Implementation of PrEP - Social Aspects and STI Risk Compensation

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PrEP, Sexually Transmitted Infections (STIs) & Risk Compensation

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CENTRE OF EXCELLENCE FOR RESEARCH in AIDS

University Of Malaya

No Conflicts of Interest to declare

Outline

- Introduction
- Evidence of Risk Compensation
- Why it matters
- PrEP and STIs
- Risk behaviour & STI data from the My PrEP demonstration project
- Recommendations on how to move forward

We have started to see the impact of PrEP on HIV incidence at city level

Risk Compensation

- An increase in ***risk-related behaviours*** when an intervention ***reduces perceptions of risk*** (and increased sense of protection) among individuals or a population

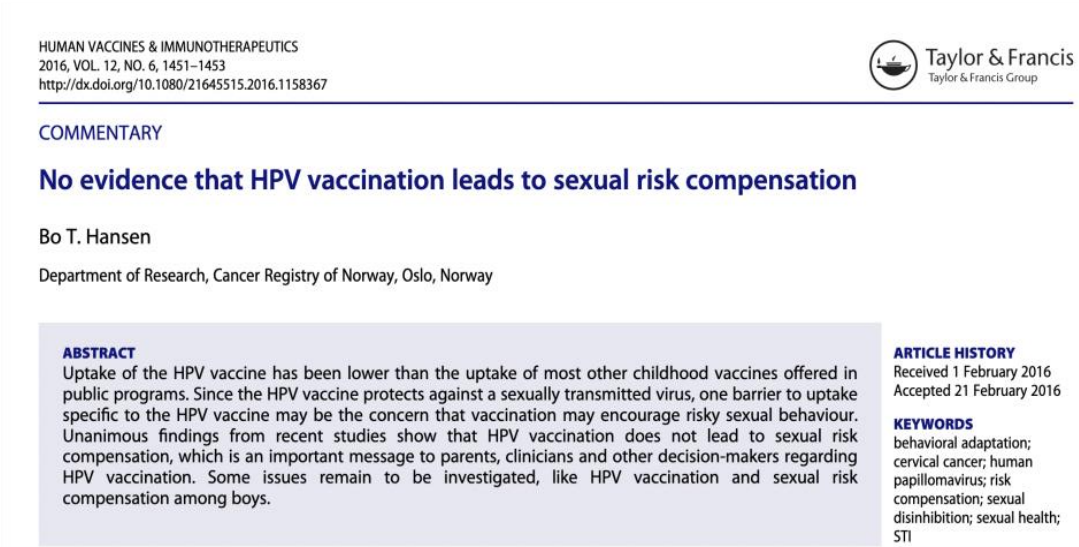
- **Risk compensation in the context of PrEP:**
  - Knowing that they are protected against HIV, PrEP users might reduce their condom use, or increase their number of partners (or both), increasing their risk for other STIs
  - STIs are the best objective measure of risk compensation and the most feared consequence of risk compensation

Quaife M. *Lancet HIV* 2019. Colby D. *BKK Int Symp HIV Med* 2020

We have been here before with…….

- The oral contraceptive pill
- Treatment of syphilis
- Antiretroviral treatment (ART)
- HIV Post exposure prophylaxis (PEP)
- HPV vaccine
- Condoms
- Seat Belts !!!!!!
- Needle exchange programmes

Moral judgement on sex and prevention: A tale as old as time


HUMAN VACCINES & IMMUNOTHERAPEUTICS
2016, VOL. 12, NO. 6, 1451–1453
http://dx.doi.org/10.1080/21645515.2016.1158367
Taylor & Francis
Taylor & Francis Group

COMMENTARY

No evidence that HPV vaccination leads to sexual risk compensation

Bo T. Hansen

Department of Research, Cancer Registry of Norway, Oslo, Norway

ABSTRACT
Uptake of the HPV vaccine has been lower than the uptake of most other childhood vaccines offered in public programs. Since the HPV vaccine protects against a sexually transmitted virus, one barrier to uptake specific to the HPV vaccine may be the concern that vaccination may encourage risky sexual behaviour. Unanimous findings from recent studies show that HPV vaccination does not lead to sexual risk compensation, which is an important message to parents, clinicians and other decision-makers regarding HPV vaccination. Some issues remain to be investigated, like HPV vaccination and sexual risk compensation among boys.

ARTICLE HISTORY
Received 1 February 2016
Accepted 21 February 2016

KEYWORDS
behavioral adaptation; cervical cancer; human papillomavirus; risk compensation; sexual disinhibition; sexual health; STI

R Castro D. Give PrEP a chance: moving on from the "risk compensation"concept. *JIAS* 2019

Why Risk compensation matters

- Provider concerns about sexual risk compensation are associated with decrease willingness to prescribe PrEP
- May reduce motivation of potential users to seek or to sustain PrEP use for fear of stigmatization associated with PrEP and perceived sexual risk taking
- Concerns that PrEP may be less effective in individuals with STIs
- Concerns around increase in antibiotic resistant STIs
- Effect of community level risk compensation
  - How PrEP affects sexual behaviours among non-PrEP users in the context of PrEP availability

Key Findings: Willingness to use PrEP

- Rel
  - eing in a
  - above that
  - l barrier
  - arriers in
- Ass
  - health
  - as promiscuous

or using PrEP as a desire to engage in condomless sex or chemsex

Bourne A et al. *Journal of the International AIDS Society* 2017, **20**:21899
http://www.jiasociety.org/index.php/jias/article/view/21899 | http://dx.doi.org/10.7448/IAS.20.1.21899

JIAS Journal of the International AIDS Society

Research article

Willingness to use pre-exposure prophylaxis (PrEP) for HIV prevention among men who have sex with men (MSM) in Malaysia: findings from a qualitative study

Adam Bourne[1,2§], Matteo Cassolato[3], Clayton Koh Thuan Wei[4], Bangyuan Wang[3], Joselyn Pang[5], Sin How Lim[6], Iskandar Azwa[7], Ilias Yee[4] and Gitau Mburu[8]

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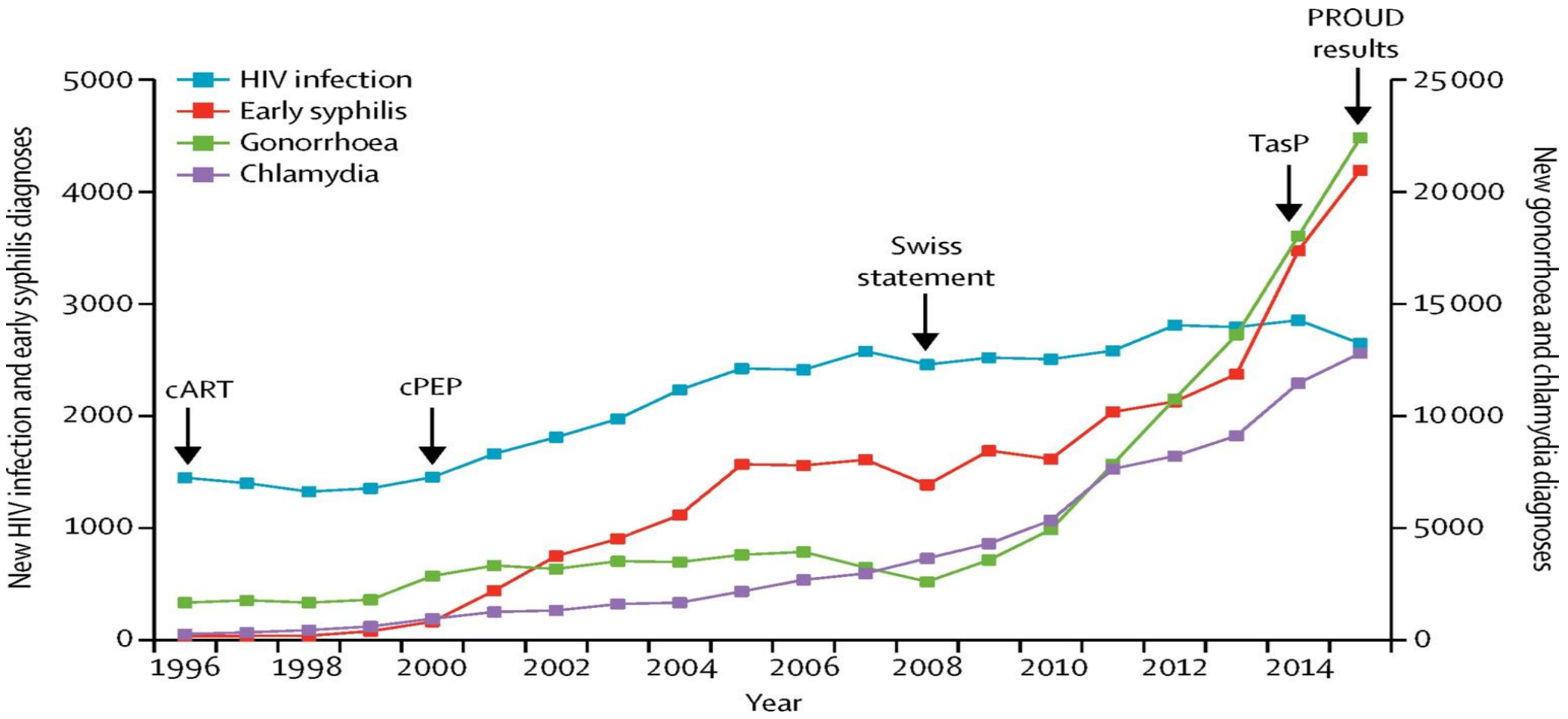
New Diagnoses of STIs from 1996 to 2015 in MSM in England



Unemo M et al. Lancet Infect Dis 2017

Do STIs reduce the efficacy of PrEP?

