ANOVA HEALTH INSTITUTE

The HIV Epidemic in MSM in South Africa

James McIntyre

MTN Regional Meeting,
Cape Town, 2018

ANOVA HEALTH INSTITUTE

1

MSM IN SOUTH AFRICA

ANOVA
HEALTH INSTITUTE

Homosexuality in Sub Saharan Africa

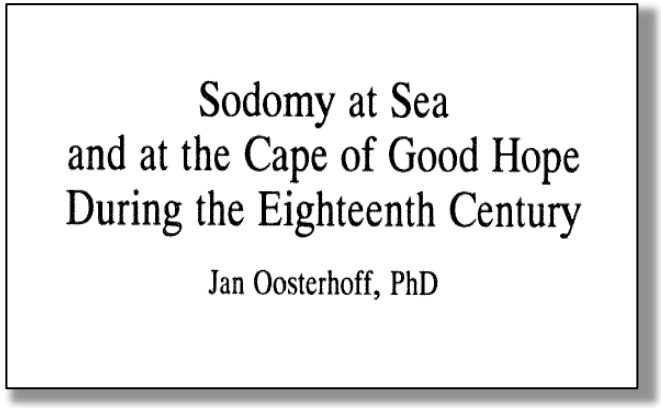
- Early recording of MSM activity in Africa
- 2000 year-old rock paintings in a cave in Zimbabwe depict men having sex with other men

Epprecht (2004)
Hungochani: The History of a Dissident Sexuality in Southern Africa

ANOVA
HEALTH INSTITUTE

Homosexuality and South Africa

- The first “western” reports of homosexual behaviour in South Africa date back to the days of the Dutch East India Company settlement at the Cape of Good Hope



- In 1753 there was a trial of a Dutch man and two Indian slaves, who had committed mutual masturbation at the chicken house at Robben Island, off the coast of Cape Town.
- The court records reflect that “not satisfied with their devilish frisky stimulation” they had also sodomized each other.
- The consequence, following their confession, was that the three were bound together with chains and thrown overboard into Table Bay

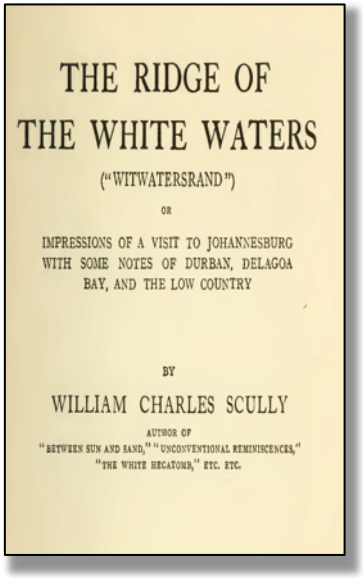
Homosexuality and South Africa

- Homosexuality was variously ascribed as a foreign vice, brought in by white settlers, or by migrant workers.

- Visiting the gold rush town of Johannesburg in 1912, British traveller William Scully noted the occurrence of homosexual behaviour in the predominantly male mining settlement.

- In his view: it was an ‘*‘undoubted fact that the Natives from some of the East Coast recruiting areas, as well as from parts of the Tropics, are addicted to those unnatural vices which, according to Holy Writ, occasioned the destruction of the “Cities of the Plain”*

- He also noted that :
  “The Shangaan Natives are the worst offenders”


THE RIDGE OF
THE WHITE WATERS
("WITWATERSRAND")
OR
IMPRESSIONS OF A VISIT TO JOHANNESBURG WITH SOME NOTES OF DURBAN, DELAGOA BAY, AND THE LOW COUNTRY
BY
WILLIAM CHARLES SCULLY
AUTHOR OF
"BETWEEN SUN AND SAND," "UNCONVENTIONAL REMINISCENCES," "THE WHITE HECATOMB," ETC. ETC.

ANOVA
HEALTH INSTITUTE

Homosexuality and South Africa

- Sodomy" and "unnatural sexual acts" remained offences in the Roman-Dutch common law of South Africa.

- These offences criminalised acts such as anal sex, oral sex, intercrural sex and mutual masturbation between men, but did not apply to, for example, men merely touching or kissing each other.

- The apartheid era brought new controls and legal restrictions, with the ruling National Party viewing homosexuality as a “threat to white civilization”

