

**Introduction** Helpcenter (HC) is a low threshold centre for HIV and STI testing and dedicated to high risk groups: men having sex with men (MSM) and migrants from high endemic regions. Rapid HIV tests (RT) are used at HC for HIV screening since June 2007. The aim of this work is to describe our experience with this testing strategy.

**Methods** retrospective analyse of all RT routinely performed at HC. Tests are performed on plasma using the Determine Combo®HIV-1/2 Ag/Ab (Alere) test (4th generation). Determine®HIV-1/2 (3th generation) has been used until May 2009. All reactive tests were confirmed using INNO-LIA HIVI/II Score®. A validation study was performed on 310 samples at the beginning of the project

**Results** up to December 2012, 5053 RT have been performed in 3884 persons including 1207 MSM and 994 migrants. The mean age was 33 years. 79 tests were reactive, 4968 negative and six not interpretable, two at the beginning of the project (learning curve) and four due to inappropriate light in the testing room and uncontrolled room temperature. Nine reactive tests were not confirmed with antibody or antigen tests (false-positive rate: 11.3%). No false-negative results have been observed during the validation study. The prevalence of HIV was high among the risk groups: 2.9% of MSM and 3% of migrants tested were found hiv-positive. The availability of RT was an important reason to consult at HC, 66% of the respondents highlight it as motivation to consult at HC. RT is offered to each person consulting at HC, 90% of them accepted to undergo a RT as screening for HIV.

**Conclusion** the RT is well accepted in a dedicated testing centre. The overall prevalence of HIV infection was 1.8%, nearly double in the target groups. Data on linkage to care will be presented.

**P5.025 DEVELOPMENT AND COMPARATIVE EVALUATION OF AN INNOVATIVE HIV SELF-TESTING SMARTPHONE APPLICATION, AN INTERNET-BASED AND A PAPER-BASED INSTRUCTIONAL PROGRAMME IN SOUTH AFRICA**

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**Background** South Africa has about 11% of the total population living with HIV, the largest to date for any country. Facility-based HIV testing has reached only 50% South Africans because of fear of visibility leading to stigma, embarrassment and discrimination. Alternative strategies like self-testing for HIV may improve engagement, but evidence is limited. For self-testing to be successful, knowledge regarding the process, clear instructions about how to conduct, interpret and seek linkages to counselling and staging is essential.

**Methods** We created an internet-based HIV self-testing programme with a popular oral HIV test. The programme had built-in content for counselling, personal risk staging, instructions to self-test, and to seek counselling and referral. We also created an equivalent paper version and evaluated both programmes in 251 health care professionals working at University of Cape Town, South Africa. The tested internet programme was converted into an interactive, engaging smartphone HIV self-test application. The application was piloted for design, content and comprehension in 12 young adults (aged 18–25 years).

**Results** Internet and paper-based self-testing programmes were well received (91.3%) by participants with overall preference for self-testing reported at 100%. User feedback on the smartphone application was incorporated after pilot evaluation and the following were improved: (a) a user centred design and layout, (b) colourful interface with clear instructions, (c) clarity of content for

comprehension, (d) built-in features for expanded access, and (e) overall presentation. After six iterations, a prototype Android application was developed.

**Conclusion** High preference to self-test facilitated the use of the internet and paper-based programmes. This indicates that if validated self-tests are presented with clear instructions to self-test and built-in confidential linkages to counselling and treatment are provided, many more individuals will opt for HIV self-testing. These programmes and the smartphone application will be useful for the scale-up of unsupervised self-testing initiatives in literate populations worldwide.

**P5.026 MORE THAN JUST SELLING THE TEST: PHARMACIST OPINION ABOUT THE SALE OF OVER THE COUNTER HIV RAPID TESTS**

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Community pharmacy sale of over-the-counter (OTC) rapid HIV tests may provide an important extension of the public health system. U.S. pharmacy practise has expanded to include several public health services; however, nothing is known about pharmacist attitudes about OTC sale of HIV tests and related consultation opportunities.

