Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy

Live Webinar – 21 October 2015
Thank you for joining us!

- During the webinar participants will be muted to limit background noise.
- Please **use the chat feature to ask questions during the updates**.
- There will be a discussion section at the end of the webinar and all participants will be unmuted at that time.
- During the discussion please **mute your line using *6** if you are not speaking and **unmute using *7** if you have a question or comment.
Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy

Moderator:
Bethany Young Holt (IMPT)

Presenters:
Anke Hemmerling (IMPT/UCSF Bixby Center for Global Reproductive Health)
Okeoma Mmeje (University of Michigan)
Erin Schelar (USAID)
Highlights from the MPT session at the 2015 World STI & HIV Congress & HIV/AIDS Conference

16 September 2015 – Brisbane, Australia

Rapporteur: Craig Cohen (UCSF)

Session Chairs: Carolyn Deal (NIH/NIAID) & Anke Hemmerling (IMPT/UCSF)

Panel Overview:

Aboriginal woman’s perspective on MPTs
Marlene Kong (Kirby Institute University of New South Wales)

Overview and pipeline of MPTs relevant to the prevention of STIs
Viv Black (Wits Reproductive Health & HIV Institute)

Global mapping of STIs, HIV and unplanned pregnancy: where do these epidemics intersect?
Erin Schelar (USAID)

Making the case for MPTs: prevention of infertility and other STI sequelae
Okeoma Mmeje (University of Michigan)

The unmet need and potential application of MPTs for rectal use: implications for women and MSM at risk of STIs and HIV
Bridget Haire (Kirby Institute University of New South Wales)
Webinar Presenters

Bethany Young Holt
IMPT

Erin Schelar
USAID

Okeoma Mmeje
University of Michigan

Anke Hemmerling
UCSF/IMPT

Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy
21 October 2015 – Live Webinar
Overview of the MPT Field

Bethany Young Holt
Director, Initiative for MPTs

Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy

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Women’s Sexual & Reproductive Health Risks are Interlinked

Women need better protection

- Unintended Pregnancy
- HIV
- Other Sexually Transmitted Infections (STIs)
Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy

MPTs combine protection against:

- Unintended pregnancy
- HIV
- Other STIs
MPTs in the R&D Pipeline

- Vaginal rings
- Innovative vaginal delivery products
- Injectables and implant technologies
- Other novel technologies and platforms
The Initiative for MPTs

Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy

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Global Mapping of STIs, HIV, and Unplanned Pregnancy: Where Do These Epidemics Intersect?

Erin Schelar, MPH, RN


Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy

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Presentation Outline

- Project Objectives
- Methodology
- Indicators
- Maps & Findings
- Limitations
- Implications
Objectives

Examine the global distribution of HIV, unintended pregnancy, HSV-2 & HPV

Determine where these issues have the greatest geographical overlap

Review the strengths and limitations of the available data and surveillance systems
Methods

Conduct key informant interviews and a literature search

Review the limitations of the available data and surveillance systems

Select indicators for SRH risks

Determine where these issues overlap through mapping and principal components analysis
Indicators

1. HIV prevalence among women 15+

2. Herpes simplex virus type 2 (HSV-2) prevalence among women 15-49

3. Human papilloma virus (HPV) prevalence among women 15-49 with normal cytology

4. Unmet need for modern methods of contraception among women 15-49
1. HIV prevalence among women 15+

**Data Source:** UNAIDS 2013 prevalence estimates

**Strengths**
- Standardized data makes countries comparable
- Robust surveillance systems

**Limitations**
- Unpublished or regional estimates substituted for small number of countries with missing (generally those with small populations)
HIV Prevalence among Women 15+ by Country or Region

* HIV prevalence among women 15 or older. Categorization based on epidemic: low level, concentrated, generalized epidemic, hyperendemic.


