

Integrating Community Health Worker Services into Internet-based STI Testing Programs

Brenice Duroseau, Kelly Lowensen, Jessica LaRicci, Adam Bocek, Amita Patil, Aubrey Alvarenga, Errol Fields, Rachel Fink, Charlotte A. Gaydos, Gretchen S. Armington, Joyce Jones, Yukari C. Manabe, Jason E. Farley

BRENICE DUROSEAU, MSN, FNP-BC, RNC-OB, AAHIVS

PhD Student/Infectious Diseases Nurse Practitioner

Johns Hopkins University School of Nursing



THE CENTER FOR INFECTIOUS DISEASE
AND NURSING INNOVATION

Disclosures & Acknowledgement

- ❖ No financial relationships with a commercial entity producing healthcare-related products and/or services. No conflicts of interest.
- ❖ I would like to thank and acknowledge funding from Ending the HIV Epidemic, Baltimore City Health Department
- ❖ Special thanks to Tong Yu for helping prepare this analysis.

Learning Objectives

- Identify strategies to advance access to STI and HIV testing
- Identify demographics of users of Internet-based STI Testing Program in Maryland
- Evaluate benefits and feasibility of integrating client navigation services into Internet-based STI Testing Programs

Background Information

IWTK I WANT THE KIT

Take Control, Know Your Status

1

Login



Click on [I WANT THE HOME TEST KIT](#) to create a new account or [LOGIN](#) to go to an account you previously created. Be sure to tell us your full first and last names and your complete mailing address. Please answer all other questions completely.

2

Order



Place your order by following the prompts. Not sure what parts of your body should be tested? View [What to Order](#). If you are retesting after being treated for an STI, be sure to wait at least 3 months after completing your treatment before collecting your samples.

3

Wait for the mail



Wait for your kit to arrive in the mail. Your kit may take 7 days to arrive if you live in Maryland and longer if you live elsewhere. After 7 days, [Contact Us](#) if you are worried about why your kit has not arrived.

➤ Increasing access to sexually transmitted infection (STI) and HIV testing is essential to Ending the HIV Epidemic (EHE)

➤ The COVID-19 pandemic accelerated uptake of internet-based STI testing programs (i.e., IWTK)

➤ Several studies have highlighted the success of internet-based STI testing programs (i.e., IWTK)¹⁻⁴

➤ In 3 easy steps users can confidentially request STI sample self-collection and HIV self-test kits to be mailed to their homes

What Will the Package Look Like?

We mail our STI kits in discreet manila envelopes and our HIV kits in small corrugated boxes. If you order both types of kits, we mail everything in the small corrugated box. Your address will be on the mailing label and our return address will be there too.



HIV KIT



STI KIT



INSTRUCTIONS FOR SELF-COLLECTING A VAGINA SAMPLE



Wash your hands thoroughly with soap and water for at least 20 seconds.



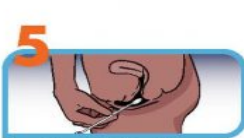
Undress from the waist down. Remove a tampon, if you have one inserted. Get into a position where you can comfortably insert a swab into your vagina, such as sitting on the toilet, standing with one foot on a chair, or any position you would use to insert a tampon.



Open the swab. **DO NOT TOUCH THE TIP OF THE SWAB.**
A. Twist first to break the seal.
B. Then pull. The swab will stay attached to the cap.
C. Do NOT throw the plastic tube away! You will need to put your swab into the tube after you have collected the sample.



Firmly hold the swab 1 to 2 inches away from the soft tip.



Insert the white tip of the swab 1 to 2 inches into your vagina and twirl it for 15-30 seconds. Be sure the swab touches the walls of your vagina.



Remove the swab from your vagina. Do not let the tip of the swab touch anything. It is okay if there is blood or other discharge on the swab.



Place the used swab back into the transport tube. Close the tube tightly to prevent leakage.



Place the closed tube into the red specimen bag. Seal the bag. (If you are returning multiple swabs, they should all be placed into the same specimen bag.)



