



# Enfermedades Infecciosas y Microbiología Clínica

[www.elsevier.es/eimc](http://www.elsevier.es/eimc)



## Editorial

### HIV testing in Spain: Are we doing our job?

### Pruebas de VIH en España: ¿estamos haciendo nuestro trabajo?



#### Outreach HIV testing using oral fluid and online consultation for the results: Pilot intervention in Catalonia

Spain remains as one of the European countries with the highest prevalence of people living with HIV and the highest incidence of new HIV diagnoses.<sup>1</sup> It is estimated that 150,000 people are living with HIV in Spain, and around 13% of them remain unaware of the infection.<sup>2</sup> In 2018, the HIV incidence was 6.4 cases per 100,000, and almost half of the patients were diagnosed at a late stage.<sup>1</sup> Late HIV diagnosis has profound individual implications in terms of HIV-related morbidity and mortality,<sup>3</sup> as well as population implications since it increases the risk of onward HIV transmission.<sup>4</sup> Since 2013, the World Health Organization (WHO) has had an ambitious treatment target to help end the AIDS epidemic known as “90-90-90.” Essentially, the goal is for 90% of all people living with HIV to know their status, receive sustained antiretroviral therapy, and achieve viral suppression by 2020.<sup>5</sup> Spain has clearly reached the second and third goals, but not the first.<sup>2</sup>

More recently, the U.S. Department of Health and Human Services (HHS) has proposed a new initiative to address this ongoing public health crisis. Their goals include reducing the number of incident infections in the United States by 75% within 5 years (2023) and then by 90% within 10 years (2028).<sup>6</sup> The strategic initiative includes 4 pillars: diagnose all individuals with HIV as early as possible after infection; treat HIV infection rapidly and effectively to achieve sustained viral suppression; prevent at-risk individuals from acquiring HIV infection, including the use of pre-exposure prophylaxis (PrEP); and rapidly detect and respond to emerging clusters of HIV infection to further reduce new transmissions.<sup>6</sup> Early HIV detection and viral load suppression have been demonstrated to reduce new HIV infections effectively, but this new plan introduces two strategies to further reduce new HIV infections: PrEP implementation and contact tracing using molecular technology while prioritizing populations with the highest prevalence.

One of the objectives of the Spanish Strategic Plan is to promote HIV screening and reduce late diagnosis.<sup>7</sup> To comply with this, there are excellent HIV testing guidelines in health<sup>8</sup> and non-health settings.<sup>9</sup> However, most of the physicians that should apply these guidelines are unaware of them,<sup>10</sup> and non-health settings depend on weak NGOs that need to request funds annually to

continue operating.<sup>11</sup> In Spain, there is not a clear plan to eradicate HIV infection, and most worryingly, the new threat of the COVID-19 pandemic has recently jeopardized or diverted ongoing initiatives.<sup>12</sup>

Testing outside of health care services is a particularly important approach to reach certain groups who are at higher risk of HIV infection, such as people who inject drugs, men who have sex with men (MSM), sex workers, and migrants.<sup>13</sup> Expanding HIV testing outside of health care settings provides a mechanism for improving testing coverage and identifying undiagnosed infections in at-risk populations. In Spain, important HIV testing outreach initiatives have been developed in the past, such as street-based mobile units offering rapid HIV testing in selected sites. These efforts achieved HIV detection at an earlier stage of infection than clinic-based sites and had a low rate of false-positives.<sup>14</sup> Furthermore, a multisite, street-based HIV rapid testing program also provided linkage to care and early diagnosis, particularly to MSM.<sup>15</sup> Both approaches have benefits, but despite the successful outcomes, few programs are being implemented at this moment in Spain. Furthermore, those that are already in effect have currently been interrupted since March 2020 due to COVID-19 health crisis. Research initiatives are almost the only efforts directed toward this area.<sup>16</sup>

