

# Crowdsourcing for PrEP

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**How to spark innovation and meaningful group collaboration?**

# Outline

- 1) PrEP needs
- 2) Crowdsourcing: organizing a group to solve a problem and then sharing back
- 3) Crowdsourcing for community engagement, intervention development, and consensus



**People power**

Source: Atelier Populaire CC-BY



**Often PrEP promotion relies on conventional methods:**

- 1) Limited community engagement**
- 2) Expert driven (top-down)**
- 3) Old school comms (pre-digital)**

**This suggests  
the need for  
community-  
engaged,  
grounds-up,  
innovative  
approaches.**



# Crowdsourcing: organizing a group to solve all or part of a problem and then sharing back<sup>1</sup>

## 1) Collective intelligence:

Group of people attempts to solve all or part of a problem

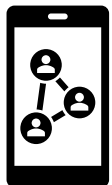


## 2) Open science: Selected ideas are implemented or widely shared with others



<sup>1</sup>Tucker et al., *PeerJ*, 2019; TDR/SESH/SIHI Crowdsourcing in Health and Health Research Practical Guide, 2018

# Types of crowdsourcing



Crowdsourcing activity	Structure	Function
<b><i>Open call (contests, competitions, innovation challenges)</i></b>	Solicit ideas, promote through digital and in-person, independently judge, celebrate finalists, and share back with the public	Generate innovative ideas, logos, images, audio or videos (e.g., images to increase HIV testing) to promote HIV testing, PrEP uptake, or related services <sup>1</sup>
<b><i>Hackathons (sprints, hackfests, designathon)</i></b>	Open call, sprint-like event over 2-3 days, then some follow-up activities	Design a new HIV service, develop an m-health intervention or new technology <sup>2</sup>
<b><i>Digital systems</i></b>	Websites or portals that allow collective action and share resources	Identify PrEP locations (e.g., PrEP Locator <sup>3</sup> ) or other HIV services

<sup>1</sup>Hlatshwako et al., STD, 2021; Tang, Han, Best et al., CID, 2016; Zhang et al., STD, 2015

<sup>2</sup>Tahlil et al., BMC ID, 2021; Li et al., JMIR Mhealth Uhealth, 2020; Tang et al., PLoS Medicine, 2018

<sup>3</sup>Siegler et al., JMIR Public Health and Surveillance, 2017

# Crowdsourcing for community engagement

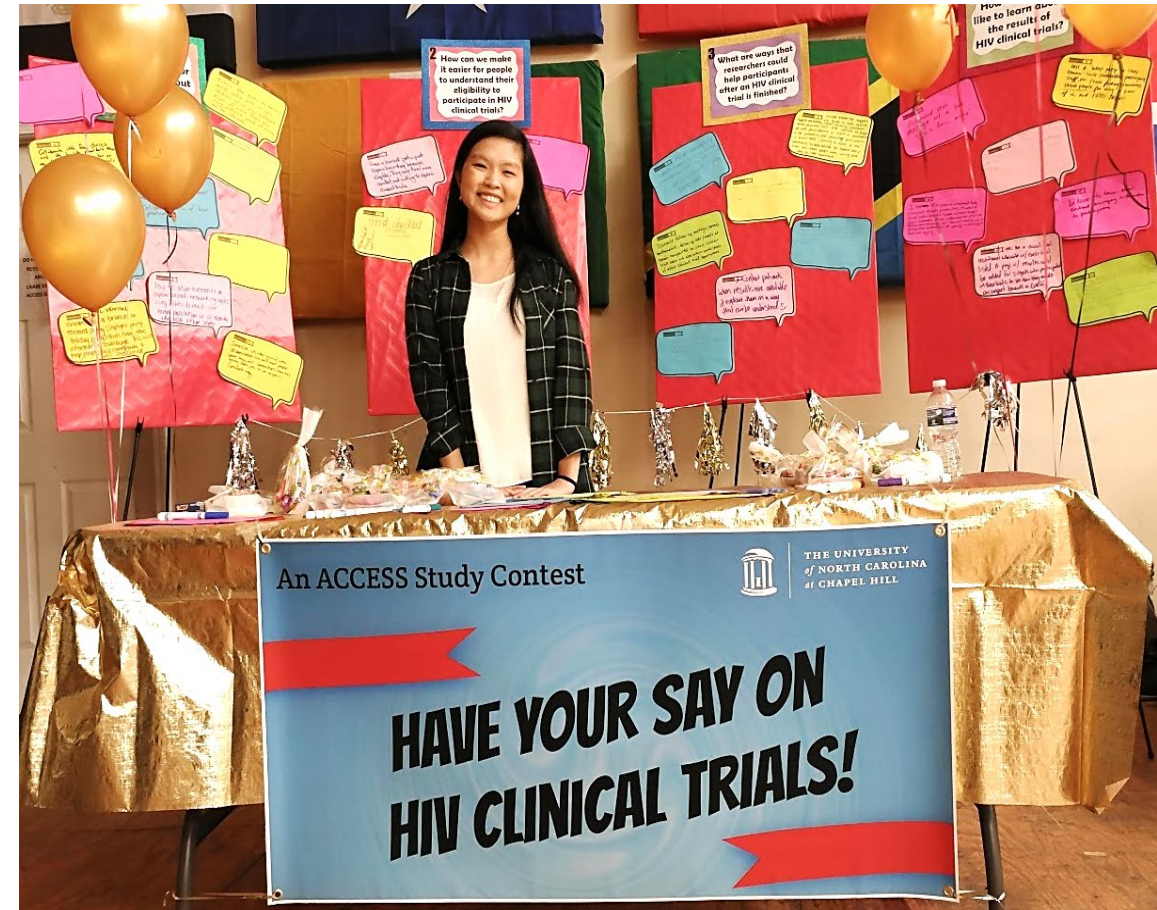


- Open calls have been used to solicit community perspectives prior to HIV clinical trials<sup>1</sup>
- An open call increased feedback from unemployed people, disabled people compared to a community advisory board approach<sup>2</sup>
- Crowdsourcing has been used to engage US communities about PrEP<sup>3</sup>

