

Microbicides within the context of comprehensive HIV prevention



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CAHR 2009

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Global Campaign for Microbicides

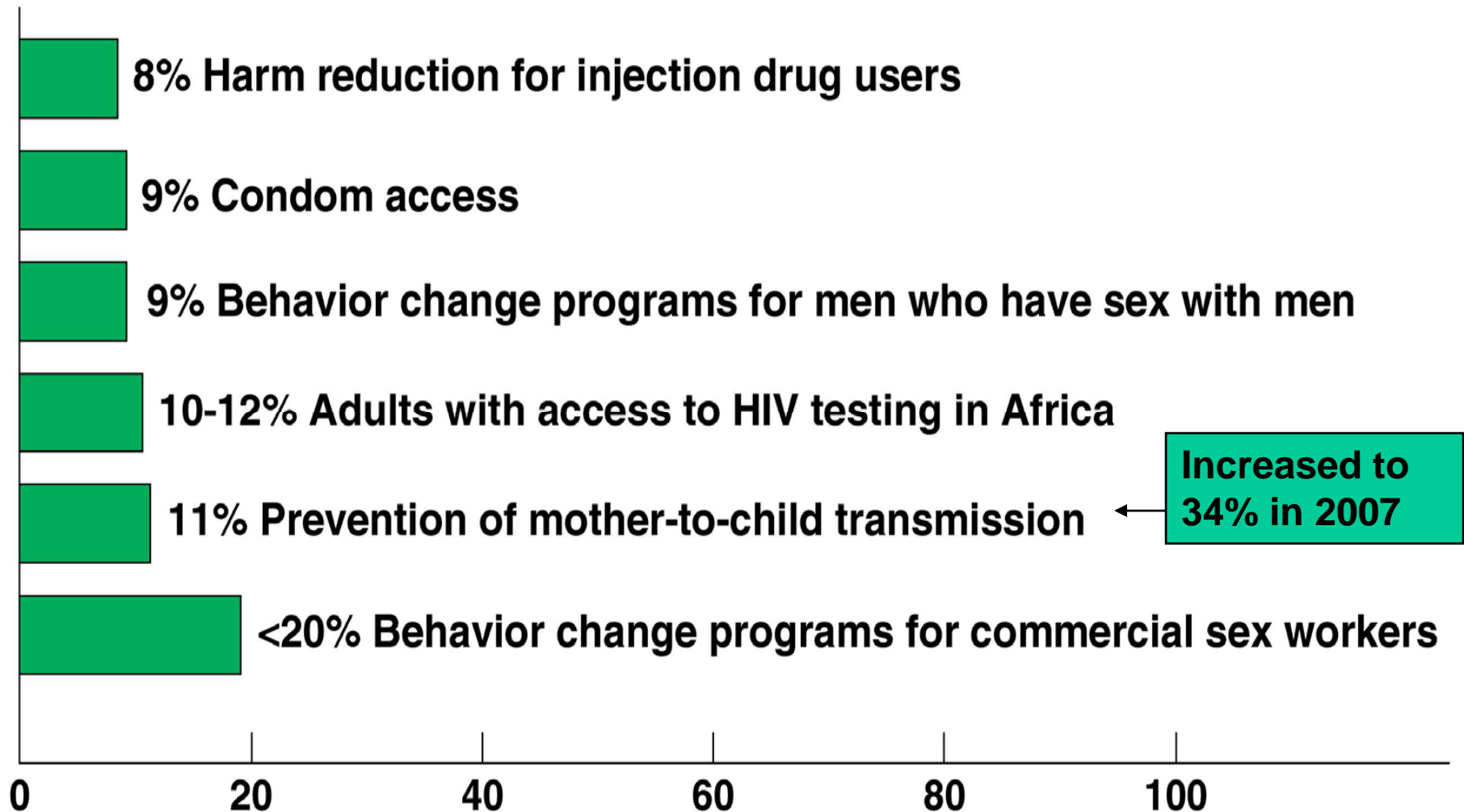
Global HIV/AIDS Picture

- 33.2 million PLWHIV/AIDS
- 2.5 million new infections/year
- Women = about ½ all new infections
- 25+ million people have died
- About 95% live in developing countries
- About **80%** don't know their status



