



## Revised Abstract

**OBJECTIVE:** Examine intentions of men who have sex with men (MSM) to use home-use HIV tests with sex partners.

**METHODS:** The iTest Study is a randomized trial of home self-testing using the OraQuick ADVANCE® Rapid HIV-1/2 Antibody Test on oral fluids. The end-of-study survey asks questions about HIV testing during the 15-month study period and attitudes towards home testing in the future.

**RESULTS:** Of 80 subjects who have completed follow-up, 20 (25%) and 40 (50%) reported they would be very likely to test at home with a new partner before sex if the test took 25 versus 5 minutes, respectively ( $p < 0.001$ ). Men reported being very likely to test with partners when beginning new relationships (68%), in ongoing open relationships (64%), when deciding whether to use condoms (68%), or when worried a partner has HIV (64%). When asked where they would prefer to test, 58% preferred testing at home, 6% at a clinic, 31% said it depended on the situation, and 5% had no preference. When asked about preferences in specific situations, men preferred home testing before sex with a new partner (88%), when deciding whether to use condoms (79%), and for regular testing (75%). Men preferred clinic-based testing after having unprotected sex or sharing needles with an HIV-infected person (69%) or being notified of exposures by partners or public health (73%). When asked how sure they would be that a partner's negative home-use test was a true negative, 5% reported they would be very sure, 56% somewhat sure, 24% somewhat unsure, and 14% very unsure. However, subjects were twice as likely to report being very likely to have unprotected anal sex if they tested at home with a partner and both tested negative (29%) than if the partner disclosed being negative (13%) ( $p < 0.001$ ).

Forty subjects were randomized to home self-testing. We previously reported on a partner who had a reactive home test after unprotected sex with a study subject. At the end-of-study survey, one additional subject reported testing a friend who was concerned about an exposure.

**CONCLUSIONS:** MSM intend to use home-use tests with sex partners to inform sexual decision-making. However, approximately 25% of HIV-infected MSM using home-use tests in Seattle are likely to obtain false-negative results during the highly-infectious stage of acute HIV infection because of the test's three month window period. Efforts are needed to ensure that MSM understand the test's limitations if they will be able to test safely with partners.

## Background

- In July 2012, U.S. Food & Drug Administration approved the first home-use HIV test, OraQuick® In-Home HIV Test
- Research suggests that men who have sex with men (MSM) will use home-use tests to test with sex partners to inform sexual decision-making, i.e. "point-of-sex testing"
- If point-of-sex testing decreases condom use, it may increase transmission of HIV and other sexually transmitted infections (STIs)
- However, if it increases the accuracy of serosorting, it also has potential to decrease HIV transmission
- The potential context and implications of point-of-sex testing among MSM are not well understood

## Objectives

Among high risk MSM participating in a randomized controlled trial of home self-testing for HIV, examine:

- Intentions to use home-use HIV tests with sex partners
- Preferences regarding testing at home vs. a clinic

