Minding the Gaps:

MSM &HIV







Paul Semugoma, MD

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.



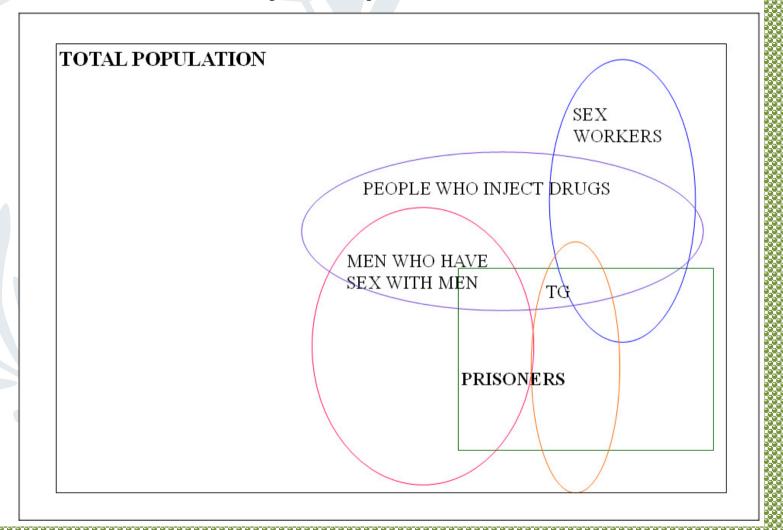
Vulnerable Populations in South Africa

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





Bridging

Crane 1 Study: Kampala, Uganda

 Female sex worker HIV prevalence

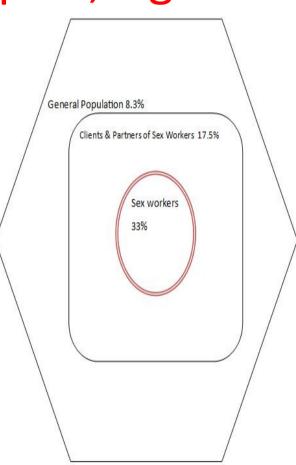
33.0%

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



Risk per Act

Estimated Per-Act Probabilit	y of Acquirin	g HIV from an Infected	Source, by Exposure Act*
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Type of Exposure	Risk per 10,000 Exposures	
Parenteral ³		
Blood Transfusion	9,250	
Needle-sharing during injection drug use	63	
Percutaneous (needle-stick)	23	
Sexual ³		
Receptive anal intercourse	138	
Insertive anal intercourse	11	
Receptive penile-vaginal intercourse	8	
Insertive penile-vaginal intercourse	4	
Receptive oral intercourse	low	
Insertive oral intercourse	low	
Other^		
Biting	negligible⁴	
Spitting	negligible	
Throwing body fluids (including semen or saliva)	negligible	
Sharing sex toys	negligible	



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%



MSM HIV Prevalence, SA

Table 5: Recent HIV prevalence data from men having sex with men in South Africa (2008-2009)

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



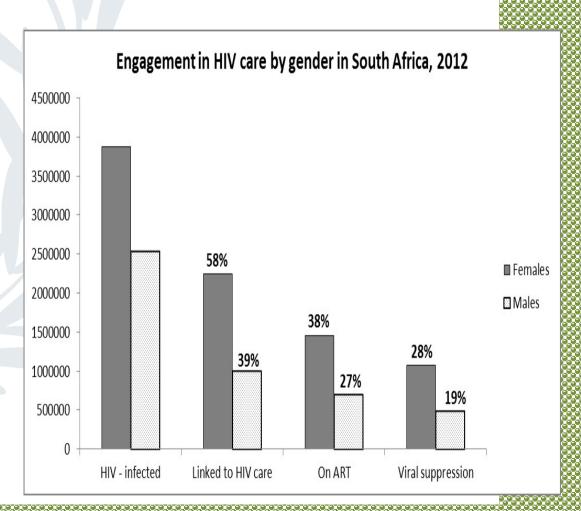
Men and the Treatment/Care Cascade (South Africa)

•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 <u>Men who have Sex with Men</u>
- MSM include 'gay' men, 'homosexual' men, 'bisexual' men, 'after-nine' men, 'moffies', 'queers', <u>straight men</u> etc.
- 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

One of the most commonly described forms of discrimination MSM experienced was in health care settings. Participants described different strategies to cope with discrimination at health facilities. Some devised means to use health services by seeking a gay provider, or asking friends to play a 'go-between' role. Others said that the best means is self-treatment because they felt they would not be treated at health facilities anyway.