In this context, Agustí et al. evaluated the feasibility and effectiveness of a rapid screening strategy in an outreach intervention for populations with a high incidence of HIV infection.<sup>17</sup> The work is part of the European project “Swab2know,” which has been carried out previously in other countries.<sup>18</sup> The study shows an innovative approach to promoting access to HIV testing for at-risk populations when current screening strategies are not sufficient. Outreach interventions in high-risk settings have been shown to be a useful and feasible strategy for HIV testing,<sup>19</sup> and participants in these interventions have reported positive experiences.<sup>20</sup> Moreover, street outreach has proven to be an important service-delivery method for providing health information, risk-reduction materials, and prevention services at a point of contact in the community, as well as a means of referring hard-to-reach populations to health and social services.<sup>21</sup> There are barriers to HIV screening, such as fear of testing positive, low HIV risk perception, lack of social support, HIV-related stigma, or confidentiality concerns, which can be overcome by strategies such as the one presented in this paper.<sup>22</sup>

Agustí et al. evaluated the offer of on-site oral fluid self-sampling in community settings, with samples being sent to a reference

DOI of original article: <https://doi.org/10.1016/j.eimc.2020.01.020>

<https://doi.org/10.1016/j.eimc.2020.10.009>

0213-005X/© 2020 Sociedad Española de Enfermedades Infecciosas y Microbiología Clínica. Published by Elsevier España, S.L.U. All rights reserved.

laboratory and consultation for the results being provided through a secure web page. Previous studies found that oral fluid testing is preferred by MSM over giving blood samples, and several research projects have shown promising results for HIV tests on oral fluid samples.<sup>18,23</sup> A total of 834 participants were recruited (612 MSM, 203 female sex workers, and 19 trans women), among which 22 reactive cases were detected. The results confirm that the strategy of recruitment in high-risk environments and self-sampling of oral fluid is feasible in Spain as an efficient intervention, although the results were not the same in all population groups.

Most reactive cases occurred among the MSM group (21 out of 22), with one case observed in a trans woman and none in female sex workers. MSM presented a higher percentage of results consultation (82.6%) than female sex workers (39.9%) and trans women (26.3%). The authors comment that this may have been due to the socio-demographic characteristics of these last two groups, who were all migrants who sometimes had language comprehension problems and poor access to the Internet.

This work also has some limitations. The study has no data on test confirmation or linkage to care for a high percentage of participants. The correct linkage to health care for people who have obtained a reactive result is a priority. However, with the methodology used, this has not been possible in a high percentage of cases. It would be necessary to implement active search strategies for these participants, which would include personalized follow-up through telephone calls to verify that they have obtained their results, that they are confirmed, and that the individuals are referred to specialized HIV care. As a second important area of improvement, contact tracing was not performed on participants with positive results. Partner notification is a feasible method of reaching people who are at high risk for HIV infection to offer them counseling and testing. Furthermore, it has been an important public health approach in the context of other communicable diseases, such as sexually transmitted infections and tuberculosis.<sup>24</sup>

Our main conclusion is that in Spain, it is urgent and necessary to realize national strategic plan for the prevention and control of HIV infection.<sup>7</sup> Clear guidelines, standards, and quality indicators should be established to assure that all people at risk of HIV infection are tested in any setting, including specialized care, emergencies, primary care, and community-based programs. At this point, we must also ensure the longitudinal monitoring of people in the general population who are not infected with HIV but are at risk, as well as provide preventive non-pharmacological and pharmacological options. Finally, all HIV testing programs and particularly outreach initiatives should implement personalized follow-up so that 100% of the cases are confirmed and linked to care. Several initiatives that have already proven to be feasible and efficient should be adequately implemented and provided with sufficient resources.

