Minding the Gaps: MSM & HIV
MSM & HIV IN SOUTH AFRICA: WHAT WE KNOW, WHERE WE LACK
THE CONTEXT
Definition: Key Populations

- **Key populations** are:
  *Defined groups* who, due to *specific higher-risk behaviours*, are at *increased risk* of HIV *irrespective of the epidemic type or local context.*
  Key populations are recognised *internationally.*

- **Vulnerable populations** are:
  *Groups of people who are particularly vulnerable to HIV infection in certain situations or contexts.*
  These populations are *not affected by HIV uniformly* across all countries and epidemics.
Vulnerable Populations in South Africa

Specific groups have HIV prevalence above national average (12.2%). They include:

- Black women aged 20–34 years (HIV prevalence of 31.6%),
- People co-habiting (30.9%),
- Black men aged 25–49 years (25.7%),
- Disabled persons 15 years and older (16.7%),
- High-risk alcohol drinkers 15 years and older (14.3%),
- Recreational drug users (12.7%).
Key Populations

TOTAL POPULATION

SEX WORKERS

PEOPLE WHO INJECT DRUGS

MEN WHO HAVE SEX WITH MEN

TG

PRISONERS
Bridging Crane 1 Study: Kampala, Uganda

- Female sex worker HIV prevalence **33.0%**
- Partners/Client Prevalence **17.5%**
- General National Prevalence (adults) **8.3%**
“Not only is it unethical not to protect these groups; it makes no sense from a health perspective. It hurts all of us.”

Ban Ki-moon, UN Secretary-General
## Estimated Per-Act Probability of Acquiring HIV from an Infected Source, by Exposure Act

<table>
<thead>
<tr>
<th>Type of Exposure</th>
<th>Risk per 10,000 Exposures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parenteral</strong></td>
<td></td>
</tr>
<tr>
<td>Blood Transfusion</td>
<td>9,250</td>
</tr>
<tr>
<td>Needle-sharing during injection drug use</td>
<td>63</td>
</tr>
<tr>
<td>Percutaneous (needle-stick)</td>
<td>23</td>
</tr>
<tr>
<td><strong>Sexual</strong></td>
<td></td>
</tr>
<tr>
<td>Receptive anal intercourse</td>
<td>138</td>
</tr>
<tr>
<td>Insertive anal intercourse</td>
<td>11</td>
</tr>
<tr>
<td>Receptive penile-vaginal intercourse</td>
<td>8</td>
</tr>
<tr>
<td>Insertive penile-vaginal intercourse</td>
<td>4</td>
</tr>
<tr>
<td>Receptive oral intercourse</td>
<td>low</td>
</tr>
<tr>
<td>Insertive oral intercourse</td>
<td>low</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
</tr>
<tr>
<td>Biting</td>
<td>negligible</td>
</tr>
<tr>
<td>Spitting</td>
<td>negligible</td>
</tr>
<tr>
<td>Throwing body fluids (including semen or saliva)</td>
<td>negligible</td>
</tr>
<tr>
<td>Sharing sex toys</td>
<td>negligible</td>
</tr>
</tbody>
</table>
MSM HIV Prevalence, South Africa

- Marang Men’s Study (2012-13)
  - Durban 48.2%
  - Cape Town 22.3%
  - Johannesburg 26.8%

- Mpumalanga Men’s Study (2014)
  - Gert Sibande 28.3%
  - Ehlanzeni 13.7%

Comparable, national HIV prevalence SA men (15-49yrs)
14.5%
### Table 5: Recent HIV prevalence data from men having sex with men in South Africa (2008-2009)

<table>
<thead>
<tr>
<th>HIV prevalence (95%CI)</th>
<th>Characteristics of sample</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>47%</td>
<td>Men with anal sex experience, aged 18-58 years, in Soweto, Gauteng</td>
<td>Lane <em>et al.</em>, 2009</td>
</tr>
<tr>
<td>43.6% (37.6-49.6)</td>
<td>MSM from Johannesburg and Durban, N=285</td>
<td>Rispel <em>et al.</em>, 2009</td>
</tr>
<tr>
<td>35%</td>
<td>MSM in Cape Town, Durban, Pretoria, N=37</td>
<td>Parry <em>et al.</em>, 2008</td>
</tr>
<tr>
<td>34%</td>
<td>Self-identified MSM from peri-urban townships in Capetown, N=200.</td>
<td>Burrell <em>et al.</em>, 2009</td>
</tr>
<tr>
<td>13.9%</td>
<td>MSM in Gauteng, KwaZulu-Natal and Western Cape, N=1021. <strong>Self-reported</strong> sero-prevalence among the 732 MSM who reported having been tested.</td>
<td>Sandfort <em>et al.</em>, 2008</td>
</tr>
<tr>
<td>10%</td>
<td>Self-identified MSM from urban areas in Western Cape, N=542.</td>
<td>Burrell <em>et al.</em>, 2009</td>
</tr>
<tr>
<td>9.9% (4.6-20.2)</td>
<td>National sample, N=86</td>
<td>Shisana <em>et al.</em> 2008</td>
</tr>
</tbody>
</table>
Men and the Treatment/Care Cascade (South Africa)

• Note gender gap in engagement.

