Successes and challenges of HIV prevention in men who have sex with men

Patrick Sullivan, Alex Carballo-Dieguez, Thomas Coates, Steven M Goodreau, Ian McGowan, Eduard J Sanders, Adrian Smith, Prabuddhagopal Goswami, Jorge Sanchez

Using HIV prevention technologies we have today, we could prevent a quarter of new infections among MSM globally in the next decade.

However, doing this will require addressing structural and access issues to allow programs to achieve high coverage.

“In much of the world, [men who have sex with men] remain hidden, stigmatised, susceptible to blackmail if they disclose their sexual lives, and criminalised, even in health-care facilities. To address HIV in [these men] will take continued research, political will, structural reform, community engagement, and strategic planning and programming, but it can and must be done.”
Where we know what we know

Where do we know what we know?

Behavior
Biomedical
Barrier
Structural
Social
Societal

What are our targets?

- Important epidemic drivers
- Different points in the pathway of infection
- Good primary interventions

- High risk of anal sex for HIV acquisition
- High unlinked HIV prevalence in partner pools
- High viral load in HIV+ partners

- Condoms (80%)
- PrEP (44%)
- HIV testing (68%)
- Treatment for HIV+ men (96%?)

Changing behaviors (testing, adherence, condom uptake, linkage, retention)
Safe places for prevention, culturally competent care, ↓ stigma, ↓ criminalization

Modeling of Prevention Impact

- Agent-based, stochastic model
- Kenya, USA, Peru, India
- Country-specific parameterization and calibration
- Three prevention approaches/packages:
  - PrEP
  - Treatment of positives
  - Increased condom use
- Outcome: Proportion of infections averted after 10 years

Research Centre for Health Economics and Evaluation (ReCHEE)
Estimated percent of new HIV infections among MSM prevented by three prevention approaches, four countries

Cumulative proportion of infections among MSM averted by early implementation of antiretroviral therapy for MSM living with HIV infection period at 4 levels of coverage in 4 countries

Estimated percent of new HIV infections among MSM prevented by oral PrEP at varying levels of adherence, four countries

HIV infections estimated to be averted by PrEP, reduction in UAI, and early ART treatment in a stochastic simulation model of HIV transmissions among MSM in Africa

Research Centre for Health Economics and Evaluation (ReCHEE)
Challenges to Preventing HIV in MSM

- Prejudice, threats and violence against (people thought to be) MSM
- Lack of training for health care workers
- Criminalization of same sex behavior
- Technical challenges to testing prevention packages

Implications for Asia

- Every country has challenges at multiple points across the levels
- In Asia, varying national laws, criminalization are challenging for achieving scale/safe places
- Limited distribution of condom-compatible lubricant in some countries
- Need for PrEP demonstration projects for MSM
- Lack of primary Asian data for efficacy of many behavioral components

Source: International LGBTI Association
Research Centre for Health Economics and Evaluation (ReCHEE)
Using HIV prevention technologies we have today, we could prevent a quarter of new infections among MSM in the next decade.

25%

Thank you

- Jeb Jones
- Adam Vaughan
- Wayne Johnson
- Mark Freedman
- PUMA research team (PI Buchbinder)
- Sharoda Dasgupta
- Kathryn Risher

- R01-MH85600
- RC1- MD004370
- R01-AI094575
- R01-HD067111
- Emory Center for AIDS Research (P30-AI050409)
- R01-AI083060
- American Foundation for AIDS Research
- International AIDS Vaccine Initiative
- Avahan, the Indian initiative of the Bill & Melinda Gates Foundation.