



Public Health  
England

# The use of Digital Vending Machines and HIV self-tests to reach high risk populations

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# LONDON

## FAST-TRACK CITIES 2019

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# Background

- Novel strategies required to reduce undiagnosed HIV & end the HIV epidemic
- Self-testing for HIV provides an opportunity to reach populations not engaged with conventional services
- Availability of tests remains limited, costly, payment traceable

# Aims

- To increase HIV testing by making self-test HIV kits available through digital vending machines in venues frequented by high risk groups in the wider community



**FAST-TRACK**  
ENDING THE AIDS EPIDEMIC BY 2030



# HIV self-tests - digital vending machine

- **Licensed for use in UK in 2015**
- **No training costs:** clear user instructions; comprehensive linkage to care information for reactive testers
- **Value for money** £9.86 (c.f. £53.11 Sexual Health, no lab costs)
- Subsequent machines
- **Availability '24/7'** - covers busy evening hours and weekends when staff usually unavailable or costly



# Co-created with Community Business

## Clinic staff approached by sauna manager:

- ~400 MSM per week - testing levels insufficient (Terrance Higgins Trust (THT) 6-8h/week)
- proportion clientele NOT engaging
- lack of anonymity seen as a barrier - having to engage with outreach workers
- evidence of high risk behaviour, but poor recognition of individual HIV risk



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1 DROP OF  
BLOOD  
**15**  
MINUTES  
**HIV**  
SELF TEST

 Martin Fisher  
FOUNDATION

#iHIVtestUK



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England



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1 DROP OF BLOOD  
15 MINUTES  
HIV SELF TEST

THIS MACHINE PROVIDES YOUR  
**FREE HIV SELF-TEST KIT!!!**

A poster with a winter theme. The background is black with white snowflakes and green pine trees. A large, light-brown, rounded rectangular shape, resembling a test kit, is centered. A red teardrop with a white dot inside is positioned below the bottom edge of the kit. The text is arranged in a clean, sans-serif font.

#iHIVtestUK

1 DROP OF BLOOD  
15 MINUTES  
HIV SELF TEST

THIS MACHINE PROVIDES YOUR  
**FREE HIV SELF-TEST KIT!!!**

A poster with a rainbow theme. The background is a vertical rainbow gradient. A large, light-brown, rounded rectangular shape, resembling a test kit, is centered. A red teardrop with a white dot inside is positioned below the bottom edge of the kit. The text is arranged in a clean, sans-serif font.

# Digital vending machine

- BioSURE HIV self-tests: 3<sup>rd</sup> generation
- Wall mounted at eye level
- Touch screen
- Robust - liquid proof – secure (>300 machines, no incidents)
- Lifespan ‘hundreds of thousands’ of vends
- Little maintenance, can be done remotely
- Access website for live monitoring of sales, issues and epidemiological data
  - Age, gender, sexuality, testing history, Brighton and Hove resident

Machine in the exhibition room here today



Installed Brighton Sauna June 17





# Additional machines

- In July 2018, an additional four machines were installed in venues within the same community.
- Blue: Our original machine in Brighton Sauna, dispensing free HIV self tests
- Red: Our additional 'paid-for' machines, dispensing HIV self tests for £9.99 per test.
  - Adult entertainment shop
  - LGBTQ support hub
  - Men only cruising bar
  - LGBTQ friendly pub and theatre