- No evidence STIs lower PrEP efficacy in RCTs
  - iPrEX: Syphilis incidence of 7.3/100 py; no interaction with PrEP efficacy (Solomon, CID 2014)
  - Partners PrEP: No difference in PrEP efficacy among those with STIs (Murnane, AIDS 2013)

- No evidence in open label studies
  - PROUD in UK: 73% with baseline STI & 86% effectiveness of PrEP (McCormack, Lancet 2015)
  - US MSM PrEP Demo study: 90/100 p-yr STI incidence & 0.43/100 p-yrs HIV incidence (Liu, JAMA Int Med 2015)

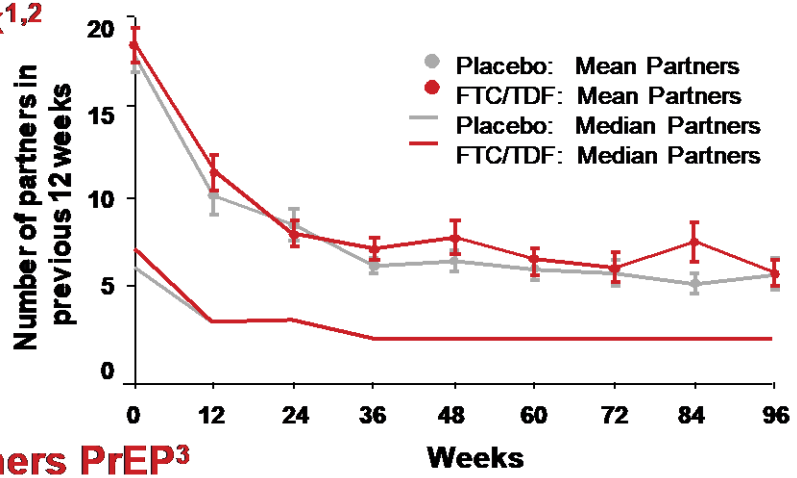
Celum. *AIDS* 2016

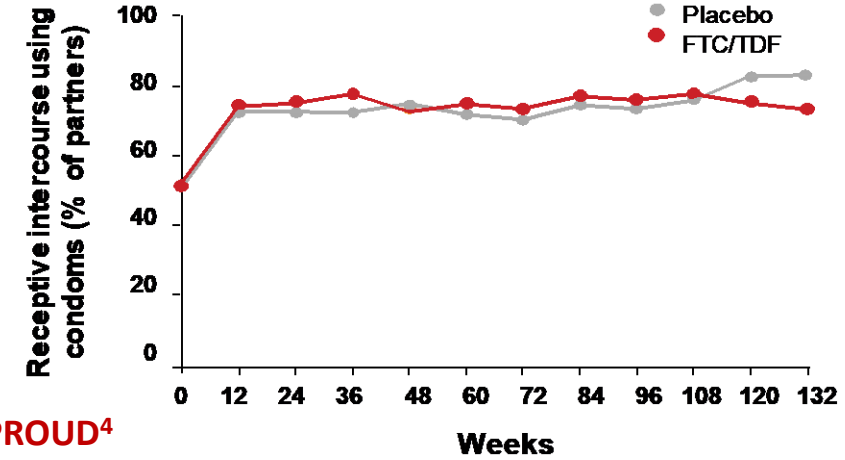
Problems with measuring STI prevalence/incidence in PrEP programmes

- Many studies lack STI pre-incidence data
- PrEP studies tend to select persons more likely to engage in condomless sex
- High screening in PrEP users introduce detection bias
  - US CDC and Australian guidelines recommend screening every 3 months
  - If people are screened more frequently, STIs will be detected and treated more often
- STI rates were increasing prior to the introduction of PrEP
- Consistent condom use has been decreasing

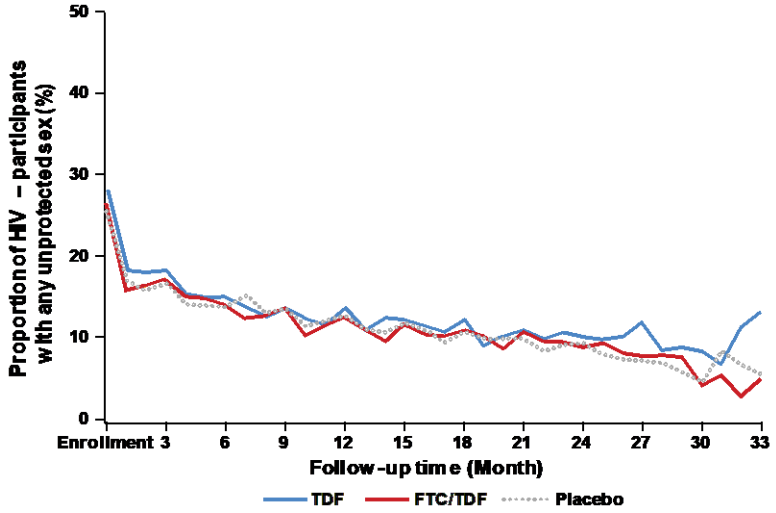
Risk compensation in PrEP clinical trials

iPrEx[1,2]

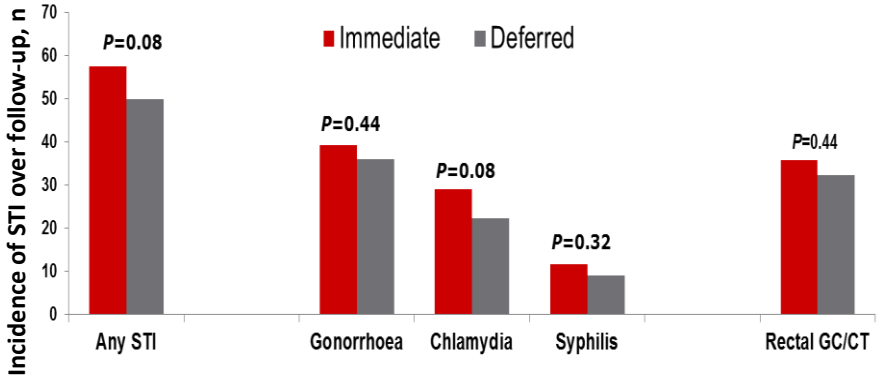




Partners PrEP[3]



PROUD[4]



There was no risk compensation seen in iPrEX, Partners PrEP or PROUD

Grant R et al, CROI 2016
Grant R et al, N Engl J Med 2010
Baeten J et al, IAS 2011
McCormack S et al CROI 2015

PrEP and risk compensation

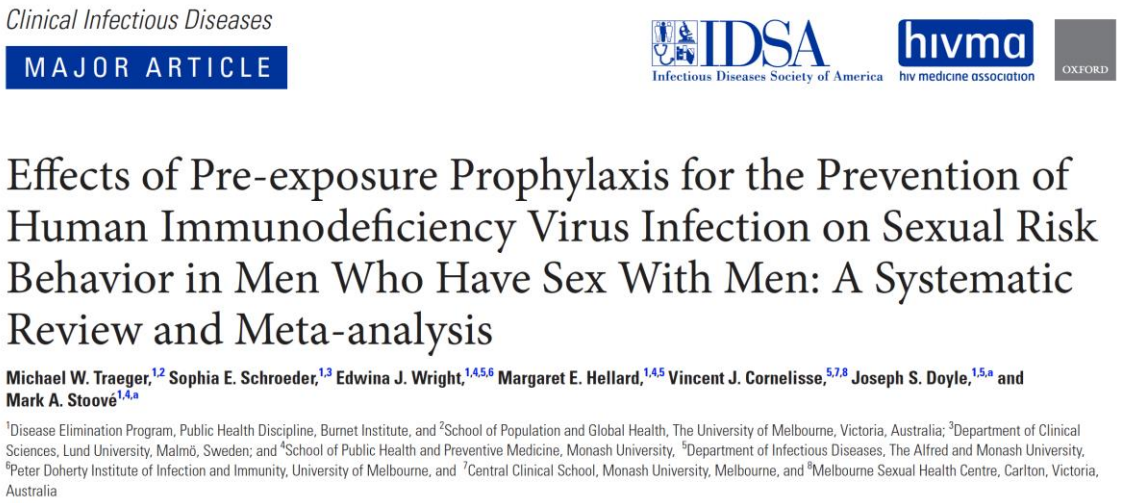
- The data from mainly **randomized clinical trials** (RCTs) (15 RCTs & 3 observational OLEs or demonstration projects) show no evidence of risk compensation:
  - No increase in condomless sex seen in PrEP efficacy trials:
    - iPrEx, Partners PrEP, Fem-PrEP, TDF2
- No increase in incident STIs:
  - iPrEx OLE (syphilis), PROUD (rectal CT/NG)