I always go to hospitals and they easily tell that I am gay. I ask for condoms but usually a health worker will tell you to sit down and wait. Then he calls his co-workers, they peep through a window and laugh/mock you. This makes me feel very bad. So, I find it easier to use my friends to pick up condoms for me. Sometimes, I just go straight and buy them instead of getting them for free from hospitals (>24 years old, HIV-positive).

Even if I fall sick or get fever, I just stay home without treatment because you can't go to the main referral hospital in Kampala. There, every health worker will object to giving you treatment saying that "he is a homosexual don't work on him" and say many other things. I was told that very many times, about six or eight times. Like when I was assaulted, don't you see here at the ear, there is (Embunda; scar/wounds) [...] they neglected and chased me away and I was bleeding and swollen. I came back home and slept and got healed by God's mercy (<25 years old, HIV-negative).

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

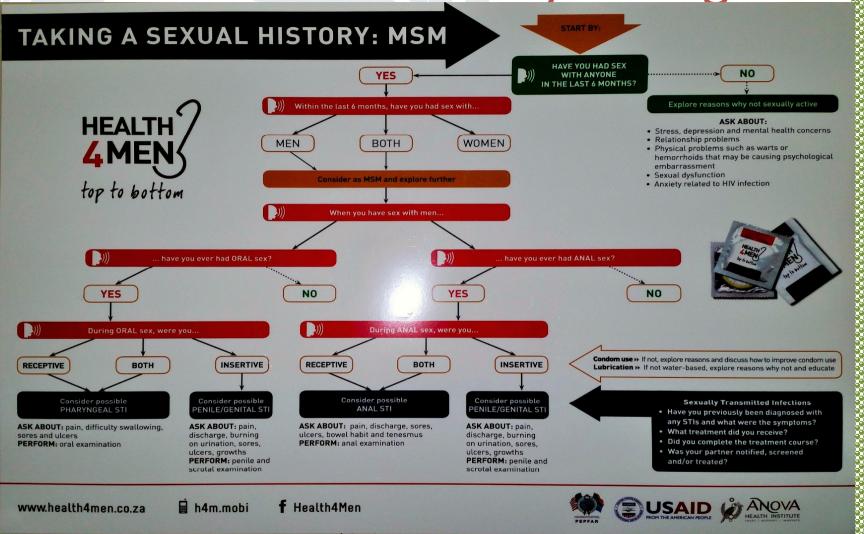


Creating the Right Environment

- Make <u>all patients</u> 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 <u>the colleagues you</u> <u>supervise</u>



Sexual History Taking





Culturally Appropriate Health Messages









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



AIDS Care: Psychological and Socio-medical Aspects of AIDS/HIV

Publication details, including instructions for authors and subscription information: http://www.tandfonline.com/loi/caic20

Exploring repeat HIV testing among men who have sex with men in Cape Town and Port Elizabeth, South Africa

Aaron J. Siegler^a, Patrick S. Sullivan^a, Alex de Voux^a, Nancy Phaswana-Mafuya^b, Linda-Gail Bekker^{ac}, Stefan D. Baral^d, Kate Winskell^e, Zamakayise Kose^b, Andrea L. Wirtz^d, Ben Brown^c & Rob Stephenson^e

- •Need to shift HIV testing promotion from one-off model, to <u>Repeated</u>, <u>Routine</u>, <u>Health Maintenance</u>
 Behavior
- Public health research from <u>'ever'</u> testing, to assessment of <u>'repeat'</u> testing.