# Evaluation: Jun 2017-May 2019

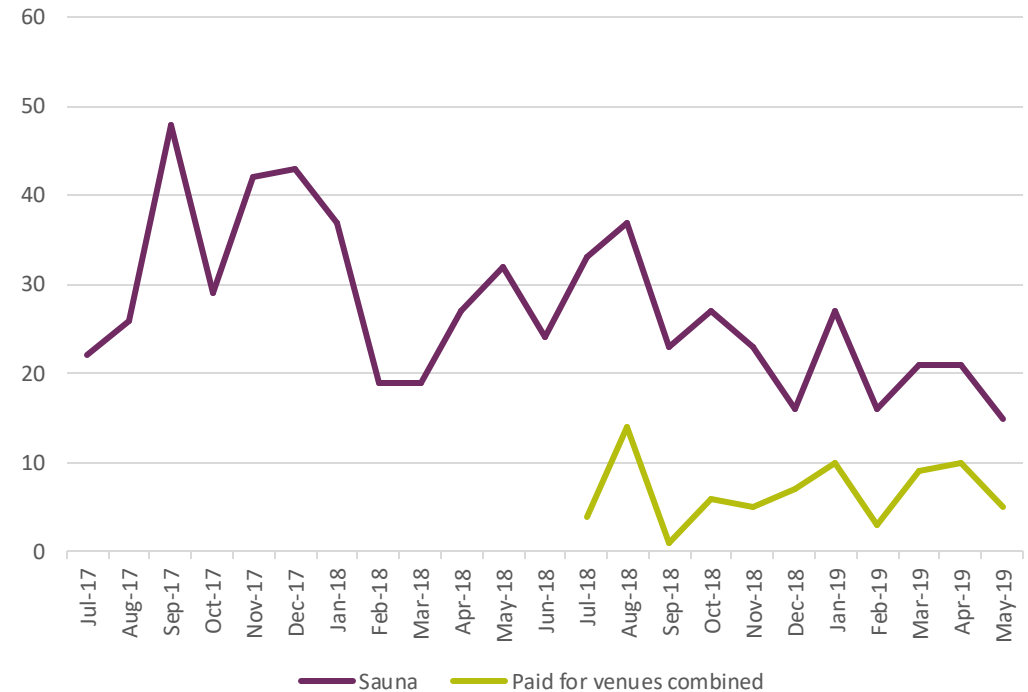
**Total number of tests taken from vending machines  
n=713**

Tests taken from free venue (sauna) (Jun 17 – May 19) (n=642)  
(average 27.9 tests/month)

Compares to the 6 months prior to the project when 27 tests were performed by outreach workers (average 4.5 tests/month)

Three reactive results

Number of tests dispensed



Tests taken from 'paid for' venues (Jul 18 – May 19) (n=71)  
(average 1.8 tests/month/venue)

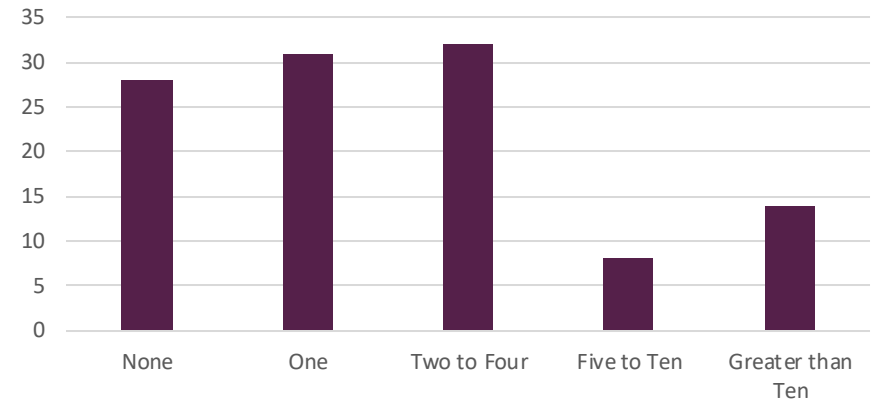
# User evaluation: Jun 2017-May 2019

**16% (n=112) of users responded to questionnaire**

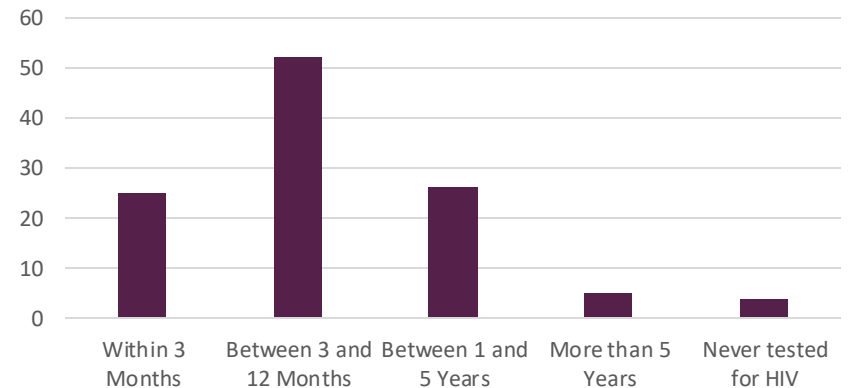
**75% (n=84) of users had unprotected anal intercourse with a new or casual partner within the last year**

