



# The HIV PrEP **UP** project: technical report

Key findings on PrEP implementation in Portugal  
and scale-up recommendations | 2023



A technical working group (TWG) undertook this report. The group comprised representatives from two non-governmental associations, one public health research institution, and one scientific medical society.

The TWG was assembled in the context of the HIV Pre-exposure prophylaxis universal provision or HIV PrEP UP project. This TWG produced this **report on PrEP implementation in Portugal and summarized recommendations for PrEP scale-up or universal provision in Portugal**.

GAT promotes the HIV PrEP UP project.

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This report is available at [https://www.gatportugal.org/projetos/gat-prepup\\_23](https://www.gatportugal.org/projetos/gat-prepup_23).

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## HIV PrEP UP project technical working group composition

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## Executive summary

This report aims to describe HIV Pre-exposure prophylaxis (PrEP) introduction and implementation in Portugal and summarize recommendation for PrEP scale-up or universal provision. Its focus is on adult PrEP use, not pediatric and reproductive uses.

PrEP data was gathered between October 2022 and November 2023 from media news, public health institutions, hospital units, community-based HIV testing centers, cohort studies, and systematic reviews. A lack of unfit or dispersed Portuguese PrEP data was observed.

PrEP introduction and implementation in Portugal was slow and a drug lag was observed.

PrEP sites in Portugal have been increasing yearly and, as of November 2023, 30 in-hospital and 2 hospital extension PrEP delivery facilities (not institutions) are available. Two-thirds of them are in the Norte and Área Metropolitana de Lisboa regions. Eleven NUTS III regions are lacking coverage.

Multiple PrEP referral pathways (self-led, primary care-led, community-led, or clinical) enable referrals as a person's lifetime circumstances, HIV risk, demand, and people available to refer them vary. Nevertheless, PrEP linkage to care among those referred was not traceable.

PrEP awareness and willingness are disproportionately distributed among key populations tested for HIV, favoring MSM. Medical training for PrEP eligibility determination and follow up is lacking among non-HIV specialists.

In 2022, at least 1739 people were on PrEP, and 1222 started PrEP that year. In the same year, there were more people on PrEP than people newly diagnosed with HIV in Portugal for the first time.

In accordance with users' and providers' feedback, there needs to be an increase in affordability, availability, accessibility, accommodation, and acceptability through diversified PrEP delivery models given the current hospital-based model does not fit or accommodate all.

In person-centered services, streamlining, defragmenting, simplifying, and task-shifting PrEP-related care is key for the new PrEP delivery models. In addition, prioritizing those underserved or lacking coverage is paramount. Lastly, PrEP monitoring and surveillance systems are needed to monitor each transition point/key step of the HIV PrEP continuum and identify which regions require health planning and implementation of interventions related to PrEP.

As we close this report, the Secretary of State for Health Promotion publishes an ordinance<sup>(1)</sup> on the procedures to expand access to PrEP and establishes an exceptional reimbursement regime for medicines intended for PrEP. We hope this report can inform all public and health institutions involved in its implementation.

## 1. Critical PrEP-related roll-out events

Several events related to PrEP implementation affected its roll-out in Portugal. We listed the most important international and national-level events.

INTERNATIONAL	PORTUGAL	
iPrEx results were published	2010	
FTC/TDF has an indication for PrEP approved by the US FDA	2012	
PROUD and IPERGAY trials placebo arms were stopped due to clear HIV prevention benefits. WHO recommended offering PrEP to MSM as an additional HIV prevention choice.	2014	
ECDC recommended that EU Member States consider offering PrEP, starting with MSM. WHO recommended offering PrEP to all people at substantial risk of HIV infection.	2015	First community online reports on informal PrEP users in May.
EMA approval of Truvada PrEP indication. Truvada lost its patent in Europe. EMA approved the first FTC/TDF generic.	2016	GAT-CheckpointLX opened a PrEP follow-up service for informal PrEP users. Informal PrEP uptake in Portugal was lower than in other European countries. An urgent PrEP demonstration project in Portugal was argued.
	2017	The Assistant Secretary of State for Health published deadlines for public institutions to enable PrEP implementation. PrEP-related healthcare is exempted from payment of user fees in the NHS. The Portuguese PrEP eligibility criteria and follow-up recommendations in the NHS were published. All people at substantial HIV risk are eligible.
	2018	An EAP of PrEP medicine was approved in February. Operational guidance of the EAP is published in March. PrEP provision is restricted to NHS hospitals. April 12th, the first NHS PrEP patient. The Portuguese PrEP eligibility criteria and follow-up recommendations are updated in May. NGOs argue for PrEP delivery in (non-hospital) community-based settings.
US-FDA approved using FTC/TAF reference medicine as PrEP, except for individuals at-risk from receptive vaginal sex.	2019	EAP ends in February. INFARMED published the report of the prior evaluation of drugs for this therapeutic indication. Reimbursement was valid for serodiscordant couples and MSM. NHS made no changes in the Portuguese PrEP eligibility criteria and follow-up recommendations. NGOs argue for new PrEP delivery models in the face of NHS overload and PrEP behindhand response.
US-FDA approved the use of cabotegravir extended-release injectable suspension reference medicine for PrEP.	2021	Start of the decentralized outpatient PrEP appointments at GAT Almada, Lisbon, in September. Start of the decentralized outpatient PrEP appointments at the +Abraço Community Center, Porto, in November.
	2022	State budget law 24-D/2022 included PrEP scale-up in article 156.

International references (2–10)

Portugal references (11–22)

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## Acronyms

EAP - early access program

EMA - European Medicines Agency

ECDC - European Centre for Disease Prevention and Control

FDA - Food and Drug Administration

FTC/TAF - emtricitabine/tenofovir alafenamide

FTC/TDF - emtricitabine/tenofovir disoproxil

NGO - non-governmental organizations

NHS - National Health Service

US - United States

WHO - World Health Organization

There was a drug lag<sup>1</sup> in both regulation and delivery:

- Six years separated the first results showing the benefit of using antiretrovirals as PrEP for HIV and the European Medicines Agency PrEP reference medicine approval.
- Three years separated the first report on informal PrEP use in Portugal and the first NHS PrEP provision.
- Two years separated the European Medicines Agency PrEP reference medicine approval and the national PrEP delivery.

Between 2016 (when EMA approved FTC/TDF as PrEP) and 2022, 8511 new HIV cases have been reported in Portugal (24).

### 1.1. TWG section recommendation

Considering:

- the drug lag at regulation and delivery levels;
- the ARV-based HIV prevention available and expected (pipelines) HIV prevention technologies.

We recommend:

- faster introduction and implementation procedures of innovative HIV prevention technologies;
- researching this PrEP drug lag phenomenon and its determinants to inform public health stakeholders and policies.

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<sup>1</sup> "A drug lag is any delay in making a drug available in a particular market for the patient, and there are two variations: relative drug lag is a measure of when a drug becomes available in a country, i.e., the delay in time between a drug being introduced in one country to another and absolute drug lag is a measure of availability, i.e., a comparison of the quantity of drugs available in different countries." (23)



## 2. PrEP news coverage by the Portuguese media between 2016-2022 in a snapshot

News articles on HIV PrEP were searched on Google's search engine. From those results, news articles on HIV PrEP from Portuguese media between 2016 and 2022 were selected. Then, HIV PrEP terms were searched in the website's media browsers with selected articles. Afterward, news articles known by the TWG during the report writing were added.

<b>2016</b>	Portuguese media started by describing stereotypes and misconceptions about PrEP use (25) and portraying it as gay and risky behavior (26), following their knowledge of informal PrEP use and overlooking the origin of the phenomena. The PrEP need existed. However, formal access to PrEP was not available.
<b>2017</b>	Portuguese media started publishing news on PrEP as a solution for the HIV epidemic (27).
<b>2018</b>	Portuguese media covered again the informal PrEP use, where INFARMED stated that the safety, quality, and efficacy of medicines bought abroad for HIV PrEP were compromised (28). This coverage coincided with the recent approval of formal PrEP access in Portugal. Following this formal PrEP use introduction for adults, the media covers statements of the General Health Directorate that teenagers 16 and 17 years old would also be included (29).
<b>2019</b>	Portuguese media covered (30) the INFARMED final decision regarding PrEP reimbursement when prescribed to MSM and couples in which one of them had a detectable HIV viral load. An NGO position statement on new warranted PrEP delivery models to increase access and accommodation was released (21).
<b>2020</b>	Portuguese media covered the National HIV Program director announcing that PrEP might be available in Portuguese pharmacies to reach ten times more people who need PrEP (31).
<b>2021</b>	Portuguese media covered an NGO position statement that PrEP prescriptions should not be hospital-exclusive to reach more people and avoid long waits for the first consultation at hospitals (32). Then, the inauguration of 2 decentralized outpatient PrEP facilities (a new community-based PrEP delivery model), where hospital teams go to NGOs' community-based HIV testing centers to provide PrEP programs, was also covered (33,34).
<b>2022</b>	Portuguese media covered implementation challenges, namely the beliefs of some professionals of lesser condom use due to PrEP use, the lack of training to deliver PrEP, and the lack of funding to support new PrEP delivery models (35). Following these beliefs, the Portuguese media covered statements of the president and founder of the AIDS Healthcare Foundation, arguing that community-level implementation of PrEP would destroy the condom culture (36). On the other hand, statements of the Director of the Infectious Diseases Service at Hospital Curry Cabral are covered by the media, where HIV prevention tools are explained but not opposed to each other (i.e., condom versus PrEP) (37). Following the implementation challenges, the Portuguese media covered a research institution paper recommending changes in the Portuguese PrEP eligibility guidelines so that planned and actual HIV risks are accounted for rather than only previous/actual risks. Then, PrEP could reach all people at (predicted) substantial HIV risk (38). Media finally covered the Secretary of State for Health Promotion statements on PrEP being a future reality in primary healthcare centers and community-based organizations, following the PrEP funding inscribed in the 2023 State budget (39).

During this period, the Portuguese media covered different perspectives on PrEP. Initially marked by stereotypes and misconceptions, the media shifted its portrayal of PrEP from associating it with risky behavior to presenting it as a crucial solution for the response to the HIV epidemic in Portugal. As formal access to PrEP was introduced and expanded, media coverage evolved to encompass various aspects of its implementation and stakeholders' views.

## 2.1. TWG section recommendation

Considering:

- the media's substantial impact on shaping public opinions, especially regarding the potential beneficiaries of PrEP.
- PrEP is highly effective in preventing HIV, with individual and public health benefits.
- PrEP has limited structural accessibility as of 2023.

