Monitoring Community HIV Testing in Ireland, 2019

Version 1.0

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Key points

In total, 5,607 voluntary community-based HIV tests were carried out in 2019:

- By test method, 2,813 tests (50%) were carried out using rapid point-of care test methods and 2,794 (50%) were carried out using laboratory-based methods
- 92 people had a positive/reactive HIV test, corresponding to a 1.6% test reactivity rate
- By test setting, the rate was highest in asylum/direct provision settings (3.6%), and at non-governmental organisation (NGO) headquarters (1.1%)

Demographic data was available for 4,756 (85%) tests:

- By gender, the test reactivity rate was higher in females (2.2%) than in males (0.5%)
- By key population group, the rate was highest among migrants coming from countries of high HIV prevalence (7.2%), and among men who have sex with men (MSM) (0.6%)
- Twenty-three people were subsequently identified as having been previously diagnosed with HIV

Excluding 23 people who were subsequently identified as having been previously diagnosed with HIV, the test reactivity rate was 0.5%:

- By gender, the rate was higher in females (0.9%) than in males (0.4%)
- By key population group, the rate was highest among migrants coming from countries of high HIV prevalence (3.1%), and among MSM (0.5%)

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Introduction

Monitoring voluntary community-based HIV testing (VCBT) is essential for understanding the trends in community HIV reactive rates and for determining whether people most at risk of HIV infection are being reached. This report presents a summary of the results of VCBT in Ireland in 2019, for data received up to 10 September 2020.

Data on VCBT has been collated nationally since June 2018, for testing carried out since 1 January 2017. This work has oversight from a multisectoral steering group; see Appendix A for membership of the group.

The Health Protection Surveillance Centre (HPSC) partners with a number of organisations/programmes that provide VCBT services in Ireland. Participants in VCBT monitoring submit data to HPSC on a quarterly basis. A small anonymised disaggregated dataset is collated, in line with European Centre for Disease Prevention and Control (ECDC) recommendations [1]. Eight organisations/programmes participated in the monitoring process in 2019, including all seven that provided data in 2018 and one new data provider. The list of data providers in 2019 is presented in Appendix B.

Methods

VCBT services are provided free of charge in a range of settings in Ireland. There are two methods in routine practice for HIV testing; rapid point of care testing (POCT) and laboratory-based testing, these methods are further described in the Technical notes.

The completeness of data in 2019 is provided in Appendix C. Of the eight participating organisations/programmes, seven provided disaggregate data, including data on previous HIV diagnosis and demographic characteristics. One organisation (Balseskin Reception Centre) could not provide disaggregate data and instead provided the number of HIV tests and the number of people that had a positive test result.

The denominator used to calculate HIV test reactivity rate is of all tests carried out, not of individuals tested, as some people may have tested more than once during 2019.

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

Results

In total, 5,607 community-delivered HIV tests were reported to HPSC in 2019. Of those, 2,813 tests (50%) were carried out using rapid POCT methods and 2,794 (50%) were carried out using laboratory-based test methods. Ninety-two people had a reactive/positive HIV test, corresponding to a 1.6% test reactivity rate.

Seven out of eight participating organisations/programmes could provide data on whether or not a client/patient was subsequently identified as having been previously diagnosed HIV positive. Twenty-three people were subsequently identified as having been previously diagnosed with HIV. Excluding those 23, the test reactivity rate was 0.5%.

i. Test setting

Table 1 presents the number of positive/reactive HIV tests and test reactive rate by test setting. The highest proportion of tests were carried out in asylum/direct provision settings (n=1,961, 35%), followed by non-governmental organisation (NGO) headquarters (n=1,097, 20%) and Bar/club settings (n=1,009, 18%). The test reactivity rate was highest in asylum/direct provision settings (3.6%), and at NGO headquarters (1.1%).

Of the 1,961 tests in asylum or direct provision settings, 1,110 were NGO delivered (Safetynet n=1,028, SHC n=59, GOSHH n=23), and 851 were HSE delivered (Balseskin Reception Centre). For Safetynet testing exclusively in direct provision settings (i.e. excluding testing as part of the Irish Refugee Protection Programme (IRPP) and the Family Reunification Humanitarian Admission Programme (FRHAP)), the test reactivity rate was 3.5% (1.3% excluding 16 people who were later identified as previously diagnosed HIV positive).

