remit of the MRC; from laboratory to clinical to public health to policy and implementation; This work is usually done in an integrated, multidisciplinary fashion. Often, a participatory approach is used both in setting the research agenda; in performing and analysing the research, and in disseminating the research results.

The portfolio of MRC research must also address the health and development priorities of South Africa as defined by the National Health Research Committee (NHRC), set up under the National Health Act, to advise the Minister of Health on health research priorities for South Africa. The research priorities of the MRC are agreed upon annually in consultation with the Minister of Health.

Furthermore, the MRC vision of 'building a healthy nation through research can only be achieved if research results are translated into policy, practice, health promotion and products.

The principal stakeholder of the MRC is the National Department of Health (NDOH), not only because the NDOH provides the MRC baseline budget but also because the NDOH is the primary agent responsible for the health of the people of South Africa. Health is a human right in the Constitution of the Republic of South Africa. The responsibilities of the MRC, as they impact upon health and quality of life, are therefore profound.

The Department of Science & Technology has oversight of all research and development in South Africa and is therefore an important stakeholder and key enabler for the MRC to deliver on its mandate as set out in Act 58 of 1991.

The 17 member governing Board is appointed by the Minister of Health for a three-year term and is responsible for overall policy decisions.

The MRC Board is the highest Decision-making body of the MRC, and delegates its authority to the President of the MRC and his Executive Team to implement its strategy. The Board also monitors the work of the Executive according to principles of good corporate governance. The Board carries out its work through 6 standing committees:

- ExCo
- Finance
- Audit
- Risk Management
- Human Resources and Remuneration
- Research and Development

Meetings are held at 3 levels between senior managers of the MRC and DOH and DST

- Strategic meetings between the Chairperson of the Board, President of the MRC, and the Director-General of the Department of Health and Department of Science and Technology; including COHORT meetings
- Operational meetings between the Executive Director of Research and the Chief Director of the Departments of Health and Departments of Science & Technology
- Research meetings between MRC researchers and Department of Health and Department of Science and Technology counterparts.

## **Challenges**

To maintain the relationship with DOH in terms of addressing the health research priorities of South Africa, exploiting opportunities in health research, biotechnology and development, and conducting relevant and responsive health research to improve the health status and quality of life of the Nation. At the same time maintaining autonomy from DOH; and integration with DST and other SETI's in the National System of Innovation.

## **4) ENHR SYSTEM: THE ROLE OF THE MRC**

### **Recommendation in 1997**

Given its new mission, the MRC should become the lead agency to facilitate and manage an ENHR system in the country; and it should restructure its resources to increase alignment with ENHR priorities.

### **Response in 1997**

The MRC has restructured its research programmes and resources in line with Essential National Health Research (ENHR) philosophy, and has initiated a process of research priority setting for the future. Input from all the relevant stakeholders is being incorporated. ENHR is driven by appropriate priority setting and this is reflected in the Strategic Plan 1999 – 2002.

### **Implementation: 1998 – 2005**

The MRC research programmes priority settings and resources have been structured within the ENHR Policy reflected by the MRC Lead Research Programmes.

The ENHR Policy continues to be the major driving force in prioritising research. The MRC's Research Strategy 2006 to 2010 reflects the commitment to ENHR.

The MRC Programmes are based on ENHR, the principles guided by the burden of diseases.

### **Challenges for 2005 – 2010**

The MRC is committed to ENHR, but also strives to conduct cutting-edge Health and Medical Research. The ageing of the scientist population challenges the MRC, in adequate funding to address health research priorities, and the lack of black and women researchers at doctoral and postdoctoral level – a problem which the MRC seeks aggressively to address in its Strategic Plan 2005 - 2010.

To address the health priorities and take advantage of opportunities in biotechnology and development.

### **MRC Research Priorities**

The MRC's research prioritisation, research portfolio, and resource allocation is based on three major inputs:

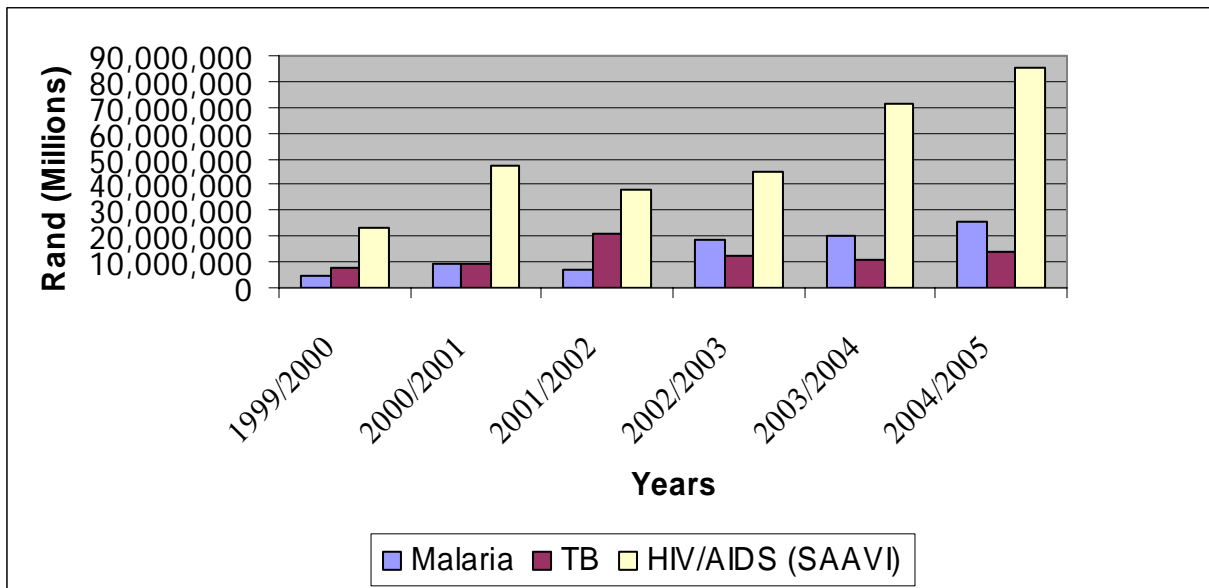
- the burden of disease and health profile of South Africa as outlined by the Combined Approach of the Ad Hoc Committee on Health Research for Development;
- strategic priorities in health and development in South Africa as identified by such initiatives as South Africa's Foresight Exercise, South African Government programmes and the NEPAD Secretariat; and,
- the need for the training and capacity building in health research.