We strongly advocate for prioritizing human rights and relying on scientific evidence in the media's portrayal of PrEP.

### 3. Information on the Portuguese PrEP continuum of care

In Portugal, the PrEP service sites have been limited to NHS hospital outpatient clinics since the early access program in 2018. In 2021, two hospitals started providing decentralized PrEP consultations in community-based HIV testing centers led by NGOs. No other formal public PrEP provision models are known. There is no PrEP delivery in prison settings. All people can request PrEP access irrespective of their legal status in Portugal or NHS registry status. The medicines, medical follow-up, and lab monitoring are free of charge in the NHS (16,40). Transportation costs for medical, nursing, or pharmacy appointments and other out-of-pocket expenses are not reimbursed. In-person visits are the standard practice, including those related to drug delivery, which occurs at the hospital's pharmacy. The Portuguese PrEP delivery model characteristics (41) are in Table 1.

Table 1. Portuguese PrEP delivery model characteristics

Model	Target population	Delivery setting	PrEP provider	Delivery channel
In-hospital	People at substantial HIV risk, according to predefined national criteria.	Hospital's outpatient clinic	Hospital healthcare team, physicians mostly from infectious disease departments.	In-person visits are the standard practice, including those related to drug delivery at the hospital's pharmacy
Hospital extension		Community-based sexual health center		

The ECDC provided a reference set of commonly agreed indicators for PrEP data reporting (42). We presented data below per ECDC indicator whenever data was available or collected appropriately, as this should facilitate future comparisons.

#### 3.1. PrEP service sites

The hospitals providing PrEP are part of the NHS hospital referral network for HIV infection (43); refer to Table 2. As of 2023, this network comprised six highly differentiated units, seven reference units, thirteen local units, and three decentralized medical units. All 29 units can offer PrEP, but local, reference and highly differentiated units (n=26) are mandated.

Table 2. NHS hospital referral network for HIV infection (NHS RNRH HIV) unit types

Highly-differentiated units	Reference units	Local units	Decentralized medical units
CH U Lisboa Central CH U Lisboa Norte CH Lisboa Ocidental CH U Porto CH U São João CH U Coimbra	CH Algarve CH Baixo Vouga CH Barreiro/Montijo CH Gaia/Espinho CH Setúbal H. Fernando Fonseca ULS Matosinhos	CH Alto Ave CH Cova Beira CH Oeste CH Tâmega Sousa CH Tondela/Viseu CH Trás-os-Montes Alto Douro H. Espírito Santo Évora H. Loures H. Braga H. Garcia Orta H. Santarém ULS Alto Minho ULS Baixo Alentejo	H. Cascais H. Vila Franca Xira ULS Norte Alentejano

List of abbreviations: CH - Hospital Center; U - University; ULS - Local Health Unit; H. - Hospital.

Still, if we considered all continental NHS hospitals, irrespective of this network and hospital's center affiliation, as potential PrEP facilities, the number of units in the NHS would be 48. In addition, both autonomous health regions, Azores and Madeira, have three hospitals each. Hence, for the current hospital-based PrEP delivery model, the NHS and its autonomous health regions have 54 potential PrEP facilities.

**Table 3. Proportions of facilities providing PrEP among existing facilities, % (n/N)**

NHS and autonomous health regions hospital units	59,3% (32/54)
NHS hospital units only	62,5% (30/48)
RNRH HIV units	82,8% (24/29)
UR, UL, and CED units of the RNRH HIV	84,6% (22/26)

**Acronyms:** NHS - National Health Service, RNRH HIV - NHS hospital referral network for HIV infection, UR - reference units, UL - local units, CED - high-differentiation centers

We contacted the hospital's HIV medical teams requesting information on their PrEP services. Table 3 presents the proportions of facilities providing PrEP among the existing facilities in the NHS and Madeira and Azores autonomous regions, in the NHS, in the HIV network, and among those HIV network units mandated to provide PrEP (as of November 2023).

The ECDC indicator 1.1 *PrEP service availability* describes the number of PrEP services (PrEP provision points, not institutions) in different geographical areas within the country per 12 months (calendar year). Table 4 presents data per different geographical areas: NUTS I, NUTS II, and NUTS III. Population size per geographical area was obtained from the *Instituto Nacional de Estatística* resident population estimates. Lastly, Table 5 presents the PrEP facilities rate per million residents per region per year.

**Table 4. Number of facilities and residents per NUTS regions and country per year**

NUTS region	Number of facilities						Number of residents					
	2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022
Norte	0	4	5	7	9	9	3576205	3572583	3575338	3566374	3586586	3631502
Alto Minho	0	0	0	0	0	0	232178	230954	230412	229066	231266	232220
Cávado	0	1	1	1	1	1	403953	403891	404444	403860	416605	423377
Ave	0	0	0	0	0	0	413854	412669	411857	410224	418455	419876
Área Metropolitana do Porto	0	3	4	4	6	6	1719702	1722374	1728226	1727774	1736228	1774104
Alto Tâmega	0	0	0	0	0	0	87157	86466	86133	85498	84248	83463
Tâmega e Sousa	0	0	0	2	2	2	418768	417268	415989	413609	408637	408127
Douro	0	0	0	0	0	0	192046	191101	190815	189777	183875	183418
Terras de Trás-os-Montes	0	0	0	0	0	0	108547	107860	107462	106566	107272	106917
Centro	0	0	2	2	3	4	2231346	2216569	2217285	2229331	2227239	2256441
Oeste	0	0	0	0	0	0	357706	356785	358714	362413	363511	376961
Região de Aveiro	0	0	0	0	1	1	363095	362100	363803	367128	367403	375698
Região de Coimbra	0	0	1	1	1	1	436948	434015	433923	435574	436862	439940
Região de Leiria	0	0	0	0	0	0	286309	284492	284702	286713	286752	290473
Viseu Dão Lafões	0	0	0	0	0	0	254631	252220	251628	252688	252777	253154
Beira Baixa	0	0	0	0	0	0	81814	80782	80230	80047	80751	80845
Médio Tejo	0	0	1	1	1	1	234655	232849	232580	233362	228581	230997
Beiras e Serra da Estrela	0	0	0	0	0	1	216188	213326	211705	211406	210602	208373
AML	0	6	8	10	12	12	2833679	2846332	2863272	2869033	2870208	2899670
Alentejo	0	2	2	2	2	3	711950	705478	704558	699420	704533	714552
Alentejo Litoral	0	0	0	0	0	0	93774	93259	93521	93122	96442	99111
Baixo Alentejo	0	1	1	1	1	1	117868	116557	116332	115326	114863	115237
Lezíria do Tejo	0	0	0	0	0	0	238715	237318	237868	236852	235861	243230
Alto Alentejo	0	0	0	0	0	1	107057	105479	104538	103171	104923	104121
Alentejo Central	0	1	1	1	1	1	154536	152865	152299	150949	152444	152853
Algarve	0	2	2	2	2	2	439617	438864	438406	437970	467343	472000
RAA	0	1	1	1	1	1	243862	242846	242796	242201	236413	239942
RAM	0	0	0	0	1	1	254368	253945	254254	253923	250744	253259
Continente	0	14	19	23	28	30	9792797	9779826	9798859	9802128	9855909	9974165
Portugal	0	15	20	24	30	32	10291027	10276617	10295909	10298252	10343066	10467366

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclature of Territorial Units for Statistical Purposes, PrEP - Pre-exposure prophylaxis, RAA - Região Autónoma dos Açores, RAM - Região Autónoma da Madeira

Table 5. Rate of the number of PrEP facilities per million residents per NUTS region and country per year

NUTS regions			NUTS region name	2017	2018	2019	2020	2021	2022
NUTS II			Norte	0,00	1,12	1,40	1,96	2,51	2,48
	NUTS III		Alto Minho	0,00	0,00	0,00	0,00	0,00	0,00
	NUTS III		Cávado	0,00	2,48	2,47	2,48	2,40	2,36
	NUTS III		Ave	0,00	0,00	0,00	0,00	0,00	0,00
	NUTS III		Área Metropolitana do Porto	0,00	1,74	2,31	2,32	3,46	3,38
	NUTS III		Alto Tâmega	0,00	0,00	0,00	0,00	0,00	0,00
	NUTS III		Tâmega e Sousa	0,00	0,00	0,00	4,84	4,89	4,90
	NUTS III		Douro	0,00	0,00	0,00	0,00	0,00	0,00
	NUTS III		Terras de Trás-os-Montes	0,00	0,00	0,00	0,00	0,00	0,00
NUTS II			Centro	0,00	0,00	0,90	0,90	1,35	1,77
	NUTS III		Oeste	0,00	0,00	0,00	0,00	0,00	0,00
	NUTS III		Região de Aveiro	0,00	0,00	0,00	0,00	2,72	2,66
	NUTS III		Região de Coimbra	0,00	0,00	2,30	2,30	2,29	2,27
	NUTS III		Região de Leiria	0,00	0,00	0,00	0,00	0,00	0,00
	NUTS III		Viseu Dão Lafões	0,00	0,00	0,00	0,00	0,00	0,00
	NUTS III		Beira Baixa	0,00	0,00	0,00	0,00	0,00	0,00
	NUTS III		Médio Tejo	0,00	0,00	4,30	4,29	4,37	4,33
	NUTS III		Beiras e Serra da Estrela	0,00	0,00	0,00	0,00	0,00	4,80
NUTS II		NUTS III	Área Metropolitana de Lisboa	0,00	2,11	2,79	3,49	4,18	4,14
NUTS II			Alentejo	0,00	2,83	2,84	2,86	2,84	4,20
	NUTS III		Alentejo Litoral	0,00	0,00	0,00	0,00	0,00	0,00
	NUTS III		Baixo Alentejo	0,00	8,58	8,60	8,67	8,71	8,68
	NUTS III		Lezíria do Tejo	0,00	0,00	0,00	0,00	0,00	0,00
	NUTS III		Alto Alentejo	0,00	0,00	0,00	0,00	0,00	9,60
	NUTS III		Alentejo Central	0,00	6,54	6,57	6,62	6,56	6,54
NUTS II		NUTS III	Algarve	0,00	4,56	4,56	4,57	4,28	4,24
NUTS I	NUTS II	NUTS III	Região Autónoma dos Açores	0,00	4,12	4,12	4,13	4,23	4,17
NUTS I	NUTS II	NUTS III	Região Autónoma da Madeira	0,00	0,00	0,00	0,00	3,99	3,95
NUTS I			Continente	0,00	1,43	1,94	2,35	2,84	3,01
Country			Portugal	0,00	1,46	1,94	2,33	2,90	3,06

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclature of Territorial Units for Statistical Purposes, PrEP - Pre-exposure prophylaxis, RAA - Região Autónoma dos Açores, RAM - Região Autónoma da Madeira

The country has increased the number of PrEP provision points. However, no PrEP provision points are available in 11 NUTS III areas, and 10 have only one. Proximity is an important aspect of access, especially relevant for PrEP follow-up, which is mainly conducted through regular (tri-monthly) and in-person visits. The Ministry of Health needs to commit to opening more PrEP provision points to ensure broad access on a population level.

