



“Research for Health”



2018

National Health Research Summit Report



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2018 National Health Research Summit Report

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Research for Health

Proceedings and recommendations of the 2018 National Health Research Summit that took place on 13 and 14 September 2018 at the Garden Court OR Tambo, Kempton Park, Johannesburg, Gauteng, South Africa.

Compiled by the National Health Research Committee (NHRC), comprising: Edith Madela-Mntla (Chairperson); Mahmood Ally (Deputy Chairperson); Anthony Hawkrige; Jonathan Blackburn; Glaudina Loots; Catherine Makwakwa; Jeanetta du Plessis; Richard Gordon; Sphiwe Madiba; Babaty Malope-Kgokong; Mushi Matjila; Brenda Morrow; Moses Mbewe; Gita Ramjee and Gail Andrews. The NHRC was supported by the secretariat, comprising: Thulile Zondi; Tshilidzi Muthivhi; Mpho Kgasi and Lesibana Malinga.

Preamble

As part of its vision of achieving *A long and healthy life for all South Africans*, the national Department of Health recognises the essential role of health research in its mission to “improve health status through the prevention of illnesses and the promotion of healthy lifestyles and to consistently improve the healthcare delivery system by focusing on access, equity, efficiency, quality and sustainability”.

The strategic focus of the department for the five-year term from 2015/16 to 2019/20¹² is aligned the nine long-term health goals for South Africa that are set out by the National Development Plan 2030 (NDP) that sets out the vision for the South African health system.¹³ Five of these relate to improving the health and well-being of the population, and the other four deal with aspects of health systems strengthening. It reads in part:

By 2030, South Africa should have:

- raised the life expectancy of South Africans to at least 70 years
- progressively improved TB prevention and cure
- reduced maternal, infant and child mortality
- significantly reduced the prevalence of non-communicable diseases
- reduced injury, accidents and violence by 50 per cent from 2010 levels
- completed health system reforms
- primary healthcare teams providing care to families and communities
- universal healthcare coverage
- Filled posts with skilled, committed and competent individuals

The NDP 2030 stresses the establishment of a health system based on, amongst others, principles of equity, efficiency, sound governance, internationally recognised standards of research and a spirit of enquiry and advocacy, all of which encourage participation. It also acknowledges the link between diseases and social determinants such as poverty, unemployment, violence, substance abuse and other adversities that increase vulnerability.

The NDP’s nine priorities that highlight the key interventions required to achieve a more effective health system are to:

1. address the social determinants that affect health and diseases
2. strengthen the health system
3. improve health information systems
4. prevent and reduce the disease burden and promote health
5. finance universal healthcare coverage
6. improve human resources in the health sector
7. review management positions and appointments and strengthen accountability mechanisms
8. improve quality by using evidence
9. meaningful public-private partnerships

All these priorities have imperatives for research for health in one way or another.

The department’s 2014-2019 Medium Term Strategic Framework (MTSF) identified key challenges largely besetting the South African health sector as including:

- a complex, quadruple burden of diseases
- serious concerns about the quality of public healthcare
- an ineffective and inefficient health system
- spiralling private healthcare costs

The strategy acknowledges the work of both the NHRC and the National Health Research Ethics Council (NHREC) as organs of State for the advancement and strengthening of health research systems, as well as the recommendations of the 2011 National Health Research Summit. Among the strategic objectives are two that pertain to the work of the NHRC, namely to:

- ensure research contribute to the improvement of health outcomes through the development and implementation of a National Health Research Strategy
- establish an integrated monitoring and evaluation system to generate evidence for planning and performance management

The National Health Research Summit (Summit 2018) was held to consult with stakeholders on research for health to address the social determinants of health. Two hundred and forty-three delegates were invited, of whom 154 attended. The delegates came from a diverse number of stakeholders, including government departments, whose core business was not health yet they are involved in research that promotes health – in line with the theme of *Research for Health*. Apart from government entities, other delegates came from the private sector, academia, science councils and civil society (see Table 1 for the types of organisations represented at the Summit).

The Summit had five commissions for discussion and providing recommendations, namely: Health Financing, Priority Setting, Human Resource, Policy and Strategy and Monitoring and Evaluation. The Summit resulted in six recommendations: (1) prioritisation of the social determinants of health, including the burden of disease, for funding (2) building capacity of health human resources, along a pipeline, and in line with national transformation imperatives (3) improving health research funding flows and quantification (4) creating a national system of health research with a national-provincial alignment of mandates, including funding (5) creating an evidence-based system of health research information management through collation, monitoring, evaluation and translation of health research (6) improved provision of and access to health research infrastructure, especially in academic health complexes.

All six recommendations are to a great extent similar to those of the 2011 Summit, which have never been implemented in full due to different challenges. It is our hope that the last two recommendations from the 2011 Summit, namely, planning and translation, as well as monitoring and evaluation, which were said to be for further development through revision of the *Health Research Policy* of 2001, will now get full implementation following revision of the policy.

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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ASSAf	Academy of Science of South Africa
BOD	Burden of Disease
BRICS	Brazil, Russia, India, China, South Africa
CHE	Council for Higher Education
COHRED	Council on Health Research for Development
CSIR	Council for Scientific and Industrial Research
DALY	Disability-Adjusted Life Years
DDG	Deputy Director-General
DG	Director-General
DHET	Department of Higher Education and Training
DHIS	District Health Information System
DSD	Department of Social Development
DST	Department of Science and Technology
EU	European Union
EVIPNet	Evidence-informed Policy Network
G8	Group of Eight (France, Germany, Italy, the United Kingdom, Japan, the United States, Canada and Russia)
GDP	Gross Domestic Product
GERD	Gross Expenditure on Research and Development
HDACC	Health Data and Advisory Coordination Committee
HDI	Historically Disadvantaged Institution
HEI	Higher Education Institution
HIV	Human Immunodeficiency Virus
HPCSA	Health Professions Council of South Africa
HR	Human Resource
HRH	Human Resource for Health
HSRC	Human Sciences Research Council
HST	Health Systems Trust
ICSP	Internship and Community Service Programme
IMR	Infant mortality rate
MCC	Medicines Control Council
MDG	Millennium Development Goal
MEC	Member of Executive Council
MMC	Member of the Mayoral Committee
MOU	Memorandum of Understanding
MTEF	Medium Term Expenditure Framework
MTSF	Medium Term Strategic Framework
NCDs	Non-Communicable Diseases
NDP	National Development Plan
nGAP	New Generation of Academics Programme
NGO	Non-governmental organisation
NHC	National Health Council
NHI	National Health Insurance
NHRC	National Health Research Council
NHRD	National Health Research Database
NHREC	National Health Research Ethics Council
NHRO	National Health Research Observatory
NHSP	National Health Scholars' Programme
NRF	National Research Foundation
NSDA	Negotiated Service Delivery Agreement
NTHSP	National Treasury Health Service Plan
PHC	Primary Healthcare
PHEF	Public Health Enhancement Fund
PPP	Public-Private Partnership
QALY	Quality-Adjusted Life Years
RCA	Research Career Award
RIMS	Research and Information Management System
ROI	Return on Investment
SACRA	South African Clinical Research Association
SAHPRA	South African Health Products Regulatory Authority
SAMRC	South African Medical Research Council

SANCTR	South African National Clinical Trials Register
SDGs	Sustainable Development Goals
STATS SA	Statistics South Africa
STIs	Sexually Transmitted Infections
SWOT	Strengths, Weaknesses, Opportunities and Threats
TB	Tuberculosis
U5MR	Under-Five Mortality Rate
UHC	Universal Health Coverage
UNICEF	United Nations International Children's Emergency Fund
USA	United States of America
WHA	World Health Assembly
WHO	World Health Organization
YLL	Years of Life Lost

Executive summary

Rationale

The National Health Research Summit is one of the key strategies to consult with stakeholders in the NHRC's endeavour to carry out its mandate of setting priorities for health research and advise the Minister of Health on the strategic direction to be followed by the Department of Health. The 2018 Summit focused on the agenda for Research for Health, which takes into account all social determinants of health in setting health research priorities. The summit was the second one since the National Health Act (NHA), 2003 (Act 61 of 2003) legislated the establishment of the NHRC. The Summit was held with the main goal of determining what needs to be done to broaden health research to cover the social determinants of health instead of focusing only on the burden of disease – “research for health” as opposed to “health research” in line with the guidance of the World Health Organization (WHO). Not only was the Summit in keeping with the legislative mandate of the NHRC to set priorities for health research, and to consider the strategic priorities of the department, but also to align itself with the priorities of the Government of South Africa (those geared at improving the health status of the nation) as stipulated in the NDP.