## References

- HIV/AIDS surveillance in Europe 2019-2018 data. European Centre for Disease Prevention and Control/WHO Regional Office for Europe HIV/AIDS surveillance in Europe 2019-2018 data. Stockholm: ECDC; 2019. Available from: <https://www.ecdc.europa.eu/sites/default/files/documents/hiv-surveillance-report-2019.pdf> [accessed 10.09.20].
- Unidad de vigilancia del VIH, ITS y hepatitis. Actualización del Continuo de Atención del VIH en España, 2017-2019. Madrid: Centro Nacional de Epidemiología – Instituto de Salud Carlos III/Plan Nacional sobre el Sida – Dirección General de Salud Pública; 2020. Available from: [http://www.mscbs.es/ciudadanos/enfLesiones/enfTransmisibles/sida/vigilancia/ESTIMACION\\_DEL\\_CONTINUO\\_DE\\_ATENCION\\_DEL\\_VIH\\_EN\\_ESPANIA.Nov2020.pdf](http://www.mscbs.es/ciudadanos/enfLesiones/enfTransmisibles/sida/vigilancia/ESTIMACION_DEL_CONTINUO_DE_ATENCION_DEL_VIH_EN_ESPANIA.Nov2020.pdf) [accessed 4.12.20].
- Nakagawa F, Lodwick RK, Smith CJ, Smith R, Cambiano V, Lundgren JD, et al. Projected life expectancy of people with HIV according to timing of diagnosis. AIDS. 2012;26:335–43.
- Cohen MS, Chen YQ, McCauley M, Gamble T, Hosseinipour MC, Kumarasamy N, et al. Antiretroviral therapy for the prevention of HIV-1 transmission. N Engl J Med. 2016;375:830–9.
- Joint United Nations Programme on HIV/AIDS (UNAIDS). 90-90-90, an ambitious treatment target to help end the AIDS epidemic. Geneva. 2014. Available from: [https://www.unaids.org/sites/default/files/media\\_asset/90-90-90\\_en.pdf](https://www.unaids.org/sites/default/files/media_asset/90-90-90_en.pdf) [accessed 11.09.20].
- Fauci AS, Redfield RR, Sigounas G, Weahkee MD, Giroir BP. Ending the HIV epidemic: a plan for the United States. JAMA. 2019;321:844–5.
- Plan Estratégico de Prevención y Control de la infección por VIH y otras infecciones de transmisión sexual. Prórroga 2017-2020. Plan Nacional sobre el Sida. Ministerio de Sanidad, Servicios Sociales e Igualdad, 2018. Available from: [https://www.mscbs.gob.es/gi/ciudadanos/enfLesiones/enfTransmisibles/sida/docs/Prorroga2017\\_2020.15Jun18.pdf](https://www.mscbs.gob.es/gi/ciudadanos/enfLesiones/enfTransmisibles/sida/docs/Prorroga2017_2020.15Jun18.pdf) [accessed 11.09.20].
- Ministerio de Sanidad, Servicios Sociales e Igualdad, Plan Nacional sobre el Sida, Guía de recomendaciones para el diagnóstico precoz de VIH en el ámbito sanitario, 2014. Available from: <https://www.mscbs.gob.es/ciudadanos/enfLesiones/enfTransmisibles/sida/docs/GuiaRecomendacionesDiagnosticoPrecozVIH.pdf> [accessed 12.09.20].
- Guía para la realización de pruebas rápidas del VIH en entornos comunitarios. Plan Nacional sobre el Sida, Ministerio de Sanidad, Consumo y Bienestar Social; 2019. Available from: <https://www.mscbs.gob.es/ciudadanos/enfLesiones/enfTransmisibles/sida/docs/realizacionPrsRapidasVIH.Accesible.pdf> [accessed 12.09.20].
- Martínez Sanz J, Pérez Elías MJ, Muriel A, Gómez Ayerbe C, Vivancos Gallego MJ, Sánchez Conde M, et al. Outcome of an HIV education program for primary care providers: screening and late diagnosis rates. PLoS One. 2019;14:e0218380.
- European AIDS Treatment Group. Documento de trabajo sobre el impacto de las políticas de austeridad en la respuesta al VIH/SIDA en el Estado español. Available from: <https://www.cesida.org/wp-content/uploads/2014/04/documento-trabajo-impacto-recortes-vih-españa-final.pdf> [accessed 13.09.20].