Wash your hands thoroughly with soap and water for at least 20 seconds.



Place the sealed bag into the return mailer (white envelope with blue diamond shaped sticker on the front). Write the collection date on your contact form and place the form into the return mailer too. Seal the envelope.



Drop the return mailer into any USPS mailbox.

INSTRUCTIONS FOR SELF-COLLECTING A PENIS SAMPLE



Wash your hands thoroughly with soap and water for at least 20 seconds. Undress from the waist down.



Open the swab. **DO NOT TOUCH THE TIP OF THE SWAB.**
A. Twist first to break the seal.
B. Then pull. The swab will stay attached to the cap.
C. Do NOT throw the plastic tube away! You will need to put your swab into the tube after you have collected the sample.



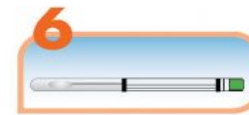
Firmly hold the swab 1 to 2 inches away from the soft tip.



Roll the swab completely around at the opening of the penis. If you see any discharge, be sure to run the swab through the discharge. Do not put the swab inside of the penis.



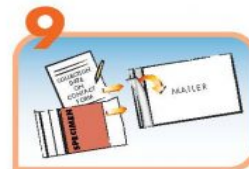
Remove the swab from touching the tip of the penis. Do not let the tip of the swab touch anything.



Place the used swab back into the transport tube. Close the tube tightly to prevent leakage.



Place the closed tube into the red specimen bag. Seal the bag. (If you are returning multiple swabs, they should all be placed into the same specimen bag.)



Place the sealed bag into the return mailer (white envelope with blue diamond shaped sticker on the front). Write the collection date on your contact form and place the form into the return mailer too. Seal the envelope.



Wash your hands thoroughly with soap and water for at least 20 seconds.



Drop the return mailer into any USPS mailbox.

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Methods

Study Design & Inclusion Criteria

- Observational cohort of IWTK users who self-selected (i.e., opted in or out of) community health worker (CHW) services
- This cohort included persons who ordered kits between April 7, 2021 and April 7, 2022 and included only Baltimore City and County residents only who completed testing by mailing the kits back

***some users ordered multiple kits**

In 2021, the IWTK program added an 'opt-in' option for CHW services to support linkage to care before receiving STI results

Do you want a health navigator to contact you about additional services and resources? Health navigators are members of our team who can answer questions about your test results, help you make an appointment with a healthcare provider, help get you signed up for health insurance and link you to HIV prevention and treatment services.

No

Yes

Select Clinic

Choose a clinic/public health department that can assist you should you have a positive result. Some clinic centers have a fee, and this fee can be seen when selecting the clinic.

Clinic



If user ever selected CHW navigation & requested more than 1 kit...

Id	Order date	Name	Client navigator	Clinic	N_used	Used_cat	Sum_cn	STI
MD-9999	2015-01-01	Alex Adam			5	Never used before	2	-
MD-000001	2021-05-01	Alex Adam	No		5	Used 1 yr ago	2	-
MD-000002	2021-06-01	Alex Adam	Yes	CIDNI	5	Used within 1 yr	2	-
MD-000003	2021-07-01	Alex Adam	Yes	Bartlett	5	Used within 1 yr	2	+
MD-000004	2021-08-01	Alex Adam	No		5	Used within 1 yr	2	+

Select latest record with client navigator selection



Id	Order date	Name	Client navigator	Clinic	N_used	Used_cat	Sum_cn	STI
MD-000003	2021-07-01	Alex Adam	Yes	Bartlett	5	Used within 1 yr	2	+

If user never selected client navigator...