** Due to data limitations, where country level data were unavailable regional estimates were used.

*** Territories were not analyzed.
2. Herpes simplex virus type 2 (HSV-2) prevalence among women 15-49

**Data Source: Looker et al. 2015***

**Strengths**
- Literature review of data from 2000 to 2012
- Pooled prevalence estimates for six regions

**Limitations**
- No country level data
- HSV-2 surveillance varies

HSV-2 Prevalence among Women Aged 15-49 by Region

* HSV-2 prevalence among women 15-49 years of age.
Source: Looker et al., 2015.
HSV-2 data were categorized into regions specified in the legend.
** Territories, including Greenland, were not analyzed.
3. HPV prevalence among cytologically normal women aged 15-49

**Data Source:** HPV Information Centre* & 2010 Bruni et al. meta-analysis**

**Indicator Strengths**
- Regional estimates based on meta-analysis
- Inclusive of all HPV types (not just high risk)
- Limiting to women with normal cytology gives approximation of distribution in general population

**Indicator Limitations**
- Mixed country- and regional-level data
- Data quality inconsistent
- HPV is a transient infection

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4. Unmet need for modern methods of contraception

**Data Source:** UNPD 2012 country-level estimates

**Indicator Strengths**
- Proxy measure for gap between women’s reproductive intentions and their use of highly effective contraception
- Available for most countries
- Focus on modern methods emphasizes effectiveness for pregnancy protection

**Indicator Limitations**
- Not self-defined, may not indicate desire to use contraception
- Only captures women married or in union
HIV Prevalence and Unmet Need for Modern Contraception among Women

* HIV prevalence among women 15 or older. Categorization based on epidemic: low level, concentrated, generalized epidemic, hyperendemic.
** Due to data limitations, where country level data were unavailable regional estimates were used. Territories were not analyzed.
*** Unmet need for modern contraception among women aged 15-49.
Principal Components Analysis

- Data reduction technique to extract most important information
- HSV-2 and HIV highly correlated
- Constructed two key components
  - STIs
  - Unmet need for modern contraception
- Mapped results to capture all indicators
Principal Component 1: HIV, HSV-2, and HPV among Women

*Principal component 1: HSV-2, HIV, and HPV by country and region. See manuscript for full description of principal components analysis and methods.
HIV, HSV-2, HPV, and Unmet Need for Modern Contraception among Women

*Principal component 1: HSV-2, HIV, and HPV by country and region. **Principal component 2: Unmet need for modern contraception by country. See manuscript for full description of principal components analysis and methods.

Names and boundary representation are not necessarily authoritative.
Additive Indicator Prevalence by Country, Sub-Saharan Africa

<table>
<thead>
<tr>
<th>Country</th>
<th>HSV-2</th>
<th>HPV</th>
<th>HIV</th>
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<td>SEYCHELLES**</td>
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Additive burden of all 4 Indicators—scaled to maximum for region
*Regional data only, all in WHO Africa region except Somalia **Unmet Need data missing
Key Findings

- Greatest potential impact in Sub-Saharan Africa
- Specific countries vary by MPT product and indication
  - Uganda
  - South Africa
- MPTs have potential across contexts
STI Data Limitations

Bacterial & Parasitic STIs

Prevalence of Curable STIs among Females, by WHO region, 2008

- Africa
- Americas
- South-East Asia
- Europe
- Eastern Mediterranean
- Western Pacific

Need for higher quality and more granular STI data

Adolescents & Young Adults

- Burden of many STIs greater among young women
- Desire for MPT indications will vary by life stage

Case Studies: Kajiata & Angie

- Age 33, married
- 6 children
- Husband spends time out of the village and she accepts he is unfaithful
- Husband will not wear a condom

- Age 27
- Not in a committed relationship
- Currently taking oral contraception
- Doesn’t always use a condom
Implications

- Broad, population-level overview of overlapping burdens to identify regions of high need
- Need for additional research, including subpops and qualitative, user-focused research
- Expansion of pipeline related to non-HIV STIs
- Guide strategic planning and investment in MPTs
I would like to gratefully acknowledge the contributions of Brian Bakker and Patrick Gault at the GeoCenter, Bethany Young Holt and the entire CAMI Health team, the IMPT, Joe Romano, the RTU team, other colleagues at USAID, NIAID, WHO and Manjula Lusi-Narasimhan, UNAIDS and Mary Mahy, Anna Fulton, the University of Bristol, and the HPV Information Centre for their help with this project.

