

[10.1071/SH24171](https://doi.org/10.1071/SH24171)

Sexual Health

Supplementary Material

Service delivery of at-home STI testing using self-collected samples: a qualitative investigation of values and preferences among adults in Rakai, Uganda

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Supplementary material

Supplementary Table S1. Examples of at-home SCS/STI testing programs

Program name	<i>I Want the Kit (IWTK)</i>	Johns Hopkins University, Baltimore, MD; Nebraska Department of Health and Human Services
Services offered	Oral HIVST and/or a self-collection kit for chlamydia and gonorrhea testing	Oral HIVST
Program component	Description	
1. Requesting SCS/STI testing kits	Clients request testing materials at-home, online through the website https://www.iwantthekit.org .	Client requests testing materials by phone to select HIV counseling, testing, and referral sites.
2. Receiving SCS/STI testing kits	Materials are sent via postal mail to the client's home in a plain brown envelope.	Clients receive tests by mail or pick them up curbside at the sites.
<i>[Self-collecting a sample]</i>	<i>Clients self-collect a sample at home using SCS materials. The HIVST comes with instructions on how to use the test and information and linkage resources on HIV, PrEP, and mental health.</i>	<i>Clients self-collect a sample at home using SCS materials. Sites offer the option of video or over-the-phone support to clients while they use the test. Included with the tests are flyers on risk reduction (including PrEP), condoms, test instructions, and site-specific documents (e.g., release of information forms for confirmatory testing and/or linkage to care).</i>
3. Sending samples to the lab for testing	From their home, clients send their samples to the lab for testing in a white cardboard envelope using the postal mail.	N/A
4. Obtaining results	After the samples have been tested, clients receive their results online, at-home by logging into the IWTK website with their username and password.	Site staff call clients at least three times.
5. Linkage to care and treatment	If positive, clients are required to visit their doctor or pharmacy to pick-up their treatment, in-person.	Depending on the result, staff link clients via phone or video call to confirmatory testing or PrEP care.

Supplementary Table S2. Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

No.	Item	Description	Section #
Domain 1: Research team and reflexivity			
Personal characteristics			
1.	Interviewer/facilitator or	Which author/s conducted the interview or focus group?	Methods: Data collection and analysis
2.	Credentials	What were the researcher's credentials? <i>E.g.</i> <i>PhD, MD</i>	Authors
3.	Occupation	What was their occupation at the time of the study?	n/a
4.	Gender	Was the researcher male or female?	n/a
5.	Experience and training	What experience or training did the researcher have?	Authors
Relationship with participants			
6.	Relationship established	Was a relationship established prior to study commencement?	Methods: Data collection and analysis
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? <i>E.g. Personal goals, reasons for doing the research</i>	Methods: Data collection and analysis
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? <i>E.g. Bias,</i>	Methods: Data collection and

		<i>assumptions, reasons and interests in the research topic</i>	analysis
Domain 2: Study design			
Theoretical framework			
9.	Methodological orientation and theory	What methodological orientation was stated to underpin the study? <i>E.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis</i>	Methods: Data collection and analysis
Participant selection			
10.	Sampling	How were participants selected? <i>E.g. purposive, convenience, consecutive, snowball</i>	Methods: Data collection and analysis
11.	Method of approach	How were participants approached? <i>E.g. face-to-face, telephone, mail, email</i>	Methods: Data collection and analysis
12.	Sample size	How many participants were in the study?	Methods: Context
13.	Non-participation	How many people refused to participate or dropped out? What were the reasons for this?	n/a
Setting			
14.	Setting of data collection	Where was the data collected? <i>E.g. home, clinic, workplace</i>	Methods: Data collection and analysis
15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	Methods: Data collection and analysis

Developed from: Allison Tong, Peter Sainsbury, Jonathan Craig, Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups, *International Journal for Quality in Health Care*, Volume 19, Issue 6, December 2007, Pages 349–357, <https://doi.org/10.1093/intqhc/mzm042>

Supplementary material file S1. Participant Interview Guide

Note: This guide is intended to be comprehensive of all questions that may be asked in these interviews, to provide a sense of the topics covered. We anticipate that not all questions will be asked of each participant, per the nature of in-depth qualitative interviews.

START RECORDING

NOTE TO INTERVIEWER:

State your name. Repeat.

State your ID number. Repeat.

State participant RCCS ID number. Repeat.

State interview start time and date. Repeat.

INTERVIEW START

Our study would like to learn more about your health and treatment seeking behavior.

