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Optimizing HIV, HBV and HCV screening via online self-sampling among GBMSM and trans people in Spain: The Pan-TESTATE project

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OBJECTIVES

Pan-TESTATE is an online self-sampling strategy for HIV, HBV, and HCV screening among gay, bisexual, and other men who have sex with men (GBMSM) and trans people in Spain. This study aimed to implement and evaluate the strategy, from January to July 2026, to improve screening and linkage to care, identify undiagnosed infections, and assess satisfaction and willingness to repeat testing.



Fig.2: Instruction leaflet included in the self-sampling kit (SSK)

METHODS

A prospective, non-randomized national study. GBMSM and trans people were recruited through the Pan-TESTATE website (www.testate.org), community-based organizations, social media, and dating apps. Participants completed a sociodemographic and behavioural questionnaire, including the HCV-MOSAIC risk score; those scoring ≥2 requested a dried blood spot (DBS) self-sampling kit (SSK), mailed to their home (Figure 1).

The kits will include instructions (Figure 2), a lancet, a Whatman card for DBS collection, and a pre-paid return envelope. Samples were returned to the laboratory and analysed for HBsAg and HIV and HCV antibodies, with HCV RNA reflex testing in anti-HCV positive samples. Linkage to care was monitored by telephone.

Scan for sampling instructions



Fig.1: Content of the self-sampling kit (SSK)

RESULTS

A total of 1,085 SSKs were mailed; 537 valid DBS samples were returned (**49.5% return rate**). Median age was **43 years** (IQR 34–52); 528 (98.3%) cisgender men; 22.2% were born outside Spain, mainly in Latin America (63%).

Participants were recruited from all **17 Spanish Autonomous Communities**. Reported risk behaviours: condomless receptive anal intercourse (92.7%, past 6 months), chemsex (35.6%, past 12 months), ulcerative STI (28.3%, past 12 months), lifetime injecting drug use (9.7%); 11.9% were on the PrEP waiting list. 50.7% reported HBV vaccination, but only 30.9% had completed the 3-dose schedule.

Nine new infections were detected: 6 HIV (1.12%), 2 HCV (0.37%), 1 HBV (0.19%) (Table 1); 6 resided in semi-urban or rural municipalities (<50,000 inhabitants). Diagnosis was confirmed in 7 cases (6 HIV, 1 HCV): 6 started treatment and 1 HIV case remained pending linkage to care. The remaining 2 cases (1 HCV, 1 HBV) were undergoing diagnostic confirmation (Table 1).

Among 352 acceptability survey respondents (65.5% response rate), 96.3% reported being satisfied or very satisfied, and 97.4% were willing to repeat testing and recommend it to others.

Infection	Case	Age	Origin	Region (province)	Municipality size (inhabitants)	Care status
HIV	1	26	Spain	Galicia (Lugo)	<10,000	On ART, undetectable
HIV	2	49	Spain	Catalonia (Lleida)	<10,000	On ART, undetectable
HIV	3	59	Spain	Valencian Community (Alicante)	<10,000	On ART
HIV	4	22	Colombia	Madrid (Madrid)	50,000 - 100,000	Pending linkage to care
HIV	5	30	Colombia	Catalonia (Lleida)	<10,000	On ART
HIV	6	33	Colombia	Castile and León (Burgos)	100,000 - 500,000	On ART
HCV	1	37	Spain	Castilla-La Mancha (Toledo)	10,000 - 50,000	On DAA treatment
HCV	2	49	Spain	Canary Islands (Las Palmas)	10,000 - 50,000	Confirmation pending (possible reinfection)
HBV	1	32	Spain	Galicia (A Coruña)	100,000 - 500,000	Confirmation pending

Table 1: Case series of newly identified positive results (N=9)

CONCLUSIONS

Online pan-viral screening using DBS-based self-sampling is a feasible, highly acceptable strategy to reach GBMSM and trans people at increased risk, detect undiagnosed infections, and support linkage to care.

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