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"We remain committed to impactful science that is aligned with the vision of a long and healthy life for all South Africans."

1

# CONTENTS

## FOREWORD BY OUR PRESIDENT AND CEO......1

WHY WE EXIST	5
Mandate	5
OUR RESEARCH	8
Leading causes of death in South Africa	.9
OUR FUNDING	10
OUR IMPACT	12
OTHER HIGHLIGHTS	14
HUMAN RESOURCES MANAGEMENT	16
GOVERNANCE	19
FINANCE	21
STAKEHOLDER ENGAGEMENTS	24

## FOREWORD BY OUR PRESIDENT & CEO



PROFESSOR GLENDA E GRAY

## A Transformed Organisation Impacting Global Health

The South African Medical Research Council (SAMRC) reached a key milestone, our 50th Anniversary, a celebration of excellence in science that impacts the lives of the nation. This was a time to also reflect on what the past fifty years can teach us about research, how we have adapted and transformed into the medical research council of today, and what we can or must do in the future.

Transformation has remained an integral part of our strategy, driven at the highest levels within the SAMRC to achieve equity and diversity across the spectrum of job categories. The SAMRC has enabled effective monitoring and progress towards achieving our transformation goals, while also aligning "As we reflect on the past 50 years of the SAMRC, we look forward to building the next generation of research leaders and ensuring the long-term sustainability of the country's health research to save lives. I am immensely grateful to our Executive Management, scientists, support staff, field workers, trial participants and the communities who support and believe in the work that we do."

our research priorities with funding flows. It is noteworthy that despite the constrained fiscal environment with funding for science, research and development, the SAMRC has prioritised its core business of health research and funding, curtailing our spend on administrative costs. A feat which was acknowledged through the SAICA Award, received by the SAMRC for achieving a clean audit in five consecutive years (2013 -2017).

The Fourth Industrial Revolution (4IR) will impact on health in South Africa and the SAMRC is ensuring that we can optimize on the 4IR by creating a state-of-the art human genome sequencing facility, focusing on technological advances and diagnostics, precision medicine and drug safety, drug formulation and discovery, big data and bioinformatics, as well as regulatory, legal, responsible conduct of research and ethical processes for gene editing. The recently formed SAMRC-BGI Genomics Centre has sequenced six samples from two patients with recurrent TB, three breast cancer patients and one HIV resister. From leading DNA research to informing policy and practice, the SAMRC conducted a five-year observational study documenting maternal treatment, pregnancy and infant outcomes in pregnant women with rifampicin-resistance (RR-TB). The study findings were presented at the World Health Organization (WHO) and included in the WHO guidelines on managing people with RR-TB. This achievement is indicative of impactful research addressing the problematic burden of TB in South Africa.

As part of our 50th Anniversary, we collaborated with the South African Medical Journal (SAMJ) to publish fifteen peer reviewed articles, highlighting the ground-breaking research and innovation by our researchers and the impact of our work, both nationally and globally. We also led, in collaboration with the National Department of Health, a twoday Universal Health Coverage symposium attended by the National Department of Health, representatives from the SAMRC, health researchers, provincial health departments, international non-governmental organisations and frontline health workers. The objective is to build a bridge between the body of health systems researchers that conducts high quality research together with decision-makers in government, from the Minister of Health through to the provincial and institutional level leadership and management of the health system.

The Symposium helped to elucidate on aspects of the National Health Insurance system, the interplay between health systems design and health financing reforms, and managing budget cuts while maintaining quality at provincial level. The collective sentiment was that financial reforms can be tested under the current legislative framework.

We, as the SAMRC have also always shown a remarkable ability to be responsive to the current issues that affect the health of our citizens or health on our continent. We were responsive to the Ebola epidemic and funded scientists to study the molecular epidemiology of the Ebola Virus. With the recent advancement of COVID-19 into our country, we have rapidly allocated money to fund research of this epidemic. We have allocated funding for surveillance, for understanding the molecular epidemiology, as well as host shedding and will contribute to funding clinical research and the search for preventative and treatment options including investigating monoclonal antibodies.

Sincerely

## IsiZulu

## UKUPHAWULA OKUVELA KUMONGAMELI NE-CEO

Inhlangano Eguquliwe Enomthelela Kwezempilo Emhlabeni

I-SAMRC ifinyelele ingqophamlando eyinhloko, iminyaka engu-50 seloku yaba khona, sibungaza ukwenza kahle kakhulu kwezesayensi okunomthelela ekuphileni kwabantu esizweni. Lesi bekuyisikhathi sokucabanga nangalokho esingakufunda ngocwaningo kule minyaka engamashumi amahlanu edlule, indlela esiye sashintsha ngayo futhi saguquka saba umkhandlu ocwaninga ngezokwelapha wanamuhla, nalokho esingakwenza noma lokho okumelwe sikwenze esikhathini esizayo.

Ushintsho luye lwahlala luyingxenye eyinhloko yesu lethu, njengoba luqhutshwa emazingeni aphezulu ngaphakathi kwe-SAMRC ukuze kuqinisekiswe ukulingana nokwehlukana kuzo zonke izigaba ezihlukahlukene zemisebenzi. I-SAMRC iye yavumela ukuqashwa ngendlela enempumelelo kanye nenqubekela phambili ebhekiswe ekufezeni imigomo yethu yenguquko, kanti futhi siye saqondanisa ucwaningo lethu oluza kuqala kanye nokusebenza kwezezimali.. Kuyaphawuleka ukuthi naphezu kwemali encishisiwe evela kuhulumeni yesayensi, ucwaningo nokusungulwa kwezinto, i-SAMRC iye yabeka phambili umsebenzi wayo oyinhloko wokucwaninga ngezempilo kanye nokuxhasa, kuyilapho sinciphisa izindleko zokuphatha. Kuyaphawuleka ukuthi i-SAMRC iye yaba namabhuku ezimali ahlanzekile eminyakeni eyisikhombisa kweyisishiyagalombili kubalwa kuyo unyaka ka-2019/20.

Uguquko Lwesine Lwezimboni (41R) luzoba nomthelela kwezempilo eNingizimu Afrika futhi i-SAMRC iqinisekisa ukuthi singayisebenzisa ngokugcwele i-41R ngokwakha isikhungo seziyalezo zokwakheka komuntu, esigxile

PROFESSOR GLENDA E. GRAY President & CEO: South African Medical Research Council

ekuthuthukisweni kobuchwepheshe kanye nokuhlonza, imithi evumelana nesiguli nokuphepha kwemithi, ukwakhiwa kwemithi nokusungulwa kwayo, imininingwane eminingi kanye nokuqoqwa kwemininingwane yokwelapha, ukulawulwa, ezomthetho, ukuziphatha ngendlela efanele ocwaningweni kanye nezinqubo ezifanele zokulungiswa kwezakhi zofuzo. I-SAMRC-BGI Genomics Centre esanda kusungulwa iye yahlola amasampula ayisithupha avela ezigulini ezimbili ezinesifo sofuba esilokhu sibuya, iziguli ezintathu ezinomdlavuza webele kanye noyedwa ongasuleleki ngesandulela-ngculazi.

