Women’s Involvement in HIV Cure-Related Research: Empirical Data, Unresolved Challenges and Opportunities for the Future

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2020 Pre-CROI Community Cure Workshop
Boston, MA
Proposed Outline

- A5366 social sciences results
- Survey on preferences for virologic control strategies ('dose response' paper)
- FRESH cohort preparation
- Questions for discussion
A5366: HIV Cure Study in Women

Randomized, Open-Label, Exploratory Study of HIV-1 Infected Post-Menopausal Women with Virological Suppression on ART Assessing Effect of Tamoxifen Exposure in Combination with Vorinostat (Arm A) Compared to Vorinostat alone (Arm B) on Viral Reactivation
## A5366: Social Sciences Time Points and Domains

<table>
<thead>
<tr>
<th>Entry Questionnaire (Enrollment Visit)</th>
<th>Exit Questionnaire (End of Study Visit – Day 69 or Before)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 29; excludes 6 null or duplicative records</td>
<td>N = 27</td>
</tr>
<tr>
<td>• Module 1: Demographic characteristics</td>
<td>• Module 1: End of study questions</td>
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<tr>
<td>• Module 2: Attitudes towards HIV cure research</td>
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<td>• Module 3: Decision to participate in study</td>
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<td>• Module 4: Understanding of the study</td>
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<td>• Module 5: Perceptions of risks and benefits</td>
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<td>• Module 6: Perceptions of health</td>
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<td>• Module 7: Meaning/purpose and altruism</td>
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<td>• Module 8: Stigma</td>
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<td>• Module 9: Role of incentives</td>
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</tbody>
</table>
A5366: Meaning of HIV Cure

- Not having to take HIV medications (n = 8)
  - "My life with no meds"
  - "Never taking medicine"
  - "Making the HIV virus go away forever"
  - "That I do not have it anymore"

- Freedom, Hope, Empowerment, Life Without Fear (n = 6)
  - "Not having to take anymore meds"
  - "It means live, getting better and clearing the virus from my body completely"
  - "A miracle – freedom"
  - "That I would be healthier"
  - "Better immune system"
  - "It means liberation from HIV stigma and a revolution of medical proportion"
  - "Living without fear"
  - "Hope for HIV patients"

- No longer having HIV or HIV completely eliminated (n = 5)
  - "That I do not have it anymore"

- Other (n = 3)
  - "So I don’t have to go to the doctor all the time"
"The primary reason I decided to participate in this study is to help see if certain medicines will help researchers with a cure for the disease"

"I am very interested in finding a cure for HIV. I interested in learning about the medications that can help bring the virus out of wherever it is hiding in my body and kill it"

"To help provide data to further cure"

"To serve as a participant and to enable the process towards finding a cure that will help others be liberated from this deadly virus"

"To help my community"

"To give forward"

"Because the study help them to find out how to cure HIV"

"Ayudar a la ciencia y contribucion a los estudios"

"To move along the possibility of a cure"

Altruism
To Help Find a Cure (n = 21)
A5366: Informed Consent

Were you satisfied with the informed consent process? (n=29)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>28</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

- "The study and consent were explained so that I understood"
- "Because the consent is very thorough so I can understand the study"
- "The study nurse reviewed everything very nicely"
- "Because it was clear and simple and it helped me understand what medication I will be taking and the side effects and everything"
- "Discussion made me understand the process"
- "The nurse was very specific"
- "Doctor explained the study thoroughly and that made me feel that I was not in danger"
- "The process was very clear and all my questions were answered"
<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having HIV completely eliminated from my body</td>
<td>27</td>
</tr>
<tr>
<td>Being able to stop taking HIV medications and never take them again</td>
<td>24</td>
</tr>
<tr>
<td>Not having to think about having the virus</td>
<td>22</td>
</tr>
<tr>
<td>Not being at risk of the diseases and conditions that often go along with HIV or are made worse by it</td>
<td>22</td>
</tr>
<tr>
<td>Having a better quality of life</td>
<td>20</td>
</tr>
<tr>
<td>Having an improvement in my day-to-day health</td>
<td>19</td>
</tr>
<tr>
<td>Being able to live a longer life</td>
<td>18</td>
</tr>
<tr>
<td>Not being able to infect other sexual partners</td>
<td>18</td>
</tr>
<tr>
<td>Not being able to get HIV a second time (if cured)</td>
<td>18</td>
</tr>
<tr>
<td>Not testing positive on the HIV antibody test</td>
<td>17</td>
</tr>
<tr>
<td>Not having to communicate about my HIV status with new romantic or sex partners</td>
<td>17</td>
</tr>
<tr>
<td>Not worrying about how HIV might affect my job or relationship with coworkers</td>
<td>17</td>
</tr>
<tr>
<td>Not worrying about the future</td>
<td>17</td>
</tr>
<tr>
<td>Not worrying as much about the financial impact of living with HIV (including not having to pay for meds)</td>
<td>16</td>
</tr>
<tr>
<td>Having closer or improved relationships with romantic and sexual partners</td>
<td>13</td>
</tr>
<tr>
<td>Being able to plan for and be hopeful about the future</td>
<td>13</td>
</tr>
<tr>
<td>Having closer or improved relationships with friends and family</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
</tbody>
</table>

