

Review of planned trials and key emerging issues for Thailand

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US Centers for Disease Control and Prevention



Why Prevention Must Work



STI management



TDF Gel



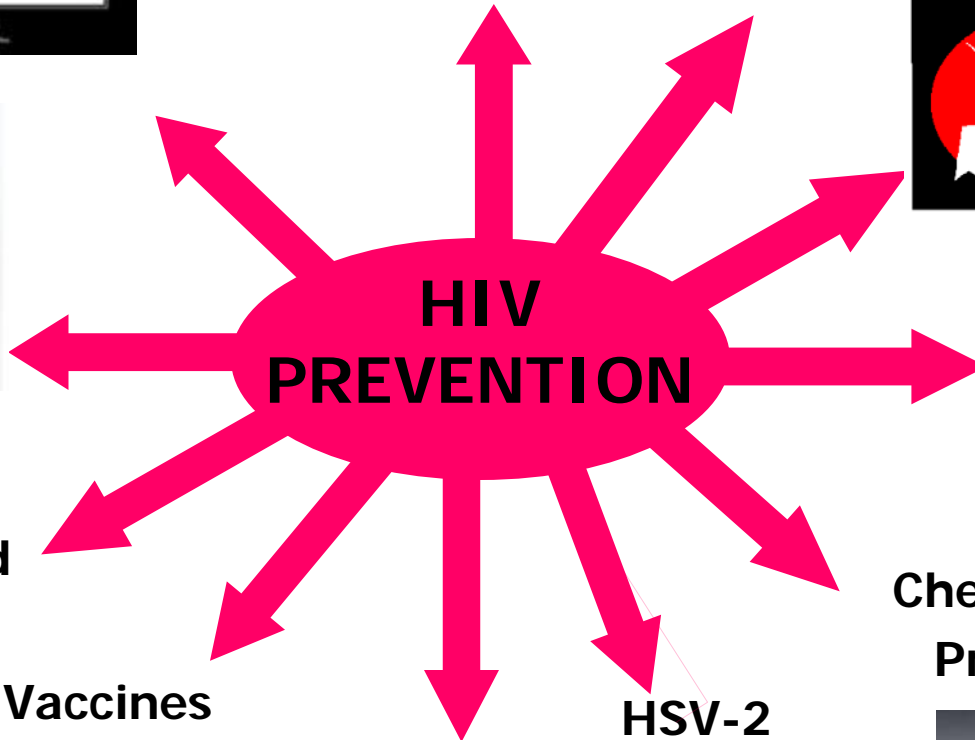
ABC



Needle Exchange



Condoms



Male circumcision



Counselling and Testing



Vaccines



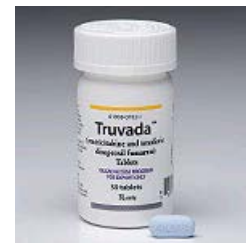
Test + Treat



HSV-2 Suppressive therapy



Chemoprophylaxis PrEP



STI management



Treatment does not decrease HIV

HIV PREVENTION

Unpopular



Condoms

Risk reduction counselling and testing



Enhanced not better than regular

Test & Treat	PrEP
	
Biomedical in waiting	

The State of PrEP

Oral Pill					
Sex	Penile	Vaginal	Rectal	Neo-vagina	Injection
Men	55%, 83% ¹	NA	44% ²	NA	DK ³
Women	NA	68, 62% ¹ 0 ⁴	DK	DK	DK ³
All	62%, 73% ¹ , 63% ⁵		DK	NA	DK ³
Topical Gel					
Men	DK	NA	DK	NA	NA
Women	NA	39% ⁶	DK	DK	NA
All			DK	NA	NA

NA, not applicable; DK, don't know

¹PartnersPrep, TDF/Truvada; ²IPREX, Truvada; ³BTS, TDF; ⁴Femprep, Truvada;

⁵TDF2, Truvada; ⁶Caprisa, 1%TDF gel

Emerging issues for Thailand

- After Caprisa, IPREX, PPrEP, and TDF2 there are continuing PrEP concerns:
 - Poor adherence
 - Antiretroviral resistance
 - Drug side effects
 - Financial costs
 - Behavioral risk compensation

Emerging issues for Thailand

- Clinical and off-label use of ARV drugs
 - In clinical practice as a prescription drug at the discretion of the physician (similar to midazolam and hormones)
 - Sharing, selling and fraudulent acquisition of ARV treatment drugs
 - Uncontrolled and illegal import for black market (similar to erectile dysfunction drugs)