RCTS may not provide realistic evidence into risk compensation because participants perception of protection are unknown as participants are unaware whether they are receiving an effective active agent

Fonner et al. Effectiveness and safety of oral HIV preexposure prophylaxis for all populations. *AIDS* 2016

Meta-Analysis of Effect of PrEP on STI Diagnosis among MSM

- 16 observational and 1 open label studies from 2014-2017
  - 8 studies of STI positivity (n=4388)
  - 13 studies sexual behaviour (n=5008)



Clinical Infectious Diseases

MAJOR ARTICLE

Effects of Pre-exposure Prophylaxis for the Prevention of Human Immunodeficiency Virus Infection on Sexual Risk Behavior in Men Who Have Sex With Men: A Systematic Review and Meta-analysis

Michael W. Traeger,[1,2] Sophia E. Schroeder,[1,3] Edwina J. Wright,[1,4,5,6] Margaret E. Hellard,[1,4,5] Vincent J. Cornelisse,[5,7,8] Joseph S. Doyle,[1,5,a] and Mark A. Stoové[1,4,a]

[1]Disease Elimination Program, Public Health Discipline, Burnet Institute, and [2]School of Population and Global Health, The University of Melbourne, Victoria, Australia; [3]Department of Clinical Sciences, Lund University, Malmö, Sweden; and [4]School of Public Health and Preventive Medicine, Monash University, [5]Department of Infectious Diseases, The Alfred and Monash University, [6]Peter Doherty Institute of Infection and Immunity, University of Melbourne, and [7]Central Clinical School, Monash University, Melbourne, and [8]Melbourne Sexual Health Centre, Carlton, Victoria, Australia

Meta-Analysis of Effect of PrEP on STI Diagnosis among MSM

8 studies with 4388 participants

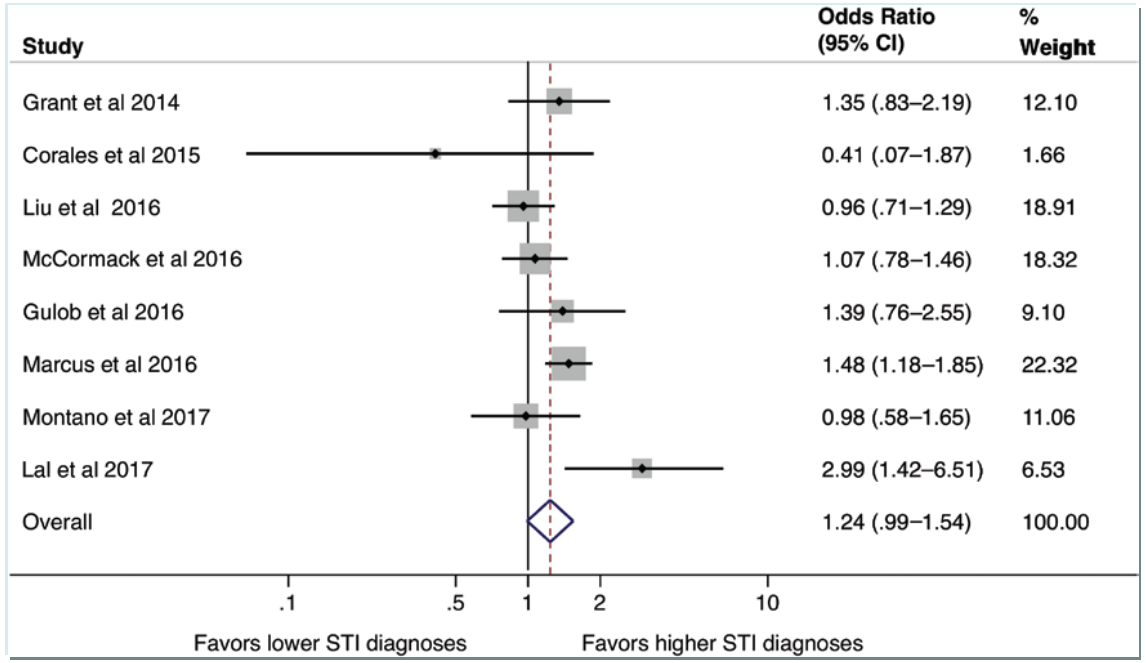


Figure: Random effects meta-analysis of effects of PrEP on STI diagnosis

- Overall Pooled OR for any STI diagnosis was 1.24 (95% CI: 0.99–1.54) (*P* = .059)
- Rates of bacterial STIs increasing over time, however, rises pre-date PrEP use
- Significant increase in any **rectal STI** diagnosis (OR: 1.39, 95% CI: 1.03-1.87) and in **rectal chlamydia** (OR: 1.59, 95% CI: 1.19-2.13)
- Increase in STIs rates in more **recent studies** (OR: 1.47, 95% CI: 1.05-2.05)
  - Reflect increasing trust in the HIV protective effect of PrEP and normalization of PrEP for HIV prevention over time
- No significant increase in proportion reporting condomless sex
- Heterogeneity in results, some trend towards increased no of different condomless partners or decrease in overall condom use

Traeger MW et al, CID 2018

PrEP demonstration projects
Specific mentions…

- ***Amsterdam PrEP (AmPrEP)*** (n=365 MSM, 2TGW)
  - Participants given option of choosing daily vs event-driven PrEP
  - 27% event-driven PrEP
  - No change in STI incidence (90.4 per 100 person years) over 2 year F/U
  - **Lower STI incidence among event-driven PrEP users** vs daily PrEP (aIRR 0·59, 95% CI 0·46–0·75)
    - Likely due to lower risk behaviours in event-driven PrEP users
  - Increase in no of condomless anal acts with casual partners (aRR 1·06, 95% CI 1·02–1·09)

- ***Thailand Princess PrEP*** (N=1467 MSM, 230 TGW)
  - No change in condomless sex over 12 months
  - Decrease in syphilis incidence (7% to 3%)

Hoornenborg . *Lancet HIV* 2019. Phanuphak N. *Sex Health* 2018

PrEP Demonstration projects (2)

- ***Victoria, Australia (PrEPX)*** (N=2981)
  - Overall STI incidence 91.9 per 100 person years
  - 13% diagnosed with ≥3 STIs, accounting for 53% of overall STI diagnoses
    - **STIs were highly concentrated among PrEP users with repeat infections**
  - **No of partners and group sex predicted STIs** (not condom use)
  - STI incidence increased within 1 year, particularly in PrEP naïve patients (even after adjusting for testing frequency) (aIRR: 1.21 (95% CI 1.06-1.39)

Traeger. *JAMA* 2019

Meta-analysis of PrEP studies: Pooled STI prevalence at baseline (within 3 months of PrEP start)

Pathogen	Prevalence				
	No. of Studies Pooled	Total Sample Size, No.	Prevalence (95% CI)	I^2 Statistic, %	*P* Value
Chlamydia trachomatis					
Any site	12	4918	10.8 (6.4-16.1)	97	<.001
Genital	6	1019	4.0 (2.0-6.6)	66	.01
Anorectal	8	1660	8.5 (6.3-11.0)	61	.01
Oropharyngeal	5	939	2.4 (0.9-4.5)	63	.03
Neisseria gonorrhoeae					
Any site	14	6340	11.6 (7.6-16.2)	96	<.001
Genital	6	2166	2.1 (0.9-3.7)	70	.01
Anorectal	8	1558	9.3 (4.7-15.2)	92	<.001
Oropharyngeal	5	940	4.9 (1.9-9.1)	83	<.001
Treponema pallidum [a]	22	9757	5.0 (3.1-7.4)	95	<.001
Hepatitis A virus	1	1049	5.4 (4.1-7.0)	NA	NA
Hepatitis B virus	4	4370	1.3 (0.1-3.5)	95	<.001
Hepatitis C virus	4	2555	2.0 (0.8-3.7)	84	<.001
Mycoplasma genitalium	1	198	17.2 (12.2-23.2)	NA	NA
Trichomonas vaginalis	2	1379	5.9 (4.7-7.2)	NA	NA
Any *C trachomatis*, *N gonorrhoeae*, or *T pallidum*	16	8431	23.9 (18.6-29.6)	97	<.001