“Putting away the stigma that comes with the status”
A5366: Perceived Risks

Are there any risks of participating in this study? (n=29)

- Yes: 21
- No: 6
- Don't know: 2

- "I don't know what they are"
- "Symptoms from the meds"
- "Possible side effects of the medication"
- "Possible side effects of the medication"
- "There are minimal risks to all studies"
- "There is a risk for everything"
- "A reaction to the drugs"
- "Drugs can make me nauseous and I can get bruises from punctures"
A5366: Perceived Benefits

Are there any benefits of participating in this study? (n=29)

- No: 4
- Yes: 24
- Don't know: 1

"Helping finding a cure"

"Psychological"

"Adding to science and the $25 compensation"

"It enables me to look anxiously to a cure"

"Yes your time is not wasted besides getting 500.000 you are being part of something that can insure life"

"It can help researchers find answers and compensation cards"
A5366: Perceived Stigma

Did negative feelings about having HIV play a role in deciding whether to participate in this study? (n=29)

- Yes: 21
- No: 8

Responses included:
- “Tired of feeling alone”
- “Not easy to explain”
- “I hate this disease”
- “The stigma has been toxic to me and it stifles conversation”
- “I hate living with the virus and it played a role in me participating in the study”
- “Scared of having it, HIV”
- “The care giving to me”
- “Stigmatizing”
A5366 Exit Surveys

Would you recommend this study to others? (n=27)

- 26 Yes
- 0 No
- 1 Don't know

- "Because when you join you learn so many things that can help with having HIV"
- "Because they are investigating how they can help people with the HIV virus"
- "I think the cure study is a great study. Its one step closer to finding a cure"
- "Be part of something greater than self"
- "The only way we can find a cure is for us to participate in studies and this was very easy. No side effects to this point"
- "It was easy, didn’t require a lot of time"
- "Because we don’t have enough women going research w/ HIV"
- "Beneficios y seguimientos de laboratorio"
- "Pretty easy to tolerate, did not require anything invasive"
A5366 Exit Surveys

**Did you benefit from participating in this study? (n=26)**

- **Yes**: 20
- **No**: 0
- **Don't know**: 6

**Quotes from participants:**

- “My benefit is not just the money it is helping to find a cure, giving my blood to help (...)”
- “Hopefully help science move along”
- “For me to know what’s going on in my body”
- “It gave me an immense satisfaction that I was given an opportunity to be part of this study”
- “Taught me discipline about taking my HIV meds”
- “I was monitored closely”
- “Gained knowledge”
- “I benefited from the gift cards”
- “I learned more about reservoirs than I knew before”
<table>
<thead>
<tr>
<th>Problem</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finding that HIV cure research is very complicated to understand</td>
<td>2</td>
</tr>
<tr>
<td>Stigma from participating in the study</td>
<td>2</td>
</tr>
<tr>
<td>Parking problems</td>
<td>1</td>
</tr>
<tr>
<td>Transportation problems</td>
<td>0</td>
</tr>
<tr>
<td>Problems taking time off work</td>
<td>0</td>
</tr>
<tr>
<td>Problems caring for family members</td>
<td>0</td>
</tr>
<tr>
<td>Directions to the research site were unclear</td>
<td>0</td>
</tr>
<tr>
<td>Directions to the appointment location were unclear</td>
<td>0</td>
</tr>
<tr>
<td>Unpleasant clinic atmosphere</td>
<td>0</td>
</tr>
<tr>
<td>Not enough information about the study</td>
<td>0</td>
</tr>
<tr>
<td>Inconvenient scheduling of visits</td>
<td>0</td>
</tr>
<tr>
<td>Too many study visits</td>
<td>0</td>
</tr>
<tr>
<td>Too much time spent at the site during visits</td>
<td>0</td>
</tr>
<tr>
<td>Costs that were not reimbursed by the study</td>
<td>0</td>
</tr>
<tr>
<td>Other (single response: &quot;too much blood at each visit&quot;)</td>
<td>1</td>
</tr>
</tbody>
</table>

None. I experienced no problems with this study.
What did we learn from A5366 participant surveys?

