HIV/Sexual Health
Clinical Education Session


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Please contact may.wang@ashm.org.au for details.
SSHC Journal Club: Sexual Health

Prepared by Victoria Hounsfield
Senior CMO
Clinic 16, Royal North Hospital
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Sexual Health Journal

• 6 issues per year, Australian based
• Publishes in fields of: HIV/AIDS, Sexually transmissible infections, issues of sexuality and relevant areas of reproductive health
• **Impact Factor:** 1.238
• Feb – Jul 2018
• 2 issues – one was a Special Chemsex Issue
Chemsex as edgework: towards a sociological understanding
Ford Hickson (London School of Hygiene & Tropical Medicine)

• Considers chemsex through the lens of edgework, a sociological category for voluntary risk taking identified in 1990 by Stephen Lyng.
• Edgework activities involve a clear and present danger to the self, intense emotions and sensations and an opportunity to exercise specialist skills
• chemsex exhibits all the defining features of edgework.
• Chemsex therefore is “an activity that epitomises the (gay) citizen as consumer in a technocapitalist age of pharmacopornographic consumption” (!).

Funding antiretroviral treatment for HIV-positive temporary residents in Australia prevents transmission and is inexpensive
Gray, Richard T; Hoy, Jennifer F; et al. Sexual Health (Online); Vol. 15, Iss. 1, (Feb 2018): 13-19.

• Temporary Residents Access Study (ATRAS) commenced Nov 2011
• Followed 180 HIV+ temporary residents in clinical and financial need of subsidised ART for 4 years.
• Aim was to estimate reduction in new HIV infections and resultant cost outcomes of providing ART to all temporary residents with HIV living legally in Australia, but currently deemed Medicare-ineligible
Method & Results:

• A mathematical model to estimate the number of new HIV infections averted and the associated lifetime costs over 5 years if all HIV-positive temporary residents in Australia had access to ART and subsidised medical care
• free ART donated by pharma companies for up to 4 years.

Results:
– Expanding ART access to an estimated total 450 HIV+ temp residents for 5 yrs could avert 80 new infections.
– The model estimated the total median discounted (5%) cost for ART and associated care to be A$36 million, while the total savings in lifetime-discounted costs for the new infections averted was A$22 million.

Conclusions:

• Estimated expanded access to ART for all HIV pos temporary residents will substantially reduce HIV transmission to their sexual partners at little additional cost.
• Important in that Australia’s National HIV strategy and Australia’s endorsement of global goals are to provide universal access to ART for all people
Low education levels are associated with early age of sexual debut, drug use and risky sexual behaviours among young Indigenous Australians

Wand, H; Kaldor, J et al.

- **BKG:** Earlier age at sexual debut is associated with drug and alcohol use, risky sexual behaviours and STIs.
- **Methods:** 2320 young Indigenous Australians were surveyed.
- **Results:** Most study participants had sexual debut at 14 years or less (79% of males and 67% of females).
  - >80% of participants were categorised “high-risk” for sexual risk factors (not using condoms, drunk or high at last sexual act, or 3+ sexual partners in the past year).
  - There was a linear decreasing trend between proportion of males and females who had less than high school education and age at first sex (Ptrend < 0.001).
  - Compared with the highest quintile of age at sexual debut (≥18 years), those in the bottom quintile (<15 years) were less likely to have completed high school (63% vs 32% respectively for males; 68% vs 26% respectively for females; Ptrend < 0.001 for both).
- **Conclusions:** Sex education and STI prevention should start early when targeting Indigenous youth, with age-appropriate messages.
  - Sex education should be comprehensive, address individual risk behaviours, sexual agency and societal vulnerability to delay sexual debut, and emphasise importance of STI prevention/condom use.