## Acknowledgments

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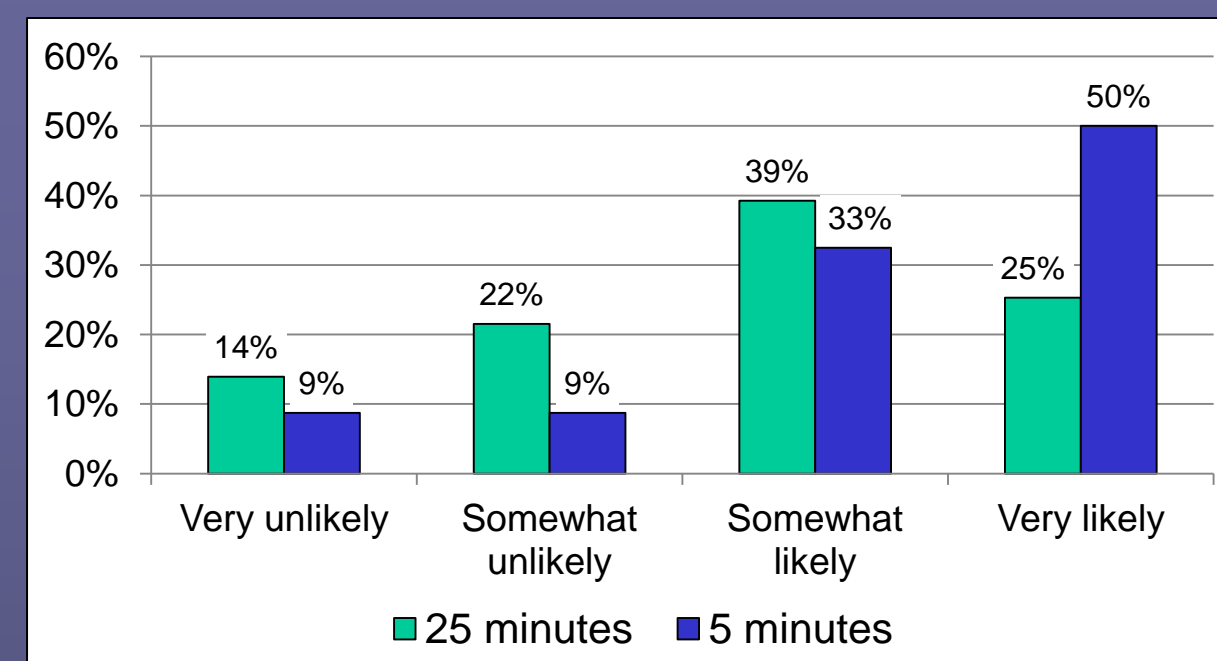
## Methods

- iTest Study: MSM at high risk for HIV acquisition are being randomized in 1:1 fashion for 15 months to either:
  - **Home self-testing:** access to free home-use HIV tests for self-testing
  - **Standard testing:** testing as usual
- Study design and population are described in our poster, "Acceptability and Ease of Use among Home Self-testing among MSM"
- At baseline, subjects are counseled re: differences between nucleic acid amplification testing (available in clinics) vs. home-use antibody tests
- At end-of-study visit, subjects complete a self-administered computer survey that includes questions regarding:
  - Intentions to use home-use tests with sex partners
  - Test preferences

