QUALITATIVE EVALUATION OF A CROWDSOURCING CONTEST

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BACKGROUND: HIV CURE RESEARCH

HIV research → cure\(^1\)

Cure research moving to low & middle income countries

Benefits of early community engagement in cure research\(^2,3\)
- Cure trial participation
- Accessibility of future services & technologies
- Community perceptions of cure

\(^1\)Deeks et al., Nature medicine, 2016.
\(^3\)Lo et al., AIDS patient care and STDs, 2015.
BACKGROUND: CROWDSOURCING

Crowdsourcing has a group solve a problem, then shares the solution with the public\(^1\)

**EXAMPLES:**

England County Fair: In 1906, 787 citizens came together to estimate the weight of an ox within 1\(^2\).  

Toyota: In 1936, Toyota ran a logo contest, receiving 27,000 entries and leading to its iconic 3 ellipse design.  

Wikipedia: A free online encyclopedia created and edited by the public, free to use by all.

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\(^1\)Henk van Ess, “Crowdsourcing: how to find a crowd” (Presented at ARD/ZDF Academy in Germany)  
\(^2\)Galton, Nature, 1907
**BACKGROUND: CROWDSOURCING CONTESTS**

**ORGANIZE A COMMUNITY STEERING GROUP**

- Strong community buy-in from the start, resonates with local language/culture/preferences
- Local community members, doctors, CBO leaders, network leaders; establish contest rules and open call for entries

**ENGAGE COMMUNITY TO CONTRIBUTE**

- Clarify the contest for community members, provide feedback on entries
- Social media and in-person events at local communities

**EVALUATE CONTRIBUTIONS**

- Crowd, steering committee, or others evaluate entries based on pre-specified criteria
- Social media and in-person announcement of finalists
- Narrows the field of entries, relies on local judgement, taps crowd wisdom

**RECOGNIZE FINALISTS**

- Incentives for finalists and also for participation in the contest
- Real world implementation and evaluation

**SHARE SOLUTIONS AND IMPLEMENT**

- Share finalists with national or local agencies, implement the finalists within communities

*Entries can be short texts (concepts), images, or videos. They can describe patient perspectives, novel pilots, programs, or local policies.*

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<table>
<thead>
<tr>
<th>Year</th>
<th>Scope</th>
<th>Crowd Contribution</th>
<th>Purpose</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>China</td>
<td>Videos from CBOs</td>
<td>↑HIV testing</td>
<td>RCT in MSM(^1)</td>
</tr>
<tr>
<td>2014</td>
<td>China</td>
<td>Images from youth</td>
<td>Promote sexual health</td>
<td>Qualitative research(^2)</td>
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<tr>
<td>2015</td>
<td>China</td>
<td>Videos from public</td>
<td>↑condom use</td>
<td>RCT in MSM(^3)</td>
</tr>
<tr>
<td>2016</td>
<td>NC Triangle (US region)</td>
<td>Images/videos from public</td>
<td>Meaning of HIV cure</td>
<td>Social media analysis(^4)</td>
</tr>
<tr>
<td>2016</td>
<td>Guangzhou, China</td>
<td>Concepts from key populations</td>
<td>Meaning of HIV cure</td>
<td>Qualitative research(^5)</td>
</tr>
<tr>
<td>2016</td>
<td>Global</td>
<td>Description of MSM-friendly doctor</td>
<td>Enhance MSM disclosure</td>
<td>Formative</td>
</tr>
<tr>
<td>2016-2017</td>
<td>10 contests in 8 cities</td>
<td>Concepts, slogans, strategies</td>
<td>↑HIV testing</td>
<td>Stepped wedge RCT(^6)</td>
</tr>
</tbody>
</table>

\(^1\)Tang et al., Clin Infect. Dis., 2016; Zhang et al., Sex Trans Dis, 2015  
\(^2\)Zhang et al., Sex Trans Dis, 2015; Zhang et al., BMC Public Health 2017  
\(^3\)Tang et al., Lancet, 2017  
\(^4\)Mathews et al., Journal of Virus Eradication, 2017  
\(^5\)Zhang et al., AIDS Research and Human Retroviruses, 2017  
\(^6\)SESH Study Group, Trials, 2017
OBJECTIVES

1) Crowdsource contributions from high-risk populations and others on the meaning of a HIV cure

2) Use qualitative analysis to identify themes on how they perceived HIV cure and its potential impact on their lives

HIV cure?
METHODS

What would an HIV cure mean to you?