The current MRC research priorities are reflected in the choice of MRC National Collaborative Research Programmes proposed under the MRC Research Strategy 2006 – 2010:

- HIV and AIDS (including SAAVI)
- Tuberculosis
- Malaria
- Cancer
- African Health Indigenous Knowledge Systems and Drug Discovery and Development Initiative
- Genomics, Proteomics and Computational Biology
- Nutrition
- Crime, Violence and Injury
- Women, Maternal and Child Health
- Cardiovascular and Metabolic diseases
- Mental Health and Functional Disorders
- Policy and Implementation

As reflected in the graph below, the MRC has prioritised HIV/AIDS, TB and Malaria over the years:

**Figure 3: Budget allocation for Malaria, TB, and HIV/AIDS**



## 5) CORE COMPETENCIES

### Recommendation in 1997

Given its new mission, and a clear role within the ENHR framework, the MRC should fulfil the following core functions: facilitation of national research; capacity development; research performance and technology transfer.

### Response in 1997

The MRC Board and Executive have accepted the new core competencies for the MRC and these are captured in the Strategic Plan of the MRC. The whole research portfolio was been reorganised into clusters (National Programmes) to optimize national research and its performance.

### Implementation: 1998 – 2005

The new core competencies as accepted by the MRC Board have been captured within the MRC Strategic Plan 2005 - 2010.

## **Challenges for 2005 - 2010**

The MRC as a knowledge-creating organisation has developed its core competencies since 1997 as reflected in the New MRC Strategic Plan 2006 to 2010. The Core Competencies of the MRC are:

1. Conducting research
2. Promoting research
3. Capacity building
4. Informatics and knowledge management
5. Collaborative research
6. Leveraging resources
7. Research translation
8. Stakeholder management
9. Research management
10. Innovation management
11. Human resource development
12. Corporate governance
13. Contracts and budget management

These core competencies will be continuously reviewed and exploited during the implementation of the Strategic Plan; and marketed nationally and internationally. The MRC will thereby improve the quality, relevance and responsiveness of its research; and, through research translation, use its research, development and technology transfer activities to improve the health and quality of life of the nation.

The work and business plan of the MRC will be implemented through 9 Strategic Objectives listed in the MRC Strategic Plan 2005 – 2010. These Strategic Objectives grouped into three categories:

### **Promotion and conduct of research**

*Promoting and conducting research is the core business, the primary strategic objective of the MRC as a knowledge-creating organisation. Without research, the vision of the MRC of 'building a healthy nation through research' cannot be achieved.*

### **Professional support for research**

*Research cannot take place, and staff cannot develop unless supported by corporate professional services.*

## **Research Translation**

*Research makes no difference to health and quality of life unless it is translated into interventions that impact upon health and quality of life. The MRC translates its research into policy, practice, promotion and products in order to improve the health and quality of life of the nation.*

## **Promotion and conduct of research**

1. Research Strategy and Business Plan

## **Professional support for research**

2. Financial Model Strategy & Plan
3. Opportunity and Risk Management
4. Capacity Development
5. Transformation and Development Plan

## **Research Translation**

6. Innovation Management and Technology Transfer
7. Informatics and Knowledge Management
8. Research Translation
9. Stakeholder Management

## **6) CAPACITY DEVELOPMENT**

### **Recommendation in 1997**

The MRC should dramatically expand its capacity development efforts using a comprehensive and integrated set of interventions.

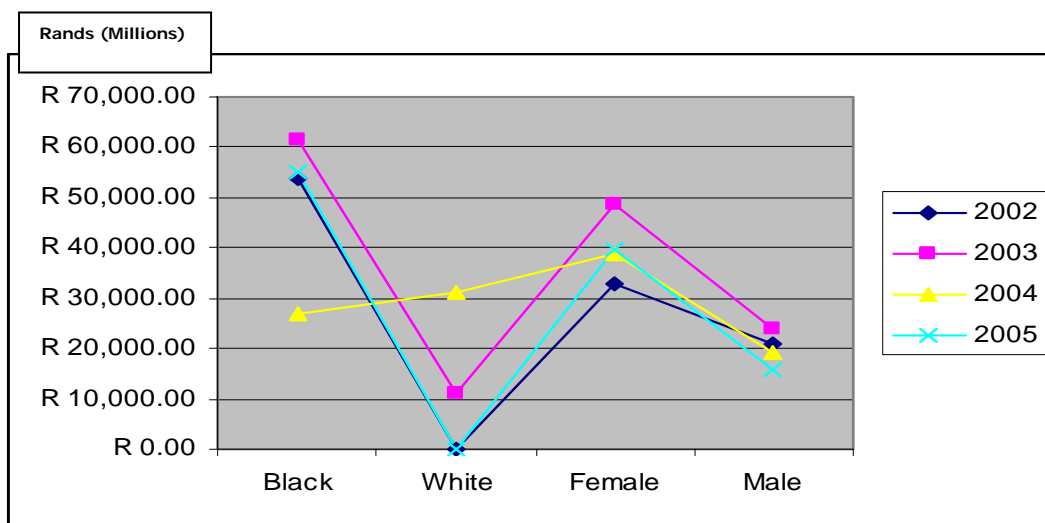
### **Response in 1997**

The MRC has dramatically expanded its capacity development initiatives on the one hand; and driven equity and redress on the other hand through its employment equity initiatives.

The MRC builds capacity at both individual and institutional levels within its intramural units and within the universities. Currently 15 different programmes build capacity at every stage in the value chain from high school students on MRC open days, to BSc. students on work study programmes, Masters and Doctoral scholarships, internships and postdoctoral scholarships, and finally career development awards for future unit directors.

## Implementation: 1998 – 2005

Figure 4: Development of Scientists 2002 to 2005



(Postgraduate cert/diploma studies; certificates; 1-2 yr diploma; short courses)

Table 2: Capacity Building: PhD Scholars in MRC Units 2005

Race	DST programmes	MRC Scholarships	Total MRC plus DST: 05/06	Total MRC, DST and PhD scholars in MRC Units
African	9	9	18	
Indian	1	5	6	
Coloured	3	8	11	
White	1	9	10	
M : F		12 : 19		
	14	31	45	145

### Challenges for 2005 - 2010

The challenge is to expand capacity development to a level that will develop a critical mass in researchers in South Africa to solve the country's health problems and grow the economy. Capacity development is a key strategic objective of the MRC. Programmes that are targeting black scientists and women have been implemented. These cover career awards, bursaries, fellowships, study support, work-study vacancies, skills development and other courses.

The MRC graduates 49 PhD students and 42 Masters students per annum from its 47 units. In 2005 the MRC Units had 18 postdoctoral students (5 of whom were African black) The MRC currently has 7 Career Awardees (6 are women) – the cadre of young scientists who are likely to become Unit Directors within 5 years. One of these has just become Professor and Head of the Department of Medicine at UCT, and another has just become a SAAVI PI. We would like to double the number of Career Awardees to 14, hopefully with the assistance of Welcome Trust; and double the number of post-docs to 36. Creating career positions within the universities however, has proved very difficult though we have a proposal for research professorships in HIV and AIDS with DST at present.

