Prevention of HIV in Pregnant Women

13 June 2019, Washington DC, USA

IMPAACT
International Maternal Pediatric Adolescent AIDS Clinical Trials Network

IMPAACT 2009
Study Update and Next Steps

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13 June 2019, Washington DC, USA

https://clinicaltrials.gov/ct2/show/NCT03386578?term=2009+impaact&rank=3

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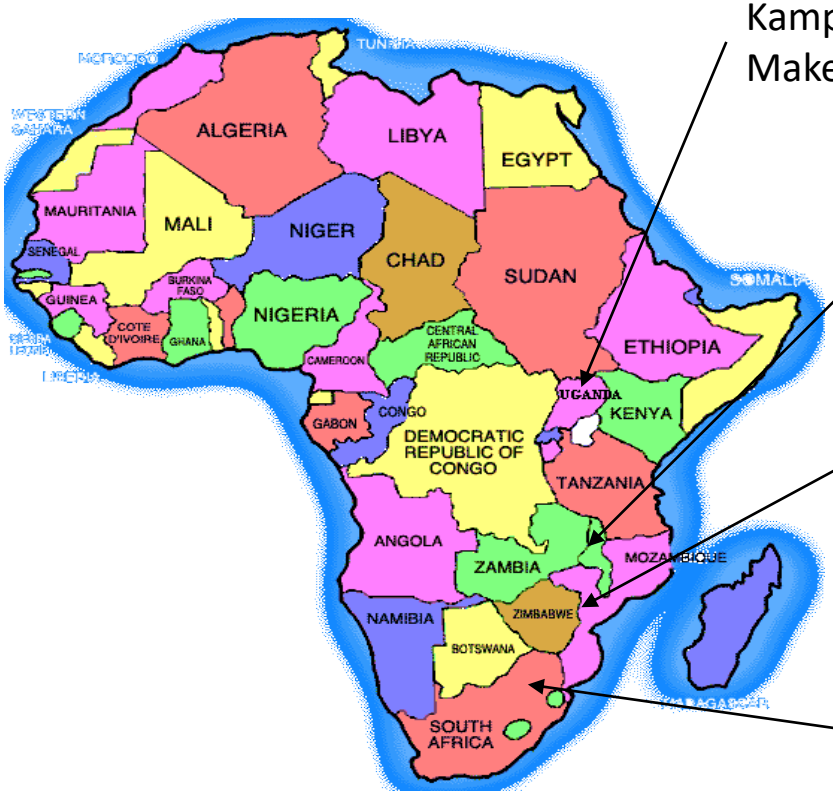
Pharmacokinetics, Feasibility, Acceptability, and Safety of Oral Pre-Exposure Prophylaxis for Primary HIV Prevention during Pregnancy and Postpartum in Adolescents and Young Women and their Infants

- A 2-part observational trial in HIV-uninfected adolescent and young women who are offered oral PrEP while pregnant and breastfeeding
  - To establish concentration of PrEP achieved with adequate adherence
  - To characterize PrEP adherence, and compare maternal and infant adverse events (including pregnancy outcomes) in those who do and don't take PrEP

Study Design

- PK Component – 40 mother-infant pairs
  - Establish plasma drug concentrations associated with optimal dosing of oral PrEP during pregnancy and postpartum
  - Findings will guide interpretation of drug levels observed in pregnant women
- PrEP Comparison Component
  - Observational parallel cohort study
  - Follow women who choose to start PrEP in pregnancy (~200 pairs) or not (~100 pairs) through 6 months postpartum
  - Adherence experiences and safety outcomes

Study Sites



Kampala, Uganda: Baylor CRS & Makerere University - JHU CRS

Blantyre, Malawi (JHU)

Harare, Zimbabwe: Harare Family Care, Saint Mary's & Seke North CRSs

Johannesburg, South Africa: Shandukani WRHI

Mother and Child by Colleen Madamombe

Pregnant Woman
by Cuth

Pharmacokinetic (PK) Component

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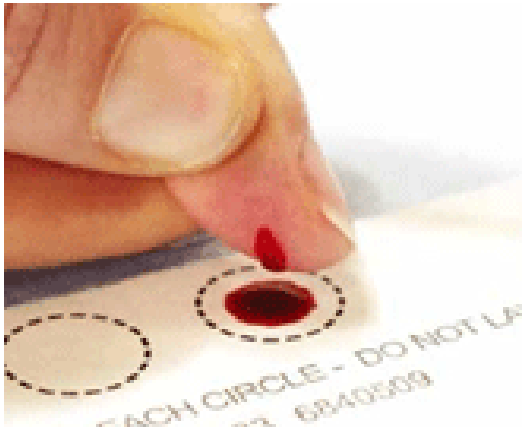
PK Component Procedures