The NDP commitments are encapsulated in the Medium-Term Strategic Framework (MTSF) 2014-2019, which are aligned with the National department of Health Strategic Plan. The MTSF outcomes are: universal health coverage (UHC) progressively achieved through the National Health Insurance (NHI) fund; improved quality of health care; implementation of the re-engineer primary healthcare; reduced health care costs; improved human resources for health; improved health management and leadership; improved health facility planning and infrastructure delivery; HIV and AIDS and TB prevented and managed successfully; maternal, infant and child mortality reduced; and efficient health-management information system developed and implemented for improved decision making.

Objectives

The objectives of the Summit were to determine the:

- state of affairs in research for health in the country;
- status of funding flows in research for health;
- priorities for research for health in South Africa, and what informs them;
- issues that need to be addressed around policy and strategy for research for health;
- landscape on the infrastructure (including human resources) for research for health;
- monitoring and evaluation activities needed to ensure a research for health system that addresses the needs.

Summit findings

The findings of the Summit were extracted from a number of processes, including:

- situational analyses conducted by the sub-committees of the NHRC on each area of challenge identified in the 2011 Summit and developments to date
- keynote addresses by experts in relevant fields and policy makers
- stakeholder analysis of the identified strengths, weaknesses, opportunities, and threats (SWOT) of health research in South Africa based on recent information available
- contributions by all participants in the Summit breakaway commissions where key challenges of health research were discussed and recommendations made
- plenary discussions by all delegates to propose a way forward for Research for Health

The NHRC identified the following six themes around which recommendations were made by the 2018 Summit:

1. **Social determinants of health:** The health status of the nation is not only determined by the burden of disease (BOD), but a collection of social determinants of health, which include the environment, education, economic status and food security, amongst others. The country is stuck in a protracted health transition in that as infections come down with development and economic growth, injury rates increase, followed by diabetes, coronary heart disease and cancers. Therefore, health research priorities should be based on the social determinants of health (thus Research for Health), starting with the burden of disease. These need to be identified and priority put on those that are imperative for the achievement of the Sustainable Development Goals (SDGs). The priority list should be informed by district health needs.
2. **Capacity building:** The shortage of appropriately skilled research human resources for health persists in the country, and where capacity building is happening, it is uncoordinated. Capacity building for health research should be an inter-sectoral endeavour that follows a development pipeline and aligns to the equity and transformation mandate of South Africa. The Bongani Mayosi National Health Scholars' Programme (NHSP) is the only flagship among such initiatives. Interventions, commitment and accountability to capacity building should be effected at personal, institutional and governance levels.

3. **Funding for health research:** There are gaps in available information on the flows and levels of funding for health research from various sources, and government funding remains inadequate to meet the needs, standing at 0.03 per cent of Gross Domestic Product (GDP) during the 2012 audit (targets: 0.075 per cent by 2021 and 0.15 per cent by 2030). Funding for health research needs to increase in general, especially from government sources. Strategies are needed to clearly identify and quantify funding flows.
4. **National-provincial mandate of health research:** The lack of alignment between the national and provincial mandates for health research accounts for most of the retardation in the implementation of national strategies to advance health research. The national Department of Health needs to exercise national oversight of governance of health research to ensure alignment to the constitutional and national directives.
5. **Health research information management:** There are information gaps on the health research taking place in the country, i.e. where, by whom, why, using what resources, translation thereof etc. Various databases exist, but are uncoordinated, fragmented, and some incomplete and others not openly accessible. The country needs a national monitoring and evaluation system of health research that will be a repository for all information on research for health, including products thereof. Such a system should be based on credible collection, monitoring, evaluation, translation and reporting, and it should prioritise the strengthening of national programmes such as the National Health Research Observatory (NHRO), NHI, National Health Research Database (NHRD) and the District Health Information System (DHIS).
6. **Health research infrastructure:** There is a shortage of appropriate health research equipment, facilities and technology to conduct health research. Available infrastructure is ageing, inadequate, inaccessible and in some cases, ancient. There is a need for research infrastructure to be coordinated, maintained and modernised to meet the evolving expanding needs - across academia, research institutions, private sector and other parastatal settings (e.g. academic health complexes, science councils, state-owned enterprises).

Recommendations from the Summit

1. Prioritisation of the **social determinants** of health, including the burden of disease, for funding.
2. **Building capacity** of health research human resources, along a pipeline, and in line with national transformation imperatives.
3. Improving health research **funding flows and quantification**.
4. Creating a **national system of implementing health research** with a national-provincial alignment of mandates, including funding.
5. Creating an evidence-based system of **health research information management** through collation, monitoring, evaluation and translation of health research.
6. Improving provision of and access to **health research infrastructure**, especial in academic health complexes.

1. Background to the 2018 National Health Research Summit

The 2018 Summit was held against the backdrop of the notion that South Africa needs to move beyond focussing only on lessening the burden of disease as a form of improving the health status of the nation, to focussing on the broader determinants of health. Public health interest is not only in reducing the morbidity and mortality of diseases in the entire population, but also in achieving equity of health outcomes among subpopulations, particularly those with socio-economic disadvantages, which includes the majority of South Africans. Complex, integrated, and overlapping social structures and economic systems, collectively referred to as social determinants of health, are now thought to affect disease morbidity and mortality.¹ Healthcare in South Africa varies from the most basic primary healthcare, offered by the State, to highly specialised, hi-tech health services available in both the public and private sector.² Cost issues become a factor in accessing appropriate health services. This system of health provision is not only inequitable and inaccessible to a large portion of South Africans, but institutions in the public sector have suffered poor management, underfunding and deteriorating infrastructure. While access has generally improved over the past few years, the quality of healthcare has deteriorated.³ Public health challenges, including the quadruple burden of disease (infectious diseases - mainly HIV/AIDS and TB; chronic non-communicable diseases; violence and injury; and perinatal and maternal conditions)⁴ and a shortage of key healthcare workers, are among the factors compounding this situation.

According to the latest WHO data published in 2018,⁵ life expectancy in South Africa is: Male 60.2, female 67.0 and the total life expectancy is 63.6. This is the highest it has been since 1960, when the total life expectancy was just at 49.2. It slumped down to the 1980s level (57.3) in the year 2000 at the height of the HIV and AIDS epidemic.⁶ However, it has been growing steadily with the improvement of access to effective medicines in the public health space.

Research for health is important not only to continuously monitor the burden of disease, but to improve health outcomes by establishing effects of healthcare interventions and promoting the development of optimal healthcare policy, programmes and practices. It is crucial in the education and training of healthcare professionals and producing new knowledge that will help the country in its quest to achieve a “Long and healthy life for all South Africans”. After all, the economic development of a nation depends in part on the health of its population.

Mounting evidence points to NCDs being on the increase in South Africa. The latest figures show that the country's profile has changed over the past few years, with NCDs falling within the top 10 causes of mortality. Addressing the NCD epidemic is critical to a virtuous cycle of improved public health outcomes and better economic growth. It is for this reason that decreasing premature mortality from NCDs is now on the post-2015 development agenda. It is predicted that by 2030 NCDs will account for five times as many deaths as communicable diseases in low- and middle-income countries.^{7,10,11} Accordingly, the World Health Assembly (WHA) has agreed to aim to reduce premature mortality from cardiovascular and chronic respiratory disease, cancer and diabetes by 25 per cent by 2025.⁸

The NHRC, which hosted the Summit, has as part of its mandate a responsibility to determine the health research to be carried out by public health authorities, as well as to ensure that health research agendas and research resources focus on priority health problems. The 2018 Summit was held on 13 and 14 September 2018 in Kempton Park, Johannesburg, South Africa. This was as a means to consult the broader research for health community on how research can be used to address the social determinants of health (as opposed to focusing solely on the burden of disease). Clause 70 of the National Health Act⁹ prescribes that the council must identify and advise the minister on health research priorities. It proceeds to state that in identifying health research priorities, the NHRC must have regard for the:

- burden of disease
- cost-effectiveness of interventions aimed at reducing the burden of disease
- availability of human and institutional resources for implementation of an intervention at the level closest to the affected communities
- health needs of vulnerable groups such as woman, older persons, children and people with disabilities
- health needs of the communities

The national Department of Health has entered into a NSDA¹⁰ with other ministries with line functions that include the social determinants of health, and the nine provincial MECs for health, to improve the health outcomes of the population. The NHRC therefore structured the Summit to determine what was needed to 'strengthen research, innovation and development' (10th Priority of the 10-Point Plan)¹¹, and what research is required to achieve the health outcomes enunciated in the NSDA.