Emerging issues for Thailand

- No systematic roll out but recommend programmatic implementation
 - Young MSM becoming sexually active, experimenting and exploring their sexuality
 - Young methamphetamine using MSM
 - Young entering male and female sex workers



Emerging issues for Thailand

- No systematic roll-out but recommend programmatic implementation
 - Those in HIV discordant sexual relationships where the HIV infected partner is not on HAART
 - IDU entering methadone detoxification treatment programs and other IDU who continue to inject or have no access to clean needles and syringes
 - MSM/TG and IDU in incarceration facilities (prisons)



Review of planned PrEP projects

- Implementation projects daily PrEP
 - Thai Red Cross/MOPH/Silom Clinic
 - Test and treat pilot demonstration project, N=600 MSM
 - New HIV infection will be offered HAART
 - Funding: MOPH/NSO
 - RIHES/Hopkins/Thai Red Cross (Dr Suwat)
 - Interest and potential uptake of daily PrEP (survey)
 - Adherence, side effects, risk compensation and HIV infection comparing 2 PrEP delivery methods
 - Funding: PEPFAR

Review of planned projects

- Daily PrEP Program
- Silom Community Clinic
 - Two six months demonstration projects of daily Truvada PrEP to prevent HIV infection among young methamphetamine using MSM and young entering male sex workers
 - Intensive educational, motivational, empowering sexual and drug use risk reduction training program for all
 - Intensive adherence training for self-therapy with new media assistance (condition 1), weekly for 2 months, monthly for 4 months
 - Intensive adherence training for dyads, buddy observed therapy (BOTPREP) (condition 2), weekly for 1 month, monthly for 4 months

Review of planned PrEP projects

- Initiation of a transgender PrEP research agenda
 - Psycho-social and biological dimensions of neo-vaginal HIV risk and neo-vaginal use of tenofovir gel (N=30)
 - Focus group discussions about neo-vaginal research and risk in the context of PrEP (perception of risk, prevalence of neo-vaginal sex, beliefs about safety etc)
 - Collection of neo-vaginal specimens for immunological characterization