- Systematic review and meta-analysis of PrEP studies on STI prevalence & incidence
- Included unpublished data of 82 PrEP implementers
- N=88, up to Nov 2018
- Most studies (74%) in MSM only
- 83% observational (not RCT)
- **Only 30% from low & middle income settings**

- Pooled prevalence of any STI : 23.9%

- Prevalence of NG or CT by anatomical site highest in the anorectum

Ong J et al. Global Epidemiologic Characteristics of STIs Among Individuals Using PrEP for the Prevention of HIV Infection: A Systematic Review and Meta-analysis. *JAMA Network Open* 2019

Meta-analysis of PrEP studies: Pooled STI Incidence

Pathogen	Incidence				
	No. of Studies Pooled	Total Sample Size, No.	Incidence per 100 Person-Years (95% CI)	I^2 Statistic, %	*P* Value
Chlamydia trachomatis					
Any site	14	6756	21.5 (17.9-25.8)	97	<.001
Genital	9	1698	10.4 (9.2-11.8)	0	.78
Anorectal	11	2171	29.9 (24.1-37.1)	87	<.001
Oropharyngeal	7	1237	4.6 (3.3-6.3)	46	.10
Neisseria gonorrhoeae					
Any site	13	6462	37.1 (18.3-25.5)	96	<.001
Genital	8	1564	9.9 (8.3-11.8)	28	.20
Anorectal	11	2171	21.6 (16.4-28.4)	90	<.001
Oropharyngeal	8	1646	19.7 (16.0-24.3)	76	<.001
Treponema pallidum [a]	23	12 459	11.6 (9.2-14.6)	92	<.001
Hepatitis A virus	NA	NA	NA	NA	NA
Hepatitis B virus	2	1353	1.2 (0.6-2.6)	0	.53
Hepatitis C virus	8	3786	0.3 (0.1-0.9)	87	<.001
Mycoplasma genitalium	NA	NA	NA	NA	NA
Trichomonas vaginalis	1	50	0	NA	NA
Any *C trachomatis*, *N gonorrhoeae*, or *T pallidum*	11	6301	72.2 (60.5-86.2)	95	<.001

- Pooled STI incidence: 72.2 per 100 person years
- The incidence of CT or NG was highest in the anorectum
- Incidence of CT, NG and early syphilis was higher in HICs
- High pooled incidence re-inforces need for ongoing STI testing and tx as PrEP users remain at risk of STIs

Ong J et al. *JAMA Network Open* 2019

STI service models in PrEP programmes

- PrEP services with Rapid or POCT for STI
  - UK – Dean St Express
- PrEP integrated into STI services
  - UK, Australia
  - Multi-site CT/NG screening
- PrEP services with minimal STI screening
  - Japan, Brazil, Thailand, Malaysia
  - Syphilis only
  - Often no CT/NG screening due to costs
- PrEP services with syndromic management +/- presumptive treatment
  - South Africa, Kenya
- PrEP services with referral to other clinic sites with STI services
  - Thailand (some sites)
- PrEP services with no STI service

Ong J et al. *JAMA Network Open* 2019

Hepatitis C is an emerging STI in Bangkok

Outbreak of acute HCV infection in a cohort of 563 HIV+ MSM with AHI in Bangkok (RV254/SEARCH010)

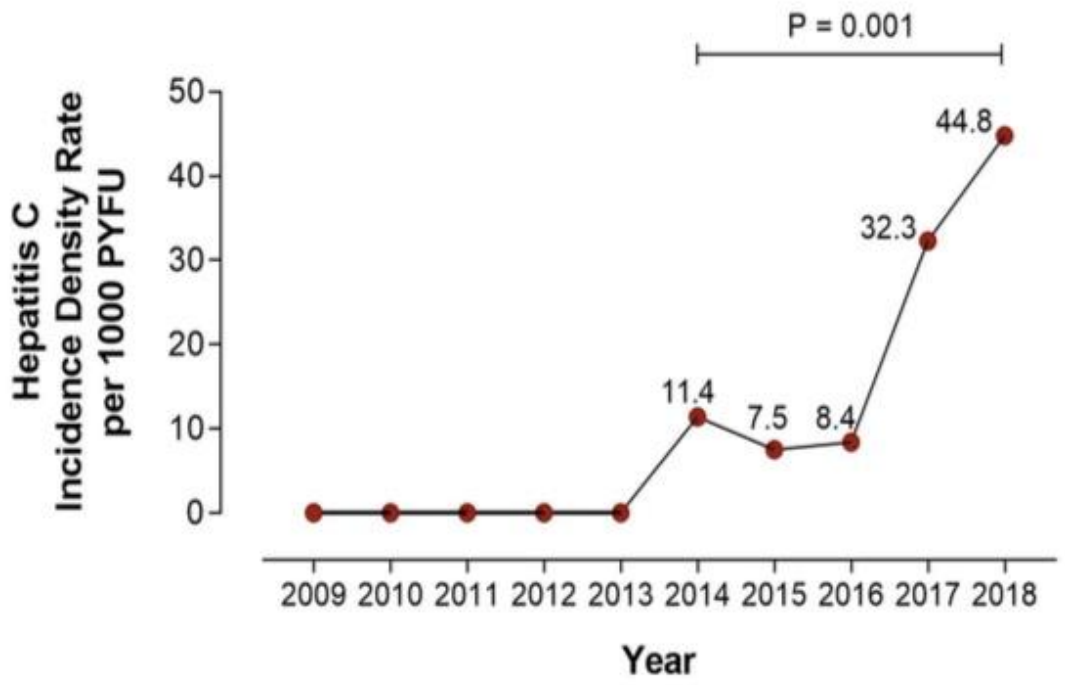


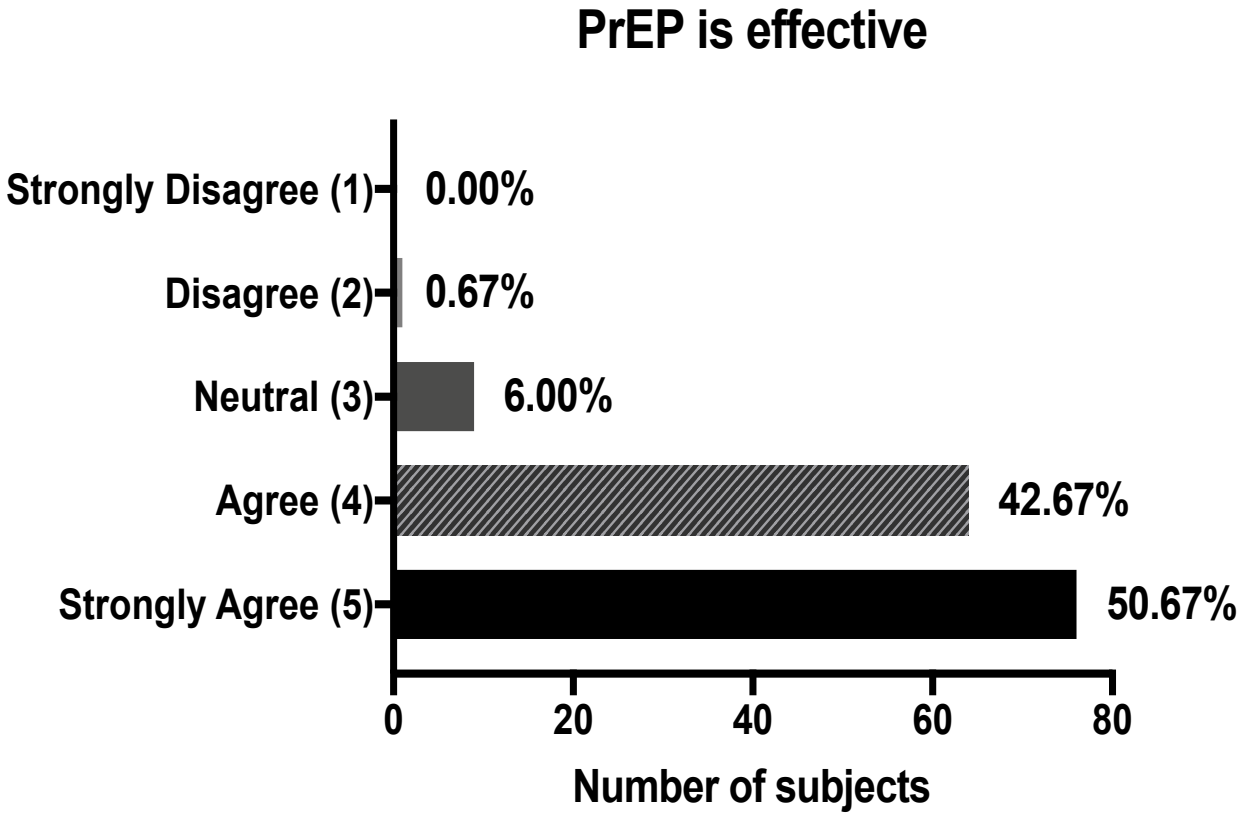
Table: Risk factors for Acute HCV incidence among HIV+ MSM in Bangkok, Thailand (n=39 acute HCV cases)