Njengoba sicabanga ngeminyaka engu-50 edlule ye-SAMRC, sibheka phambili ekwakheni isizukulwane esilandelayo sabaholi kwezocwaningo futhi siqinisekisa ukusimama kwesikhathi eside kocwaningo lwezempilo ezweni ukuze kusindiswe ukuphila kwabantu.

Kusukela ekuholeni ucwaningo lwe-DNA kuya ekwakheni inqubomgomo nendlela yokusebenza, i-SAMRC yenza ucwaningo lokubuka olwathatha iminyaka emihlanu olwabhala lokho okwatholakala ekwelashweni komama, ukukhulelwa kanye nezinsana kubesifazane abakhulelwe abanerifampicinresistance (RR-TB). Okuthokale ocwaningweni kwethulwa kuyiNhlangano Yezempilo Emhlabeni (WHO) futhi kwafakwa emhlahlandleni we-WHO wokunakekela abantu abane-RR-TB. Impumelelo ibonisa umthelela wocwaningo ekubhekaneni nomthwalo onzima we-TB eNingizimu Afrika.

Njengengxenye Yeminyaka Yethu Engu-50, siye sabambisana neSouth African Medical Journal (SAMJ) ukuze sishicilele eziyishumi nanhlanu ezihlolwe ozakwethu, izihloko ezighakambisa ucwaningo olusha nokusungulwa kwezinto ezintsha okwenziwe abacwaningi bethu kanye nomthelela womsebenzi wethu kuleli nasemhlabeni jikelele. Siphinde sahola, ngokubambisana noMnyango Wezempilo Kazwelonke, uchungechunge lwezinsuku ezimbili lwe-Universal Health Coverage obeluthanyelwe uMnyango Wezempilo Kazwelonke, abameleli be-SAMRC, abacwaningi bezempilo, iminyango yezempilo yezifundazwe, izinhlangano ezizimele zasemazweni omhlaba kanye nezisebenzi zezempilo. Injongo ukwakha ibhuloho phakathi kwezinhlangano zabacwaningi bezempilo abenza ucwaningo olusezingeni eliphezulu kanye nalabo abenza izingumo kuhulumeni, kusukela kuNggonggoshe Wezempilo kuya kubuholi obusesifundazweni kanye nasezikhungweni nakubaphathi bezikhungo zempilo.

Lolu chungechunge lwasiza ekucaciseni izici zohlelo loMshwalense Wezempilo Kazwelonke, ukusebenzisana phakathi komklamo wohlelo lwempilo kanye nokulawulwa kwezimali zezempilo, nokunakekela ukuncishiswa kwezimali kuyilapho kulondolozwa izinga lezempilo eliphezulu ezifundazweni. Uvo lweningi lube ukuthi ukushintshwa kwezezimali kungavivinywa ngaphansi kohlaka lomthetho lwamanje.

Njengoba sicabanga ngeminyaka engu-50 edlule ye-SAMRC, sibheka phambili ekwakheni isizukulwane esilandelayo sabaholi kwezocwaningo futhi siqinisekisa ukusimama kwesikhathi eside kocwaningo lwezempilo ezweni ukuze kusindiswe ukuphila kwabantu. Uvo lweningi lube ukuthi ukushintshwa kwezimali kungavivinywa ngaphansi kohlaka lomthetho lwamanje. Ngibonga kakhulu kubaPhathi Bethu Abakhulu, ososayensi, izisebenzi ezisisizayo, izisebenzi eziya kubantu, ababambiqhaza ocwaningweni kanye nemiphakathi esekela futhi enokholo emsebenzini esiwenzayo.

Thina, siyi-SAMRC besilokhu sibonisa ikhono elimangalisayo lokusabela ezindabeni zamanje ezithinta impilo yezakhamuzi zethu noma impilo yezwekazi lethu. Sasabela kubhubhane lwe-Ebola futhi saxhasa ososayensi ukuba bacwaninge ukwakheka kwegciwane le-Ebola.. Muva nje kulokhu kusabalala kwe-COVID-19 ezweni lethu, ngokushesha siye sabeka imali eceleni yokucwaninga lolu bhubhane. Sikhiphe imali yokubheka nokuqapha ukubhebhetheka kwegciwane,, yokuqonda isakhiwo salo, kanye nokutheleleka kwalo, futhi sizofaka isandla ekuxhaseni ucwaningo lwezokwelapha kanye nokufunwa kwezindlela zokuvimba nokwelapha kuhlanganise ukuphenya amasosha omzimba e-monoclonal.

Ozithobayo

## USOLWAZI GLENDA E GRAY UMONGAMELI NE-CEO: SAMRC

## SEPEDI

## POLELO GO TŠWA GO MOPRESIDENTE LE CEO

Mokgatlo wo o Fetogilego woo o kaonafatšago Maphelo a Lefase

South African Medical Research Council (SAMRC) e fihleletše Tlhora e bohlokwa, Matswalo a rena a bo 50, ao re ketekago bokgoni bja mahlale bjoo bo kaonafatšago maphelo a setšhaba. Ye ke nako ya go naganišiša ka seo mengwaga ye e 50 e ka re rutago sona ka nyakišišo, ka moo re mpshafetšego le go fetogela go khansele ya dinyakišišo tša kalafo lehono, le seo re ka se dirago goba seo re swanetšego go se dira nakong e tlago.

Phetogo e dutše e le karolo ya bohlokwa ya leano la rena, e dirwa maemong a godimo ka mo SAMRC go fihlelela tekatekano le go se swane go ralala le magoro a mešomo ya go fapana. SAMRC e dirile gore go be taolo e atlegago le tšwelopele go fihlelela merero ya rena go tša phetogo, mola ka go le lengwe re thekga dinyakišišo tša rena tša bohlokwa ka tša ditšhelete. Go bohlokwa gore le ge tikologo ya ekonomi e gwahlafetše go thekgo ya ditšhelete go tša thutamahlale, dinyakišišo le tšweletšopele, SAMRC e beile pele taba ya yona ye bohlokwa ka dinyakišišo tša maphelo le thekgo ya ditšhelete, go fokotša ditsheyagelo tša rena tša taolo. Go bohlokwa gore SAMRC e fihleletše ditlhakišo tša go hlweka mo mengwageng ya ditšhelete ye šupa go ye seswai go akaretša 2019/20.

Tšweletšo ya go šomiša theknolotši ya The Fourth Industrial Revolution (4IR) e tla kaonafatšago maphelo mo Afrika Borwa gomme SAMRC e kgonthiša gore re ka kaonafatša mo go 4IR ka go hlama senolofatši sa tatelano ya sehlopha sa go felela sa batho sa bokgabo bja naga, re lebeletše dikaonafatšo le diphekolo tša theknolotši, dihlare tša maleba le polokego ya diokobatši, go dira le go utolla diokobatši, data e kgolo le dipayofomethiki, gammogo le taolo, molao, go dira dinyakišišo ka maikarabelo le ditshepetšo tša maitshwaro tša go rulaganya leabela. Senthara ya Ditšenomiki ya SAMRC-BGI ye e sa tšwago go hlongwa e latelantšhitše disampolo tše tshela go tšwa go balwetši ba babedi ba go ba le TB ya tlwaelo, balwetši ba bararo ba kankere ya letswele le o tee wa go palela dihlare tša HIV.