Id	Order date	Name	Client navigator	Clinic	N_used	Used_cat	Sum_cn	STI
MD-9999	2015-01-01	Alex Brown			5	Never used before	0	+
MD-000001	2021-05-01	Alex Brown	No		5	Used 1 yr ago	0	-
MD-000002	2021-06-01	Alex Brown	No		5	Used within 1 yr	0	-
MD-000003	2021-07-01	Alex Brown	No		5	Used within 1 yr	0	-
MD-000004	2021-08-01	Alex Brown	No		5	Used within 1 yr	0	-

Select latest record



Id	Order date	Name	Client navigator	Clinic	N_used	Used_cat	Sum_cn	STI
MD-000004	2021-08-01	Alex Brown	No		5	Used within 1 yr	0	-

Statistical Analysis

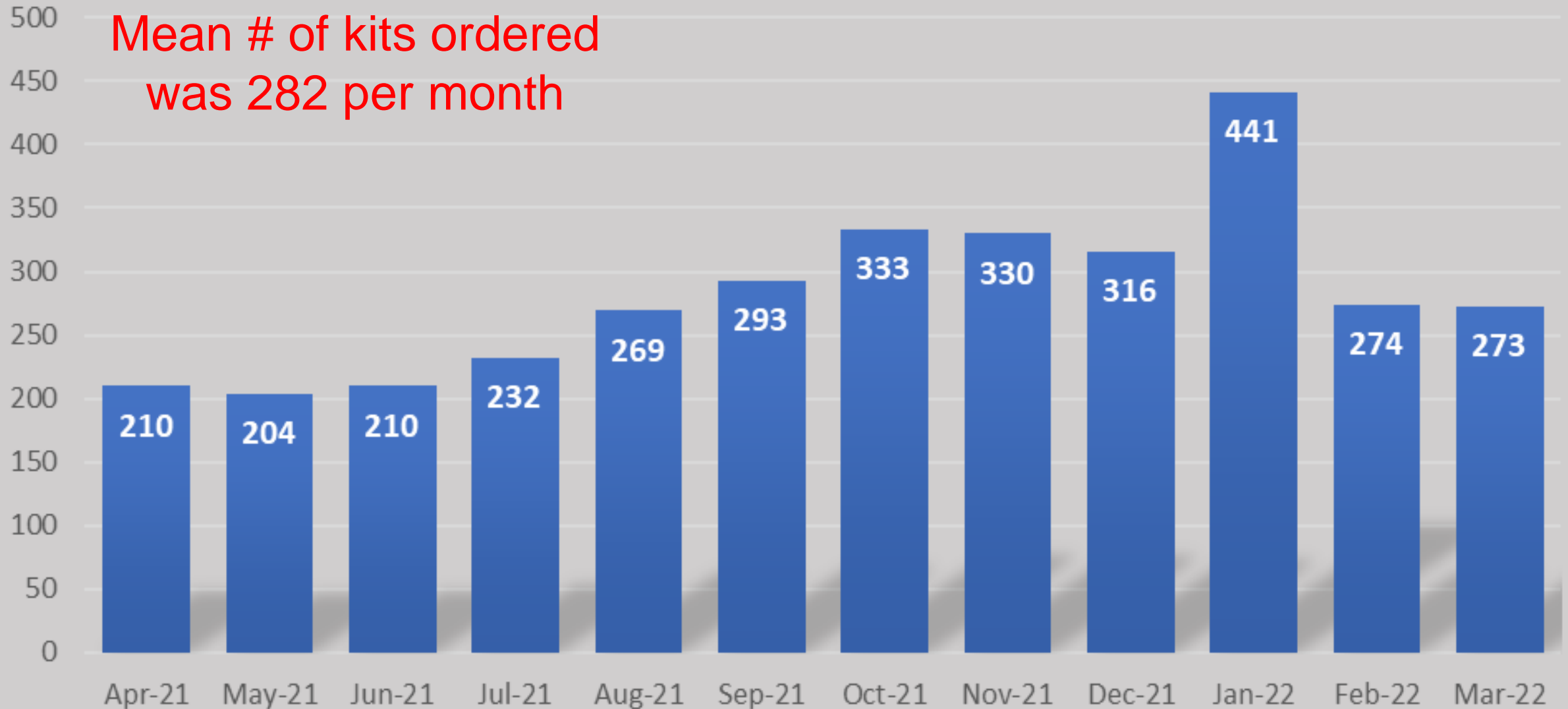
- Descriptive data were compared using a t-test, and categorical variables were compared using a chi-square test.
- Logistic regression was used to model the odds of “opting-in” to CHW navigation services
 - Full model included: Age, Gender, Race, Hispanic, Risk Score, HIV Oraquick Order, & Any STI
- We refined the model using backward selection, after comparing AIC scores
- All analyses were completed using R