Out of 233 invited experts and delegates from diverse organisations, 154 attended the Summit (**Table 1**).

Table 1. Number of delegates and breakdown according to types of organisation represented at Summit 2018

Organisation type	Number of delegates
Research councils/institutes	26
Universities	25
Non-governmental organisations (NGOs)	17
NHREC	9
NHRC	12
Statutory councils	5
Health Data and Advisory Coordination Committee (HDACC)	3
Provincial health departments	19
National government departments	12
National Department of Health	11
South African Clinical Research Association (SACRA)	2
International development agencies	2
Pharmaceutical companies	8
Academy of Science of South Africa (ASSAf)	2
Metropolitan municipalities	1
Total:	154

2. Aim and objectives of the 2018 National Health Research Summit

The overall aim of the Summit was to closely examine how research could focus on the broader social determinants of health in determining the health status of citizens, instead of focussing on the burden of disease alone; thus the theme *Research for Health*. The following questions had to be addressed to achieve the objectives:

- What is the state of affairs in research for health in the country?
- What is the status of funding flows in research for health, i.e. the gaps, fragmentations, where priority should be, and where the funding is going?
- What are the priorities for research for health in South Africa, and what informs them?
- What issues need to be addressed around policy and strategy for research for health?
- What is the landscape on the infrastructure for research for health: human resources, equipment, capital infrastructure, and others?
- What monitoring and evaluation is needed to ensure a research for health system that addresses the needs?

3. The Summit proceedings

The programme of the Summit consisted of six sessions, which included five plenaries and one breakaway session.

The opening session was chaired by Dr Edith Madela-Mntla, the Chairperson of the NHRC. During her introduction, she apologised on behalf of the Minister of Health, Dr Aaron Motsoaledi and the Director-General: Health, Precious Malebone Matsoso, who were unable to join the Summit. She introduced Dr Gail Andrews, the Deputy Director General: Health Systems Governance and Human Resources of the national Department of Health. The team from the secretariat of the national Department of Health were thanked for organising the logistics of the Summit. A moment of silence was observed in memory of the late Prof. Bongani Mayosi, who was the previous chairperson of the NHRC.

3.1 Opening session

A number of dignitaries addressed delegates to set the tone and highlight different issues affecting research for health in South Africa. The following were key messages from each:

1. Dr Gilbert Motlatla, who represented the City of Ekurhuleni Member of the Mayoral Committee (MMC) for Health, highlighted that the City considered research a tool to address service delivery challenges. He informed delegates that Ekurhuleni had been hosting an Annual District Health Research Conference since 2001, through which it promotes research to respond to the health needs of the community.
2. The Minister of Health, in a speech read by Dr Gail Andrews, addressed delegates on “The State of the Health System in South Africa: Challenges and Opportunities”, in which he recapped the recommendations of the 2011 Summit and highlighted how the department had implemented them. He acknowledged that healthcare expenditure remained at well below the target of one per cent of GDP and the health research budget was below the recommended two per cent of the health budget. He recommended that these targets be adopted, and assured the delegates that the department would work towards meeting them. He summed up the key challenges of South Africa’s health system as the complex quadruple burden of disease, quality of healthcare, the ineffective and inefficient health system and spiralling healthcare costs.
3. Dr Brian Chirombo, the WHO Country Representative to South Africa, spoke on the WHO’s *Research for health - A strategy for the African Region, 2016 - 2025*. He highlighted that Africa has complex health challenges, including the burden of disease, disease outbreaks like Ebola and other emerging infectious diseases, climate change in the context of health, unsustainable health financing, as well as lack of equity in healthcare. He asserted that the WHO’s regional strategy, approved by the ministers of health in the region in 2016, is meant to guide the countries as they strengthen their national health systems. One of its objectives, he said, is the development of functional national health research systems that will ensure the generation of scientific knowledge for the development of technology systems and services to achieve the SDGs.
4. Stavros Nicolaou, Chairperson of the Public Health Enhancement Fund (PHEF), spoke on “Research Development and Innovation in the Private Sector”. He highlighted the importance of public-private partnerships (PPPs) in research and development and stressed that the reasons for innovation and research and development being so important include the disproportionate disease burden in South Africa and the stagnant economy.
5. Dr Gwen Ramokgopa, MEC for Health in Gauteng, gave highlights on health research in Gauteng. In her welcome, she reflected on the 2011 Summit, during which she was the Deputy Minister of Health. She emphasised the importance of a research culture and adequate research funding. She shared that Gauteng had held a provincial health research summit, which brought a number of insights, and that the intention was to host it annually.

3.2 Plenary Session 1

The first plenary session consisted of keynote speakers who shared expert knowledge on key research for health issues.

3.2.1 Social determinants of health

Prof. Laetitia Rispel, Professor of Public Health at the University of the Witwatersrand (Wits), who could not attend in person, sent a detailed presentation addressing the social determinants of health and implications for essential national health research. This was presented on her behalf by the NHRC Chairperson and the following key issues were highlighted:

- social determinants of health is not a new concept, but a term evolving from the primary healthcare approach, which is a three-legged balance between community participation, intersectoral collaboration and personal health services
- social determinants of health is a summing up of conditions in which people are born, grow, live, work and age, which include the social environment, physical environment and structural and societal factors
- circumstances that determine health status are shaped by distribution of money, power and resources, at global, national and local levels

- social determinants of health in South Africa are varied, and include:
 - extreme levels of poverty, with the face of poverty being mainly black, African, female and rural
 - a complex and heavy burden of disease
 - gross inequities in society
- to offer general population benefits, the health system should:
 - prevent and treat illness
 - provide a vehicle to improve people's lives
 - protect people from vulnerability to sickness
 - generate a sense of life security
 - build common purpose within society
 - generate the political support needed to sustain them over time

3.2.2 Funding flows for health research

Dr Mark Blecher, Chief Director of Health and Social Development at the National Treasury, did a joint presentation with Prof Richard Gordon, a member of the NHRC. It had the following highlights on funding flows for health research:

- South Africa's gross expenditure on research and development (GERD) was standing at 0.8 per cent in 2016, which is lower than the recommended target of one per cent
- medical and health sciences have the highest sectoral share of the GERD, around 19 per cent, which has been increasing steadily over the past medium term expenditure framework (MTEF) period
- just over 40 per cent of medical and health research and development is on HIV and TB as well as private clinical trials
- there is a lack of national research financing strategy, which makes it a challenge to measure progress towards the desired targets
- there is no specific funding vehicle for research within health departments
- public funding of health research is spread across many different institutions, including science councils, universities and NGOs
- the bulk of research funding for science councils and academia comes from external sources, not government
- there has been sustained growth in research expenditure, which has increased to 13.7 per cent per annum since 2011
- while the fiscal constraints limit the possibility to increase public funding for health research, there had not been any significant budget cuts to funding channelled via the national Department of Health
- the 2017 budget included some new funding to strengthen health technology assessment capacity as part of emerging NHI reforms
- there is an urgent need for better understanding of expenditure versus financing in the Sub-Saharan Africa survey, as well as what comprises non-profit and government share
- the largest research and development expenditure on medical and health is from the business sector (at 41 per cent in 2015/2016), with government expenditure standing at approximately nine per cent
- the share of research as percentage of health budget has been growing over the past few years, but is still below the target of two per cent recommended by the Ministerial Summit on Health Research and Development: The Bamako Call to Action.

3.3. Plenary Session 2

The second plenary session examined trends and gaps in health research, with speakers proposing how priorities should be set to address identified gaps and direct available research funding where it will make the largest impact.

3.3.1 Developments in health research: Trends and gaps

Prof. Glenda Gray, President of the SAMRC, presented on the "developments in health research". She reminded the delegates of the social determinants of health, stressing the role of poverty and inequity in society. She highlighted that the quadruple burden of disease remains the biggest challenge. She pointed out that while some progress has been made in this regard in the past few, health promotion and disease prevention, as well as access to good quality health services, are not yet realisable. Moreover, she said, the country is stuck in a protracted health transition in that as infections come down with development and economic growth, injury rates increase, followed by diabetes, coronary heart disease and cancers – the NCDs.

