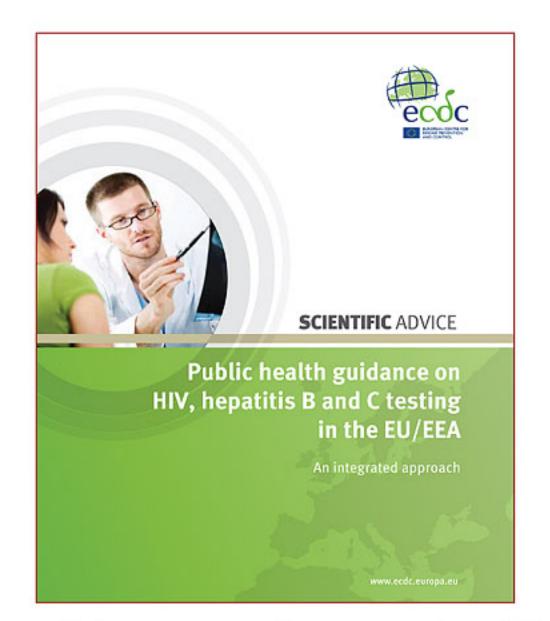
## RESULTS OF IMPLEMENTATION OF INTEGRATED RAPID TESTING FOR HIV, HEPATITIS B AND C AND SYPHILIS ON THE BASE OF HEALTHCARE FACILITIES AND COMMUNITY LEVEL IN UKRAINE

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**Introduction:** In 2018 ECDC released scientific advice: *Public* health guidance on HIV, hepatitis B and C testing in the EU/EEA. An integrated approach. Reaching and testing those at risk of infection with HIV, hepatitis B or hepatitis C and STD is still a public health challenge.

New strategy for testing and promoting opportunities for an integrated approach to HBV, HCV and HIV, Syphilis is an essential element to curb these infections in Ukraine.

Combined 4-component test for testing could make it possible to optimize the working time of the staff and reduces the cost

of the screening service. The objective of this study was to conduct a comparative analysis of epidemiological data of integrated rapid testing for HIV, hepatitis B and C and Syphilis conducted at different healthcare facilities (HCFs) and on the community level among varies populations in Ukraine.

Methods: From March to July 2023, data on HIV, hepatitis B and C, syphilis screening, clinical, demographic, risk behaviour, reasons for testing, sexual information was recorded for individuals attending:

- AHF Wellness Center Odessa (WCOd).
- AHF L'viv Checkpoint (ChPLv).
- Mobile testing (outreach).
- Primary care facilities (GP).
- AIDS centres.
- Other HCFs.

Visitors were screened for HIV, syphilis, hepatitis C and B using point of care rapid a/b testing kits. HIV positive tests were validated. To compare characteristics between clients of different healthcare facilities non-parametric Chi-square test was used for univariate analyses.

**Results:** During the study period 52,827 clients aged 15–80 years attended HCFs. Among them 2,250 new cases of HIV (4.3% positivity) were identified, 2,093 HIV-positive persons were linked to care.

The positivity rate of screenings for HIV among clients of AIDS centres was significantly higher 5.7% (n = 2,043/3,5874) vs 1% for clients of other settings (n = 14/1,275 WCOd, n = 11/1,140 ChPLv, n = 42/2,982 outreach, n = 40/4,116 GP, n = 100/7,440 other HCFs respectively, p = 0.001).

**HBV** was revealed without difference between settings – 1.2% (316/26,623).

HCV was diagnosed twice time higher among persons other of HCFs – 15% (264/1,809) vs 7.8% (1,447/18,662) AIDS centres, 6% (13/2,308) outreach testing, 9% (99/1,055) WCOd respectively, p = 0.001. The positivity rate of screenings for HCV among clients of ChPLv and GP made up 1% (8/1,140) and 2.4% (40/1,649).

**Syphilis** was diagnosed significantly higher among persons of WCOd – 2% (16/1,055) and AIDS centres – 1.3% (248/18,662) compared to persons of other setting (Fig.1).