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



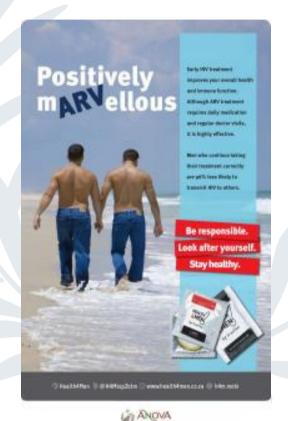








Anti-retroviral Preventions



- 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

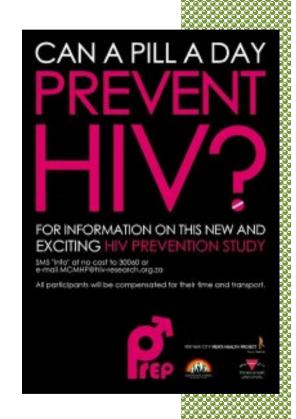




Pre-exposure Prophylaxis (PrEP)

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







Treatment as Prevention (TasP)

HIV transmission needs:

- Many copies of HIV virus
- An entry point into someone's body

Thus

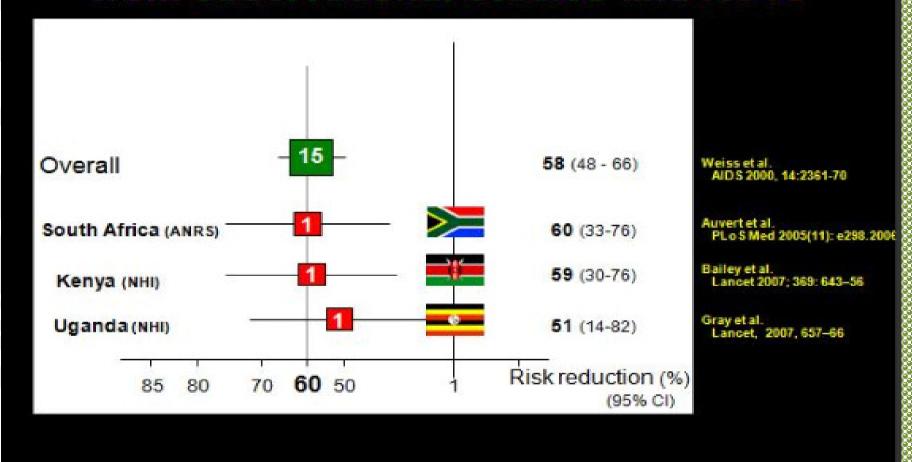
Lowering viral load lowers transmission

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





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

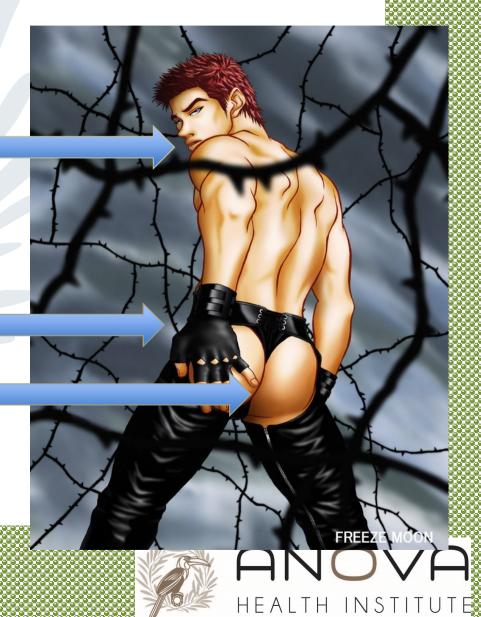
- Receptive oral sex
- Rimming

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) Baggaley, R. Int J Epi. 2010.
- Untreated urethritis increases seminal HIV viral load by a factor of approximately. Cohen, M. Lancet. 1997.