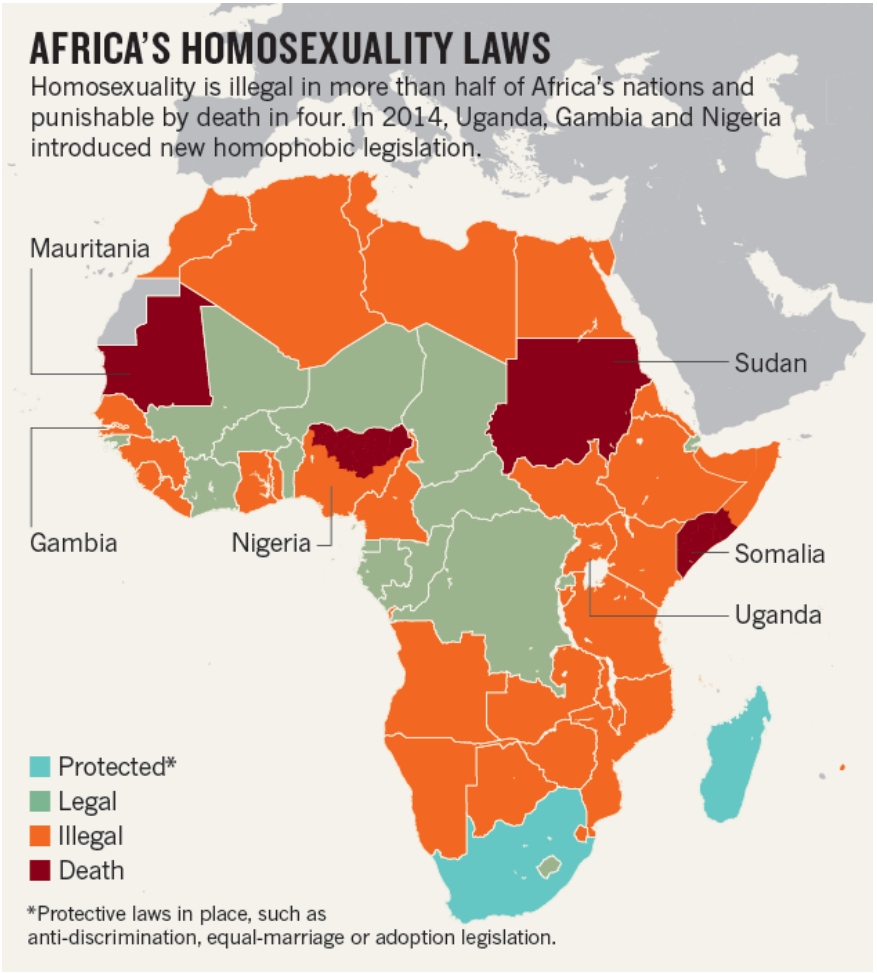
- In 1969 Clause 20A was added to the Immorality Act, known as the “three men at a party clause”.

In 1987, a conviction under the section was reversed on appeal because the court ruled that "a party" was not created when a police officer entered a room in a gay bathhouse because the two men in the room jumped apart when he switched on the light.

ANOVA
HEALTH INSTITUTE

Homosexuality and South Africa

- South Africa's post-apartheid constitution outlaws discrimination based on sexual orientation
- Same Sex Marriage is legal



ANOVA HEALTH INSTITUTE

Public Attitudes are Complex

530,000

adult men and women, of all population groups, both rural and urban dwelling, and across age groups self-identify as either homosexual, bisexual, or gender non-conforming in some way – the same ratio as observed in other countries around the world

27%

of all South Africans (1 in 4) have a friend or family member whom they know is homosexual

More than 2 in 4 of all South Africans indicated that they will 'accept' a gay family member,

55%

72%

feel that same-sex sexual activity is 'morally wrong'

Progressive Prudes.
The Other Foundation. 2016

ANOVA HEALTH INSTITUTE

“Traditional” culture, queer identity, and HIV

‘South Africa remains a homophobic, heterosexist society where, across cultures, homosexuality is pathologised, and where cultural discourses such as the notion that “homosexuality is not African” continue to play themselves out.’

Henderson and Shefer 2008

ANOVA HEALTH INSTITUTE

South Africa MSM: Varying Population Size Estimates

Number	Source	Population	
750,000 to 1,200,000	Extrapolation from two research studies	“Ever had sex with a man”	a
564,979	UNAIDS	Not stated	b
870,000	Facebook derived estimates	Men >18 with “same sex interest”	c
430,000	Facebook derived estimates	Men >18 “interested in men and women”	c
299,013	UCSF/SANAC	Men 16 – 49, reporting sex with a man in last six months	d

a] NDOH & SANAC 2017; b] UNAIDS 2016; c] Baral; et al JMIR Public Health Surveill 2018; d] UCSF & SANAC 2018

MSM Population Size estimates

Based on the IBBS surveys done by UCSF & Anova 2015 - 2017:

National population size estimate - 299 013

1.7% of national male population 16 – 49 according to 2015 census data

- Largest metropolitan areas: **2.2%** of males
- Towns & Cities <1 million population: **1.4%** of males

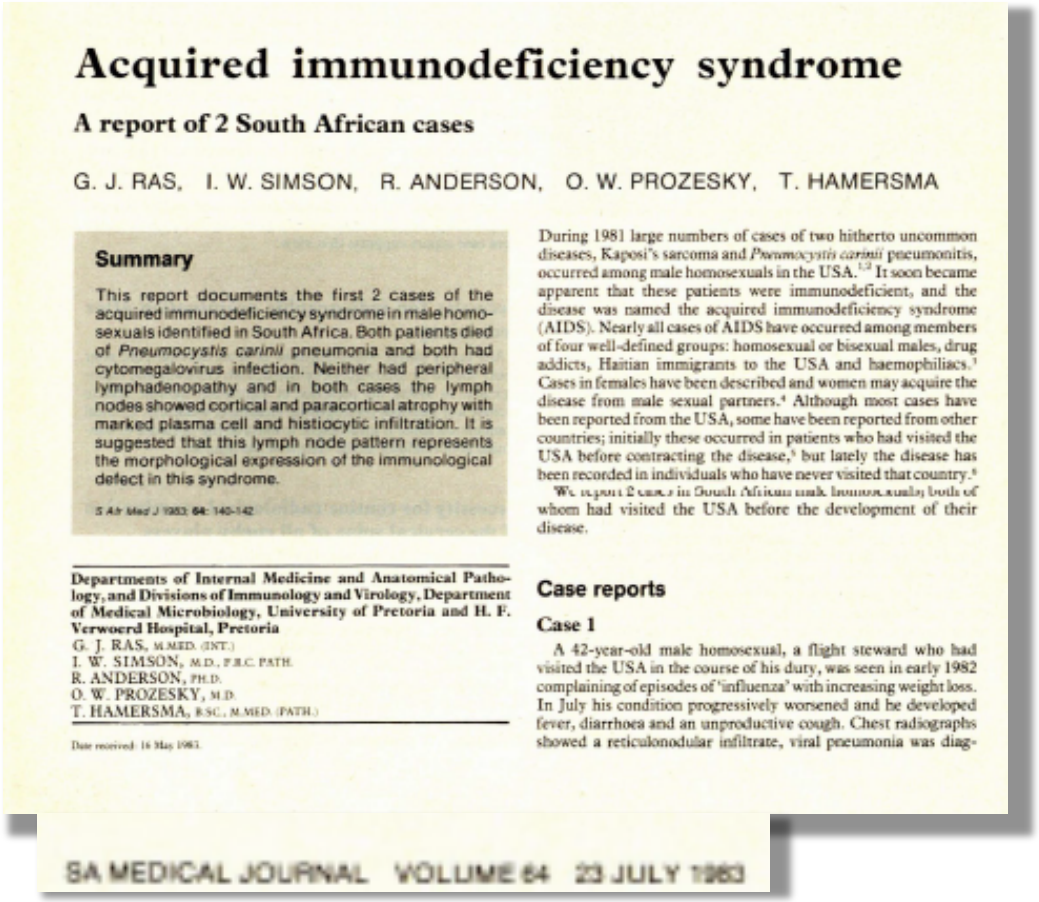
- Estimates based on RDS data which included **only men who reported sex with another man "recently" (within six months)**
- Caution on extrapolating from the five city IBBS data to a national figure
- Represents "***median plausible estimate***" – likely to be conservative