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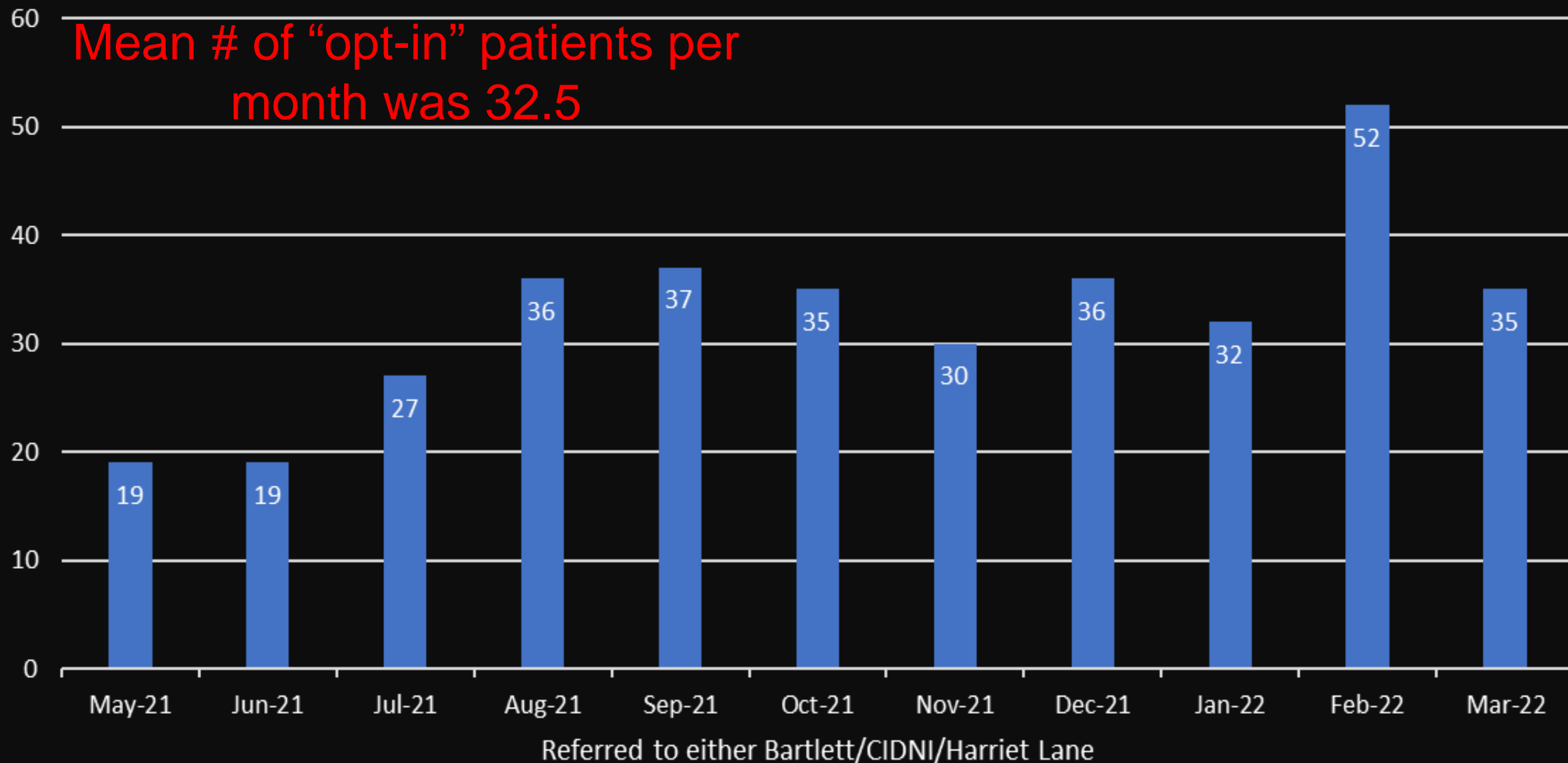
Results

