



Engagement with an interactive adherence text messaging platform among women initiating PrEP during pregnancy in Kenya: The Mobile WACH-PrEP Study

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Background

- Pregnant women initiating PrEP face barriers to adherence
- Two-way text messaging with nurses may help address these barriers.
- Understanding the texting behaviour and content of communication from PrEP users could help guide PrEP adherence support



mWACH-PrEP Retention Officer, Deckins, at study site



mWACH-PrEP Study Summary

- Primary Objective:** To determine the effect of the mWACH-PrEP tool on PrEP adherence during pregnancy through the postpartum period among at-risk women who initiate PrEP within ANC
- Study Design:** 2-armed non-blinded randomized control trial comparing SOC vs. SOC + mWACH-PrEP
- Study Population:** Attendees at 5 MCH clinics in Kisumu, Siaya and Homa Bay
- Target Sample Size:** 600 HIV-negative pregnant women who newly initiate PrEP
- Study duration:** Through 9 months post-partum
- Primary Endpoint:** PrEP adherence at 6 months postpartum (TFV hair levels)



Participant Eligibility Criteria

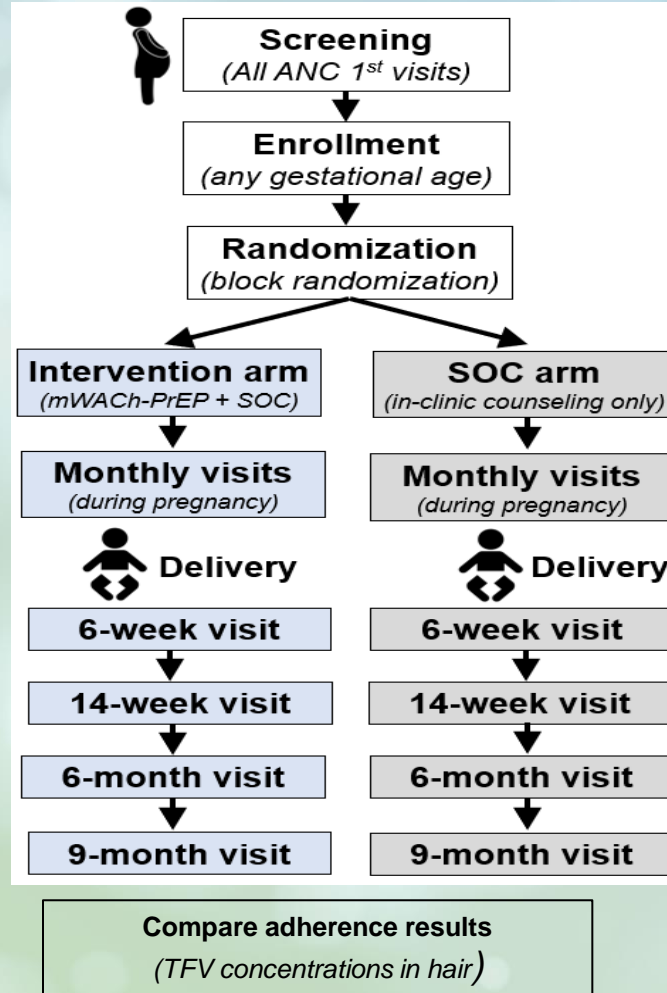
- ≥18 years old
- Confirmed HIV-negative
- Initiated PrEP during ANC
- 24-32 weeks gestation
- Plans to reside in area for at least 1 year
- Plans to receive ANC/PNC at facility
- HIV risk score >6
- No documented TB
- Access to mobile device for SMS

HIV acquisition risk score from Pintye et al *CID* 2017

Risk factor	Value per factor	Complete score	Simplified score
No. of lifetime sexual partners			
1 point per sexual partner	Enter at least 1		
Male partner HIV status			
Known or no male partner	0		
Unknown	6		
Syphilis			
RPR nonreactive	0		
RPR reactive	5		
Bacterial vaginosis			
Negative or not screened	0		
Positive	2		
Candidiasis			
Negative or not screened	0		
Positive	3		
Total risk score			