Making the Case for MPTs: Prevention of Infertility and Other STI-Related Sequelae

Okeoma Mmeje, MD, MPH
Assistant Professor
Department of Obstetrics and Gynecology
University of Michigan, Ann Arbor

Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy

Live Webinar – 21 October 2015
Outline

- Background
  - Sexually transmitted infections (STIs)
  - Pelvic inflammatory disease (PID)

- The problem
  - Unintended sequelae of STIs

- Global infertility

- Future directions
  - Next Steps
BACKGROUND
Sexually Transmitted Infections (STI)

Chlamydia trachomatis
• Worldwide Cases (2008)
  ➢ Prevalence: 105.7 million
  ➢ Incidence: 100.4 million

Neisseria gonorrhoea
• Worldwide Cases (2008)
  ➢ Prevalence: 106.1 million
  ➢ Incidence: 36.4 million

**BACKGROUND:**

World Wide STI Estimates

<table>
<thead>
<tr>
<th>WHO REGION</th>
<th>TOTAL INCIDENCE (Millions) *</th>
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<tbody>
<tr>
<td>Africa</td>
<td>92.6</td>
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<td>Americas</td>
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<td>South East Asia</td>
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<td>Europe</td>
<td>46.8</td>
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<td>Eastern Mediterranean</td>
<td>26.4</td>
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<td>Western Pacific</td>
<td>128.2</td>
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</table>

*Inclusive of:
1. *Chlamydia trachomatis*
2. *Neisseria gonorrhea*
3. *Treponema pallidum*
4. *Trichomonas vaginalis*

WHO Regions: Africa and the Americas

AFRICA

**Chlamydia trachomatis**
- Incidence per 1000:
  - Female: 22.3
  - Male: 20.9
- Prevalence (%):
  - Female: 2.6
  - Male: 2.1

**Neisseria gonorrhoeae**
- Incidence per 1000:
  - Female: 49.7
  - Male: 60.3
- Prevalence (%):
  - Female: 2.3
  - Male: 2.0

AMERICAS

**Chlamydia trachomatis**
- Incidence per 1000:
  - Female: 72.6
  - Male: 38.2
- Prevalence (%):
  - Female: 7.6
  - Male: 2.9

**Neisseria gonorrhoeae**
- Incidence per 1000:
  - Female: 18.5
  - Male: 27.6
- Prevalence (%):
  - Female: 0.8
  - Male: 0.7

Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy

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PELVIC INFLAMMATORY DISEASE
Pelvic Inflammatory Disease (PID)

- Pelvic inflammatory disease (PID)
  - Polymicrobial infection of the upper genital tract, predominantly young, sexually active ♀ (15-29 years of age)
  - 10-20% of ♀ with chlamydia and gonorrhea infections will develop PID, if untreated
  - In US: estimated 750,000 cases/year (2012)
    - $2,000/patient
    - $1.5 billion annually

Complications of PID

- Complications of PID in ♀:
  - 20% chance of tubal infertility
  - 18% chance of chronic pelvic pain
  - 9% chance of future ectopic pregnancy


Gottlieb SL, Berman SM, Low N. Screening and treatment to prevent sequelae in women with *Chlamydia trachomatis* genital infection: how much do we know? *J Infect Dis.* 2010;201(suppl 2):S156-S167
Complications of PID in Images
PELVIC INFLAMMATORY DISEASE and INFERTILITY
Perspectives on Infertility

- Infertility:
  - When viewed by individuals as “an impairment of function,” that affects their “quality of life,” then an inability to become pregnant, becomes “a disability.”

