FACT SHEET
EXPLORING DIFFERENT METHODS TO ENDING AIDS

The South African Medical Research Council (SAMRC), through its various research programmes, continues to coordinate medical and social research to provide stronger evidence for interventions and new tools for the treatment and prevention of HIV/AIDS.

PREVENTION & TREATMENT OF HIV/AIDS

PREVENTION OF MOTHER-TO-CHILD TRANSMISSION

REDUCED FROM 2,6% IN 2012-13 TO 1.4% IN 2015

The SAMRC's Health Systems Research Unit's (HSRU) findings have impacted on national programmes to prevent mother-to-child transmission (PMTCT) of HIV in South Africa. The work has provided South African data on validation criteria for eliminating mother-to-child transmission of HIV.

NEONATAL MORTALITY RATE

Preliminary results of the 2016 South Africa Demographic Health Survey (SADHS), conducted by the SAMRC's Burden of Disease Research Unit, showed that the neonatal mortality rate has dropped to 21 deaths per 1,000 live births.

HOTSPOTS FOR HIV RESEARCH STUDY

The SAMRC's HIV Prevention Research Unit (HPRU) conducted a detailed typology of HIV hotspot areas in KwaZulu Natal. The unit mapped new infections among women in the greater Durban area. It describes the socio-economic and behavioural context of women residing within HIV hotspot areas compared to women residing in HIV cold spots.

VAGINAL RING PROVES EFFECTIVE AGAINST HIV ACQUISITION

A vaginal ring containing an antiretroviral (ARV) drug called dapivirine that women use for a month at a time was proved to be safe and helped protect against HIV in a large-scale clinical trial involving more than 2,600 women. It reduced the risk of HIV infection by 27%. Women in the dapivirine group who were 25 and older were 61 % less likely to acquire HIV than women of the same age in the placebo group.

TESTING FOR AN EFFECTIVE HIV VACCINE

HVTN 702 is a large, advanced-stage vaccine study testing whether a combination of two vaccine candidates can safely prevent HIV infection in South African adults. The study vaccines do not contain whole, active HIV, and cannot cause HIV infection or AIDS. Approximately 5,400 healthy, sexually active South African men and women aged 18 to 35 years will participate in the HVTN 702 study.

INVESTING IN RESEARCH, DEVELOPMENT & INNOVATION TO CURB HIV/ AIDS

The SAMRC's Strategic Health Innovation Partnerships (SHIP) unit, which manages funding for translational research and product development in key health priority focus areas, has embarked on a number of HIV related projects. These are in the areas: HIV Diagnostics, HIV therapeutics, HIV vaccines and HIV prevention.

The Department of Science & Technology entrusts financial resources to SHIP with the aim of finding responsive solutions to change the landscape of South Africa's disease burden.

INVESTMENT PROFILE: Strategic Health Innovation Partnerships (SHIP)

HIV THERAPEUTICS

- Novel vector-delivered antiviral therapies for the treatment of latent HIV infection

HIV VACCINES

- Novel HIV vaccine candidates for South Africa
- A novel dual animal pre-clinical platform: Accelerating HIV vaccine product development in South Africa
- Epitope specificities of broadly neutralizing sera from rabbits immunized with HIV-1 Env-2dCD4S60C subunit vaccines
- Vaccine-mediated effects on immunological, viral and clinical factors in HIV breakthrough infections
- Broadly neutralizing HIV antibodies, adjuvants and immunogens
- Proof of concept study for the production and characterisation of CAP256 monoclonal antibodies in plants
- HIV-1 positive South African elite and long term controllers: viral and host targets for HIV functional cure strategies
- Assessing the quality of cellular responses to the RV144/HVTN 097 and HVTN 100 vaccine regimens
- Isolation and characterization of monoclonal antibodies from HIV-1 subtype C infected individuals

HIV PREVENTION

- The selective delivery of broad-spectrum silver-based microbicides and tenofovir using alginate-encapsulation

HIV DIAGNOSTICS

- A GIFT (Genital Inflammation Test) for HIV prevention
- Increasing the capacity of an HIV drug resistance testing pipeline to facilitate the implementation of high-throughput, cost-effective HIV resistance genotyping in South Africa and other resource-limited settings

For more information on SHIP, Please contact Dr Richard Gordon | Email: richard.gordon@mrc.ac.za