My questions relate to future STI testing programs. We are thinking about designing a program that provides STI testing services using self-collected sampling methods like the swab you took yourself. We would provide ‘self-test kits’ that have instructions and the tools to help you take a sample. Using a self-test kit could mean that you could test yourself for an STI without having to go to a clinic or be seen by a physician.

To help us design a program that would best serve you, we need your honest feedback on what would and wouldn’t work for you.

1. There are various ways that you could request a self-testing kit, how do you prefer to request a self-testing kit? Can you help me understand your choice? What about this way

- makes it most appealing to you? What were some of the other options available to you, why did you choose this way over the others?
- a. PROBE: opinion on requesting the kit in-person at a prespecified location like a clinic, pharmacy or other community site
 - b. PROBE: opinion on requesting a kit online using a website
 - c. PROBE: opinion on requesting via the phone by text or phone call, etc.
2. There are also many ways to physically get the kit, how do you prefer to physically get a self-testing kit? Can you help me understand your choice? What about this way makes it most appealing to you? What were some of the other options available to you, why did you choose this way over the others?
- a. PROBE: opinion on picking up a kit at the clinic, a community location, school, religious organization or pharmacy
 - b. PROBE: opinion on having a kit delivered to the home by mail or by a health care worker
3. To get your result, the samples you collect will have to be sent back to the lab for processing. There are many ways to do this, how do you prefer to send your samples to the lab? Can you help me understand your choice? What about this way makes it most appealing to you? What were some of the other options available to you, why did you choose this way over the others?
- a. PROBE: opinion on personally dropping off the sample at a prespecified location like a clinic, pharmacy or other community site
 - b. PROBE: opinion on personally mailing the samples to a lab
 - c. PROBE: opinion on having the samples picked up by health worker at their home
4. Now in terms of receiving your results, how do you prefer to receive your results? Can you help me understand your choice? What about that way makes it most appealing to you? What were some of the other options available to you, why did you choose this way over the others?
- a. PROBE: opinion on receiving the results by phone call, by text message, by mail, and/or online website
 - b. PROBE: opinion on receiving the results in-person at the clinic, pharmacy, lab or some other location
 - c. PROBE: opinion on receiving the results at home by a health care worker
5. There are also a few options for how you would like to receive treatment if you tested positive, how do you prefer to receive treatment? Can you help me understand your choice? What about that way makes it most appealing to you? What were some of the other options available to you, why did you choose this way over the others?
- a. PROBE: opinion on delivery of treatment at home via a health worker
 - b. PROBE: opinion on picking up treatment in-person in the clinic or in the pharmacy
6. Thank you, you have provided us with some very useful feedback. If we were to design a program that used self-collection of samples for STI testing, considering the preferences you mentioned, would you use such a service in the future? Why or why not? PROBE: advantages/disadvantages, barriers, concerns, willingness to pay, willingness to recommend to others
- a. Do you think such a program would meet your needs is there something else we could do to help you seek treatment for STI-related symptoms?

This concludes my questions.

7. Is there anything else you would like to share or think is important for me to know?

Thank you for participating.

INTERVIEW END

NOTE TO INTERVIEWER:

State interview end time. Repeat.

END RECORDING

Supplementary material file S2. Key Informant Interview Guide

***Note:** This guide is intended to be comprehensive of all questions that may be asked in these interviews, to provide a sense of the topics covered. We anticipate that not all questions will be asked of each participant, per the nature of in-depth qualitative interviews.*

START RECORDING

NOTE TO INTERVIEWER:

State your name. Repeat.

State your ID number. Repeat.

Describe type of key informant (health officer, physician, community health worker, etc.).

State interview start time and date. Repeat.

INTERVIEW START

Thank you for participating in this study. Our goal is to better understand treatment seeking behavior among adults with STI-related symptoms, in order to design STI testing interventions that meet their needs. We invited you to participate in this study based on your experience with [patients with STIs OR STI control programs in the community].

We are thinking about designing a program that provides STI testing services that use self-collected sampling methods. This would require a patient to somehow obtain a self-test kit that will include a self-administered swab, which they can use to collect a specimen from the vagina or penis. The swab will then have to be sent to the lab for testing and the results returned to the patient. By self-collecting a specimen, patients could test themselves for an STI without having to go to a clinic or be seen by a physician.