• Data for ‘infected’ from 2012 survey?

• Important to note that men in SA engage much less. There are issues there.

• Important to note that men in KP groups are even more vulnerable than men as a group.
So... who are MSM?
Why the term ‘MSM’?

• It means *Men who have Sex with Men*


• MSM is **not an identity**

• MSM is **behaviour**

The term is important because:

• **Behaviour places men at risk not identity**
MSM also (often) have sex with Women

- “85.0% of men with a history of consensual sex with men reported having a current female partner”
  - 98.9% of MSM had ever had sex with a woman.

- 27.7% reported having a current male partner
  - Of these 80.6% also reported having a female partner
Sexual Activity

• Ranges: No physical contact to penetration

• No physical contact includes:
  • visual stimulation (for example webcam sex), telephone sex
  • masturbation

• Physical contact may include:
  • kissing
  • oral-penile, penile-anal, digital-anal, oral-anal, frottage, scissor sex, tribadism...

• Being a MSM is not high risk, but specific *behaviours* may be high risk
The Health Care Worker and MSM: A Sex Positive Approach
Legal Issues & Obligations

- Constitution, 1994
  - No discrimination on Grounds of Sexual Orientation (Bill of Rights)

- Declaration of Geneva includes Sexual Orientation.

I WILL NOT PERMIT considerations of age, disease or disability, creed, ethnic origin, gender, nationality, political affiliation, race, sexual orientation, social standing or any other factor to intervene between my duty and my patient;
The Health Worker IS from/of the Community

- May have the same attitudes, prejudices, discomforts, thinking, religion or faith.
- May or may not be aware of them.
- Those things affect their work
Health Care Workers

Barriers

• Can be a Major Barrier to access
• Weak Health Care systems
• ‘They don’t come to us.’ ‘They don’t tell us.’
• Lack of Sensitivity
• ‘They laugh at us’, ‘They tell everyone.’
• Lack of Competence
Prejudice and Healthcare

• Attitudes, stereotypes, myths and prejudice can create barriers to access and use of healthcare.

• Negative attitudes affect the way health workers engage and communicate with patients.

• Barriers to using health services weaken the fight against the HIV epidemic and result in poorer health outcomes for the community.
‘We don’t see them’

• We don’t ask the question(s)

• We don’t know when it is relevant to ask the question(s)

• They are not comfortable confiding in us.

• Somehow, we push them off
Creating the Right Environment

- Make all patients feel equally welcome
- Privacy for consultation
- Use patient’s name, gender pronouns (TG). Use their terms. Ask if/whe not sure!
- Posters addressing diverse sexual health needs.
- Monitor your own response AND the colleagues you supervise
Culturally Appropriate Health Messages

If you drink before you ride use WATER-BASED LUBE and COVER UP SAFELY

Though rare, HIV transmission between women is possible.

Anyone who is sexually active is at risk for HIV.

Some women who identify as lesbian also have sex with men. Women could also be at risk due to being raped, abused or having artificial insemination.

Having an STI makes it much easier to get infected with HIV, or to spread the virus to others.

He is our son
He is our brother
He is my friend
He belongs to my church

HE IS GAY AND WE ACCEPT HIM FOR WHO HE IS

More information please get in touch with one of our Health4Men ambassadors in your area.
(021) 421 6127

For more information please get in touch with one of our Health4Men ambassadors in your area.
(021) 421 6127

Coming soon
HealthWomen: mobil and website
THE ISSUES TO CONFRONT
Core Key Population Services Identified by WHO

- HIV screening and treatment (CD4 <500 cells/mm³)
- Management of HIV related illness
- Appropriate counselling and support
- Prevention – PEP and consider PrEP
- Prophylaxis
  - IPT / Fungal / Co-trimoxazole
- STI prevention, screening and treatment
- Malaria prevention (specific provinces)
- Vaccination e.g. hepatitis B, pneumococcal, flu
- Integrated TB services – South Africa
Sexual Violence against Men

• Common.
  • Victimisation Prevalence 9.5%, (n=162, 95% CI 8.0-11.0)
  • 3.3% (n=50, 95% CI 2.5-4.1) orally or anally raped

• Prison obvious (notorious) setting

• But, also in the Community.
  • MSM more likely to experience assault (aOR =7.34; CI 4.3-12.5)
  • MSM more likely to report more severe violence.