She recapped the top ten causes of death in South Africa as determined in 2012:

- AIDS
- cerebrovascular disease
- lower respiratory infections
- ischaemic heart disease
- tuberculosis
- diabetes mellitus
- hypertensive heart disease
- interpersonal violence
- road injuries
- diarrhoeal diseases

Childhood mortality is stagnating, with the under-five mortality rate (U5MR) and infant mortality rate (IMR) having peaked in 2003 and continuously declined until 2011. They have both stagnated at 40 and 28 deaths per 1 000 live births respectively.

The SAMRC is the custodian for medical research in South Africa and the biggest African funder of medical science. There is an unequal contribution and participation in science in Africa, and the SAMRC plays a big role in changing the picture in South Africa through:

- building capacity for the long-term sustainability of the country's health research
- capacity development in health research
- implementing succession planning and sustainability in health research
- training clinical scientists to respond to South Africa's health needs
- developing highly skilled researchers for global competitiveness
- institutional research capacity at selected universities

3.3.2 Priority-setting for health research

Prof. Priscilla Reddy, Deputy Executive Director of the Human Sciences Research Council (HSRC), presented on "setting priorities for health research". She said in setting health research priorities, the following should be taken into account:

- inclusivity – emphasis on women does not mean de-emphasis on men
- cost effectiveness of interventions should be a factor, prioritising those closest to the communities
- views of different stakeholders should be taken into account – the Summit is one such attempt, but there are many more that need to be explored
- the four colliding epidemics (quadruple burden of disease) in South Africa need the country to go beyond biomedical research and include social sciences
- upstream factors and life course perspectives should be taken into account. These include genetic factors, socioeconomic, psychosocial, urban and rurality determinants, and represent a holistic approach to priority setting
- "garbage-in-garbage-out" health promotion and social science interventions should be avoided
- quantitative versus qualitative approaches to priority setting need a balance
- focus needs to be balanced in research for health, currently funds are largely for biomedical and epidemiological research, with less regard for social science research to improve the standards
- attention is needed for prevention research and wellness; data is often collected but no interventions are made
- the translational research model is needed for social sciences, followed by action steps and implementation research
- there is huge potential for using technology in research for health, e.g. to reach large numbers of the population
- the NHI has substantial health information needs, which makes it priority for research for health
- capacity development is critical, similarly to the business of the SAMRC but with a clear pipeline

3.4 Plenary session 3: Report on implementation since the 2011 Summit

3.4.1 Report by the Chairperson

The Chairperson of the NHRC reported on the current status of the implementation of each recommendation of the 2011 Summit, including challenges. During the introduction, it was noted that a number of those recommendations were still work in progress since the major challenges and priorities have not changed significantly over the past few years. Also, there has not been a major shift in priorities and available resources for health research in the public health space during that period.

To set the scene, the legislative functions and duties of the NHRC as stated in the National Health Act were highlighted, as well as the importance of consulting with the broader health science community in the process of executing its mandate so that it can advise the minister on the basis of information from grassroots level. She highlighted achievements around the NHSP, a flagship of the NHRC with partnerships from the PHEF and the South African Medical Research Council (SAMRC) since 2013. She further announced that the PHEF had pledged funding for a new cohort to start in January 2019.

The seven recommendations in the 2011 Summit Report were summarised, and feedback on the status of their implementation was presented by each sub-committee of the NHRC.

a. Funding:

There has been an increase in the national Department of Health's spending on health research from the 0.37 per cent reported in 2011/2012, but it still has a long way to go to the recommended target of two per cent of the health budget. One of the main challenges in quantifying funding flows for health research has been the lack of common understanding among stakeholders on the terminology, definitions and ways of quantification. Therefore, clarity on these issues is needed before we can fully understand the picture, e.g. what do we mean by two per cent of the health budget when there are health budgets at different tiers of government? The other challenge is that a number of organisations who spend on health research do not have readily available information on the details of that expenditure.

b. Human resources:

Improvements have been realised, but they are below the target of doubling the number of health researchers and academic clinicians over the 10 years to (2021/2022), as recommended in the *Human Resources for Health Strategy of South Africa (2012/2013 - 2016/2017)*. Part of the reason is that although the NHRC initiated the NHSP as its flagship programme with a core grant from the national Department of Health and substantive funding from the PHEF since 2012/2013, there has not been substantive growth in funding for the programme over the years. However, it has undoubtedly been a success story that needs to be replicated, having enjoyed rigorous administrative support from the SAMRC in terms of a memorandum of understanding (MOU) signed in 2013/2014. The SAMRC identified the following as the main challenges of the programme in its report:

- a. the risk of plateauing of growth due to the flat budget
- b. inadequate participation by strategic professions such as biostatistics and those in allied health disciplines
- c. scholarships not sensitive to annual inflation due to the flat budget
- d. inability to support mobility of beneficiaries, especially PhDs (with conferences and visiting scholarships) due to non-growth in the grant

There is a dire need for the government to renew its commitment to producing more PhD's for the knowledge economy and to support the vision of 100 PhD's over five years by increasing funding for the programme or starting matching programmes. The level of funding for each grant has been at issue since the programme's inception, with a notion that it offers far more funding than conventional scholarships available at the SAMRC, National Research Foundation (NRF) and other national funding agencies. However, the argument for the programme has always been the need to revitalise clinical research in the country, which is in itself a costly endeavour if it is to be done efficiently. Other State funded capacity building programmes in place include the SAMRC's portfolio of research capacity development grants, the Department of Higher Education and Training (DHET) new Generation of Academics Programme (nGAP), the Department of Science and Technology (DST)/National Research Foundation (NRF) Research Career Award (RCA) fellowship for full-time research, and the national Department of Health's Internship and Community Service Programme (ICSP) for health professionals.

The NHSP is a stand-alone programme and does not fit into a pipeline of development. However, new research leaders produced under this scheme will address the dire shortage for academic leaders to train and inspire the next generation of health scholars in existing and new universities. To date, the programme has offered 103 scholarships over the five years since 2013. Forty-seven of these have graduated (41 PhDs and six Masters) and 56 were still in the system at the time of the Summit (September 2018). There were a few refusals due to challenges in exiting full time employment at universities, and these grants were simply passed on to the next qualifying applicant. The PHEF has been very instrumental in sustaining the programme through a steady injection of funds to the SAMRC to maintain the grantees in the system.

c. Health research infrastructure:

Infrastructure for health research has continued to be an area of under-development due to the escalating cost and ageing of research equipment, the evolving needs of health research as well as a lack of information on the availability and accessibility of state of the art equipment in selected institutions. Different public academic and research centres have state of the art equipment funded through NRF grants, but these are in short supply, and in some cases, there is lack of clarity on how other researchers can access them. The private sector has advanced research equipment that is not fully utilised, but there is little information on these or how they can be accessed by researchers from outside. A need exists to audit health research equipment in the country, do technology assessments, coordinate access thereto and acquire those in scarce supply with high demand.

d. Priority research fields:

The recommendation had included that new funding should be used to create a 'National Priority Health Research Fund'. However, this had not materialised due to lack of clarity on health research funding flows. It was agreed however that there was a need to stimulate and support new and innovative research programmes that address the research priorities related to the quadruple burden of disease, health systems strengthening and the combating of the social determinants of health. This new funding, it was noted, should be tied to measurable achievement of the objectives of the NSDA.

e. National regulatory framework:

The recommendation was implemented by establishing the South African Health Products Regulatory Authority (SAHPRA), which came into effect on 1 February 2018. Its mandate is broader than that of the MCC, and processes are underway to build the required internal capacity that will enable it to execute its mandate as required by the Medicines and Related Substances Act, 1965 (Act 101 of 1965). SAHPRA is a Section 3A statutory body, autonomous of the Department of Health while reporting to the Minister of Health on its legislative mandate.