Table 1 Number of positive/reactive HIV tests and test reactivity rate (%) by test setting, voluntary community-based testing in Ireland, 2019

	All tests	Positive /Reactive tests	Test reactive rate	Test reactive rate excluding people previously diagnosed HIV positive
	N	N	%	%
Asylum/direct provision settings (NGO and HSE delivered testing)				
NGO testing in asylum/direct provision settings excluding Balseskin	1110	25	2.3	0.8
Balseskin Reception Centre (HSE delivered testing)	851	45	5.3	-
Other settings (NGO delivered testing)				
NGO headquarters	1097	12	1.1	0.7
Bar/club	1009	4	0.4	0.2
LGBT community resource centre	464	3	0.6	0.6
Emergency accommodation/homeless ID screening	340	0	0.0	0.0
Addiction service/resource centre	197	2	1.0	0.5
Sauna/sex-on-premises venue	143	1	0.7	0.7
Other*	396	0	0.0	0.0
Total excluding Balseskin Reception Centre	4756	47	1.0	0.5
Total including Balseskin Reception Centre	5607	92	1.6	-

-The number of people subsequently identified as previously diagnosed HIV positive in Balseskin is not available.

*Other includes colleges, festivals, community groups, general workspaces, prison services and other/unknown settings.

The number of tests and test reactivity rates by test method and by testing modality are presented in Appendix D and Appendix E, respectively,

ii. Demographic characteristics

Demographic characteristics were provided by seven participating organisations/programmes (4,756 tests), and could not be provided by one organisation (Balseskin Reception Centre).

Table 2 provides a demographic summary of people tested and of those with reactive tests. HIV test reactivity rate should be interpreted with caution due to low numbers tested (<100) among some demographic subgroups.

By gender, the test reactivity rate was higher among females (2.2%) than males (0.5%). The median age among those with positive/reactive tests was 34 years.

Among the 47 people who had a positive/reactive test, 41 (87%) were born abroad, four (9%) were born in Ireland, and region of origin was unknown for two (4%). By region of origin, the test reactivity rate was highest among people born in sub-Saharan Africa (7%).

Individuals could be reported as part of one or more key population/at-risk group. The test reactivity rate was 7.2% among migrants coming from countries of high HIV prevalence, and it was 0.6% among men who have sex with men (MSM).

A demographic summary of HIV test reactivity rate by previous HIV diagnosis is provided in Appendix F. Excluding 23 people who were later identified as having been previously diagnosed with HIV, the test reactivity rate was 0.5%. By gender, the rate among people newly diagnosed with HIV was higher in females (0.9%) than in males (0.4%). By key population group, the rate was highest among migrants coming from countries of high HIV prevalence (3.1%), and among MSM (0.5%). The median age among those newly diagnosed with HIV (28 years) was lower than the median age among those that were previously diagnosed with HIV (38 years).

Balseskin Reception Centre is Ireland's largest asylum accommodation centre and provides specialist medical and nurse delivered health screening for international protection applicants arriving to Ireland for the first time. As disaggregate data could not be provided, Balseskin could not be included in the demographic analysis. In 2019, 3,328 people seeking asylum in Ireland were accommodated in Balseskin, of which 1,578 were invited for holistic screening, 1,222 accepted this invite, and 851 were screened for HIV. Of those who were screened for HIV in Balseskin, 45 (5.3%) had a positive test result, all of whom were coming from countries in sub-Saharan Africa. Balseskin reported that the majority of those with a positive HIV test were previously diagnosed HIV positive in Africa before arrival to Ireland and already on antiretroviral drugs (ARVs). All 45 were linked to HIV care and treatment services in Ireland.

Table 2 HIV test reactivity rate (%) and demographic characteristics, voluntary community-based testing in Ireland, 2019 (n=4,756) [Excludes testing at Balseskin Reception Centre]

		All tests	Positive/ reactive tests	Test reactivity rate
		N	N	%
Total		4756	47	1.0
First time testing for HIV	Yes	1183	8	0.7
	No	2323	13	0.6
	Unknown	1250	26	2.1
Gender identity*	Male	3502	19	0.5
	Female	1225	27	2.2
	Trans male	6	0	0.0
	Trans female	6	1	16.7
	Other/Unknown	17	0	0.0
Age in years (median, range)		31 (17-99)	34 (19-56)	
Age group	17-24	926	5	0.5
	25-29	927	11	1.2
	30-39	1310	16	1.2
	40-49	625	9	1.4
	50-59	256	4	1.6
	60+	111	0	0.0
	Unknown	601	2	0.3
Region of origin	Ireland	1930	4	0.2
	Latin America	514	4	0.8
	Sub-Saharan Africa	512	34	6.6
	Central or Eastern Europe	505	1	0.2
	Western Europe	463	1	0.2
	North Africa and Middle East	405	0	0.0
	South and South East Asia	207	0	0.0
	East Asia and Pacific	26	1	3.8
	Other**	97	0	0.0
	Unknown	97	2	2.1
Key population group^	Men who have sex with men	2044	13	0.6
	Sex with a person of opposite sex	1437	5	0.3
	Migrant coming from a country of high HIV prevalence	459	33	7.2
	People who have ever injected drugs	199	0	0.0
	Sex workers/escorts	27	1	3.7