Intensive sex partying with gamma-hydroxybutyrate: factors associated with using gamma-hydroxybutyrate for chemsex among Australian gay and bisexual men - results from the Flux Study

Hammoud, Mohamed A, et al. The Kirby Institute

- The Following Lives Undergoing Change (Flux) Study is an online prospective observational study of Australian GBM.
- Baseline total of 3190 GBM provided details about their use of GHB.
- Data on frequency, methods, pleasures and consequences of their drug use, alongside key demographic variables were collected.
- Factors associated with GHB use, its relationship to sexual risk behaviour, and the contexts, consequences, and motivations for its use were examined.

**Results:**
- Mean age was 35 yrs.
- 1 in 5 (19.5%) had a history of GHB use
- 5.4% reported use in last 6 months, 2.7% used it monthly or more.
- Overdose had been experienced by 14.7% - more common among GHB usage > monthly.
- Being HIV-positive, having more gay friends, greater social engagement with gay men who use drugs, a greater number of sexual partners, group sex, and condomless anal intercourse with casual partners were independently associated with GHB use in the past 6 months.
Conclusion:

- Most men used GHB infrequently.
- GHB often used explicitly to enhance sexual experiences, often in context of intensive sex partying.
- GHB has a high overdose liability (esp when mixed with ETOH)
- Men who used GHB frequently, were at greater risk of overdose and other negative health outcomes.
- GHB use should be considered alongside other drugs implicated in sexual risk behaviour and HIV transmission.
- Harm-reduction interventions need to consider the particular impact of frequent GHB use.

Substantial increase in yield of *Neisseria gonorrhoeae* testing 2008-2013 at a Sydney metropolitan sexual health clinic: an observational study

P Rajagopal, S Goddard, D Templeton et al. RPA Sexual Health

**Background:**
- A substantial increase in gono notifications in NSW has been observed in recent years.

**Methods:**
- Yield of testing and characteristics of gono diagnoses January 2008 - December 2013 at RPA SHC. Yield=proportion of testing occasions positive for gonorrhoea.
- Generalised estimating equations were used to calculate trends in yield over time.

**Results:**
- Between 2008-13, 6456 (4308 males, 2124 females, 24 transgender) were tested on 12 799 occasions; Included 2441 GBM who were tested on 6945 occasions.
- 2008-13 there was a significant increase in testing at genital, anorectal and pharyngeal sites (P-trend <0.001 for all).
- In total, gonorrhea was detected on 668 testing occasions among 536 individuals (5.2%).
- Overall, 254/12765 (2.0%) of genital tests, 251/7326 (3.4%) of anorectal tests and 342/8252 (4.1%) of pharyngeal tests were positive.
- Significant increase in overall gonorrhea yield from 2.2% in 2008 to 7.1% in 2013 (P-trend <0.001).
- This temporal increase in gonorrhoea yield was observed in heterosexual males (P < 0.001), heterosexual females (P-trend = 0.008), female sex workers (P-trend = 0.006), HIV-positive GBM and HIV-negative GBM (both P < 0.001) and at all anatomical sites (P-trend <0.001 for all).

**Conclusions:**
- From 2008 to 2013 > 3x increase in yield of gonorrhoea testing disproportionately affecting GBM, although the increase also occurred in other subpopulations and at all anatomic sites.
- More frequent and comprehensive testing could potentially reduce the high and increasing community prevalence of gonorrhoea.
Sex, drugs and social connectedness: wellbeing among HIV-positive gay and bisexual men who use party-and-play drugs
Jennifer Power et al, La Trobe Uni Victoria

AIMS: Explored associations between use of party-and-play drugs and wellbeing in a sample of Australian HIV-positive GBM:
1. identify the frequency of use of a range of drugs, including party-and-play drugs;
2. identify the main social contexts in which party-and-play drugs were used;
3. explore associations between party-and-play drug use and wellbeing; and
4. explore whether social connectedness played a mediating role in associations between party-and-play drug use and wellbeing.

Cross-sectional survey of Australian people living with HIV (PLHIV) was conducted. There were 714 participants (79.7%) who identified as GBM.

Results:
• 1/3 participants (29.7%) reported party-and-play drug use <past 12 months.
• Only 5% reported regular use.
• no differences between users vs non-users on self-reported measures of general health, wellbeing or general social support.

