

advancinglife

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SOLUTIONS TO SAVING LIVES THROUGH SISONKE

Between February and May 2021, the SAMRC together with the National Department of Health, Desmond Tutu Health Foundation, CAPRISA and Johnson and Johnson, provided early access to the Janssen® (J&J) vaccine to health workers. In total 496 424 health workers received a dose of this vaccine – The Sisonke study offered protection to health care workers four months ahead of the national roll-out and ahead of the Delta driven third wave.

The single-dose regimen has provided the backbone of campaigns for more essential workers like educators, members of the South African Police Service, and those who live in more rural locations. Thus far more than 5,2 million South Africans have received at least one dose of the J&J vaccine.

To bolster the immune response of our health workers ahead of a potential fourth wave, SAMRC has worked with the National Department of Health, SAHPRA and J&J to provide early access to the J&J vaccine booster offered to health workers who have received the first dose during the first Sisonke Study.



Be ahead of the next wave

In South Africa, where only 30% of eligible adults have been fully vaccinated, increasing coverage of first doses to levels that would reduce hospital admissions and deaths during a fourth wave remains a top priority.





VACCINE HESITANCY

One of the top 10 threats to global health

Evidence is emerging globally of vaccine hesitancy in relation to newly developed COVID-19 vaccines. Vaccine hesitancy has the potential to disrupt vaccination efforts to bring the pandemic under control.

In South Africa, although progress has been made in the rollout of COVID-19 vaccination to fast-track the return to normality, vaccine hesitancy poses a real challenge. The harmful effects of refusing vaccination have become more pronounced than ever before during the COVID-19 pandemic and is now one of the greatest threats to global health. Experts have confirmed that complacency, convenience, a fear of needles and or lack of understanding are some of the factors that cause vaccine hesitancy.

SAMRC has taken it upon itself to assist in developing a

DID YOU KNOW?

Smallpox, polio, yellow fever, and others, were the cause for millions of deaths and disabilities in many parts of the world, and which are now free of these diseases, largely attributed to vaccination. Vaccines could have a similar impact on the COVID-19 pandemic if there is optimal uptake of COVID-19 vaccines.

“The harmful effects of refusing vaccination have become more pronounced than ever before during the COVID-19 pandemic and is now one of the greatest threats to global health.”

tailored and well targeted strategy that addresses the reasons and the scale of vaccine hesitancy in the country. These efforts would hopefully enhance confidence and increase the demand for vaccinating against COVID-19.

To better understand the reasons for vaccine hesitancy, the concerns of vaccine hesitant individuals need to be understood and clarified by addressing questions related to how vaccines work.

Using wastewater to detect COVID-19 in our communities

“This is as an extension of several interventions by the SAMRC to support the country’s efforts to manage the COVID-19 pandemic.”

In July 2020, a team at the SAMRC, in collaboration with a range of academic and government partners, began the Wastewater Surveillance & Research Programme (SAMRC-WSARP). This Programme includes an interactive public-facing, SARS-CoV-2 Wastewater Surveillance Dashboard, to share information on levels of SARS-CoV-2 in wastewater, in participating communities and act as an early warning system for COVID-19, informing the national department of health of the location of possible outbreaks.



Due to the emergence of new and more contagious COVID-19 strains globally and especially in South Africa, by being able to track these variants in wastewater could provide an early warning system and alert public health authorities of potential hotspots that require attention.

In July this year, the presence of the highly infectious SARS-CoV-2 Delta variant was detected in several towns of the Western Cape, using this system. The team is currently monitoring the new Omicron variant.





DIABETES AWARENESS



On the 14th November, the SAMRC was out to raise awareness about this chronic disease. The family-friendly event was held at Meerendal Wine Estate, where participants were encouraged to prioritise their health and wellbeing and take a walk for 3, 5 or 9km.

An important message reiterated by the SAMRC scientists was, the importance of knowing your potential risk, status and a reminder that prevention is better than cure. Through conscious behaviour and the adoption of healthy lifestyle choices, a great deal can be done to reduce diabetes risk and manage this largely preventable illness.

TIPS TO PREVENT DIABETES

Achieve and maintain a healthy body weight.

Be physically active – doing at least 30 mins of regular, moderate intensity activity on most days. More activity is required for weight control.