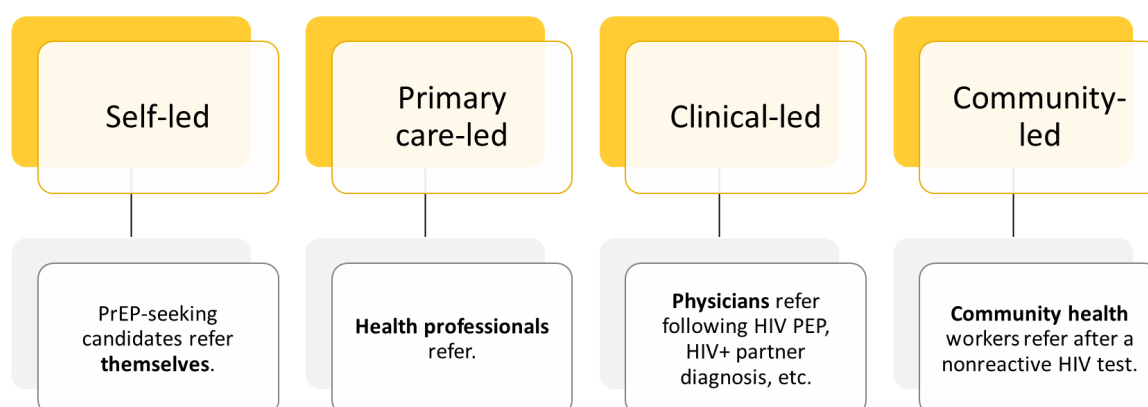
We recognize that the number of PrEP provision points is an imperfect proxy of PrEP access (it does not reflect the true number of people served and service waiting times), as people can encounter structural barriers to access even if services are readily available near them. It also does not consider the need for PrEP in a given area. In the country's commitment to open more PrEP provision points to reach more eligible people with fewer structural barriers, priority should be given to areas with higher HIV prevalence and PrEP provision models with higher acceptability from key populations of these identified areas.

### 3.2. Community-based PrEP referrals

The PrEP-seeking or PrEP-eligible persons may request an appointment at the NHS hospital units that deliver PrEP through different pathways (refer to Figure 1):

- by themselves (self-led referral);
- at a primary healthcare center through their general practitioners or family medical doctors (primary care-led referral);
- at clinical-settings (e.g. emergency rooms, HIV outpatient clinics, and STI outpatient clinics) where a PrEP appointment might be offered (e.g., after HIV post-exposure prophylaxis, in the first HIV medical appointment of a sexual partner, travel medicine) by physicians (clinical referral);
- at a community-based HIV testing center through the community health workers (CHW)<sup>2</sup> that provide HIV rapid testing (community-led referral).

Figure 1. Referral pathways reported by PrEP facilities.



Ten hospitals that provided data on their current PrEP users also provided information regarding their origin: nine reported that most of their last 12 months' PrEP users were from community-led referrals, followed by clinical, self-led, and primary care-led referrals, and one reported almost all community-led referrals, followed by a few clinical. No other type of referral pathways were reported.

To the best of our knowledge, each PrEP facility has its waiting list. Only SIGA (*Sistema Integrado de Gestão de Acesso*) is in place to optimize first appointments/accommodation per region or hospital center. All referral pathways except community-led ones can use SIGA, which enables an online selection of the most appropriate destination health unit/PrEP facility according to the person-specific needs and certain factors that facilitate the system's response (availability, geographic proximity, average waiting times, among others). The SIGA impact on PrEP referral management (lag times and PrEP attendance) is unknown or published.

GAT has provided community-led referrals to the NHS PrEP facilities since its formal roll-out in 2018. This NGO provides community-led point-of-care rapid tests in the Lisbon Metropolitan Area region. Linkage to care (LTC) for comprehensive prevention services, including PrEP, is offered to people without a reactive HIV test result according to their needs and preferences. PrEP referrals are initiated upon consent, and LTC managers record candidate characteristics and manage referrals.

Data presented in Table 6 were retrieved from PrEP referral records from GAT collected between February 1, 2018, and December 31, 2022. In this period, 6,113 PrEP referrals were registered to 27 PrEP facilities. We provide data on the PrEP facilities for which a referral was made per NUTS region and year.

Table 6. GAT's referrals per PrEP facility per NUTS region and country per year, % (n)

<sup>2</sup> Someone who is trained to provide sexual health support around HIV/AIDS, viral hepatitis, and other STIs to key populations. A CHW delivers health promotion or public health activities in community settings (not in hospitals or clinics) (44).

NUTS regions	NUTS region name	2018	2019	2020	2021	2022			
NUTS II	Norte	1,07 (6)	0,64 (6)	0,97 (10)	1,00 (16)	0,86 (17)			
NUTS III	Alto Minho	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS III	Cávado	0,18 (1)	0,00 (0)	0,10 (1)	0,00 (0)	0,05 (1)			
NUTS III	Ave	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS III	Área Metropolitana do Porto	0,89 (5)	0,64 (6)	0,87 (9)	1,00 (16)	0,81 (16)			
NUTS III	Alto Tâmega	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS III	Tâmega e Sousa	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS III	Douro	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS III	Terras de Trás-os-Montes	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS II	Centro	0,00 (0)	0,53 (5)	0,39 (4)	1,25 (20)	1,67 (33)			
NUTS III	Oeste	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS III	Região de Aveiro	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS III	Região de Coimbra	0,00 (0)	0,53 (5)	0,29 (3)	0,88 (14)	0,81 (16)			
NUTS III	Região de Leiria	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS III	Viseu Dão Lafões	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS III	Beira Baixa	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS III	Médio Tejo	0,00 (0)	0,00 (0)	0,00 (0)	0,38 (6)	0,81 (16)			
NUTS III	Beiras e Serra da Estrela	0,00 (0)	0,00 (0)	0,10 (1)	0,00 (0)	0,05 (1)			
NUTS II	NUTS III Área Metropolitana de Lisboa	98,76 (556)	98,08 (920)	97,97 (1014)	95,99 (1533)	95,61 (1893)			
NUTS II	Alentejo	0,00 (0)	0,11 (1)	0,19 (2)	0,56 (9)	0,30 (6)			
NUTS III	Alentejo Litoral	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS III	Baixo Alentejo	0,00 (0)	0,00 (0)	0,00 (0)	0,31 (5)	0,20 (4)			
NUTS III	Lezíria do Tejo	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)			
NUTS III	Alto Alentejo	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (0)	0,10 (2)			
NUTS III	Alentejo Central	0,00 (0)	0,11 (1)	0,19 (2)	0,25 (4)	0,00 (0)			
NUTS II	NUTS III Algarve	0,18 (1)	0,43 (4)	0,39 (4)	0,56 (9)	0,40 (8)			
NUTS I	NUTS II	NUTS III	RAA	0,00 (0)	0,00 (0)	0,00 (0)	0,00 (5)	0,30 (1)	
NUTS I	NUTS II	NUTS III	RAM	0,00 (0)	0,00 (0)	0,00 (0)	0,31 (5)	0,05 (1)	
NUTS I			Continente	100 (563)	99,79 (934)	99,90 (1033)	99,69 (1577)	99,19 (1946)	
Missing data on PrEP facility				0,00 (0)	0,21 (2)	0,10 (1)	0,31 (5)	0,81 (16)	
Country				Portugal	100 (563)	100 (936)	100 (1034)	100 (1592)	100 (1964)

**Technical note:**

Hospital PrEP facilities address was used to determine the NUTS region affiliation. Hospital PrEP facilities are a point of access irrespective of their area of influence, as for other types of healthcare provision.

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclature of Territorial Units for Statistical Purposes, PrEP - Pre-exposure prophylaxis, RAA - Região Autónoma dos Açores, RAM - Região Autónoma da Madeira

In addition, Table 7 presents data from the analysis of the time between the referral and the first PrEP appointment (consecutive days not working days), for which we considered: 1. the time between the date of eligibility determination and the date of referral at the NGO (GAT time-lag); and 2. the time between the date of referral and date of first PrEP appointment at the hospital (hospital time-lag).

**Table 7. PrEP referrals per year and GAT time-lag (consecutive days between the date of eligibility determination and date of referral at the NGO)**

	2018	2019	2020	2021	2022
PrEP referrals, n	563	938	1035	1597	1980
Lag time until PrEP request <sup>1</sup> , working days, median (P25-P75)	0 (0-0)	0 (0-0)	8 (4-18)	3 (0-11)	9 (6-13)

<sup>1</sup> % of missings: 0.53 in 2018; 2.36 in 2019; 5.25 in 2020; 3.76 in 2021; 6.63 in 2022.

The overall median GAT time lag has been increasing. This time lag could be reduced with SIGA being available to NGOs; for the time being, PrEP referrals are processed by written form by CHW, signed by a physician, and sent to the PrEP facility booking email.

As for the time lag between PrEP referral and PrEP appointment, the hospitals must provide data to GAT on the dates of the first appointments. However, most hospitals directly contact the persons referred, not the NGO that made the referrals, so there is missing data for more than 50% of PrEP referrals. Therefore, the overall median time is not presented.

In Table 8, for those PrEP facilities and years with less than 15% of missing data (hospitals that informed both the person referred and the NGO that referred them), the median time lag between the PrEP referral and PrEP appointment is presented.

**Table 8. Median time from PrEP referral to appointment, median of consecutive days (P25-P75)**

NUTS III	PrEP facility	2018	2019	2020	2021	2022
Cávado	Hospital de Braga, EPE					21
Área Metropolitana do Porto	Unidade I (antigo Hospital Eduardo Santos Silva)				50	
	Hospital São João				48 (28-51)	54 (48-60)
	Hospital de Santo António					21 (17-42)
Lezíria do Tejo	Hospital Distrital de Santarém, EPE				51 (47-53)	
Área Metropolitana de Lisboa	Hospital de Loures, EPE					55 (36-81)
	Hospital Curry Cabral	28 (23-37)	50 (39-70)			
	Hospital Garcia de Orta, EPE - consulta descentralizada PrEP					35 (14-50)
	Hospital Distrital do Montijo			18		18 (15-28)
	Hospital Nossa Senhora do Rosário		15 (7-31)		17,5 (12-29)	20 (13-37)
	Hospital São Bernardo	8	16 (10-26)			
Algarve	Hospital Santo António dos Capuchos			142		
	Hospital de Portimão				53	

**Technical note:**

Overall median time from PrEP referral to appointment is not presented due to missing data for more than 50% of PrEP referrals, as most hospitals directly contact the persons referred and not the referring NGO. Median times are reported individually for sites with less than 15% missing data.