Study Flow

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mWACH-PrEP

(automated weekly 'push' messages and 2-way SMS dialogue with remote nurses until 6-months postpartum)

Follow-up

(all study visits for both arms follow Kenyan national guidelines for standard MCH visit schedule)



Example Messages based on Information-Motivation-Behavioral Skills Model

Construct Information	Week	Example SMS messages
Dosage	2 weeks after PrEP initiation	{name}, this is {nurse} from {clinic x}. There are some misconceptions about PrEP in the community. People should not only take the PrEP pill just before Potential exposure to HIV. Rather, it should be taken every single day for it to build up in your system and offer protection against HIV. Is there anything else that you have heard about PrEP in the community?
Motivation		
Perceived benefits of adherence	4 weeks after PrEP initiation	{name}, this is {nurse} from {clinic}. PrEP is very effective at preventing you from getting HIV if you take it every day. It also helps prevent HIV to your baby if you are pregnant. If you miss too many doses it may not work. Are you having any challenges taking the medication?
Behavioral Skills		
Remember to take PrEP daily	8 weeks after PrEP initiation	{name}, this is {nurse} from {clinic}. It can be difficult to take medications every day especially if you are trying to be discrete. Many people ask a friend to help remind them, set a timer on their phone, or take it with a meal. You can also put it in a different container you can carry with you in private. How do you remember to take your medication? Do you have any challenges taking it every day?

mWACH-PrEP system

{name}, this is {nurse} from {clinic}. It can be difficult to take medications every day especially if you are trying to be discrete. Many people ask a friend to help remind them, set a timer on their phone, or take it with a meal. You can also put it in a different container you can carry with you in private. How do you remember to take your medication? Do you have any challenges taking it every day?



Hello,as for me my medication got finished and i have not got the opportunity to come back for your clinic. Am happy because am able to prevent myself from HIV/AIDS.Apart from HIV/AIDS can the medicine prevent other sexually transmitted infections.

Hello,It would be advisable to come back to the clinic for review and also get medication. PrEP medication only prevents a person from acquiring HIV/AIDS,it doesn't prevent sexually transmitted diseases.Its advisable to use combination prevention methods such as use of condoms together with PrEP in order to prevent STI's.





mWACH-PrEP Message Characteristics (n=27,048)

Characteristics	N (%) or Median(IQR)
Participants registered to mWACH (n=300)	299 (99%)
Categories of messages within system (n=27,048)	
Outgoing system messages	13,854 (51%)
Incoming participant messages	7,879 (29%)
Outgoing nurse messages	5,315 (20%)
Weekly automated messages responded to	4742 (34%)
Minutes between receipt of message and related response	100.2 (17-831)
Topics of responses to outgoing messages	
PrEP concern	2751(58%)
Infant Concerns	1099 (23%)
Antenatal Concerns	906 (19%)
No. of spontaneous messages per participant	
1	183 (61%)
>1	116 (39%)
Topic of spontaneous messages sent by participants	
PrEP concerns	30%
Pregnancy concerns	30%
Other	40%



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mWACH-PrEP Usage Reported by Participants (n=299)

Characteristics	N %
Client consulted with our project nurse via SMS at anytime	275 (92%)
What did you contact the nurse about?*	
PrEP questions /concerns	847 (83%)
Infant health questions/concerns	565 (56%)
Pregnancy /Postpartum questions/ concerns	627 (61%)
Other	57 (5%)
Did you take action based on the nurse's advice?	
No	66 (6%)
Yes, I sought medical advice	228 (22%)
Yes, I continued PrEP	595 (58%)
Yes, I discontinued PrEP	72 (7%)
Yes, other	64 (6%)
Would you like to continue receiving SMS messages	1167 (98%)

**not mutually exclusive*



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Conclusions

- Women who initiated PrEP during pregnancy demonstrated engagement with the text messaging system
- Messages provided real-time support for PrEP continuation and adherence while also extending support for health promotion beyond PrEP.
- The intervention had very high acceptability (only 1 person declined enrollment into the system and only 2% opted out during follow-up)



Thank you

On behalf of the entire team, we gratefully acknowledge that none of this research or these results would have been possible without the study participants.

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