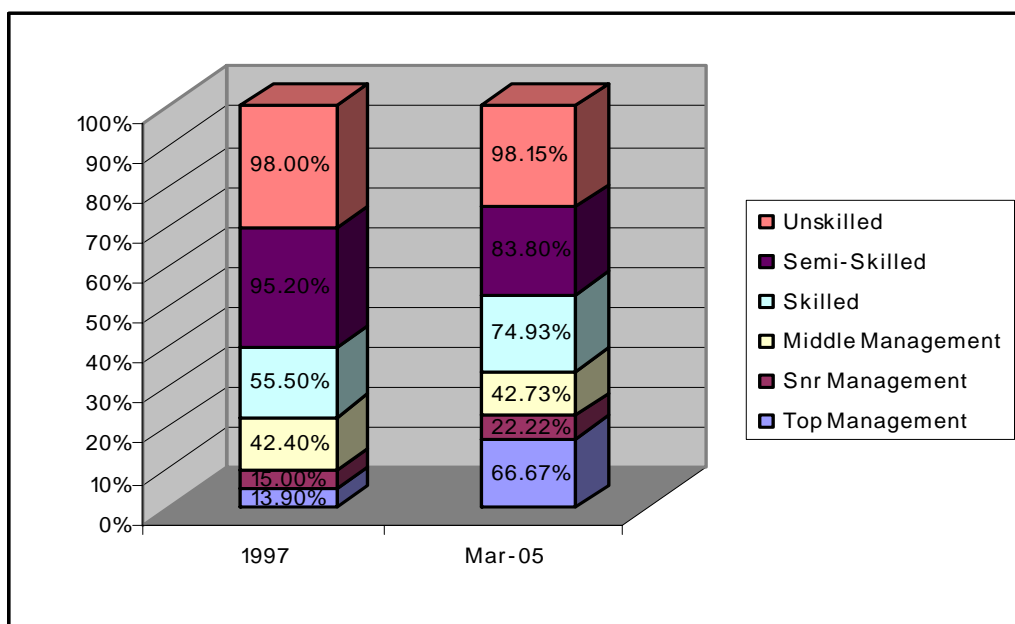
Sixty four percent (288) of MRC research staff have a degree – over half of these (151) 35% being masters or doctoral degrees. Of the 239 researchers 124 (52%) are black, and 156 (65%) are female. Of the 256 technologists and technicians 160 (89%) are black and 186 (73%) are female. Overall 555 (73%) of the 765 total staff in 2005 were black, and 516 (67%) were female.

### 6.1) EQUITY and REDRESS

#### Implementation: 1998 to 2005

The MRC has worked hard to recruit, retain and train black and women scientists who were formerly excluded from scientific endeavours. The MRC also seeks to develop its entire staff; and to ensure that its demographic profile increasingly reflects the face of South Africa. This transformation could be virtually complete by 2010. The MRC is currently 72% female and 67% black. Great progress has been made since 1997 as can be seen from the ethnic breakdown at each job level shown below:

Figure 5: Percentages of black staff at every level in 1997 and in 2005



**Unskilled:** hospitality and maintenance staff

**Semi-skilled:** administrative staff

**Skilled:** technicians, assistant technologists, junior scientists

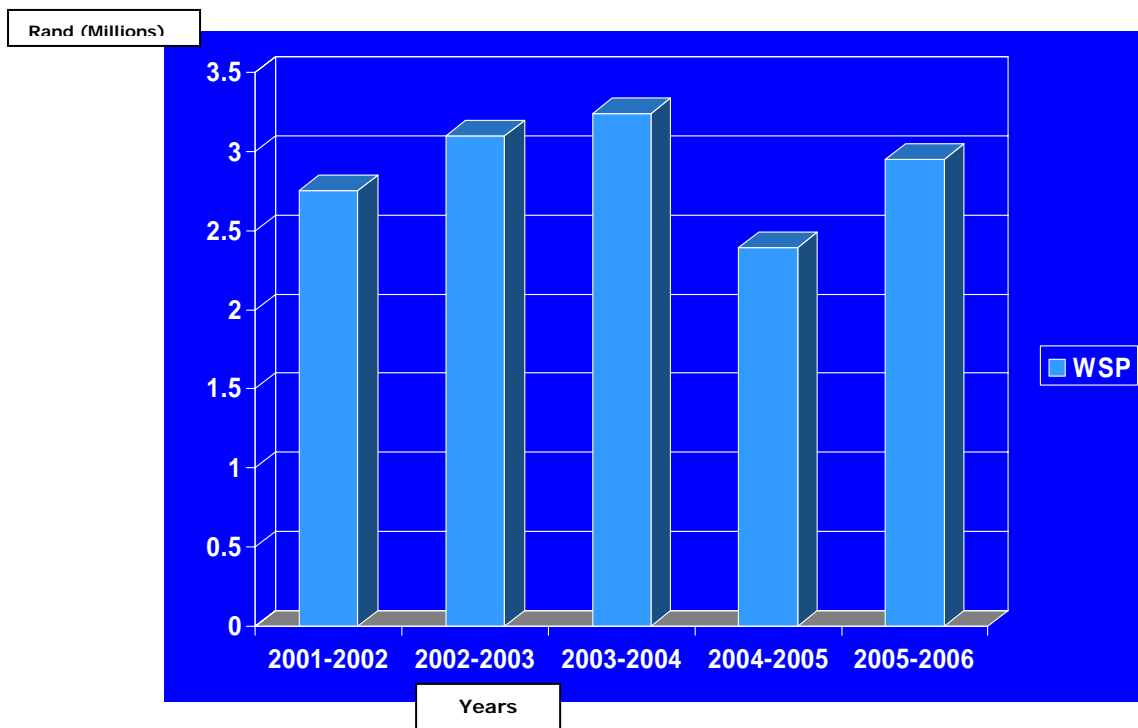
**Middle management:** senior scientists, specialist scientists, chief IT, etc.

**Senior management:** chief specialist scientist, senior specialist scientist, unit directors

**Top management:** executive management team

Staff, particularly black and women staff, are encouraged to train and get credentialed utilising funds from the Skills Development Levy:

**Figure 6: Work Skills Plan VS Payroll %: 2001 to 2005**



### Challenges for 2005 to 2010

The MRC has been implementing the Employment Equity Act and established an employment equity forum which is one of the driving forces for equity and redress. The outcome of these efforts is highlighted in the KPI Report attached.

## 7) FUNDING CONSIDERATIONS

### Recommendation in 1997

To achieve a more appropriate balance between intramural and university-based research, the MRC should shift funds from intramural to extramural programmes. Intramural programmes should be strengthened by eliminating less-effective programmes, and consolidating smaller 'thrusts' into larger programmes, in line with national priorities.