IWTK Orders by Month-Baltimore City

Mean # of kits ordered
was 282 per month



Number of Referrals for IWTK Client Navigation Services



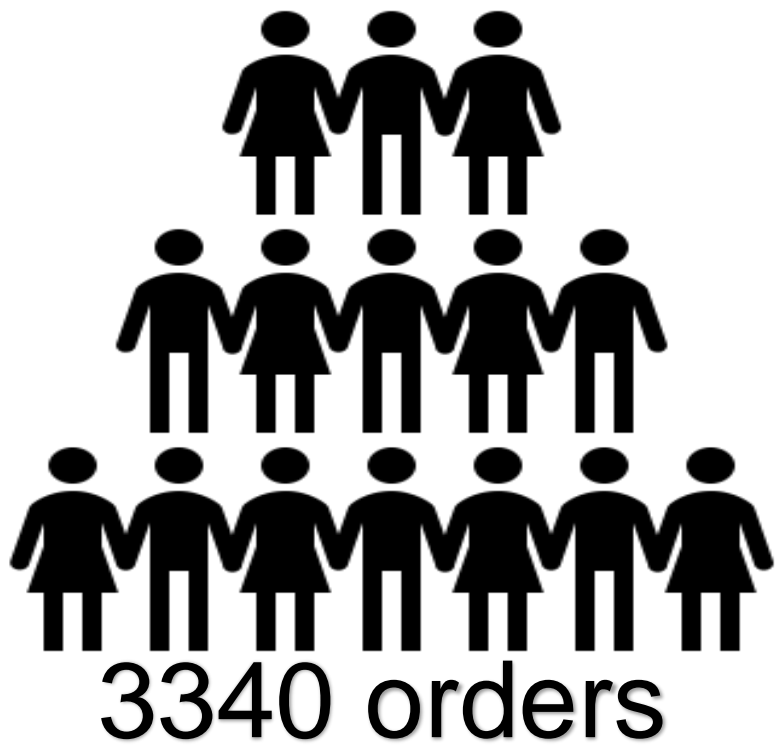


Table 1: Demographic characteristics by Navigation Status (CHW Opt In)

Characteristics	n (%)			p-value
	Total	CHW Group (N=293)	No CHW (N=2231)	
Age, mean [range]	2524	27.0 [23.0-33.0]	27.0 [23.0-32.0]	0.414
Gender:	2524			
Female	1296 (51.4%)	153 (52.2)	1143 (51.2)	0.571
Male	1121 (44.4%)	131 (44.7%)	990 (44.4%)	
Other	107 (4.2%)	9 (3.1%)	98 (4.4%)	
Race:	2524			
White	791 (31.3%)	54 (18.4%)	737 (33.0%)	<0.001
Black	1252 (49.6%)	179 (61.1%)	1073 (48.1%)	
Other	481 (19.1%)	60 (20.5%)	421 (18.9%)	
Hispanic	235 (9.3%)	35 (11.9%)	200 (9%)	0.123
Risk score group**:	2435			
Low risk	461 (18.9%)	50 (17.5%)	411 (19.1%)	0.816
Medium risk	1497 (61.5%)	178 (62.5%)	1319 (61.3%)	
High risk	477 (19.6%)	57 (20.0%)	420 (19.5%)	
Ordered Oraquick	2524			
No Oraquick	1087 (43.1%)	114 (38.9%)	973 (43.6%)	0.143
Oraquick	1437 (56.9%)	179 (61.1%)	1258 (56.4%)	
Any STI***:	1377			
Negative	1265 (91.9%)	138 (82.6%)	1127 (93.1%)	<0.001
Positive	112 (8.1%)	29 (17.4%)	83 (6.9%)	