Ge re lebelela mengwaga e 50 ya go feta ya SAMRC, re lebeletše go aga moloko wa go latela wa baetapele ba dinyakišišo le go kgonthiša go swarelela ga nako ye telele ga dinyakišišo tša maphelo tša naga go boloka maphelo.

Go tšwa go dinyakišišo tša ketapele tša DNA go ya go dipholisi tša tshedimošo le tirišo, SAMRC e dirile dinyakišišo tša teko ya mengwaga ye mehlano e kgonthiša kalafo ya bomma, ditlamorago tša boimana le masea mo go basadi ba ba baimana bao ba nago le rifampicinresistance-TB (RR-TB). Dikutollo tša dinyakišišo di begilwe go Mokgatlo wa Maphelo wa Lefase (WHO) gomme di akareditšwe ka gare ga tlhahlo ya WHO ya go laola batho bao ba nago le RR-TB. Phihlelelo ye ke taetšo ya dinyakišišo tšeo di nago le khuetšo go šogana le bothata bja TB ka Afrika Borwa.

Bjalo ka karolo ya Matswalo a bo 50, re dirišana le South African Medical Journal (SAMJ) go phatlalatša dihlogo tše di sekasekilwego ke badirišani, tšeo di bontšhago dinyakišišo tša maemo a godimo le kaonafatšo ya banyakišiši ba rena le khuetšo ya mošomo wa rena, mo gae le lefaseng ka moka. Re etile pele gape, ka tirišano le Kgoro ya Maphelo ya Bosetšhaba, tšhiedišano ya matšatši a mabedi ya Pego ya Maphelo a Lefase ka moka yeo e tsenetšwego ke Kgoro ya Maphelo ya Bosetšhaba, gotee le baemedi ba tšwago go SAMRC, banyakišiši ba maphelo, dikgoro tša maphelo tša diprofense, mekgatlo yeo e sego ya mmušo ya boditšhabatšhaba le bašomi ba maphelo bao ba di etilego pele. Morero o mogolo ke go hlola kwano gare ga banyakišiši ba mekgatlo ya mananeo a maphelo bao ba dirago dinyakišišo tša boleng bja godimo mmogo le batšeadiphetho ba mmušong, go tloga go Tona ya Maphelo a diriša boetapele bja diprofenseng le diinstitute gotee le bolaodi bja maphelo.

Therišano e thušitše go hlalosa dikarolo tša lenaneo la Inšorense ya Maphelo ya Setšhaba, kamano gare ga mananeo a maphelo ao a dirilwego le dikaonafatšo tša go thekga maphelo ka ditšhelete, le go laola go fokotša tekanyetšo mola ba hlokomela boleng mo legatong la profense. Maikutlo ao a kopanego e bile gore kaonafatšo ya ditšhelete e ka lekwa ka fase ga tlhako ya molao ya gonabjale.

Ge re lebelela mengwaga e 50 ya SAMRC, re lebeletše pele go aga moloko wa go latela wa baetapele ba dinyakišišo le go kgonthiša go swarelela ga nako ye telele ga dinyakišišo tša maphelo tša naga go phološa maphelo. Ke leboga kudu Bolaodiphethiši bja rena, boramahlale, badirišani ba thekgo, bašomi bao ba šomago mafelong a go fapana, bakgathatema ba diteko le ditšhaba tšeo di thekgago le go tshepa mošomo woo re o dirago.

Rena, bjalo ka SAMRC nako le nako re bontšhitše bokgoni bja go makatša go arabela ditaba tša gona bjale tšeo di amago maphelo a badudi ba rena goba maphelo a kontinente ya rena. Re ile ra arabela go leuba la Ebola le go thekga boramahlale ka tša ditšhelete go nyakišiša molekhule wa epitemolotši ya ya Twatši ya Ebola. Ka baka la go ata ga COVID-19 mo nageng ya rena, re arabetše ka bjako ka tša ditšhelete go thekga dinyakišišo tša leuba le. Re abile thekgo ya ditšhelete bakeng sa go dira nyakišišo, go kwešiša epitemolotši ya molekhula, gotee le go fetetša twatši gomme re tla kgatha tema go thekga ka ditšhelete dinyakišišo tša kalafo le go tsoma dikgetho tša go phema le tša kalafo go akaretša go nyakišiša tša mašole a mmele e lego dimonoclonal antibodies.

Ka boikokobetšo

PROFESA GLENDA E GRAY MOPRESIDENTE LE CEO: SAMRC

# WHY WE EXIST

## OUR MANDATE

The mandate of the South African Medical Research Council (SAMRC), in terms of the MRC Act 58, 1991 (as amended), is to improve the health and quality of life of South Africans. This needs to be realised through research, development and technology transfer.

## IN BRIEF

The SAMRC was established in 1969 to conduct and fund health research, health innovation, development and research translation. The SAMRC focuses on the top ten causes of mortality, co-morbidities, disability and associated risk factors. The scope of research includes laboratory investigations, pre-clinical and clinical research, and public health studies.

The SAMRC's research seeks to address South Africa's quadruple burden of disease: maternal, newborn and child health, HIV/AIDS and TB, non-communicable diseases and interpersonal violence. The SAMRC acquires the most accurate health information to inform policy and practice to improve the quality of life for the people in South Africa.

The SAMRC is the largest local funder of health research, medical diagnostics, medical devices, and therapeutics. To build human capacity in healthcare and ensure the sustainability of health research, the SAMRC has defined research capacity programmes, providing scholarships to Masters, PhDs and Postdoctoral scholars in medical and health sciences. As a custodian of health research, the SAMRC is building a healthy nation through research and innovation.

## OUR VISION

Building a healthy nation through research and innovation.

## OUR MISSION

To improve the nation's health and quality of life by conducting and funding relevant and responsive health research, development, innovation and research translation.

## IsiZulu

## SePedi

## Umsebenzi Wethu

## Molao Wa Rena

Umsebenzi Womkhandlu Wocwaningo Lwezokwelapha eNingizimu Afrika (SAMRC), ngokuvumelana ne-MRC uMthetho 58, 1991 (othuthukisiwe), ukuphucula impilo nezinga lokuphila kwabantu baseNingizimu Afrika. Lokhu kudingeka kwenzeke ngocwaningo, ukudluliselwa kwemikhiqizo nezobuchwepheshe.

Molao wa Khansele ya Dinyakišišo tša Booki mo Afrika Borwa (SAMRC), go ya ka molao wa MRC Act 58, 1991 (ka ge o fetošitšwe), ke go kaonefattša maphelo le boleng bja maphelo bja Maafrika Borwa. Se se hloka gore go dirwe nyakišišo, go kaonefatšwa le go fetola thekinolotši.

## NGAMAFUPHI

I-SAMRC yasungulwa ngo-1969 ukuba yenze futhi ixhase ucwaningo lwezokwelapha nokuthola izindlela ezintsha zokwelapha. Sigxila ezizathwini eziphezulu eziyishumi zokufa nokukhubazeka kanye nobungozi obuhlobene nalokho. Sithola imininingwane enembile yezempilo, zinikeze abenzi bemithetho amathuluzi angabasiza benze izinqumo ezimayelana nemithetho yempilo benolwazi ukuze kuphuculwe izinga lokuphila kwabantu baseNingizimu Afrika.