## Response in 1997

Inappropriate intramural research has been terminated.

In 1997 the baseline funding ratio of intramural: extramural (excluding salaries) was R8 million: 9 million; or 45:55 (see third table below).

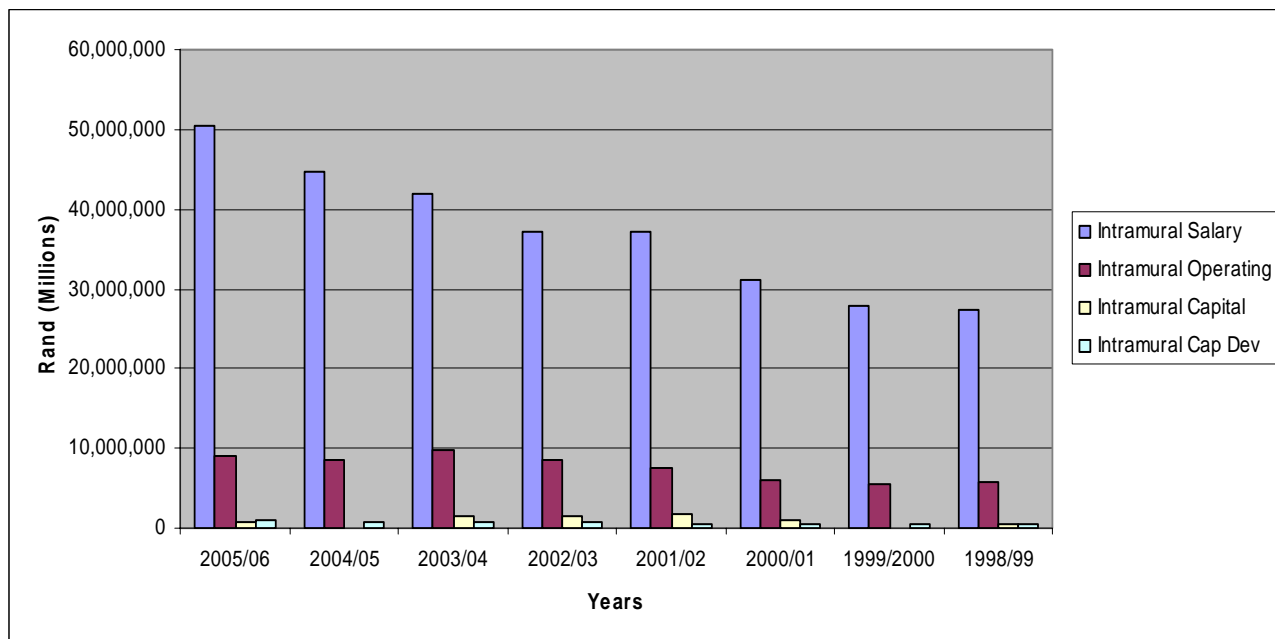
By 2001 this ratio had shifted to spend approximately R9 million on intramural research and R20 million on extramural research a ratio of 30:70.

By 2005 this ratio was R10.5 million intramural to R33 million extramural a ratio of 24:76. Extramural research is more successful in leveraging external funding and much of this is transferred into the extramural environment. The appointment of research directors is now an equitable process in both the intra- and extramural research environments.

## Implementation: 1998 – 2005

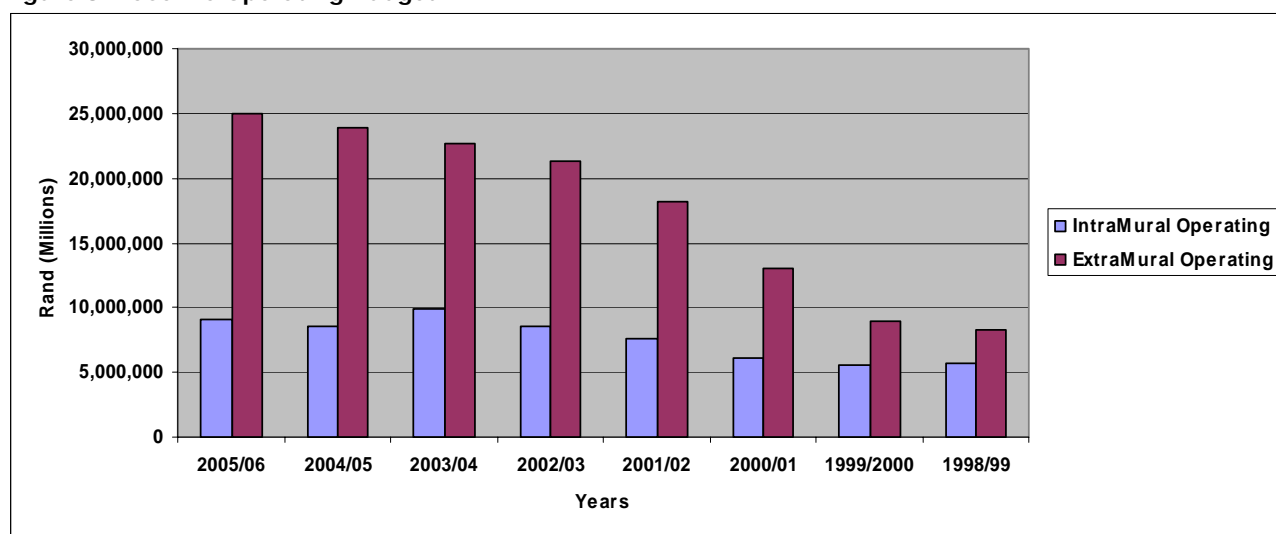
The MRC has shifted a larger proportion of its funding into the extramural domain during the period 1998 to 2005 as reflected by the graphs below:-

**Figure 7: Intramural baseline budget allocation**



## A comparative analysis: baseline operating budget intramural v extramural

Figure 8: Baseline Operating Budget



### Challenges for 2005 - 2010

The challenge for the MRC is to maintain its dual mode of research, according to international best practice, but in a transparent and equitable fashion. The shift in the ratio of operating plus capital expenditure between intramural and extramural units has shifted from 50: 50 in 2001 to 26 : 74 in 2005. This is in line with the ratio in sister science councils overseas such as the NIH (ratio 30: 80); British MRC (60: 40) and the Indian Council on Medical Research (17: 83).

### 8) MRC AS AN ORGANISATION:

#### Recommendation

##### a) MRC Board:

The MRC Board should include an individual with financial expertise. The Executive Management Committee (EMC) should be more representative in terms of race and gender.

##### b) Executive Management Committee Function at the MRC:

The MRC and DACST should transfer to the proposed Health Sciences Division of the National Research Foundation (NRF) those proposals which are likely to benefit from operation with a broad range of scientific disciplines, or are 'blue-blue skies' research. The MRC should categorise 'agency' functions as a component of the capacity development programme.