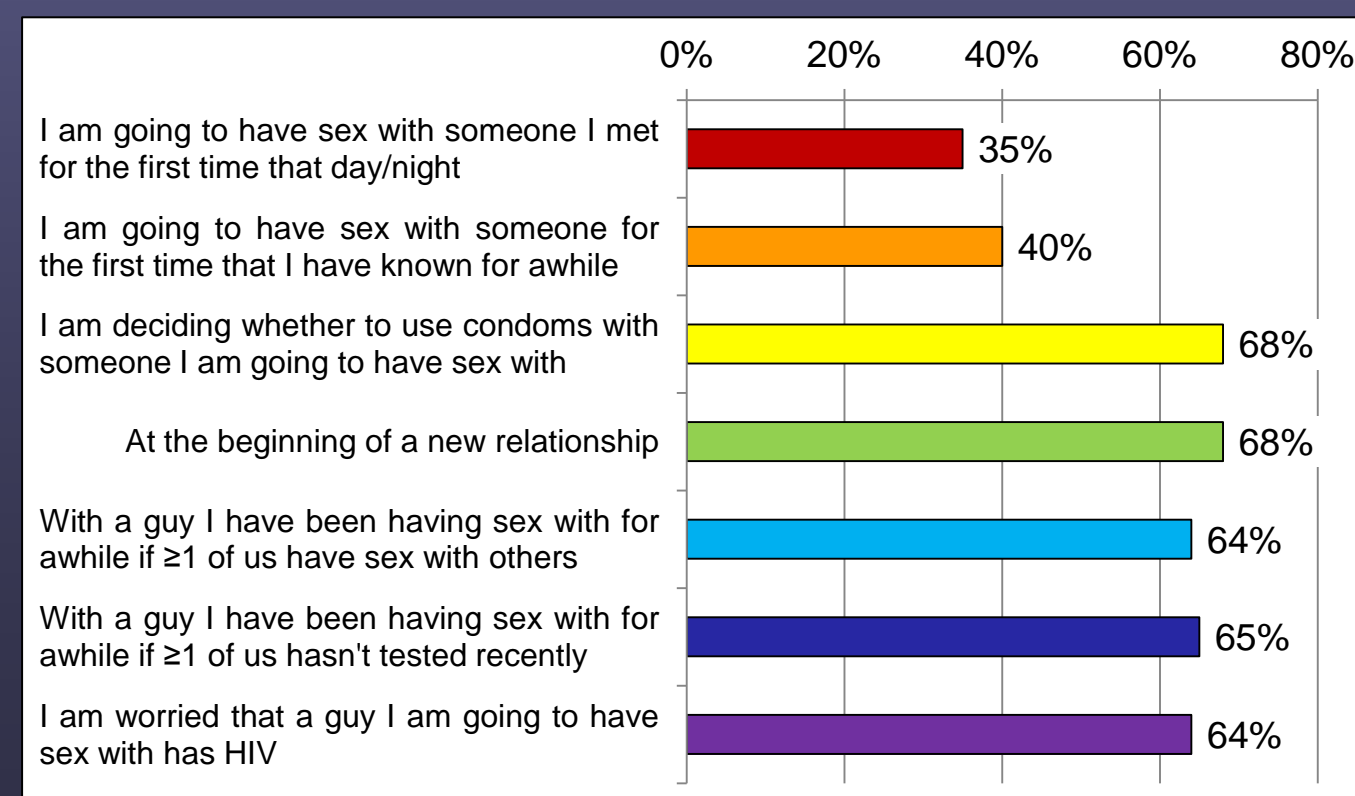
## Results

- As of October 11, 2012, 80 subjects (40 in each arm) had completed end-of-study procedures

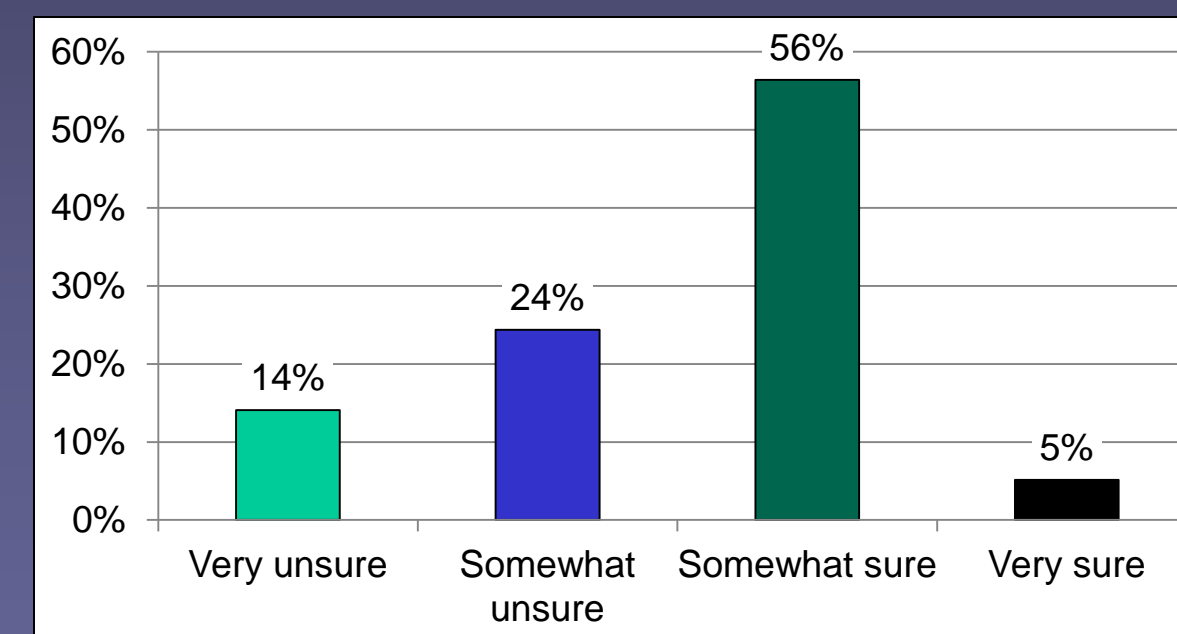
### Likelihood of using a home-use HIV test with a new sex partner by time it takes to perform test