**List of abbreviations:** NUTS - Nomenclature of Territorial Units for Statistical Purposes, PrEP - Pre-exposure prophylaxis

Finally, Table 9 presents the sociodemographic characteristics of those referred by GAT per year of referrals. Between 2018 and 2022, the median age of people referred was 31 years old (P25-P75: 26-37), mostly cisgender men (91.80%), half were born in Portugal (50,38%), and slightly over a third were born in Brazil (34,41%). Almost all PrEP referrals were among men who have sex with men (92,40%). The proportion of non-cisgender men, people reporting commercial sex, or people who inject drugs (PWID) referred to PrEP has been increasing. Since 2020, a matching proportion of native and Brazil-born people has been observed. The increasing Brazilian migrant community size, the same spoken language in Brazil and Portugal, and NHS' bilateral agreement granting Brazilians equal access to healthcare as those Portuguese might have contributed to increased Brazilians' referrals compared to other people born abroad.

**Table 9. Sociodemographic characteristics of people referred to PrEP by GAT**

	2018	2019	2020	2021	2022
<b>Age, years</b>					
Median (P25-P75)	31 (26-38)	30 (26-38)	30 (26-37)	30 (26-38)	31 (26-37)
Missing data (%)	0,05	0,40	0,78	0,25	0,35
<b>Gender identity, % (n)</b>					
Cisgender men	100 (563)	94,02 (882)	92,18 (954)	89,42 (1428)	90,25 (1787)
Transgender men	-	0,21 (2)	0,09 (1)	0,31 (5)	0,35 (7)
Cisgender women	-	4,90 (46)	5,51 (57)	8,33 (133)	7,47 (148)
Transgender women	-	0,43 (4)	2,22 (23)	1,50 (24)	1,01 (20)
Non-binary people	-	-	-	0,25 (4)	0,66 (13)
Missing data % (n)	-	0,44 (4)	-	0,19 (3)	0,26 (5)
<b>Country of birth, % (n)</b>					
Portugal	82,94 (467)	63,32 (594)	46,18 (478)	46,08 (736)	40,66 (805)
Brazil	10,48 (59)	25,48 (239)	40,19 (416)	36,44 (582)	40,81 (808)
Other countries	6,58 (37)	11,20 (105)	13,63 (141)	17,48 (279)	18,53 (367)
<b>Key population<sup>1</sup>, % (n)</b>					
Men who have sex with men <sup>2</sup>	100,00 (563)	94,70 (888)	92,27 (995)	89,98 (1437)	91,21 (1806)
Sex worker <sup>3</sup>	-	7,14 (67)	13,43 (139)	11,58 (185)	14,69 (291)
People who inject drugs <sup>4</sup>	-	0,11 (1)	0,77 (8)	0,44 (7)	0,66 (13)

<sup>1</sup> One person can belong to more than one key population.

<sup>2</sup> % of missing data per year: 5,3 in 2019; 7,73 in 2020; 10,02 in 2021; 8,74 in 2022.

<sup>3 and 4</sup> % of missing data per year: 1,7 in 2019; 2,03 in 2020; 4,82 in 2021; 2,07 in 2022.

The fact that potential PrEP candidates can be referred to PrEP by multiple referral pathways (self-led, primary care-led, community-led, or clinical) is a positive aspect of increased access. PrEP awareness, knowledge, interest, and eligibility evoke different situations, settings, and persons available to provide referrals, therefore, being able to obtain a referral in each one of those can certainly increase access. It is also important to note that the community-based HIV rapid testing sessions have been a



major trigger for referrals to PrEP in the Lisbon Metropolitan Region. We also highlight the high proportion of missing information on PrEP appointment dates, which hampers PrEP LTC traceability and process quality assessment. Using SIGA in all PrEP referral pathways would solve these gaps.

There are no ECDC indicators related to PrEP referrals.

### 3.3. PrEP awareness

Awareness of PrEP is key for access. Opportunities for access strongly depend on PrEP potential beneficiaries' and providers' awareness. Hence, awareness is key among those disproportionately affected by the HIV epidemic and those who can deliver PrEP.

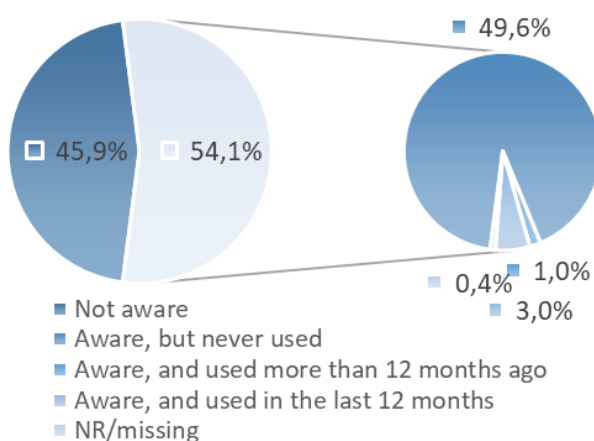
The ECDC indicator 1.2 *PrEP awareness among potential users*, describes the awareness of PrEP as an HIV-prevention option among a specific population group. The numerator is the number of people who report being aware of PrEP as an HIV-prevention option (regardless of whether PrEP is available). The denominator is the number of people from a sample population questioned about PrEP awareness.

Data were retrieved from the first visit of two prospective cohorts, the Lisbon Cohort of MSM (45) and the Portuguese Community-Based Screening Network (46), since people became aware of PrEP at the first visit. After consent and during the HIV testing sessions, a standardized questionnaire collects information for surveillance purposes, including PrEP awareness and use.

#### 3.3.1. Lisbon Cohort of MSM data

From March 2014 to December 2022, 7,595 MSM responded to PrEP-related questions on their first visit. Participants' mean age was 29.8 years (standard deviation: 9.01), 65.8% were born in Portugal, 60.9% had a higher education degree, 81.6% identified as gay, and 13.9% as bisexual. 2.8% had received money or drugs in exchange for sex in the last 12 months (we will consider those as sex workers). 194 (2.6%) had a reactive HIV result at baseline. Although those diagnosed with HIV are not potential PrEP users, we included them because the questionnaire was applied before the test result was known.

**Graph 1. PrEP awareness among participants of the Lisbon cohort of MSM, at the first visit %**



Awareness of PrEP almost divided participants - 45.9% did not know about PrEP, and 54.1% knew it. Most of those who knew about PrEP had never used it (49.6% of the total participants), 75 (1.0% of the total participants) had used it more than 12 months ago, and 230 (3.0% of the total participants) used it in the 12 months before (Graph 1).

For comparison with the MSM *ECDC indicator 1.2 PrEP awareness among potential users* estimates, Table 10 presents data again according to the region of the community-based organization where the test was performed.

**Table 10. PrEP awareness among potential users, per year and per region of the community-based organization where the test was performed, among participants of the Lisbon Cohort of MSM, at the first visit % (n/N)**

I	NUTS regions		2014	2015	2016	2017	2018	2019	2020	2021	2022
	II	III									
Continente	AML	AML	9.2% (61/663)	18.9% (157/829)	29.5% (281/951)	48.1% (483/1004)	54.6% (371/679)	65.5% (565/862)	85.4% (608/712)	82.1% (758/923)	84.4% (789/935)

**Technical notes:**

The address of the community-based testing center was used to determine the NUTS region affiliation.

The question "Do you know about pre-exposure prophylaxis (PrEP)?"

The answer options are "Yes" or "No".

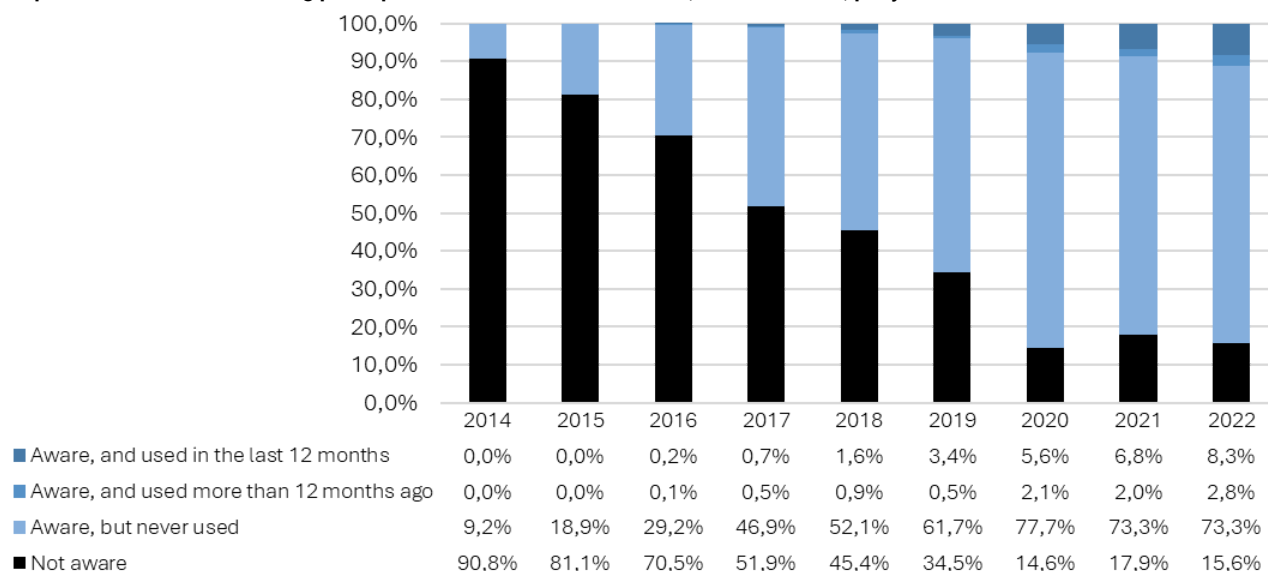
n = the number of people responding "Yes". N = the number of people responding to the question.

The nonresponses were excluded from the proportion.