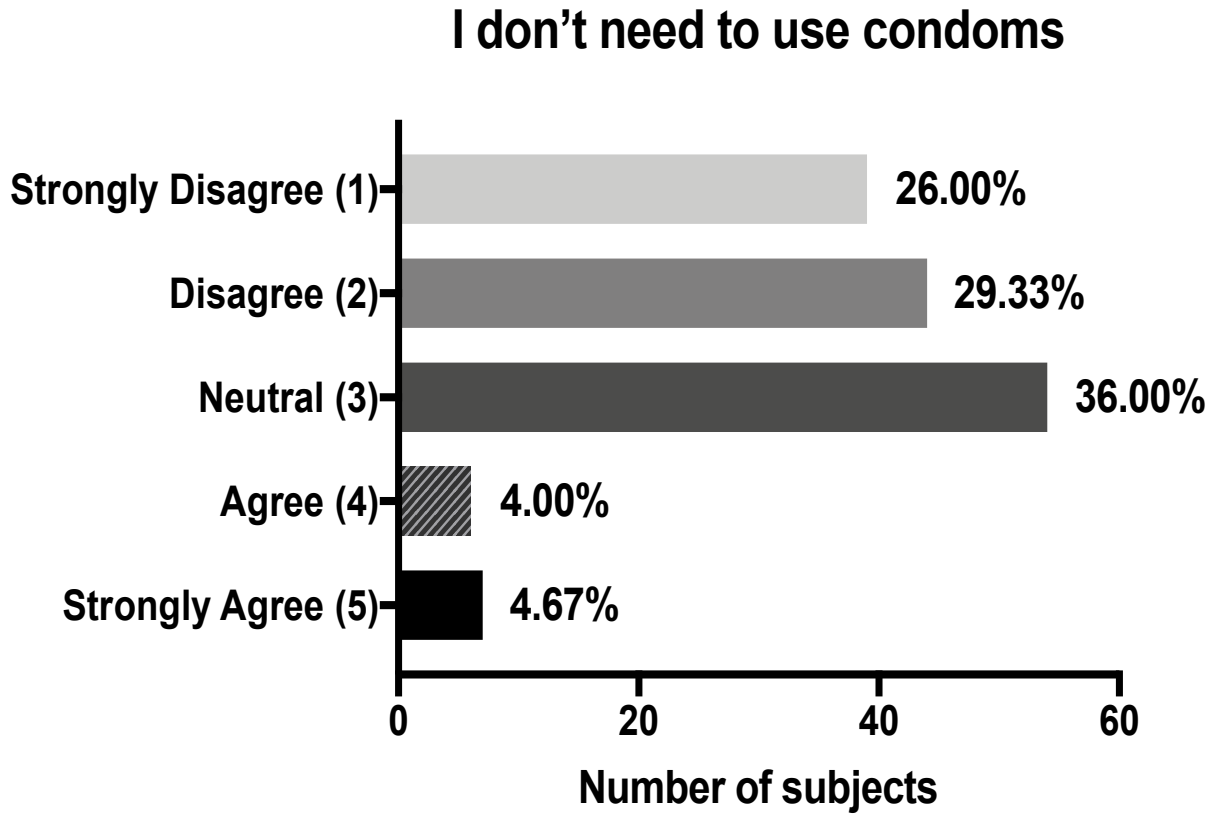
risk factor	n	%	aOR	95% CI
Group Sex	17	43%	2.54	1.26 - 5.12
Methamphetamine use	15	38%	2.33	1.13 - 4.80
IV drug Injection	2	5%	NS	
Syphilis	27	69%	2.43	1.22 - 4.85