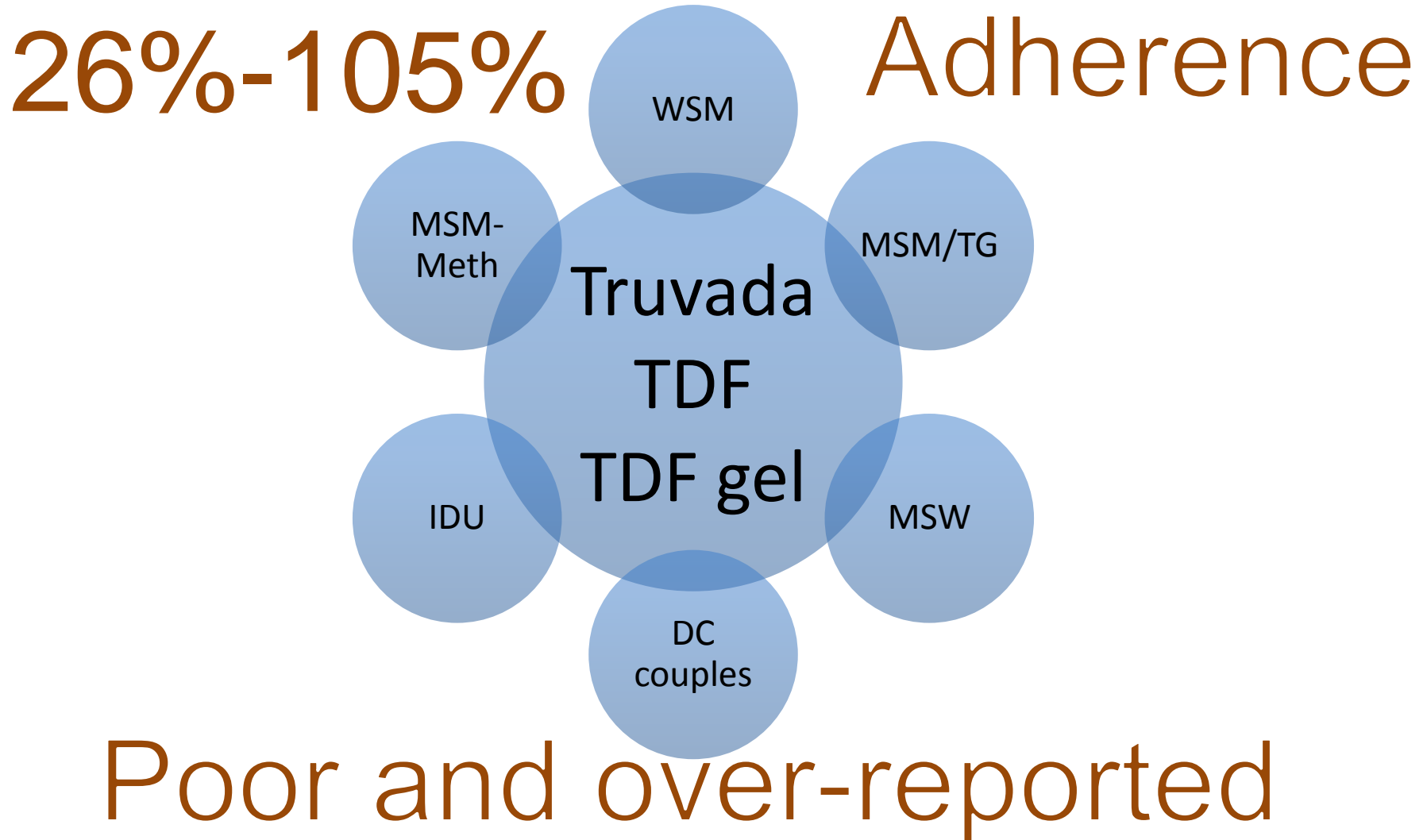
Review of planned PREP projects

Continuation of existing projects

1) IPREX Ole – MSM/TG Chiang Mai >>Dr Suwat

2) Bangkok Tenofovir Study – IDU in drug treatment clinics, BMA/CDC, 1 year post trial open label TDF, details not yet known

Issue of the day: Adherence to daily PrEP



Adherence to intermittent PrEP in Kenya and Uganda (IAVI East African Trial)

- 72 MSM/FSW in Kenya; 72 Discordant Couples in Uganda
- Truvada vs. Placebo 2:1
- Daily vs. twice weekly and post exposure (1:1)
- MEMS data adjusted for curiosity openings

Regimen	MSM/FSW % (IQR)	Couples % (IQR)
Daily	92 (79-99)	97 (93-100)
Fixed Standing Doses	55 (28-88)	91 (77-98)
Post Exposure Doses	26 (14-50)	45 (20-63)
Post Exposure Doses (Self Report by SMS)	105 (57-175)	103 (62-133)

