

Monitoring Community HIV Testing in Ireland, 2021

April 2023

Key points

- As was the case in 2020, the COVID-19 pandemic substantially affected HIV community testing in Ireland with the closure of many testing sites during large time periods in 2021. Furthermore, one prior community testing partner was excluded from 2021 data due to changes in its structure and two other former community testing partners were unable to test in 2021. These factors partly explain a 58.5% decrease in HIV community testing numbers between 2019 and 2021.
- The introduction of a home-testing programme for sexually transmitted infections (STIs) including HIV, by the Sexual Health and Crisis Pregnancy Programme (SHCPP) in 2021, in addition to the continuation of the MPOWER self-testing HIV programme, has been popular and may complement the role of community testing.
- In all, 2,327 voluntary community-based HIV tests were performed in 2021.
- By test method, 1,249 (87.2%) were performed using rapid point-of-care testing and 189 (12.8%) were performed using standard laboratory methods.
- Forty-four people had a positive/reactive HIV test, corresponding to a 1.9% test reactivity rate.
- By test setting, the test reactivity rate was highest (3.3%) in international protection applicant/direct provision settings.

Demographic data was available for 1,433 tests (61.6%) tests:

• By gender, the test reactivity rate was higher among males (0.9%) than females (0%).

• By key population group, the test reactivity rate was highest among migrants coming from areas of high HIV prevalence (1.0%), and among gay and bisexual men who have sex with men (gbMSM) (0.8%).

• Of the 10 individuals who had reactive tests, seven were new diagnoses in individuals who had not been previously diagnosed; data on the remaining three were not available.

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Introduction

HIV in Ireland: a need to increase and diversify testing programmes

HIV community testing, also termed voluntary community-based HIV testing (VCBT) can be defined as HIV testing which occurs outside of established healthcare facilities. For the purposes of this report, it excludes testing occurring within hospitals, primary health care clinics, STI clinics, antenatal clinics and pharmacies. It also excludes HIV self-testing and self-sampling programmes.

HIV community testing is designed to make testing more accessible, particularly to communities most vulnerable to HIV acquisition. These include: gay, bisexual and other men who have sex with men (gbMSM), transgender women, people who inject drugs (PWID), sex workers and people from geographic areas with a high prevalence of HIV. Various factors may prevent individuals from these communities from accessing HIV testing in traditional settings^{1,2}. VCBT occurs in a variety of settings worldwide, including: LGBTQ+ bars, clubs and community centres; sex-on-premises venues such as bathhouses and saunas; mobile outreach testing vans; testing in ethnic, cultural and community centres and organisations; refugee accommodation centres; drug treatment centres and one-off large community events amongst others.

In Ireland, HIV community testing consists of testing initiatives delivered by both the HSE National Social Inclusion Office, non-governmental organisations (NGOs) and other community-based organisations (CBOs). In 2018, a pilot study was performed assessing the feasibility and effectiveness of HIV community testing in Ireland, resulting in the establishment of a National Surveillance System to monitor the extent of community testing and its effectiveness from this point onwards³.

This report presents a summary of HIV community testing in Ireland during 2021 and aims to give an overview of the magnitude of community testing occurring in the country, the reactivity rate for those tested, and the demographic characteristics of those both accessing community testing and those with a reactive test. These data may help assess trends in HIV testing and HIV reactivity rates in Ireland and may help determine if current testing strategies are reaching key populations and those who may be otherwise less likely to access testing in traditional environments.

Methods

Five partner organisations, in addition to the HSE-run direct provision centre at Balseskin, performed HIV community testing in Ireland in 2021⁴. The lower number of partner organisations included in this year's report reflects both a change in the structure of certain testing services, one of which no longer met the definition of community testing, and the fact that two partner organisations were unable to conduct HIV testing during 2021.

In October 2022, the HPSC requested anonymous disaggregated data from its partners relating to HIV community testing performed in 2021. Each partner collected data electronically using a standardised template, with predetermined answer options, provided by the HPSC. Data collection was performed in line with European Centre for Disease Prevention and Control (ECDC) recommendations⁵.