**c) Evaluation:**

The MRC should strengthen its project and programme evaluation system to be accessible to all, affordable, and transparent. The process should be applied equally to the intramural and extramural programmes. Several additional principles and practices, including monitoring, are proposed.

**Response in 1997**

a) The MRC Board membership includes a Chartered Accountant. The MRC Board consists of two-thirds black members and includes five women. The Executive Management Committee currently in 2006 has 75% black and 50% female membership.

b) The MRC accepted a priority-driven research portfolio and the management of bursaries and scholarships falls under the Research Development Directorate. The MRC has maintained a co-operative relationship with the National Research Foundation (NRF).

c) The entire research funding and evaluation process in the MRC has been overhauled. It is now applied equally in both the intra- and extramural research environments. A set of Key Performance Indicators has been finalized.

**Implementation: 1998 – 2004/05**

a) The MRC has always striven toward good governance in the management of the organisation. This is reflected by PFMA implementation, Labour Act implementation, Employment Equity Act implementation, Promotion of Access to Information Act and Policy implementation, policies for organisation operations, human rights-related policies, regularly organised EMC meetings as a structure of governance. Scorecard methodologies for performance measurement, regular reviews of research units and general staff performance. The KPI Report is an outcome of good management and governance and many other day-to-day policies on capacity development and organisational growth.

b) The MRC has been constantly moving toward improving its agency function since 1998 to date. This is reflected by the growth in the extra-mural units and projects which the MRC has supported over this period. The National Research Foundation (NRF) and the Department of Education (DoE) tend to fund basic science in universities while MRC tends to fund applied research in universities. Five MRC Unit Directors NRF A-rated scientists. Six directors hold prestigious NIH Request On Information (ROI's) research grants.

c) As suggested by the SETI Review 1997, the MRC has conducted a SETI Review in 2001 and continues to conduct reviews for research units every 5 years, with the same criteria, process,

and similar review panels being used for both intramural and extramural units. International review is solicited through written submissions and visiting scientists on the review panels.

The changes that are reflected in the Strategic Objectives of the MRC over years have been the outcome of constant evaluation of the organisation.

As a result of these interventions, productivity remains high in the 47 MRC Units with our 500 scientists producing 568 peer review publications per annum, the highest of any research institution in the country (UCT Faculty of Health Sciences produces 500 p.a., many of them from MRC Units). In addition 6 policy briefs per annum and up to 20 technical reports are produced, and the MRC has 20 patents current and pending with approximately 3 new patents filed per annum.

MRC scientists are often the leaders in their respective fields in the health sciences with 5 Unit Directors holding NRF 'A' ratings (Noakes, Vaughan, Brombacher, Opie and Pettifor). Six MRC Unit Directors hold prestigious NIH RO1 grants – more than any other health research institution with up to 12 NIH RO1s held by the MRC at any one time. The MRC therefore has been very successful in identifying scientific talent early on, and nurturing such scientists throughout their career to the point that they become internationally competitive.

The external contract income MRC scientists generate from prestigious institutions is phenomenal currently standing at R150 million per annum. Dr. Gita Ramjee has just won a 3 year US\$28 million grant for microbicide research using antiretroviral drugs in the gel. This will bring her annual income to R144 million per annum with 240 employees. MRC external income is usually international competitive grants from the NIH, Gates Foundation, Wellcome Trust, British MRC, DIFID etc. The MRC does not pursue R&D income from the pharmaceutical industry. This brings R130 million per annum (now R190 million) of foreign exchange into the country and has created over 300 skilled jobs.

### **Challenges for 2005 - 2010**

The challenge is to continue to refine and hone the 5 yearly review processes as well as the individual performance management of scientists and support staff. The challenge is also to avoid being 'donor-driven'; and also to manage the financial risk of having a large percentage of contract staff on the payroll.

## **9) PARTNERSHIPS: Stakeholders, End-Users & Consultation**

### **Recommendation in 1997**

The MRC and DOH should hold regular, structured and candid meetings between appropriate individuals and groups, in order to design and use the products of research to solve problems identified by the DOH.

## Response in 1997

As discussed above, the MRC has strengthened its relationship with DoH. A major expansion in the globalisation of the MRC has resulted in the development of pivotal new partnerships with organisations such as the DHHS, the International AIDS Vaccine Initiative (IAVI) and the Global Alliance for TB Drug Development, as well as locally with the Northern Cape Province, KwazuluNatal Province and Western Cape.

## Implementation: 1998 – 2004/05

The MRC has strengthened relationships between itself and the Department of Health, the result of which is the establishment of a Stakeholder Relations and Research Translation Unit. The manager of this office has been employed. The MRC has established good research partnerships as reflected on the graph below:-

**Table 3: Collaborative Research Projects**

### Examples of international collaborative research projects managed by the MRC in some of the priority research areas

International Collaborator or funding Institution	HIV prevention research unit	TB	Malaria	Chronic Diseases of Lifestyle	Alcohol & Drug Abuse	Health Promotion Research and Behavioural Science	Tele - Medicine	Anxiety and Stress Disorders	Gender and Health	Burden of Disease
NIH	X		X		X	X		X	X	
Population Council (US)	X					X				
Bristol-Myers Squibb	X									
Glaxo Smith Kline		X								
WHO	X		X	X	X	X			X	X
European Union		X			X					
Rockefeller Foundation		X							X	

Wellcome Trust	X			X						X
PEPFAR	X	X								
IPPM	X									
Clapp & Mayne (US AID)			X			X				
IDRC (Canada)				X		X				
British MRC (DFID)	X									
Gates Foundation	X		X							
Norwegian Centre for Telemedicine,							X			
Yunnan Sunpa image							X			
International Medical Exchange							X			
Mozal Community Trust			X							

### South African AIDS Vaccine Initiative

The MRC hosts the South African AIDS Vaccine Initiative (SAAVI); which has conducted 3 Phase I HIV vaccine clinical trials and is about to initiate a Phase I trial with a South Africa designed multigene candidate. Over 220 people work in 15 SAAVI Units in this R50 million per annum biotechnology programme funded by Eskom, DST and DOH. SAAVI is acknowledged to be one of the finest biotechnology programmes in the developing world and in the 6 years of its existence has filed 5 patents. New SAAVI units have been created in Medunsa, Nelson Mandela Medical School, and soon University of Johannesburg and possibly Walter Sisulu University. Two of the new PIs are black African women, and overall 5 of the PIs will probably be black and 60% female.

In developing a strategy in e-Health the MRC has existing partnerships with WHO, DST, NDO, Provincial Government and a number of Universities in South Africa and we have also built a platform for further research development in this area.

### **Challenges for 2005 - 2010**

There is need to double the MRC Baseline Budget in order to respond to the Growing demand of the National Research needs.