Asymptomatic STIs (ASTI)

The majority of gonorrhea and chlamydia asymptomatic in MSM

Syphilis
Hepatitis and other sexual viruses
HIV

ASTI Treatment Guidelines for KPs

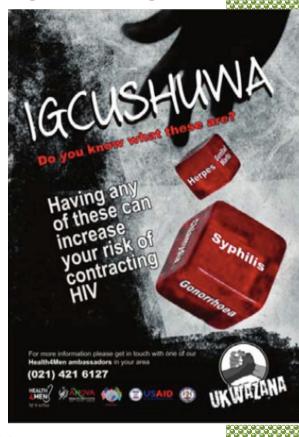
CDC (and various USA & EU guidelines)

Yearly syphilis

PCR screening of pharynx, anus and urethra based on sexual history

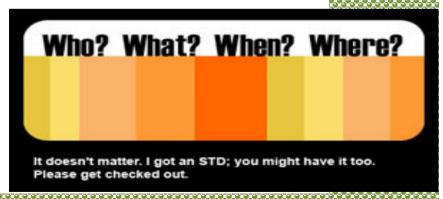
WHO: Presumptive STI treatment for at risk Key Populations

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

- Key Populations prevalence already high → high community viral load
- Highly effective HIV transmission in UAI (20 X vaginal sex risk) Baggaley, R. Int J Epi. 2010.
- Untreated urethritis increases seminal HIV viral load by a factor of approximately. Cohen, M. Lancet. 1997.



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.





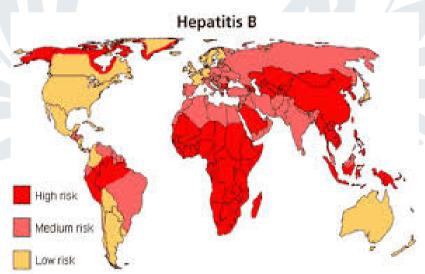
Hepatitis C

- 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

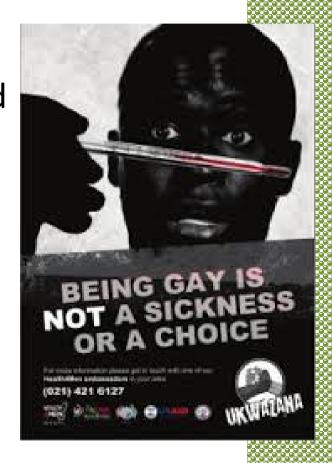
- 313 HIV positive participants screened for HCV
 - 170 (54%) MSM from Ivan Toms Clinic
 - 143 (46%) non-MSM from Groote Schuur
- 10 (3.2%) overall tested positive for HCV
 - 9 (5.3%) in MSM
 - 1 (0.7%) in MSM (p=0.024)

Gclokela N, Sonderup, M, Rebe K et al. SAGES. Baltimore. 2013.



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

NEWS RELEASE

Meth Promotes Spread of Virus in HIV-Infected Users

BUFFALO, N.Y. -- Researchers at the University at Buffalo have presented the first evidence that the addictive drug methamphetamine, or meth, also commonly known as "speed" or "crystal," increases production of a docking protein that promotes the spread of the HIV-1 virus in infected users.

The investigators found that meth increases expression of a receptor called DC-SIGN, a "virus-attachment

factor," allowing more of the virus to invade the immune system.

Release Date 08/04/06 Contact

Lois Baker <u>ljbaker@buffalo.edu</u> 716-645-5000 ext 1417

- Email Article
 - Print Article
 - Subscribe to News Like This

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



CROI 2014

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



Abstracts of the HIV Drug Therapy Glasgow Congress 2014

Mohrmann G et al. *Journal of the International AIDS Society* 2014, **17(Suppl 3)**:19657

http://www.jiasociety.org/index.php/jias/article/view/19657 | http://dx.doi.org/10.7448/IAS.17.4.19657



Poster Sessions - Abstract P125

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

¹Infektionsmedizin, Labor Lademannbogen MVZ GmbH, Hamburg, Germany. ²Study Center, Infektionsmedizinisches Centrum Hamburg, Hamburg, Germany.

