

## Supplementary Online Content

MacGowan RJ, Chavez PR, Borkowf CB, et al. Effect of internet-distributed HIV self-tests on HIV diagnosis and behavioral outcomes in men who have sex with men: a randomized clinical trial. *JAMA Intern Med*. Published online November 18, 2019. doi:10.1001/jamainternmed.2019.5222

**eMethods.** Data collection methods and definition of newly identified infection in eSTAMP.

**eFigure.** Example of banner add used for study recruitment.

**eTable.** Retention rates by selected baseline characteristics among participants who initiated any follow-up survey and the 12-month survey.

This supplementary material has been provided by the authors to give readers additional information about their work.

## **eMethods.**

### **Data collection**

#### **Online systems**

Participants completed the following online surveys: screener, baseline, and at 3, 6, 9, and 12 months. Participants who used the HIV self-tests could report test results when they completed the test online in the results reporting survey.

#### **Telephone call notes**

The study provided a toll-free number for a hotline where a counselor was available 9 AM–5 PM Eastern Standard Time, Monday–Friday. A toll-free number for mental-health counseling (crisis line) was provided for after-hours and weekend calls. Participants in both study arms could call the study telephone number to obtain information on how to conduct the HIV self-tests, discuss their test results, or obtain information on local HIV testing and prevention services.

#### **Laboratory test results**

The CDC laboratory HIV testing on the dried blood spot specimens returned by study participants. The DBS specimens were tested for HIV antibodies using the AVIOQ HIV-1 Microelisa System (AVIOQ, Inc.), and if repeatedly reactive, they were tested by GS HIV-1 Western blot (Bio-Rad Laboratories).

### **Definition of newly identified infection in eSTAMP**

#### **Newly identified infections among participants**

We reviewed all HIV testing data for participants who reported a positive HIV test result to determine persons with newly identified HIV infections. The data reviewed included all HIV test results provided in surveys, in the results reporting system, and in notes recorded during calls to the study hotline, and laboratory test results from the DBS specimens. We reviewed all recorded comments and dates associated with positive test results to resolve potential data entry errors, and exclude previously diagnosed infections or false-positive results. When the date for a positive HIV test result was missing, we assigned the date of the survey or phone call when the result was first reported.

#### **Newly identified infections among social network members**

In the follow-up surveys, ST participants reported information on their social network members to whom they gave the study HIV self-test. Social network members could have received more than one self-test from a study participant so we compared their name/initials/nickname, age, race/ethnicity and gender to determine the total number of unique social network members. Social network members associated with the same participant and who were identical on these variables were considered the same person. If the ST participant reported that a social network member had tested positive with a kit he shared and answered “No” or “I don’t know” to the question “Do you think the person knew they were positive before taking the test?,” we considered the social network members as having a newly identified infection.

**eFigure. Example of banner ad used for study recruitment.**



**eTable. Retention rates by selected baseline characteristics among participants who initiated any follow-up survey and the 12-month survey.**

Characteristics <sup>a</sup>	Baseline participants (n)	Participants who initiated any follow-up survey			Participants who initiated 12-month survey		
		(n)	Retention rate (%)	p-value	(n)	Retention rate (%)	p-value
<b>Overall</b>	2665	1991	74.7		1584	59.4	
<b>Age group (years)</b>				0.75			0.22
18–29	1527	1137	74.5		892	58.4	
≥30	1138	854	75.0		692	60.8	
<b>Race/ethnicity</b>				<0.01			<0.01
White, not Hispanic	1540	1200	77.9		981	63.7	
Black, not Hispanic	261	179	68.6		129	49.4	
Hispanic	620	433	69.8		331	53.4	
Other/mixed	244	179	73.4		143	58.6	
<b>Sexual identity<sup>b</sup></b>				<0.01			<0.01
Homosexual/gay	2352	1785	75.9		1425	60.6	
Bisexual	283	189	66.8		145	51.2	
Heterosexual/other	18	9	50.0		7	38.9	
<b>Education<sup>b</sup></b>				<0.01			<0.01
≤High School/GED	436	274	62.8		153	44.3	
>High School	2222	1715	77.2		1390	62.6	
<b>Employment<sup>b</sup></b>				0.02			0.04
Employed	2236	1691	75.6		1350	60.4	
Not employed	394	279	70.1		216	54.8	
<b>Health insurance<sup>b</sup></b>				<0.01			<0.01
Yes	2155	1642	76.2		1322	61.3	
No	474	324	68.4		243	51.3	
<b>HIV testing history</b>				<0.01			<0.01
Never tested	443	303	68.4		228	51.5	
Tested over 12 months ago	614	456	74.3		349	56.8	
Tested in past 12 months	1608	1232	76.6		1007	62.6	

**Footnotes:**

<sup>a</sup> Characteristics reported at study enrollment (screener or baseline survey)

<sup>b</sup> Missing data