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclature of Territorial Units for Statistical Purposes, PrEP - Pre-exposure prophylaxis

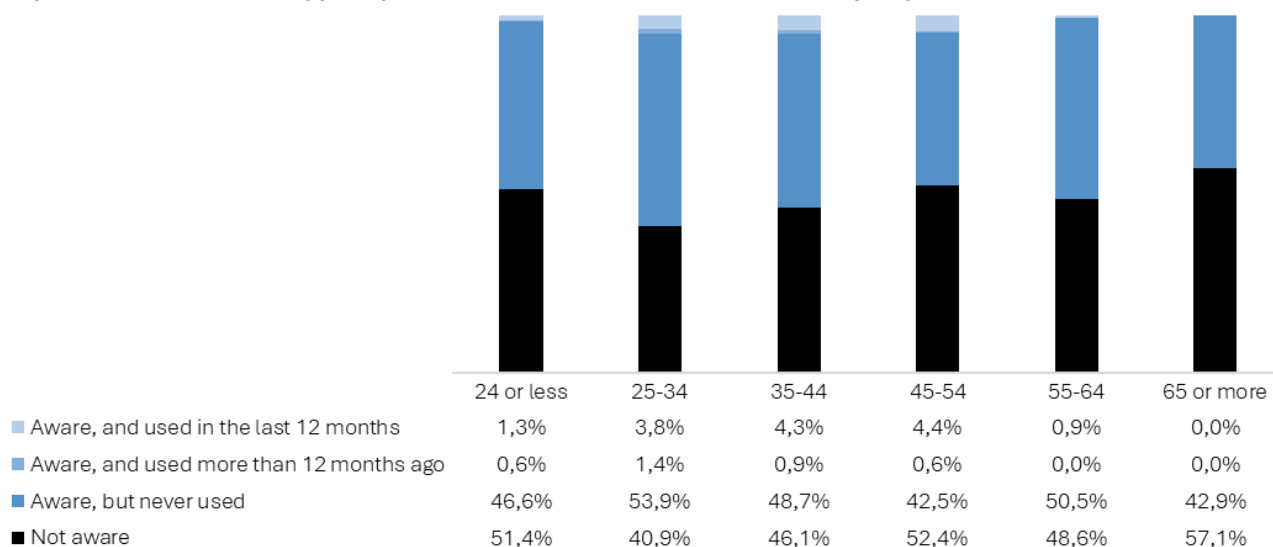
In Graph 2, we present PrEP awareness disaggregation per year of the first visit. Awareness of PrEP has been increasing over time, especially after 2016-2017, coincidentally with the informal PrEP follow-up at GAT-CheckpointLX implemented in 2015 and formal implementations of PrEP in the NHS in 2018. Both events, together with community initiatives to help individuals, mostly MSM, to obtain and use PrEP, had an important role in disseminating information to the MSM community.

**Graph 2. PrEP awareness among participants of the Lisbon MSM cohort, at the first visit, per year of first visit %**



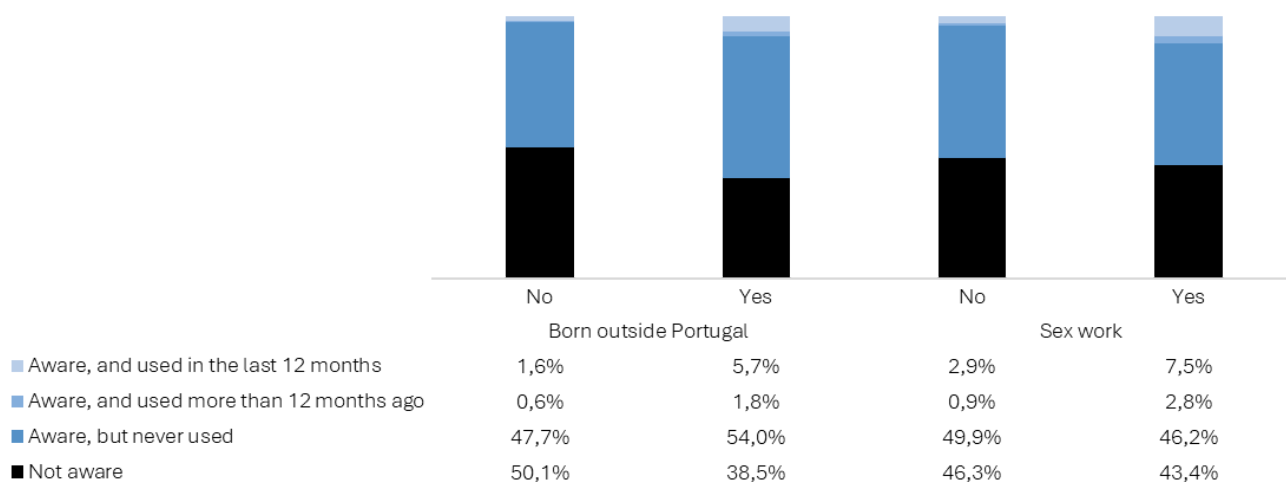
In Graph 3, we present PrEP awareness disaggregation per decade age stratum, <25 and >65 years old, corresponding to youths and older adults, respectively. Awareness of PrEP was relatively similar in all age groups, but its use was more frequent in younger ages, particularly those between 25 and 54.

**Graph 3. PrEP awareness among participants of the Lisbon MSM cohort, at the first visit, per age strata %**



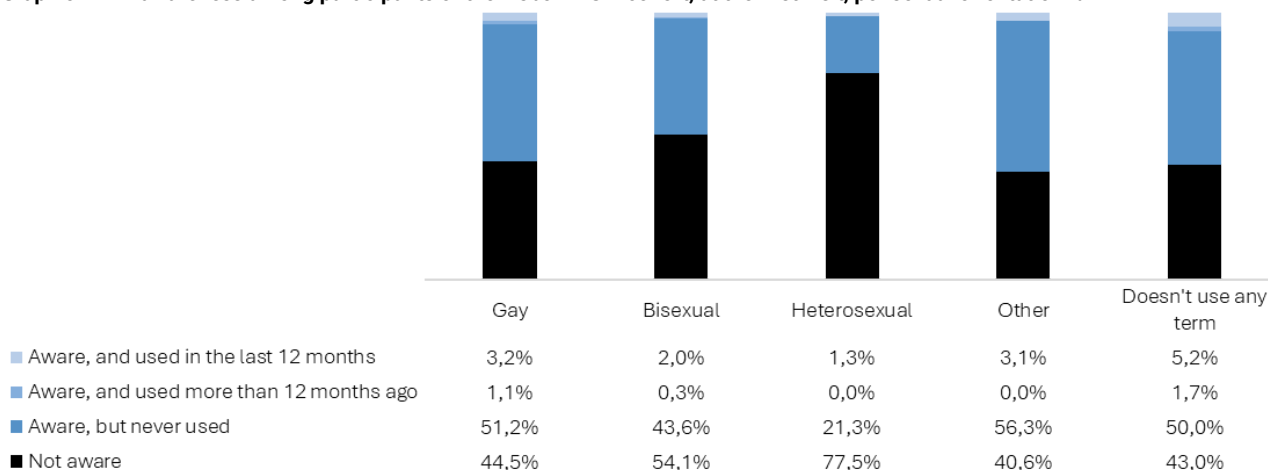
In Graph 4, we present PrEP awareness disaggregation per country of birth and sex work (as defined previously). The disaggregation per country of birth revealed that natives were more unaware than those born abroad. Those born abroad also reported more use of PrEP, either in the last 12 months or more than 12 months. The disaggregation per sex work (as defined previously) revealed that those MSM reporting commercial sex used PrEP more frequently than those who did not report commercial sex.

**Graph 4. PrEP awareness among participants of the Lisbon MSM cohort, at the first visit, per country of origin status (native or not) and sex work status (yes or no) %**



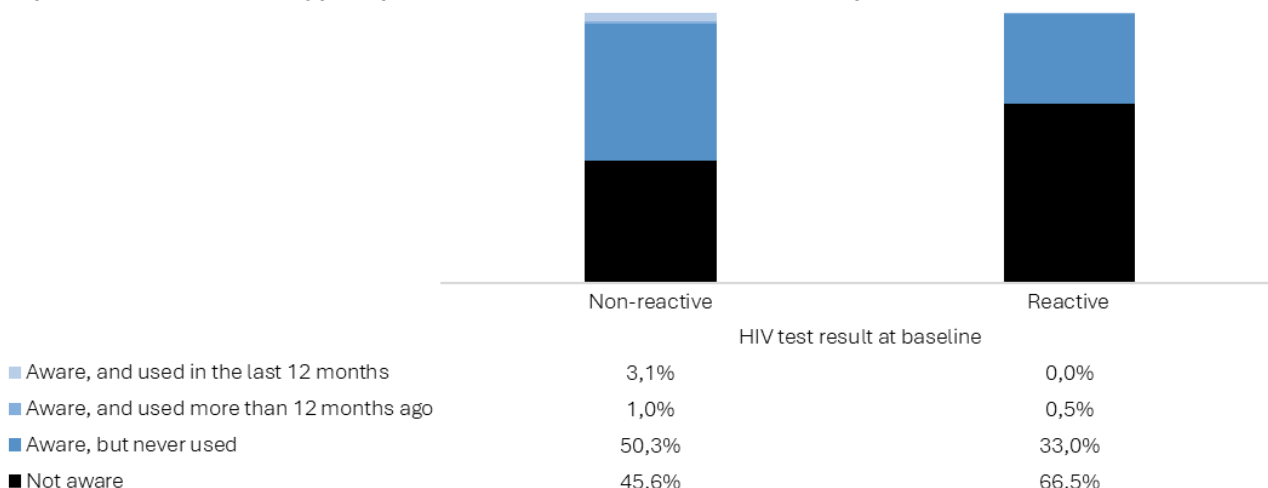
In Graph 5, we present PrEP awareness disaggregation per sexual orientation. Awareness and use of PrEP were higher among those who self-identified as gay or who did not use a term for their sexual orientation or reported it to be other than gay, bisexual, or heterosexual.

**Graph 5. PrEP awareness among participants of the Lisbon MSM cohort, at the first visit, per sexual orientation %**



In Graph 6, we present PrEP awareness disaggregation per HIV test result. Among MSM with a reactive HIV result at baseline, the proportion of awareness was lower than among those testing negative (66.5% versus 45.6%). Of note, one participant with a reactive test result had used PrEP more than 12 months before.

