AUTOMATED CONDOM DISTRIBUTION FOR HIV PREVENTION, MWANZA, TANZANIA, 2021-2023

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BACKGROUND

Condoms are a feasible, multipurpose prevention tool. In Tanzania, condom access is limited by fear of stigma associated with getting condoms, prohibitive prices, and periodic stock-outs. Limited outlets for accessing condoms exist outside of health facilities, especially for key and vulnerable populations (KVPs) highly impacted by HIV, including adolescent girls and young women (AGYW), female sex workers (FSW), men who have sex with men (MSM), and people who inject drugs (PWID).

Digital dispensing machines offer a service delivery format to overcome barriers to condom access. Digital condom dispensing machines were incorporated into ICAP's community-based HIV prevention strategy for KVP in Mwanza City, Tanzania.

We describe the implementation of personal identification number (PIN)-activated dispensing machines in community settings to increase condom access among groups at risk for HIV.

METHODS

Working with program KVP clients and outreach workers, we identified machine design features, preferred condom brands, average numbers of condoms needed, and locations for dispensing machines that would encourage use by KVP.

We engaged local government officials and business owners as community partners to host outdoor dispensing machines on their properties proximate to brothels, bars and market areas frequented by KVP, and to ensure machine security.

Six machines were installed and maintained. Peer outreach workers from KVP communities were trained on use of the machines, sensitized their social networks on use of the machines, and distributed PINs to KVP network members for up to 15 free condoms per day and to the public for up to three condoms per day. Machines were accessible 24-hours a day, 7 days a week.

Machines captured user sex, age, and number of condoms dispensed. KVP status was tracked through PIN codes. PWID PIN codes distinguished clients as in medication-assisted treatment (MAT) or not in MAT.

All data were stored in a secured server to ensure information security and confidentiality. Data were downloaded regularly and aggregated for program monitoring and reporting.



Figure1. Peer worker at a condom dispensing machine

76% of the condoms were collected by female users.

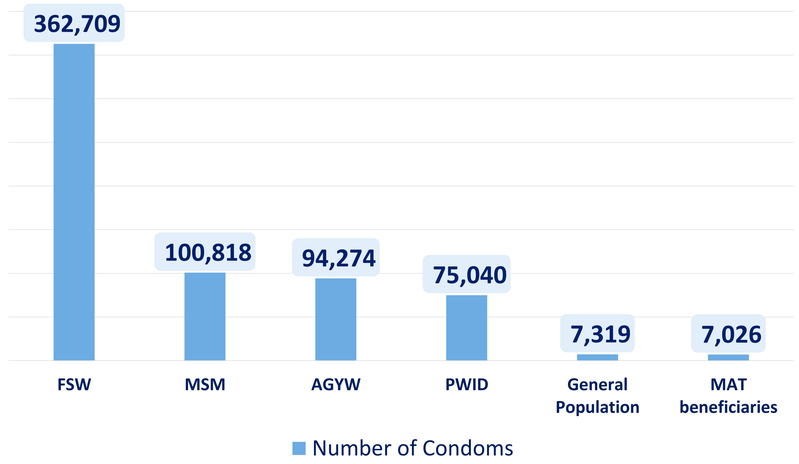
Our technology-based solution is a ***sustainable, acceptable strategy*** for extending the reach of ***HIV prevention*** through the communities we serve.

RESULTS

Between October 2021 and September 2023, a total of 647,186 condoms were distributed to 7,419 unique users. Users had a mean age of 32 (range: 30-34) years. Among users, 67% were female, and 76% (n=489,730) of condoms were collected by females. FSW retrieved 56% of condoms dispensed by machines; MSM 16%; AGYW 15%, and PWID 12%.

Over two years (October 2021 to September 2023), a mean of 102 (range: 62–210) condoms were accessed per female user compared to 66 condoms (range: 4–112) per male user. Peak access days at the machines were Saturdays and Sundays, with peak access times between 4 p.m. to 8 p.m.

Figure 2. Condom Access by Population Group, Oct 2021- Sept 2023, n=647,186



CONCLUSIONS

All KVP groups reached through community-based HIV prevention accessed the machines. Female clients accounted for most use, commensurate with the estimates of KVP by gender in Mwanza.

Automated dispensing machines incorporated to community-based, peer-led approaches can expand condom access beyond health facilities and to days and times when conventional sources of no-cost condoms like health facilities are closed.

Technology-based solutions are feasible and impactful approaches to address barriers to condom access for KVP in Mwanza. These solutions could be expanded to provide access to additional prevention options for KVP beneficiaries at the community.

ADDITIONAL KEY INFORMATION

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