Review of planned PREP projects



HPTN 067: The ADAPT study

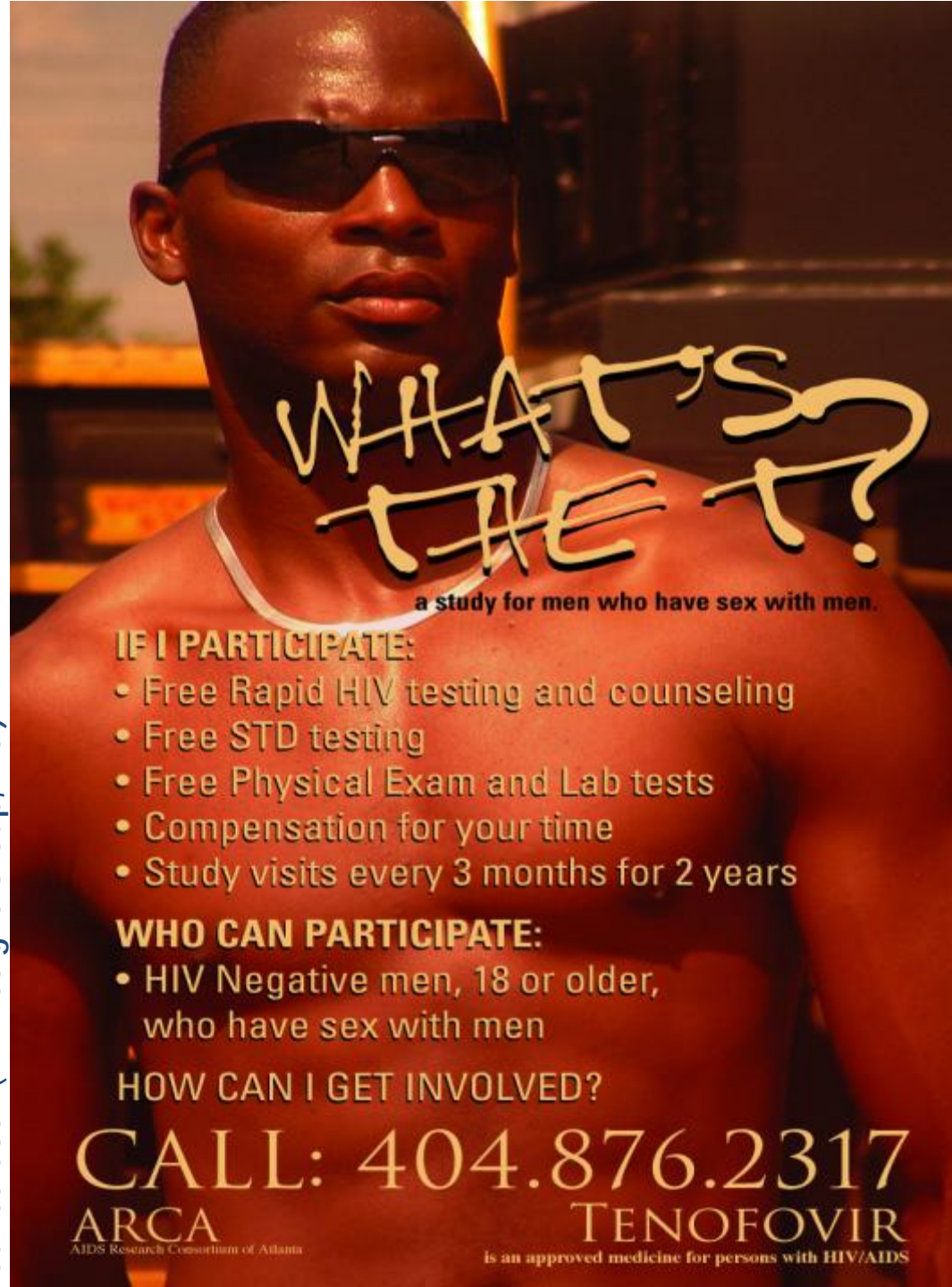
Alternative dosing to augment pill taking study



A Pill ~~A~~ Day To Keep HIV Away



Maurice Cook (EM Designs Group, Inc.)



WHAT'S
THE T?

a study for men who have sex with men.

IF I PARTICIPATE:

- Free Rapid HIV testing and counseling
- Free STD testing
- Free Physical Exam and Lab tests
- Compensation for your time
- Study visits every 3 months for 2 years

WHO CAN PARTICIPATE:

- HIV Negative men, 18 or older,
who have sex with men

HOW CAN I GET INVOLVED?

CALL: 404.876.2317

ARCA
AIDS Research Consortium of Atlanta

TENOFOVIR
is an approved medicine for persons with HIV/AIDS

HPTN 067: the “ADAPT Study”

- Phase II, Randomized, Open-Label, Pharmacokinetic and Behavioral Study of the Use of Intermittent Truvada
- 3-armed study: 1) daily dosing (time driven); 2) pre-post sexual exposure (exposure driven) ;3) bi-weekly plus post exposure (hybrid dosing)
- High risk MSM (n=180 Bangkok) and WSM (n=180 Capetown) Total N=360
- Primary endpoint: Adherence and coverage, by pharmacokinetics and self reports of risk behavior and pill taking

HPTN 067: the “ADAPT Study”

- 6 weeks run in of Directly Observed Therapy to set individual drug level in blood and hair
- 24 weeks on active drug in study arm
- Computer assisted self-interview to assess socio-behavioral factors associated with adherence and sexual risk taking
- Weekly telephone interview to assess sexual behavior and pill taking (with assistance electronic drug monitoring)
- Start: imminent