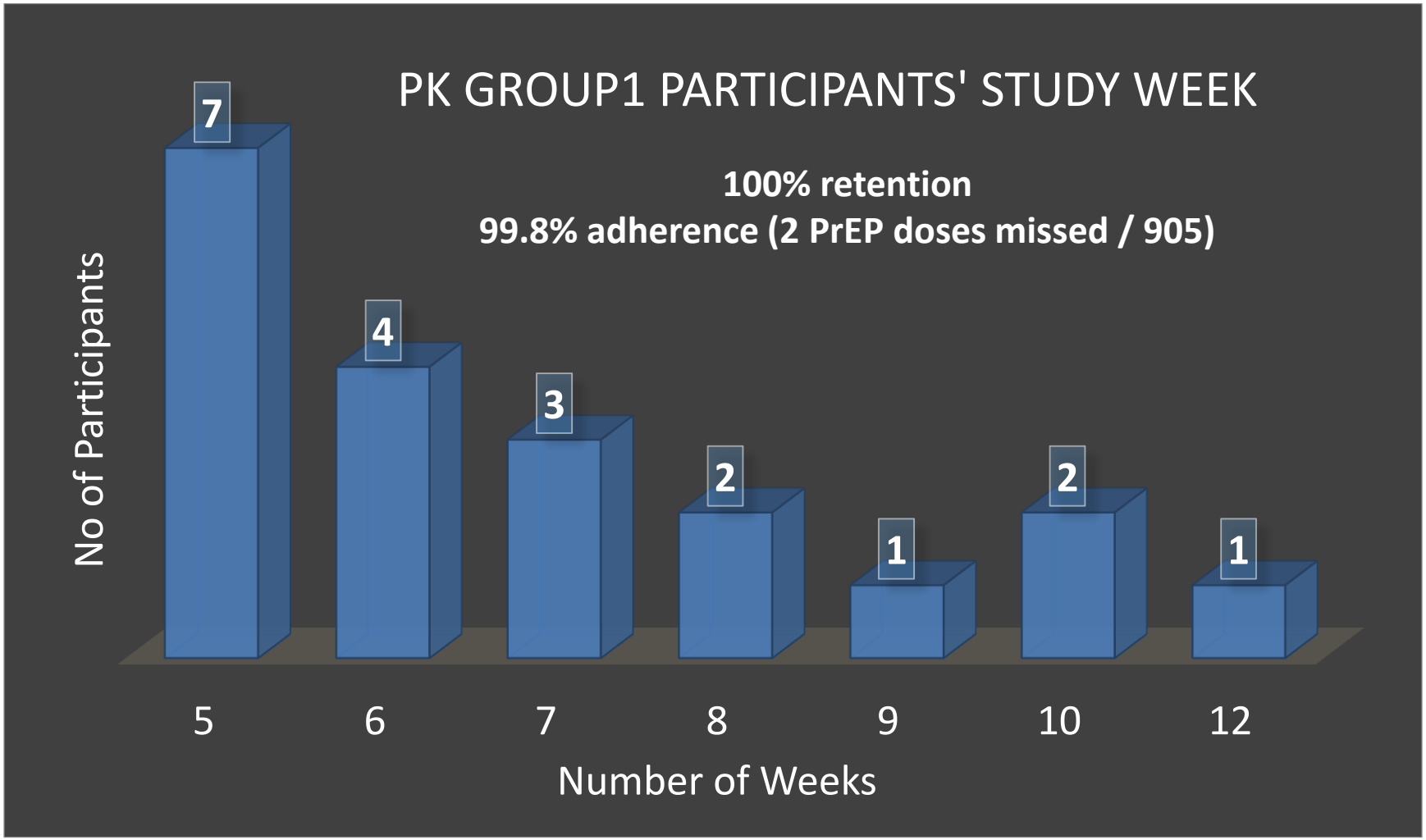
- Enrolling since March 2019
- Target 20 pairs in each group
  - **Group 1: Enrolled 14 – 24 wks gestation**
  - **Group 2: Enrolled 6 – 12 wks after delivery**
- Monitor and document PrEP administration **daily, for 12 weeks**
  - **In-person (clinic or home)**
  - **Real-time video call**
- DBS specimens collected weekly for PK testing