Eat a healthy diet, avoiding sugar and saturated fat.

Avoid tobacco use – smoking increases the risk of diabetes and cardiovascular disease.

Know your status - do a diabetes risk assessment or take a blood glucose screening test.



THE RIGHTS OF YOUNG WOMEN WITH DISABILITIES

Young women with disabilities are part of a highly marginalized group –who make up to at least 15% of the world's population.

The SAMRC is conducting research to improve access to comprehensive sexual and reproductive health rights for persons with disabilities through the 'Breaking the Silence' project. Recently the organisation hosted the Forgotten Agenda Project webinar to share their research findings on experiences during the COVID-19 pandemic. This was attended by young women with disabilities, service providers, policy makers, development partners and researchers from various organisations, including the SAMRC.

"Through these engagements we will understand the experience of young women with disabilities better, but also be able to identify good practice and potential approaches to make services, interventions, and emergency response more inclusive."

– Dr Jill Hanass Hancock, Senior Specialist Scientist

On the needs and gaps, before and during the COVID-19 pandemic in South Africa, COVID-19 and accompanying countrywide lockdown has deepened the layers of vulnerability and challenges for persons with disabilities, including young women with disabilities, and discontinuities in the health system. Some COVID-19 regulations provided specific challenges to people with disabilities, for example how to practice social distancing when one needs hands for assistance.

Teenage pregnancy during COVID-19 in South Africa

Teenage pregnancy remains a widespread global problem, with an estimated 21 million girls aged 15–19 years in developing countries becoming pregnant and approximately 12 million of them giving birth every year – a situation that has been exacerbated by COVID-19.

During this period, South Africa recorded higher rates of teenage pregnancies in some parts of the country – the figure ranges between 11% in urban areas and 19% in rural areas. Although even before the pandemic, 16% of young women aged 15-19 in South Africa had begun childbearing. Research conducted by the South African Medical Research Council suggests that the increase was partly due to the difficulty of accessing contraceptives, which was greater during the COVID-19 lockdown.

There is an urgent need to address violence against women and children, and shift the gender norms and power imbalances, as without these, adolescent girls may never be able to exercise their rights and make reproductive health decisions based on their own choices.



DID YOU KNOW?

Adolescence pregnancies don't only have negative health risks for adolescent mothers and their babies, but there are also high social and economic costs – these can be short- and long-term, including for the communities as they can persist into the next generation. Pregnancy and childbirth have a significant impact on educational outcomes of teen parents. For example, young girls who become pregnant often drop out of school, limiting their future economic prospects and perpetuating a cycle of poverty.

SA set to host the first COVID-19 vaccine production facility in Africa

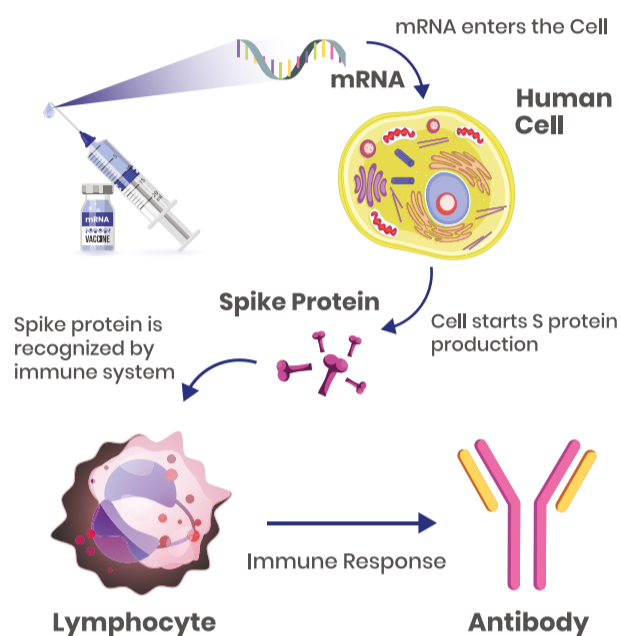
South Africa is playing a leading role in Africa's first messenger RNA (mRNA) Technology Transfer Hub for COVID-19 vaccines. Following an announcement made earlier this year by the World Health Organization (WHO) together with the South African and French governments, South Africa will be the host country for what is

set to be the continent's first COVID-19 vaccine production facility.