Following receipt of the individual data submissions, these data were then systemically validated using a standard operating procedure. Any discrepancies in the data were discussed with the partner organisation and the data were corrected when necessary. Following verification of the data from each organisation, these data were then collated and analysed using Microsoft Excel.

Two methods are used in HIV community testing in Ireland: rapid point of care testing (POCT) and laboratory-based testing. Laboratory-based testing involves obtaining blood samples through venepuncture, which are then tested for HIV 1/2 antibodies and HIV-1 p24 antigen simultaneously in a specialised laboratory. Rapid POCT utilises portable serology assays that detect HIV 1/2 antibodies within one to twenty minutes. Typically only fingerprick blood samples are required to operate these devices, which are in the form of lateral flow or immunofiltration devices. POCT can occur in a variety of community settings and can be performed by trained non-laboratory staff.

The denominator used to calculate the HIV test reactivity rate is "all tests performed", not "individuals tested". This is the case as certain individuals may have tested more than once during 2021.

The results are presented as HIV test reactivity rate; this can also be called HIV testing prevalence rate or HIV seropositivity rate.

Results

i. Test setting

Of the 2,327 tests performed in 2021, the largest proportion (1,085 tests, 46.6%) were performed in NGO headquarters (Table 1). It is important to note that with the closure of bars, clubs and other venues during 2021, some testing usually carried in those venues moved to NGO headquarters. A slightly smaller proportion (1,038, 44.6%) were performed in an international protection applicant (IPA)/direct provision setting. This latter category includes 894 tests carried out in a HSE-run centre, and 144 tests performed by independent NGOs. The other categories of test setting accounted for only 8.8% of tests performed, with settings including: LGBTQI+ community resource centres, bars/clubs, universities/colleges, emergency accommodation and homeless screening centres, saunas, community resource centres and other test settings.

	All tests	Reactive tests	HIV Test Reactivity Rate
	n	n	%
NGO headquarters*	1,085	9	0.8
IPA/direct provision settings (NGO delivered)	144	0	0.0
Emergency accommodation/homeless ID screening	64	1	1.6
Bar/club	37	0	0.0
University/college	35	0	0.0
Community or family resource centre	25	0	0.0
LGBT community resource centre	21	0	0.0
Sauna/sex-on-premises venue	9	0	0.0
Other**	13	0	0.0
Total (excluding Balseskin)	1,433	10	0.7
IPA/direct provision settings (HSE delivered)	894	34	3.8
Total	2,327	44	1.9

Table 1: Number of reactive or positive HIV tests and HIV test reactivity rate (%) by test setting, voluntary community-based testing in Ireland, 2021

*Due to the closure of bars, clubs and other LGBT+ venues in 2021, some testing traditionally carried out there moved to NGO headquarters

**Mobile community screening, hotel meeting room

ii. Positive/reactive rate

Forty-four individuals had reactive or positive results in 2021, giving an overall HIV test reactivity rate of 1.9%. This includes 34 positive tests from the HSE-run direct provision service in Balseskin Reception Centre, in addition to 10 reactive tests from the remaining organisations. The HIV test reactivity rate in Balseskin was 3.8% in 2021, with a 0.7% HIV test reactivity rate amongst the other organisations combined.

Results from centres with aggregate data

Balseskin is a direct provision centre run by the HSE which provides voluntary HIV screening as part of a general health screening programme. Eight hundred and ninety-four HIV tests were carried out in Balseskin last year, of which 34 were positive, giving a HIV test reactivity rate of 3.8%. Approximately 80% of the individuals who tested positive in Balseskin had previously been diagnosed prior to arrival. All individuals were subsequently linked to an infectious disease clinic for further clinical follow-up.

Balseskin could not supply disaggregate data from its testing programme and thus demographic analysis was not possible. Data from Balseskin is also therefore excluded from the remainder of the analysis below.

Results from centres with disaggregate data

The remaining five centres provided anonymised disaggregate data, on which basic demographic analysis was performed (Table 2). Of the 1,433 tests performed by these organisations in 2021, 10 were reactive, giving a test reactivity rate of 0.7%.