*p-value either t-test or χ^2 test unless otherwise specified

**2435 completed the risk assessment survey (285 opt in CHW & 2150 opt out CHW)

***1377 ordered a STI kit (167 opt in CHW opt in & 1210 opt out CHW)

Table 2: Factors Associated with Opting Into CHW Navigation Services, Among Ever Opt In Patients

	OR (97.5% CI)	
	Full Model	Final Model
Age	1 (0.98, 1.02)	-
Gender		
Male	1.09 (0.76, 1.56)	-
Other	1.22 (0.06, 7.08)	-
Female (ref)	1.00 (0, 0)	-
Race		
Black	2.09 (1.38, 3.22)	1.98 (1.32, 3.02)
Other	1.38 (0.81, 2.35)	1.46 (0.86, 2.45)
White	1.00 (0, 0)	-
Hispanic (yes/no)	1.49 (0.83, 2.57)	-
Risk Score		
Medium risk	0.93 (0.6, 1.48)	-
High risk	0.96 (0.55, 1.7)	-
Low risk (ref)	1.00 (0, 0)	-
HIV Oraquick (yes/no)		
HIV Oraquick	1.45 (1.03, 2.04)	1.47 (1.05, 2.08)
Any STI		
Positive	2.76 (1.7, 4.38)	2.76 (1.71, 4.37)
Negative	1.00 (0, 0)	-

Limitations

- Unmeasured confounding is possible
- Findings in Baltimore with high STI and HIV rates may not be generalized to other cities
- Only 1331 patients were included in the final logistic regression model, due to limitations in STI testing

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Conclusions

Key Take Aways

1. Online STI testing is feasible and increases access to low-barrier sexual healthcare
2. Users of this service are more likely to be Black and be positive for an STI
3. Although the majority tested negative for STIs, individuals testing positive for STI(s) were more likely to request CHW services
 - i. These findings suggest that those who opted into CHW services had a higher pre-test probability possibly due to presenting symptoms or an accurate risk perception

Q & A

Thank you for your time and attention

References

1. Patel AV, Gaydos CA, Jett-Goheen M, Barnes M, Dize L, Barnes P, Hsieh YH. Assessing association between IWantTheKit risk quiz tool and sexually transmitted infection positivity in male users for sexually transmitted infection screening. *Int J STD AIDS*. 2018 Feb;29(2):122-127. doi: 10.1177/0956462417718758. Epub 2017 Jul 1. PMID: 28669325; PMCID: PMC5628160.
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3. Gaydos C, Dwyer K, Barnes M, et al. Internet-based screening for Chlamydia trachomatis to reach non-clinic populations with mailed self-administered vaginal swabs. *Sex Transm Dis*. 2006;33:451–7.
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In the following section, you will enter information on your ANAC Annual Conference presentation, including an educational gap assessment, two to four learning objectives, and a brief presentation outline.

1. Please identify one or more gaps in knowledge or skills that justifies the need for this presentation: ***required**

Your response here...

2. Describe the current state of knowledge regarding your presentation topic: ***required**

Your response here...

3. Describe what you desire to achieve as a result of this presentation: ***required**

Your response here...

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4. Gap to be addressed by this activity: ***required**

- Knowledge
- Skills
- Practice
- Other, please describe:

Your other response here...

5. Please identify a desired learning outcome for this presentation (i.e., What do you want learners to able to do as a result of participating in this activity?) ***required**

Your response here...

6. In the following table, please identify 2-3 learning objectives associated with your presentation along with a brief outline of the content related to each objective. The learning objectives should indicate the specific topics that you will present to achieve your desired learning outcome. If you will have multiple presenters, please indicate which presenter(s) will be responsible for the educational content. ***required**

OBJECTIVES List learner's objectives in behavioral terms	CONTENT (Topics) Provide an outline of the content for each objective. It must be more than a restatement of the objective.	TIME FRAME State the time frame for each objective	PRESENTER List the Faculty for each objective.	TEACHING METHODS Describe the teaching methods, strategies, materials & resources for each objective
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7. List references used in the development of your presentation. A minimum of 2 references should be provided: ***required**

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