- Joint United Nations Programme on HIV/AIDS (UNAIDS). Seizing the moment Global AIDS Update 2020. Geneva: UNAIDS; 2020. Available from: [www.unaids.org/en/resources/documents/2020/global-aids-report](https://www.unaids.org/en/resources/documents/2020/global-aids-report) [accessed 11.09.20].
- HIV-COBATEST-Euro HIV EDAT. A Guide to do it better in our CBVCT Centers. June 2017. Available from: [https://eurohivedat.eu/arxius/ehe.docsmenu.docsmenu.doc.119-Guide.ToDoItBetter\\_EnglishVersion.FINAL.01032017.pdf](https://eurohivedat.eu/arxius/ehe.docsmenu.docsmenu.doc.119-Guide.ToDoItBetter_EnglishVersion.FINAL.01032017.pdf) [accessed 12.09.20].
- de la Fuente L, Delgado J, Hoyos J, Belza MJ, Alvarez J, Gutiérrez J, et al. Increasing early diagnosis of HIV through rapid testing in a street outreach program in Spain. AIDS Patient Care STDS. 2009;23:625–9.
- Belza MJ, Hoyos J, Fernández-Balbuena S, Diaz A, Bravo MJ, de la Fuente L, Madrid HIV rapid testing group. Assessment of an outreach street-based HIV rapid testing program as a strategy to promote early diagnosis: a comparison with two surveillance systems in Spain, 2008–2011. Euro Surveill. 2018;20.
- VIH (Virus de la Inmunodeficiencia Humana) ITS (Infecciones de Transmisión Sexual), Comunidad de Madrid. Available from: <https://www.comunidad.madrid/servicios/salud/vih-virus-inmunodeficiencia-humana-its-infecciones-transmision-sexual> [accessed 12.09.20].
- Agustí C, Muñoz R, González V, Villegas L, Fibla J, Meroño M, et al. Outreach HIV testing using oral fluid and online consultation of the results: pilot intervention in Catalonia. Enferm Infect Microbiol Clin 2020;39:3–8.
- Platteau T, Fransen K, Apers L, Kenyon C, Albers L, Vermoesen T, et al. Swab2know: An HIV-testing strategy using oral fluid samples and online communication of test results for men who have sex with men in Belgium. J Med Internet Res. 2015;17:e213.
- Scognamiglio P, Chiariadis G, Giovanetti M, Albertini E, Camponeragna A, Farinella M, et al. HIV rapid testing in community and outreach sites: Results of a nationwide demonstration project in Italy. BMC Public Health. 2018;18:748.
- Nugroho A, Erasmus V, Krier SE, Reviagana KP, Laksmono PA, Widihastuti A, et al. Client perspectives on an outreach approach for HIV prevention targeting Indonesian MSM and transwomen. Health Promot Int. 2020;35:916–24.
- Valentine J, Agüero De LW. Defining the components of street outreach for HIV prevention: the contact and the encounter. Public Health Rep. 1996;111:69–74.
- Logie CH, Lacombe-Duncan A, Brien N, Jones N, Lee-Foon N, Levermore K, et al. Barriers and facilitators to HIV testing among young men who have sex with men and transgender women in Kingston Jamaica: a qualitative study. J Int AIDS Soc. 2017;20:21385.
- Pai NP, Balram B, Shrivkumar S, Martinez-Cajas JL, Claessens C, Lambert G, et al. Head-to-head comparison of accuracy of a rapid point-of-care HIV test with oral versus whole-blood specimens: a systematic review and meta-analysis. Lancet Infect Dis. 2012;12:373–80.
- Dalal S, Johnson C, Fonner V, Kennedy CE, Siegfried N, Figueroa C, et al. Improving HIV test uptake and case finding with assisted partner notification services. AIDS. 2017;31:1867–76.

Javier Martínez Sanz, María Jesús Pérez Elías\*  
Department of Infectious Diseases, Hospital Ramón y Cajal, Madrid,  
Spain

\* Corresponding author.  
E-mail address: Mjperez90@gmail.com (M.J. Pérez Elías).