RISKS, VULNERABILITIES, AND BURDEN OF HIV AMONG MEN WHO HAVE SEX WITH MEN ACROSS SUB-SAHARAN AFRICA

Iliassou Mfochive Njindam MD, MPH
Key Populations Program, Department of Epidemiology, Johns Hopkins School of Public Health
Outline

- Key Populations Definition
  - Global Epidemiology of HIV among MSM
  - Epidemiology of HIV among MSM in Sub Saharan Africa Levels of HIV Risk
- Determinants of HIV Risk Among MSM
- Moving Forward
Most At Risk or Key Populations

- Populations with specific acquisition and transmission risk factors
  - Three Universal Key Populations
    - Sex workers (SW)
    - Gay Men and other Men who have sex with Men (MSM)
    - People who use drugs (PUD)
  - Country Specific Key Populations
    - Migrant populations
      - Laborers (Fisherfolk, Truckers, Mining)
      - Often Clients of Sex Workers
      - Non-Laborers (Internally Displaced People, Refugees)
Global HIV Prevalence among MSM, 2007-2012

HIV Prevalence among MSM in Africa

HIV Incidence among MSM in Sub-Saharan Africa

HIV Incidence among MSM in Kilifi, Kenya

Estimated HIV-1 Incidence by year, 2006 - 2014

Source: Sanders, Mugo, van der Elst, Smith, Graham. High HIV-1 incidence, correlates of HIV-1 acquisition, and high viral loads following seroconversion among MSM JAIS, 2013
HIV Incidence among MSM in Low and Middle Income Countries, 1995-2015
Adolescent MSM

Percentage of participants who had anal sex with a man before age 18.
Map of low-income and middle-income countries reporting community level measurements for HIV risk among MSM and Transgender Women, 2000-2014
STIs among MSM in South Africa and Nigeria

- STI among MSM in Nigeria
  - Lagos
    - Gonorrhea 28.1%
    - Chlamydia 18.3%
    - Syphilis 19.6%
  - All Asymptomatic

- STI among MSM in South Africa

Source: Babajide Keshinro, MHRP, Nigeria, Kevin Rebe, Anova Health Institute, South Africa
Prevalence of meeting sex partners online among MSM in SSA by country and age

Source: Stahlman, Baral, Characteristics of Men Who Have Sex with Men in Southern Africa Using the Internet to Find Sexual Partners: A Cross-Sectional Study. Forthcoming
Associations of Meeting Male Sex Partners Online among MSM

- **Lesotho (n=530)**
  - Age***
  - Secondary/high school***
  - More than high school***
  - Female/other gender
  - Ever married or cohabited**
  - Ever felt scared to walk around in public*
  - Ever felt that family members gossiped***
  - Ever felt afraid to go to healthcare services**
  - Increasing knowledge of HIV transmission*
  - Number of male anal sex partners, past 12 months*
  - Tested positive for HIV***

- **Swaziland (n=322)**
  - Age*
  - Secondary/high school
  - More than high school*
  - Female/other gender
  - Ever married or cohabited
  - Ever felt scared to walk around in public*
  - Ever felt that family members gossiped
  - Ever felt afraid to go to healthcare services
  - Increasing knowledge of HIV transmission
  - Number of male anal sex partners, past 12 months**
  - Tested positive for HIV

*p<0.05; **p<0.01; ***p<0.001
Note: Variables entered into single logistic regression model

Source: Stahlman, Baral, Characteristics of Men Who Have Sex with Men in Southern Africa Using the Internet to Find Sexual Partners: A Cross-Sectional Study. Forthcoming
Depression and HIV/STIs among MSM in Lesotho

- 527 MSM completed structured survey instrument, biologic testing for HIV and Syphilis
- Defined positive depression screen as a PHQ-9 score of 10 or more