The Chairperson reminded delegates that two of the 2011 Summit recommendations hinged on the review of the *2001 Policy for Health Research*. It was reported that the revision was not started immediately after the 2011 Summit. This

was because of the urgent need to put in place a health research strategy, which has subsequently been finalised and approved by the national Department of Health, titled the *Integrated National Strategic Framework for Health Research in South Africa (2017 – 2022)*. The process to revise the policy subsequently started in mid-2017 under the new committee, and the *Policy for Research for Health for South Africa* is currently at an advanced stage of revision. It is expected to be finalised in a few months. It has incorporated views and comments from a broad range of stakeholders, and will incorporate those from the current Summit.

f. Planning and translation:

A national health research translation centre, situated at the University of Pretoria, has now been endorsed by the NHRC, to do translation research that will inform the work of the Committee. It is envisaged that other academic institutions will gain interest and start similar centres to work collaboratively.

g. Monitoring and Evaluation:

Initiatives in this regard include the Health Systems Trust (HST) establishing the NHRD, on commission from the national Department of Health; the South African National Clinical Trials Register (SANCTR), initially developed by the Wits Health Consortium for the national Department of Health and lately in the process of being transferred to the SAMRC, as well as the NHRO, which the NHRC proposed to be a unit within the national Department of Health's research directorate.

The following conclusions were made from the progress report:

- there have been successes in certain areas, but implementation has been faced with resource challenges;
- financial flows remain unclear – this is work in progress
- health priorities change and need to be reviewed regularly
- a lot depends on stakeholders coming to the party: other government departments, the private sector, academia, science councils, civil society organisations and others

3.4.2 Report by Sub-committees

Following the report on the status of implementation on the seven recommendations, each of the five sub-committees of the NHRC received an opportunity to appraise delegates on the situational analyses of their respective areas, as a way of introduction to commissions of day two.

a. Policy and Strategy Sub-committee

Dr Mushi Matjila presented on behalf of the sub-committee, and indicated the following highlights in the process to revise the *Health Research Policy 2001*:

- the main goal of the policy is to provide a set of rules for the *Integrated National Strategic Framework for Health Research in South Africa, 2017 – 2022*, which has been approved for implementation
- it emphasises the importance of a national research for health strategic plan for direction, coordination of health research stakeholders, obviation of fragmentation and creation of an enabling environment for research and development. The national health research policy is implemented through the *Integrated National Health Research Plan*
- the objectives of reviewing the health research policy include aligning the policy with the *Integrated National Strategic Framework for Health Research in South Africa, 2017 – 2022* and the next steps are to:
 - produce a research for health policy that will be finalised with inputs from research for health stakeholders before being submitted to the National Health Council (NHC)
 - present the revised policy and strategy to provincial health departments for better understanding at that level, to facilitate its implementation
 - develop a template to map the implementation of the policy and strategy by provincial health departments
 - do assessment of implementation by the end of 2019 to get a sense of the understanding of the policy at provincial level

Context for review of the policy

The policy is being reviewed against the following background:

- the current policy was developed in 2001, and many developments have taken place over time, which are not covered therein
- the research for health landscape has become vastly different from that of 2001
- various sectors conduct research for health (social determinants of health), but not necessarily health research
- there is no coordination of health research (even more so research for health) in the country
- the *Integrated National Strategic Framework for Health Research in South Africa, 2017 – 2022* was approved in 2017, necessitating a policy framework that sets rules for its implementation
- provincial and local government are autonomous, and there is a need for national guidance that speaks to current issues as a common context
- funding for research for health flows from different sources. Government funding seems to flow only from national level and not from the lower levels, which also have a role in research

Strengths and opportunities identified

The following were identified as strengths and opportunities:

- South Africa is one of a few countries with governance structures for health research in the WHO African Region
- government sectors other than health are funding research for health, e.g. environment, science, agriculture, social development and education, and therefore have policies that support research for health
- other sectors, e.g. private and non-governmental sectors, also fund and conduct research for health, which strengthens a case for policy guidance to create a common vision for health-related research
- South Africa is a member of a number of partnerships that promote research for health, e.g. the Brazil, Russia, India, China, South Africa (BRICS) association and the Group of Eight (G8)
- South Africa is one of the few countries that are close to the one per cent spending on health research of the national health budget
- South Africa, though classified as a low-middle income country, has a lot of characteristics of developed countries, giving it a strong case for developing robust policies (HRH, research infrastructure, pharmaceutical companies and others)

Weaknesses and threats identified

The following were identified as weaknesses and threats:

- there is a lot of research for health being conducted in non-health sectors, which is not covered in health policies, and therefore haphazard
- umbrella government policies like the NDP are not specific on expectations of different government sectors with respect to research for health
- the face and nature of the burden of disease is forever changing, and needs health-related policies to stay abreast
- the uncoordinated and uncertain nature of available funding challenges policy to be specific to provide guidance
- South Africa has struggled to meet some Millennium Development Goals (MDGs) (e.g. reduction in maternal and child mortality), and will require research policy refocus for such areas to be attained as part of the SDGs
- dependence on donor funds for some health solutions defocuses users from policy directives
- provincial and local governments are autonomous and this will always make national policy implementation less than attainable

Further inputs and comments from delegates

- Autonomous provincial and local government structures are the main source of misalignment between the national and provincial mandates for health research, and this accounts for most of the retardation in the implementation of national strategies to advance health research. The national Department of Health needs to exercise national oversight over governance of health research to ensure alignment to both the constitutional and national directives.
- It should be noted that since provincial funding comes directly from the National Treasury and the national Department of Health has no control over its utilisation, a strategy has to be devised at national level to harmonise the coordination of health research across tiers of government.
- It may be necessary for the NHRC to be relocated to the Presidency as a way of getting other government departments to play their respective roles in research for health.
- The need for provinces to fund research needs to be emphasised during NHRC-PHRC annual meetings.
- Differences in policies are not as important as the absence of a culture of cooperation and collaboration, which is typical in healthcare. There is a need to get people from different sections, programmes and institutions to cooperate for the sake of patient care and the health of society.
- There is misalignment and disjuncture as a result of international agencies like the United Nations International Children's Emergency Fund (UNICEF), WHO and donor agencies' health systems strengthening agendas, some at district level and not at higher levels, which causes disorganisation of the system – the country needs to set its own priorities and implement own policies, irrespective of where funding comes from.

b. Financing Sub-committee

Prof. Jonathan Blackburn presented a situational analysis and highlights.

Health research is an area of innovation that contributes significantly to a country's growth and development, as it drives the performance of health systems and indirectly boosts the economy by ensuring healthy citizens that can productively contribute to the workforce. Adequate funding for health research is particularly important in the context of South Africa, with innovation being needed in novel diagnosis, treatment and vaccine strategies, as well as in government-level health management systems, in order to combat the quadruple burden of disease.

In the seven years since the 2011 Summit, the health funding landscape in South Africa has changed dramatically, including a significant increase in funds invested by foreign governments and agencies. The NHRC Finance Sub-committee therefore sought to survey the state of health funding in South Africa in 2017, the goal being to determine the sources of funding currently available to health researchers in the country, as well as to determine the allocation of funding per disease area.

A key recommendation from the 2011 Summit was that the national Department of Health should increase its funding for health research to achieve the target of two per cent of the national health budget. Subsequently, the NHRC has provided guidance on this target, in the context of a multiplicity of commitments by the South African Government and of targets set by research expert organisations such as the Council on Health Research for Development (COHRED) and ASSAf, which has rendered interpretation of these commitments a complex process¹⁴. Specifically, the NHRC

has recommended that the consolidated government expenditure on health be used as a proxy for the national health budget and that the Health Vote be used as a proxy for the national Department of Health's budget. More specifically, the NHRC recommended in 2014 that the South African Government adopt the WHO target of 0.15 per cent of GDP for government investment in health research as a tangible and transparent aspiration.

In contrast, the ASSAf recommendation that GERD should be two per cent of GDP and that 0.4 per cent of GDP should be spent on health research relates to total health expenditure on research in the country across all sectors, not just the government sector, so it is compatible with the 2014 NHRC recommendations.

