

# Factors influencing adherence to daily oral PrEP during pregnancy and postpartum: Qualitative findings from Malawi, South Africa, Uganda and Zimbabwe

**Petina Musara**<sup>1</sup>, Lynda Stranix-Chibanda<sup>1,2</sup>, Peter Slutzker<sup>3</sup>, Juliane Etima<sup>4</sup>, Florence Mathebula<sup>5</sup>, Rebecca Nabukenya<sup>6</sup>, Linly Seyama<sup>7</sup>, Emily Brown<sup>8</sup>, Hans M.L. Spiegel<sup>9</sup>, Mary N.Tichareva<sup>1</sup>, Otilia Munaiwa<sup>1</sup>, Tambudzai Mutasa<sup>1</sup>, Deborah Kacanek<sup>10</sup>, Benjamin Chi<sup>11</sup>, K. Rivet Amico<sup>3</sup> for the IMPAACT 2009 Study Team

<sup>1</sup>Clinical Trials Research Centre, University of Zimbabwe, Harare, Zimbabwe, <sup>2</sup>UZ FMHS, <sup>3</sup>University of Michigan, School of Public Health, USA, <sup>4</sup>Makerere University-Johns Hopkins University Research Collaboration, Kampala, Uganda, <sup>5</sup>Wits RHI, University of Witwatersrand, Faculty of Health Sciences, Johannesburg, South Africa, <sup>6</sup>Baylor College of Medicine Children's Foundation, Kampala, Uganda, <sup>7</sup>Johns Hopkins University, University of Malawi, Blantyre, Malawi, <sup>8</sup>FHI 360, Durham, USA, <sup>9</sup>Kelly Government Solutions, Contractor to DAIDS, NIAID, NIH, MD, USA, <sup>10</sup>Harvard School of Public Health, Center for Biostatistics in AIDS Research, USA, <sup>11</sup>University of North Carolina, Chapel Hill, USA

- > A strong desire to prevent HIV for self and baby was reported to promote consistent daily oral PrEP use in both antepartum and postpartum groups.
- > Concerns about side effects and male partner disapproval were stronger during pregnancy compared to postpartum, prompting inconsistent dosing.
- > Concomitant pregnancy symptoms/sickness and routine daily pregnancy supplements added challenges to adherence.
- > Women described their experience with daily oral PrEP use during breastfeeding as better compared to pregnancy.

#### BACKGROUND

Oral PrEP is recommended in pregnant and breastfeeding women (PBFW) at risk for HIV. However, data about peripartum use is limited. Through in-depth interviews with PBFW who initiated daily oral PrEP (DO-PrEP) in the IMPAACT 2009 study, we explored factors influencing DO-PrEP use.

#### **METHODS**

- The IMPAACT 2009 multi-site study enrolled 350 PrEP-eligible pregnant women aged 16-24 years between March and December 2022.
- All participants were offered daily oral TDF/FTC and followed through 26 weeks postpartum.
- Among the 229 PBFW who initiated DO-PrEP, 20 antepartum and 20 postpartum women were purposively selected for an in-depth interview.
- Within each period, we interviewed 10 women with optimal (6-7 doses/week) and 10 with suboptimal adherence (<6 doses/week) based on TDF/FTC drug levels in dried blood spots at two consecutive visits. Interviewers asked women about facilitators and challenges to DO-PrEP use.
- Transcripts were analyzed by a team of coders using thematic analysis.

#### **RESULTS**

- At enrolment, the average age was 20.6, 75% completed secondary education, 25% were employed and 22.5% did not have enough money to buy food.
- Across interviews, there appeared to be an emphasis on greater difficulty with oral PrEP during pregnancy versus post delivery, in part seeming to relate to absence of pregnancy symptoms, reduced or no side effects and greater autonomy from the influence of male partners, post delivery.
- Women shared some concerns about potential negative effects on their pregnancy or baby- making their PrEP use of consequence not just to themselves but to their infant and relationships with male partner.

