Introduction

- There is a growing body of literature on the practice of anal intercourse (AI)

- Research on AI among heterosexuals has clarified its practice in Western Countries, Brazil, India, and South Africa

- Research on AI between men who have sex with men (MSM) has become more in-depth
Hetero AI Associated with HIV

- Transmission: within sero-discordant couples:
  - USA (Skurnik 1998; Padian 1987)
  - Brazil (Guimaraes 1995)
  - Europe (DeVincenzi ’94)

- Associated with HIV among men and women attending STI clinics
  - India (Rodrigues 1995)
## Non-Western International Data on Heterosexual AI

<table>
<thead>
<tr>
<th>Region</th>
<th>Location/Description</th>
<th>Ever AI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>Brazil - Pelotas – adult women</td>
<td>3% females</td>
</tr>
<tr>
<td></td>
<td>Peru (Young Adults 18-28 yrs) -1</td>
<td>32% of males</td>
</tr>
<tr>
<td></td>
<td>Peru – Household adults</td>
<td>12% of females</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48.2% males</td>
</tr>
<tr>
<td></td>
<td></td>
<td>29.3% females</td>
</tr>
<tr>
<td>Asia</td>
<td>China – Anhui Rural adults</td>
<td>2.3%</td>
</tr>
<tr>
<td>Africa</td>
<td>South Africa (Youth 15-24 yrs) -2</td>
<td>3.5% all</td>
</tr>
<tr>
<td></td>
<td>Men at truck stops (18-71 yrs)</td>
<td>5% sexually active</td>
</tr>
<tr>
<td></td>
<td></td>
<td>42%</td>
</tr>
</tbody>
</table>
Why Different Prevalence Cross-culturally?

- Different populations or segments of studies
- Different sexual preferences
- Methodological differences in data collection
- Willingness to report
- Differences in acceptance of practice
Int’l AI: Research Emerging

But....

- Frequency of AI not known
- Detailed data on AI with what types of partners not known

Also evidence on....

- Practice by sex workers
- Bisexuality– men as bridgers
- Little on MSM – but emerging
## AI With Opposite Sex Partner - USA

<table>
<thead>
<tr>
<th>Survey &amp; Year</th>
<th>Age Range</th>
<th>% Any Anal Sex</th>
<th>% Any same-sex sexual contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nt’I Survey Men 1991</td>
<td>Males 20-39</td>
<td>20.1</td>
<td>2.3</td>
</tr>
<tr>
<td>NHSLS 1992</td>
<td>Males 18-59</td>
<td>25.6</td>
<td>4.9</td>
</tr>
<tr>
<td></td>
<td>Females 18-59</td>
<td>20.4</td>
<td>4.1</td>
</tr>
<tr>
<td>NSFG 2002</td>
<td>Males 18-44</td>
<td>36.7</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
<td>Females 18-44</td>
<td>32.6</td>
<td>11.5</td>
</tr>
</tbody>
</table>
US AI Increasing?

- Methodological differences in data collection – more ACASI
- Willingness to report – less taboo?
- Differences in acceptance of practice increasing?

But...still unknown if....

- If frequency of AI has increased – data uneven, measures not consistent
- AI with what types of partners
Women & Anal Intercourse

- Always the receptive partner

- Power dynamics in partnerships have greater effect on women’s sexual behavior than on men’s
Issues for Women Around AI

- Dynamics of partnership – type of partner, feelings for partner, who has control
- Stigma? “up the butt girl”
- Coincide with other risky behaviors (cigarettes)
- Lube

# Prevalence of AI: Smaller Surveys of US Women

<table>
<thead>
<tr>
<th>Population</th>
<th>Anal Sex Ever</th>
<th>Anal Sex Past Year</th>
<th>Anal sex - other time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NSFG – US HH 2002</strong></td>
<td>35%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth- drug neighborhood</td>
<td>30%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>High Risk adult – 4 cities*</td>
<td></td>
<td></td>
<td>32%&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>STD Clinics – adults Seattle</td>
<td>46%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STD Clinics – SD –Youth*</td>
<td></td>
<td></td>
<td>16%</td>
</tr>
<tr>
<td>STD Clinics – 3 cities – youth*</td>
<td>32%</td>
<td>--</td>
<td>24%&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>A</sup> During last 6 months; <sup>b</sup> Among last 3 partners  
<sup>*</sup> = ACASI
<table>
<thead>
<tr>
<th>Population</th>
<th>Never or rarely Use Condoms for Anal Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth in heavy drug use neighborhood (HH)</td>
<td>74%</td>
</tr>
<tr>
<td>Drug users – London – Heroin Cocaine</td>
<td>48%</td>
</tr>
<tr>
<td></td>
<td>75%</td>
</tr>
<tr>
<td>3 STD clinics- youth (YAPS)*</td>
<td>74%</td>
</tr>
<tr>
<td>CA HH</td>
<td>60%</td>
</tr>
</tbody>
</table>

*No condom use at last sex*
Women’s & Partner Characteristics Associated w/ Anal Sex

Own Behavior/ Characteristics

- Young (<30 yrs)
- Ethnicity - white?
- Drug use
- Sell/trade sex
- Many partners

Partner’s Characteristics

- IDU
- HIV positive
- Main partner: One who takes the lead in deciding about sex (power)
Young Adults, Partnerships, and STD (YAPS) Study

- Young adults aged 18-26 attending public STD clinics in Seattle, WA, New Orleans, LA and St Louis, MO were interviewed and tested for STDs between 2001-2004 (n=1,446)

- Heterosexuals were those who self-identified as “100% heterosexual”

- Among heterosexuals, 33% (n=328/1,003) reported having anal sex at least once in their lifetime (32% of females and 33% of males)
The not straight category includes:
1. mostly heterosexual (straight), but somewhat attracted to people of your own sex,
2. bisexual, attracted to men and women equally,
3. mostly homosexual (gay), but somewhat attracted to people of the opposite sex,
4. 100% homosexual (gay),
5. not sexually attracted to either males or females
Last 3 Partners AI

- 24% female -(Receptive)
  - <1% male

- 21.5% among straight males (Insertive)
AI - Among “Virgins”?