## UMBONO WETHU

Ukwakha isizwe esinempilo ngokucwaninga nokuthola izindlela ezintsha

## UMGOMO WETHU

Ukuthuthukisa izinga lempilo lesizwe nokuphila kwaso ngokwenza nokuxhasa ucwaningo lwezokwelapha oluyimfuneko nolufanele, ukuthola okusha nokuhunyushwa kocwaningo

## **KA BOKOPANA**

SAMRC e hlamilwe ka 1969 go hlama nyakišišo ya go hwetša tšhelete ya tša maphelo le go fetola tša kalafo. Šedi ya rena e go dilo tše lesome tšeo di bakago malwetši a mantši le bogole le dikotsi tšeo di sepedišanago le tšona. Re hwetša tsebišo e kaonekaone ya tša maphelo, ra nea dipholisi ka tholosi go dira phetho e kaone ya tša maphelo go koanefatša boelng bja tša maphelo go Maafrika Borwa.

## PONO YA RENA

Go bopa setšhaba se phetšego gabotse ka nyakišišo le diphetogo

## MAIKEMIŠETŠO A RENA

Go kaonefatša bophelo bja setšhaba ka go dira nyakišišo e thekgwago ka ditšhelete le e bohlokwa ya tša maphelo, go kaonefatša, go fetola le go toloka nyakišišo



# OUR RESEARCH PROFILE

## WE ARE RESPONDING TO THE BURDEN OF DISEASE IN SOUTH AFRICA

South Africa faces a huge burden of four major epidemics that affect the health of the population.

From communicable diseases such as HIV/AIDS and TB; maternal, new-born and child mortality; non-communicable diseases such as hypertension and cardiovascular diseases, diabetes, cancer, and chronic lung diseases; as well as injury and trauma.

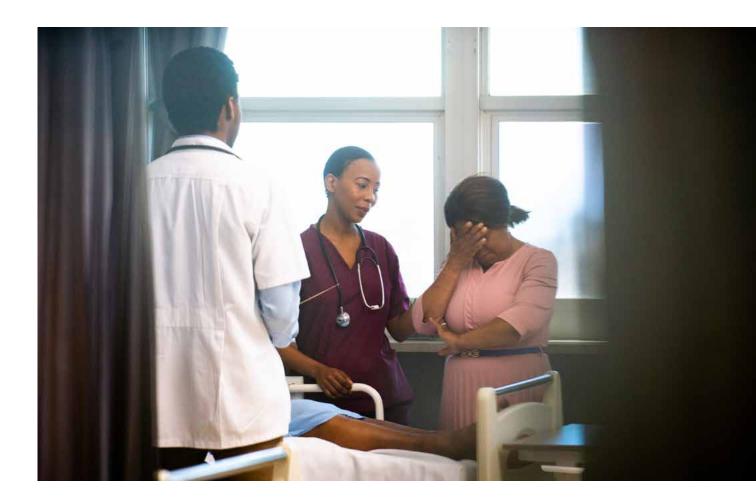


The South African Medical Research Council is a health research organisation focusing on the top ten causes, disability and associated risk factors in the South African population. Since 1969 the SAMRC has been at the cutting edge of leading medical research, innovations, development and has strengthened its research translation efforts. The scope of the SAMRC's research includes basic laboratory investigations, clinical research and public health studies.

## LEADING CAUSES OF DEATH IN SOUTH AFRICA

- The *Rapid Mortality Surveillance Report 2017* derives estimates of key health status indicators primarily from data obtained from the National Population Register.
- Although **life expectancy at birth**, has continued to increase, reaching 64 years in 2017, the pace of improvement has slowed down in recent years.
- Infant and under-five mortality rates have declined to 23 and 32 per 1 000 live births in 2017, respectively. However, the neonatal mortality continues to show no improvement remaining at 12 per 1 000 live births.
- Mortality of children aged 5-15 improved over a period of five years from 11 per 1000 deaths to 6 deaths per 1000 deaths. Children between the ages: 15-24 showed an improvement from 24 deaths to 21 per 1000 children during the same period. These improvements are likely associated with the roll-out of ARTs.
- The maternal mortality ratio peaked in 2009 and has declined to 134 per 100 000 live births in 2016.

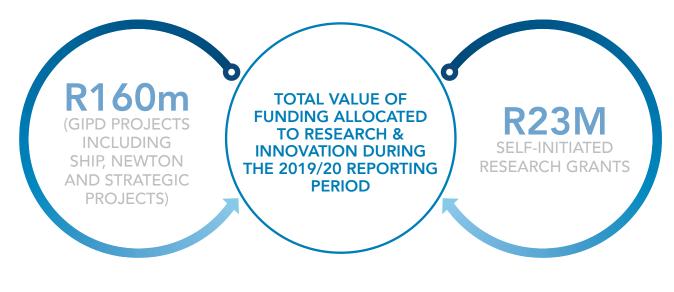
- Life expectancy at age 60 years, an indicator of mortality experienced at older ages has remained constant at about 17 years, indicating little improvement in health care in recent years.
- Estimates of premature mortality between the ages of 30 and 70 years due to selected non-communicable diseases (NCDs) including cardiovascular diseases, cancer, diabetes and chronic respiratory diseases. The probability of a 30-year old man dying from these noncommunicable diseases before the age of 70 years is 34% while the probability of a 30-year old woman dying from these diseases is 24%. The rates have shown no change between 2011 and 2016. Primary health care services need to be more vigilant with diagnosing and managing these diseases and their risk factors. Health promotion efforts to reduce the prevalence of tobacco and alcohol use, increase physical activity and healthy nutrition are essential to reduce the burden of noncommunicable diseases.



# OUR FUNDING

## GRANTS, INNOVATION & PRODUCT DEVELOPMENT

The Grants, Innovation and Product Development (GIPD) division of the SAMRC is the custodian of grant funding (including innovation funding), IP management and commercialisation. There are a number of programs that fall under GIPD, many of which involve strategic partnerships with organizations that include the Department of Science and Information (DSI), the Newton Fund, the Bill and Melinda Gates Foundation (BMGF), PATH and Anglo American Platinum (AAP).



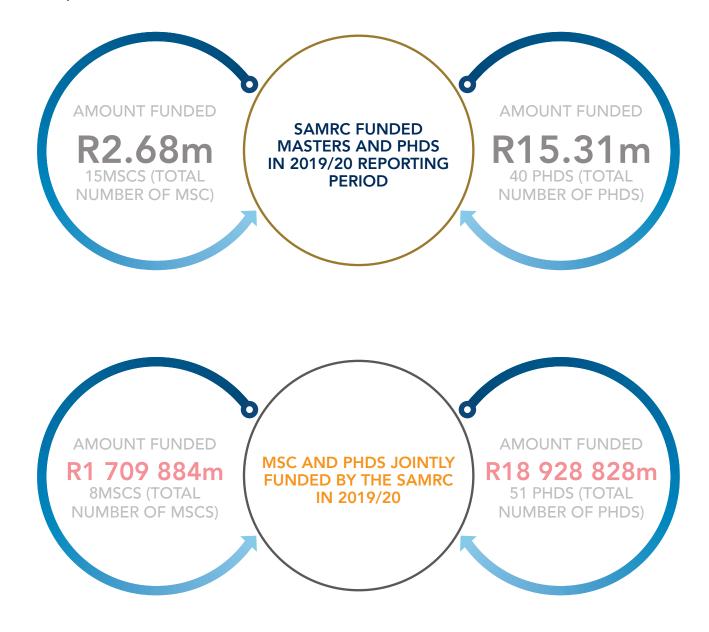
Focus areas: Drug discovery, vaccine discovery, precision medicine, medical devices, big data, innovation technologies, population health. Focus areas: For more than a decade, the SAMRC has awarded funding and supported competitive investigatorinitiated research projects. These awards are targeted at early stage.





