INTERNATIONAL PARTNERSHIP FOR MICROBICIDES

Advancing HIV Prevention Options for Women: *The Dapivirine Vaginal Ring*

May 10, 2022

Anita Garg, Vice President, Strategic Planning and Program Management

Developing HIV Prevention Products for Women worldwide

The Dapivirine Vaginal Ring (DVR)

International Partnership for Microbicides

Why Did IPM Develop the Dapivirine Ring?

- Available methods have not done enough to slow the epidemic among women
- Need for discreet products that women can use on their own terms
- No one product will solve the HIV epidemic
- **Women need multiple prevention options** that make sense for their lives

Monthly Dapivirine Ring: Overview

- **Flexible silicone vaginal ring**
- **Woman-initiated**
  - Self-inserted monthly
  - Discreet
  - Does not interfere with sex
- **Slowly releases ARV dapivirine locally**
  - Exclusive worldwide rights through Janssen Sciences Ireland Unlimited Company
- **Reduced HIV risk in Phase III trials**: 35% in The Ring Study, 27% in ASPIRE
- **Open-label extension studies** saw increased adherence, suggested greater risk reduction
- **Positive EMA opinion and WHO PQ 2020; WHO recommendation and guidelines 2021**
- **First long-acting HIV prevention product**

Regulatory Status: Country Submissions

African National Regulatory Authorities

- Submissions through WHO-coordinated collaborative registration procedure began November 2020 on rolling basis
  - **Approval received in multiple African countries including Zimbabwe, South Africa**
  - Submitted to Botswana, Kenya, Malawi, Namibia, Rwanda, South Africa, Tanzania, Uganda, Zambia, Namibia, Botswana
  - Submissions planned for Mozambique, Nigeria, Ethiopia
  - Import license processes in Eswatini, Lesotho

Preparing for access to the DVR

INTERNATIONAL PARTNERSHIP FOR MICROBICIDES

Five Action Areas to Support Ring Introduction

Regulatory Process and Global Policy

- **WHO prequalification and normative guidance**
- Global **Essential Medicines List** (EML)
- Global **pharmacovigilance plan**
- National **regulatory approvals**

Health Systems and Supply Chain

- **Manufacturing**, packaging, and branding of the ring
- **Quantification, forecasting and procurement** planning for the ring

Demand and Market Considerations

- **Market research** to identify ring users and understand their needs and preferences
- Development of **demand creation** strategies and materials that align with combination prevention

National Policy and Program Support

- Initiatives for early **ring introduction**
- Development of national **policies, implementation plans, financing and M&E frameworks**
- Development of **healthcare provider** clinical guidelines, training and supervision materials

Donor Support and Advocacy for accelerated ring introduction as part of combination prevention

Planned Pilot Projects & Implementation Studies

- IPM supports govts and implementers as they plan pilot projects and implementation studies
  - Working with procurement and SC partners
  - Market research with end users and HCPs
  - Technical assistance
  - Outreach
- CATALYST project to be implemented under USAID funded MOSAIC Consortium (SA, Zimbabwe, Lesotho, Kenya, Uganda)
- Other pilot studies being planned (Zimbabwe, Eswatini)

Initial Pathways for Access

- DVR incorporated into national guidelines: completed for Lesotho; in process for SA, Zimbabwe, Kenya, Botswana, Uganda, eSwatini
- Donor funded clinics in South Africa to start ring introduction - Global Fund to potentially fund introduction
- PEPFAR procurement for implementation projects through Chemonics/PSM contract
- Pilot projects under MSF and other implementers
- Private market interest

Supply Chain Overview

INTERNATIONAL PARTNERSHIP FOR MICROBICIDES

Commercial Manufacturing

- QPharma (now Sever Pharma Solutions) in Sweden
  - IPM owned equipment in dedicated facility
  - Validated scaled up process: ~35K rings/batch
  - Current capacity approx. 1 million rings/year
- 5-year shelf life; no special temperature conditions needed