2

HIV IN MSM IN SOUTH AFRICA

ANOVA HEALTH INSTITUTE

AIDS in South Africa



Acquired immunodeficiency syndrome

A report of 2 South African cases

G. J. RAS, I. W. SIMSON, R. ANDERSON, O. W. PROZESKY, T. HAMERSMA

Summary

This report documents the first 2 cases of the acquired immunodeficiency syndrome in male homosexuals identified in South Africa. Both patients died of *Pneumocystis carinii* pneumonia and both had cytomegalovirus infection. Neither had peripheral lymphadenopathy and in both cases the lymph nodes showed cortical and paracortical atrophy with marked plasma cell and histiocytic infiltration. It is suggested that this lymph node pattern represents the morphological expression of the immunological defect in this syndrome.

S Afr Med J 1983; 64: 140-142

Departments of Internal Medicine and Anatomical Pathology, and Divisions of Immunology and Virology, Department of Medical Microbiology, University of Pretoria and H. F. Verwoerd Hospital, Pretoria
G. J. RAS, M.MED. (INT.)
I. W. SIMSON, M.D., F.R.C. PATH.
R. ANDERSON, PH.D.
O. W. PROZESKY, M.D.
T. HAMERSMA, B.SC., M.MED. (PATH.)

Date received: 16 May 1983.

During 1981 large numbers of cases of two hitherto uncommon diseases, Kaposi's sarcoma and *Pneumocystis carinii* pneumonitis, occurred among male homosexuals in the USA.[1,2] It soon became apparent that these patients were immunodeficient, and the disease was named the acquired immunodeficiency syndrome (AIDS). Nearly all cases of AIDS have occurred among members of four well-defined groups: homosexual or bisexual males, drug addicts, Haitian immigrants to the USA and haemophiliacs.[3] Cases in females have been described and women may acquire the disease from male sexual partners.[4] Although most cases have been reported from the USA, some have been reported from other countries; initially these occurred in patients who had visited the USA before contracting the disease,[5] but lately the disease has been recorded in individuals who have never visited that country.[6]

We report 2 cases in South African male homosexuals, both of whom had visited the USA before the development of their disease.

Case reports

Case 1

A 42-year-old male homosexual, a flight steward who had visited the USA in the course of his duty, was seen in early 1982 complaining of episodes of 'influenza' with increasing weight loss. In July his condition progressively worsened and he developed fever, diarrhoea and an unproductive cough. Chest radiographs showed a reticulonodular infiltrate, viral pneumonia was diag-

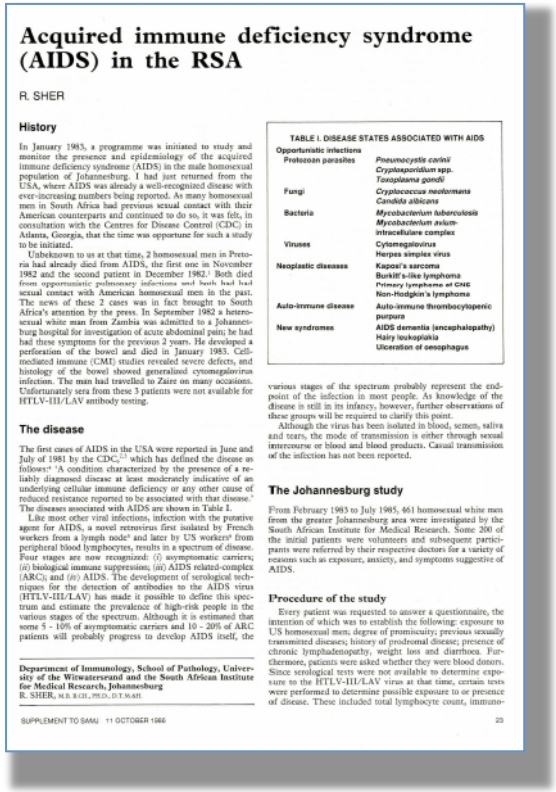
SA MEDICAL JOURNAL VOLUME 64 23 JULY 1983

First South African publication:

1983:

- two cases in homosexual men,
- both died in 1982

AIDS in South Africa



Acquired immune deficiency syndrome (AIDS) in the RSA

R. SHER

History

In January 1983, a programme was initiated to study and monitor the presence and epidemiology of the acquired immune deficiency syndrome (AIDS) in the male homosexual population of Johannesburg. I had just returned from the USA, where AIDS was already a well-recognized disease with ever-increasing numbers being reported. As many homosexual men in South Africa had previous sexual contact with their American counterparts and continued to do so, it was felt, in consultation with the Centres for Disease Control (CDC) in Atlanta, Georgia, that the time was opportune for such a study to be initiated.