**Methods** This study identifies and explores the views of pharmacists regarding the sale of OTC rapid HIV tests. Exploratory interviews were conducted among a sample of 17 licenced community pharmacists in a Midwestern U.S. state with moderate HIV incidence. 30-minute interviews were conducted in person or by telephone between May and September 2012. Interviews were recorded and transcribed for a priori and open coding. Three investigators independently coded transcripts to assure interrater reliability.

**Findings** Pharmacists had positive attitudes about the OTC rapid HIV test, as testing would likely result in more people learning their HIV status. Participants felt that the pharmacy role should not be limited to test kit sale. Pharmacists framed their role as health consultants focused specifically on results consultation and linkage to treatment. Point of sale was identified as the opportunity for consultation about the HIV test and to establish a relationship for future discussion about results and linkage to care.

**Conclusion** Pharmacist consultation at point of OTC HIV test sale provides an important opportunity to increase options for linkage to HIV care. Future studies should investigate pharmacist opinion and attitudes about the OTC sale of rapid HIV test kits among a larger and more representative sample of community pharmacists, and in states with other geographic, socio demographic and epidemiologic characteristics.

**P5.027 HIGH PREVALENCE OF UNDIAGNOSED HIV INFECTION IN PATIENTS WHO WERE NOT OFFERED SCREENING AND PATIENTS WHO DECLINED SCREENING: EVALUATION OF A RAPID HIV SCREENING PROGRAMME IN A U.S. URBAN EMERGENCY DEPARTMENT**

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**Background** U.S. emergency departments(EDs) have become a cornerstone of the current CDC screening approach for identifying unrecognized HIV-infected patients. However, in spite of intensive efforts many ED screening programmes frequently fail to identify many infected patients. We aimed to investigate the prevalence of undiagnosed infection in an ED with an established HIV screening programme.

**Methods** An inner-city ED implemented an opt-in rapid oral-fluid HIV screening programme since 2005; during the summer of 2007, HIV testing facilitators offered 24/7 bedside rapid testing to patients aged 18–64 years. During the same period, an HIV seroprevalence study enrolled adult patients who gave consent for use of their blood samples. Known HIV positivity was determined by either chart review or self-report. Serum samples were tested for HIV by EIA and all positives were confirmed by Western blot followed by RNA viral load testing.

**Results** There were 3,884 samples, including 153 from known HIV positives for the seroprevalence study. Among the remaining 3,731 visits, 1,286 (34%) were offered bedside HIV testing; 2,445 (66%) were not. Among those offered, 693 declined, and 561 were tested (32 accepted but were never tested). Seroprevalence data revealed the following rates of undiagnosed HIV infections: 2.0% in those offered versus 5.3% in those not offered ( $p < 0.001$ ); 2.5% in those who declined, 0.6% in those tested, and 15.6% in those accepted but not tested ( $p < 0.001$ ). Mean viral load was significantly higher in those not offered the screening as compared to those offered (difference: 63,441, 95%: 3,310–123,572).

**Conclusion** There was a disproportionately high prevalence of undiagnosed HIV infection in ED patients who were not offered HIV screening and in those who declined screening, versus those who accepted testing. This indicates that even with an intensive established opt-in counsellor-based rapid HIV screening model, significant missed opportunities remain with regard to identifying undiagnosed HIV-infected individuals in the ED.

#### P5.028 SWAB2KNOW: PROVIDE AN ORAL FLUID SAMPLE ON SITE, CHECK YOUR HIV TEST RESULT ONLINE

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**Background** Despite the high testing rate in Belgium a considerable number of individuals remain undiagnosed. Outreach and minimally invasive strategies might increase the uptake of HIV-testing. Swab2know aims at evaluating the feasibility of a non-invasive and confidential HIV test strategy among groups with a high risk of acquiring HIV infection (Subsaharan African migrants; SAM, and men who have sex with men; MSM) in community settings.