SAAVI is energetically exploring the possibility of manufacturing HIV vaccines in South Africa in the near future.

## **10) INTELLECTUAL PROPERTY / TECHNOLOGY TRANSFER**

### **Recommendation in 1997**

In order to increase the exploitation of inventions and technologies, the MRC should strengthen this office. The process of technology transfer must be transparent to all participants.

### **Response in 1997**

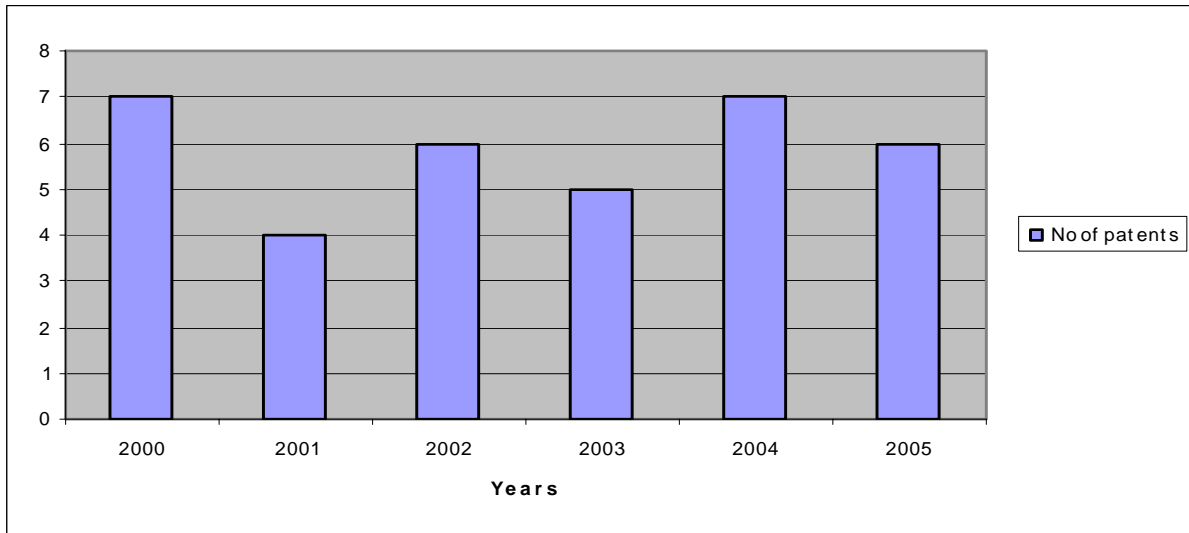
The MRC has strengthened the IP and Technology Transfer Office by the appointment of an IP lawyer with a scientific background. Eleven new patents have been filed. Various processes of commercialisation are under way. The MRC has entered into agreements with those universities where research units are located.

### **Implementation: 1998 – 2005**

In the last two years the MRC has not only established a Centre for Strategic Management of Intellectual Property, it has also finalised an Intellectual Property Policy for the organisation, have grown our Patent Portfolio by 40% per annum.

The MRC Innovation Centre has developed an Intellectual Property Policy for the purposes of reinforcing and expanding on the MRC Act No 58 of 1991, with respect to intellectual property (IP). It aims to ensure that discoveries arising from MRC research are captured and translated into usable technologies for the benefit of the MRC, MRC stakeholders and society in general, and to ensure that the relevant stakeholders are appropriately rewarded.

Figure 9: Number of Patents over the Years



### Challenges for 2005 – 2010

Securing adequate funding is a challenge for Technology Transfer.

### 10) CENTRALISED FACILITIES / Resources established for the MRC

#### Recommendation

The MRC should advertise its specialised research-support services and facilities more widely and assist distant research units to use these facilities in support of their programmes

#### Response in 1997

MRC research support services are publicised via the MRC and SA Health/Info websites. An example of a service used by the broader scientific community is the primate facility at Delft. It is available to all the South African AIDS Vaccine Initiative (SAVI) projects, which involve several universities in the country. The Cochrane Centre hosted an international conference in October 2000, and also arranged access to the Cochrane Library (free to South Africans).

#### Implementation: 1998 – 2005

The MRC has established three knowledge centres in the University of Venda and Walter Sisulu University and a primary school in Khayalitsha. Also NGO's in Nigeria and Uganda have been supported by MRC by packaging HIV and AIDS Information. MRC has supported KZN and Walter Sisulu Universities in developing health informatics courses.

The Radio Production Studio at the MRC is a unique service which MRC is offering to community radio stations country-wide. MRC develops science-related programs which are broadcast by these community radio stations.

## MRC PRODUCTION STUDIO

### About us,

The Medical Research Council's Production Studio is an Information Communication Technology (ICT) tool, used to engage with the MRC's audiences on issues of health science and research - building a knowledge-based society.

This is one of the ways which MRC is communicating science to communities and is engaging communities to discuss health science matters. Information on the radio production studio is available on the Internet

<http://radio.mrc.ac.za>

The MRC has established a toll-free number: 080 8629474, to enable communities to ask research-related questions.

Table 4: MRC Production Studio broadcast report – 01/02/06

Radio station	Broadcast frequency and contact details	Broadcast footprint	RAMS (2005)	MRC Productions broadcasted
<b>Radio 786 / Voice of the Cape</b>	100.4fm +27 (021) 699 0929	Radio 786 broadcasts on 1004 MHz FM Stereo from studio in Rylands Estate in Cape Town covering areas such as the Greater Cape Town, Goodwood, Stellenbosch, Somerset West, Simons Town and Durbanville	147 000 quarterly hour listeners	HIV and AIDS 01005
<b>Radio Atlantis</b>	107.9fm +27 (021) 572 4320	Radio Atlantis broadcasts on 107.9 MHz FM Stereo from studios in Atlantis covering areas such as Abbotsdale, Mamre, Philadelphia, Malmesbury and the outskirts of Darling	32 000 quarterly hour listeners	HIV and AIDS 01005
<b>Bush Radio</b>	89.5fm +27 (021) 448 5450	Bush Radio broadcasts on 89.5MHz FM Stereo frequency in the Western Cape. The programming reflects the culture of the Black Coloured community in Mitchell's Plain and the Cape Flats	168 000 quarterly hour listeners	HIV and AIDS 01005

