# Vending machines can increase access to HIV testing for diverse groups at risk of HIV and STI: facilitators for use and additional opportunities

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#### **Background:**

Despite increased HIV testing options in Australia, the proportion of late diagnoses are rising. Innovative strategies for timely access to testing, particularly for people living with or at-risk of undiagnosed HIV, are required. This pilot study, an Australian first, assessed the acceptability of smart vending machines to obtain HIV self-tests (HIVST).

#### Methods:

Consenting participants completed a short pre-vend questionnaire, either online or at vending machines installed at two urban sex-on-premises-venues (SOPV) and a regional university (October 2021-May 2022), prior to accessing one free finger-prick blood HIVST kit and condoms/lubricant. One week post-vend Peer Test Facilitators sent a text message with a survey link to consenting participants.

#### **Results:**

Of 228 HIVST kits dispensed (SOPV1, 69%; SOPV2, 17%; University, 14%), previous HIV testing was lower amongst University (32%) than SOPV (90%) vends. Post-vend survey respondents (51/228, 22%) differed by region of birth (Overseasborn: SOPV1, 46%; SOPV2, 9%; University, 43%), sexual orientation (Gay/bisexual men: SOPV, 93%; University, 57%), and PrEP use (SOPV, 36%; University, 14%). Condom use was less consistent amongst University vends. Access was chosen for convenience (90%) and testing anonymity (39%). Compared with SOPV respondents, a larger proportion of University respondents preferred oral HIVST (43% versus 20%) and would have found it beneficial to talk to a Peer Test Facilitator before (43% versus 20%) and after (71% versus 32%) using the HIVST. Program satisfaction was high (96%), but most (90%) would not pay the retail price for an HIVST.

#### **Conclusion:**

Vending machines as a strategy to expand HIV testing access are acceptable. Approving oral HIVST and addressing affordability will likely promote uptake. Given the diversity of users and sexual and reproductive health risk profiles, vending machines could be used in various settings and include additional STI tests, SRH preventative strategies e.g., PEP/PrEP, emergency contraceptive pill, dental dams, and/or menstrual products.

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