• Intimate partner violence high

• Prevalence of rape victimisation reported by MSM in this study is comparable to prevalence of rape victimisation reported by SA women.
Testing Recommendations

**Need to shift HIV testing promotion from one-off model, to Repeated, Routine, Health Maintenance Behavior**

**Public health research from ‘ever’ testing, to assessment of ‘repeat’ testing.**

Paul Semugoma, MD
Prevention Strategies

• Biomedical
• Behavioural
• Structural
Condoms

- Anal and vaginal sex to prevent HIV transmission
- Effective

- For MSM: **condoms AND Lube**
  Water based lube on rubber

- Use low or inconsistent in MSM
  - Condom message fatigue
  - Choice...
  - Poor messaging
Condoms and Lube

- Sex it up
- Use for highest risk sex
- Supply with lube

Using lubricants for >80% of anal sex acts is significantly associated with decreased [condom] failure rates in the insertive model.
Female Condoms

- Can be used for anal and vaginal sex
  - Remove inner ring
  - Penetrative partner places condom on penis – like a sock
  - Lubricates outside of condom
  - Penetrates the receptive partner
  - Advantages for both penetrative and receptive man
  - Not made of latex so can use any lube
Anti-retroviral Preventions

- Post exposure prophylaxis (PEP)
- Pre exposure prophylaxis (PrEP)
  (Note: this is not available in government facilities)
- Early treatment ARVs (TasP)
Post Exposure Prophylaxis (PEP)

Already used for:

- PMTCT
- Post needle stick
- Post rape
- After possible sexual exposure
- Broken condom
Pre-exposure Prophylaxis (PrEP)

- It works esp for MSM
- Guidelines, under revision.
- High efficacy. Adherence dependent
- iPrex, iPrex OLE, IPERGAY, PROUD

CAN A PILL A DAY PREVENT HIV?
FOR INFORMATION ON THIS NEW AND EXCITING HIV PREVENTION STUDY
SMS "Info" at no cost to 30080 or e-mail: MCMARepovResearch.org.to
All participants will be compensated for their time and transport.

Truvada
Multibed, Multivitamin and Analgesic Suspension Tablets
10 Tablets
10 mg
Treatment as Prevention (TasP)

HIV transmission needs:
• Many copies of HIV virus
• An entry point into someone’s body

Thus
• Lowering viral load lowers transmission

Questions
• Should we treat Key Populations early, because of high risk of transmission?
• Should we treat the highest risk Key Populations? (Discordant couples, SW, IDU, TG)
• Not a proven strategy yet but might be effective and evidence is increasing. (Das et al and Cowan et al).
Impact of MC on HIV: Evidence from observational studies and RCTs

Overall: 15
South Africa (ANRS): 1
Kenya (NHI): 1
Uganda (NHI): 1

Risk reduction (%)
85 80 70 60 50

- Overall: 58 (48-66)
- South Africa: 60 (33-76)
- Kenya: 59 (30-76)
- Uganda: 51 (14-82)

References:
- Weiss et al. AIDS 2000, 14:2361-70
Suggested Approach to MMC

• MMC should be actively promoted and offered to all men who have sex with women, regardless of whether or not they also have sex with men.

• The potential benefits of MMC should be discussed, and the procedure actively promoted and offered to all MSM who report predominantly insertive sexual behaviour.
Behavioural Prevention Strategies for HIV

- Decreasing partner numbers
- Sero adaptive behaviours - MSM
  - Sero sorting
  - Sero positioning
- Addressing substance use and abuse
- Normalising masturbation
- Non-penetrative sex – normalising
A Little Anatomy

Pharyngeal
- Receptive oral sex
- Rimming

Urethral
- Penetrative oral sex
- Penetrative anal sex

Anal
- Receptive anal sex
- Rimming
- Sex toys
The Syndromic Approach To STI Treatment

New Syndromic Guidelines:

Replace cefixime with ceftriaxone

Replace doxycycline with azithromycin

This is the current approach advocated by the SA Department of Health.
Undertreated GC promotes HIV transmission

- Key Populations prevalence already high → high community viral load

- Highly effective HIV transmission in UAI (20 X vaginal sex risk)  

- Untreated urethritis increases seminal HIV viral load by a factor of approximately.  
Asymptomatic STIs (ASTI)