Wanson. *JAIDS* 2020

Baseline Risk Perception

My PrEP Pilot Demonstration Project in MSM, Kuala Lumpur

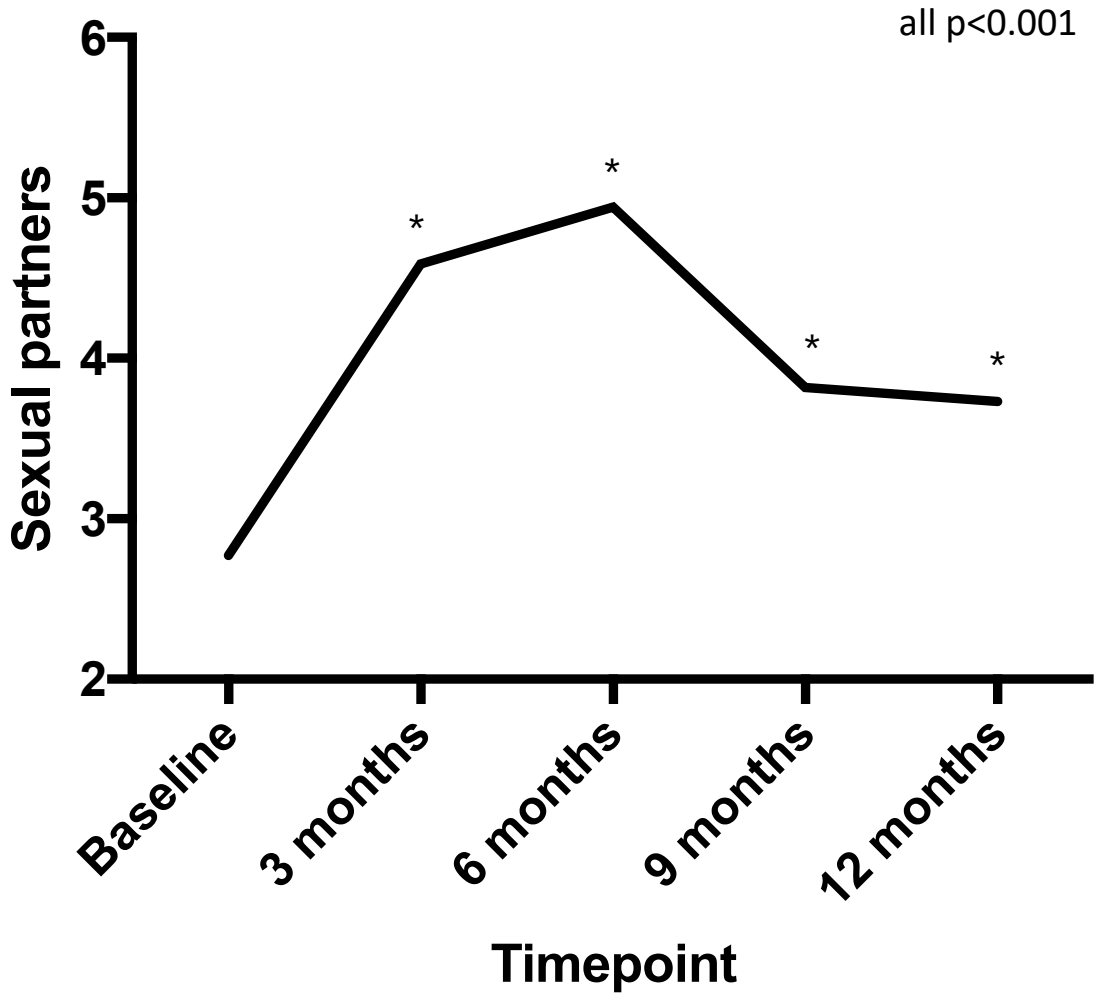


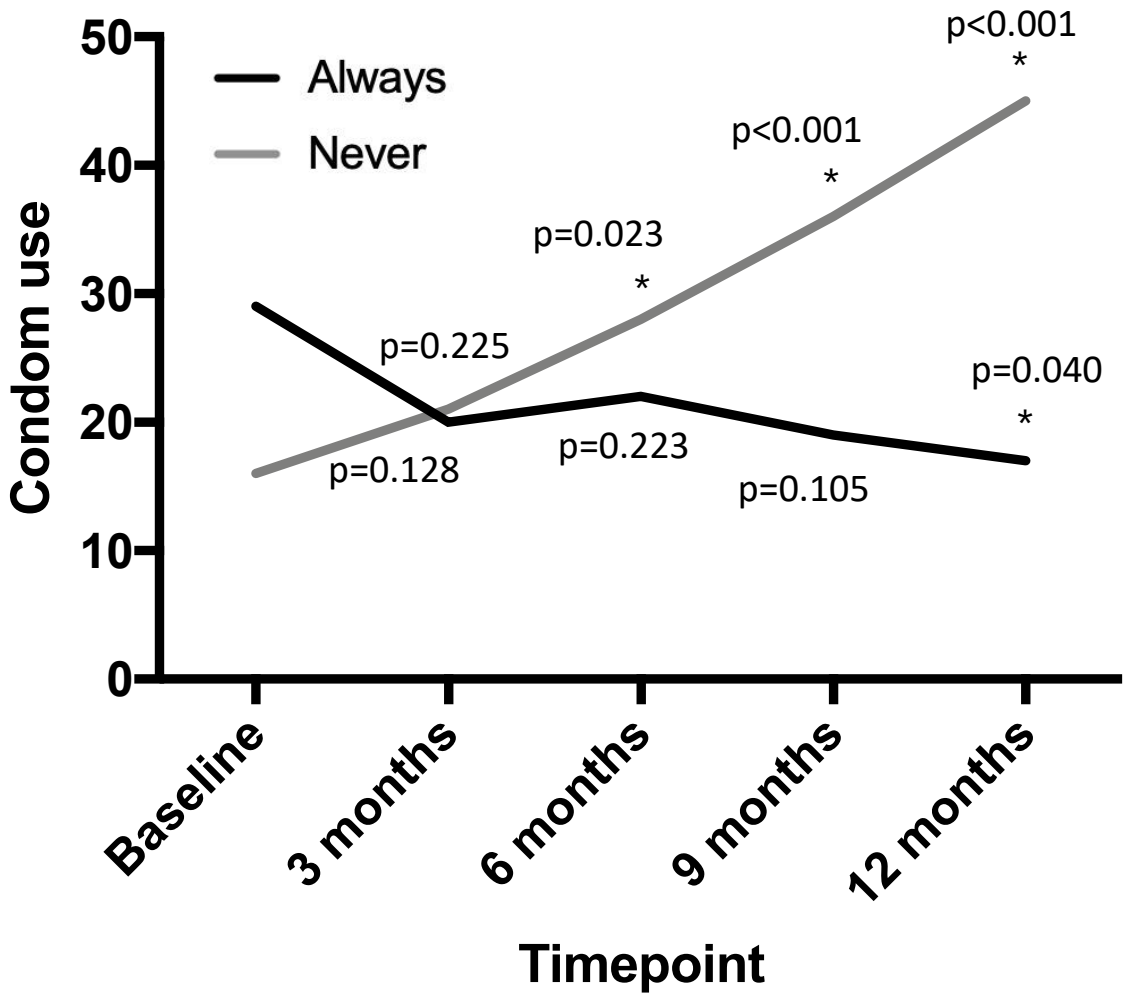


Rankin K. Is risk compensation real? The effect of perceived level of HIV transmission risk on risk behavior in an open-label pilot PrEP-based intervention in men who have sex with men in Malaysia. *APACC* 2020

Sexual risk behaviour

My PrEP Pilot Demonstration Project, Kuala Lumpur

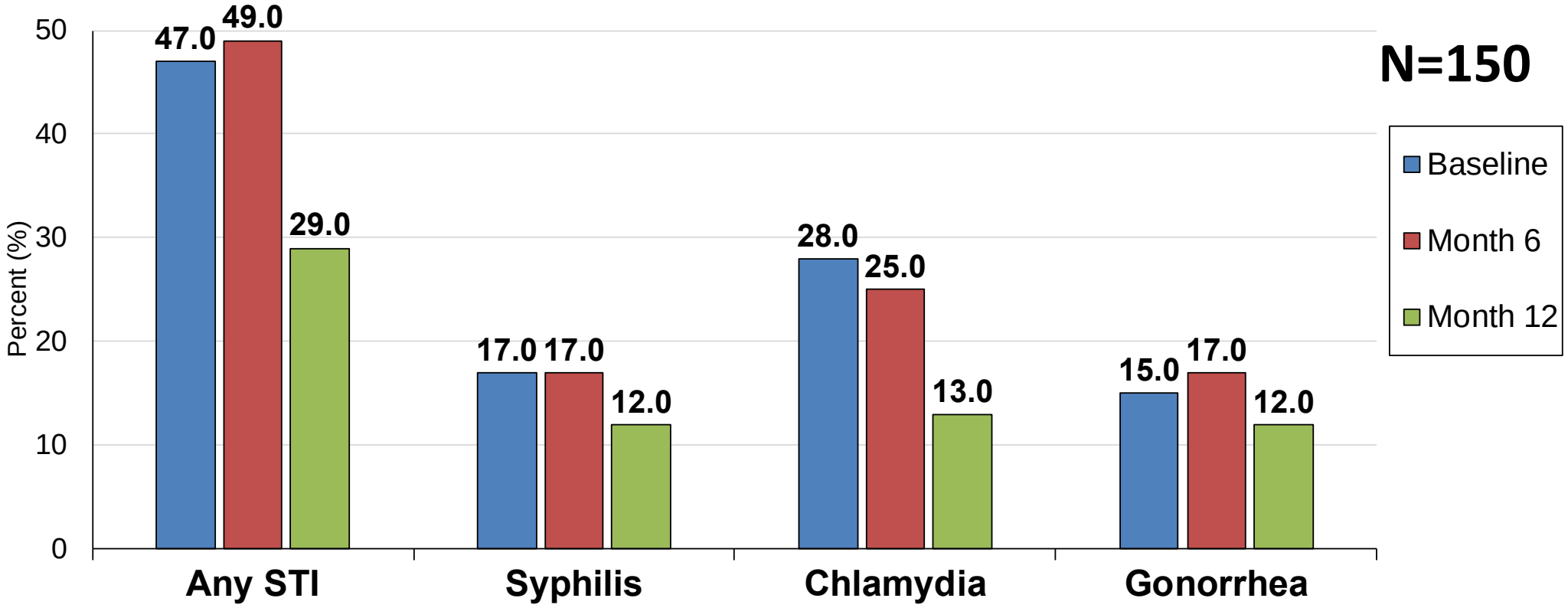




Rankin K. Is risk compensation real? The effect of perceived level of HIV transmission risk on risk behavior in an open-label pilot PrEP-based intervention in men who have sex with men in Malaysia. *APACC* 2020

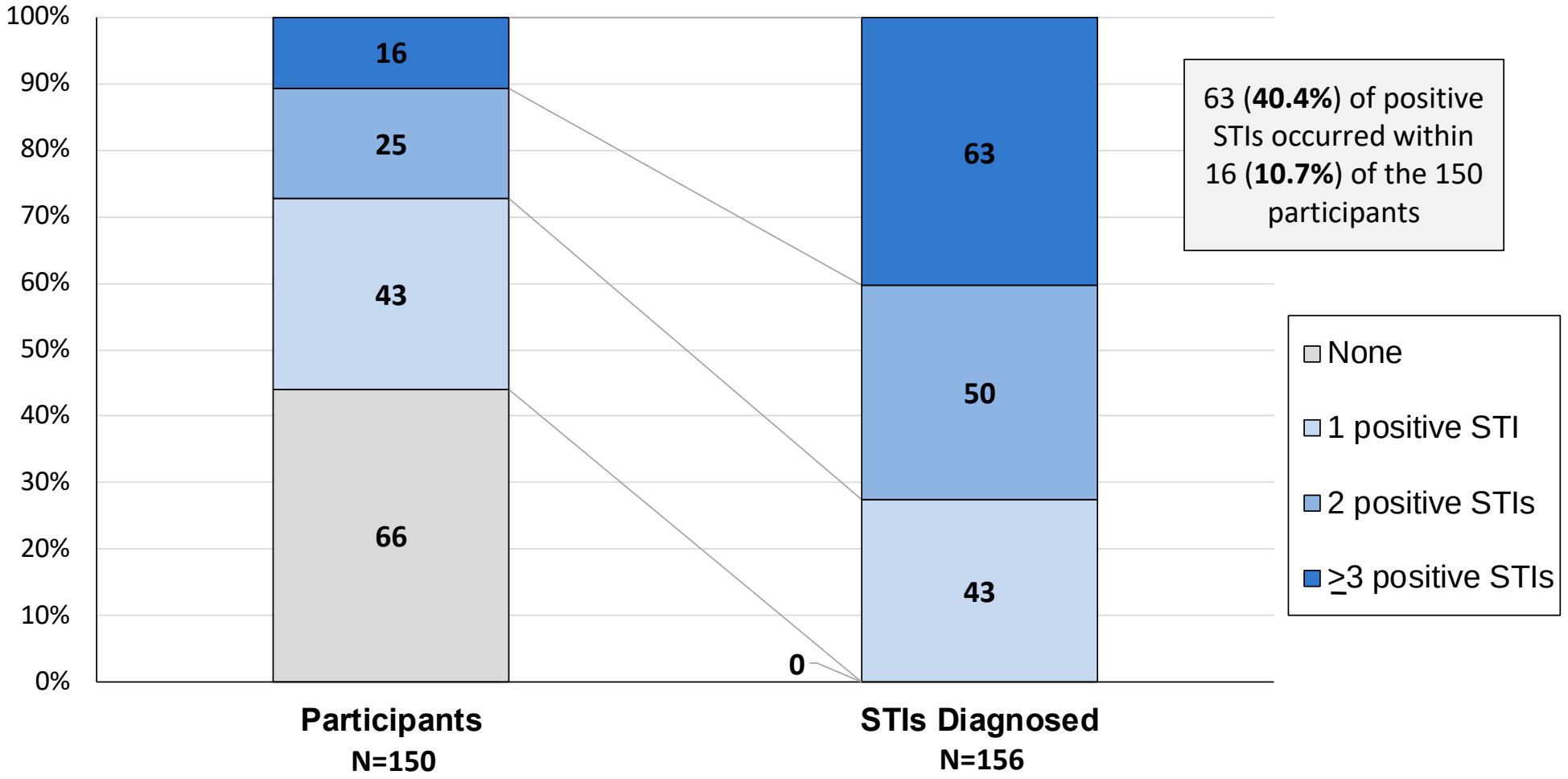
Baseline and Follow Up STI Positivity

My PrEP Demonstration Project, Kuala Lumpur



Pajarillo CS. STIs in MSM receiving PrEP for HIV Prevention: Results from Malaysia's pilot PrEP demonstration study. *APACC* 2020