WHO-World Bank, 2011
Quality of Life and Infertility

- Quality of Life (WHO Definition)
  - “An individual’s perceptions of their position in life in the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns.”
### Table D.1. Prevalence of moderate and severe disability (in millions), by leading health condition associated with disability, and by age and income status of countries

<table>
<thead>
<tr>
<th>Health condition (b, c)</th>
<th>High-income countries (a) (with a total population of 977 million)</th>
<th>Low-income and middle-income countries (with a total population of 5,460 million)</th>
<th>World (population 6,437 million)</th>
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<tbody>
<tr>
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<td>0–59 years (b)</td>
<td>60 years and over (b)</td>
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<td>1 Hearing loss (d)</td>
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<td>3 Depression</td>
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<td>4 Cataracts</td>
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<td>5 Unintentional injuries</td>
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<td>6 Osteoarthritis</td>
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<td>7 Alcohol dependence and problem use</td>
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<td>8 Infertility due to unsafe abortion and</td>
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<td>maternal sepsis</td>
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<td>9 Macular degeneration (f)</td>
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<td>10 Chronic obstructive pulmonary disease</td>
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<td>11 Ischaemic heart disease</td>
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Van der Poel, 2015, Mumbai, India
1 in 4 couples in developing countries – suffer from infertility

Van der Poel, 2015, Mumbai, India
Primary infertility (childlessness)
Highest prevalence within low and middle income countries
2010 - as a DISABILITY (weight-adjusted)

WOMEN Age > 20-44; Consistent partnership without contraception, and actively trying for a child for 5 years without a live birth. Fertility surveys, mainly self-reports

Secondary infertility (childlessness)
Highest prevalence within low and middle income countries, 2010 - as a DISABILITY (weight-adjusted)

WOMEN Age > 20-44; Consistent partnership without contraception, and actively trying for a child for 5 years after having had one live birth.
Fertility surveys, mainly self-reports

CHALLENGES IN STI AND FERTILITY SCREENING
STI AND FERTILITY SCREENING

- **Low-resource environments:**
  - Syndromic screening and management of STI is suboptimal
    - Point of care (POC) STI screening
  - No established programs and recommendations for partner treatment to prevent persistent or recurrent STI
    - In US – Expedited partner therapy (EPT) or patient-delivered partner therapy (PDPT)

- **Fertility awareness**


TREATMENT AND PREVENTION OF STIs
The GOAL for Women Worldwide

- Partner treatment and referral for STI screening:
  - POC STI Screening
  - Prevention of STI-related sequelae

- Consideration of multipurpose prevention technologies (MPT) for:
  - Prevention of STIs (chlamydia, gonorrhea, trichomonas, HIV)
  - Prevention of unintended pregnancy
  - Facilitation of planned pregnancy, when desired
NEXT STEPS
Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy

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“Reproductive health, therefore, implies that people are able to have a responsible, satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so.”
STI and Infertility Prevention

The future:

- Research funding
  - Develop and investigate new technologies that support:
    - STI/HIV prevention
    - Unintended pregnancy
    - Preserve fertility
Reproductive Right

“The right of men and women to be informed of and to have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice, and the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant.”
Acknowledgments

- Sheryl van der Poel, MD, PhD
- Human Reproduction Program, World Health Organization
- Conference/Track Organizers
Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy

Live Webinar – 21 October 2015
MPTs: Many Possibilities

Indications
- Pregnancy, HSV, HPV, HIV, BV, Chlamydia, Gonorrhea, Syphilis, Candida, Trich

Delivery Methods
- Topical daily, Topical pericoital, Systemic sustained, Oral daily, Oral pericoital

Product Types
- Vaginal film, Vaginal tablet, Oral tablet, Vaginal ring, Non-IVR device, Vaginal gel, Injectable, Implantable

MPT Product Possibilities

Active Pharmaceutical Ingredients
- HC, Non-HC, Barrier, Probiotic, Antimicrobial, Antifungal, Antiviral
Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy
NWJ Group, LLC
21 October 2015 – Live Webinar
What is needed for MPTs to work

- MPT needs to be acceptable to users in
  - Cultural context and own life experience
  - Ease of use/administration
  - Appearance
  - Side effects

- Different populations may have different needs
Regional Providers’ Priorities

Priority Indications for MPTs

- Preg. + HIV
- Preg. + other STIs
- HIV + other STIs
  - Africa
  - US
  - India

Priority STI (other than HIV)

- BV
- HPV
- HSV
  - Africa
  - US
  - India
Regional Providers’ Priorities, cont.