The majority of gonorrhea and chlamydia asymptomatic in MSM

Syphilis
Hepatitis and other sexual viruses
HIV

ASTI Treatment Guidelines for KPs

CDC (and various USA & EU guidelines)
- Yearly syphilis
- PCR screening of pharynx, anus and urethra based on sexual history

WHO: Presumptive STI treatment for at risk Key Populations
- Reported UAI (unprotected anal intercourse) in the last year PLUS Partner with an STI OR Multiple partners
Contact Tracing and Key Populations

• Best practice STI management includes contact tracing but difficult in Key Populations because:
  – Social and sexual networks often hidden
  – May have been casual contact
  – Sex in public spaces
  – Anonymous
Harm Reduction versus Abstinence?
Drivers of High STI Rates

• High rates of unprotected sex
  – Prevention message fatigue
  – Lack of condoms or lube
• Presumed level of safety
  – HIV and STIs are manageable
  – Advertising by pharmaceutical companies
• Modern youth
  – Earlier onset of sexual debut
  – More sexual partners
  – More exposure to sex (e.g. internet)
  – Recreational substances
Bacterial STIs

N. Gonorrhoea and C. trachomatis
(Non-Specific Urethritis)

– Easy to transmit
– Does not require transfer of sexual fluids or blood
– Key Populations are exposed during anal, vaginal or oral sex
– Can’t clinically tell gonococcal from chlamydial infections
– Asymptomatic carriage in both MSM and WSW
Undertreated GC promotes HIV transmission

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- Untreated urethritis increases seminal HIV viral load by a factor of approximately.  
Syphilis

- Key Populations have chancres in atypical sites e.g. Anal / rectal / oral / vaginal
- Increasing rates in developed and developing world
- Increases transmissibility of HIV
- Some evidence of increased viral load in HIV positives
- Interpreting serology

Diagnosis can be difficult
RPR can miss early disease
THPA may remain positive post treatment
Recommendation of qHPV Vaccine for Men

- **Recommendation:** All men age 21 years and younger receive three doses of the HPV vaccine.
- It is an option for all men, but is recommended for men who have sex with men or who have a compromised immune system (including HIV) to receive the HPV vaccine through age 26 if not received earlier.
- All SW should also receive HPV vaccine.
Hepatitis C

• IV drug use (other drug use?).

• Sexual spread during unprotected anal sex.

• Much worse outcomes if HIV and HCV co-infected.

• No vaccine and often no accessible cure.

• Up to 85% of infections become chronic.

• Re-infection can occur.
Hepatitis B (HBV)

- SA carries 18% of global burden of HBV
- Spread via infectious body fluids (semen, blood, saliva)
- Resilient germ, survives well outside of human body
- Causes jaundice and hepatitis
- Chronic infection causes liver cirrhosis, failure and cancer risk
- HIV and HBV co-infection common in Africa
- Worse outcomes if HIV and HBV co-infected
- More expensive and complicated ART regimens
Hepatitis C in South African Key Populations

• 313 HIV positive participants screened for HCV
  – 170 (54%) MSM from Ivan Toms Clinic
  – 143 (46%) non-MSM from Groote Schuur

• 10 (3.2%) overall tested positive for HCV
  – 9 (5.3%) in MSM
  – 1 (0.7%) in MSM (p=0.024)

Depression and Anxiety

– Result of living in a criminalised or stigmatised environment

– Heteronormativity

– Self-worth and self esteem
Challenges with harm reduction programmes

• Lack of community knowledge about the benefits of harm reduction services.
• Fear of legal prosecution
  – Needle exchange is illegal in many settings
  – One participant arrested with H4M IDU pack
• Lack of detox and rehab referral services.
• Lack of sponsored OST.
• High mental health disease burden.
• Difficulty employing and managing people with active addiction lifestyle or in recovery as outreach workers.
Harm Reduction Services for KP who use recreational drugs

- HIV, Hepatitis B and C screening
- Linkage to in-house care if positive (integrated services)
- Counselling
- Harm reduction packs
  - IDU packs (Including needle and syringe exchange)
  - Non-IDU packs
- Opioid substitution therapy
- Condoms and lubricant
- IEC materials and helpline details
- Treatment of drug-use complications
- Linkage to detox and rehabilitation services
Crystal Meth and HIV Transmission

- Up regulates receptors (attachment factors on cells)
- Makes cells more susceptible to HIV infection
PARTNER STUDY

- 1110 sero-discordant couples, nearly 40% gay male couples
- Sex without condoms at least some of the time
- No PREP/PEP for HIV negative partner
- HIV positive partner on ART with VL < 200 copies/ml