- 29 women reported never having vaginal sex
  - 24% (7) had ever AI - all women
  - 17% (5) reported AI with at least 1 of last 3 partners
  - 21% (3/14) among straight

- 47 “straight” men reported never having vaginal sex
  - 11% (5) reported ever AI
  - 17% (8) reported AI with at least 1 of last 3 partners.

UW STD CRC (NIH/NIAID AI31448)
AI among MSM

- Many MSM: Documented in all regions
- In US: estimates range from 2% to 13% of male population
- Among US MSM, most report practicing AI: 76-90%
Different risk for acquisition and transmission of STIs including HIV depending on position: 0.82% RAI vs. 0.06% for IAI per contact w/ + (vittinghoff ’99)

- In 4 US cities (UMHS 1995):
  - receptive: 15%
  - insertive: 35%
  - versatile: 50%

- In Lima, Peru (Goodreau 2005):
  - receptive: 38%
  - insertive: 20%
  - versatile: 33%

- Among MSM reporting any AI in past 12 months; 75% reported RAI in the previous 6 months (HIVNET-VPS – ’98).
## Unprotected AI (UAI) & Receptive (URAI)

<table>
<thead>
<tr>
<th>Population</th>
<th>Any UAI</th>
<th>RAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 City Cohort HIV Neg$^{1,*}$</td>
<td>30%</td>
<td>48% (of UAI)</td>
</tr>
<tr>
<td>SF HH –MSM $^{2,a}$</td>
<td>38%</td>
<td></td>
</tr>
<tr>
<td>Young MSM – 5 cities$^{3,b}$</td>
<td>41%</td>
<td>31%</td>
</tr>
<tr>
<td>Young MSM in SF$^{4,c}$</td>
<td>50%</td>
<td>41%</td>
</tr>
<tr>
<td>MSM at circuit parties$^{5}$</td>
<td>28%</td>
<td>38% (of all UAI)</td>
</tr>
</tbody>
</table>

a Past year; b Past 6 months; c Past 30 days
More UAI With Main vs. Other Partners

- About 2x as common w/ main partners (Hays '97); especially IUAI (Crepaz 2000).

- Linked to HIV acquisition; ongoing or primary partner reported source in 50% of cases of seroconversion in a cohort of young men in Amsterdam (Davidovich 2000)
Newly HIV Infected MSM
GEE comparing probability of UAI with main partner vs. all other partners: – Pooled: Baseline (n=152) & Follow-up (n=113)

Gorbach PM, Drumright LN, Daar ES, Little SJ. Transmission behaviors of recently HIV infected men who have sex with men. J Acquir Immune Defic Synd, in press.
I WAS SO TWEAKED...

...I DIDN'T CARE HOW HE SCREWED ME.
Methamphetamine and HIV in MSM: A time-to-response association?

1Reback et al., 2005; 2Reback 1997; 3Shoptaw et al., 2005;
4Van Ness Recovery House, 2005
UAI increasing?

- ’92-’97 significant increase in reports of all AI (Ekstrand 1999)

- ’99-’01 SF community survey (Chen ’02)
  - 32% to 37% UAI in past 6 months
  - 18% to 23% UAI w/ 2 or more partners
  - 10% to 15% HIV negative w/ SU
  - 19% to 25% HIV+ w/ SU
MSM Characteristics Associated w/ UAI

- Partner Type
- Drug Use: meth
- Risky settings: bathhouse
- Many partners

Emotional
Situational
Behavioral
Other Behaviors May Affect AI Risk

Lubrication….Douching…..Anal Bleaching…. 

Application of “special cream” 2x every day until result achieved. May contain "Kojic Acid". Growing trend; offered by waxing salons, stretch mark repair?

Summary

- AI practiced by up to 30% of heterosexuals in some cultures

- For women varies greatly by certain characteristics:
  - Young adult – life course?
  - Risk environment: Drug user, Sell/trade sex
  - Risky partners (drug users) – power

- Confluence of risks for women

- For MSM AI staple of sexual repertoire;
  UAI and URAI practiced by 1/3-1/2 of MSM

- For MSM variation by partnership, drug use (meth), risky situations/place and in position

- Other anal practices need measurement
Needs for Rectal Microbicide Research

- More in-depth epidemiology -> effects on anal health (morbidity) stay tuned for U19!!

- Greater *standardization* in surveys in measures of time frame for AI, partnerships, sexual details, sexual trauma, and anal health

- Greater attention to *details* of AI i.e. lube use, peri-sexual behaviors, and anal health among men & women across different cultural contexts

- Use of technologies (computers) in data collection to increase reporting of sensitive behaviors and enhance standardization

- Qualitative data collected & analyzed systematically to explore meaning and context of AI cross-culturally
References