Developing and Introducing a Dual Prevention Pill

Oral PrEP & oral contraceptive for HIV and pregnancy prevention

Background

A coalition of partners is developing a novel Dual Prevention Pill (DPP) for prevention of pregnancy and HIV acquisition in high-need countries. Women in sub-Saharan Africa are disproportionately affected by HIV compared to men, and 214 million women of reproductive age in the developing world have an unmet need for contraception.1 In particular, young women ages 15-24 in sub-Saharan Africa account for 71 percent of new infections in their age group and 29 percent of new infections among adults in the region.2 As the “youth bulge” results in millions of young people entering their reproductive years,3 it will impact efforts to end the HIV epidemic and reduce unintended pregnancies. It is critical to ensure all women have access to both contraception and HIV prevention.

The results of the Evidence for Contraceptive Options in HIV Outcomes (ECHO) Trial, released in June 2019, found that HIV incidence rates were alarming among women using widely available forms of contraception who were receiving a comprehensive HIV prevention package.4 The findings underscore the urgent need to optimize access to HIV prevention and contraception for African women.

Contraceptive multipurpose prevention technologies (MPTs) have the potential to overcome adherence and uptake challenges seen with oral pre-exposure prophylaxis (PrEP) and stigma associated with HIV service delivery. A DPP, an MPT comprising oral PrEP and an oral contraceptive, will offer significant advantages. It will be highly effective at preventing both HIV and pregnancy when used daily, feasible to deliver in various settings, with the potential to deliver public health impact by expanding choice and method mix. Adding an MPT to the available method mix could empower users with choices that better fit their needs and lives.

In the near-term, a DPP could increase the uptake of PrEP — decreasing new infections among women in high-burden settings — and reduce the number of unintended pregnancies. A DPP could also lay the groundwork for the development and rollout of other MPTs currently in the research pipeline, such as vaginal rings, injectables, implants and films.

Project Goal

Rapidly and successfully introduce a daily oral pill for HIV and pregnancy prevention.

A coalition of organizations, including AVAC, the Clinton Health Access Initiative (CHAI), Mann Global Health, Mylan and the Population Council are implementing the DPP project. These efforts are supported by the Children’s Investment Fund Foundation (CIFF), the Bill & Melinda Gates Foundation (BMGF), the U.S. Agency for International Development (USAID) and WCG Cares.

Geographic Scope

Settings that demonstrate need (high HIV incidence and high unmet need for modern contraception), potential demand (current oral PrEP and contraceptive use) and enabling policy and regulatory environments will be prioritized for early DPP introduction, but early estimates indicate a potential market of 251,000-1.25 million women in 15 countries in sub-Saharan Africa.5

### Prioritized Countries

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>KENYA</th>
<th>SOUTH AFRICA</th>
<th>ZIMBABWE</th>
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<tbody>
<tr>
<td>HIV Incidence (per 1,000 population)²</td>
<td>1.02</td>
<td>4.94</td>
<td>2.79</td>
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<tr>
<td>New HIV Infections, (# women 15+)²</td>
<td>24,000</td>
<td>140,000</td>
<td>19,000</td>
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<tr>
<td>Unmet Need for Modern Contraception (%)⁵</td>
<td>20.3</td>
<td>15</td>
<td>9.9</td>
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<tr>
<td>Unintended Pregnancies (#)⁶</td>
<td>956,000</td>
<td>1,060,000</td>
<td>298,000</td>
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<tr>
<td>Oral Contraceptive Use (% of method mix)⁶</td>
<td>14.1</td>
<td>12.3</td>
<td>56.5</td>
</tr>
<tr>
<td>Total PrEP Initiations (#)⁷</td>
<td>56,000</td>
<td>44,304</td>
<td>17,588</td>
</tr>
</tbody>
</table>

² UNAIDS 2019 data.
⁶ FP2020 Core Indicator Summary Sheet: 2017-2018 Annual Progress Reports.
A single **co-formulated tablet** containing Truvada and combined oral contraceptive (COC) active pharmaceutical ingredients (APIs) is under development. **Conduct bioequivalence study** to compare bioavailability of co-formulated tablet to Truvada and COC separately. **File dossier with SRA** for regulatory approval.

**Key Milestones for Dual Prevention Pill Development**

### PRODUCT DEVELOPMENT

- A single **co-formulated tablet** containing Truvada and combined oral contraceptive (COC) active pharmaceutical ingredients (APIs) is under development.
- **Conduct bioequivalence study** to compare bioavailability of co-formulated tablet to Truvada and COC separately.
- **File dossier with SRA** for regulatory approval.

### END-USER RESEARCH

- **To shape product development and demand creation strategies**, **conduct human-centered design research** in South Africa and Zimbabwe on perceptions, barriers, and motivators of end users, providers and influencers as they relate to the DPP.
- **To inform clinical cross-over acceptability studies**, **conduct formative research** to understand perspectives on the DPP among women, health care providers, community members and key opinion leaders.
- **Conduct clinical cross-over acceptability studies** in South Africa and Zimbabwe to compare women’s experiences using a DPP to two separate Truvada and COC pills.

### MARKET PREPARATION

- **Establish Advisory Board** with leading research entities, normative agencies, donors, implementers and advocates working on HIV and SRHR to plan for and coordinate introduction of the DPP in parallel with product development activities.
- **Engage with policymakers, regulators, civil society and key opinion leaders in HIV and SRH to generate buy-in**, shape introduction plans, understand potential market size and inform regulatory strategies for DPP introduction.
- **Develop a comprehensive Go-To-Market Strategy** with global and national stakeholders.

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### Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
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<tbody>
<tr>
<td>2020</td>
<td>- Go-To-Market Strategy approved</td>
<td>- Donor commitments secured to operationalize Go-To-Market Strategy</td>
<td>- Pilot introduction projects developed</td>
<td>- Target introduction in prioritized countries</td>
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<tr>
<td></td>
<td>- Investment case developed</td>
<td>- Clinical cross-over acceptability studies begin</td>
<td>- Bioequivalence study results available</td>
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<tr>
<td></td>
<td>- Human-centered design and formative research conducted</td>
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*Timelines are subject to modification given funding, government buy-in, development feasibility, and regulatory requirements.

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For inquiries, updates and resources on the development of the DPP, please visit [prepwatch.org/dpp](http://prepwatch.org/dpp).