Priority Dosage Form

- Topical
- Oral
- Injection
- Implant
- IUD
- Sustained release device

Africa | US | India
### Priorities for 1st Generation MPTs

<table>
<thead>
<tr>
<th>“On Demand”</th>
<th>Sustained Release</th>
<th>Long-acting Injectable</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Used around time of intercourse</td>
<td>• User-initiated, does not require daily action</td>
<td>• Long acting, does not require daily action</td>
</tr>
<tr>
<td>• For women who have intermittent sex or want more direct control over their protection</td>
<td>• Should increase adherence and effectiveness</td>
<td>• Should increase adherence and effectiveness</td>
</tr>
<tr>
<td>• Oral or topical</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy*  
*21 October 2015 – Live Webinar*
### MPTs most relevant for STI protection:
#### Gels and Films

<table>
<thead>
<tr>
<th>HIV + Other STIs</th>
<th>Phase</th>
<th>Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0% Tenofovir Vaginal Gel</td>
<td>Phase III</td>
<td>HIV, HSV</td>
</tr>
<tr>
<td>mapp66 (mAb) Vaginal Film</td>
<td>Phase I</td>
<td>HIV, HSV</td>
</tr>
<tr>
<td>MIV-150 + Zinc acetate + Carrageenan Vaginal Gel</td>
<td>Phase I</td>
<td>HIV, HSV, HPV</td>
</tr>
<tr>
<td>Tenofovir Vaginal Film, Tablet</td>
<td>Phase I</td>
<td>HIV, HSV</td>
</tr>
<tr>
<td>TFV/FTC Vaginal Tablet</td>
<td>Phase I</td>
<td>HIV, HSV</td>
</tr>
<tr>
<td>VivaGel</td>
<td>Advanced Preclinical</td>
<td>HIV, HSV, BV</td>
</tr>
<tr>
<td>Griffithsin vaginal insert/gel</td>
<td>Early Preclinical</td>
<td>HIV, HSV, HPV</td>
</tr>
<tr>
<td>SR-2P Gel</td>
<td>Early Preclinical</td>
<td>HIV, HSV</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pregnancy, HIV &amp; Other STIs</th>
<th>Phase</th>
<th>Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphora gel</td>
<td>Phase I</td>
<td>BV, Gon, Pregnancy</td>
</tr>
<tr>
<td>PPMC SAMMA gel</td>
<td>Preclinical</td>
<td>HIV, HSV, HPV, Chl, Gon, Pregnancy</td>
</tr>
</tbody>
</table>
### MPTs most relevant for STI protection: Condoms and Barriers

<table>
<thead>
<tr>
<th>Pregnancy, HIV &amp; Other STIs</th>
<th>Female and male condoms</th>
<th>Origami Female Condom</th>
<th>SILCS Diaphragm + MIV-150 + Zinc acetate + Carrageenan Vaginal Gel + Zinc Acetate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available</td>
<td>Phase III</td>
<td>Advanced Preclinical</td>
<td>HIV, Chl, Gon, Pregnancy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HIV, HSV, Chl, Gon, Pregnancy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HIV, HSV, HPV, Pregnancy</td>
</tr>
</tbody>
</table>
MPTs most relevant for STI protection:

**Intravaginal Rings**

<table>
<thead>
<tr>
<th>HIV + Pregnancy &amp; Other STIs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenofovir + Levonorgestrel IVR</td>
<td>Phase I</td>
</tr>
<tr>
<td>Dapivirine + Levonorgestrel IVR</td>
<td>Advanced Preclinical</td>
</tr>
<tr>
<td>MIV-150 + Zinc acetate + Carrageenan + LNG IVR</td>
<td>Early Preclinical</td>
</tr>
<tr>
<td>BioRings IVR</td>
<td>Early Preclinical</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HIV &amp; Other STIs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenofovir + Acyclovir IVR</td>
<td>Phase I</td>
</tr>
<tr>
<td>Tenofovir Disoproxil Fumerate (TDF) IVR</td>
<td>Phase I</td>
</tr>
<tr>
<td>Zinc acetate + Carrageenan IVR</td>
<td>Advanced Preclinical</td>
</tr>
<tr>
<td>Tenofovir + IQP-0528 IVR</td>
<td>Advanced Preclinical</td>
</tr>
<tr>
<td>Griffithsin IVR</td>
<td>Early Preclinical</td>
</tr>
</tbody>
</table>
Sustained Release Devices:

**MPT Intravaginal Rings**

**30-day Zinc Acetate + Carrageenan (Pop Council)**
- Zinc Acetate + Carrageenan
- Advanced pre-clinical stages
- HIV, HSV2

**90-day Dapivirine + LNG (IPM)**
- DPV + LNG
- Silicone matrix ring
- Advanced pre-clinical stages
- Pregnancy, HIV

**90-day TFV + LNG (CONRAD)**
- TFV + LNG
- Segmented PU ring
- Phase I clinical study in DR and US
- Pregnancy, HIV, HSV-2
Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy

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Single & Multipurpose Vaccines

**Today:**

- *Multipurpose* Vaccines for pediatrics (pentavalent, 5 in one shot: diphtheria, tetanus, pertussis, hepatitis B and Haemophilus influenzae type b)
- *Single* purpose vaccines for reproductive health (HPV)

**In the future:**

- Multivalent vaccines (HSV, HIV, Gonorrhea, Chlamydia, Trichomonas, other STIs)
- Contraceptive vaccines not likely
MPTs for rectal use – expanding current focus for populations at STI risk

- 1 in 5 heterosexual men and women report anal intercourse ever (<1% most recent sex)
- 1 in 3 homosexual men report anal sex

Need to develop MPTs that protect against HIV and other STIs during anal intercourse in men and women

Lifetime experience of anal intercourse

![Bar chart showing lifetime experience of anal intercourse by age group and gender]
Dual Compartment Topical Formulation

Challenges

- Physiological and anatomical differences between vaginal and rectal compartment

- **Vagina:**
  - stratified squamous epithelium,
  - closed cavity,
  - acidic pH (4 - 4.5);

- **Rectum/lower gastrointestinal tract:**
  - simple columnar epithelium,
  - longer/opened compartment,
  - neutral/slightly alkaline pH
Keeping up to date with MPT Research & Development

MPT Product Development Database
This database includes MPT products that are currently available, as well as MPT products in active development. In addition, a number of existing products and products in development for single indications are also included. The database outlines detailed product information and can be searched to display products by desired criteria as selected from the drop-down boxes or by entering a keyword in the search box. Click on the product name to access detailed information on each product. Click here to learn more about the inclusion criteria and information update methodology.

Links to Summary Tables outlining (1) MPT Products in Development, (2) Existing Single Indication Products or (3) Candidate Single Indication Products that could serve as potential components of future MPTs can be found below.

http://mpts101.org/mpt-database
Thank You!

- **Marlene Kong Worimi**, Kirby Institute
- **Bridget Haire**, Kirby Institute
- **Vivian Black**, Wits Reproductive Health Institute

Multipurpose Prevention Technologies (MPTs): Developing interventions to simultaneously prevent STIs, HIV and pregnancy

Live Webinar – 21 October 2015
Questions?

- Please mute your line using *6 if you are not speaking.

- Press *7 to unmute your line if you have a question or comment.
The Initiative for Multipurpose Prevention Technologies (IMPT) is a project of CAMI Health, an organization dedicated to women’s reproductive health and empowerment, housed at the Public Health Institute.
Support for this project is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of the HealthTech Cooperative Agreement #AID-OAA-A-11-00051, managed by PATH. The contents are the responsibility of CAMI/PHI and its partners and do not necessarily reflect the views of USAID or the US Government.