Sexual health and students: the pathways travelled by those with sexual health concerns
Freeman, Georgia; Donovan, B et al. Sexual Health Vol. 15, Iss. 1, (Feb 2018)

• Aim to identify type of research (Internet, phone lines, friends, family, media or medical journal) undertaken by uni students with sexual health concerns, and effects this had on their healthcare-seeking behaviour.
• All students enrolled at UNSW were eligible to complete the online questionnaire.
• People with hx of STI sx/ concerns were invited to take part.
• 168 in final analysis: 108 female. Most (96%) were < 26yrs; 86% were heterosexual and 51% were in a long-term relationship. Contraception use was used by 74% of respondents.
• In the last 3 months, 65% reported one sexual partner, 17% zero, 7% two, 7% three or four and 4% > five partners.
Sexual health and students: the pathways travelled by those with sexual health concerns (cont.)

• Overall, 101 (60%) respondents either undertook their own research before or instead of consulting a doctor.
• Of those who undertook extra research, the majority (55%) subsequently went to a doctor.
• Internet was most common first point of call for health info (46%), then doctors (40%), friends (8%), medical journals (3%), parents (2%) and general media (1%).
• No respondents reported using a sexual health phone line or asking siblings.
• The Internet was perceived as providing a similar quality of information to a doctor by those who used it.
• After their initial research more men reported doing nothing than women (44.4% vs 17.5%).
• Health practitioners need to be aware of this tendency for independent research, also the potential positives of self-triage/ reduced pressure on services.

Rates of advertised condomless sex in the online profiles of private sex workers: a cross-sectional study
Blackledge, E; McNulty, Anna et al

• Assessed the level of condomless sex advertised online by private sex workers (PSW) in Sydney.
• In 2015, 750 online profiles of PSW, including 339 female, 53 male and 39 transgender PSWs, were reviewed.
• Results:
  – PSWs advertise protected anal and vaginal sex.
  – 50% of female PSW advertised condomless oral sex.
  – Age < 25 years was associated with advertised condomless oral sex (odds ratio 1.56; 95% confidence interval 1.03-2.37; P = 0.037).
  – Online platforms are widely used for advertising, especially by female PSWs.
  – Levels of condom use advertised reflect that of other studies of sex workers in Sydney.
Patients with HIV and coronary disease: are we meeting national guidelines?
S Emmanuel, C Holloway et al. St Vincents Hospital, Sydney

- CVD has a higher incidence in patients with HIV.
- This study sought to determine whether HIV patients with CVD were being managed according to national guidelines.
- Survey Data collected from 17 Australian s100 GPs for 77 HIV patients, median age of 59.
- Results: good adherence to guidelines with regards to anti-platelet (84%; n = 65) and statin therapy (97%; n = 75),
- Failure to meet cholesterol targets, with only 31% (n = 24) meeting LDL target values.
- Limited adherence to guidelines re prescribing meds for established hypertension (66%; n = 51), BMI targets met (40%; n = 31) and depression screening (32%; n = 25; 95% CI 22-44%).
- Audit suggests that current screening and management practices for HIV/CVD patients falls short of guidelines, particularly in relation to cholesterol management. – and likely reporting bias.

Low levels of chemsex among men who have sex with men, but high levels of risk among men who engage in chemsex: analysis of a cross-sectional online survey across four countries
Jamie Frankis, Glasgow

- Cross-sectional, online survey of 2328 MSM recruited via gay sociosexual media in Scotland, Wales, Northern Ireland and Republic of Ireland were analysed.