Unbeknown to us at that time, 2 homosexual men in Pretoria had already died from AIDS, the first one in November 1982 and the second patient in December 1982.[1] Both died from opportunistic pulmonary infections and both had had sexual contact with American homosexual men in the past. The news of these 2 cases was in fact brought to South Africa's attention by the press. In September 1982 a heterosexual white man from Zambia was admitted to a Johannesburg hospital for investigation of acute abdominal pain; he had had these symptoms for the previous 2 years. He developed a perforation of the bowel and died in January 1983. Cell-mediated immune (CMI) studies revealed severe defects, and histology of the bowel showed generalized cytomegalovirus infection. The man had travelled to Zaire on many occasions. Unfortunately sera from these 3 patients were not available for HTLV-III/LAV antibody testing.

The disease

The first cases of AIDS in the USA were reported in June and July of 1981 by the CDC,[2,3] which has defined the disease as follows:[4] 'A condition characterized by the presence of a reliably diagnosed disease at least moderately indicative of an underlying cellular immune deficiency or any other cause of reduced resistance reported to be associated with that disease.' The diseases associated with AIDS are shown in Table I.

Like most other viral infections, infection with the putative agent for AIDS, a novel retrovirus first isolated by French workers from a lymph node[5] and later by US workers[6] from peripheral blood lymphocytes, results in a spectrum of disease. Four stages are now recognized: (*i*) asymptomatic carriers; (*ii*) biological immune suppression; (*iii*) AIDS related-complex (ARC); and (*iv*) AIDS. The development of serological techniques for the detection of antibodies to the AIDS virus (HTLV-III/LAV) has made it possible to define this spectrum and estimate the prevalence of high-risk people in the various stages of the spectrum. Although it is estimated that some 5 - 10% of asymptomatic carriers and 10 - 20% of ARC patients will probably progress to develop AIDS itself, the various stages of the spectrum probably represent the end-point of the infection in most people. As knowledge of the disease is still in its infancy, however, further observations of these groups will be required to clarify this point.

Although the virus has been isolated in blood, semen, saliva and tears, the mode of transmission is either through sexual intercourse or blood and blood products. Casual transmission of the infection has not been reported.

TABLE I. DISEASE STATES ASSOCIATED WITH AIDS

Opportunistic infections	
Protozoan parasites	*Pneumocystis carinii* *Cryptosporidium* spp. *Toxoplasma gondii*
Fungi	*Cryptococcus neoformans* *Candida albicans*
Bacteria	*Mycobacterium tuberculosis* *Mycobacterium avium-intracellulare complex*
Viruses	Cytomegalovirus Herpes simplex virus
Neoplastic diseases	Kaposi's sarcoma Burkitt's-like lymphoma Primary lymphoma of CNS Non-Hodgkin's lymphoma
Auto-immune disease	Auto-immune thrombocytopenic purpura
New syndromes	AIDS dementia (encephalopathy) Hairy leukoplakia Ulceration of oesophagus

The Johannesburg study

From February 1983 to July 1985, 461 homosexual white men from the greater Johannesburg area were investigated by the South African Institute for Medical Research. Some 200 of the initial patients were volunteers and subsequent participants were referred by their respective doctors for a variety of reasons such as exposure, anxiety, and symptoms suggestive of AIDS.

Procedure of the study

Every patient was requested to answer a questionnaire, the intention of which was to establish the following: exposure to US homosexual men; degree of promiscuity; previous sexually transmitted diseases; history of prodromal disease; presence of chronic lymphadenopathy, weight loss and diarrhoea. Furthermore, patients were asked whether they were blood donors. Since serological tests were not available to determine exposure to the HTLV-III/LAV virus at that time, certain tests were performed to determine possible exposure to or presence of disease. These included total lymphocyte count, immuno-

Department of Immunology, School of Pathology, University of the Witwatersrand and the South African Institute for Medical Research, Johannesburg
R. SHER, M.B. B.CH., PH.D., D.T.M.&H.

September 1986:

"The present status of AIDS cases in the RSA is:

(i) South African residents –

30 cases comprised of:

- homosexual/bisexual men (26),
- heterosexual (I),
- blood transfusion AIDS (I), and haemophiliacs (2);

all these are white males;"

R Sher, SAMJ, 1986

ANOVA HEALTH INSTITUTE

HIV among MSM in South Africa (2005 – 2013)

HIV prevalence	Investigator(s)	Location	Sample size
12% (2-30%)	Jewkes et al (2006)	Rural Eastern Cape	47
13% (12 – 14%)	Lane et al (2008)	Soweto	378
44% (38 – 50%)	Rispel et al (2008)	Jhb, Durban	266
14%	Sandford et al (2008)	Cape Town, Jhb, DBN	692
10%	Burrel et al (2009)	Cape Town (urban)	542
26%	Baral et al (2010)	Cape Town (peri-urban)	200
20% - 50%	Jewkes et al (2010)	Eastern Cape & KZN	1 738
36%	Tucker et al (2012)	Cape Town	171
37%	Lane et al (2013)	Mpumalanga	144