<sup>1</sup>Zhao et al., BMC Public Health

<sup>2</sup>Day et al., AIDS, 2020; Day et al., Clinical Trials, 2020

<sup>3</sup>Eschilman et al., AIDS Educ Prev, 2022



**ACCESS open call in-person event to engage community.**  
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# Crowdsourcing for intervention development



- Ideas from crowdsourcing have been used to develop intervention components, incorporate end user preferences and style<sup>1</sup>
- Open calls have been used to inform HIV testing interventions in Nigeria, China, eSwatini, Thailand, and the US
- Build local horizontal partnerships that increase the likelihood of sustainability
- Low cost compared to conventional processes<sup>1</sup>

<sup>1</sup>Wang et al., Infectious Diseases of Poverty, 2020



**Designathon organized by 4YouthByYouth and Nigerian Institute of Medical Research in Lagos, Nigeria. CC-BY**



# Consensus Statement and Survey Instrument Development



## STAGE 1: Crowdsourcing Open Call



- Convened a steering committee
- Launched and promoted the call
- Judged contributions
- Recognised finalists
- Shared solutions

Finalists invited to participate in the hackathon  
\* - - - ->  
Tools carried over from open call to hackathon

## STAGE 2: Hackathon



Hackathon consisted of participants from open call, facilitators and organizers. Participants divided into 5 teams to develop the survey:

- implementation considerations
- sexual biography
- sexual health outcomes
- sexual practices
- social norms/sexual rights.

Draft ~10 minute survey was developed  
\* - - - ->

## STAGE 3: Consensus Process



Multiple rounds of a modified Delphi process before, during, and after the hackathon for consensus on:

- principles of survey design
- survey implementation
- training of survey administrators
- draft ~10 minute survey instrument



\*Process was not completely linear, it was iterative and received feedback at different times/stages

# Open access resources

## Crowdsourcing and collective intelligence:

- WHO/TDR Practical Guide on Crowdsourcing in Health and Health Research (2018) and consensus statement on open calls<sup>1</sup>
- Nesta Collective Intelligence Design Playbook (2021)
- Systematic review on crowdsourcing in health<sup>2</sup> and scoping reviews on crowdsourcing in sexual health<sup>3</sup>

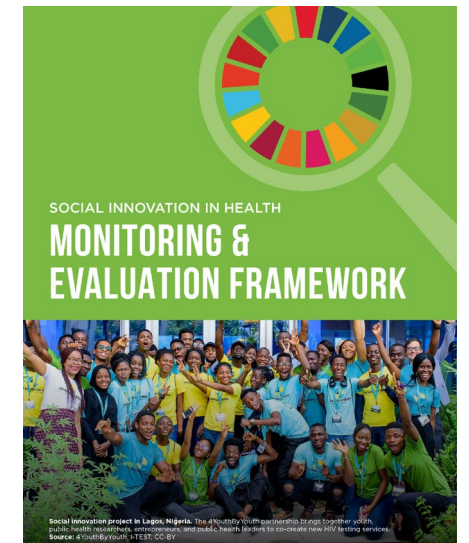
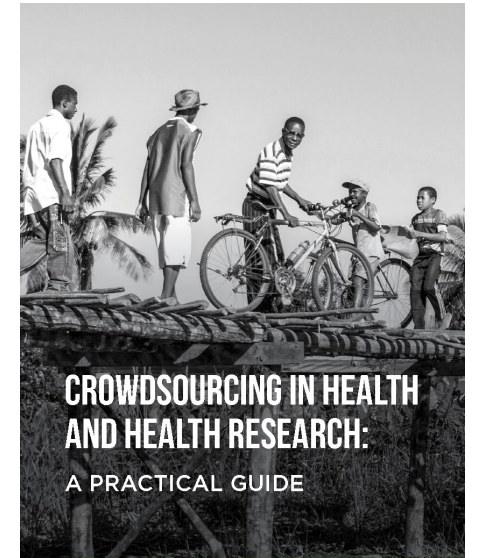
## Social innovation

- WHO/TDR Social Innovation Monitoring and Evaluation Framework (2021)

<sup>1</sup>Han et al., BMJ Open, 2021

<sup>2</sup>Wang et al., Infectious Diseases of Poverty, 2020

<sup>3</sup>Wu et al., JAIDS, 2019; Tang et al., Curr HIV/AIDS Rep, 2019



# Thank you



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IN HEALTH  
INITIATIVE

# Workshop Overview

<b>Crowdsourcing component</b>	<b>Speaker</b>	<b>Time</b>
<b>Establish a steering committee</b>	Shufang Wei	10 mins
<b>Engage the community to contribute</b>	Shufang Wei	10 mins
<b>Receive and evaluate submissions</b>	Suzanne Day	10 mins
<b>Recognize submissions</b>	Huanyu Bao	10 mins
<b>Evaluation</b>	Weiming Tang	20 mins