South Africa's mRNA production facility comprises a team of world class scientists, where the candidate vaccines will be manufactured at the Afrigen facilities and the full-scale commercial production will be at Biovac.

HOW DO mRNA VACCINES WORK EXACTLY?

Scientists have been able to study mRNA and understand how it functions. They then developed mRNA technology, which has been useful to make vaccines during the COVID-19 pandemic.



mRNA acts as a messenger that carries information encoded within DNA and our genes and is required to make proteins within our bodies.

mRNA vaccines can be developed quickly and cost-effectively, can be administered safely and is very effective.

It is also adaptable; scientists can quickly change the formulae to respond to new variants.

The mRNA vaccine does not enter the nucleus of your cells and cannot change your DNA. Rather it "teaches" the body's immune system to make a copy of the virus' "spike" protein, which the body then recognizes.

If you are exposed to the actual virus, the body will remember how to trigger this immune response. It is important to know that the vaccine does not remain in the body. Once it begins "teaching" your body to recognise the virus, the vaccine begins to break down usually within 2-3 days after being vaccinated.



PROTECT YOUR CHILDREN FROM THE SUN

With the coming of the festive season break, we spend more time outdoors in the sun. With that comes the risk of sun burn and an increased chance of developing skin cancer. In South Africa, over the spring and summer months we have a high UV index, which can be damaging to our skin. How can we get the most enjoyment from summer and what can we do to lower our skin cancer risk?

Dr Caradee Wright (SAMRC) shared some useful tips:

Stay out of the sun during peak hours when the sun is at its highest.

Avoid staying in the sun for too long.

Apply sunscreen at least 30 mins before going into the sun.

Choose a sunscreen that has the CANSA seal of accreditation.

People with sensitive skin or who may be allergic, should consult their doctor or dermatologist, to advise on the type of sunscreen to be used.

Babies younger than 6 months should not use sunscreen and should be kept out of the sun as far as possible.

Enhance protection by wearing long-sleeved clothing and sun hats.

Make use of the shady areas.

A clearer picture of the TB epidemic in South Africa

While South Africa continues to make encouraging progress in the fight against the COVID-19 pandemic, it continues to suffer from four other colliding epidemics, namely tuberculosis (TB) and HIV/AIDS, maternal, newborn and child deaths, non-communicable diseases and violence and injury.

Regarding TB, our country is among the top 30 countries most burdened by TB. South Africa is also among 14 countries with the highest burden of multi-drug resistant TB (MDR-TB) and TB and HIV comorbidity.

According to the findings of the First National Tuberculosis Prevalence Survey South Africa 2018 launched earlier this year. The national TB prevalence surveys, sought to test for tuberculosis in 55 000 individuals, older than 15 years, in 110 small area layers across all nine provinces of the country.

The prevalence estimates were used to calculate the total number of people who had TB disease in 2018, which was 390 000, but only 235 652 being notified, meaning that 154 348 people had TB in the country but were not known by the National TB Control Programme.

"We now have a more accurate picture of how the situation in SA was in 2018, and if we correctly implement the survey findings, we should be able to measure successes in five years' time", emphasized Prof Martie Van der Walt.

A sentiment shared by those involved in the survey was that knowledge and awareness of the symptoms of TB are poor and there was delay in health-seeking of individuals with TB and a high burden of undiagnosed disease in communities.

Common symptoms of TB:

Coughing up blood and mucus from deep inside the lungs

A bad cough that lasts three weeks or longer

Weakness or fatigue

Sweating at night

Pain in the chest

Weight loss

No appetite

Chills and fever

DID YOU KNOW?

SPF – stands for Sun Protection Factor. Use the equivalent to a tot glass amount on the exposed skin, which should be re-applied every 2 hours and even more frequently when swimming.

RESEARCH CAPACITY DEVELOPMENT

The SAMRC supports the development of the next generation of scientists through funding and scholarships.

For more information on scholarships and grants contact: Dr Lindokuhle Ndlandla

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ABOUT THE SAMRC

The SAMRC is dedicated to improving the health of South Africans. Established in 1969, the organisation, has for the past five decades been at the forefront of responsive research, medical innovations and transformative science – the organisation conducts and funds health research, health innovation, development and research translation.

www.samrc.ac.za

