Promoting adherence to PrEP via digital Communication: the PREPTA Project-Tanzania

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Background: HIV burden among MSM & FSW

East and Southern Africa –HIV Incidence

- FSW- are 10 times higher than among general pop. (2)
- MSM accounted for 4% of new infections in the region in 2018(1)

Tanzania- Estimated HIV prevalence

- General pop-4.8% (1)
- MSM - 25 percent (range: 18–35%) (4)
- FSW- 26 percent (range: 14–37%) (4)

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Background: Preventive Strategies

- Several strategies –HIV new infections prevention
  - Behavioural, structural, and biomedical intervention- pre-exposure prophylaxis (PrEP) (1)
- PrEP-TRUVADA (Tenofovir disoproxil fumarate and emtricitabine)-2012
  - Population with ≥3/100py incidence of HIV(2) .
- PrEP is effective to about 99% if highly adhered (Daily intake)- among high risk (3)

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KPs & PrEP Adherence in Tanzania

There is high acceptance but poor adherence to PrEP among KPs

- PrEP adherence
  - US and China is 62% and 64.3%, respectively (1,2)
  - Among women in SSA-28.5% (3)
  - Kenya (MSM) - 40 % (4)
- Tanzania, plans to roll out PrEP -Key and vulnerable populations (5).
- However, *poor adherence* has shown to be a challenge in demonstration project (5)
  ➢Tanzania-<50% (5)

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Background: mHealth interventions

Sub-Saharan Africa (SSA)

- Improve health services delivery (1-3)
  - Maternal and neonatal care
- Health Worker Communication (4)
- Health education(4)
- Drug compliance (5)

Tanzania

- Improving antenatal care & drug supply (6 &7)
- prevent mother to child HIV transmission (8)
- Promoting family planning (9)
- *Drug compliance-No data*

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PREPTA PROJECT

PREPTA

- Pragmatic Trial for HIV ***Pre-Exposure Prophylaxis roll out in Tanzania*** ("PREPTA")

Broad objective

- To evaluate the role of mobile Health platform and peer to peer mentoring in improving adherence to HIV pre-exposure prophylaxis among high risk population in Tanzania.

Overall Project design

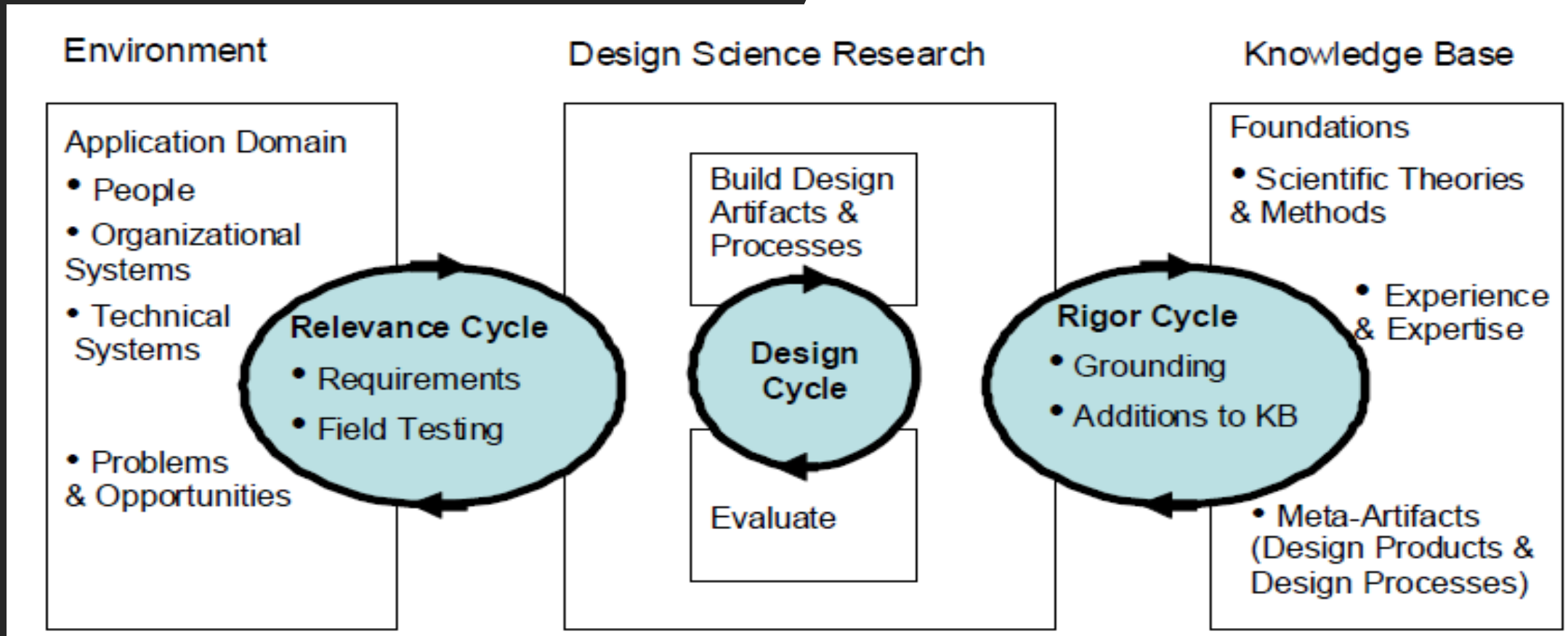
- Pragmatic quasi-experimental design consisting of both qualitative and quantitative methods to assess the effectiveness of the intervention in two populations (FSW & MSM)