Testing outcomes by key or vulnerable population at higher risk showed as that among MSM syphilis (3.2%, 56/1,723) was diagnosed more frequently compared to person who injects drugs (PWID) - 1.5%, 38/2,490, but among PWID 39% (976/2490) had HCV and 12,9% (650/5021) – HIV, among MSM – 1.5% (27/1723) HCV and 2,1% (58/2663) HIV respectively. (Fig.2) Among uniformed forces (military, police, security) HCV was diagnosed in 3,5% (139/3956), HIV – 1,3% (104/7536).

HIV positive testing outcomes by reasons of test were 12% (278/2,256) HIV positive partner, 11% (492/4,351) use of injectable drugs, 5% provider-initiated counselling and testing (PITC), 3% (375/11,757) unprotected sex. (Fig. 3).

Among new HIV diagnoses people over age 50 made up 3,5%, 20–24 years – 1.4%, 15–29 years – 0.75%, but the most injured groups were 30–39 and 40–49 that made up 5.13% and 6.3% respectfully.



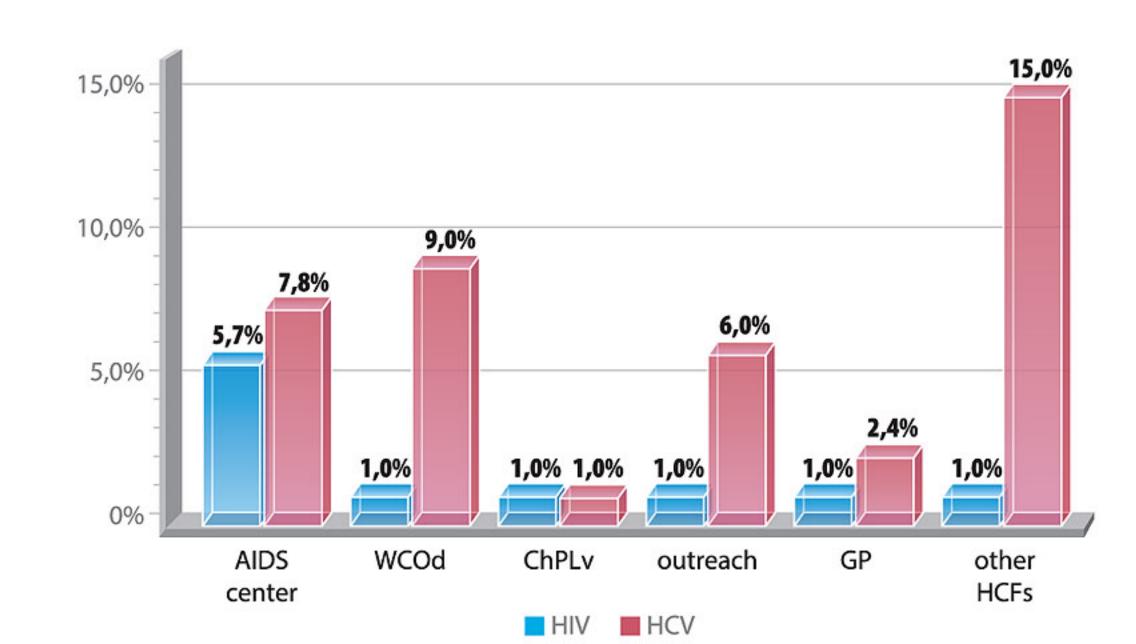


Fig.1. The positivity rate of screenings for HIV/HCV

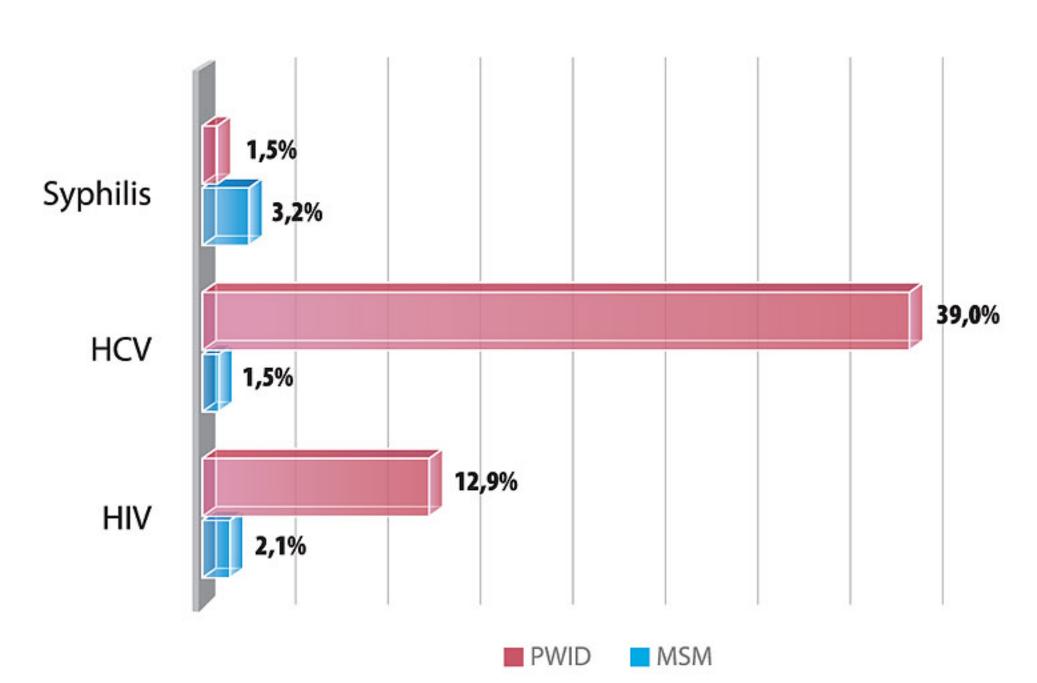


Fig.2. Testing outcomes for PWID/MSM

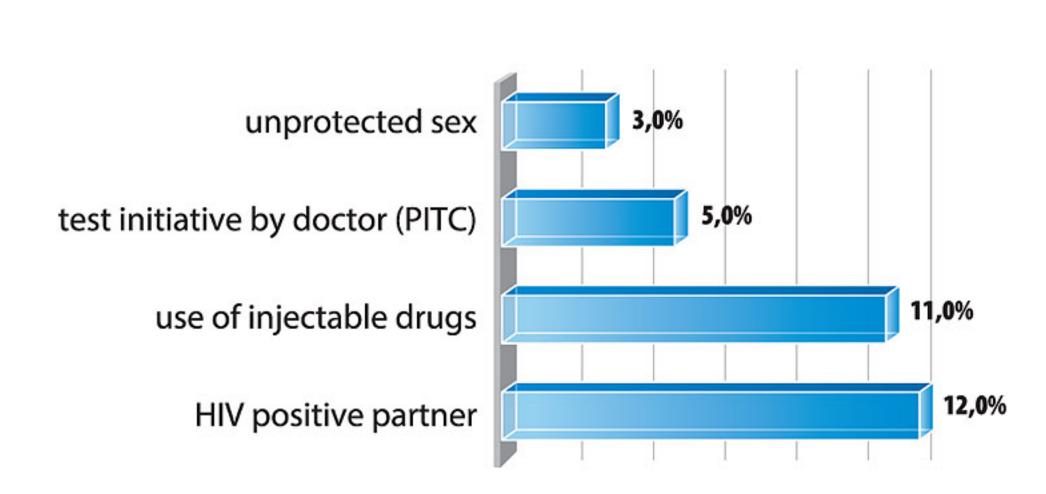


Fig.3. HIV Testing outcomes by reasons of test

Conclusions: This study shows that testing outcomes by key or vulnerable population are not the same among healthcare facilities. Based on our results different approaches for STI testing and medical supervision should target among MSM in Ukraine who are at higher risk getting HIV, syphilis, and PWID with more prevalence of HIV, HCV among them. The integration of single-stage screening for HIV, viral hepatitis B / C and syphilis can increase the effectiveness of their screening, early diagnostic in HCFs and reach the groups most at risk at the community level. The cost-effectiveness of using 4-component tests requires further study.