## INVESTING IN THE DEVELOPMENT OF NEW KNOWLEDGE

The SAMRC receives funding from the South African National Treasury to strengthen research and capacity development in the field of medical health sciences in South Africa. The SAMRC through its Division of Research Capacity Development (RCD) aims to build health research capacity by providing and administering scholarships to South African citizens studying towards their Masters and Doctoral (PhD) degrees in Medical and Health Sciences. Additionally, RCD provides and administers research grants to early career investigators, mid-career investigators and researchers with evidence of potential of excellence if supported financially and otherwise.



# OUR IMPACT

## SAMRC strengthens response to the country's burden of disease

In response to the country's various disease burdens, the South African Medical Research Council (SAMRC) launched seven new Extramural Units (EMUs) – six of which are led by women who, over the years, made outstanding scientific contributions to advancing science and building the knowledge base in their respective disciplines.

These research units were launched in Johannesburg in September 2019. Attending the launch were officials from the SAMRC and National Department of Health (NDoH), Higher Education Institutions and a student cohort of current SAMRC funding beneficiaries.

### THE NEW EXTRAMURAL UNITS AND THEIR DIRECTORS:



Prof Lynn Morris

SAMRC/NICD Antibody Immunity Research Unit



Prof Soraya Seedat

SAMRC/SUN Genomics of Brain Disorders Research Unit



Prof Nonhlanhla Khumalo

SAMRC/UCT Wound and Keloid Scarring Translational Research Unit



Prof Karen Hofmar

SAMRC/Wits Centre for Health Economics and Decision Science – PRICELESS SA –



Prof Tandi Matsha

SAMRC/CPUT Cardiometabolic Health Research Unit



Prof Zodwa Dlamin

SAMRC/UP Precision Prevention and Novel Drug Targets for HIV-Associated Cancers



Prof Keertan Dheda

SAMRC/UCT Centre for the Study of Antimicrobial Resistance Research Unit

## SAMRC investing in research to impact policy or practice

The Biostatistics Human Capacity Building programme is geared towards projects that have big potential for policy or practice, or that will influence further research. This is because the work in this programme produces information for evidence based future objectives in research fields.

The programme started in 2019 with nine awardees (55% African Black and 78% females). Although the research area covered by the programme falls under the broad research area of Public Health/Health Systems Strengthening (HSS), 78% of the participants conduct their research in disease related areas including non-communicable diseases (33%), HIV/AIDS/TB (22%), Maternal, Child and Women's Health (MCH) and nutritional disorders (22%).

## Growing the next generation of scientists

We have consistently ensured that funding provided focuses on research and innovation in the fields of HIV/ AIDS and TB, noncommunicable diseases, maternal, child and women's health as well as violence and injury.

The outcomes of the research transformation and capacity building our Research Capacity Development (RCD) programmes are consistent in improving on the percentage of awardees of such projects. Our minimum intake of women awardees improved from 55% in 2018/19 to 73 % in the 2019/20 reporting period.

The focus areas of these funded projects are aligned with the SAMRC's research profile and objective to address South Africa's quadruple burden of disease, supports a rigorous and highly monitored awarding process from the request for applications (RFA) to the selection of the awardees (participants). Hence, each RFA clarifies the target candidates and the respective areas of research according to the national research priorities and top causes of death and disability.



## ELLAVI UTERINE BALLOON TAMPONADE

The SAMRC has continued to support clinical studies on the Ellavi uterine balloon tamponade (UBT), the first low-cost regulated UBT made in Africa to help protect women from post-partum haemorrhage, the leading cause of maternal death. The device has now been tested in the hands of mid-wives in the Western Cape and in a rural clinic in the Eastern Cape. These studies have confirmed the ability of the UBT to rapidly halt bleeding and save lives, demonstrating high acceptability, safety, and efficiency.

The UBT was developed by Sinapi Biomedical with support from PATH. Sinapi has now received regulatory approval by the Ghana Food and Drugs Authority and the Kenya Pharmacy and Poisons Board for use of this medical device in each country as well as receiving a CE mark. The Ellavi has been adopted by 31 South African hospitals (five provinces) during 2019. In addition to South Africa, the Ellavi has been sold in Botswana, Lesotho, Swaziland, Kuwait, Puerto Rico, Brazil with registrations underway in a few more countries.



A device to protect women from postpartum haemorrhage

# OTHER HIGHLIGHTS

## FOR 2019/20 REPORTING PERIOD





## BUILDING HUMAN CAPACITY IN HEALTHCARE

SAMRC received a R10 million boost to assist young South African scientists who are studying towards their PhDs in clinical and health research for the Bongani Mayosi National Health Scholars Programme from the Public Health Enhancement Fund.

## CELEBRATING 550 YEARS

## 50 YEARS OF RESEARCH, INNOVATION AND DEVELOPMENT

The SAMRC celebrated its 50th anniversary in July 2019. To mark this important milestone, we organized three local and international conferences/symposia (12th African Rotavirus Symposium, SAMRC – Forte Symposium and UHC National Dialogue), published a supplement to the SAMJ Nov 2019 issue 50 years of ground breaking health research and innovation', held seminars, a gala dinner and awards evening and a number of staff events under the banner of the 50th anniversary.



## TRANSFORMATION IN SCIENCE

The SAMRC has transformed into a key institution of South Africa's democracy playing a crucial role in the country's future social and economic development. In response to the country's various disease burdens, seven new Extramural Units (EMUs) were launched – six of which are led by women who, over the years, made outstanding scientific contributions to advancing science and building the knowledge base in their respective disciplines.

## **GRAND CHALLENGES SOUTH AFRICA**



Grand Challenges South Africa was launched by the SAMRC, the South African Department of Science and Innovation (DSI) in partnership with the Bill and Melinda Gates Foundation to introduce joint challenges aimed at catalysing innovative health research within South Africa. Grand Challenges South Africa seeks to fund and support a diverse portfolio of multi-disciplinary collaborative projects aimed at developing and implementing multiple types of innovations. Linked to the SAMRC's strategic goal of supporting innovation and technology development to improve health, Grand Challenges South Africa works closely with Grand Challenges Africa and other Grand Challenges partners to nurture and strengthen the innovation ecosystem in Africa.