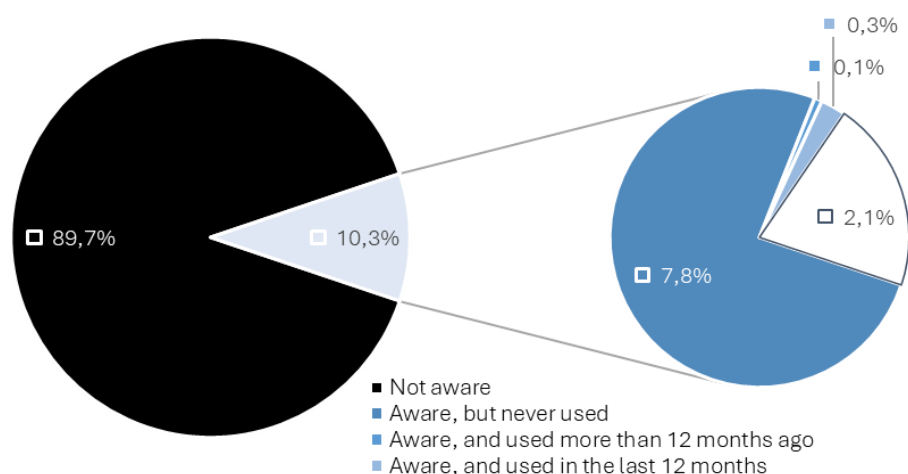
**Graph 6. PrEP awareness among participants of the Lisbon MSM cohort, at the first visit, per HIV test result %**



### 3.3.2. Portuguese Community-Based Screening Network data

From January 2016 to December 2022, 37,574 people responded to PrEP awareness-related questions on their first visit to the Portuguese Community-Based Screening Network. Of those, 49.4% were cisgender men, 49.8% were cisgender women, 0.6% (n=239) were transgender women, and 0.15% (n=46) were transgender men. Their mean age was 37.7 years (SD: 16.3), 54.4% were born in Portugal, 25.5% had a higher education degree, and 82.2% self-identified as heterosexual. 10.9% were MSM, and 7.5% were sex workers (defined as in the Lisbon Cohort of MSM, see above).

**Graph 7. PrEP awareness among the Portuguese Community-Based Screening Network participants, at first visit %**



Awareness of PrEP was 10.3% (data from MSM tested for HIV at GAT CheckpointLX excluded), and, at baseline, 0.4% had used it (0.3% in the last 12 months) (Graph 7).

For comparison with the ECDC 1.2 *PrEP awareness among potential users* indicator, Table 11 presents data again according to the region of the community-based organization where the test was performed yearly.

The overall PrEP awareness has increased up to 2018 and remained relatively stable at around 11% from 2019 to 2021. However, there was a sharp decrease in 2022 to 5.7%. This decrease can be attributed to the decline in awareness in the AML and Algarve regions, which could be partially due to the introduction of new mobile units or HIV services that cover previously uncovered populations, among whom PrEP dissemination campaigns may have been less common or visible.

**Table 11. PrEP awareness, per year and per region of the community-based organization where the test was performed, among the Portuguese Community-Based Screening Network participants, at the first visit, % (n/N)**

I	NUTS regions		2016	2017	2018	2019	2020	2021	2022	Proportion of recruitment sites
	II	III								
Norte			4.1% (20/483)	10.2% (38/372)	17.7% (95/536)	24.0% (282/1177)	20.0% (31/155)	19.5% (58/297)	30.8% (48/156)	27.9% (12/43)
		Alto Minho	2.1% (3/142)	4.4% (3/68)	12% (9/75)	6.1% (7/114)	11.5% (3/26)	17.1% (6/35)	12.1% (4/33)	2.3% (1/43)
		Cávado	-	-	-	-	-	-	-	-
		Ave	-	-	-	-	-	-	-	-
		Área Metropolitana do Porto	5% (17/341)	11.5% (35/304)	18.7% (86/461)	25.9% (275/1063)	21.7% (28/129)	19.8% (52/262)	35.8% (44/123)	25.6% (11/43)
		Alto Tâmega	-	-	-	-	-	-	-	-
		Tâmega e Sousa	-	-	-	-	-	-	-	-
		Douro	-	-	-	-	-	-	-	-
Centro		Terras de Trás-os-Montes	-	-	-	-	-	-	-	-
			2.9% (23/787)	6.8% (42/616)	8.2% (67/815)	8.5% (96/1129)	13.8% (108/781)	11.2% (133/1183)	8.1% (124/1528)	18.6% (8/43)
		Oeste	-	-	-	-	-	-	-	-
		Região de Aveiro	0% (0/1)	-	18.6% (18/97)	11.1% (8/72)	-	0% (0/15)	-	7.0% (3/43)
		Região de Coimbra	4.4% (14/318)	7.2% (25/349)	9.4% (32/341)	11.8% (53/448)	15.2% (74/488)	20.9% (80/383)	15.4% (82/532)	4.7% (2/43)
		Região de Leiria	1.9% (9/468)	6.4% (17/267)	4.5% (17/377)	5.7% (35/609)	11.6% (34/293)	6.8% (53/785)	4.2% (42/996)	7.0% (3/43)
		Viseu Dão Lafões	-	-	-	-	-	-	-	-
		Beira Baixa	-	-	-	-	-	-	-	-
AML		Médio Tejo	-	-	-	-	-	-	-	-
		Beiras e Serra da Estrela	-	-	-	-	-	-	-	-
AML		Área Metropolitana de Lisboa	1.9% (60/3235)	9.0% (170/1891)	12.9% (258/2001)	8.6% (376/4381)	9.4% (216/2301)	7.7% (201/2599)	4.7% (408/8736)	34.9% (15/43)
Alentejo			-	-	-	-	-	-	-	-
Algarve		Algarve	9.7% (7/72)	12.7% (23/181)	9.9% (23/232)	9.4% (39/416)	20.4% (37/181)	22.0% (63/287)	9.9% (24/243)	14.0% (6/43)

RAA	RAA	RAA	-	-	-	-	-	-	-	-
RAM	RAM	RAM	-	-	-	-	-	-	-	-
Continente			2.4%	8.9%	12.4%	11.2%	11.5%	10.4%	5.7%	95.3%
			(110/4577)	(273/3060)	(443/3584)	(793/7103)	(392/3418)	(455/4366)	(604/10663)	(41/43)
Portugal			2.4%	8.9%	12.4%	11.2%	11.5%	10.4%	5.7%	95.3%
			(110/4577)	(273/3060)	(443/3584)	(793/7103)	(392/3418)	(455/4366)	(604/10663)	(41/43)

**Technical notes:**

The addresses of community-based testing centers were used to determine the NUTS regions affiliation.

The question "Have you ever heard of pre-exposure prophylaxis (PrEP)?".

The answer options are "Yes" or "No".

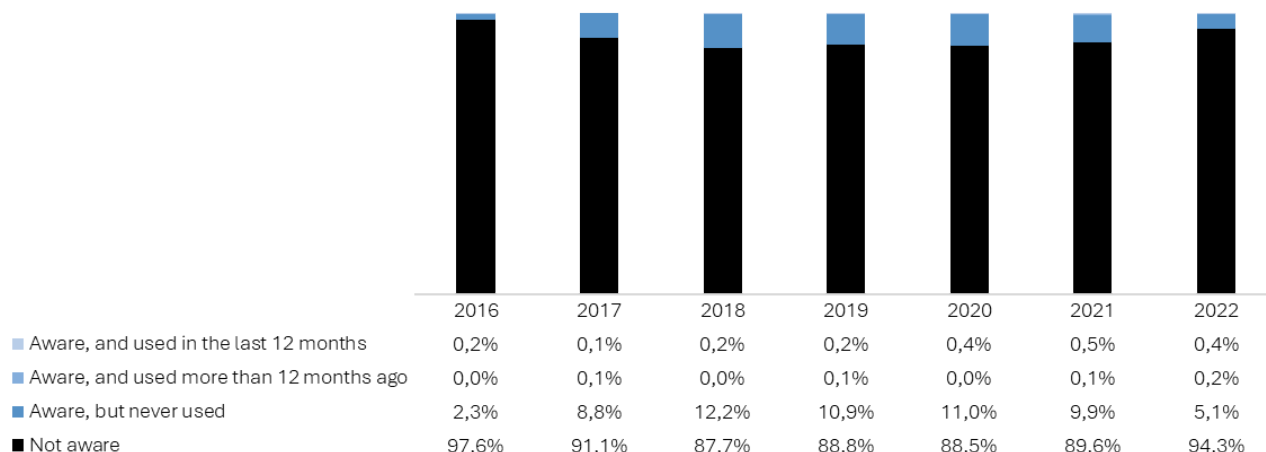
n = the number of people responding "Yes". N = the number of people responding to the question.

The nonresponses were excluded from the proportion.

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclature of Territorial Units for Statistical Purposes, PrEP - Pre-exposure prophylaxis, RAA - Região Autónoma dos Açores, RAM - Região Autónoma da Madeira

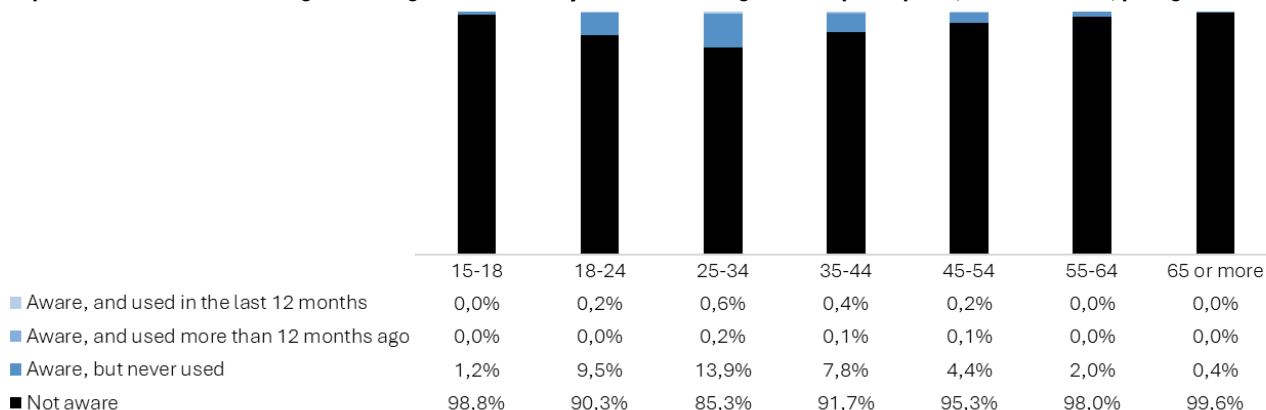
In Graph 8, we present PrEP awareness disaggregation per year of the first visit. We did not observe an evident increase in awareness according to the year of the first visit. It decreased from a maximum of 12.2% in 2018 to 5.1% in 2022.