Reactive cases

Data on the ten individuals with reactive tests, for which disaggregated data are available, are not fully complete. For nine of the ten individuals, it is known whether the test in question represented each individual's first HIV test, with four testing for the first time and five having tested previously for HIV. For seven of the ten individuals, it is known whether they had a previous HIV diagnosis, with all seven being diagnosed for the first time. For nine of the ten individuals, it is known that a confirmatory HIV test was positive and that the individuals in question were linked to HIV care and treatment services.

iii. Demographic characteristics

Table 2 provides a summary of the demographic data, including the proportion in each category with reactive tests. Given that less than 100 patients were tested for certain demographic subgroups, test reactivity rates should be interpreted with caution.

Gender identity was assessed using self-identification using the categories provided in the template created by the HPSC for prior versions of this report. Possible categories included: male, female, transgender male, transgender female, other and unknown. Of note, although there is a distinct transgender category, certain transgender individuals may be counted in the male or female categories, as these latter categories are not explicitly restricted to cisgender individuals. Thus, the true proportion of transgender individuals accessing testing, and the test reactivity rate of this population, cannot be accurately assessed. Assessment of the gender variable will likely be changed in future reports.

By gender, and excluding individuals with a self-reported transgender identity, male individuals accounted for the majority of community tests performed: 1,164 (81.2%) with females accounting for 241 tests (16.8%). Transgender, other and unknown gender identities accounted for 28 tests (2.0%) with the limitations outlined above. The gender of all ten individuals with reactive tests in 2021 was male.

The median age of individuals accessing HIV community testing was 30 years with a range from 17 to 87 years. The median age of individuals with a reactive test was 32 years with a narrower age range from 25-57 years.

Region of origin was assessed by identifying an individual's country of birth. People born in Ireland accounted for the largest share of tests performed (n=620; 43.3%). Individuals from Latin America and the Caribbean accounted for the second largest proportion of tests performed (n=214 tests; 14.9%) with individuals from South and South-East Asia accounting for 145 tests (10.1%). HIV test reactivity rate was highest amongst those from Central or Eastern Europe at 1.8%.

Individuals accessing testing were also grouped according to relevant key risk population groups. Of note, these groups were not mutually exclusive, with certain individuals belonging to more than one. The majority of tests were among gbMSM (66%), with 946 tests performed and a test reactivity rate of 0.8%. Individuals identified as having "sex with the opposite sex" accounted for 327 tests (22.8%), with a test reactivity rate of 0.3%. Migrants coming from a country with high HIV prevalence, as per WHO definitions, accounted for 99 tests (6.9%) and the highest test reactivity rate of any population (1%)⁶.

Another variable assessed was whether individuals were testing for HIV for the first time. Four hundred and twenty-four tests (29.6%) were reported as occurring in individuals with no prior history of HIV testing, 796 tests (55.5%) in individuals with a prior history of HIV testing and 213 tests (14.9%) in individuals with an unknown history of prior HIV testing. The test reactivity rate was 0.9% in those testing for the first time, 0.6% in those with a prior history of HIV testing and 0.5% with an unknown history of HIV testing.

		All tests	Reactive Tests	HIV Test Reactivity Rate
		Ν	N	%
Total		1,433	10	0.7
First time	Yes	424	4	0.9
testing for HIV	No	796	5	0.6
	Unknown	213	1	0.5
Gender	Male	1,164	10	0.9
identity	Female	241	0	0.0
	Trans male	12	0	0.0
	Trans female	6	0	0.0
	Other	10	0	0.0
Age in years (me	edian, range)	30 (17-87)	32 (25-57)	
Age group	17-24	340	0	0.0
	25-29	370	3	0.8
	30-39	442	6	1.4
	40-49	172	0	0.0
	50-59	75	1	1.3
	60+	25	0	0.0
	Unknown	9	0	0.0
Region of	Ireland	620	2	0.3
origin	Latin America and Caribbean	214	3	1.4
	South & South East Asia	145	2	1.4
	Sub-Saharan Africa	121	1	0.8
	Western Europe	119	0	0.0
	Central or Eastern Europe	112	2	1.8
	North Africa and Middle East	53	0	0
	Other*	47	0	0
	Unknown	2	0	0
Key population	gbMSM	946	8	0.8
group	Sex with the opposite sex	327	1	0.3
	Migrant coming from a country with high HIV prevalence	99	1	1.0
	People who have ever injected drugs	21	0	0.0
	Sex workers	17	0	0.0
	Unknown/unidentified	185	1	0.5