## HEALTHY LIFE TRAJECTORIES INITIATIVE



In September 2019, the SAMRC/Wits University Developmental Pathways for Health Research Unit started recruitment for a landmark international study to improve understanding of and address the mechanisms underlying child obesity. The Healthy Life Trajectories Initiative (HeLTI) involves research teams and funders from South Africa, Canada, India and China working together to test a package of interventions from pre-conception to early childhood to prevent obesity and associated metabolic disorders. The South African study is being supported by the South African Medical Research Council, partnering with the World Health Organization and the Canadian Institutes of Health Research. This initiative aims to generate evidence that will inform national policy and decision-making to combat child obesity.



## COLLABORATIVE BIOMEDICAL RESEARCH PROGRAMME

The SAMRC and the US National Institutes of Health (NIH) embarked on Phase 2 of the programme of collaborative biomedical research over the next 5 years (2019-2024). The SAMRC is investing R45m p.a. (funding matched by the NIH) for projects in the areas of infectious diseases and non-communicable diseases. Eighteen projects will be funded in Phase 2 with all primary PIs in South Africa and Co-PIs in the US.

### **COMMONWEALTH HEALTH REPORT 2020**



The SAMRC was featured in the Commonwealth Health Report 2020 on Achieving Universal Health Coverage in South Africa. The publication comes at a time when health is in the headlines across the world. Novel Coronavirus (COVID-19) has been declared a global health emergency by the WHO and is putting huge pressure on countries' health services and reinforces the need to build stronger health systems for universal health coverage. It is also a stark reminder of the importance of international collaboration, political commitment and knowledge sharing – to deal not only with health emergencies, but to increase life expectancy, reduce maternal and child mortality, fight against leading communicable diseases and address the growing burden of non-communicable diseases.

Full report: https://www.samrc.ac.za/Media/CommonwealthHealthReport2020.pdf

## THE SOUTH AFRICAN AIDS VACCINE INITIATIVE

The South African AIDS Vaccine Initiative (SAAVI) is no longer active in its original form, the SAMRC continues to receive funding from the National Department of Health for SAAVI. This funding is used for a variety of activities that complement and contribute to the broader GIPD HIV Programme and capacity development initiatives. These include projects focused on research capacity development, participation in global partnerships and various strategic projects.



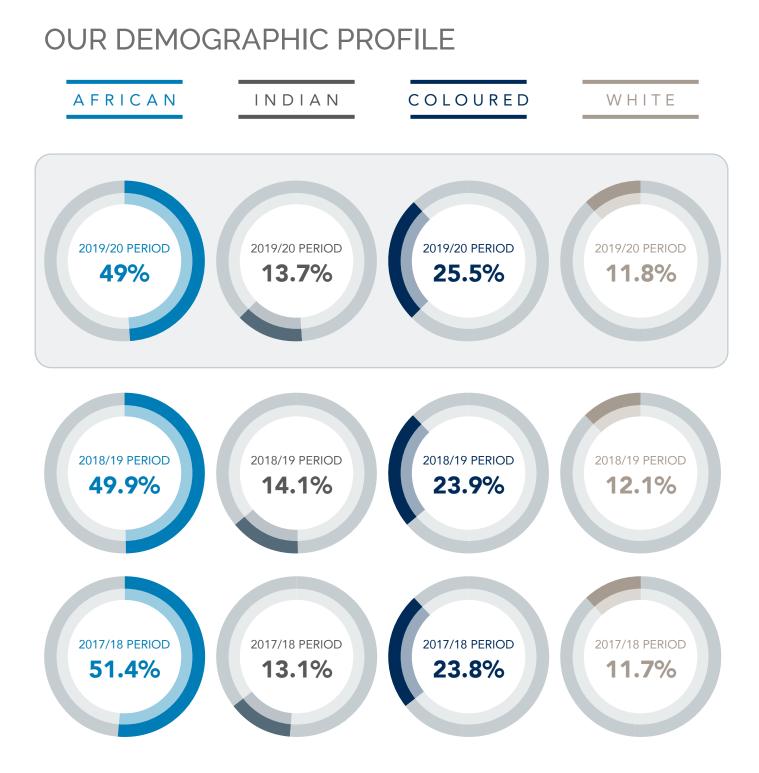
During 2019/20, SAAVI funding contributed to two global HIV initiatives, the Evidence for Contraceptive options and HIV Outcomes (ECHO) trial, and the Pox Protein Public Private Partnership (P5), which led the HVTN 702 HIV vaccine trial and other associated trials. The ECHO trial was completed in 2019 and the results were published in the Lancet in June 2019, demonstrating no substantial difference in HIV risk among three different contraceptive methods evaluated. SAAVI funds were also instrumental in the provision of PrEP to participants of the P5 and other HIV prevention trials in South Africa.

In 2019, SAAVI funds also supported a new 3-year project at UKZN on the effect of transmitted/ founder (T/F) viruses 5' Long Terminal Repeat (LTR) and Transactivation of Transcription (tat) genetic variation on viral reservoir size and latency reversal potential. This project is led by an early career researcher and forms part of the SAMRC's broader HIV cure research portfolio.

# HUMAN RESOURCES MANAGEMENT

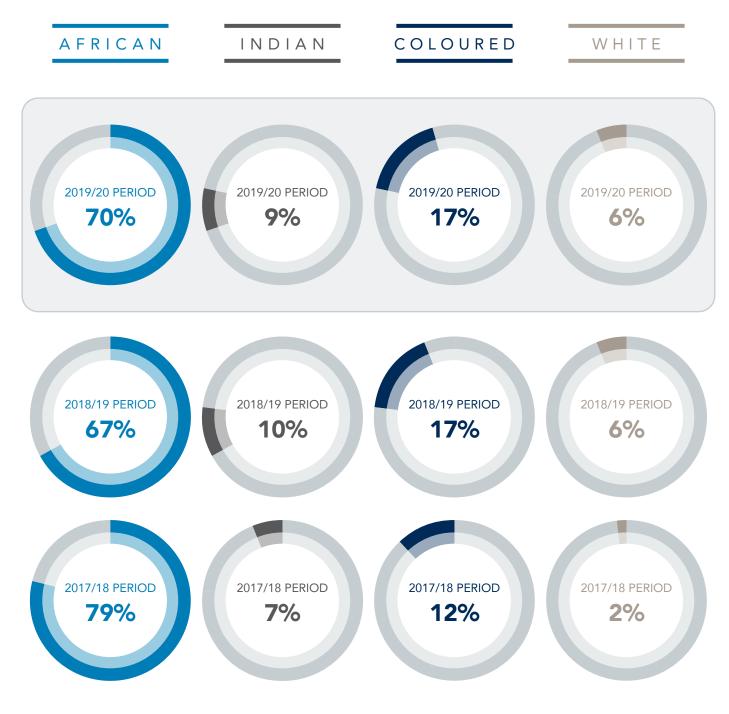
## **OVERVIEW**

The goal of the Human Resources function remains to enable scientists and those who support research in the organization to have the necessary passion, aptitude, skills and experience to help the SAMRC deliver its mandate of funding and conducting research that improves the lives of all South Africans.