Using these metrics, the NHRC Finance Sub-committee established the total government sector expenditure on health research and the specific national Department of Health expenditure on health research, as proportions of the consolidated government expenditure on health. In this process, various available sources of information on public and private expenditure on health research in South Africa were used, including the national surveys of research and experimental development of the Department of Science and Technology (DST; 2009/2010 to 2015/2016), the National Treasury's estimates of national expenditure (2013 to 2018), and the National Treasury's medium-term budget policy statements (2010 to 2016). It was found that between 2009/2010 and 2015/2016:

- GERD increased from R20.96bn to R32.34bn, representing an average real increase in GERD of 2.1 per cent per annum relative to inflation. However, GERD has persistently remained below one per cent of GDP, far below the ASSAf recommendation of two per cent of GDP
- expenditure on health research increased to 19.8 per cent of GERD in 2016, in line with the ASSAf target, with medical and health sciences representing the largest share of GERD across all research fields
- the total research and development expenditure on health research nearly doubled in absolute terms (R3.5bn in 2009/2010 and R6.4bn in 2015/2016), representing an average real increase of 5.2 per cent per annum relative to inflation
- this above-inflation increase in research and development expenditure on health research occurred primarily in the higher education, science council (in-house expenditure) and not-for-profit organisation sectors, with business sector expenditure only growing with inflation in this period
- whilst the aggregated government plus science council expenditure on health research increased from R729m to R1,384m in this period, it has not changed significantly as a percentage of GDP (0.03 per cent GDP in 2009/2010; 0.034 per cent GDP in 2015/2016), and remains far below the NHRC recommendation of 0.15 per cent GDP
- the national Department of Health expenditure on health research is now approaching two per cent of the Health Vote: in 2015/2016, the SAMRC's baseline grant from government of R624m equated to 1.7 per cent of the Health Vote of R36.5bn, but it is not clear what percentage of the provincial health department budgets (R150.9bn in 2015/2016) are currently allocated to health research
- foreign funding of research and development across all research fields increased from R2.5bn in 2009/2010 to R4.2bn in 2015/2016; in this period, total Higher Education Institution (HEI) research and development foreign funding increased from R443m to R1.2bn, whilst total Science Council research and development foreign funding only increased from R417m to R470m; it remains difficult however to track what percentage of these figures is spend on health research

The DST research and development surveys give a relatively coarse view of expenditure and are delayed in reporting. The NHRC Finance Sub-committee therefore sought to gain greater granularity on current health research funding by asking 30 major national and international funders of health research in South Africa to provide non-confidential, aggregated secondary data on funding awards in South Africa, broken down where possible into distinct funding line items for HIV, TB and NDCs. Accepting the warning that the data is incomplete and likely under-estimates the true totals, it was found that:

- excluding expenditure by industry, out of a R4bn total health research funding reported by the funders in 2017/2018, 72 per cent came from foreign sources (46 per cent USA; 26 per cent EU) and only 28 per cent from South African sources
- this data highlights successes in leveraging the South African Government expenditure through partnerships with foreign funders, but also highlights the current dependency of health research in South Africa on the agendas of foreign funders
- the majority of funders who provided information were not readily able to break down expenditure according to disease area, making it difficult to determine whether health research funding is currently aligned to the burden of disease or to identify funding gaps relative to the burden of disease
- as a result, the NHRC proposed that alignment in research priorities between local funders and/or science councils would be improved through the establishment of a national priority health research fund

In concluding, the NHRC Finance Sub-committee reiterated the progressive targets set in the *Integrated National Strategic Framework for Health Research in South Africa, 2017-2022*:

- total investment in research for health from the aggregated public, private and foreign sectors in South Africa
 - to increase from 0.13 per cent (R4.67bn) of GDP in 2013/2014 to 0.18 per cent (R6,46bn) of GDP by 2021, reaching 0.4 per cent (R14,36bn) of GDP by 2030

- South African Government investment in research for health
 - to increase from 0.05 per cent (R1,79bn) of GDP in 2013/2014 to 0.075 per cent (R2,68bn) of GDP by 2021, reaching at least 0.15 per cent (R5,38bn) of GDP by 2030
- health sector spending on research for health
 - to increase from 0.8 per cent (R1,4bn) of health expenditure in 2016/2017 to 1.1 per cent (R1,92bn) of health expenditure in 2020/2021, reaching at least two per cent (R3,66bn) of the national health budget by 2030

c. Research Priority Setting Sub-committee

Prof. Brenda Morrow presented on behalf of the Research Priority Setting Sub-committee and introduced the following highlights:

- there must be responsiveness to changing priorities and consumer needs and these should be reassessed periodically
- priorities should include inter- and trans-disciplinary research agendas, with possible intersectoral collaborations – aiming towards a system of a national health research fund
- ways should be found to include the consumers of health
- translation is very important (making a difference) and change is needed
- identification of current research gaps is needed
- consensus is needed on the current burden of disease – mortality, psychosocial effects, years of life lost (YLL), health systems, access to healthcare, social determinants, etc.
- research for health is needed in all fields, including biomedical and clinical research
- basic science is absent from many databases as no permission is needed, but translation research is needed to measure impact
- priorities in health research should be set according to the 2030 SDGs and the NDP 2030
- the Statistics South Africa (STATS SA) report *Mortality and causes of death in South Africa, 2016: Findings from death notification* and NHRD are important sources of information for priority health research areas, but they have their own challenges
- delays in implementing the NHRO need an injection of resources

Further inputs and comments from the delegates

- STATS SA data cannot be used at face value, it needs to be supported with health information facts. One example of this is that HIV is not reflected in it, while 90 per cent of deaths reported as natural causes are mostly due to HIV.
- The mortality rate is the tip of the iceberg and does not show the whole picture of healthcare challenges – it is advisable to use DALY's (Disability-Adjusted Life Years) and QALY's (Quality-Adjusted Life Years) measures as well.

d. Resources for Health Research Sub-committee

Dr Babatyi Malope-Kgolong presented on behalf of the Resources for Health Research Sub-committee and indicated the following highlights:

- the main goal is to review and understand national capabilities to generate high caliber researchers
- for health research, there is no baseline, no comprehensive databases on human resources and infrastructure
- in terms of the existing information, institutional databases are generally restricted, inaccessible or outdated
- the NRF National Equipment Database has open access but is limited to funded equipment and registration is voluntary
- the NHSP:
 - has been funded for over R98m from 2013 to 2019
 - non-medical universities' contribution to health research is significant
 - is an opportunity for key programmes to be introduced by the NHRC
 - focuses is on PhDs, though there has been funding granted for Master's level
- the NRF national portal is advantageous in that it has information on novel equipment, prevents unnecessary duplication of equipment and it enables and improves research scope. Disadvantages are that it is not inclusive, it is voluntary and does not give any incentive for registration of equipment
- research facilities and infrastructure are shared, especially within academic complexes, but processes are not clear for inter-institutional access
- a Human Resources for Health mini-survey of seven universities between 2013 and 2017 showed that:
 - only a third of academics have doctoral degrees
 - 27 per cent of professors have no doctoral degree
 - non-medical universities are very important in contributing towards health research
 - in terms of transformation, more than 50 per cent of doctoral graduates were white – 65 per cent in 2013 and down to 41 per cent in 2017
 - the majority of black graduates are non-South Africans
 - in terms of gender, there are more female graduates than males
- the NHSP should support sabbatical leave and other initiatives to enable current academic staff without doctorates to achieve this goal
- to improve human capacity nationally, institutions should enforce collaboration to enhance the programme

- accountability needs to be enforced without shifting the targets
- capacity development plans for Historically Disadvantaged Institution (HDI) needs to be improved with enough mentorship and support
- there must be transparency in sharing of equipment, to be put on facility websites for easy accessibility and to encourage collaboration
- a comprehensive database of equipment is critical
- clinical infrastructure within academic health complexes should be accessible to NGOs who are also research institutions

Further inputs and comments from the delegates

- Funding: South Africa is a desirable place for research, given its ability to produce quality research, skilled researchers and institutions; robust regulatory and ethics; infrastructure and burden of disease; and that makes it a global market place
- bring future younger investigators into the system, considering the strengths and looking especially into the future
- priority setting: anybody looking to fund loves having pre-established priorities - these need to be granular
- in South Africa there is a need that is targeted into the failure of the health system; we need to change that to the need targeted to the burden of disease and failures of the health system to implement policies
- resources: key resource need is what HEIs need to build research capacity, which may be a research administration function

e. Monitoring and Evaluation Sub-committee

Prof. Mahmood Ally presented on behalf of the Monitoring and Evaluation Sub-committee and indicated the following highlights:

- The monitoring and evaluation of the performance of the health system is deemed “lacking” – but in reality, there are many structures but they are very fragmented
- the NHRC’s vision of a NHRO is realistic because much research information is available, but it needs facilitation and enablement
- it is important to involve stakeholders in establishing the NHRO, which is to be accommodated within the national Department of Health structure and work in conjunction with the DST, with the NHRC as an overseer
- there are reported problems with the NHRD, but we need to make it work; it is the core component of the NHRO
- the NHRD is useful in the processing of research information, including having a database, funding, and administration of research, as well as research demographics
- there is a need to create a mechanism for the translation of health research, and the NHRO is key to that
- for research translation, available centers are not coordinated, with centers like the Cochrane Center and university based hubs in the country working in silos. The NHRC has endorsed a “knowledge hub” at the University of Pretoria (UP), a proof of concept initiative to work within the WHO’s EVIPNET

3.5 Breakaway session

The breakaway session consisted of five commissions, determined along the lines of the work of the NHRC sub-committees. Delegates had an option to contribute to any commission in which they could add value, or even rotate through more than one. Commission discussions were to address the following topics and make recommendations on them, or even others if need be:

- Commission 1 – Health Research Funding
- Commission 2 – Policy and Strategy
- Commission 3 – Health Research Priority Setting
- Commission 4 – Resources for Health Research
- Commission 5 – Monitoring and Evaluation

Each commission had a facilitator and a rapporteur, as well as a diverse number of stakeholders who contributed to the discussions. The rapporteur gave a summary of the findings, discussions and recommendations from the respective commissions.