Cumulative STIs diagnosed per participant during the study



Pajarillo CS. STIs in MSM receiving PrEP for HIV Prevention: Results from Malaysia's pilot PrEP demonstration study. *APACC* 2020

Lessons learnt & recommendations from MY PrEP demonstration project re: PrEP & STIs/risk compensation

- ***PrEP is an opportunity for STI control and prevention***
  - There was a **high prevalence of baseline STIs** which preceded the initiation of PrEP, most of which were **asymptomatic,** re-enforcing that we are reaching those at higher risk of HIV/STIs and emphasizing the importance of regular screening and tx of extra-genital STIs and syphilis within MSM irrespective of symptoms
  - STI incidence rate may be partly due to increased STI screening at M6 and M12 (detection bias)
- ***Screening of extra-genital STIs in MSM is imperative, and in LMIC***
  - High burden of asymptomatic rectal CT/GC infections in MSM which would have been missed if there was no screening.
  - Self-sampling for rectal STIs was acceptable to patients
- ***Messaging of "safer sex" in the era of PrEP needs to change to reduce stigma***
  - It is likely that with the perceived HIV protection offered by PrEP, rates of condomless sex are likely to increase over time.
  - The messaging of "safe sex" in the era of PrEP needs to evolve in such a way that patients are not shamed or stigmatized by health care professionals/policy makers for not using condoms if they feel they are adequately protected from HIV by adhering to PrEP
  - PrEP use needs to be re-framed as a positive and responsible option to remain HIV negative and that potential PrEP users are seen as taking control of their sexual health

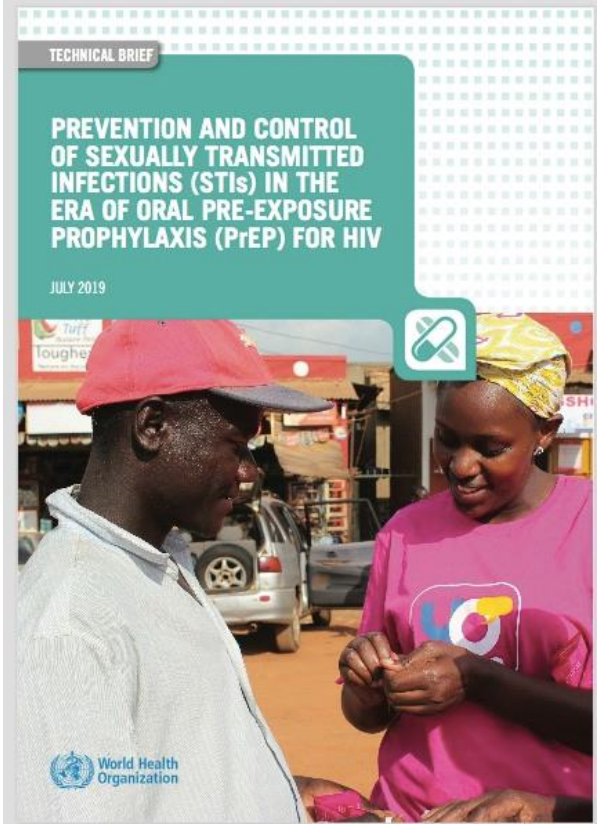
WHO Progress Report. My PrEP Demonstration Project 2020

Lessons Learnt & recommendations (2)

- ***STI screening efforts should be prioritized among PrEP users engaging in chemsex and those with high rates of re-infections***
  - 40% of participants used substances in the sexualized context (engaged in chemsex), mostly crystal meth with increasing use of GHB over time
  - Despite this, chemsex use did not appear to impact on overall PrEP adherence
  - Chemsex was a significant predictor of STI positivity during study (aHR 1.46 (95% CI 1.03-2.08) (p=0.036)
  - Participants with ≥3 STIs (10.8%) contributed to 40% of the overall diagnosed STI infections
    - Strategies should be targeted towards PrEP users with high rates of re-infections
- ***PrEP delivery services can serve as entry points for comprehensive sexual health services including Hepatitis B and HPV vaccinations***

WHO Progress Report. My PrEP Demonstration Project 2020

What can we do about it?
STIs & PrEP



Move beyond the syndromic approach of STI management

- Cost of STI testing & lab systems
- Misplaced belief that symptomatic STIs are most important
- Very poor sensitivity and specificity for vaginal discharge management in women
- Contributes to antibiotic resistance

PrEP programmes must be combined with regular STI screening

- Inclusion in National PrEP & STI Guidelines

Include CTNG NAATs as part of STI screening

- Pooled NAAT sampling vs 3 site screening in MSM is cost-saving[1,2]
- Self-sampling (of pharyngeal and rectal infections)
- Negotiate volume guarantee and lower cost of NAAT assays through regional bulk pricing
- Affordable and accurate POC diagnostics for CTNG

[1] Sultan et al. *J Clin Microbiol* 2016 [2] Speers et al. *STI* 2017. WHO Prevention & Control of STIs in the era of PrEP 2019

What can we do about it?
STIs & PrEP

Increase frequency of screening

- High screening rates reduce duration of infection
- Models indicate that increased screening among PrEP users may lead to overall decrease in population level STI incidence (after initial rise)
- Include CEA of infections detected, treated and adverse outcomes averted

Service integration, Integrate PrEP services into :

- Existing HIV testing & prevention services
- Sexual & reproductive health care services

Build capacity for CBOs and key population led services to screen and treat STIs

Community engagement and advocacy to generate demand & service delivery of PrEP and STI services

Jennes et al. CID 2017. WHO Prevention & Control of STIs in the era of PrEP 2019

Evaluate Novel STI innovations: Antibiotic Prophylaxis for STIs`

Doxycycline PEP for syphilis & CT

Post-exposure p
sexually transm
men: an open-la
IPERGAY trial

Jean-Michel Molina, Isabelle Charreau
Julien Fonsart, Béatrice Bercot, Cécile E
Laurence Niedbalski, Bruno Spire, Luis
*Study Group**

oxycycline 200 mg
x, up to 72 hours)

P

2 months
and syphilis
ia and gonorrhea
amples collected

Antibiotic prophylaxis for STIs is not currently recommended pending further studies

Pros

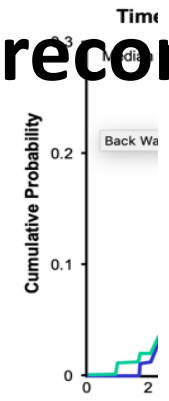
- Effective in early work
- Relatively safe drug
  - Chronic use in acne vulgaris
  - Easy to administer
- Few other options for prevention
- Considerable interest among some MSM surveyed, with use already reported (Spinelli 2018)

Cons

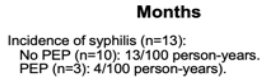
- Limited data; duration?
- Costs
- Side effects of doxycycline
  - Oesophagitis/ulceration
  - Photosensitivity
- Risk compensation?
- Reproductive concerns (women)?
- Antibiotic resistance
- Microbiome effects

Next steps

- Doxy PEP & PrEP studies in MSM in US, Australia & France
- Doxy PEP in Kenyan women

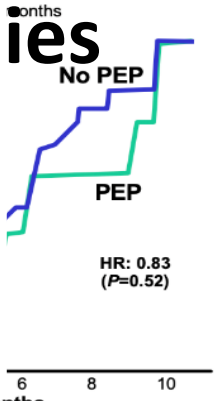


Incidence of chlamydia (n=28):
No PEP (n=21): 29/100 person-years.
PEP (n=7): 9/100 person-years).



Incidence of syphilis (n=13):
No PEP (n=10): 13/100 person-years.
PEP (n=3): 4/100 person-years).

gonorrhea (ITT)



Incidence of gonorrhea (n=47):
No PEP (n=25): 35/100 person-years.
PEP (n=22): 29/100 person-years).