Results:
- 48.8% of participants had ever taken illicit drugs,
- lifetime chemsex drug use was less common (18.0%) 
- only 8.2% reported chemsex drug use in the last year and 3% in last 4 weeks.
- 1/4 (27.1%) of men who used chemsex drugs in the last year reported no sexualised drug use, but almost three-quarters (72.9%) did.
- 6.1% of the whole sample reported sexualised chemsex drug use in the last year 
- significantly higher chemsex rates for ages 36-45 yrs (AOR = 1.96), single men (AOR = 1.83),
  HIV positive men (AOR = 4.01), men who report high-risk sex (AOR = 4.46), being fisted (AOR = 7.77) or sex in exchange for goods other than money (AOR = 4.7) in the last year and men who reported an HIV test in the last 3 months

Conclusions:
- Only a small proportion of MSM in Scotland, Wales, N Ireland and Ireland reported chemsex,
- 1st time demonstrated that not all chemsex drug use was sexualised.
Syndromic management of sexually transmissible infections in resource-poor settings: a systematic review with meta-analysis of the abnormal vaginal discharge flowchart for Neisseria gonorrhoea and Chlamydia trachomatis

Caroline van Gemert, C Bradshaw, et al

- Syndromic management of sexually transmissible infections is commonly used in resource-poor settings for the management of common STIs;
- Abnormal vaginal discharge (AVD) flowcharts are used to identify & treat cervical infection, including NG/CT;
- A systematic review and meta-analysis of diagnostic test performance of AVD flowcharts, including WHO- and locally-adapted AVD flowcharts.

**Methods:** A search of electronic databases of relevant studies published 1991-2014.

- Flowcharts were categorised into 14 types based on: 1) use of WHO guidelines or locally-adapted versions; 2) use of risk assessment, clinical examination or both; and 3) symptomatic entry.
- Summary diagnostic performance measures calculated included summary sensitivity, summary specificity and diagnostic odds ratio.

**Results:** 36 studies (involving 99 flowcharts), were included. Summary sensitivity estimates for WHO flowcharts ranged from 41.2 - 43.6%, locally adapted flowcharts from 39.5 - 74.8%.

- Locally adapted flowcharts performed slightly better than the WHO flowcharts. No difference in performance was seen between risk assessment vs clinical examination. The AVD flowchart performed slightly better when not restricted to symptomatic women only.

**Conclusions:** Considerable variation in AVD flowchart performance, but overall it was a poor diagnostic tool regardless of whether risk assessment or clinical examination was included, or whether the flowchart was WHO or locally developed.

- Many women were treated unnecessarily and many women with cervical infection were not detected.
- Authors caution against their continued use for management of cervical infection.
Gay men’s chemsex survival stories
Vivienne Smith et al
Department of Clinical, Educational and Health Psychology, University College London

• How do gay men self-identify a chemsex problem and remain chemsex free?
• Qualitative interviews: participants’ reflections on pathways in and out of chemsex engagement.
• 6 participants (≥18 yrs) from a cohort gay of men who had completed the tailored therapeutic Structured Weekend “Antidote” Program. 3/12 post intervention

Results:
• Each man identified a multiplicity of incidents and feelings that contributed to their engagement in chemsex.
• This connected to participants’ identity development and desire to belong to a gay community
• A common narrative suggested a process through which chemsex journeys were perceived as spiralling from exciting and self-exploratory incidents into an out-of-control, high-risk activity that was isolating and prompted engagement with therapy.
Discussion

- Chemsex was associated with a positive gay identity gain, increased self-confidence and broader sexual experiences.
- Despite seeking therapeutic engagement, participants expressed uncertainty about maintaining a gay future without chemsex.
- Only 1/6 described engaging in a satisfying sober sex experience since deciding to stop chemsex.
- 5/6 participants said they may choose to have chemsex in the future, (although stating it would be under more controlled circumstances).