**Graph 8. PrEP awareness among the Portuguese Community-Based Screening Network participants, at the first visit, per year of the first visit %**



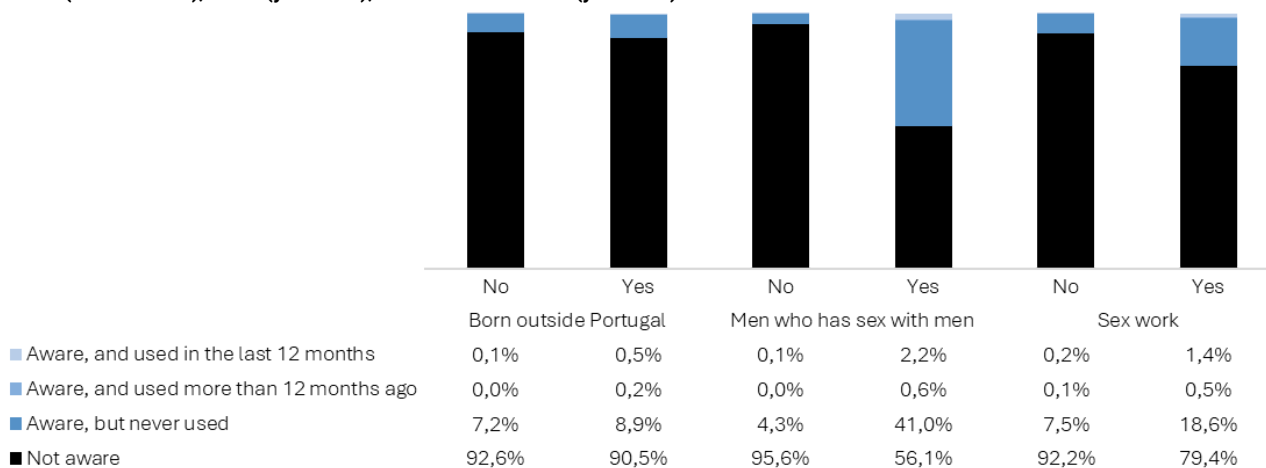
In Graph 9, we present PrEP awareness disaggregation per decade age stratum, <25 and >65 years old, corresponding to youths and older adults, respectively. Younger participants were more aware of PrEP, particularly those between 25 and 34.

**Graph 9. PrEP awareness among the Portuguese Community-Based Screening Network participants, at the first visit, per age strata %**



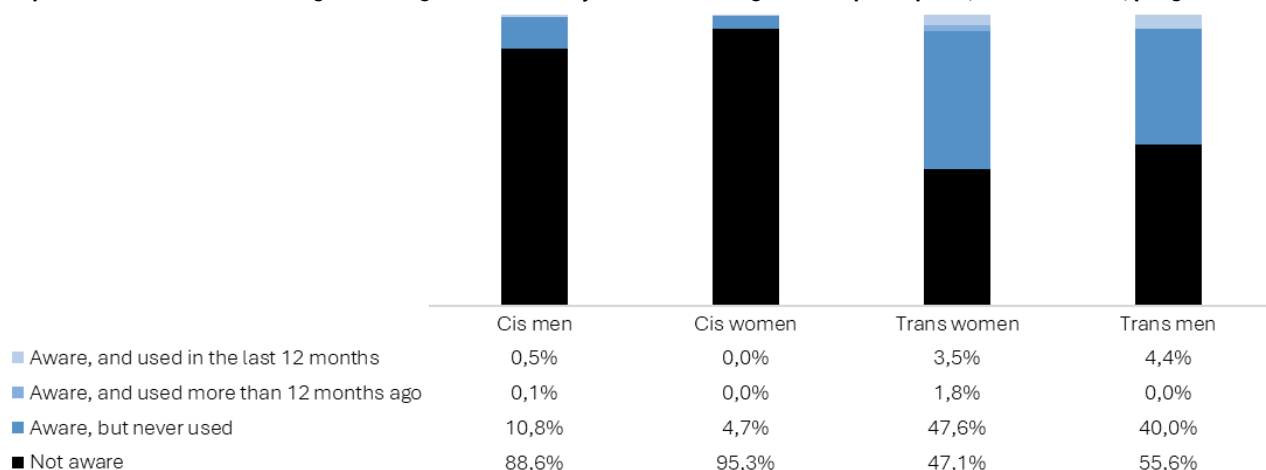
In Graph 10, we present PrEP awareness disaggregation per country of birth, MSM, and sex work (as defined previously). Participants' awareness of PrEP was mainly concentrated in MSM; it was also higher among sex workers than non-sex workers.

**Graph 10. PrEP awareness among the Portuguese Community-Based Screening Network participants, at the first visit, per country of origin status (native or not), MSM (yes or no), and sex work status (yes or no) %**

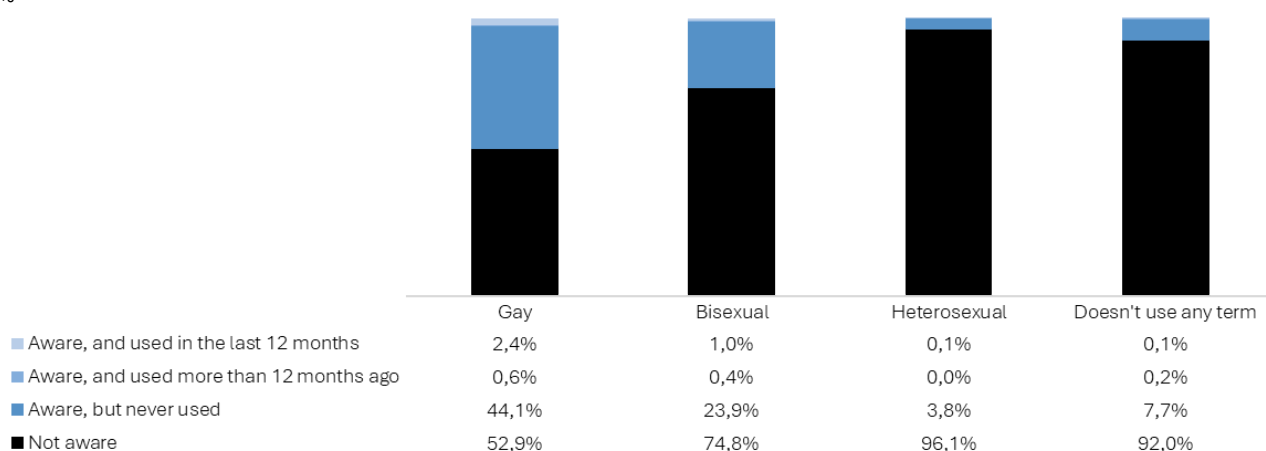


In Graphs 11 and 12, we present PrEP awareness disaggregation per gender identity and sexual orientation, respectively. We observed that trans women and trans men reported more frequently PrEP awareness and use. Cisgender women were those with lower knowledge (95.3% had never heard about PrEP), and none had used it. Gay or bisexual participants also reported more frequently having heard of PrEP and having used it than heterosexuals.

**Graph 11. PrEP awareness among the Portuguese Community-Based Screening Network participants, at the first visit, per gender identity %**



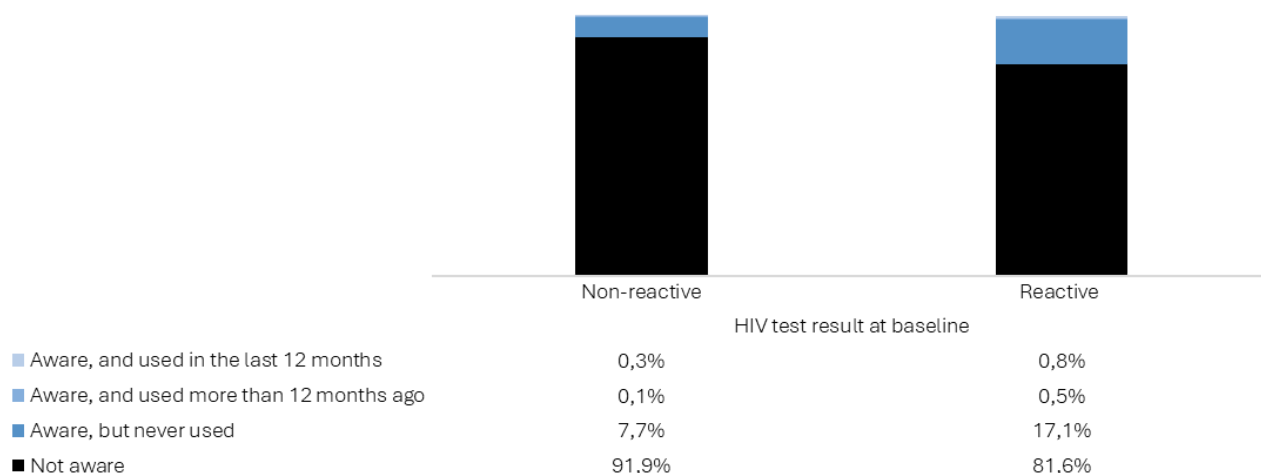
**Graph 12. PrEP awareness among the Portuguese Community-Based Screening Network participants, at the first visit, per sexual orientation %**



In Graph 13, we present PrEP awareness disaggregation per HIV test result. Among the 35,826 (95.3%) participants tested for HIV on their first visit, 374 (1.0%) had a reactive result. Those had a higher

proportion of knowledge about PrEP than those with a negative test result (18.4% versus 8.1%). Use was also higher among those with a reactive test result (1.3% versus 0.4%), but this conclusion requires caution given that only five individuals with reactive results had used PrEP.

**Graph 13. PrEP awareness among the Portuguese Community-Based Screening Network participants, at the first visit, per HIV test result %**



### 3.3.3. Medical students' awareness

A study (47) on Portuguese Medical students aimed to analyze the PrEP knowledge of medical students in Portugal. The study found that, irrespectively of their school year, 64.6% of medical students in Portugal knew about PrEP. However, only 4.77% of respondents could correctly identify eligible groups. The probability of knowing about PrEP and correctly identifying eligible groups increased with the academic year and varied among medical schools. The paper emphasized the importance of educating medical students about PrEP and including it in medical curricula. The study also suggested that doctors of any specialty should be familiar with PrEP indications and be able to inform people about it. Medical schools should review curricula to ensure effective training and emphasize the topic.

### 3.4. Willingness to use PrEP

PrEP willingness reflects a key step in potential PrEP candidates' thorough process on their trajectory of PrEP uptake. PrEP willingness is a step closer to PrEP uptake than PrEP awareness, providing insights into the potential demand for PrEP.