HIV incidence	Investigator(s)	Location	Sample size
7%	Grant et al. (2010)	Cape Town, global	88
10%	SACEMA (2009)	Modelled on published data	Published data

Adapted from Mbengashe, 2012
WHO-AFRO Regional Meeting on Key Populations

ANOVA HEALTH INSTITUTE

HIV among MSM in South Africa (2013 – 2017)

Recent IBBS work in six cities across South Africa shows varying prevalence and risk groups

Cape Town	Johannesburg	Durban
22.3% HSRC Marang Study 2013/2014	**26.8%** HSRC Marang Study 2013/2014	**48.2%** HSRC Marang Study 2013/2014
22.5% UCSF/Anova 2015/2016	**33.6%** UCSF/Anova 2015/2016	
	37.5% TRANSFORM 2017	

Polokwane:	19.2%
Bloemfontein:	16.8%
Mafikeng:	16.6%
Port Elizabeth:	13.8%

UCSF/Anova 2015/2016

ANOVA HEALTH INSTITUTE

MSM HIV prevalence and incidence estimates

National HIV prevalence estimate in MSM: 31%

Prevalence rates vary widely across cities in the IBBS data:

UCSF/SANAC 2018

HIV Incidence in MSM:
Few data but very high incidence rates reported: 9.5 – 12.5/100PY
(Kamali 2014, Lane 2016)

High incidence in MSM

- The **Mpumalanga Men's Study** : 3 serial cross-sectional surveys of MSM recruited through respondent-driven sampling between 2012 and 2015. Successive surveys recaptured a nested cohort of 179, contributing 144.3 person-years (PY) of observation.

- We observed 18 seroconversions, or **incidence of 12.5/100 (PY)** (95% confidence interval CI: 8.1 to 19.2/100 PY).

- **High incidence among MSM demonstrates an urgent need for biomedical prevention and treatment programming for MSM in South Africa.**


High HIV Incidence in a South African Community of Men Who Have Sex With Men: Results From the Mpumalanga Men's Study, 2012–2015

Tim Lane, PhD, MPH, Thomas Osmand, MPH,* Alexander Marr, MPH,* Helen Struthers, PhD,† James A. McIntyre, MBChB, FRCOG,† and Starley B. Shade, PhD**

(J Acquir Immune Defic Syndr 2016;73:609–611)

ANOVA HEALTH INSTITUTE

Drivers of the MSM epidemic

- Relative lack of research data among South African MSM on:
  - Acceptability of new biomedical approaches
  - Behavioural factors
    - Factors affecting unprotected anal intercourse
  - Mental health factors
  - Recreational drug use
  - Stigma and discrimination
  - Mainstream health services experiences
  - ART adherence and retention in care
  - Condom and lubricant use

ANOVA
HEALTH INSTITUTE

3

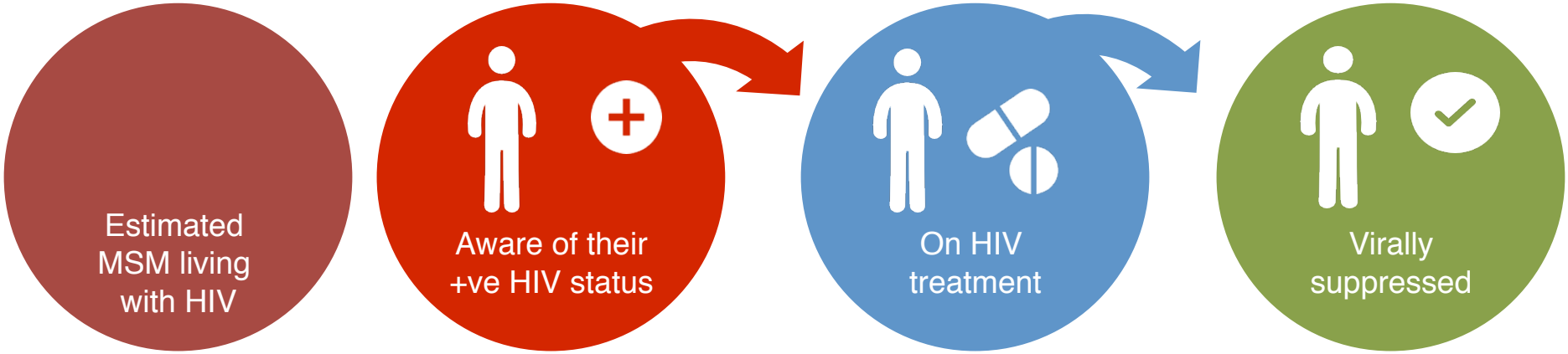
MSM CLINICAL SERVICE NEEDS

Healthcare, homophobia and HIV

- The experience of discrimination based on sexual orientation at clinics and health facilities acts an important deterrent to seeking medical care and going for HIV tests.
- Gay-identified men sought out clinics with reputations for employing staff who respected their privacy and their sexuality
- Non-gay-identified MSM presented masculine, heterosexual identities when presenting for sexual health problems and avoided discussing their sexuality with healthworkers

(Lane, 2008)

90-90-90 MSM cascade



(100%)	41%	28.1%	26,5%
92,462	37,916	26,006	24,502

Case finding remains very important

Linkage to treatment is 67% - needs to improve

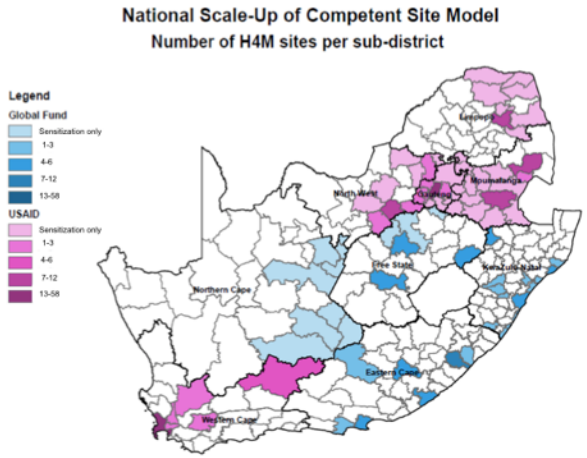
Once started on treatment, most MSM (94%) remain in care