Discussion

- Goes towards explaining the ambivalence in maintaining a gay future without chemsex despite awareness of negative consequences.
- Helps towards understanding both why chemsex may prove attractive and why it may be so difficult to leave despite therapeutic intervention and continued negative consequences.
Review article: Factors influencing uptake of pre-exposure prophylaxis: some qualitative insights from an intervention study of men who have sex with men in China
Liu, Chunxing et al. Sexual Health Vol. 15, Iss. 1, (Feb 2018)

Background:
• Of all reported incident HIV infections in China, the proportion attributable to homosexual transmission increased from 2.5% in 2006 to 27.2% in 2015
• Prep in China still in clinical trial phase – an intervention study is being completed to evaluate effectiveness of Prep.
• That study showed Prep uptake among MSM is low in China: although 19% (196) of 1033 MSM participants were willing to use Prep only 2.5% (26) finally enrolled.
• This study therefore aimed to identify factors that might influence MSM's uptake and use of PrEP.
  – May help illuminate reasons why CALD MSM in Australia are not accessing PrEP at the same rate as local MSM.

Australian context  (slides courtesy A Grulich)
Study Background

• Prior studies reveal that perceived HIV risk, medical mistrust, stigma associated with taking PrEP, disclosure difficulties, limited accessibility, and burden of a daily regimen may influence the decisions to seek or uptake PrEP among MSM.

• None were done in China, and most were based on a hypothetical Prep program.

Methods

• Qualitative study was done as part of a prior intervention study.

• In-depth interviews were conducted with 32 MSM from a PrEP intervention study evaluating daily oral TDF, in Shanghai in China.

• Interview records transcribed verbatim. Qualitative data analysis for this study was an iterative process, with interview data analysed using a consensual qualitative research method. Subsequently, emergent codes were added that were based on unexpected findings.

• Data were coded by two independent researchers, with differences in coding subject to group discussion involving other members of the research team and resolved by consensus.

• Recruitment criteria for the main Prep study were:
  – >18yrs, male, had oral and or anal sex with a man in last 6 months, negative HIV test, able to consent.
  – Participants were given info on risks/ benefits etc of Prep /TDF/ study procedures, and could then choose themselves to be in the intervention (Prep) or control (no prep) group.
  – Of the 19% (197/1033) that showed willingness to take prep, only 2.5% (26) enrolled.
  – The Prep group would then pick up prep monthly from 1 of 4 Chinese Centers for Disease Control and 1 NGO site in Shanghai during working hours Mon-Fri.
Method

• A sample (n = 32) of MSM participants were purposefully selected to elicit their opinions regarding PrEP:
  – 11 from the TDF group;
  – 8 from the change-over group (refers to those who originally participated in the TDF group but quit); and
  – 13 from the non-user group.
• All participants received 100 Yuan (approx. US$15) for participation and travel expense
• Background information and sexual behaviours were collected at study baseline.
• In-depth interviews (45-60 min) conducted by trained interviewers, semi-structured guide in a private room.
• All interviews were audio-recorded with the permission of respondents.