I would appreciate your help to identify some details of such a program:

1. What is your initial reaction to this idea? What do you like about it? What do you not like about it or think would not work?
2. What types of patients do you think would benefit from such a program? PROBE: sex, social economic status, age
PROBE: sex, SES, age
 - a. How do you recommend we engage with/reach such patients?
3. What are some ways that self-test kits could be made available to patients? PROBE: passive approach initiated by individual request in-person at a prespecified location, individual request online, individual request via phone call or text; active approach initiated by public health practitioners via community health workers during home visits or community outreach, clinic staff at health center visits, pharmacy staff
PROBE: passive approach initiated by individual request in-person at a prespecified location, individual request online, individual request via phone call or text; active approach initiated by public health practitioners via community health workers during home visits or community outreach, clinic staff at health center visits, pharmacy staff
 - a. Which do you recommend and why?
 - b. We have found that community members generally prefer requesting a kit over the phone or via a healthcare worker because of privacy reasons or to save time and money. Can you help me understand why this is the case?
4. What are some locations where self-test kits could be made available? PROBE: at the clinic, at a community location (specify), at school, at a religious organization, at the pharmacy, at home (specify how – by mail, health care worker drop-off)
PROBE: at the clinic, at a community location (specify), at school, at a religious organization, at the pharmacy, at home (specify how – by mail, health care worker drop-off)
 - a. Which do you recommend and why?
 - b. We have found that community members generally prefer having a healthcare worker deliver the kit to their homes because it saves time and money. Can you help me understand why community members feel this way?
5. How do you think individuals in this community who have STI symptoms would feel about doing a self-collected sample?
 - a. How do you think self-collection will be accepted in this community as compared to attending a clinic for STI case management?

6. How do you think individuals in this community who do not have any STI symptoms would feel about doing a self- collected sample?
 - a. We have found that community members generally like self-collecting a sample but some would still prefer having a clinician collect the sample because they feel clinicians are better trained. Can you help me understand why community members feel this way?

7. After collection, patient samples would have be sent back to the lab for processing. What are some options for sending the sample to the lab? PROBE: pickup by health worker at home, drop off specimen at prespecified location (specify), mail in
PROBE: pickup by health worker at home, drop off specimen at prespecified location (specify), mail in
 - a. Which do you recommend and why?
 - b. We have found that community members generally prefer having a healthcare worker pick up the kit from their homes because it ensures that the sample is taken safely and will reach the destination safely. Can you help me understand why community members feel this way?

8. What are some ways that test results could be shared with the patient? PROBE: by phone, by mail, online, in-person at the clinic, in-person at pharmacy, in-person at the lab, in-person at some other location (specify)
PROBE: by phone, by mail, online, in-person at the clinic, in-person at pharmacy, in-person at the lab, in-person at some other location (specify)
 - a. Which do you recommend and why?
 - b. We have found that some community members generally prefer having a healthcare worker deliver the results to their home or their go to the clinic for the results because of privacy reasons. Some preferred to have the results delivered by phone because it saves time and money. Can you help me understand why community members feel this way?

9. What are some ways to connect the patient to treatment if their result is positive?
PROBE: at home delivery via health worker, self pick-up in the clinic, pharmacy, community location
PROBE: at home delivery via health worker, self pick-up in the clinic, pharmacy, community location
 - a. Which do you recommend and why?
 - b. We have found that community members generally prefer having a healthcare worker deliver the treatment to their home or at a central community hub because it saves time and money. Some also don't mind to pick up the treatment at a local

clinic or pharmacy. Can you help me understand why community members feel this way?

10. What are some ways to engage the sexual partners of those that are positive in STI testing services?
 - a. Which do you recommend and why?
 - b. We have found that partner mistrust is common, with some men and women not disclosing their test results to their partners or referring their partners to treatment because they fear being labeled as promiscuous. Can you help me understand why community members feel this way?

Thank you, you have provided us with some very useful insight. I have a few last questions:

11. If implemented, a self-collection for STI testing program would be offered in addition to the current standard of care. What do you see as the advantages of this additional service as compared to only offering the current standard of care? What do you see as the disadvantages? PROBE: advantages/disadvantage of those with symptoms, advantages/disadvantages of those without symptoms
PROBE: those with symptoms, those without symptoms
12. Do you have any concerns about such a program? Please describe.
13. How do you think the community would respond to such a program? PROBE: response of those with symptoms, response of those without symptoms.
 - a. We have found that community members are accepting of such a service and would be open to using it. However, the main issue is cost. Can you help me understand why community members feel this way?
14. If the funding for STI testing and self-collection kits was available, do you think the health system is ready to implement an STI testing intervention that uses the self-collection of samples? Why or why not?
15. If the program was funded, what do you think would be the major barriers to successful implementation? PROBE: political will, health system capacity, trust, loss to follow-up, logistics issues, patient uptake of services

This concludes my questions.

16. Is there anything else you would like to share or think is important for me to know?

Thank you for participating.

INTERVIEW END

NOTE TO INTERVIEWER:

State interview end time. Repeat.

END RECORDING