*Gender identity refers to a person's internal sense of themselves (how they feel inside) as being male, female, trans male, trans female or something else. This may be different or the same as a person's assigned sex at birth. Further information and resources can be found at the website of Transgender Equality Network Ireland (www.teni.ie).

**Other Includes Australia & New Zealand, Caribbean, and North America.

^Individuals could be reported as part of one or more key population/at-risk groups. Countries of high HIV prevalence are countries with HIV prevalence >1% in the adult population, as per the UNAIDS 2014 The Gap Report.

Discussion

Overall, 5,607 community-based HIV tests were reported to HPSC in 2019, a 16% increase on the number reported in 2018 (n=4,846). Among the seven organisations/programmes that reported data in both years (i.e. excluding data from one new data provider in 2019), the increase in testing was also 16%, demonstrating continued expansion of existing VCBT programmes and initiatives in Ireland [2].

Test reactivity rates overall and among specific key population groups such as migrants coming from countries of high HIV prevalence, and MSM, highlight the importance of sustained targeted VCBT services to ensure vulnerable groups continue to be reached.

The high test reactivity rate in other key population groups such as sex workers (3.7%) and transgender people (8.3%) should be interpreted with caution due to low numbers tested, but should be continued to be monitored closely considering high rates among sex workers (3.6%) and transgender people (2.0%) also reported by the 'HIV community-based testing practices in Europe' (COBATEST) network in 2018 [3].

Data on VCBT in other countries is limited. In the United Kingdom, HIV test reactivity rate in 2018 is available for the national HIV self-sampling scheme (0.9%), and for the community HIV testing survey (0.4%) [4]. Data on VCBT provided by the COBATEST network (data submitted by 45 COBATEST members from 20 European countries) for 2018 shows the proportion of clients with reactive HIV screening test results (1.1%) is similar to the HIV test reactive rate in Ireland in 2019.
In contrast to the COBATEST network 2018 results, in which the HIV test reactive rate was higher in males (1.4%) than in females (0.5%), the HIV test reactive rate in Ireland in 2019 was higher in females (2.2%) than in males (0.5%). Of the 27 females that had positive/reactive HIV test results in Ireland in 2019, 26 were born in countries in sub-Saharan Africa and region of origin was unknown for one. Of the 27 females, 16 were subsequently identified as previously diagnosed HIV positive (14 were previously diagnosed HIV positive abroad, and the place of previous diagnosis was unknown for two), and 11 were not previously diagnosed with HIV.

There is currently no cost-effectiveness threshold for HIV testing in community settings. The VCBT reactivity rate in 2019 exceeds the recommended seropositivity threshold deemed to be cost effective for routinely offering HIV testing in hospital settings (0.1%) [5].

Data quality improved considerably in 2019, thanks to the efforts of the data providers. This was evident in the completeness of data for numerous variables (e.g. for rapid POCT the completeness of data on age increased from 64% in 2018 to 98% in 2019).

One organisation (ACET Ireland) was able to provide data for the first time, following commencement of their new VCBT initiative towards the end of 2019. Other new initiatives

included the relaunch of the Dublin-based MSM rapid testing programme in early 2020 as MPOWER, a peer-led and community-based response to the sexual health and wellbeing needs of gay and bisexual men.

Improvements were also made to the dataset in 2019, with the addition of the variable 'If test result positive/reactive, patient/client previously diagnosed HIV positive?', with answer options differentiating between previous diagnosis in Ireland and previous diagnosis abroad. This has allowed for a better understanding of the data. Work is ongoing among NGOs to encourage all service users to communicate their HIV status before they test and to understand reasons for not disclosing HIV status and testing when already known.

The variable 'First time testing for HIV' was completed for 74% of VCBT in 2019, improving the completeness of this variable may be important in the future in light of UNAIDS guidance on Global AIDS monitoring in 2020 which highlighted the importance of being able to disaggregate tests by previous testing history [6].