The findings and recommendations from each commission were presented by each facilitator during the report-back session. Each facilitator’s summary included the situational analysis done by each sub-committee of the respective area of responsibility, identifying strengths, weaknesses, opportunities and threats. Keynote addresses by experts in relevant fields and policy makers, as well as stakeholder comments made during presentations, were taken into account. Recommendations were on the basis of all the contributions.

a. Policy and Strategy

Discussions in this commission, with additions from the audience, resulted in the following recommendations:

- there is a need for a common vision for research for health across government tiers and departments
- coordinated health research plans are required – silo planning damages the country
- like the NDP, coordination of research for health needs to be done at a higher level
- private sector research should be considered for coordination
- capacity building is needed in higher education institutions, therefore they should follow the national policy
- there is a need for a national archive system for research for health that filters down
- research for health should be included in annual performance plans of relevant State entities
- there should be empowerment for the implementation of policies to ensure it happens where it matters
- a list of scientific conferences should be compiled that can help with implementation so that the policy can be put on the agenda and unpacked
- translation of research is key to implementation of policy
- establishment of the NHRO should be sped up
- there should be a system to ensure that provincial health departments and local government take responsibility to implement the research policy and fund research for health
- include legislative issues that require the collection of data, like the National Health Insurance Bill, 2018
- mandates of provincial Health Research Councils (PHRCs) should be made clearer in the policy to make things easier for researchers because provinces differ

b. Health Research Funding

Discussions at the commission resulted in the following recommendations:

- when considering future health research needs and challenges, the commission agreed that the definition of health research is important and needs to be broadened to encompass all health-related fields, including public health, epidemiology, bio-statistics, health systems and policy research, health economics, sociology of health, medical anthropology, occupational health, as well as clinical and biomedical research and innovation
- the commission agreed that there is an urgent need for more accurate data on financial flows in health research financing, recognising that broadening the definition of health research will require expenditure to be tracked and aligned across multiple government departments doing research with health implications, possibly through the establishment of a research for health forum consisting of various government departments
- the commission noted that a specific line item in the National Treasury for research for health would aid transparency in assessing government performance against agreed expenditure targets
- the commission agreed that there is a need and opportunity to better articulate to National Treasury the potential return on investment from increased government sector funding of health research, through job creation, increased health and productivity of the population, and direct contributions to the bioeconomy through the development of new drugs, diagnostics, vaccines, medical devices and services
- the commission recognised that there is a need and opportunity to better align funding priorities and increase coordination and cooperation between science councils in health research funding, for example through the establishment of a funders forum, MOUs and co-funding of strategic projects
- the commission recognised that there is a need and opportunity for government to engage with the private sector to increase health research funding from that sector. Specifically, the commission noted that a strategy to encourage new PPPs in health research in South Africa would be beneficial, building on the example of the PHEF, with a focus on enabling precision medicine initiatives within the government's NHI
- the commission recognised that significant opportunities exist to raise additional health research funding by leveraging local funds through partnerships with international funders as exemplified in a narrower health research focus by the SAMRC's Strategic Health Innovation Partnership.

c. Health Research Priority Setting

Discussions at the commission yielded the following recommendations:

- health-related research with the greatest potential for the following should be prioritised:
 - improving personal and public health
 - accelerating health-related development
 - identifying and redressing health inequities (past and present)
 - aligning with and attaining the 2030 SDGs to end the epidemics of infectious and neglected tropical diseases, reduce maternal mortality and morbidity and end preventable deaths in new-borns and children
 - addressing the quadruple burden of disease in South Africa
- health-related research priorities must align with the nine health goals identified in the NDP, in order to achieve a better quality of life for South Africans by 2030. These include:
 - average male and female life expectancy at birth increased to 70 years
 - tuberculosis prevention and cure progressively improved
 - maternal, infant and child mortality reduced
 - prevalence of NCDs reduced by 28 per cent
 - injury, accidents and violence reduced by 50 per cent from 2010 levels
 - health systems reforms completed

- primary healthcare (PHC) teams deployed to provide care to families and communities
- UHC achieved
- posts filled with skilled, committed and competent individuals.
- a wide range of relevant stakeholders must be involved in setting priorities according to the inter- and trans-disciplinary research spectrum and inclusivity
- health-related research should encompass good quality research in all domains, including but not limited to:
 - public health
 - epidemiology
 - surveillance
 - health systems and policy research
 - health economics
 - sociology of health [social and environmental determinants]
 - medical anthropology
 - occupational health
 - clinical and biomedical research
 - basic science
 - innovation
 - implementation studies – taking evidence into practice and monitoring outcomes
 - translational research (bench/preclinical/clinical/community/public health flows)
 - genomics, epigenetics and precision medicine
 - pharmacovigilance and toxo-vigilance studies over the long term (including “big data” and prospective registries)
 - preventive research
- health-related research should prioritise historical inequities, current health disparities, and vulnerable populations in South Africa
- health-related research should prioritise different health models, including traditional/ indigenous health practises
- the burden of disease should not be determined on the basis of mortality alone, causes of death should be included in these estimations
- other factors to be taken into account include quality of life indicators, “QALYs” and “DALYs” -quality and disability adjusted life years (quantifying number of years lost due to disease), and economic factors/financial cost (e.g. contribution to workforce; healthcare expenditure)
- the recent STATS SA report (2016): *Mortality and causes of death in South Africa, 2016: Findings from death notification* was discussed, as a component of burden of disease estimation, and it was concluded that it should not be taken at face value

d) Resources for Health Research

Discussions at the commission result in the following recommendations:

- encourage academics to rise through the ranks through formalised mentorship programmes supported by universities
- universities must be responsible and account especially on employee capacity development in each academic programme
- consider international training for students on own database as well, which universities must engage employers on
- identify potential amongst employees and let them go back to university
- clinician scientists in particular need to be enabled and empowered, e.g. through sabbatical leave, so that they can focus on research; we need a model on how it can work
- many trainees drop out, and we need to demand accountability
- there is a need to increase partners in the PHEF, to enable more people to leave their permanent employment and advance their research careers
- there is pressure on senior academics in the higher education sector, they need balance so they can cope
- we need to learn how to set standards that provide clear guidelines on outcomes of students, including in leadership and mentorship from international groups
- we need to develop future leadership in research for health that can add to transformation and provide clear development of graduates
- we need to look into the economy and not just graduate numbers, taking guidance from the Council for Higher Education (CHE) on setting standards for PhD programmes

e) Monitoring and Evaluation

This commission heard presentations from the various national entities responsible for research databases, and which are expected to contribute to the data that will be processed through the NHRO once it is in operation. These include the SANCTR, NHRD, Research and Innovation Management System (RIMS), EVIPNet and the Knowledge Hub of the University of Pretoria, which is in the process of affiliating itself with EVIPNet, a WHO initiative that promotes the systematic use of health research evidence in policy making.

Recommendations were made in relation to each entity, but were summarised as follows:

- the primary aim is to facilitate the integration of monitoring, evaluation and translation of research into the NHRO
- key implementation priorities are to optimise and consolidate the functions of research repositories such as the NHRD, SANCTR and RIMS
- optimisation of the NHRD and SANCTR requires a review of registration of research onto the platform and a review of essential information entered so as to allow for meaningful automated reporting
- workflow protocols and effectiveness vary from province to province and need to be standardised and capacitated to improve performance
- knowledge translation platforms lack integration and coordination. They are hosted by universities, research entities such as SAMRC, HST, DST and specific interest groups, and therefore require harmonisation with national priorities. This is important to creating a central hub of research evidence, best practices and recommendations to guide policy, which could act as a preamble to eventually forming a national evidenced-based policy network linked to the WHO.