Radio station	Broadcast frequency and contact details	Broadcast footprint	RAMS (2005)	MRC Productions broadcasted
<b>Radio KC</b>	107.7fm +27 (021) 871 1438	Radio KC broadcasts on 107.7 MHz FM Stereo from studios in Paarl covering areas such as Paarl, Drakenstein, Worcester, Wellington and parts of the Greater Cape Town area	87 000 quarterly hour listeners	HIV and AIDS 01005
<b>Radio Sunny South</b>	97.0fm +27 (039) 682 1589	Radio Sunny South broadcasts to the Greater Eastern Cape region including Kokstad, Lusikisiki, Flagstad, Izana, Ixopo, and some parts of Peter Maritsberg like Imbali, Imlazi and places surrounding Durban	112 000 quarterly hour listeners	HIV and AIDS 01005
<b>Radio Namakwaland</b>	93.4fm +27 (027) 213 4208	Radio Namakwaland broadcasts on 93.4 MHz FM Stereo from studios situated in Vredendal, covering areas such as Nuwerus, Bitterfontein, Vanrhynsdorp, Nieuwoudtville, Klawer, Citrusdal, Graafwater, Elands Bay Strandfontein, Lutzville, Lamberts Bay and Clanwilliam. The signal is also received in parts of Vredendal and Saldanha.	51 000 quarterly hour listeners	HIV and AIDS 01005
<b>Univen Community Radio</b>	99.8fm +27 (015) 962 8336	Univen Community Radio broadcasts from the campus of the University of Venda on 99.8 MHz FM Stereo covering a 50km radius from Thohoyandou in the Northern Transvaal reaching towns like Louis Trichardt, Giyani and Soekmekaar	165 000 quarterly hour listeners	HIV and AIDS 01005

Radio station	Broadcast frequency and contact details	Broadcast footprint	RAMS (2005)	MRC Productions broadcasted
<b>Radio Islam</b>	1548mw +27 (011) 854 7022	East Rand – Benoni, Germiston, Brakpan; West Rand – Randfontein, Westonaria, Krugersdorp, Carletonville, Azaadville; North – Marlboro, Wynburg, Erasmia; South – Sebokeng, Vereeniging, Evaton, Roshnee, Vanderbijlpark; Greater Johannesburg – Lenasia, Eldoradopark, Soweto, Ennerdale, Mayfair, Newclare, Bosmont, Crosby, Bertrams, Ophirton, Turfontein	46 000 quarterly hour listeners	HIV and AIDS 01005
<b>Valley FM</b>	88.8fm	Valley FM broadcasts on 88.8 MHz FM Stereo, covering areas such as Worcester, De Doorns, Rawsonville, Wolseley and the 900 farms in the Breede River Valley.	46 000 quarterly hour listeners	HIV and AIDS 01005
<b>Unitra Community Radio - 97.0 MHz FM</b>	97.0fm	Live talk show – on Cancer in the Eastern Cape	234 000 hourly listeners	Cancer

The MRC runs training courses in biostatistics and also supports students from universities who require statistical assistance and runs health informatics courses for various universities nation-wide. The MRC plans to run these services for the SADC countries pending funding availability. The AfroAIDS *Info*<sup>TM</sup> AIDS portal ([www.afroaidsinfo.org](http://www.afroaidsinfo.org)) and SA Health *Info*<sup>TM</sup> ([www.sahealthinfo.org](http://www.sahealthinfo.org)) and other electronic related networks are engaged in promoting scientist-to-scientist communications.



The Cochrane Centre is providing evidence-based information for scientists, government, and policy makers.

The MRC has partnered with the Meraka Institute and Intel in planning the formation of a High Performance Computing Centre using networked computers.

The MRC/UWC Bioinformatics Capacity Building Unit runs a supercomputer that provides bioinformatics services for genomics researchers, HIV vaccine scientists etc.

The MRC will partner with the R18 million proteomics and genomics initiative being set up at UCT and UWC.

The MRC is exploring the possibility of forming collaborations between structural biologists at UCT, UWC and the CSIR in the rational design of epitope specific HIV vaccine candidates for SAAVI.

The MRC has other facilities such as for velvet monkeys and small animals, Delft has baboons, macaques and horse blood that are used by scientists from all over the country.

The MRC is investing R2.4 million in the animal facility at the Institute of Infectious Disease and Molecular Medicine at UCT which will among other animals harbour 'knockout gene' mice.

The MRC is supporting an initiative by three of its Units to establish a Brain-Behaviour Initiative being launched in the Western Cape that will use state of the art neuro-imaging techniques to link neurophysiology with behavioural science.

### **Challenges for 2005 - 2010**

Funding is a challenge for expansion of these technology platforms and facilities.

## **12) COMPREHENSIVE NATIONAL HEALTH RESEARCH POLICY**

### **Recommendation in 1997**

The MRC and DOH should accelerate the development of a comprehensive national health research policy for South Africa. Special attention should be paid to issues such as ethics in research, surveillance and monitoring health indicators, the balance of research funding between internal and external sources, and the rational allocation of the Science Vote between competing SETI's.

### **Response in 1997**

The leadership for developing a national health research policy has been transferred to the DOH. The DOH has appointed the ENHR Committee, which made the development of a national health research policy a priority. A draft document is being discussed. Dr Makgoba, Prof. Jacobs and Dr Mbewu represent the MRC on the ENHR Committee.

### **Implementation: 1998 – 2005**

The MRC played an important role in the development of the National Health Research policy. Prof MBewu and Mrs Sarah Bok were seconded to as well as the development of the anti-retroviral programme for the National DoH. Prof. Mbewu chaired the task team in the development of a comprehensive HIV/AIDS Research

and Implementation Plan of the Anti-retroviral (ART) programme for the country. This program has managed to treat 117 000 patients with ART's. The total number of patients on ART programmes in South Africa is 207 000, this makes the ART programme the largest in the world, and the largest public health initiative in the history of South Africa at R12 billion over 6 years.

The R20 million research component of the Comprehensive Plan is administered by the MRC and the President of the MRC is Co-Chair of the Reference Committee of the research programme.

MRC, UCT and Free State Department of Health are engaged in a study on the development and implementation of a surveillance system to monitor anti-retroviral implementation in the Free State.

### **Challenges for 2005 - 2010**

The challenge is implementation of the National Health Research Policy through the regulations of the National Health Act and the formation of the National Health Research Committee (NHRC).

All the various stakeholders in health research in South Africa will interact with the NHRC, particularly with regarding to setting health research priorities.

Government will need to decide whether it wishes to grow funding of health research beyond 2% (R900 million) of the total health budget, and how much of this sum it wishes to channel through the MRC and how much through NRF, CSIR, HSRC, Department of Education etc. Currently the MRC spends 18% of the government funds for health research – the fourth largest tranche of the parastatal institutions.

This compares with the British MRC that accounts for 40% of government health-research expenditure and the National Institute of Health (NIH) which accounts for the majority of US government health-research expenditure.

## **13) ETHICS**

### **Recommendation in 1997**

The MRC should strengthen its role in ensuring a high level of ethical standards in health research by: contributing to policy development (as above), disseminating its publications, helping institutions to create and strengthen institutional review boards, and providing training opportunities.