PROVISIONAL RESULTS:

- No-one with an undetectable viral load (cut off was 200 copies/ml), gay or heterosexual, transmits HIV in first two years
- Viral load suppression reduces risk of HIV transmission by `at least` 96% during anal sex
MSM/TG and Anal Cancer

- MSM/TG at increased risk for anal cancer.
- Infection with Human papilloma virus (HPV).
  - Warts
  - Cancer
- Carcinogenesis of HPV known. Highly Carcinogenic serotypes (16, 16) (*Diggs, 2002*)
- Risk factors for anal cancer (American Cancer Society):
  - Human papilloma virus (HPV): anal and/or genital warts;
  - Multiple sexual partners;
  - Anal intercourse.
Anal Cancer: Screening and Prevention

• Anal warts may be prevented by using HPV vaccines such as Gardasil (9, 14).
• HPV vaccines lower risk of anal cancers in MSM.
• No formal vaccination protocol for MSM/TG in South Africa.
• Anal pap-smears can be done at private facilities to check for early anal pre-cancers.
• Role of Self Examination?
More frequent testing.

MINDING THE GAP: OTHER CONDITIONS
Invasive *Neisseria meningitidis*

- Usually not sexually transmitted.
- Outbreaks amongst MSM
  - Serogroup C *Neisseria meningitidis*
  - Sexually transmitted
  - HIV positive
  - ‘Clusters’
  - Serious- Meningococcemia, Meningitis.

- Vaccination
Ongoing epidemic of lymphogranuloma venereum in HIV-positive men who have sex with men: how symptoms should guide treatment

Mohrmann, Gerrit¹; Noah, Christian¹; Sabranski, Michael²; Sahly, Hany¹ and Stellbrink, Hans-Jürgen²

Introduction: Lymphogranuloma venereum (LGV) is a sexually transmitted infection (STI) caused by chlamydia trachomatis (CT) genotype L (L1, L2 and L3). Recent outbreaks of LGV in Europe and North America affected mainly men who have sex with men

STI of ‘developing countries’ “LGV belt”
Bacteria- Chlamydia trachomatis. LGV serovars L1, L2, L3
LGV, classical

- Disease of the tropics.
  - ‘LGV belt’
- STI
  - Stage 1: Painless genital sore. 3-12 days
  - Stage 2: Lymphadenitis/Lymphangitis 1-6 months) ‘Buboes’
  - Stage 3: Scarring and healing
Cases of LGV, IDH 2003-13

- Number of cases

All Cases of LGV, (IDH 2003-13) By HIV Serostatus (No, %)

**HIV Positive**: 10 (4.3%)
**HIV Negative**: 2 (0.8%)
**HIV status unknown**: 1 (0.0%)

198: 90%

All LGV Patients by Presenting Symptoms

- Genital symptoms: (bloody proctitis, rectal pain, purulent or mucous discharge, tenesmus, constipation)
- Anorectal symptoms: (urethritis, genital ulcers or inguinal lymphadenopathy)
LGV treatment

• How many missed? Clinical suspicion
• Diagnosis. Lack of diagnostics.
• Syndromic management
  – History of MSM
  – Clinical symptomatology
  – Syndromic management (of STIs!!!!???)
• Doxycycline 100 mg po od 3 weeks. Curative.
Shigella flexneri: A Cause of Significant Morbidity and Associated With Sexually Transmitted Infections in Men Who Have Sex With Men

Cresswell, Fiona Valarie MRCP; Ross, Sophie MBBS; Booth, Tristan MBBS; Pinto-Sander, Nicolas MBBS; Alexander, Eliza FRCP; Bradley, Jasmine; Paul, John FRCP; Richardson, Daniel FRCP
**Shigella flexneri**


- Can cause severe illness
  - Hospitalisation
  - Acute Kidney injury (ARF)
- Associations
  - HIV infection
  - Recreational drugs

- All MSM
- HIV positive (54%) & Negative
- ARV naïve and not.
- Viral suppression, Immune reconstitution not protective

To Note:
- Not a very benign infection
- Marker of unprotected sex. Presence of other STIs
- Further management, Partner notification, Patient education

Paul Semugoma, MD
Anova Health’s ‘Health4Men’ Program

• Health Worker Training
• Sensitivity training
• MSM Competence
ANOVA HIV Clinicians Discussion eForum; South Africa

Email list
Clinicians in South Africa with interest in HIV
Register online
http://lists.anovahealth.co.za/mailman/listinfo/hiv_clinician
Or send me email at moderator@anovahealth.co.za
Daily, 2 emails - Breaking News, Published Articles
Thank You!