**Methods** Swab2know is using oral fluid samples for HIV-testing. Oral fluid is collected on a validated device (Oracol®). Serologic HIV testing (Genscreen®HIV-1/2 v2) and quality control (IgG determination) are performed at the Institute of Tropical Medicine's (ITM) AIDS Reference Lab.

**Participants** can choose to receive their result either through a secured website (www.swab2know.be) or personal counselling. Reactive results are disclosed as indicative for HIV-infection, needing confirmation on blood using the gold standard tests. These participants are contacted by phone after they checked their result, offering confirmation tests or referral to a local HIV-treatment centre. In case of a non-reactive test, participants are offered repeated testing after four months by ordering an oral fluid sampling device kit online. Data on age, sex, origin, HIV-testing behaviour, and sexual activity are collected using a survey.

**Results** After 2.5 months, 166 participants were tested in 11 settings. Fifty-three were SAM (31.9%), 111 MSM (68.1%). Twenty-two SAM (41.5%), and all MSM (100%) chose to receive their result through the website. Nine participants tested positive for HIV: three SAM (5.7%), and 6 MSM (5.4%).

Preliminary experiences show a high uptake, and good acceptance of sampling method, and online communication of test results.

**Conclusion** Preliminary experiences with this low-threshold method are promising, showing high acceptance and satisfaction with the online tool. Increasing uptake by ordering sampling devices online, is studied.

Up-to-date results and more specific conclusions will be presented at the conference.

#### P5.029 HIV SCREENING SERVICES: IMPROVING UPTAKE IN RURAL AND HARD TO REACH POPULATION GROUPS

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**Background** Despite significant advances in HIV programme implementation, uptake of HIV screening services remains notably low in rural areas. Most HIV screening centres are concentrated in urban areas resulting in low coverage of HIV testing services in rural communities. This paper analyses the outcome of community and facility based interventions to increase access and uptake of HIV screening services in rural and hard to reach population groups with limited access in Nigeria.

**Methods** In order to increase uptake of HIV screening services in rural communities, the MSH PrO-ACT project in collaboration with Kwara state ministry of health implemented the following interventions

1. Community awareness campaigns to increase knowledge about HIV transmission and prevention.
2. Community mobile HIV testing programmes which utilised existing community structures such as churches, empty school rooms and other community buildings were established to provide temporary HIV screening services.
3. Capacity of selected community members was built on HIV counselling and testing in order to increase the number of HIV screening workers.
4. HIV screening services were offered on communal market days to increase accessibility and uptake.
5. Referral linkages from HIV testing points to HIV clinics was strengthened to ensure that every client who tests positive accesses care and treatment services.
6. HIV screening services were integrated into maternity, family planning and sexually transmitted infection units of rural clinics to reduce stigmatisation and increase uptake.

**Results** After 12 months, 12,436 (Male- 3,616, Female- 8,820) people were screened for HIV. 405 persons tested positive and 397 persons (M-176, F- 82) were linked and enrolled into HIV care and treatment programmes. Out of this, 235 persons were eligible for anti-retroviral therapy and commenced treatment.

**Conclusion** Existing inequalities between urban and rural areas highlights the need to adopt innovative approaches aimed at increasing uptake of HIV screening services.

#### P5.030 NEW AVENUES FOR PROACTIVE HIV TESTING IN PRIMARY CARE REQUIRED: A TREND ANALYSIS OF TWENTY YEARS OF HIV-RELATED CONSULTATIONS IN DUTCH GENERAL PRACTISE

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**Background** In the Netherlands 30–40% of HIV-infected persons are not aware of their status. Half of the newly diagnosed present late. Late treatment reduces life expectancy with approximately 10 years. Early treatment reduces transmission to sex partners with 96%. A more proactive role in testing in primary care is advocated.