Table 2: HIV test reactivity rate (%) and demographic characteristics, voluntary community-based testing in Ireland, 2021 (n=1,433) [Excludes testing at Balseskin Reception Centre]

* East Asia and Pacific; North America

Discussion

A total of 2,327 community HIV tests were performed in 2021. While this represents a 21% decrease in testing numbers compared to 2020 (n=2,925), it is important to note that a smaller number of community testing partners were included in 2021 compared to 2020. Two community testing partners were unable to carry out testing during 2021 and the Mater Sláintecare STI testing clinic was reclassified as a standardised STI/HIV testing service for the purposes of 2021 data. Accounting for these changes, testing numbers in 2020 and 2021 were similar. HIV notifications in 2021 (n=401) were notably decreased compared to 2020 (n=439) and 2019 (n=530)^{9,10} due to the effect of the COVID-19 pandemic.

Decreased testing: in large part secondary to the COVID-19 pandemic

Lockdown measures implemented to limit the transmission of COVID-19 resulted in many HIV community testing venues being closed for much of 2021. This was the particularly the case for social venues such as bars, clubs and saunas. Only 37 tests were performed in bars/clubs in 2021 in comparison to 1,009 tests in 2019, representing a 96% decrease. As a consequence, testing in bars/clubs only accounted for 1.6% of community tests performed in 2021 compared to 37% of testing in 2019. However, much of the testing usually carried out in these venues moved to NGO headquarters. Only nine tests were performed in a sauna/sex for premises setting in 2021 compared to 143 in 2019, a 94% decrease.

Another factor accounting for the marked decrease in testing numbers was the decreased volume of community testing delivered by NGOs in international protection applicant (IPA) or direct provision settings, 144 tests in 2021 compared to 1,110 tests in 2019, an 87% decrease. This decrease is likely multifactorial in origin. Firstly, numbers of applicants for international protection in Ireland decreased in 2020 and 2021 compared to previous years, secondary to effects of the COVID-19 pandemic⁷. Secondly, SafetyNet an NGO providing a substantial proportion of community HIV tests for IPAs, shifted some of its clinical focus during 2020 and 2021 to provide COVID-19 testing for its users.

Decreased testing figures may also reflect possible changes in sexual behaviour during periods of lockdown in Ireland secondary to COVID-19. The EMERGE study, undertaken by researchers at the London School of Hygiene and Tropical Medicine (LSHTM) in conjunction with HIV Ireland, examined the effect of the pandemic and associated lockdown measures on the sexual behaviour of gbMSM in Ireland. It found that 72% of Irish gbMSM reported either having no sex or reducing the amount of sex they had during the COVID-19 pandemic by the time the survey was conducted in June/July 2021⁸.

A possible transition towards home-testing

The most noted development in sexual health in Ireland in 2021 was the introduction of the HSE free home-based STI testing in collaboration with an organisation called SH:24, which provides a similar platform for home-testing in the UK. This provides a free home-based sampling service for chlamydia, gonorrhoea, syphilis and HIV, with some users also offered tests for hepatitis B and C as required. The programme allows kits to be ordered online and delivered by post to a recipient's address of choice, later being returned by post in order to be processed in a laboratory. It was introduced as a pilot programme in January 2021 in three counties and is available in all 26 counties since October 2022. An evaluation report of the

pilot found that the service was impactful and acceptable to both service users and providers¹².

A total of 44,519 STI kits were ordered through the HSE home STI testing programme in 2021 with 25,812 kits being returned and subsequently tested¹². Utilisation of the HSE home-testing service was more common by women, with 62% female users, compared to 17% amongst community testing. Only 17% of SH24 users were gbMSM whereas 66% of HIV community tests performed were among gbMSM¹².