INTERNATIONAL PARTNERSHIP FOR MICROBICIDES

Onboarding a Global Distributor

- IPM is appointing a sole distributor who will:
  - Work with buyers to determine demand and place orders with manufacturer
  - Store bulk rings at central facility
  - hold the commercial relationship with buyers of DVR including USAID/PEPFAR (through their procurement agent Chemonics/PSM project), the Global Fund, and others
  - Sell rings at an agreed price (to be finalized) with IPM oversight

- **IPM remains Market Authorization Holder and has responsibility for technical and quality oversight**

INTERNATIONAL PARTNERSHIP FOR MICROBICIDES

Service Delivery Considerations

- **Easily integrated into service delivery platforms:**
  - Periodic HIV testing, likely quarterly or less frequently
  - Prescription-based
    - Woman could receive 3 rings at a time (2 packaging configurations to be available)
  - Initial education/instruction from provider; can be self-inserted and replaced thereafter
- **Clinical and implementation guidelines will vary by country - align with oral PrEP guidelines**

Looking Forward..

Additional research led by MTN in partnership with IPM:

- **REACH study:** *Adolescent girls and young women*
- **DELIVER study:** *Pregnant women*
- **B-PROTECTED:** *Breastfeeding women*

Follow on products under development

- **3-month dapivirine ring**
  - *Potential for increased convenience to women; Lower annual costs*
- **3-month dapivirine-levonorgestrel ring**
  - *HIV prevention and contraception*

INTERNATIONAL PARTNERSHIP FOR MICROBICIDES

Potential Public Health Impact

Modeling data show that:

- A range of prevention options alongside scaled-up treatment is needed to achieve epidemic control
- Prevention methods with even modest efficacy would have a meaningful impact as part of a comprehensive strategy that could avert millions of HIV infections over time
- ***The ring would prevent infections among women that would otherwise not be averted by any other method***

New, woman-centered options like the ring will be crucial to achieving epidemic control


Questions &
Thank you
INTERNATIONAL
PARTNERSHIP FOR
MICROBICIDES

BACK UP SLIDES

Dapivirine Ring Trials

Malawi, South Africa, Uganda, Zimbabwe

Phase III

THE RING STUDY

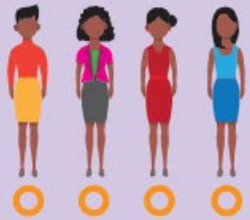
ASPIRE

4500

Women did not know if they're receiving the dapivirine ring or a placebo ring

Placebo

Open-Label



Dapivirine

DREAM

HOPE

HIV Open-label Prevention Extension

Out of ASPIRE, there is HOPE

2400 Former Phase III participants

All women know they're receiving the dapivirine ring (there was no placebo group)

What we saw in Phase III trials

HIV risk was lower with dapivirine ring use in the Phase III trials — 35% (THE RING STUDY), 27% (ASPIRE)

Risk Reduction

Adherence was about 80% in Phase III trials — 80%

Adherence

No safety concerns were seen with use of the dapivirine ring in the Phase III trials

Safety

What we saw in Open-label studies

62% (DREAM), 39% (HOPE) — Modeling data suggest HIV risk was reduced by about half with ring use across both studies

90%+ — More than 90% of women used the dapivirine ring at least some of the time

The dapivirine ring's safety profile in the open-label studies was similar to the strong profile seen in the Phase III trials

WHAT WE KNOW

01 The Phase III trials showed that HIV risk was reduced in women who used the dapivirine ring

02 Open-label study results suggested that the dapivirine ring reduced HIV risk by about half across both studies, an encouraging trend

03 Adherence was higher in the open-label studies

04 The dapivirine ring had a strong safety profile in all the Phase III and open-label studies, with no safety concerns

05 The open-label study results suggest that when women are aware that the dapivirine ring reduced HIV risk in large clinical trials, they are more likely to use the product and see greater protection

INTERNATIONAL PARTNERSHIP FOR MICROBICIDES