• We identified societal and personal motivators of participation, understanding of risks, and misconceptions in some trial participants. Results point to the need to continue engagement and clarify expectations in cure studies.
• Stigma still plays an important role in women’s lives and in decisions to join HIV cure studies
• Compensation clearly played a role in motivations to participate
• Almost all women had a very positive experience participating and would recommend the study to others
• We need to appreciate the psychosocial and affective aspects of HIV cure research participation
• We were able to successfully integrate socio-behavioral science as part of an ACTG biomedical HIV cure-related study
A5366 Some Implications of Findings

- Avoid word ‘cure’ in informed consent forms; use precise terms
- Increase readability of informed consent forms
- Simplify risk information
- Appreciate psychosocial aspects of HIV cure-related research participation
- Ascribe value to lived experiences of study participants
- More research is needed to understand the role of stigma and self-image in decisions to participate
- Need to work on reducing barriers and enhancing facilitators
- Still need to understand factors related to ATIs
**AIDS Research and Human Retroviruses**

Perspectives in an HIV Cure-Related Trial Conducted Exclusively in Women in the United States: Results from AIDS Clinical Trials Group (ACTG) 5366

<table>
<thead>
<tr>
<th>Journal:</th>
<th>AIDS Research and Human Retroviruses</th>
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<tbody>
<tr>
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<tr>
<td>Author:</td>
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**Keyword:** HIV, persistence, Persistent infection

**Manuscript Keywords (Search):**

women living with HIV, HIV cure-related research, vorinostat, tamoxifen,
Monitoring of participants’ psychosocial experiences during ATIs is crucial. There was consensus that the psychosocial and lived experiences of study participants should be strategically assessed during analytical treatment interruptions.

The large majority of meeting participants agreed with integrating socio-behavioral assessments and monitoring of study participants in HIV ART-free remission protocols during ATIs.”
Women and HIV Cure-Related Research

2018 Forum Meeting

- Reprioritize the vision of the NIH Revitalization Act
  - Issues not unique to women (e.g., minority populations)
- Design studies with female-relevant strategies (Ananworanich, Scully)
- Account for sex/gender in HIV cure clinical studies
  - Sex-based analyses built into protocols and statistical analysis plans
  - Minimum enrollment for women
- Ensure better reporting of results (even if n = 0) (Gianella)
  - Reporting of sex/gender in HIV cure studies is incomplete (Johnston)
  - Sex/gender is a neglected variable – also in animal research
- Think beyond risks (and benefits)
- As a field, need more standardization of assessments to make meaningful comparisons across studies
- Include social scientists to understand and address barriers to women’s enrollment and retention
  - Pay attention to what women need and want (Ramirez)
- Forge a pathway towards patient-centered HIV cure research agenda
  - FDA vision for patient-focused drug development
- Engage women and community members at all stages of research
Expanding Social and Behavioral Sciences in HIV Cure-Related Research (2018 Survey)

The opinions of people living with HIV are critical to focus time, money and attention on HIV cure studies that are acceptable, safe and ethical. We want to know what you think.

If you're a U.S. or U.S. territories resident, at least 18 years of age, and want to share your opinion with us about HIV cure strategies, we invite you to take a survey.

If you’re interested, click here by July 31, 2018
http://bit.ly/2DoCx8e

Gender of Respondents (n=282)

- Woman: 35%
- Man: 63%
- Transgender woman: 1%
- Transgender man: 0%
- Non-binary or gender queer: 0%
- Something else: 0.4%
- Prefer not to answer: 0.4%

Residence of Survey Respondents (n=272)

[Map showing distribution of survey respondents across the United States]

Additionally, 10 respondents did not specify their place of residence.
Compared to men, cis and/or trans women are more likely to be concerned about these risks:

- Increased likelihood of transmitting HIV to others during the medical study [OR 1.71]
- Problems with bones or muscles [OR 1.68]
- Need to delay having children [OR 4.03]

Compared to cis and trans women, men are less likely to be concerned by these risks:

- Temporary physical pain or discomfort from study procedures [OR 2.94]
Compared to men, **cis and trans women are more likely** to be motivated by:

- Feeling good about helping others like themselves [OR 1.88]
- Obtaining special knowledge about own health [OR 1.78]
- Engaging with research teams [OR 1.73]
- Having regular access to study nurse [OR 1.82]
- Being compensated [OR 3.40]
- Receiving money for transportation [OR 2.83]
- Having someone to speak to about HIV status [OR 2.55]
- Being treated as a special patient [OR 1.70]
- Receiving support from family and friends [OR 3.28]
- Being offered a meal [OR 1.89]
Likelihood of Switching to New Scenarios of HIV Remission Strategies, by Gender

Compared to men, cis and trans women are:

• **more likely to switch** to the new scenario despite having to go to clinic/lab appointments much more frequently [OR 1.77]

• **less likely to switch** to the new scenario because of:
  • temporarily worse side effects [OR 0.46]
  • small increase to risk of developing health problems later in life like cancer [OR 0.46]

• **more likely to stay with ART** if the new strategy:
  • won’t increase life expectancy [OR 1.79]
  • won’t improve quality of life [OR 1.84]
  • requires going off ART to find out if will be effective [OR 1.96]
Acceptability of Trade-Offs Under New HIV Remission Strategies, by Gender

Compared to men, cis and trans women are more likely to be very bothered or find the following factors unacceptable:

- New remission strategy might temporarily and modestly make change to appearance [OR 3.00]
- Procedures that occasionally cause mild to moderate pain [OR 4.04]
- New remission strategy involves bi-weekly injections or infusions every several months before the new medications started working [OR 2.31]
### Choice Between Current Standard Daily HIV Medications versus Long-Acting Antiretrovirals versus New Experimental HIV Remission Strategy

(n=226)

<table>
<thead>
<tr>
<th>Preference</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Prefer daily pill version of the HIV medication we already have</td>
<td>9%</td>
</tr>
<tr>
<td>Prefer version of the HIV medication we already have in an injectable or implantable form that lasts for 1 month</td>
<td>6%</td>
</tr>
<tr>
<td>Prefer version of the HIV medication we already have in an injectable or implantable form that lasts at least 2 months</td>
<td>7%</td>
</tr>
<tr>
<td>Prefer version of the HIV medication we already have in an injectable or implantable form that lasts at least 6 months</td>
<td>42%</td>
</tr>
<tr>
<td>Prefer to stop standard HIV medication and try a new long-lasting remission strategy but about which less is known</td>
<td>24%</td>
</tr>
<tr>
<td>Don’t know/Not sure</td>
<td>12%</td>
</tr>
</tbody>
</table>

### Choice Between Current Standard Daily HIV Medications versus Long-Acting Antiretrovirals versus New Experimental HIV Remission Strategy, by Gender

Excludes two respondents who did not specify their gender. No transgender men participated in the survey. Differences in choices between cis and trans women versus men are not statistically significant at the 10% level.
Willingness to Try an HIV Remission Strategy to Avoid the Long-Term Consequences of Long-Term HIV Treatment

(n=222)

- Yes: 73%
- No: 7%
- Don't know: 20%

Willingness to Try an HIV Remission Strategy to Avoid the Long-Term Consequences of Long-Term HIV Treatment, by Gender

Cis and Trans Women (n=81)
- Don't know: 23%
- No: 11%
- Yes: 65%

Men (n=140)
- Don't know: 17%
- No: 4%
- Yes: 79%

Excludes two respondents who did not specify their gender. No transgender men participated in the survey. Differences in percentages of choosing "Yes" is statistically significantly different for cis and trans women than for men (p=0.040**).

