Prevalence and risk factors for self-reported sexually transmitted infections among adults in the Diepsloot informal settlement, Johannesburg, South Africa.

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Background

– South Africa has the fourth highest prevalence of HIV/AIDS.
– HIV prevalence of 18.8% in the 15–49 year age-group; 30% among antenatal women.
– Estimated prevalence of HIV in Gauteng is 16.5%
– Significant variation in risk of HIV infection between males and females with females being 1.6 times more likely to be HIV positive (p<0.001)
– Wide variation in prevalence of HSV-2 among HIV+ve & HIV-ve women (89.1% vs 42.5)
– STIs are among the key drivers of HIV in this population

STI Surveillance
New STI syndrome episodes per surveillance region in Gauteng Province, 01 January to 31 December 2012
Why STIs matter

• Increase the acquisition and transmission of HIV

• Treating STIs early:
  • Maintains mucosal integrity
  • Less mucosal inflammation
  • Lowers risk of viral load in HIV positives
STDs and their Consequences

- HIV transmission
- Impaired fertility
- Reproductive tract cancer
- Adverse pregnancy outcomes

19 million estimated annual new cases

$17 billion estimated annual direct costs

Examples:
- Chlamydia, Gonorrhea
- Impaired fertility
- HPV
- Syphilis, HSV-2

Most STDs
Asymptomatic STIs

Just because you can't see it doesn't mean it's not there.
Variable degrees of edema and erythema of the urethral meatus commonly accompany gonococcal urethritis.
Genital Ulcer Diseases

LGV (Lymphogranuloma Venereum)

Chancroid
Aim

• To estimate the prevalence of self-reported STIs among adults in Diepsloot informal settlement, Johannesburg, South Africa.

• To determine the risk factors of self-reported STIs among adults in Diepsloot informal settlement, Johannesburg, South Africa.
Methods

• Secondary analysis of data collected in a survey among adults living in Diepsloot in 2013.
• Data from 3953 participants were analysed.
• Explored factors that could potentially be associated with self-reported STIs.
• Used univariable and multivariable logistic regression models to identify risk factors.
• Effect Measures were reported as Odds Ratios with corresponding (95% CI).
• p-value <0.05 determined statistically significant factors.
Study site

Republic of South Africa

Gauteng Province

Surveillance sites

Estimated population size: 12,272,263; 16.5% HIV infected
Diepsloot Informal Settlement
Results

• Of the 3953 participants, 2481 (62.8%) were female
• Self-reported prevalence of STIs was 20.4% (n=808)
• Of the study participants, 815 (25.9%) people were HIV positive
• Among those with HIV infection 19.9% reported an STI
# Factors associated with self-reported STIs

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Univariate Analysis</th>
<th>Multivariate Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Self-reported STI</td>
<td>Odds Ratio (95% CI)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>310/1472(21.1)</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>498/2481(20.1)</td>
<td>0.96(0.80-1.10)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>373/1873(19.9)</td>
<td>1</td>
</tr>
<tr>
<td>30-39</td>
<td>287/1345(21.3)</td>
<td>1.09(0.92-1.30)</td>
</tr>
<tr>
<td>40+</td>
<td>148/735(20.1)</td>
<td>1.01(0.82-1.25)</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>155/837(18.5)</td>
<td>1</td>
</tr>
<tr>
<td>Single</td>
<td>180/738(24.4)</td>
<td>1.42(1.11-1.81)</td>
</tr>
<tr>
<td>Cohabiting</td>
<td>473/2378(19.9)</td>
<td>1.09(0.89-1.34)</td>
</tr>
<tr>
<td><strong>Employment status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>634/3235(19.6)</td>
<td>1</td>
</tr>
<tr>
<td>Employed</td>
<td>174/718(24.2)</td>
<td>1.31(1.08-1.59)</td>
</tr>
<tr>
<td><strong>Alcohol use</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>534/2728(19.6)</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>274/1225(22.4)</td>
<td>0.84(0.72-1.00)</td>
</tr>
<tr>
<td><strong>Victim of GBV/sexual assault</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not a victim</td>
<td>717/3701(19.4)</td>
<td>1</td>
</tr>
<tr>
<td>Victim</td>
<td>89/252(35.3)</td>
<td>2.26(1.73-2.97)</td>
</tr>
<tr>
<td><strong>Health care visits</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At least once a month</td>
<td>229/1160(19.7)</td>
<td>1</td>
</tr>
<tr>
<td>At least once a year</td>
<td>369/1980(18.6)</td>
<td>0.93(0.78-1.12)</td>
</tr>
<tr>
<td>Never in past 2 years</td>
<td>210/813(25.8)</td>
<td>1.42(1.14-1.75)</td>
</tr>
<tr>
<td><strong>HIV status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>162/815(19.9)</td>
<td>1</td>
</tr>
<tr>
<td>Negative</td>
<td>646/3138</td>
<td>1.04(0.86-1.22)</td>
</tr>
</tbody>
</table>
Key findings

• STIs were a common occurrence in Diepsloot informal settlement, Johannesburg, South Africa.

• Factors such as:
  – being single
  – HIV status,
  – alcohol use,
  – prior exposure to gender based violence/sexual assault,
  – having not utilised healthcare services in the past 2 years

• Significantly associated with self-reported STIs.
Conclusion

• The reported prevalence of self-reported STIs among adults aged 20 to 82 years in Diepsloot, indicates a substantial burden of STIs in this population.

• Drivers of STI in this population i.e. gender based violence, alcohol, lack of access to health care services needs an effective impact mitigation from all stakeholders.
Aggression and team work achieves success!!

New Zealand welcomed visitors off the pitch, but on the pitch it was war
Recommendations

• Continued STI surveillance to monitor trends
• Integrate sexual health, and health promotion to improve health seeking behaviour
• Enhance HCT as well as screening of STIs of the at risk populations
• Scale up behavioural interventions to prevent gender based violence
• Policy on alcohol restriction in the Gauteng province.
There is power in unity and togetherness!!
Acknowledgements

• Monash South Africa for sponsoring the conference attendance
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• All participants in Diepsloot for taking part in the survey
Welcome to JOZI, the Beautiful City!!, South Africa
Thank you!!!!!