Truvada and Wisepill EDM

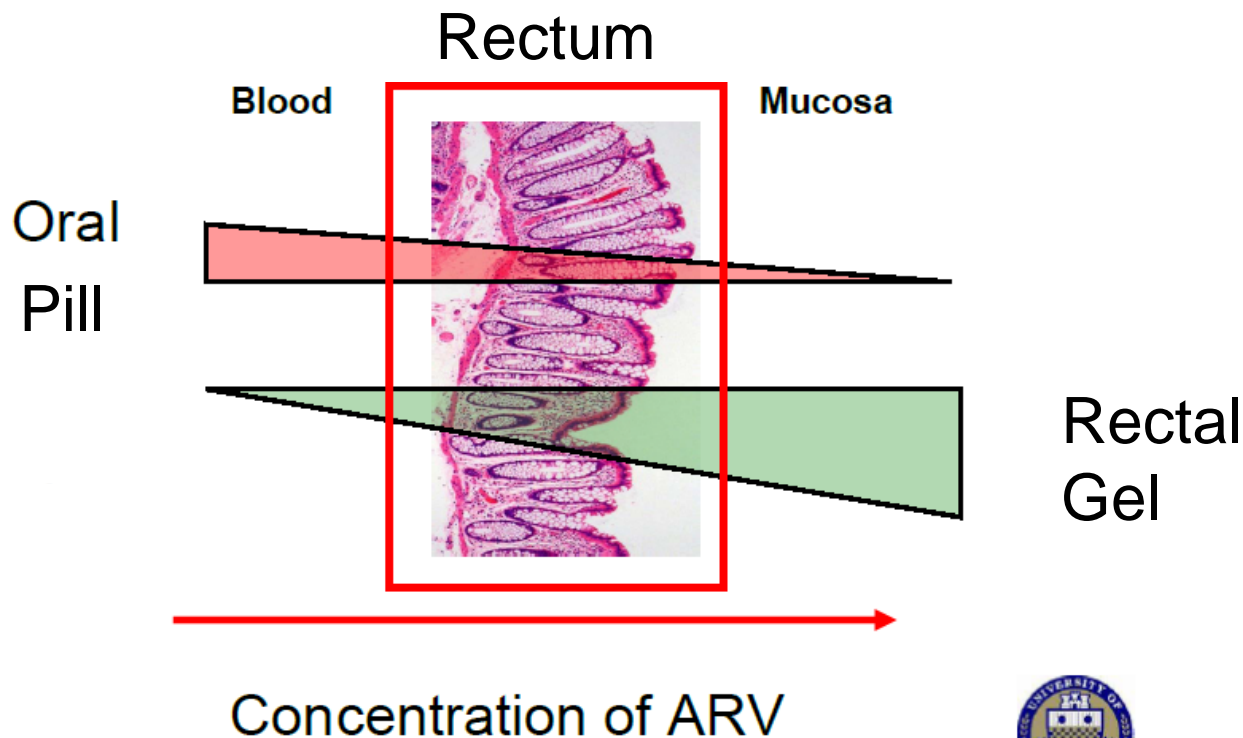


HPTN 067: the “ADAPT Study”

Study Aims

- Find minimum protective drug concentration (not in this study)
- Decrease pill burden
- Decrease drug burden (toxicity, side-effects)
- Increase tolerance
- Decrease costs
- Increase access
- Stimulate more active sex planning and preventive behavior

In the shadow of oral PrEP Rectal tenofovir gel



Strong push for evaluation of rectal microbicides, e.g.,
TDF gel, possibly in combination with oral formulations



Historical examples of rectal lubricants used by homosexual men



Coming soon: MTN017, safety and acceptability of tenofovir 1% rectal gel in men who have sex with men

- **A Phase 2 Randomized, Expanded Rectal Safety and Acceptability Study of Reduced Glycerin Tenofovir 1% Gel and Truvada[®]**
 - multi-site, randomized, two sequence, two period, open label crossover study of safety and acceptability of oral and rectal formulations of tenofovir
 - 180 HIV negative, sexually active MSM and TG, 18-45 years
 - Bangkok, Thailand; Lima, Peru; Capetown, S Africa; 2 US Sites
 - Silom Community Clinic n=36
- Possibly roll-over into Phase IIB or Phase III efficacy trial of rectal Tenofovir 1% gel

Study design: 2 sequence, 2 period, open label cross-over study of oral and rectal TDF

Sequence (Group)	N	Period 1 8 weeks	Washout 1 week ¹	Period 2 8 weeks	Washout 1 week ¹
A	90	Oral pill		Rectal gel	
B	90	Rectal gel		Oral pill	

¹Or until all adverse events are resolved



Coming soon: MTN017, safety and acceptability of tenofovir 1% rectal gel in men who have sex with men

■ **Primary Objectives:**

- To compare the safety profiles of oral and rectal tenofovir
- To compare adherence to and acceptability of oral and rectal tenofovir

● **Secondary Objectives:**

- Pharmacokinetics
 - Determinants of adherence and acceptability
 - Behavioral side effects and associated factors
- Possibly roll-over into Phase IIB or Phase III efficacy trial of rectal Tenofovir 1% gel