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Percentage of Individuals at Risk with Access to HIV Prevention



Source: Global HIV Prevention Working Group, 2007; WHO/UNAIDS/UNICEF, 2007

Imagine a Full Spectrum of Interventions

Prior to exposure

- Structural interventions
- Rights-focused behaviour change
- VCT
- STI screening and treatment
- Circumcision
- **Preventative vaccines**
- **PrEP**

Point of transmission

- Male and female condoms and lube
- PMTCT
- Clean injecting equipment
- PEP
- **Vaginal and rectal microbicides**
- **Cervical barriers**

After infection

- Anti-retroviral treatment
- Treatment for opportunistic infections
- Basic care/nutrition
- Prevention for HIV+
- Education and behaviour change
- **Therapeutic vaccines**



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HIV prevention

ARV-based

- PEP
- PrEP
- Treat HIV+ partner

- VMs
- RMs
- PMTCT

Non-ARV-based

- M&F condoms
- Circumcision
- Vaccines
- Needle exchange
- VCT



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Treatment of HIV+ partner as prevention

- Providing ARVs to HIV+ people
 - Efficacy at individual level?
 - Treatment = less virus = less transmission?
 - Efficacy at population level?
 - Testing = more knowledge of status = less risk-taking + (treatment = less virus)
 - Less virus + less risk-taking in population = less transmission?



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Treating HSV-2

- Treating HSV-2 among HIV- partners:
does it reduce risk of acquiring HIV?
 - Trial said no in 2008
- Treating HSV-2 among HIV+ partners:
does it reduce risk of transmitting HIV?
 - Trial results in July 2009



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Pre-Exposure Prophylaxis (PrEP)

taking ARVs to prevent HIV infection among people who are HIV-negative

- ARVs already used in PMTCT and PEP
- Encouraging animal studies
- Half dozen large scale trials running/planned
- Daily dosing: other options?
- Access: would require proven HIV status and prescription



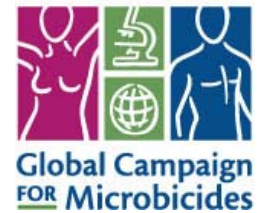
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Vaccines

- Substance that stimulates an immune response that can prevent an infection or create resistance to an infection
- 3 products in late-stage trials
 - AIDSVAX (2 trials): safe, not effective
 - MRK-Ad5 (2 trials): increased risk for some
 - AIDSVAX+ALVAC: results this year



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Microbicides

- **Microbicide:** a substance that can reduce the transmission of HIV and other STI pathogens when applied vaginally and, possibly, rectally. **They are not yet available.**



- **Could be in gels, creams, vaginal rings, sponges, enemas, douches**



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Microbicide trials

- 5 non-ARV-based products in late-stage trials not effective
 - N-9, Savvy, cellulose sulphate : unsafe
 - Carraguard, BufferGel: safe
- The case of PRO 2000: first success?
- Most advanced ARV-based in pipeline:
 - tenofovir (plans for phase III trial)
 - then others: TMC120, UC781, MV150



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Rectal microbicides

- First phase I completed successfully
 - an ARV called UC781
- Plans for 2 more trials soon
 - PRO 2000 (if current trial shows efficacy)
 - Viread
- Focus on safety
 - Phase I trials
 - VMs in late stage
 - lubes