Completeness of two variables 'If positive/reactive HIV test, confirmation test positive?' and 'If positive/reactive HIV test, patient linked to HIV care and treatment services?' were suboptimal. NGOs do not routinely collect this data therefore consideration may be given to removing these variables from the dataset in the future.

The test reactivity rate was by far the highest in asylum/direct provision settings, particularly in Balseskin Reception Centre (5.3%), though the rate excluding people previously diagnosed HIV positive could not be determined for this centre. Balseskin was unable to provide disaggregate data and could not be included in the analysis of demographic characteristics. The HIV test reactivity rate excluding people previously diagnosed HIV positive could be determined for Safetynet testing in direct provision settings, and it was high, at 1.3%.

This report is not inclusive of all HIV testing in asylum/direct provision settings, as not all HSE testing sites are currently included in HIV testing monitoring. NGO delivered testing in asylum/direct provision settings is included in the monitoring system, but the location of testing could not be provided for 1,028 (93%) of NGO delivered HIV tests in asylum/direct provision settings; in the absence of this information it is not possible to explore the representativeness of data on HIV testing in asylum/direct provision settings in Ireland.

HIV testing in other settings including primary care, STI clinics, prisons, self-sampling and self-testing, is not currently monitored nationally in Ireland. Work to determine the feasibility of monitoring HIV testing in some of these other settings commenced towards the end of 2019 but progress has been challenging in 2020 due to the COVID-19 pandemic, which resulted in reduced HIV/STI services across Ireland and a reallocation of resources at HPSC due to added pressures on surveillance. Expanding HIV testing monitoring is important work and HPSC hopes to continue this in future.

Technical notes

1. Percentages are rounded to the nearest integer.
2. There are two methods in routine practice for HIV testing:
   i. Testing carried out by a medical provider, involving venepuncture and laboratory-based methods which test for HIV antibody and p24 antigen simultaneously [5]
   ii. Testing carried out by a lay provider (a trained volunteer or staff member who administers a rapid point-of-care test (POCT) and refers a reactive test to a confirmatory testing service). The INSTI® Rapid (one-minute) HIV testing kit (with fingerstick blood) was used for all rapid POCT in this study. The accuracy of the INSTI® HIV-1 Antibody test (≥99.0%) meets the FDA established requirements for approval of a rapid HIV test device [7]. Data on confirmatory testing was available for 77% (n=10) of reactive POCT in 2019; of those there were no false positives reported.

Acknowledgements

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Report prepared by: This report was prepared by Melissa Brady and Derval Igoe (HPSC) on behalf of the HIV Community Testing Monitoring Steering Group.

References

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5. UK National Guidelines for HIV Testing, 2008. British HIV Association and British Association of Sexual Health and HIV British Infection Society, 2008.
6. UNAIDS 2019 Guidance - Global AIDS Monitoring 2020

7. BioLytical, INSTI™ HIV-1 Antibody Test, Summary of Safety and Effectiveness https://www.fda.gov/downloads/BloodBloodProducts/UCM235253.pdf.

Appendices

Appendix A Membership of the Community HIV Testing Monitoring Steering Group (2020)

Name	**Organisation**
Derval Igoe (Chair)	HSE Health Protection Surveillance Centre (HPSC)
Melissa Brady	HSE Health Protection Surveillance Centre
Erin Nugent	HIV Ireland
Adam Shanley	HIV Ireland and the MPOWER programme
Caroline Hurley	HSE Sexual Health and Crisis Pregnancy Programme (SHCPP)
Margaret Fitzgerald	HSE National Social Inclusion Office
Evan Murphy	HSE Community Health Organisation (CHO 9)
Emma Coughlan	Mobile Health and Screening Unit, Safetynet Primary Care
Richard Carson, Yvon Luky	AIDS Care Education & Training (ACET) Ireland
Cillian Flynn	Gender, Orientation, Sexual Health, HIV (GOSHH)
Joe McDonagh	Sexual Health West (formerly AIDS West)
Catherine Kennedy	Sexual Health Centre
Former member Niall Mulligan	HIV Ireland
Former member Maitiú ó Tuathail	Mobile Health and Screening Unit, Safetynet Primary Care

Appendix B List of data providers in 2019, HIV community testing monitoring

	Organisation/Programme
1	HIV Ireland (Eccles Street, Dublin and Red Door Project, Drogheda)
2	MPOWER programme (formerly KnowNow Dublin)
3	Gender, Orientation, Sexual Health, HIV (GOSHH)
4	Sexual Health Centre
5	Sexual Health West (formerly AIDS West)
6	Safetynet Primary Care Mobile Health and Screening Unit (MHSU)
7	AIDS Care Education & Training (ACET) Ireland
8	Balseskin Reception Centre (HSE CHO Area 9) **(aggregate data provided)**