| Potential risk that would “to a great or very great extent” (vs. lower extents) likely stop participation in an HIV-cure study | Increased likelihood of choosing new HIV remission strategy over standard daily ART if... |
|---|---|---|---|---|---|---|
| No more daily pills, but must go to lab/clinic | No more daily pills, but very small increase in chance of passing HIV on to sex partner | New strategy causes worse side effects initially but went away eventually | Never take HIV medications again, but very small increase in risk of health problems (e.g. cancer) | Uncertainty of new strategy working, but need to stop taking the HIV medication to find out | New strategy might not increase life expectancy | New strategy might not increase quality of life |
| Virus levels will go up unexpectedly | 0.27 | 0.50 | 0.48 | 0.46 | 0.19 | 0.34 | 0.43 |
| Possibility that the virus will become resistant to current HIV medication | 0.27 | 0.45 | 0.36 | 0.33 | 0.31 | 0.33 | 0.39 |
| Temporary physical pain or discomfort from procedures | 0.11 | 0.10 | 0.24 | 0.30 | 0.34 | 0.23 |
| Lasting physical pain or discomfort | 0.39 | 0.52 | 0.44 | 0.37 | 0.42 | 0.36 | 0.40 |
| Developing dementia or problems thinking or remembering | 0.40 | 0.30 | 0.33 |
| Stomach discomfort | 0.25 | 0.46 | 0.24 | 0.25 | 0.32 | 0.47 | 0.45 |
| Psychological side effects | 0.21 | 0.46 | 0.26 | 0.36 | 0.37 | 0.31 |
| Illness that can occur when my immune system is weakened | 0.52 | 0.33 | 0.30 | 0.27 | 0.38 | 0.30 |
| Illnesses that can occur if my immune system becomes overly active | 0.43 | 0.49 | 0.40 | 0.32 | 0.48 | 0.43 | 0.44 |
| Problems with my bones or muscles | 0.26 | 0.39 | 0.28 | 0.25 | 0.36 | 0.30 | 0.33 |
| Allergic reactions | 0.28 | 0.42 | 0.25 | 0.22 | 0.35 | 0.35 | 0.31 |
| A moderate/high chance of mild side effects during the study | 0.38 | 0.16 | 0.30 |
| A low chance of moderate/severe side effects during the study | 0.37 | 0.24 | 0.29 | 0.23 |
| A very low chance of mild side effects that might occur post-study | 0.20 |
| A very low chance of moderate/severe side effects that might occur post-study | 0.41 | 0.45 | 0.29 | 0.37 | 0.45 | 0.44 | 0.19 |
| Need to delay having children | |
| Possibility of being unable to have children in the future | 0.25 | 0.13 |
| Becoming ineligible for future HIV trials or treatment | |
| Transmitting HIV to others if off HIV medication during the study | 0.28 | 0.45 |
| Being at greater risk of arrest or prosecution if virus becomes detectable | 0.42 | 0.41 |
| Being recognized as someone living with HIV | 0.40 | 0.42 |
| Being treated poorly by the study staff | |
| Financial risks | 0.44 | |
| Having HIV status disclosed or breach in confidentiality | 0.35 | 0.39 | 0.47 | 0.34 |
| Facing stigma or discrimination | 0.35 | 0.39 | 0.43 | 0.34 |

Each risk perception variable was included in a separate model with the control variables: gender, age, race, ethnicity, education, relationship status, income, region, longevity of HIV status, number of ART pills per day, frequency of ART pill-taking per day, timing of ART pill-taking, side effects of ART, past participation in HIV treatment trials, and attitudes towards current ART (except when omitted for perfect collinearity). Odd ratios on the control variables are not displayed.

2018 Survey Preliminary Results – Dubé K and Evans D. ‘What Would People Living with HIV Perceive as Improvements above Standard ART’
The Dose Response: Perceptions of People Living with HIV in the United States on Alternatives to Oral Daily Antiretroviral Therapy

Karine Dubé,1,2 Shadi Eskat,2 David Evans,3 John Sauceda,5 Parya Saberi,5 Brandon Brown,8 Dawn Averitt,2,7 Krista Martel,2,7 María Mejía,8 Danielle Campbell,4 Liz Barr,9 John Kanazawa,1 Kelly Perry,1 Hursch Patel,1 Stuart Luter,1 Tonia Poteat,2,10 Judith D. Auerbach,2,7,11 and David A. Wohl12

Abstract

There are two concurrent and novel major research pathways toward strategies for HIV control: (1) long-acting antiretroviral therapy (ART) formulations and (2) research aimed at conferring sustained ART-free HIV remission, considered a step toward an HIV cure. The importance of perspectives from people living with HIV on the development of new modalities is high, but data are lacking. We administered an online survey in which respondents selected their likelihood of participation or nonparticipation in HIV cure/remission research based on potential risks and perceived benefits of these new modalities. We also tested the correlation between perceptions of potential risks and benefits with preferences of virologic control strategies and/or responses to scenario choices, while controlling for respondent characteristics. Of the 282 eligible respondents, 42% would be willing to switch from oral daily ART to long-acting ART injectables or implantables taken at 6-month intervals, and 24% to a hypothetical ART-free remission strategy. We found statistically significant gender differences in perceptions of risk and preferences of HIV control strategies, and possible psychosocial factors that could mediate willingness to switch to novel HIV treatment or remission options. Our study yielded data on possible desirable product characteristics for future HIV treatment and remission options. Findings also revealed differences in motivations and preferences across gender and other sociodemographic characteristics that may be actionable as part of research recruitment efforts. The diversity of participant perspectives reveals the need to provide a variety of therapeutic options to people living with HIV and to acknowledge their diverse experiential expertise when developing novel HIV therapies.