Facilitators of DO- PrEP Use		
Protection for mother and baby	As women we should take PrEP because it protects us from HIV infection from our partner if he has it and our baby from infection" (18 years old, antepartum, high adherence, Zimbabwe)	
Adherence counselling	I experienced the same things I had initially feared the staff gave me advice that when the tablets get used to the body, the side effects will stop. Then I said it was fine and I decided to continue taking the tablets. (19 years old, antepartum, high adherence, Uganda)	
Social support	In the beginning,I used to vomit, feel sickly,I have my friend whom I come here withshe told me that whether you want or not, you have to swallow PrEP, that one encouraged me because I saw her swallowing thus I said why should I leave the drug (22 years old, antepartum, non-adherent, Uganda)	
Use of reminders	I use an alarm and my mother also reminds me to take the pill every day. I also put the drug in plain sight so that when I wake up my eyes should see them right away (23 years old, postpartum, high adherence, Malawi)	

## CONCLUSIONS

- PBFW receiving DO-PrEP were aware of HIV risk and were motivated to protect themselves and their infants.
- Challenges unique to PBFW, including concerns about effect on pregnancy, were reported.
- Tailor-made counselling is needed for peripartum DO-PrEP use, to address women's concerns about negative effects on pregnancy, their infant and relationship with male partner.

### ACKNOWLEDGMENTS

The authors would like to thank the study participants and the entire IMPAACT 2009 study team.

#### **RESULTS**

Challenges to DO-PrEP Use

	Pregnancy-related Sickness	I have not been feeling too well ever since I fell pregnant I had gone to the hospital and got admitted. I had left my medication (PrEP) at home. (23 years old, antepartum, high-adherence, Zimbabwe)
	Concern about effect on pregnancy	He (Male Partner) told me that there are health workers he consulted, and they told him to stop me from using the PrEP tablets. He said that they told him that it is not good for a pregnant woman to use those drugsWhat I know he is most worried of is because I am pregnant, and it is the reason he emphasizes. I think that if I talk to him after giving birth, he will allow me to use PrEP"(20 years old, antepartum, sub-optimal adherence, Uganda)
		Yes, I had some concerns because they say a pregnant woman is not supposed to be taking drugs just anyhow, I was thinking that maybe I will have a miscarriage as a result of taking PrEP (17 years old, postpartum, sub-optimal adherence, Malawi)
	Fear of male partner disapproval as a barrier	I did not tell my male partner about my PrEP use during pregnancy; I have told him recently after giving birth I thought that he would stop me from using the PrEP tablets. (24 years old, postpartum, high adherence, Uganda)
	Burden of concomitant pregnancy medications	It was difficult to take the pills, and there were a lot of pills to take because I was also taking pills for pregnancy. So, it was difficult for me, I was tired of taking the pills. (20 years old, postpartum, sub-optimal adherence, South Africa)
	Forgetting/No access	I missed taking the tablets when I went to the hospital to give birth and I did not carry them [PrEP tablets] When I was in labor, I did not think about the tablets but thought about them after giving birth and went to stay with my mother yet I had left the PrEP tablets at my home (24 years old, Postpartum, adherent, Uganda)
	Stigma	It looks the same like the ARV bottle which HIV positive people take every day. So, he thought that I am one of the people who are on ARVs as well, so he told me to stop taking PrEP for him to believe that I was not on ARVs and for the sake of peace, I decided to quit/stop taking the drugs (17 years old, postpartum, discontinued PrEP, Malawi)
	Pill size	that was at the beginning of this study The whole month and it was very difficult for me to swallow that pill, it was coming out after throwing it into my mouth(23 years old, postpartum, adherent, Malawi)
1.	Food insecurity	There was no food and I had nothing in my house,and this led me not to take the drug because I was afraid to experience those bad things after taking prep on an empty stomach (23 years old,





postpartum, adherent, Malawi)