Men who have sex with men (MSM)
  - Movie seminar
  - New Year Eve’s event

People who inject drugs (PWID)
  - Methadone clinics (2)

People living with HIV (PLHIV)
  - Outpatient HIV clinic

Local residents
  - University students
  - World AIDS Day event
  - Online
471 contributions

Next steps:
1) De-identified, transcribed & translated into English
2) Thematic analysis (inductive) done in English & Chinese
3) 2 researchers coded using MaxQDA 12
## RESULTS: CHARACTERISTICS OF CONTRIBUTIONS (N = 471)

<table>
<thead>
<tr>
<th>Targeted populations</th>
<th>Number (Percentage)</th>
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</thead>
<tbody>
<tr>
<td>Men who have sex with men</td>
<td>64 (14%)</td>
</tr>
<tr>
<td>People who inject drugs</td>
<td>53 (11%)</td>
</tr>
<tr>
<td>People living with HIV</td>
<td>93 (20%)</td>
</tr>
<tr>
<td>Those who did not identify as high risk populations&lt;sup&gt;a&lt;/sup&gt;</td>
<td>261 (55%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Anonymity of contribution</th>
<th>Number (Percentage)</th>
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<tbody>
<tr>
<td>Anonymous</td>
<td>458 (97%)</td>
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<tr>
<td>Non-anonymous&lt;sup&gt;b&lt;/sup&gt;</td>
<td>13 (3%)</td>
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<thead>
<tr>
<th>Method of contribution</th>
<th>Number (Percentage)</th>
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<tbody>
<tr>
<td>In-person</td>
<td>452 (96%)</td>
</tr>
<tr>
<td>Online</td>
<td>19 (4%)</td>
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<thead>
<tr>
<th>Contribution format</th>
<th>Number (Percentage)</th>
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<tbody>
<tr>
<td>Text responses</td>
<td>468 (99%)</td>
</tr>
<tr>
<td>Images</td>
<td>3 (1%)</td>
</tr>
</tbody>
</table>

<sup>a</sup>Contributions from this population were obtained through in-person community events held at public venues and universities, and through social media apps and email.  
<sup>b</sup>Participants who submitted contributions online were eligible for the raffle prize if they provided their names and contact information. Additionally, during the in-person events, some participants voluntarily included their names on their submissions.
RESULTS: WORD MAP

Created through Tagxedo.com
RESULTS: THEMATIC ANALYSIS

1) Reduction or elimination of discrimination and stigma
   “[Cure] means equal rights to get medical treatment and employment. Means equal rights to be a human being, means regain respect, means no longer have to hide in shadows.” (Person living with HIV)

2) Improved interpersonal relations
   “AIDS cure can give patients social recognition and approval.” (Local resident)

3) Changes in sexual attitudes and perceived HIV risk
   “I will relax my restrictions on sex and have more sex with strangers.” (Men who have sex with men)

4) Social and global stability
   “Harmonious society” & “World peace”
KEY MESSAGES & IMPLICATIONS

1) Possible increased risky sexual behaviors
   → public health messages on continued need for prevention

2) High expectations for HIV cure
   → education, outreach on current state of HIV cure research

3) Differences in HIV cure meaning among key populations
   → mechanisms to solicit preferences
FOLLOW-UP: SHARING RESULTS TO COMMUNITY

Crowdsourcing has a group solve a problem, then shares the solution with the public

Sharing results with a social work organization based in methadone clinics

At a local community-based organization working with local MSM (men who have sex with men)
A BIG THANK YOU TO...

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SESH Global team
www.seshglobal.org