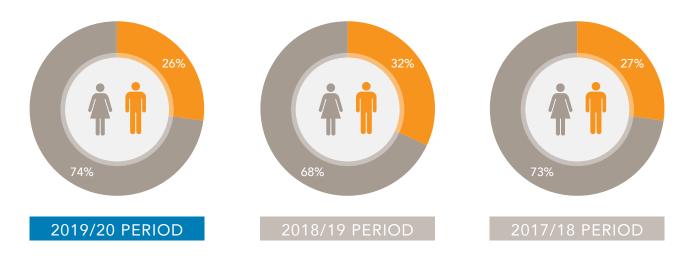




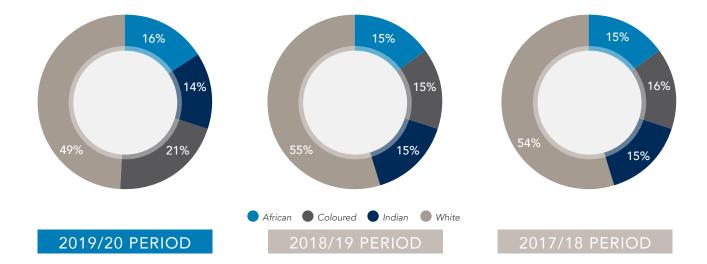
## APPOINTMENTS MADE BY RACE



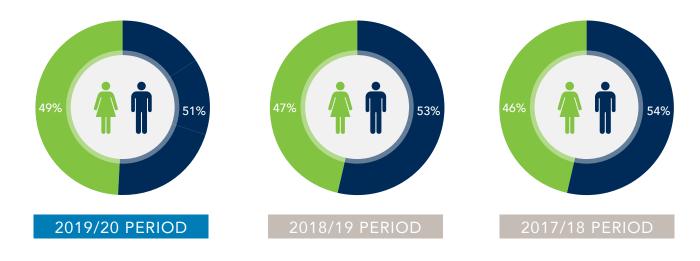
## APPOINTMENTS BY GENDER



## SENIOR MANAGEMENT BY RACE



## SENIOR MANAGEMENT BY GENDER



# GOVERNANCE

SAMRC is a section 3A entity accountable to Parliament for its performance and budget. In reporting to government, the Minister of the Department of Health is the executive authority for the SAMRC in all government and parliamentary matters. The Minister is also responsible for the appointment of Board Members. Corporate governance embodies processes and systems by which public entities are directed, controlled and held to account. In addition to legislative requirements based on a public entity's legislation and Companies Act, corporate governance (with regard to public entities) is applied through the Public Finance Management Act and the principles contained within the King Report on Corporate Governance.

## OUR BOARD

SAMRC Act states that "the affairs of the MRC shall be managed and controlled by a Board, which shall, subject to the provisions of this Act, determine the policy and objectives of the MRC and exercise control generally over the performance of its functions, the exercise of its powers and the execution of its duties".

#### Responsibilities of the President & CEO include;

Implementation of the Board's mandate and Chairing the Executive Management Committee, which is responsible for the day-to day management of the SAMRC.

#### Responsibilities of the Board include;

- Determining the policy and objectives of the SAMRC
- Monitoring performance of the various functions of the SAMRC
- Overseeing fiduciary and regulatory compliance
- Corporate governance







SITHEMBISO VELAPHI



COLLET DANDARA



















RONELLE CAROLISSEN





PROF THANDISIZWE MAVUNDLA



GLENDA GRAY

CHANGE IS INEVITABLE GROWTH IN INTENTIONAL

## EXECUTIVE MANAGEMENT COMMITTEE

The Executive Management Committee includes the President and CEO and other senior members of the organisation. This Executive team is responsible for ensuring that the SAMRC is managed well and achieves its strategic goals.



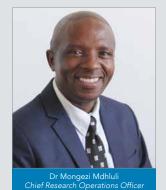












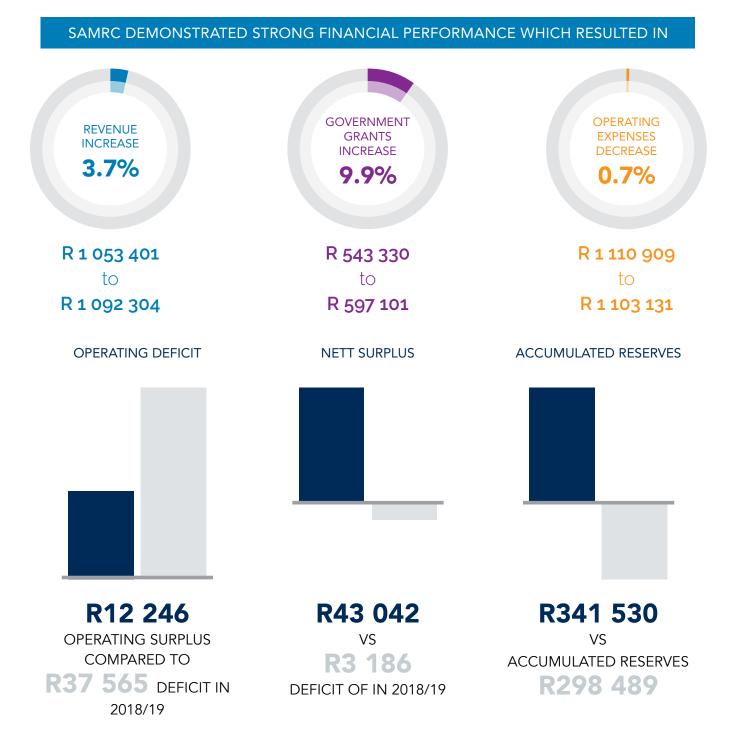




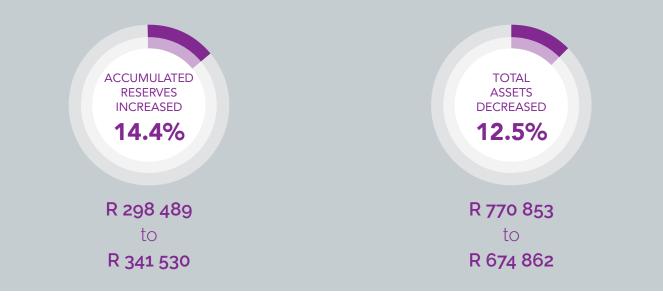
# FINANCE

## FINANCIAL PERFORMANCE FOR THE 2019/20 REPORTING PERIOD

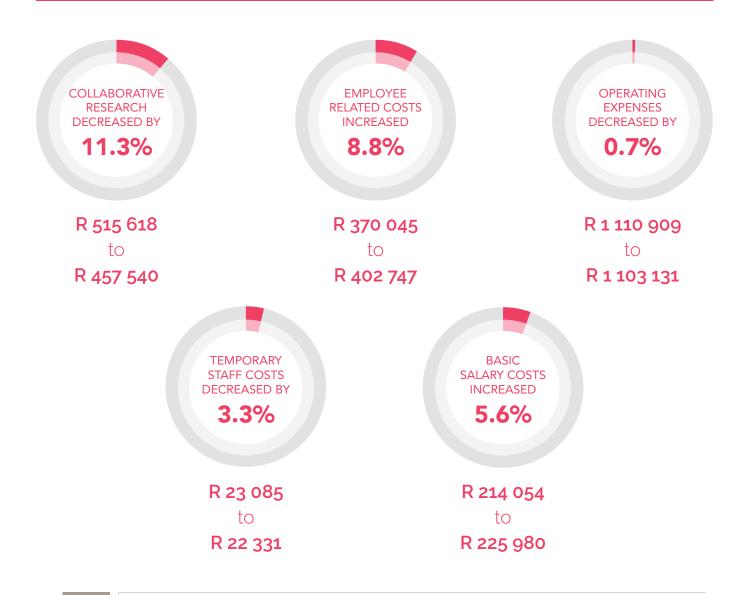
\*All figures are R'000



### SAMRC FINANCIAL STABILITY IN 2019/20



SPENDING TRENDS



# **REPORT OF THE AUDITOR GENERAL** for the year ended 31 March 2020

# ACCOUNTING AUTHORITY'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

#### PRESENTATION OF FINANCIAL STATEMENTS IN ACCORDANCE WITH:

- SA Standards of Generally Recognised Accounting Practice (SA Standards of GRAP)
- Public Finance Management Act, 1999 (Act No. 1 of 1999) (PFMA)