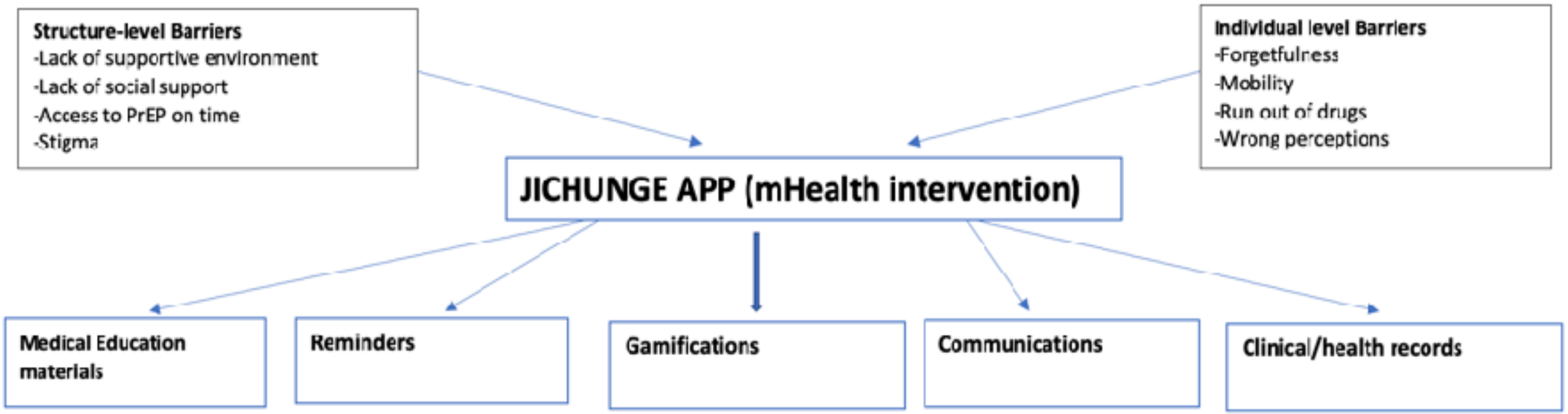
Outcome Variables & Thematic fields

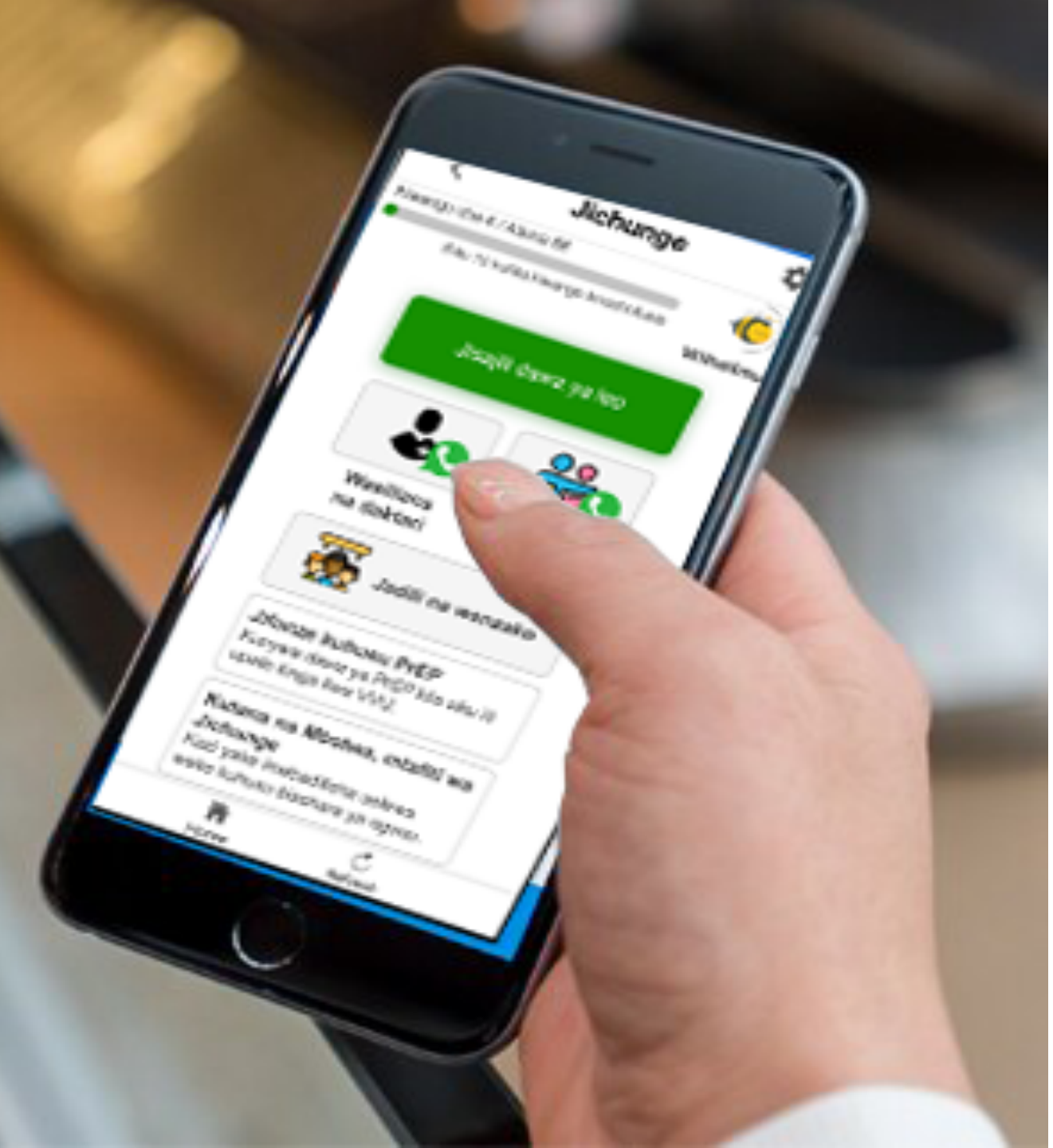
- *Primary :* **PrEP adherence**
- **Secondary : HIV incidence, reduced proportions of KP members who report stigma and discrimination experiences, improved attitude towards PrEP, and App usage**
- **Perceptions and experiences**