Keywords: antiretroviral therapy (ART), oral daily ART, long-acting ART, HIV cure research, HIV remission, people living with HIV, United States
KEY FINDINGS

• We will need to provide a variety of therapeutic options to people living with HIV in the future

• Decision tools and educational materials will be necessary to help patients and HIV care providers

• There are important sex/gender differences in perceptions of risks and preferences of HIV control strategies

• More research is needed to understand patient preferences in diverse populations

• Long-acting ART formulations will be associated with implementation challenges

• Need to further investigate perceptions of analytical treatment interruptions required for some HIV cure/remission research protocols
Interviews with Trans Women Living with HIV (2018)

• Positive views about HIV research in general

• Positive views of health care system
  • Assistance with achieving health goals and gender-affirming care

• Mix of HIV cure research optimism and skepticism

• Desire for ‘complete’ cure; some believed cure already exists

• Questions about HIV treatment interruptions

• Special protections should be in place for transgender participants
  • Need for basic respect

• Transwomen identified many community priorities besides HIV research
  • Appearance, ART adherence, navigating relationships, avoiding HIV transmission, safety, dealing with addiction, finding jobs, psychological challenges, living a good/normal life
Interviews with Trans Women Living with HIV (Cont.)

• Excellent experiences with current HIV medications
  • Providing stability

• Anxiety with switching HIV regimens

• Participants identified possible risks/burdens and benefits of participating in HIV cure research
  • Wondered if body could withstand so many changes

• Receptivity and gut/gist reactions about HIV cure-related research strategies

• Strong desire to receive more information

• Opportunities to connect with other transwomen
FRESH Cohort
Proposed Deliverables

• Glossary of important terms (i.e. bnAbs, LRAs, ATIs, durable suppression, etc.)
• Patient ‘engagement’ tools: FAQs, etc.
• Simplified vignettes for study participants (i.e. story telling, gist statements, FAQs)
• Test of understanding
• Simplified study calendar
• Simple one-pagers:
  – Injectable contraception
  – Risks of STIs
  – Partner protection scenarios/scripts/algorithm
  – Possible study risks
  – Scientific and clinical aims
• Social harm case report forms, risk mitigation strategies
• Contact logs; intense study monitoring
• TBD: Preparedness protocol
• Role play scenarios for training
<table>
<thead>
<tr>
<th>English</th>
<th>Zulu</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Suppression of HIV without ARVs</td>
<td>Cindezeleka Kwegawane</td>
</tr>
<tr>
<td>• Drug free long-term control</td>
<td>Ngaphandle Kwemishanguzo</td>
</tr>
<tr>
<td>• Undetectable off treatment</td>
<td></td>
</tr>
<tr>
<td>• Undetectable off treatment</td>
<td></td>
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<tr>
<td>• Viral suppression off treatment</td>
<td></td>
</tr>
<tr>
<td>• ART free viral remission</td>
<td></td>
</tr>
<tr>
<td>• Remission</td>
<td></td>
</tr>
<tr>
<td>• BNAbs (bee’-nabs) = broadly neutralizing antibodies</td>
<td>Amasosha Omzimba</td>
</tr>
<tr>
<td>• Antibodies</td>
<td></td>
</tr>
<tr>
<td>• ATI = Analytic Treatment Interruption</td>
<td>Ukuphazamiswa Kokwelashwa</td>
</tr>
<tr>
<td>• Viral rebound</td>
<td></td>
</tr>
<tr>
<td>• Latency (Latency Reversals Agent)</td>
<td></td>
</tr>
</tbody>
</table>
Key Questions for Your Input

- How do we help women participate in HIV cure-related studies involving analytical treatment interruptions?

- How should we best adapt the proposed ‘standard of prevention’ package for diverse populations? (Lynda’s presentation)
  - Special considerations for women
  - Special considerations for low- and middle-income countries
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INTEGRATIVE SOCIO-Behavioral AND ETHICS RESEARCH TOWARDS HIV CURE OR REMISSION
UNITED STATES

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Thank you