## AUDITOR-GENERAL'S RESPONSIBILITY



#### TO EXPRESS AN OPINION ON THE AUDIT OF THE FINANCIAL STATEMENTS:

- Conducted in accordance with International Standards on Auditing
- Complied with ethical requirements
- Plan and perform audit to obtain reasonable assurance financial statements free from material misstatements



#### AN AUDIT INVOLVES PROCEDURES TO:

- Obtaining audit evidence about amounts/disclosures in financial statements
- Ensures that procedures selected depend on the auditor's judgement
- Evaluate the appropriateness of accounting policies used
- Ensuring the reasonableness of accounting estimates made by management
- Evaluate the overall presentation of the financial statements



#### IN MAKING THOSE RISK ASSESSMENTS, THE AUDITOR:

- Considers internal control relevant to the entity's preparation
- Ensures fair presentation of the financial statements
- Designs audit procedures that are appropriate in the circumstances
- Compliance with specific legislation

## I BELIEVE THAT THE AUDIT EVIDENCE I HAVE OBTAINED IS SUFFICIENT AND APPROPRIATE TO PROVIDE A BASIS FOR MY OPINION.

## OPINION



SAMRC Annual Performance (pages 20 -29 of 2019/20 AR): Auditor General did not raise any material findings on the usefulness and reliability of the reported performance information for strategic goals 2, 3 and 4.

Report on the Audit of compliance with Legislation: The Auditor General did not raise any material findings as prescribed by the Public Audit Act.

Internal Control Deficiencies: The Auditor General did not identify any significant deficiencies in internal control.



#### ECONOMIC VIABILITY

Funding allocations of R621 790 approved by government. Accumulated reserves: R341 530 RESULT: SAMRC will continue to operate as a going concern.

# STAKEHOLDER ENGAGEMENTS

The 2019/20 financial period marked a milestone moment of the SAMRC's 50th celebration of research, innovation and development. Key stakeholder engagements included conferences, staff activities and the 50th Anniversary media programme.

#### ENGAGEMENT

SAMRC Research Capacity Development Annual Grant holders Meeting, 5-6 Feb 2019 Theme: Developing science leaders today for a healthy South African future



#### OBJECTIVE

- Meeting to empower scientists who have been awarded grants to conduct health research
- At the close of the financial year 2018/2019, in a competitive process a total of R22, 400,000.00 has been awarded to fifty scientists from various universities across South Africa
- Scientists conduct research under five strategic programmes, each with the unique intention to catapult transformation in how the SAMRC funds research while responding to identified gaps in heath research

#### ENGAGEMENT

#### FameLab Science Communication Initiative, 7 – 8 Feb 2019

#### OBJECTIVE

- Training session on communicating science to the public & media hosted (7 Feb)
- Institutional heat and finals held at SAMRC, Cape Town Conference Centre (8 Feb)
- 17 young scientists participated in day 1 training and day 2 the institutional heat/finals

#### ENGAGEMENT

Bongani Mayosi National Health Scholars Programme Event, April 2019

#### OBJECTIVE

The collaboration between the National Department of Health, the Public

Health Enhancement Fund (PHEF) and South African Medical Research Council (SAMRC) has been catalytic. PHEF, a nonprofit entity created to leverage and contribute to strengthening the health sector, shows private sector's commitment to building the healthcare system. Through the Bongani Mayosi National Health Scholars Programme, administered by the SAMRC, the Programme has produced 47 graduates (87% of which are PhDs) in various health professions.

#### ENGAGEMENT

24

BIO 2019, 3-6 June 2019

#### OBJECTIVE

Bio 2019 is the largest Biotechnology event worldwide; this year saw well over 17 000 delegates from across the world at Bio under one roof. The South African Medical Research Council (SAMRC) represented by the Corporate & Marketing Communications Division took the lead with coordinating the South Africa pavilion (exhibition) for the event. In collaboration with the Department of Science and Innovation, the Technology Innovation Agency (TIA), the SAMRC managed key elements of the SA pavilion. The SA pavilion was represented by the Department of Science and Innovation, SAMRC and TIA and included a range of companies supported or collaborating with the three entities or those involved in the SA biotech sector.



#### ENGAGEMENT 9th SA AIDS Conference, Durban, 11-14 June 2019

#### OBJECTIVE

Several scientists contributed to the 9th SA AIDS Conference through oral and poster presentations. The SAMRC had an exhibition showcasing some of its work.

#### Interviews SA AIDS Conference 2019

- Professor Glenda Gray spoke to the Drive on METRO about the journey to finding an effective HIV vaccine. | Metro FM
  | 12 June 2019
- Professor Glenda Gray spoke to 702 about the strides that have been made by medical researchers in developing new ways to combat the global AIDS problem. | Radio 702 | 12 June 2019
- Prof Glenda Gray spoke to Cape Talk and elaborated on innovative scientific, social and digital technologies that could help to control the HIV/AIDS epidemic. | Cape Talk | 13 June 2019

The SAMRC's HIV/AIDS experts including Glenda Gray and Fareed Abdullah were in attendance and were interviewed and quoted by various news publications and broadcasting channels.

Gray was the most featured representative in June 2019 and was interviewed live at the event by eNCA News following her presentation. Gray also authored an article in The Conversation talking about the big three studies pushing at the frontiers of HIV prevention. Her article was syndicated across various publications including Health24, De Kat and MyZA.

#### ENGAGEMENT

#### Genomics Centre launch, July 2019

#### OBJECTIVE

"The Centre is a national asset that will contribute to the better understanding of factors that impact on the health of South Africans and inform strategies to improve their response to diseases. We are now a part of a small group of forward-thinking countries that are pioneering genomic science to address the burden of disease in Africa which carries the greatest genetic diversity," Professor Glenda Gray, SAMRC President and CEO.

# 

#### ENGAGEMENT

SAMRC hosted Science and Tech Delegations from China in July 2019

#### OBJECTIVE

- Hosted Deputy Director General Liu and the delegation from the Ministry of Science & Technology, China. Topics: science and technology system, research funding, and research integrity and technology institutions.
- ii) Hosted Director-General of China Science and Technology Exchange Centre, Mr Chen Jiacheng.

Topics: Ministry of Science and Tech Young Scientist Exchange Programme (China), Enhancing mutual research and development aspirations between South Africa-China.





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