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

Mohrmann G et al. Journal of the International AIDS Society 2014, 17(Suppl 3):19657

Abstracts of the HIV Drug Therapy Glasgow Congress 2014

http://www.jiasociety.org/index.php/jias/article/view/19657 | http://dx.doi.org/10.7448/IAS.17.4.19657



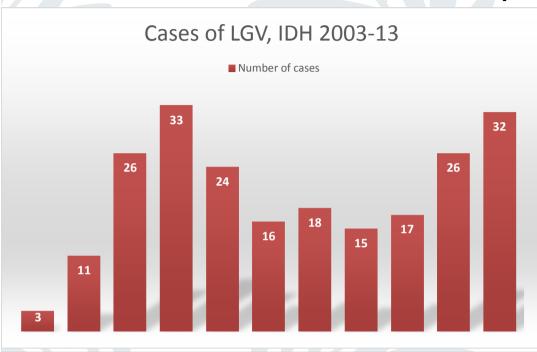
LGV, classical

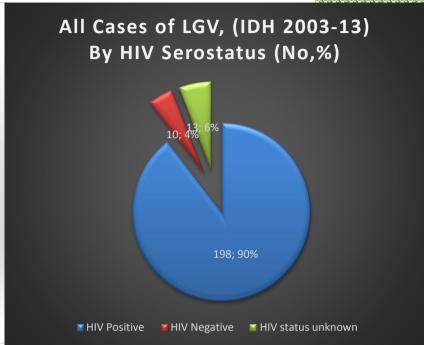


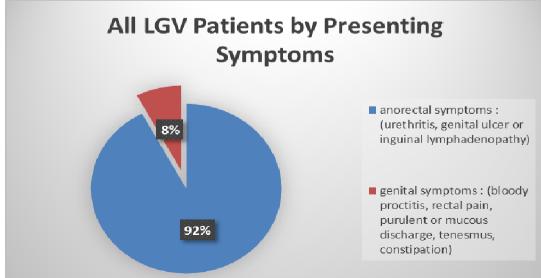
- Disease of the tropics.
 - -'LGV belt'
- •STI
 - -Stage 1 Painless genital sore. 3-12 days
 - -Stage 2 Lymphadenitis/Lymphangitis 1-6months) 'Buboes'
 - -Stage 3 Scarring and healing



LGV; One European Center









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.



<u>June 2015 - Volume 42 - Issue 6 - p 344</u>

doi: 10.1097/OLQ.0000000000000295

Letter to the Editor

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 FRCPath; Bradley, Jasmine; Paul, John FRCPath; Richardson, Daniel FRCP

CONTENT NOT FOR REI

LETTER TO THE EDITOR

Cresswell, FV; Ross, S; Booth, T et al, Shigella flexneri: A Cause of Significant Morbidity and Associated With Sexually Transmitted Infections in Men Who Have Sex With Men Letter to the Editor, Sexually Transmitted Diseases: June 2015 - Volume 42 - Issue 6 - p 344 doi: 10.1097/OLQ.000000000000000295

Shigella flexneri

Enterobacteriacea. Usually a self limited diarrheal illness. Not needing hospitalisation.

Feacal oral transmission. Been noted Sexually transmitted before.

Antibiotic sensitive.

- 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



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.c
o.za/mailman/listinfo/hiv
 clinician

Or send me email at

moderator@anovahealth .co.za

Daily, 2 emails- Breaking News, Published Articles

HIV_clinician -- ANOVA HIV Clinicians Discussion Forum in South Africa

About HIV_clinician

English (USA)

This list-serve is of Clinicians working in the field of HIV in South Africa.

It is a forum to share the latest information and research, discuss its implications on our practices, and keep up with the latest developments. We hope to populate the list with all in the field in South Africa.

If you want to join, you can do so directly below.

If you know of anyone who would benefit being on the list, spread the word!

Moderator

ANOVA HIV Clinicians e-Forum



Thank You!