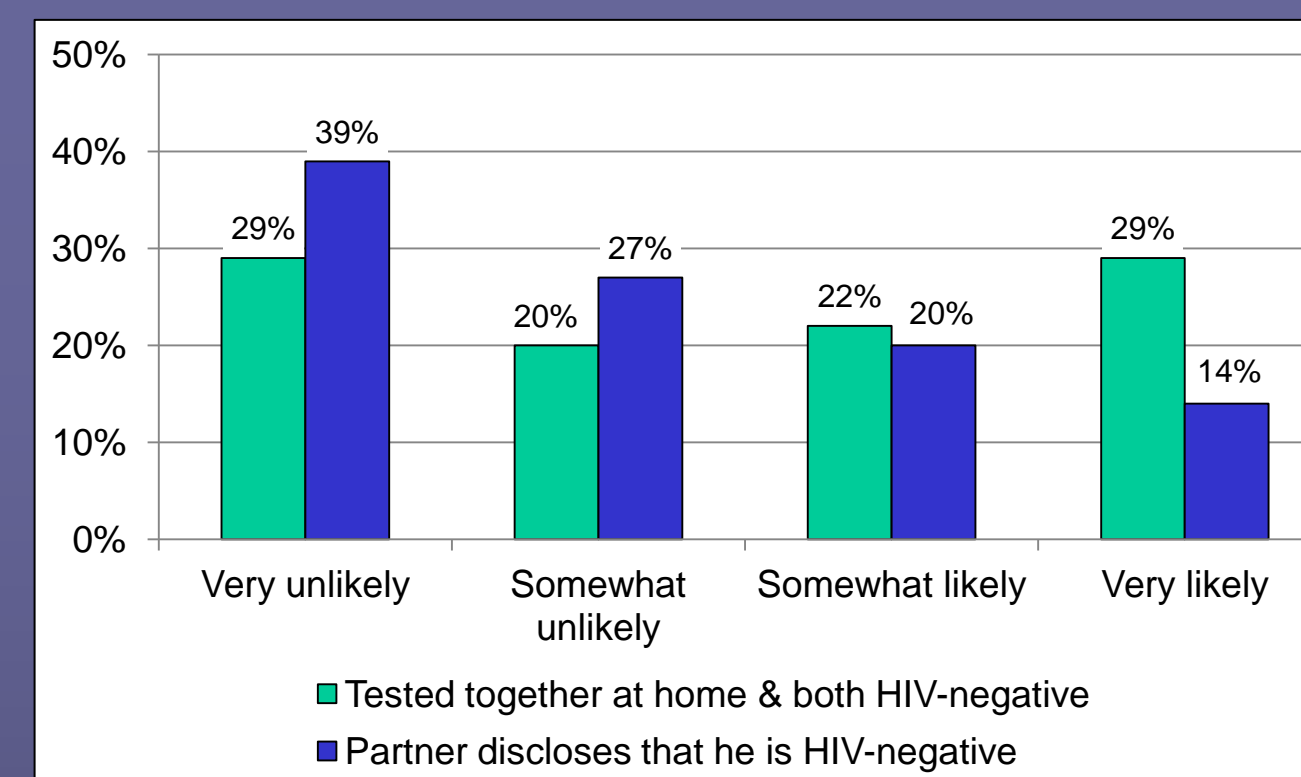
### Proportion of MSM reporting being 'very likely' to use a home-use HIV test with a sex partner