ANOVA HEALTH INSTITUTE

Health4Men's Public sector programme

Building "MSM competent" clinical services

- "Centre of Excellence" clinics:
  - Cape Town, Johannesburg
- Regional Leadership sites in 9 provinces
- Trained "competent" sites in 9 provinces



MSM Clinic Competency training:
420 facilities l 17 500 Staff trained on sexual diversity
6 500 staff trained in MSM clinical care l1 525 Staff trained in TG clinical care

USAID FROM THE AMERICAN PEOPLE
The Global Fund To Fight AIDS, Tuberculosis and Malaria
ELTON JOHN AIDS FOUNDATION
ANOVA HEALTH INSTITUTE

Changing attitudes and building skills at public clinics

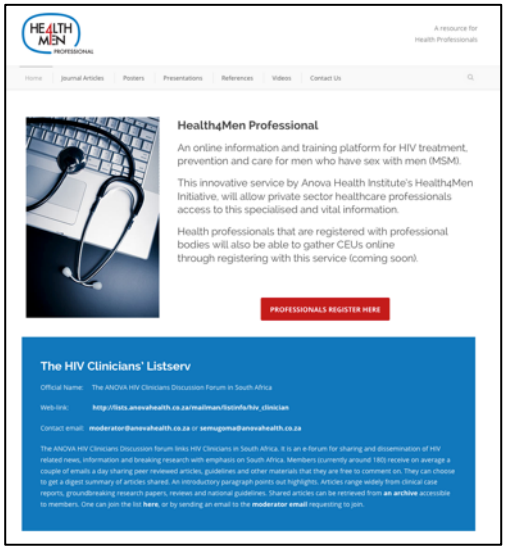
- Recent TRANSFORM Study in Johannesburg assessed satisfaction with HIV Care for HIV positive MSM and TG
- 75.6% attended HIV care at public clinics and 18.1% MSM-specific clinics.
- 89.3% were satisfied with their last clinic's privacy, and
- 91.5% with the respect they were shown.

TRANSFORM Study, Johannesburg
AIDS 2018

Health4Men's Private Sector Programme

Yellow Dot Doctor

- Private Sector practitioner training programme: supporting "MSM competent" clinical services
- Yellow Dot Doctor Academic Detailing



MAC AIDS FUND

ANOVA HEALTH INSTITUTE

Extending clinical competence in MSM services

The Health4Men model forms the basis of Anova's technical assistance and training in other regional countries

- Collaborative work:
  - EQUIP
  - LINKAGES
  - International HIV AIDS Alliance
  - MSF

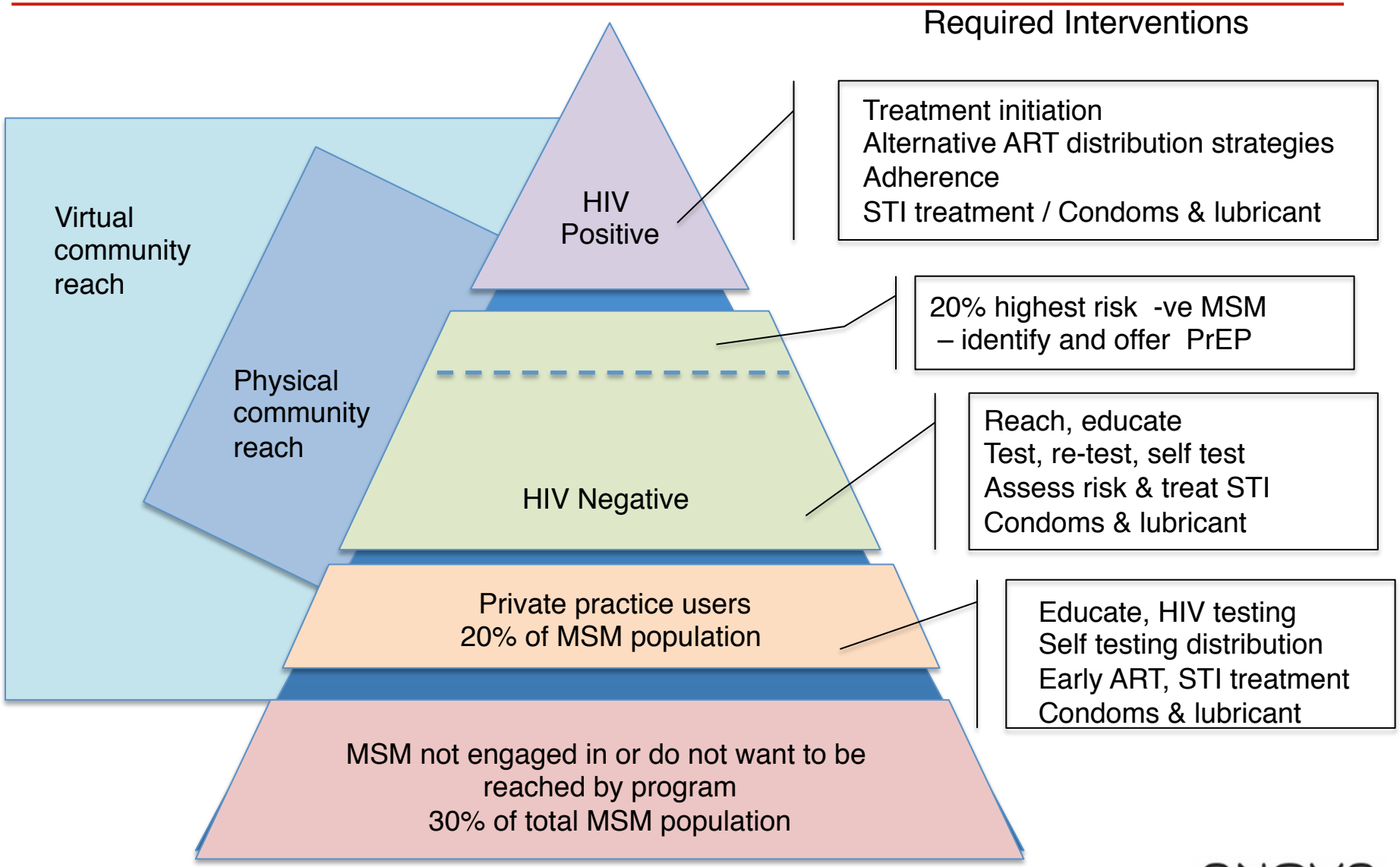
- Health4Men has now worked in Angola, Botswana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Uganda, Zimbabwe, Haiti

