




Scale-up of HIV self-testing

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Ending HIV transmission in Europe is possible, but requires increased testing efforts and ensured linkage to care pathways across different settings. Evidence supports the implementation and scale-up of the ethical, effective, acceptable, and evidence-based HIV self-testing (HIVST) approach [1,2]. A high acceptability of HIVST and self-sampling has been found among key populations largely because it helps overcome self-identified barriers to HIV testing [3].

The HIV in Europe Initiative (HiE), a pan-European initiative to improve early diagnosis and enrolment in care [4], supports increasing the range of voluntary HIV testing options within accessible comprehensive service delivery frameworks, including HIVST, where individuals perform an HIV rapid test themselves and read their own results, and HIV self-sampling, where individuals take the specimen and send a dried blood spot or oral fluid sample to a laboratory and receive the results after analysis.

Despite some progress in HIV testing among key populations, rates remain low, particularly in eastern Europe [5], and few countries currently authorize or implement HIVST and/or self-sampling. The Dublin Declaration 2017 monitoring report lists eight countries authorizing self-sampling kits (Bosnia and Herzegovina, France, Georgia, Moldova, the Netherlands, Norway, Spain and the UK) and six authorizing HIVST (Bosnia and Herzegovina, France, Georgia, Moldova, Norway and the UK). [6] However, this is an area in rapid expansion, and HIVST kits went on sale in pharmacies in Belgium in November

2016 (<http://www.breach-hiv.be/media/docs/BREACHSympto2017/18HIVPlanBREACH2017.pdf>) and in Denmark in November 2017 (<https://aidsfondet.dk/Nyheder/Selvtest-for-hiv-kan-nu-k%C3%B8bes-i-Danmark>), and most recently HIVST has been approved in Spain in January 2018. Ample room remains for expanding HIV testing modalities across European countries to achieve earlier diagnosis and prevent onwards transmission.

For a successful rollout of HIVST and/or self-sampling, a series of challenges need to be addressed (see Table 1), with emphasis on the quality of the testing process, access, information, and support and linkage to care for those with a reactive/positive test [7].

Within the framework of the European Union (EU) co-financed Joint Action INTEGRATE (Joint Action on integrating prevention, testing and linkage to care strategies across HIV, viral hepatitis, tuberculosis and sexually transmitted illnesses in Europe: a collaboration between 15 EU countries and Serbia, involving 29 partner organizations, which runs for 3 years from 1 September 2017; see <http://www.integrateja.eu>), lessons learned from countries already implementing HIVST and self-sampling will be reflected upon and a best practice guide developed to facilitate implementation in other countries.

To enhance HIV testing, HIV in Europe encourages European governments to take a proactive role in removing existing legal and regulatory barriers, including those limiting the availability of HIVST, preventing the use of point-of-care technologies by lay providers and restricting access to HIV tests for people < 18 years of age and/or migrants [6].

Further, a close collaboration between governments, diagnostic companies and community organizations to identify mechanisms and implementing processes that ensure efficient and timely assessment and approval of

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*See Appendix.

Table 1 Challenges to be addressed in the scale-up of HIV self-testing (HIVST)

Quality	Conduct follow-up studies to monitor the confirmation of results according to nationally agreed algorithms
Access	Inform potential users and stakeholders about the benefits of facilitating access to self-testing (Euro HIV Edat KAB/P Study, Unpublished data) Make HIV self-test kits affordable and widely available to ensure real access across Europe for key populations among which the HIV epidemic is concentrated and where HIV testing rates remain low Support community and other organizations in offering free tests to members of the most vulnerable communities Address slow and costly approval processes for licensing devices and kits for sale Train community counsellors and pharmacists to provide correct advice to persons requesting self-test kits
Information	Support websites that provide potential users and users with practical information (via demonstration videos) on how to use the tests, and contact details of local medical centres and/or community organizations Work with companies to ensure that testing kits include information on how to administer the test and interpret its results, and where to obtain additional information/support Work with companies to ensure that testing kits include information about the need for repeated testing if a test is taken within the window appropriate for the particular test used or if the tester is at high ongoing risk Work with companies to ensure that testing kits include specific messaging to individuals with risk behaviour about timely screening for viral hepatitis and other sexually transmitted illnesses
Support and linkage to care	Make support services available, for instance 24-h hotlines run by health facilities or community organizations, to support those with a reactive/positive test, and to monitor and mitigate possible adverse impacts of reactive results and false positives Monitor follow-up after a reactive result to understand how and if people engage in appropriate care and support Establish pathways to ensure that a reactive (positive) self-test result is confirmed and linkage to care is in place Inform staff at primary care and other health care settings about the existence of HIVST, their limitations, and the need for seamless pathways to effective confirmation and linkage to care (Euro HIV Edat KAB/P Study, Unpublished data) Assess whether the proportion not having a confirmatory test or lost to follow-up is higher than among users of community-based testing sites or health care facilities

safe, high-quality, affordable, consumer-friendly testing technologies to improve testing rates across Europe is essential.

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Author contributions

SF, IS, DR, GMC and CA drafted the manuscript and JL, VD, DR, TP and JC critically revised it and provided

technical input. All authors critically revised and finally approved the manuscript for publication.

Appendix: The HIV in Europe Steering Committee

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