MPOWER also provided a self-testing service for HIV and in 2021, they distributed 1,572 HIV self-tests. According to anonymous data provided to HPSC by MPOWER, the demographic breakdown of their users differed from SH:24 users, with the overwhelming majority of tests distributed to men (95%), with non-binary individuals accounting for 2.5% and women accounting for 2.3%. Two hundred and ninety-eight tests (19%) were distributed to individuals who had never tested before. Most tests distributed were to users born in Ireland (69%) with 31% tests distributed to individuals born outside Ireland.

It is possible that the availability of free home-based STI testing services may reduce the demand for HIV community testing in the future. Home-based testing may furthermore be an attractive testing strategy for those who have not accessed testing previously in either traditional healthcare settings or through community testing. Only 42% of those using the HSE home-testing service in 2021 had ever visited an STI clinic before, with only 12% users having visited an STI clinic that year¹². Lastly, home-based testing offers individuals living outside areas in which community testing is active, in essence large Irish cities, the opportunity to test for HIV/STIs outside of formal health environments.

The role of community testing moving forward

As highlighted in previous reports, there is still no widely accepted cost-effectiveness threshold for HIV community testing. The HIV test reactivity rate documented in this report for community testing 2021 in Ireland is greater than the standard seropositivity threshold considered to be cost-effective in a hospital setting $(0.1\%)^{13}$. This is also the case for home-testing as evidenced by the SH:24 report for 2021^{12} .

The rising number of HIV notifications in Ireland in 2022 and the increasingly diverse make-up of Irish society are reminders of the importance of improving the proportion of people living with HIV in Ireland who are aware of their diagnosis. Diversifying testing strategies and developing methods to encourage and enable testing in underserved and minority populations are key to this goal. HIV community testing remains at present an important tool in HIV prevention.

Appendices

Name	Organisation
Derval Igoe	HSE Health Protection Surveillance Centre (HPSC)
Kate O'Donnell	HSE Health Protection Surveillance Centre (HPSC)
Mark Campbell	HSE Health Protection Surveillance Centre (HPSC)
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Adam Shanley	MPOWER Programme at HIV Ireland
Caroline Hurley	Sexual Health and Crisis Pregnancy Programme (SHCPP)
Emma Coughlan	SafetyNet Primary Care (left in 2022)
Naoise Todd	SafetyNet Primary Care
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Erin Nugent	HIV Ireland
Yvon Luky	AIDS Care Education and Training (ACET)
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Appendix A: Membership of the Community HIV Testing Monitoring Steering Group

Appendix B: List of data providers in 2021, HIV community testing monitoring

	Organisation/Programme
1	Balseskin Reception Centre (aggregate data provided)
2	GOSHH Ireland
3	MPOWER Programme at HIV Ireland
4	SafetyNet Primary Care Mobile Health and Screening Unit
5	Sexual Health Centre Cork
6	Sexual Health West (formerly AIDS West)
7	HIV Ireland (no data provided in 2021)
8	AIDS Care Education and Training (ACET) (No data provided in 2021)

	All tests		Positive/reactive tests	
	n complete	% complete	n complete	% complete
Total tests	1433	-	10	-
First time testing for HIV	1220	85.1	9	90
Gender identity	1433	100.0	10	100
Age group	1424	99.4	10	100
Region of origin	1431	99.9	10	100
Key population/at-risk group*	1248*	87.1	9	90

*=Unknown/Unidentified

Appendix D: Number of positive/reactive HIV tests and test reactivity proportion (%) by test method and service type, voluntary community-based testing in Ireland, 2021 (n=1,433)

	Number of tests	Number of reactive/positive tests	Percentage (%) positive/reactive
Lay provider (rapid POCT)	1,249	9	0.7
Medical provider (laboratory-based 4 th gen test)	184	1	0.5

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Report prepared by

This report was prepared by Ralph Hurley O'Dwyer, Kate O'Donnell, Mark Campbell and Derval Igoe (HPSC) on behalf of the HIV Community Testing Monitoring Steering Group.

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