ANOVA
HEALTH INSTITUTE

4

MSM HIV PREVENTION NEEDS

MSM Community Reach



ANOVA HEALTH INSTITUTE

Sexual Identity

- Most men who have sex with men do not self identify as gay
- Consistent finding across a number of studies that the majority of men who report having had sex with another man recently self identify as straight
- This has implications for messaging, feasibility of community peer outreach activities, identification in clinical services

Source	Straight Identifying
Anova Anonymous Male Clinic Users (GP & NW)	58%
Anova Geopoll survey	71%
Lippman et al: SA MSM HIV Self testing study	68%

National Oral PrEP Implementation for MSM

- Anova MSM Pilot, funded By Elton John AIDS Foundation, started in Cape Town and Johannesburg in 2015 (3000 men)

- National Department of Health MSM Pilot started April 2017

- Restricted initially to three sites:
    - Anova Health4Men
        - Cape Town: Ivan Toms Centre,
        - Johannesburg: Yeoville CHC,

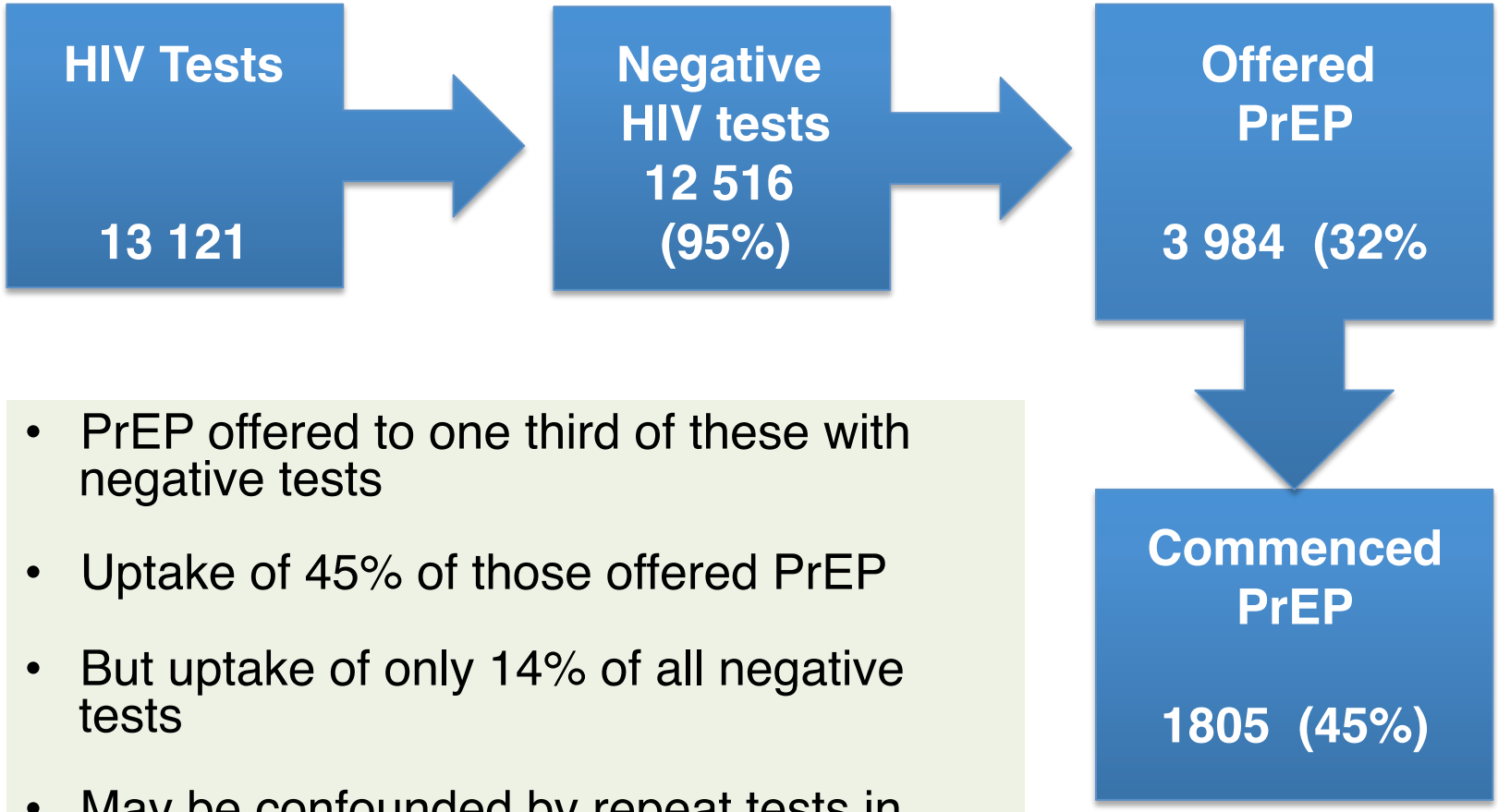
    - 1081 OUT Clinic, Pretoria,

- Anova Health4Men clinics in Soweto added in January 2018
    - Chiawelo CHC
    - Zola CHC

ANOVA
HEALTH INSTITUTE

South African National MSM PrEP Pilot:

April 2017 to July 2018



- PrEP offered to one third of these with negative tests
- Uptake of 45% of those offered PrEP
- But uptake of only 14% of all negative tests
- May be confounded by repeat tests in individuals

NDOH, 2018

South African National MSM PrEP Pilot:

Continued use calculations

MSM PrEP continuation rates appear to be higher than in the sex worker program

	4 months	**7 months**
Female Sex Worker	46%	37%
MSM	79%	58%

Jenkins et al AIDS 2018, Amsterdam

Little MSM PrEP Demand Creation