Appendix C Data completeness, HIV community testing monitoring 2019 (n=4,756) [Excludes Balseskin Reception Centre]

	All tests		Positive/reactive tests	
	n complete	% complete	n complete	% complete
Total tests	4756	-	47	-
First time testing for HIV	3506	73.7	21	44.7
Gender identity	4739	99.6	47	100.0
Age group	4155	87.4	45	95.7
Region of origin	4659	98.0	45	95.7
Key population/at-risk group	3920	82.4	47	100.0
If test result positive/reactive, patient/client previously diagnosed HIV positive?	-	-	45	95.7
If positive/reactive HIV test, confirmation test positive?	-	-	20	42.6
If positive/reactive HIV test, patient linked to HIV care and treatment services?	-	-	18	38.3

Appendix D Number of positive/reactive HIV tests and test reactivity rate (%) by test method and service type, voluntary community-based testing in Ireland, 2019 (n=5,607)

	All tests	Positive/reactive tests	Test reactivity rate
	N	N	%
Rapid POCT programme (lay provider)	2813	13	0.5
STI/health screening service (medical provider)	2794	79	2.8

Appendix E Number of positive/reactive HIV tests and test reactivity rate (%) by testing modality, voluntary community-based testing in Ireland, 2019 (n=5,607)

	All tests	Positive/reactive tests	Test reactivity rate
	N	N	%
Mobile testing (e.g., through vans or temporary testing facilities)*	2392	8	0.3
VCBT centres not within a health facility setting (e.g. NGO headquarters)*	1250	14	1.1
Asylum/direct provision settings	1961	70	3.6
Other/unknown	4	0	0.0

*Excludes asylum/direct provision settings

Appendix F HIV test reactivity rate (%) and demographic characteristics among people who had a positive/reactive HIV test, by previous HIV diagnosis, voluntary community-based testing in Ireland, 2019 (n=47) [Excludes testing at Balseskin Reception Centre]

		Previously diagnosed HIV positive		Not previously diagnosed HIV positive		Unknown	
		Positive/ Reactive tests	Test reactivity rate	Positive/ Reactive tests	Test reactivity rate	Positive/ Reactive tests	Test reactivity rate
		N	%	N	%	N	%
Total		23	0.5	22	0.5	2	0.0
First time testing for HIV	Yes	2	0.2	5	0.4	1	0.1
	No	4	0.2	8	0.3	1	0.0
	Unknown	17	1.4	9	0.7	0	0.0
Gender identity*	Male	6	0.2	11	0.3	2	0.1
	Female	16	1.3	11	0.9	0	0.0
	Trans female	1	16.7	0	0.0	0	0.0
Age in years (median, range)		38 (26-56)		28 (22-54)		24 (19,29)	
Age group	17-24	0	0.0	4	0.4	1	0.1
	25-29	3	0.3	7	0.8	1	0.1
	30-39	10	0.8	6	0.5	0	0.0
	40-49	6	1.0	3	0.5	0	0.0
	50-59	2	0.8	2	0.8	0	0.0
	60+	0	0.0	0	0.0	0	0.0
	Unknown	2	0.3	0	0.0	0	0.0
Region of origin	Ireland	1	0.1	3	0.2	0	0.0
	Latin America	1	0.2	2	0.4	1	0.2
	Sub-Saharan Africa	20	3.9	14	2.7	0	0.0
	Central or Eastern Europe	0	0.0	1	0.2	0	0.0
	Western Europe	0	0.0	1	0.2	0	0.0
	East Asia and Pacific	0	0.0	1	3.8	0	0.0
	Unknown	1	1.0	0	0.0	1	1.0
Key population group^	Men who have sex with men	3	0.1	8	0.4	2	0.1
	Sex with a person of opposite sex	2	0.1	3	0.2	0	0.0
	Migrant coming from a country of high HIV prevalence	19	4.1	14	3.1	0	0.0
	Sex workers/escorts	1	3.7	0	0.0	0	0.0

*Gender identity refers to a person's internal sense of themselves (how they feel inside) as being male, female, trans male, trans female or something else. This may be different or the same as a person's assigned sex at birth. Further information and resources can be found at the website of Transgender Equality Network Ireland (www.teni.ie).
^Individuals could be reported as part of one or more key population/at-risk groups. Countries of high HIV prevalence are countries with HIV prevalence >1% in the adult population, as per the UNAIDS 2014 The Gap Report.