Background: PREPTA Project and mHealth App

Design: The Information System Research Framework

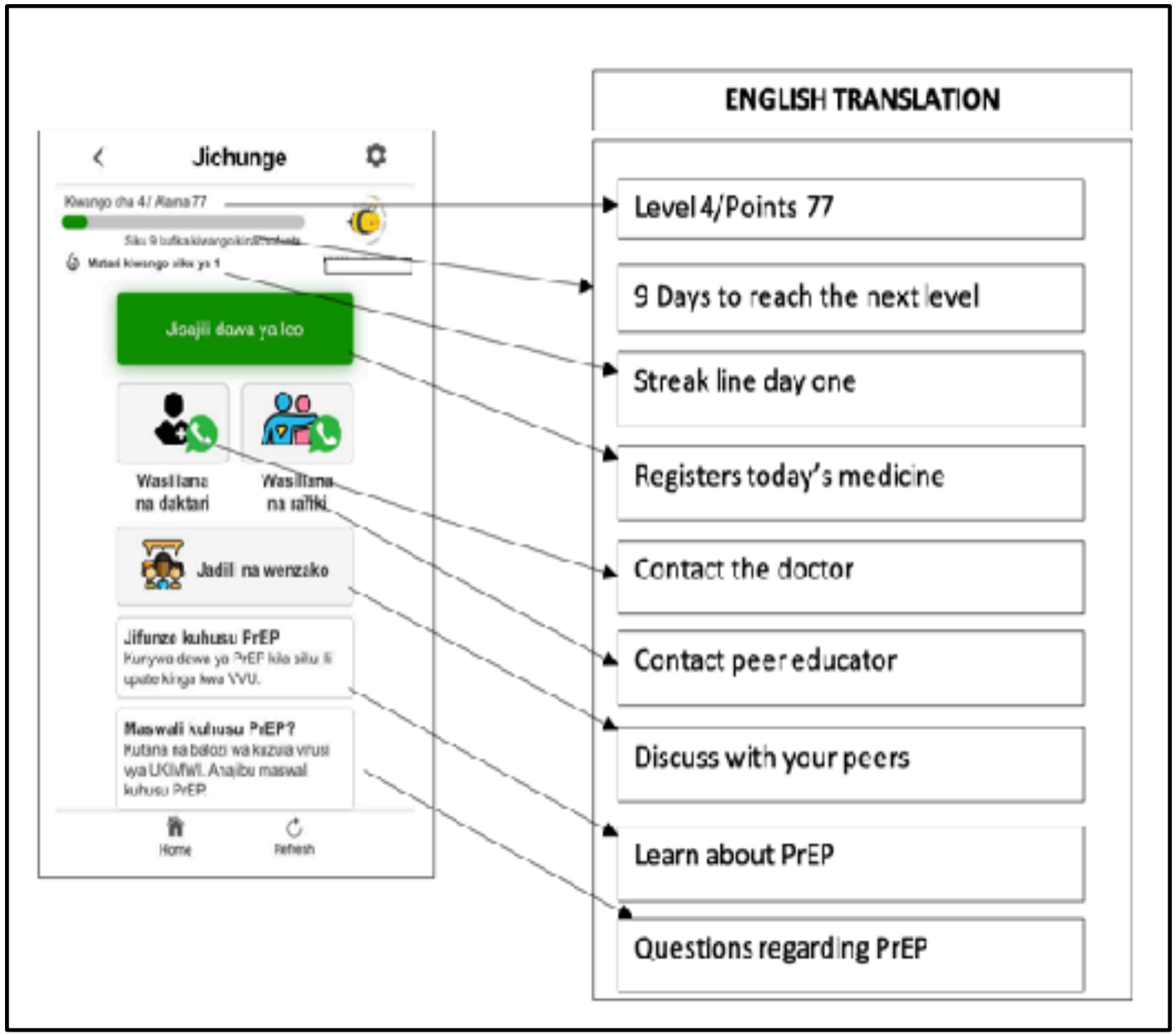



Structure-level Barriers
-Lack of supportive environment
-Lack of social support
-Access to PrEP on time
-Stigma
Individual level Barriers
-Forgetfulness
-Mobility
-Run out of drugs
-Wrong perceptions
JICHUNGE APP (mHealth intervention)
Medical Education materials
Reminders
Gamifications
Communications
Clinical/health records