### How sure MSM would be that a sex partner's negative home-use test was a true negative



### Likelihood of having unprotected anal sex with a new sex partner, by method of HIV status disclosure



### Partner Testing: A Case Report

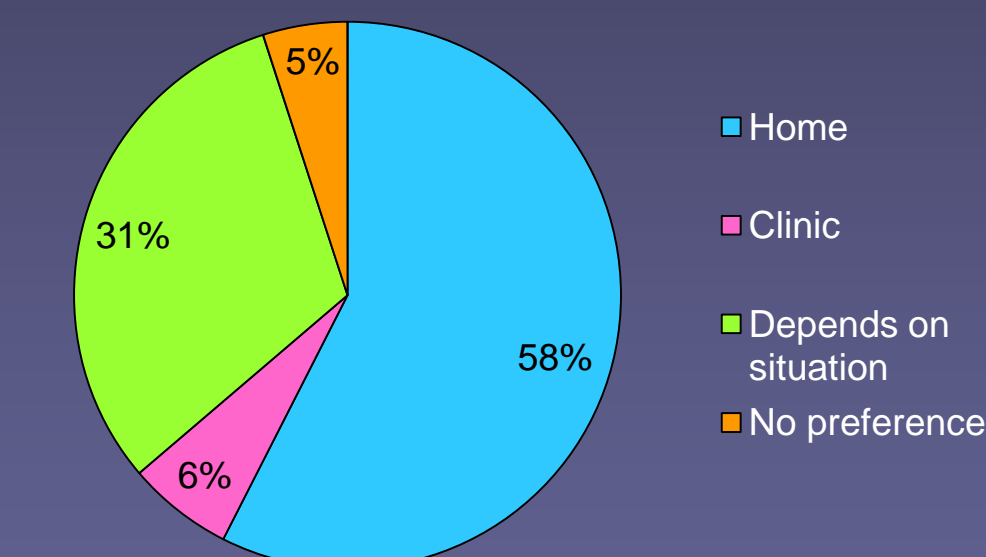
In 2011, a 27-year-old, homeless, gay-identified Latino MSM not enrolled in the trial (the case) reported receiving a reactive result from a diverted study kit. We interviewed this individual about his experience testing with a sex partner and subsequent entry into care.

The case had unprotected anal sex and used methamphetamine with a trial subject one night without discussing HIV status. Afterwards, the trial subject asked the case if he wanted to use a study test kit. The case had last tested 13 months earlier. The trial subject collected the case's oral fluid sample, performed the test, and disclosed the result. The case thought it was an acceptable way to learn his HIV status. The case and trial subject did not engage in further sexual activity. Neither confirmatory testing nor post-exposure prophylaxis was discussed.