3.6 Summary of the proceedings from the Summit

The session was facilitated by Prof. Anne Pope, Chairperson of the NHREC, and served to summarise recommendations from all sessions of the summit, which were compiled and presented by Prof. Gita Ramjee and Dr Anthony Hawkrige, both members of the NHRC and co-rapporteurs for the Summit. Additional issues that had not come through from the summary were raised from the floor. The issues can be summarised as follows:

- *the slow pace of progress*: How will the NHRC approach its work to make sure that the relevant authorities listen and take action? It is important that the issues raised from the summit are addressed at a pace faster than was previously the case
- *research prioritisation process*: It is not a quick and easy exercise, and needs to be done every few years, with appropriate resource allocation. The default is to go back to the burden of disease and using this as a default way of thinking about priorities for research for health. We need to look at burden of disease, but also at other aspects that lead to increased life expectancy, decreased mortality, and improved quality of life
- we need to understand the *difference between health research and health service*, and not confuse them
- *research for health*: This needs to include other government departments, since the health sector alone does not have the capacity to address all components of socio-economic and environmental determinants of health on its own. Development of a national research for health agenda is therefore imperative, recognising that this function may need to be placed at a higher level such as The Presidency in order to get all departments to play their respective roles
- *the gap between national and provincial priorities*: It has been going on for over 15 years, and it is mainly responsible for the slow implementation of national policies. It would be useful for the NHRC to articulate the basis on which provinces should be determining their priorities e.g. using burden of disease and other criteria. What has informed choices of priorities? Not sure that this currently exists
- *diversion of resources*: It is important to divert resources to where they are needed; therefore district priorities should determine provincial priorities, which should determine national priorities. Priorities being set at national level are not just for the national level, but for the country, therefore provincial delegates should be bringing their priorities to the Summit, informed by district priorities, and share them for the process to come up with a list of priorities, as well as the new policy, that cut across levels
- *engagement with the national Department of Health*: The absence of senior national Department of Health management at the Summit is cause for concern, and the minister needs to be engaged on the way forward. The Summit has been a long time in the planning and was postponed a few times. We should voice our disappointment as stakeholders
- *advice by the NHRC*: If senior national Department of Health managers had been present, they would have been able to explain what the strategy is going forward; the NHRC gives the ministry advice, but will it be used?
- *progress on the implementation of the Summit recommendations*: The expectation was for the minister's speech to reflect on progress on the recommendations of the previous summit and what challenges were experienced. While it was useful to hear what has happened since then, it would have been more useful to hear what was decided by the minister following the recommendations, what was required to implement them, and what assistance was needed to achieve them
- *the value of South African health research and the South African health research community*: The Department of Health in South Africa is a "tremendous consumer of research outputs" based on evidence-based planning, and is often the first in terms of adopting best practices, far ahead of African peers. The value proposition is for this to be used as a return on investment in terms of the creation of jobs, support for the economy and the delivery of health outcomes
- *challenges faced by universities*: Challenges associated with current research capacity in universities, which are swamped by the number of students, are another good reason it is important for the national Department of Health to invest in universities beyond the transformation agenda in ways that are strategic
- *participation of provincial health departments at the Summit*: It was noted that apart from the Gauteng Department of Health, which was represented by a number of senior managers and PHRC members at the Summit, other provincial health departments were either grossly under-represented or generally missing, noting that the distance might have been a factor for some.

Closure

In her closing remarks, the Chairperson of the NHRC thanked all delegates, key role players and the secretariat for their contributions in making the Summit of 2018 a success. A report was to be expected in due course.

4. Main findings of the Summit

The findings of the Summit were extracted from a number of processes:

- a. situational analysis conducted by the sub-committees of the NHRC on each area of challenge identified in the 2011 Summit and developments henceforth
- b. keynote addresses by experts in relevant fields and policy makers
- c. stakeholder analysis of the identified strengths, weaknesses, opportunities, and threats (SWOT) of health research in South Africa based on recent information available
- d. contributions by all participants in the Summit breakaway commissions where key challenges of health research were discussed and recommendations made
- e. plenary discussions by all delegates to propose a way forward for research for health.

The NHRC identified the following six main themes as findings around which recommendations were made by the 2018 Summit:

4.1 Social determinants of health: The health status of the nation is not only determined by the burden of disease, but a collection of social determinants of health, which include the environment, education, economic status and food security, amongst others. The country is stuck in a protracted health transition in that as infections reduce with development and economic growth, injury rates increase, followed by diabetes, coronary heart disease and cancers. Therefore, health research priorities should be based on the social determinants of health (thus research for health), starting with the burden of disease. These need to be identified and those that are imperative for the achievement of the Sustainable Development Goals (SDGs) and the NDP must be prioritised. The priority list should be informed by district health needs.

4.2 Capacity building: The shortage of appropriately skilled human resources for health research persists in the country, and where capacity building is happening, it is uncoordinated. Capacity building for health research should be an inter-sectoral endeavour, which follows a development pipeline. The NHSP is only the flagship among such initiatives, more are needed.

4.3 Funding for health research: Current levels of funding for health research are inadequate to meet the health needs of the country. In order to ensure sustainable financing of research for health, the government needs to adhere to the progressive targets set in the Integrated National Strategic Framework for Health Research in South Africa (2017-2022) for total investment in research for health (targets: 0.18 per cent GDP by 2021 and 0.4 per cent GDP by 2030), as well as for government sector (targets: 0.075 per cent GDP by 2021 and 0.15 per cent GDP by 2030) and Department of Health (targets: 1.1 per cent of the national health budget by 2021 and two per cent by 2030) investments in research for health. Targets should be set for research for health expenditure by provincial health departments, with a particular focus on funding for health systems research. Alongside these progressive targets, the likely return on investment from increased government sector funding of health research should be better articulated. Improved mechanisms to track research for health expenditure across inter-sectoral boundaries and different government departments are urgently required, as a means to enable better alignment of funding priorities and to increase coordination and cooperation between science councils in health research funding. Partnerships with the private sector and foreign funders in research for health should be expanded, whilst ensuring that South Africa sets its own priorities for such research.

4.4 National-provincial mandates for health research: The lack of alignment between the national and provincial mandates for health research accounts for most of the retardation in the implementation of national strategies to advance health research. The national Department of Health needs to exercise national oversight of governance of health research to ensure alignment to the constitutional and national directives by all government tiers.

4.5 Health research information management: There are information gaps on the health research taking place in the country, i.e. where, by whom, why, using what resources, translation thereof, etc. Various databases exist, but are uncoordinated, fragmented, and some incomplete, while others are not openly accessible. The country needs a national monitoring and evaluation system of health research that will be a repository for all information on research for health, including products thereof. Such a system should be based on credible collection, monitoring, evaluation, translation and reporting, and it should prioritise the strengthening of national programmes (e.g. NHRO, NHI, NHRD, DHIS etc.).

4.6 Health research infrastructure: There is a shortage of appropriate equipment, facilities and technology to conduct health research. Available infrastructure is ageing, inadequate, inaccessible and in some cases, either out of date or in disrepair or both. There is a need for research infrastructure to be coordinated, maintained, accessible and modernised to meet the evolving and expanding needs - across academia, research institutions, private sector and other parastatal settings (e.g. academic health complexes, science councils, state-owned enterprises).

5. Recommendations of the NHRC based on the findings of the Summit: Research for Health Summary Recommendations

Part of the NHRC's motivation for hosting the Summit was to use it as a mini-observatory, to get a collection of ideas from stakeholders that would enhance its focus and delivery on its mandate. This objective was achieved in the form of the diversity of key stakeholders that attended, the informative presentations made, as well as inputs and comments expressed openly by delegates.

The following recommendations were deduced from the key findings:


- 5.1 prioritisation of the **social determinants** of health, including the burden of disease, for funding
- 5.2 **building capacity** of health human resources, along a pipeline, and in line with national transformation imperatives
- 5.3 improving health research funding flows and quantification
- 5.4 creating a **national system of implementing health research** with a national-provincial alignment of mandates, including funding
- 5.5 creating an evidence-based system of **health research information management** through collation, monitoring, evaluation and translation of health research
- 5.6 improving the provision of and access to **health research infrastructure**, especially in academic health complexes

6. Conclusion

The Chairperson of the NHRC thanked all delegates, key role players and the secretariat for their contributions in making the summit of 2018 a success. The Summit Report will be widely distributed.

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