<table>
<thead>
<tr>
<th>Outcome variable</th>
<th>Adjusted Odds Ratio</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory test result</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive for syphilis</td>
<td>2.75*</td>
<td>1.07, 7.08</td>
</tr>
<tr>
<td>Positive for HIV</td>
<td>1.58</td>
<td>0.85, 2.94</td>
</tr>
<tr>
<td>Self-report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosed with any STI, past 12 months</td>
<td>2.04*</td>
<td>1.02, 4.06</td>
</tr>
<tr>
<td>Diagnosed with HIV, ever</td>
<td>1.27</td>
<td>0.61, 2.63</td>
</tr>
</tbody>
</table>

Sources: Stahlman, Baral, et al. Depression and Social Stigma among MSM in Lesotho: Implications for HIV and Sexually Transmitted Infection Prevention. Forthcoming
Determinants of Depression Among MSM in Lesotho

- **Strong Positive Association with Stigma**

<table>
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<th>Explanatory variable</th>
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</thead>
<tbody>
<tr>
<td>Ever felt rejected by friends</td>
<td>2.63**</td>
<td>1.52, 4.54</td>
</tr>
<tr>
<td>Ever felt scared to walk around in public</td>
<td>1.92*</td>
<td>1.05, 3.50</td>
</tr>
<tr>
<td>Ever been blackmailed</td>
<td>1.82*</td>
<td>1.04, 3.19</td>
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<tr>
<td>Ever heard discriminatory remarks about MSM</td>
<td>2.22*</td>
<td>1.08, 4.55</td>
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- **Strong Inverse Association with Increased Social Capital**

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</thead>
<tbody>
<tr>
<td>Social cohesion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Ref</td>
<td>--</td>
</tr>
<tr>
<td>Medium</td>
<td>0.48*</td>
<td>0.28, 0.83</td>
</tr>
<tr>
<td>High</td>
<td>0.49</td>
<td>0.24, 1.01</td>
</tr>
</tbody>
</table>

Sources: Stahlman, Baral, et al. Depression and Social Stigma among MSM in Lesotho: Implications for HIV and Sexually Transmitted Infection Prevention. Forthcoming
Outcomes of Criminalization on HIV-Risks among MSM in Nigeria

- Reporting of Discrimination and Stigma During Study Visits Pre and Post Legislation

Cumulative lifetime experiences of reported fear of seeking health care services across study visits (n=1,175 visits).

Sources: Schwartz, Nowak, Orazulike, Blattner, Charurat, Baral, TRUST Study Group (UMD, MHRP, ICARH, JHU). The immediate HIV-related impact of enacted legislation that further criminalizes same-sex practices in Nigeria. Forthcoming
Key Themes

- Data Paradox
  - There is the least amount of data characterizing the needs of MSM in the most stigmatizing settings

- The world is more similar than it is different
  - Wherever HIV is studied around the world, risk is not evenly distributed
    - Highest incidence appears to be among young MSM
    - Similar Risk factors for HIV Infections among MSM

- Comprehensive Research Agenda should include evaluating the content, scale, and implementation of HIV prevention, treatment, and care programs for all people affected by HIV
Acknowledgements

- **Key Populations Program**
  - Iliassou Mfochive-Njindam, Carrie Lyons, Ashley Grosso, Sosthenes Ketende, Ben Liestman, Sheree Schwartz, Gnilane Turpin Nunez, Karleen Coly, Clarence Yah, Shauna Stahlman, Stefan Baral

- **Global Viral**
  - Ubald Tamoufe, Guy C. Hendji Fako, Victorine Maptue Toguem, Julienne Noo, Emanuuel Munzu, Armelle Tchato

- **Enda Santé**
  - Daouda Diouf, Fatou Drame, Ibrahima Ba, Nguissali Turpin, Nuha Ceesay, Rebecca Ezouatchi

- **Collaborators**
  - PAMAC, EVT, IRSS, AIDSETI, Matrix, HSRC, Care Cameroon

- **USAID Headquarters and West And Central Africa**
  - Alison Surdo Cheng, Delivette Castor, Aisha Yansaneh, Laurent Kapesa

- **Emory/AMIS**
  - Travis Sanchez, Patrick Sullivan

- **CPHHR**
  - Chris Beyrer, Emily Clouse, Andrea Wirtz, Kristin Hunt, Michele Decker, Len Rubinstein

- **MeSH Consortium**