Baseline characteristics

• Majority were <40 years old (75%), non-local residents (62.5%), and had never married (65.6%).
• Nearly half worked in enterprise or a factory (43.7%), and had at least a college education (46.9%).
• more than two-thirds (68.8%) reported having 2 or more male anal sex partners in the past 6 months,
• only 31.3% reported consistent condom use in the past 6 months.
• 53% reported at least one female sex partner in their lifetime.
• Only 9% had ever used drugs.
Characteristics of participants according to TDF status:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>TDF group, %</th>
<th>Change-over group, %</th>
<th>Non-user group, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects</td>
<td>11</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Age (years)</td>
<td>22-29</td>
<td>36-59</td>
<td>40-51</td>
</tr>
<tr>
<td></td>
<td>4 (36.4)</td>
<td>7 (63.6)</td>
<td>6 (0.0)</td>
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<tr>
<td></td>
<td>2 (25.0)</td>
<td>2 (25.0)</td>
<td>4 (50.0)</td>
</tr>
<tr>
<td></td>
<td>6 (46.2)</td>
<td>3 (23.1)</td>
<td>4 (30.8)</td>
</tr>
<tr>
<td>Non-local resident</td>
<td>5 (45.5)</td>
<td>4 (50.0)</td>
<td>11 (84.6)</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enterprise or factory worker</td>
<td>7 (62.6)</td>
<td>4 (50.0)</td>
<td>3 (23.1)</td>
</tr>
<tr>
<td>Sole business owner, or other</td>
<td>4 (56.4)</td>
<td>4 (50.0)</td>
<td>10 (76.9)</td>
</tr>
<tr>
<td>Had at least a college education</td>
<td>4 (26.7)</td>
<td>4 (26.7)</td>
<td>7 (46.7)</td>
</tr>
<tr>
<td>Never married</td>
<td>8 (72.7)</td>
<td>7 (23.8)</td>
<td>9 (69.2)</td>
</tr>
<tr>
<td>Income per month ≥5000 (Yuan)</td>
<td>6 (54.5)</td>
<td>7 (87.5)</td>
<td>9 (69.2)</td>
</tr>
<tr>
<td>Had ≥1 male anal sex partners in the past 6 months</td>
<td>6 (54.5)</td>
<td>7 (87.5)</td>
<td>9 (69.2)</td>
</tr>
<tr>
<td>Consistent condom use with men in the past 6 months</td>
<td>2 (18.2)</td>
<td>2 (28.6)</td>
<td>6 (46.2)</td>
</tr>
<tr>
<td>Have ever had female sex partners in lifetime</td>
<td>5 (28.3)</td>
<td>2 (28.6)</td>
<td>8 (46.2)</td>
</tr>
<tr>
<td>Have ever used illicit drugs</td>
<td>6 (0.0)</td>
<td>1 (12.5)</td>
<td>2 (15.4)</td>
</tr>
</tbody>
</table>

Results: Factors influencing Prep uptake – Non-TDF user group

- **Medical mistrust – of trials:**
  - Being a “lab rat”
  - Doing the research for the benefit of foreign countries
- **Mistrust of research:**
  - “The government discriminates us gays (eg no gay marriage policy) so why would we trust a drug the govern’t supplies?”
  - “Perhaps the purpose of the research is to prevent HIV transmission but they (Govrm’t) don’t care about the toxicities – they think we deserve it”
**Non-TDF user group**

- **Perceived low risk:**
  - 13/13 perceived themselves as low risk of HIV, but 12/13 thought MSM is a high risk population:
    - “I work as a MB (Money Boy) and have had sex with many men for years – I would have got HIV a long time ago if I was really prone to it.”
- **Social concerns:**
  - Family concerns – no need for Prep as “I can use a condom with my wife if I get infected”.
  - A gay man – how could he get HIV and transmit to his family/children?
- **Main male partner support:***
  - Only 1 from PREP user group received support from partner (that was HIV positive). Otherwise partner support was very low.

**Non-TDF user group**

- **Knowledge and beliefs re PrEP side effects & efficacy:**
  - HIV pos friends who had side effects from ARVs
  - “AIDS patients look thin and dark skinned after taking ARVs”
  - 12/13 had major concerns re S/e’s: hepatic and renal damage, or will “weaken my immune system so I get HIV more easily in return”.
  - “We gays will probably live alone in old age and who would take care of us if our liver and kidneys were damaged by this?”
  - Efficacy – “it can prevent but not really block it”
    - I daren’t take my own life to risk it”
    - “you recommend us to use condoms while taking the medicine which means it can’t prevent HIV alone, and none of us have the guts to use it alone, so why use it?”
Non-TDF user group

Ease and comfort of Prep use (Vs. condoms):
• Medicine requires daily use, but condoms only needed during sex.
• Condoms can be bought anywhere, Prep is limited access

Prep adherence / access:
• I cant remember to take medicine for (my symptomatic) bronchitis treatment, let alone a prevention medicine
• My business doesn’t allow a regular schedule – I barely eat meals on time
• My parents will wonder why I take drugs every day and I will have to explain my sexual orientation

Cost – Prep was free in the trial but most participants stated they couldn’t afford the market price.