**66% (n=74) of users had taken a HIV test within the last year**

Number of new or casual UPAI partner in the last year



Most recent HIV test prior to this



# Qualitative interviews: acceptability & experience

23 interviews: 10 users of vending machine, 13 sauna clients

“I think this is the best idea ever. Especially in a gay sauna. I’ve seen what happens here so I know. So this is a perfect public place. It’s practical isn’t it.”

**Participant 6 (bisexual, age 53, never tested, about to marry.... female)**

“It’s great it promotes awareness.... it makes people start to think, ‘Hey am I being safe today, am I taking risks that I don’t need to take?’ I just think it’s a fantastic idea”

**Participant 23, age 26, MSM, last test 4 months ago**

**Please see poster number 20261 for more information**

# Qualitative interviews - concerns

- Getting a reactive result in isolation
- What to do next following a reactive result and where to get a confirmatory test
- Who can I speak to straight away



**POSITIVE** 

**What do I do now?**  
You need to attend a sexual health clinic for a confirmatory blood test. The nearest is Brighton Sexual Health & Contraception service  
[www.brightonsexualhealth.com](http://www.brightonsexualhealth.com)  
or call us on **01273 664716** as soon as possible.

**What if I don't live in Brighton?**  
You can see where your nearest sexual health clinic is by visiting <https://sxt.org.uk/>


**What else should I do?**  
Until you see us it's important to avoid the possibility of transmitting any infection to others through sexual contact.


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# Qualitative interviews - concerns

- People may not attend clinic for comprehensive STI screening (displacement)
- Limitation to HIV testing alone, concern about other STIs



The infographic is divided into four quadrants. Top-left: A graphic of a test device with a red drop, text: '1 DROP OF BLOOD', '15 MINUTES', 'HIV SELF TEST'. Top-right: 'WHAT TO DO AFTER YOU HAVE TESTED?'. Bottom-left: 'The Martin Fisher Foundation is working Towards Zero new HIV infections in Brighton & Hove.' with the foundation logo. Bottom-right: 'NEGATIVE' with a green bar, followed by text: 'A negative result is reassuring but remember, very recent HIV infection (last 3 months), may not be detected by this test. You should re-test every 3 months if you have ongoing risk of acquiring HIV.'

**1 DROP OF BLOOD**  
**15 MINUTES**  
**HIV SELF TEST**

**WHAT TO DO AFTER YOU HAVE TESTED?**


The Martin Fisher Foundation is working Towards Zero new HIV infections in Brighton & Hove.

**NEGATIVE**

A negative result is reassuring **but remember**, very recent HIV infection (last 3 months), may not be detected by this test. You should re-test every 3 months if you have ongoing risk of acquiring HIV.

# Next steps - suggestions for roll out?



- “Everywhere – it’s quick, easy and convenient”
- “Colleges, public toilets, doctors surgeries”
- “Other gay venues”
- “Saunas, gay saunas everywhere”
- South East London – Poster 21586
- Two month period of free tests in ‘paid-for’ venues



**Available here!!**

**1 DROP OF BLOOD**  
**15 MINUTES**  
**HIV SELF TEST**

Get your **HOME HIV self-testing kit** from the vending machine inside. **£9.99 (RRP £29.95)**

  **Jamie HP** 

# Summary

- 1<sup>st</sup> time a digital vending machine used to deliver HIV self-tests
- Collaboration with designers / target communities ensured user-centered approach
- Highly acceptable, increased targeted HIV testing
- Develop machines additional STI testing facility
- Future research will evaluate use in other populations and ensure robust linkage to care
- Assess the impact of cost on uptake of HIV self-tests from digital vending machines





# Acknowledgements

Thank you to the participants and venue staff



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