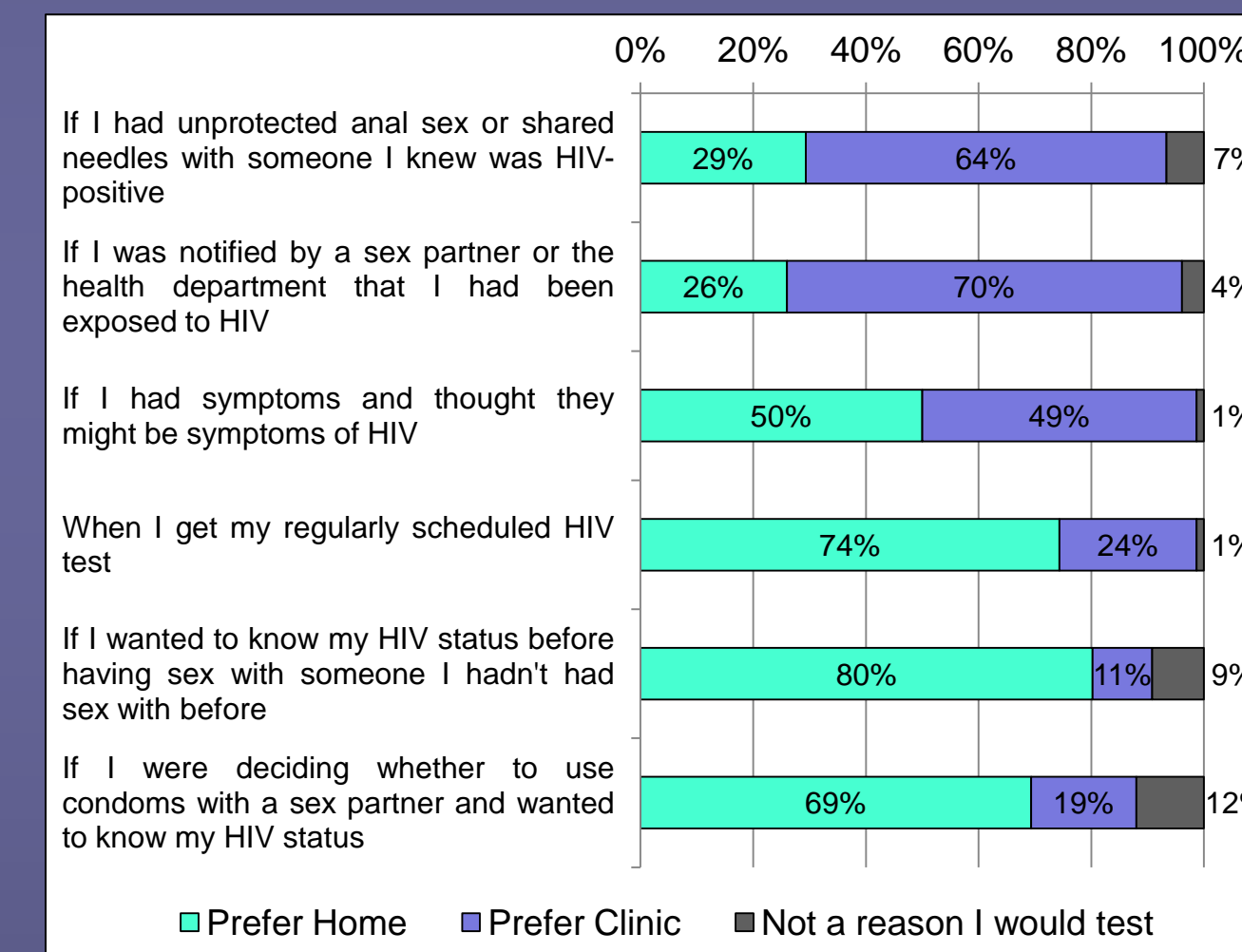
The case did not seek confirmatory testing immediately. He assumed the results were definitive and did not want antiretroviral therapy. He reported being subsequently more likely to disclose his HIV status and use condoms. Two months later, he sought confirmatory testing at the Public Health – Seattle & King County STD Clinic. He initiated HIV care two months after confirmatory testing. Six months after the home test, his CD4+ T-cell count was 396 cells/mL, and his HIV RNA level was 15,080 copies/mL. One year after the home test, he was engaged in HIV care but not receiving antiretroviral therapy.

After this case, iTest subjects have been informed they will be taken off study if they share tests. For more information about the case, see Katz DA, Golden MR, Stekler JD. Use of a home-use test to diagnose HIV infection in a sex partner: a case report. BMC Research Notes 2012; 5:440.

### Where would MSM prefer to test?



### Test preference by situation



## Conclusions

- MSM intend to use home-use HIV tests with sex partners to inform sexual decision-making, which may decrease condom use
- Because of the home-use test's 3-month window period, many HIV-infected MSM (~25% testing in Seattle) may obtain false-negative results during the highly infectious stage of acute infection
- Additional research is needed to determine:
  - whether home-use tests can be safely used to increase the accuracy of serosorting
  - impact of home-use tests on HIV and STI transmission
- Efforts are needed to ensure that MSM:
  - understand the home-use test's limitations
  - continue to screen and receive treatment for STIs