Multiple Demand Creation strategies targeting MSM have been developed, but on hold due to limited access

PrEP4life

THE DAILY PILL FOR HIV PREVENTION

ANOVA HEALTH INSTITUTE

5

Challenges

ANOVA
HEALTH INSTITUTE

MSM are Challenging

- Whilst “ever tested for HIV” rates are high in MSM (>80%), frequent testing rates are low
- More than half of HIV positive MSM in IBBS surveys were not aware of their status, and hence not linked to care
- Once on treatment, MSM retention and viral suppression rates are good
- With low awareness of status, low uptake of treatment, epidemic control is still a distant goal

ANOVA
HEALTH INSTITUTE

Challenges for MSM

- Reported condom usage is relatively high, although lubricant availability remains low
- PrEP availability must be scaled up urgently
- Community-based, programming is needed to increase uptake of HIV testing, PrEP, and treatment
- Strategies to identify and address behavioural, social and structural obstacles to HIV care for MSM are still required, including self or family-based stigmatization, anticipated community and healthcare stigmatization, substance use comorbidity – Alcohol and other drugs

UCSF & Anova, 2018

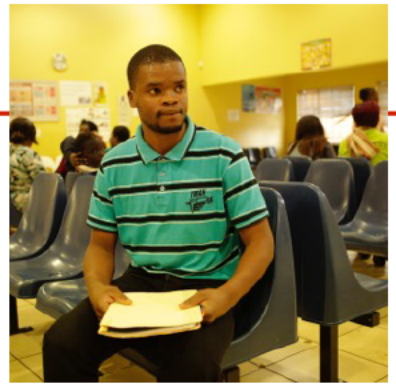
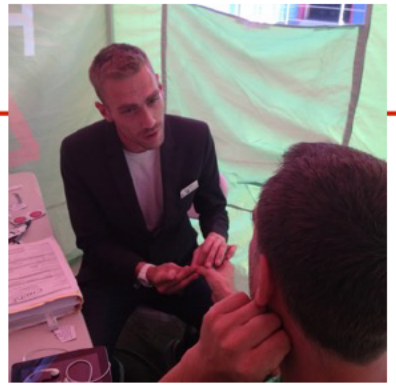
ANOVA HEALTH INSTITUTE

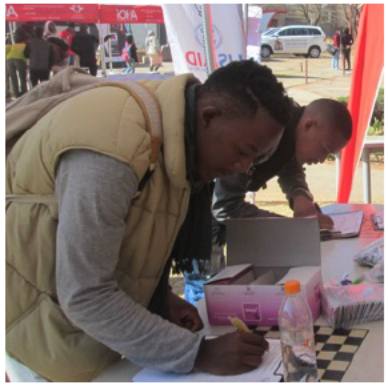
Challenges & Choices

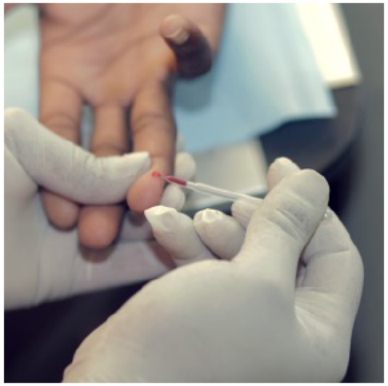
- MSM need more choices –
  - For prevention strategies –
    - both “on demand” and long-acting biomedical strategies
  - For treatment access –
    - in communities, and across facilities

ANOVA
HEALTH INSTITUTE

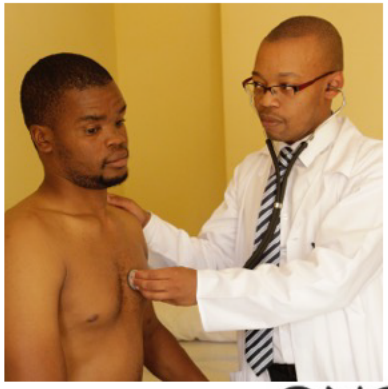










ANOVA
HEALTH INSTITUTE

ANOVA HEALTH INSTITUTE

THANK YOU

PEPFAR

USAID FROM THE AMERICAN PEOPLE