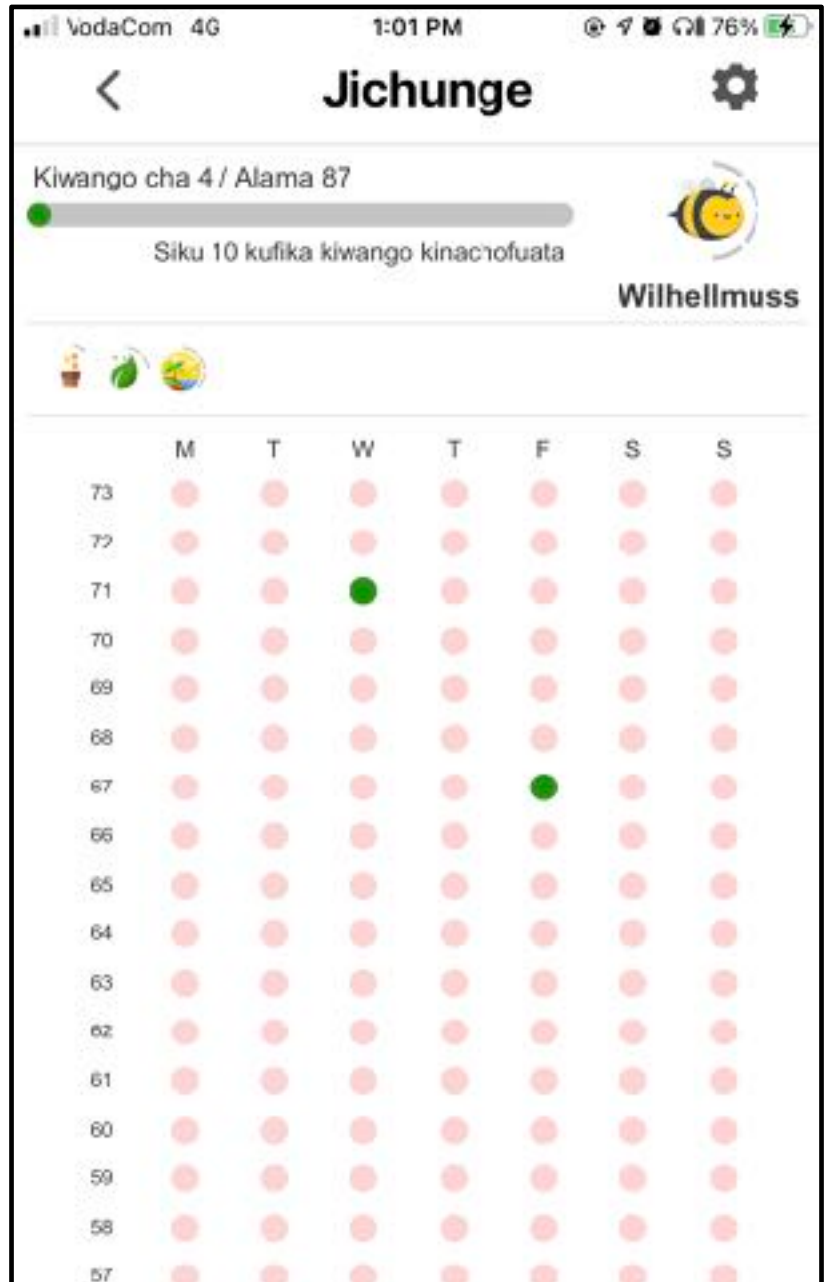

Jichunge
Jisajili dawa ya leo
Wasiliana na daktari
Jadili na wenzako
Jifunze kuhusu PrEP
Kutana na Mbotwa, mtafiti wa Jichunge
Home
Refresh

VodaCom 4G
8:06 PM
Jichunge
Kiwango cha 4 / Alama 88
Siku 10 kufika kiwango knachofuata
Wilhellmuss
Jisajili dawa ya leo
Wasiliana na daktari
Wasiliana na rafiki
Jadili na wenzako
Jifunze kuhusu PrEP
Kunywa dawa ya PrEP kila siku ili upate kinga kwa VVU.
Kutana na Mbotwa, mtafiti wa Jichunge
Kazi yake imebadilisha uelewa wake kuhusu biashara ya ngono.
Home
Refresh

Jichunge App-The layout of functionalities



Jichunge App-Personal daily intake PrEP Weekly status



Conclusion

The participatory design approach in the development of m-Health apps is useful

- Identification and validation of population specific functional features
- Potential to improve usability and as such, ensure future health impact

The *Jichunge* app, through this participatory process

- Taken end-user needs into account, eliciting enthusiasm regarding its' potential role in supporting PrEP adherence for HIV and related behavioural change promotion.

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Key messages

Increasing accessibility of mobile phone and internet provide opportunity of possible mHealth interventions in Low-in come countries
User involvement in the design and evaluation of the mHealth app provides an opportunity to incorporate social, cultural, and community-specific features that may ensure usability
The study :- How mHealth works, How people engage, how effective it can be (if it can real increase adherence)

THANKS FOR LISTENING