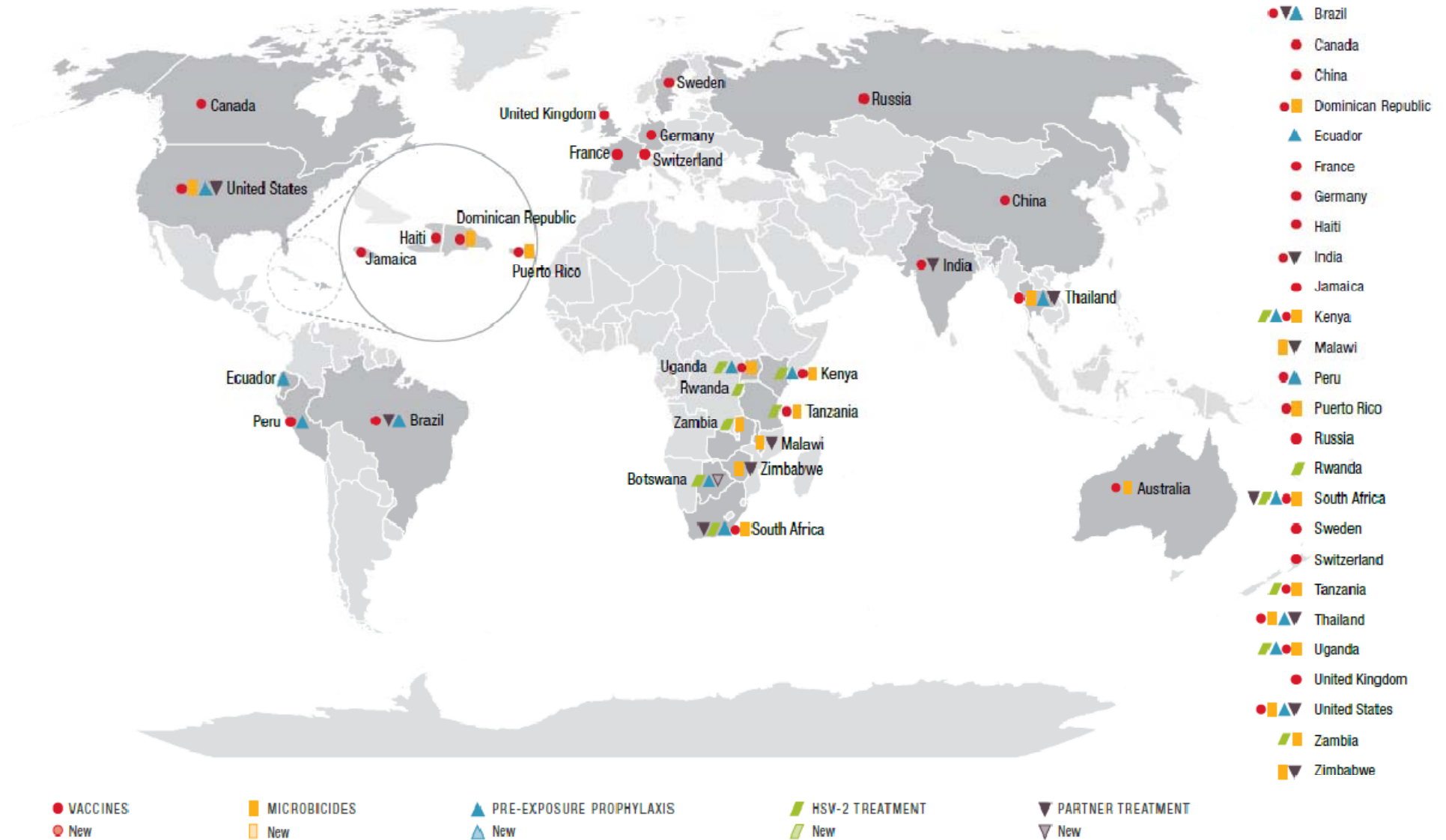


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**MEN & WOMEN
DEMAND
RECTAL MICROBICIDES**

ONGOING TRIALS OF NEW PREVENTION OPTIONS WORLDWIDE



Late Stage HIV Prevention Trials Results

2009	2010	2011	2012+
HSV-2 +/- couples	PrEP IDUs	PrEP Het. men & women	PrEP +/- couples
M'cide Women	PrEP MSM		Treatment +/- couples
Vaccine IDUs	M'cide Women		



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For more information...

- Treatment of HIV+ partner
 - www.hptn.org (look under HPTN052)
- HSV-2 Treatment
 - <http://depts.washington.edu/hsvhiv/>
- PrEP
 - www.prepwatch.org
- Vaccines
 - www.avac.org
 - www.iavi.org
- Microbicides
 - www.global-campaign.org
 - www.rectalmicrobicides.org
 - www.ipm-microbicides.org
 - www.microbicide.org (Alliance M'cide Devl)



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