PK Component Outcome

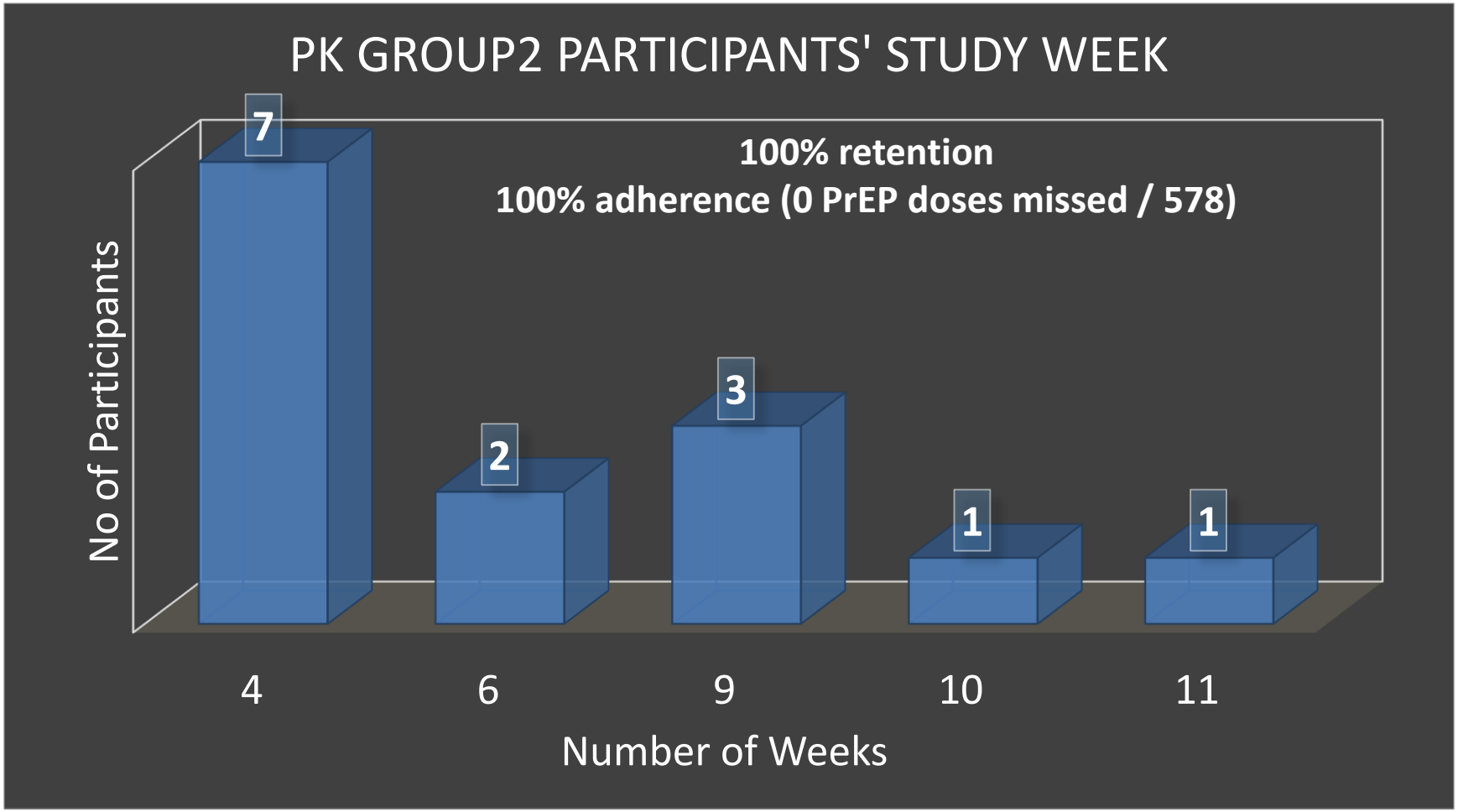
- Concentration of tenofovir diphosphate (TFV-DP) associated with adequate adherence to TDF/FTC among women observed ingesting daily oral PrEP during pregnancy and postpartum.
- Compare TFV-DP concentrations pre- and post-delivery



PK Group 1 follow-up status



PK Group 2 follow-up status



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PrEP Comparison Component

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Study Design

- Observational cohort study for HIV-uninfected healthy pregnant women aged 16-24 years with EGA <32 weeks
  - 200 pregnant women who choose PrEP
  - 100 pregnant women who decline PrEP
- Followed ~monthly in pregnancy, at L&D, then weeks 6, 14 and 26 postdelivery
  - Acceptability
  - Adherence
  - Safety

Outcome measures

- PrEP adherence
  - DBS drug levels (based on PK component)
- Maternal adverse events
  - Renal and hepatic function, bone health
- Adverse pregnancy outcomes
  - Abortion, stillbirth, preterm delivery, SGA
- Infant safety
  - Death, adverse events, bone health, renal function, growth

What will 2009 add to current knowledge?

- At this time of particular risk for new HIV infection in young women
  - PK in pregnancy
  - Deeper understanding of adherence
  - Safety information to inform the risk:benefit ratio of oral PrEP

Study Status and Next Steps

Congratulations! PK Component fully accrued

Study Status and Next Steps

- PK component –
  - Complete 12 weeks of DOTs for all active participants – expected mid-August
  - PK testing in Cape Town laboratory
  - Data analysis to establish steady state drug level
- PrEP Comparison component –
  - Drug level threshold communicated to sites
  - Open to accrual ~1Q2020
  - Site activation

Acknowledgements

Protocol Team

Co-Chairs: Benjamin Chi & Lynda Stranix-Chibanda

Vice Chair: Sybil Hosek

Protocol Team: Geri Donenberg, Rivet Amico, Deborah Kacanek, Sharon Huang, Lisa Hightow-Weidman, John Shepard, Nicole Tobin, Savita Pahwa, Lisa Frenkel, Jennifer Kiser, Pete Anderson, Hans Speigel, Nahida Chakhtoura, Susannah Allison, Kate Lypen, Kathy George, Emily Brown, Dina Chinichian, James Rooney, Nayri Khairalla, Laura Smith, Benjamin Johnston, Katelyn Hergott, Carolyn Yanavich, Cheryl Jennings, Dean Soko, Cheryl Cokley, Monnie Lubega, **Study Site teams**

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