### **Response in 1997**

The MRC Ethics Committee continues to be the key health research ethics committee in South Africa. The committee is currently revising its guidelines and is updating these to ensure alignment with global standards.

### **Implementation: 1998 – 2005**

The MRC has an Ethics Committee comprised of members from different disciplines.

MRC Ethics guidelines have been revised to cover the following areas:-

- ✚ Book One gives general principles;
- ✚ Book Two gives guidelines on ethics in reproductive biology & genetic research;
- ✚ Book Three gives guidelines on the ethics in the use of animals in research;
- ✚ Book Four contains guidelines on the ethics in the use of biohazards and radiation;
- ✚ Book Five gives guidelines on ethics in HIV/AIDS vaccine trials. All these guidelines are available on the Internet at address: <http://www.sahealthinfo.org/ethics/>;

### **Challenges**

Interactions with the National Health Research Ethics Committee will need to be strengthened.

Various health research ethics challenges will need to be addressed such as enrolment of adolescents in HIV vaccine and vaginal microbicide clinical trials; as well as the use of stem cells and embryos for research.

## **14) HEALTH INFORMATION SYSTEM**

### **Recommendation in 1997**

The MRC should initiate dialogue concerning an optimal national health information system for the country, involving all relevant stakeholders. This should be done in collaboration with DoH.

### **Response in 1997**

This has been an important growth area for the MRC in the past three years. The development of the health knowledge network constitutes a useful national resource. Many developments are of direct value to the health care sector.

### **Implementation: 1998 – 2005**

The MRC is represented in the committee for the National Health Information System for South Africa, (NHIS/SA). MRC continues to support the Department of Health in the development of Health Information Systems at both National and Provincial levels.

MRC staff has been appointed regularly by the Director-General of the Department of Health to assist in the evaluation of Tenders for Information Systems. The directorate of Health Information Systems of the National Department of Health is collaborating with MRC in projects such as Telemedicine and e-Health.

AfroAIDSinfo™ and SA Health/Info™ continue to form important information resource systems for the country. The e-School/Info™ developed by the MRC, is being piloted in collaboration with the Department of Education in the Western Cape for possible integration in the Life Orientation for outcomes-based Health Promotion of the Revised National Curriculum. AfroAIDSinfo is a partner of the NEPAD e-Schools Initiative that is currently piloted in seven countries with an intended rollout across the African Continent.



The MRC has achieved HON-code status for SA Health/Info and AfroAIDSinfo. The Health On the Net Foundation (HON) in Geneva was created with the aim to guide the growing community of healthcare consumers and providers on the World Wide Web to sound, reliable medical information and expertise on the internet. It developed the **HONcode®** against which websites are reviewed and if in compliance, receive the HON seal that serves as a guide of reliable information to health consumers on the internet.

### **Challenges for 2005 - 2010**

The challenge is the expansion of the Information System due to funding constraints. Another challenge would be to use this internationally accredited stature and evaluate all health related websites.

## **15) REGULAR REVIEW OF THE MRC**

### **Recommendation in 1997**

The SETI Review Panel recommended that the MRC be reviewed regularly; specifically at three-year intervals on the first two occasions, and five-yearly thereafter.

### **Response in 1997**

The first of these regular reviews was undertaken from 23 – 27 April 2001. This review was approximately three years after the initial review which took place from 19 – 28 November 1997.

### **Implementation: 1998 – 2005**

The MRC conducted a SETI Review in 2001, three years after the 1997 SETI Review as suggested. The MRC is currently working on a plan to conduct another SETI Review in 2006/7.

<http://www.mrc.ac.za/about/seticontents.htm>

**Ongoing** – See SETI Review 2001 Report.

### **Challenges for 2005 - 2010**

The challenge is to conduct the SETI Review for MRC in 2006/7.

## 16) GOVERNANCE:

### Recommendation

The MRC Board 2004 – 2007 is comprised of the following Members:-

Prof MF Ramashala (Chairperson)

Mr MP Canca (Vice-Chairperson)

Prof Ahmed A Azad

Dr JF Hartzell

Prof LJ King

Ms JN Makhanya

Dr Lindiwe E Makubalo

Ms MK Matsau

Prof DL Mkize

Prof MS Mokgokong

Prof JM Pettifor







Colonel DC Qolohle

Prof H Schneider

Prof Kuku Voyi

Dr Corina Walsh





The Board plays an important governance role for the institution, through its 6 committees:

-  The Research and Development
-  Finance
-  Audit
-  Risk
-  EXCO
-  Human Resources and Remuneration

The following is an example of the Terms of Reference for the Finance committee:

### TERMS OF REFERENCE: FINANCE COMMITTEE

#### The Committee is responsible for:

-  Ensuring that the fiscal allocation is in line with the mandate and the strategic objectives of MRC,
-  Ensuring that such budget allocations are sustainable in the medium term,
-  Ensuring that financial control and monitoring takes place so that expenditure is in line with the budget that is approved by the Board, and
-  To ensure that finances are managed in line with the requirements of the statutes such as the PFMA, etc.

## Organisation and Constitution

### The Committee will be constituted as follows:

- ✚ Four non-executive members
- ✚ Two executive members:
  - **President**
  - **Executive Director: Finance & Operations**

The Committee will have the right to co-opt any other external non-executive experts, if necessary. Each member should be capable of making a valuable contribution to the Committee. The Board will nominate the chairperson of the Committee. Members will be appointed for a three-year term of office. A quorum for any meeting will be four members with the proviso that at least 50% of the members present be non-executive members.

The Board could appoint alternate members from the Board for substitution should one or more of the standing non-executive members be unavailable to attend a meeting.

Meetings shall be held not less than three times a year. Special meetings may be convened as required. Internal audit or the external auditors may convene a meeting if they consider that it is necessary.

- The proceedings of all meetings will be minuted.
- Compliance with Laws & Regulations
- Review the effectiveness of the system for monitoring compliance with laws and regulations and the results of management's investigation and follow-up (including disciplinary action) of any fraudulent acts or non-compliance.
- Be satisfied that all regulatory compliance matters have been considered in the preparation of the financial statements.
- Review the findings and reports of any examinations by management, legal counsel or regulatory agencies regarding compliance matters.
- Reporting Responsibilities
- The minutes of Committee meetings will be presented to the Board.
- Regularly update the board about committee activities and make appropriate recommendations
- Ensure the board is aware of matters which may significantly impact the financial condition or affairs of the business.
- The Committee has taken due cognisance of the reporting requirements as laid down in Sections 27.1.8 to 27.1.10 of the Treasury Regulations.
- The Audit committee is chaired by a Chartered accountant who is invited to attend Board Meetings and waiting to be appointed to the Board by the Minister of Health. The Exco of the Board meets in between Board meetings to address urgent matters that cannot wait for the scheduled Board meeting.