TDF user group

Reasons given why Prep was taken up in this group:
• My participation will make a contribution to HIV prevention
• Maybe the drug could be improved because of my participation
• I trust your institution (CDC)as it is government, not a private hospital
• I have an HIV positive partner
• My family said I would have to leave them if I got infected with this horrible disease
• My parents reputation could be ruined – they are both professors
• My friend got HIV recently but couldn’t get treatment (CD4>500) – I want to avoid that
• Side effects shouldn’t be a problem as I take it without a prescription, they must be under control.
• I’m not usually vulnerable to s/effects
• Condoms cripple sexual pleasure
• Adverse to using condoms – physical and psychological barrier
• Using condoms may give away my sexual desire and embarrass me with a stranger (ED?)
• I take daily supplements so another drug wouldn’t be hard
• Picking up pills is hard / its only in work hours/ CDC too faraway
Changeover group – started but then stopped Prep

- I can accept s/effects and want to take it but wife wants to have a baby
- Really want it but failed blood test (high creat) – friend was recently infected so I’m too afraid to care about s/effects
- Don’t care about s/effects as long as it reduces HIV risk

Author Discussion

- Mistrust of research institutions and medical trials are a major barrier to PrEP uptake, (similarly observed in other studies).
  - suggests that introduction and implementation of PrEP should first address mistrust issues within the MSM communities.
- Low perception of HIV risk plays a critical role in MSM’s decision to not use PrEP (consistent with global literature).
  - risk assessment tools should be developed and used to assist individuals in making their own risk assessment of HIV objectively and choose from a range of HIV prevention tools including PrEP.
- concern about side-effects is a common reason for declining PrEP.
  - underscores the importance of accurate education regarding safety profile/tolerability of TDF
- Concern about <100% protection by PrEP affects PrEP usage levels.
  - PrEP is presented as a tool to be used with condoms, >confuses participants – concerns they still need to use condoms even when taking the drugs, >further decreased motivation to use PrEP - consistent with other studies.
- How to make potential PrEP users clearly understand PrEP efficacy rates, on its own /in combination with other risk-reduction practices, remains a considerable challenge to health providers and requires more attention.
Author Discussion

- Participants in TDF user group have more concerns about being infected with/ transmitting HIV to their families than those in the non-user group.
  - China has been defined as a collectivist culture = family oriented society, >the interests and the wishes of the family are given priority
    - This concern motivates them to use PrEP, amidst facing HIV-related stigma and or discrimination.
- Only 1/2 the participants disclose participation in the study to their main male partner
  - Partner disclosure and risk communication may be key features of PrEP acceptability.
  - But few mentioned PrEP-related stigma from society and family members, ?due to the majority of the general population are unaware/ unknowledgeable of PrEP.
- To reduce adherence/ logistical pill collection issues, PrEP services should be provided in line with MSM preferences, offering convenient times and delivery sites.

Limitations (author’s and my own)

- Participants recruited solely from Shanghai, China, > findings might not be generalisable to MSM populations in other areas.
- Sample size – too small to get a detailed analysis /feel for themes - 1033 potential MSM>26 takers. Could have dug deeper.
- Did not describe how they chose the participants – rationale for sample and size of group not explained
- Interviewer style / preconceptions may influence answers – and bias questions
- Study focussed on TDF rather than a combination of TDF/FTC -some results e.g. concern about side-effects and efficacy may not reflect perception of using TDF/FTC as PrEP.
- Prep free in trial but not necessarily same in real life – market rate ~US$1000/month? (some Chinese accessing Prep from Thailand for example)
- However study provides some important information for a future successful implementation of a PrEP program in China:
  - Risk assessment tools to help MSM have an accurate assessment of HIV risk.
  - Targeted education and intervention to deliver accurate information
  - Measures to increase the accessibility of PrEP / reducing the possibility of participants quitting the PrEP treatment program because of costs/time for transportation
- Some valuable insight into how to tackle / inform programs targeting high risk Chinese MSM in Australia:
  - Major cultural differences and beliefs
The End

- Some chinese (non-study participants) from the Real Bodies exhibition...