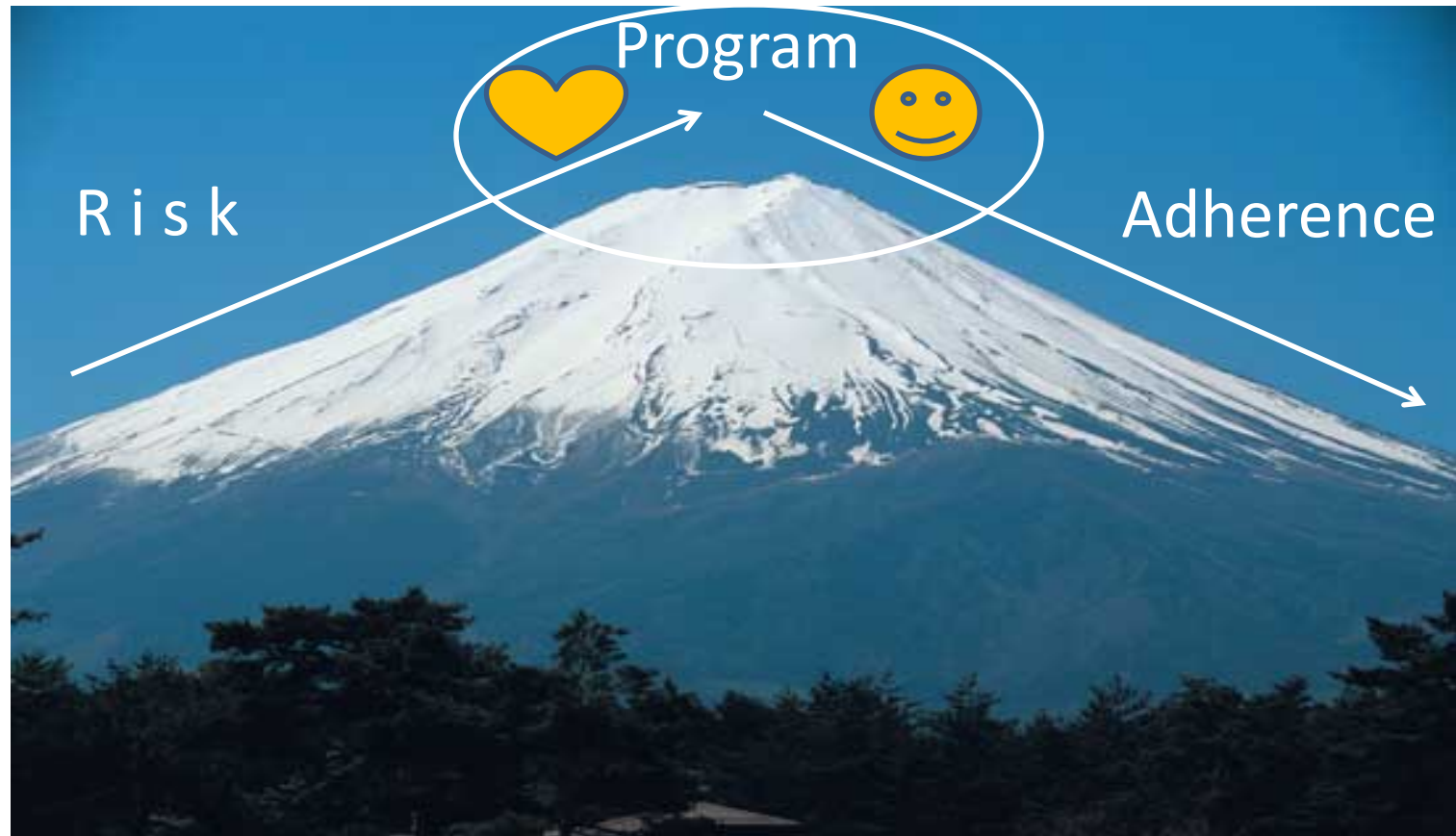
Rectal Tenofovir Timeline*

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Phase 1	→								
Phase 2			→						
Phase 2B				→					
Review								→	
Available									→
Vaginal microbicides		- - - - - →			→				

*An approximation based on 1% tenofovir



Bridging risk and adherence



ขอบคุณมากครับ รูปสวยใหม่ครับ



Bargello Museum, Florence, Italy; Courtesy of Dr Ian Mc Gowan

Disclaimer: the views expressed in this presentation are those of the author and do not necessarily represent those of the US Centers for Disease Control and Prevention