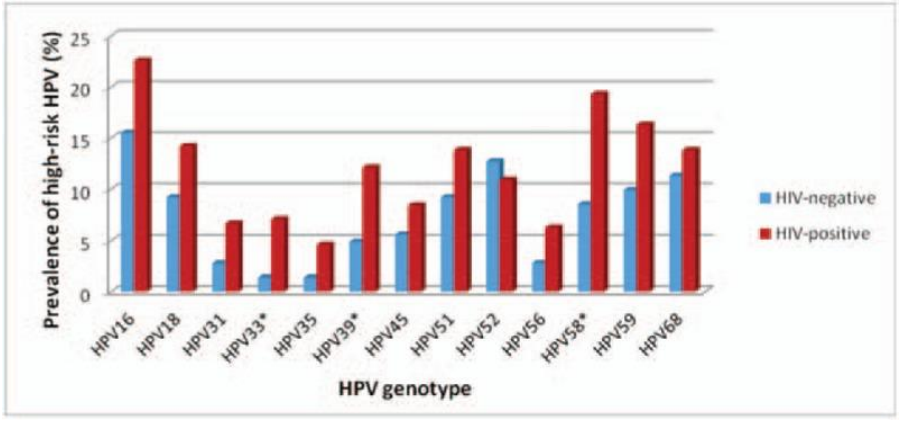
Invest in STI vaccines : HPV vaccines

Observational Study

Medicine® OPEN

Prevalence of and risk factors for anal high-risk HPV among HIV-negative and HIV-positive MSM and transgender women in three countries at South-East Asia

I Ketut Agus Somia, MD, PhD[a,*], Nipat Teeratakulpisarn, MD[b], Wifanto S. Jeo, MD[c], Ilias A. Yee, MD[d], Tippawan Pankam, PhD[b], Siriporn Nonenoy, MPH[b], Deondara Trachuntong, MSc[b], Pravit Mingkwanrungrueng, Dip[b], Made Dewi D. Sukmawati, MD[a], Reshmie Ramautarsing, MD, PhD[b], Hanny Nilasari, MD[e], Nany Hairunisa, MD[d], Iskandar Azwa, MD[d], Evy Yunihastuti, MD, PhD[f], Tuti P. Merati, MD, PhD[a], Praphan Phanuphak, MD, PhD[b], Joel Palefsky, MD, FRCP(C)[g], Nittaya Phanuphak, MD, PhD[b], on behalf of the ANSAP Study Group



Rationale For Vaccinating Males

- Reduction of HPV disease burden in males
  - HPV infections also cause a range of non-cervical diseases in both sexes
- The incidence of anogenital HPV infection in men is very similar to that in women
- Prevention of HPV transmission to girls
  - Vaccinating boys would facilitate eradication of HPV and protect girls from infection, reduce transmission and increase herd immunity
- Gender-specific vaccination programmes have had limitations in controlling disease
  - Example - rubella vaccination in UK
- Vaccination of both genders is a more equitable public health policy

1. Giuliano AR et al. *J Infect Dis*. 2008;198:827–835. **2.** Giuliano AR et al. *J Infect Dis*. 2002;186:462–469. **3.** Giuliano AR et al. *Vaccine*. 2008;26(suppl 10):K17–K28. **4.** Giuliano AR et al. *Cancer Epidemiol Biomarkers Prev*. 2008;17:805–808. **5.** Rosenthal S et al. *J Adol Health*. 2010:46(4 suppl 1):S1–S2.

Australia to be first country to vaccinate boys against HPV

Australia is to become the first country to roll out mass vaccination against human papillomavirus (HPV) to boys. It was also the first nation to vaccinate girls against HPV, with a programme beginning in 2007. Public health experts have hailed vaccination of boys as a highly important move that will probably be followed by other countries.

Australia's Federal Minister for Health and Ageing, Tanya Plibersek announced on July 12 that Merck's Gardasil vaccine will be rolled out to schoolboys aged 12 and 13 years from February, 2013, along with a catch-up programme for those aged 14 and 15 years. An estimated 870 000 boys will be vaccinated within 4 years, at a cost of AUD$21 million (US$ 21·6 million).

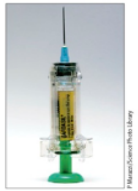
"The addition of boys to the immunisation programme using the HPV vaccine will reduce the incidence of HPV-related penile and oropharyngeal cancers, which are becoming more common in the under 50 age group", says Ian Olver (Cancer Council Australia, Sydney, New South Wales, Australia). "The vaccine will also reduce anal cancers, particularly among men who have sex with men."

Olver adds that the greatest effect on boys will be the decrease in genital warts. "The other major impact will be the additional benefit to girls in reducing HPV infection across the population, particularly unvaccinated girls."

Steve Hambleton (Australian Medical Association, Barton, Australian Capital Territory, Australia) adds that persistent HPV infections are associated with about 85% of anal cancers, half of penile cancers, 70% of vaginal cancers, and 40% of vulval cancers. "Treating both men and women will decrease the prevalence of these diseases significantly", he said.

However, the UK Department of Health said in a statement that its Joint Committee on Vaccination and Immunisation (JCVI) has declared that, because HPV vaccination rates in girls are now above 80%, vaccinating boys would offer little benefit against cervical cancer in girls or against other HPV-related cancers. "The JCVI keeps the eligibility criteria of all vaccination programmes under review, and research is underway to support a future assessment of vaccinating men who have sex with men against HPV", said the Department of Health spokesman. "However, there are currently no plans to extend HPV vaccination to males, based on an assessment of available scientific evidence."

Tony Kirby



Published Online
July 20, 2012
http://dx.doi.org/10.1016/S1470-2045(12)70328-5

We need to talk about chemsex….

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HIV & AIDS – sharing knowledge, changing lives

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Crystal meth is the single biggest risk factor for HIV seroconversion among gay men in US study

Michael Carter | 17 September 2020

Crystal methamphetamine. Find Rehab Centers. Creative Commons licence.

Persistent use of methamphetamine is the single biggest risk factor for HIV seroconversion among gay and bisexual men, according to US research published in the *Journal of Acquired Immune Deficiency Syndromes*. Over 12-months of follow-up, 14% of men reporting persistent methamphetamine use were newly infected with HIV. This compared to a 2.5% incidence rate in

More news

Chemsex & recreational drug use
Crystal meth is the single biggest risk factor for HIV seroconversion among gay men in US study
17 September 2020

Mental & emotional health problems
Sexual compulsivity and harmful drug use decreased in men who started PrEP in Amsterdam
24 August 2020

Hepatitis C transmission & prevention
Condomless sex sufficient to pass on hepatitis C between men
21 August 2020

Retention & linkage to care
A walk-in clinic with social care improves HIV outcomes for patients with complex social needs
2 July 2020

Retention & linkage to care
US emergency department testing finds a lot of people with new – and returning –

The New York Times

Opinion

Gay Men Are Dying From a Crisis We're Not Talking About

No one's really grappling with the meth disaster.

By Jim Mangia
Mr. Mangia runs a network of community health centers in Los Angeles.

Jan. 22, 2020

"We need to talk openly about the crisis so we can organize the will and resources to address it"

Published in final edited form as:
Int J Drug Policy. 2018 May ; 55: 256–262. doi:10.1016/j.drugpo.2018.02.019.

The management of methamphetamine use in sexual settings among men who have sex with men in Malaysia

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The Collateral Benefits of PrEP……

- PrEP users report fringe benefits including feeling safer during sex, less anxiety and stronger relationships
- PrEP empowers users by allowing greater control of their HIV risk, rather than relying on partners to use condoms, take ART or accurately disclose their HIV sero-status
- Strong evidence that PrEP results in improved mental health among PrEP users
  - specific to reduction in anxiety around acquiring HIV
- Safer conception - PrEP provides an additional layer of protection in the HIV negative partner of serodiscordant couples desiring pregnancy
- PrEP addresses unarticulated concerns around reduced sensation, interference with erectile dysfunction and disruption of spontaneity with condoms
- PrEP has the potential to reduce HIV stigma by facilitating greater interaction between HIV negative and HIV positive people

Grant RM et al. What People want from sex and pre-exposure prophylaxis. *Curr Opin HIV* AIDS 2016
Gus Cairns. PrEP, sex, intimacy and mental health *Aidsmap*. 2020.
Achterbergh RCA . *EClinical Medicine*. 2020

Conclusion

- High STI rates predated the introduction of PrEP
- There is evidence of a small increase in STI rates after PrEP use (at least in MSM in HICs)
- Criticism on PrEP causing increase in STIs is not helpful, unsound and oversimplistic
- PrEP is an opportunity for increased attention to STI prevention and control
- Clinicians and policy makers should not impede PrEP access out of concerns for risk compensation as this is unlikely to undermine the effectiveness of PrEP in preventing HIV infection
- PrEP use needs to be reframed as a positive and responsible option to remain HIV negative

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