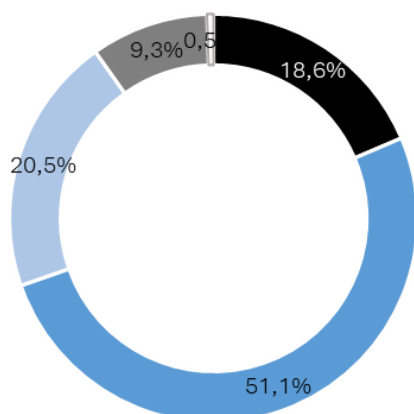
The ECDC indicator 1.3 *Willingness to use PrEP* describes whether individuals among a specific (surveyed) population group are willing to use PrEP if it is available/offered to them. The numerator is the number of individuals who report their willingness to use PrEP if offered/available. The denominator is the number of people from a sample population who are questioned about their willingness to use PrEP.

Data were retrieved from two prospective cohorts, the Lisbon Cohort of MSM and the Portuguese Community-Based Screening Network. After consent and during the HIV testing sessions, a standardized questionnaire collects information for surveillance purposes, including PrEP willingness.



### 3.4.1. Lisbon Cohort of MSM data

**Graph 14. Willingness to use PrEP among participants of the Lisbon MSM cohort %**



■ No ■ Yes ■ Maybe ■ Doesn't know □ NR/missing

The question on willingness was added in April 2015. Data from 6,172 who provided a valid answer to the question related to willingness is presented. In Graph 14, overall participants, 51.1% would consider using PrEP for HIV prevention, 18.6% would not, the remaining 20.5% said they would maybe consider it, and 9.3% did not know.

For comparison with other MSM ECDC indicator 1.3 Willingness to use PrEP estimates Table 12 presents data again according to the region of the community-based organization where the test was performed.

**Table 12. Willingness to use PrEP, per year and per region of the community-based organization where the test was performed among the Lisbon Cohort of MSM participants at their first visit, % (n/N)**

NUTS regions	2014		2015		2016		2017		2018		2019		2020		2021		2022	
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII
Continente	AML	AML	AML	AML	AML	AML	AML	AML	AML	AML	AML	AML	AML	AML	AML	AML	AML	AML

**Technical notes:**

The address of the community-based testing center was used to determine the NUTS region affiliation.

The question "Would you consider using pre-exposure prophylaxis (PrEP) for HIV prevention?".

The answer options are "Yes", "Maybe", "I do not know," "No" or "I prefer not to answer".

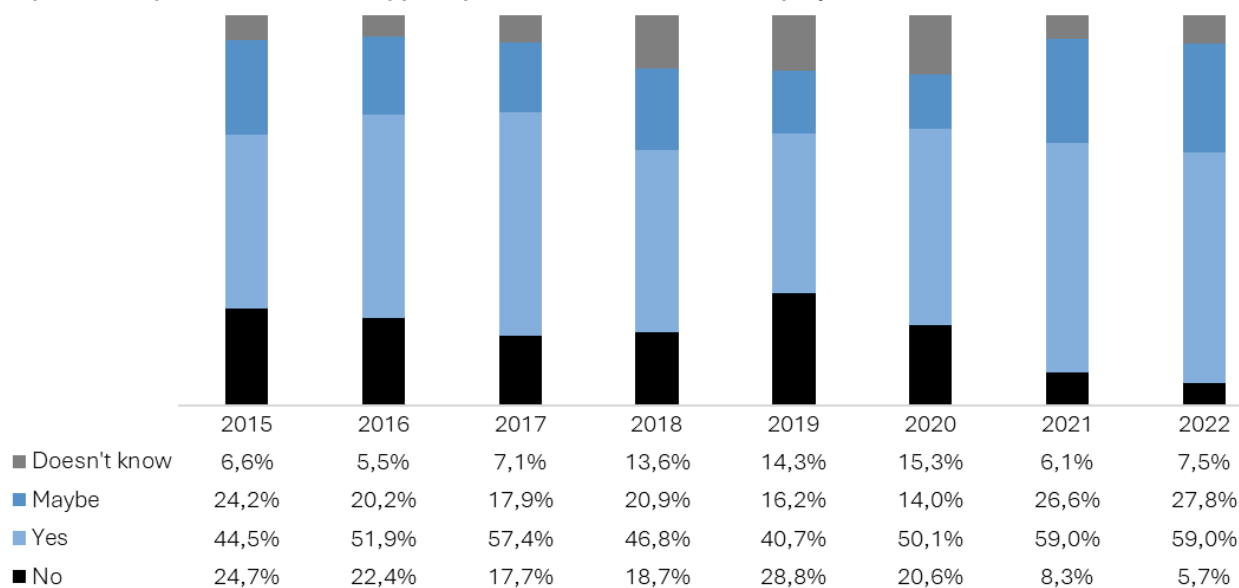
n = the number of people responding "Yes" or "Maybe". N = the number of people responding to the question.

The "I prefer not to answer" and nonresponses were excluded from the proportion.

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclatura das Unidades Territoriais para Fins Estatísticos, PrEP - Pre-exposure prophylaxis

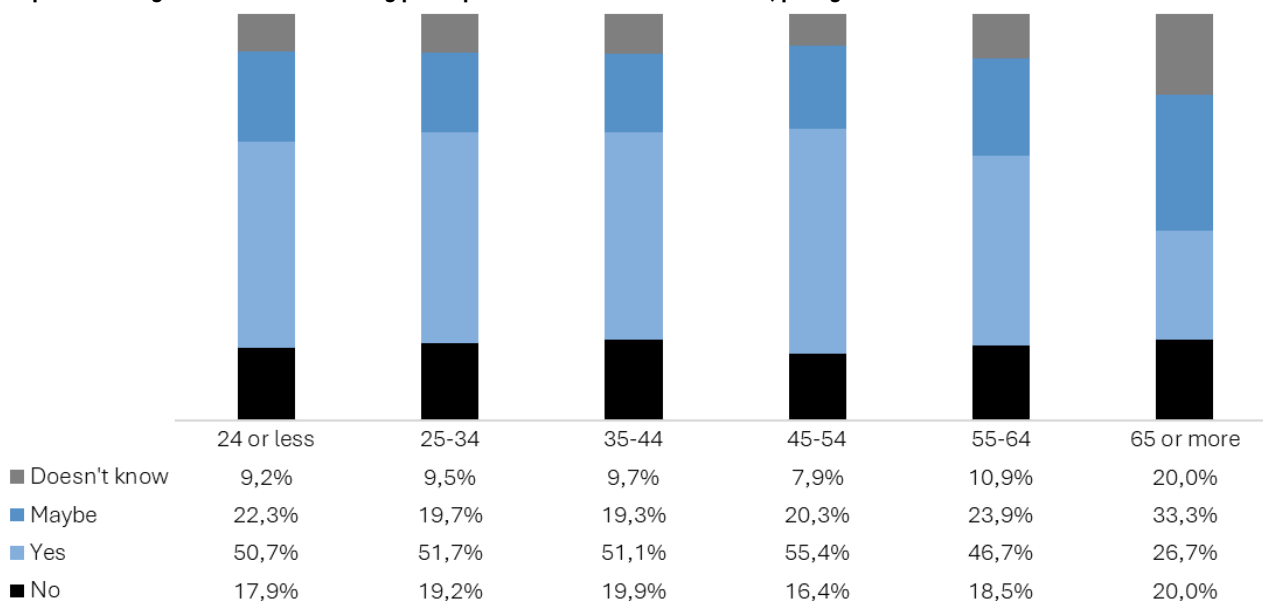
In Graph 15, we present the willingness to use PrEP disaggregation per year of visit. Willingness to use PrEP has changed throughout the years, reaching the maximum of 59.0% in the last two years (2021 and 2022); on the other side, those unwilling to use PrEP were only 8.3% and 5.7% in 2021 and 2022, respectively, while in 2015 those were 24.7%.

**Graph 15. Willingness to use PrEP among participants of the Lisbon MSM cohort, per year of visit %**



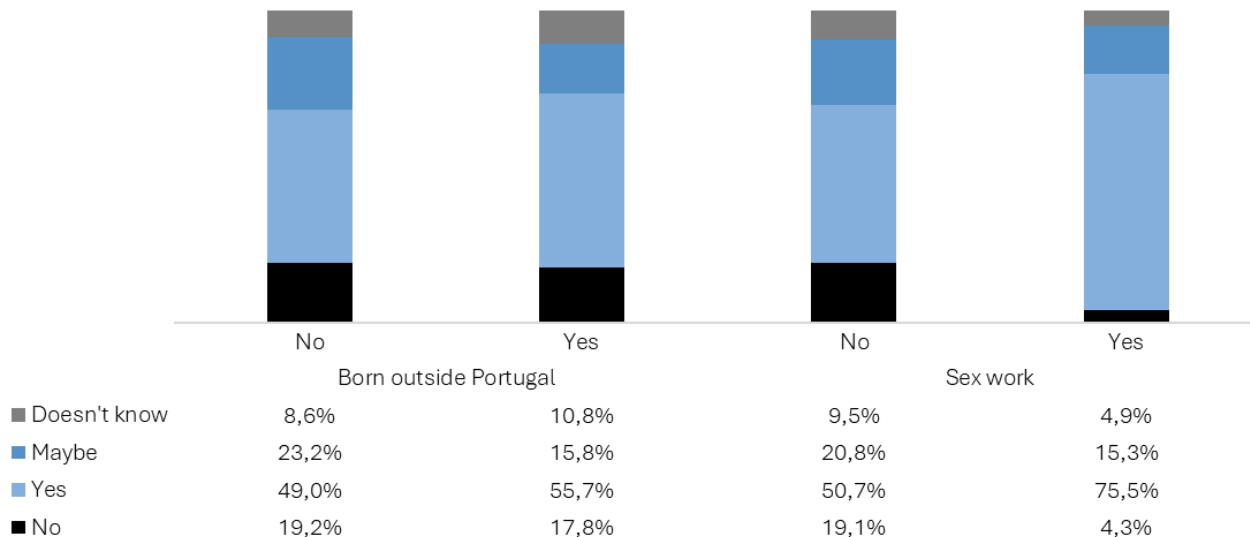
In Graph 16, we present PrEP awareness disaggregation per decade age stratum, <25 and >65 years old, corresponding to youths and older adults, respectively. Willingness to use PrEP for HIV prevention was higher among those aged 45-54 (55.4%). Of note, among those aged 65 or more, the proportion of those unwilling was similar to those of younger age, but those who would maybe consider or did not know were higher than in other age groups (53.3%).

**Graph 16. Willingness to use PrEP among participants of the Lisbon MSM cohort, per age strata %**



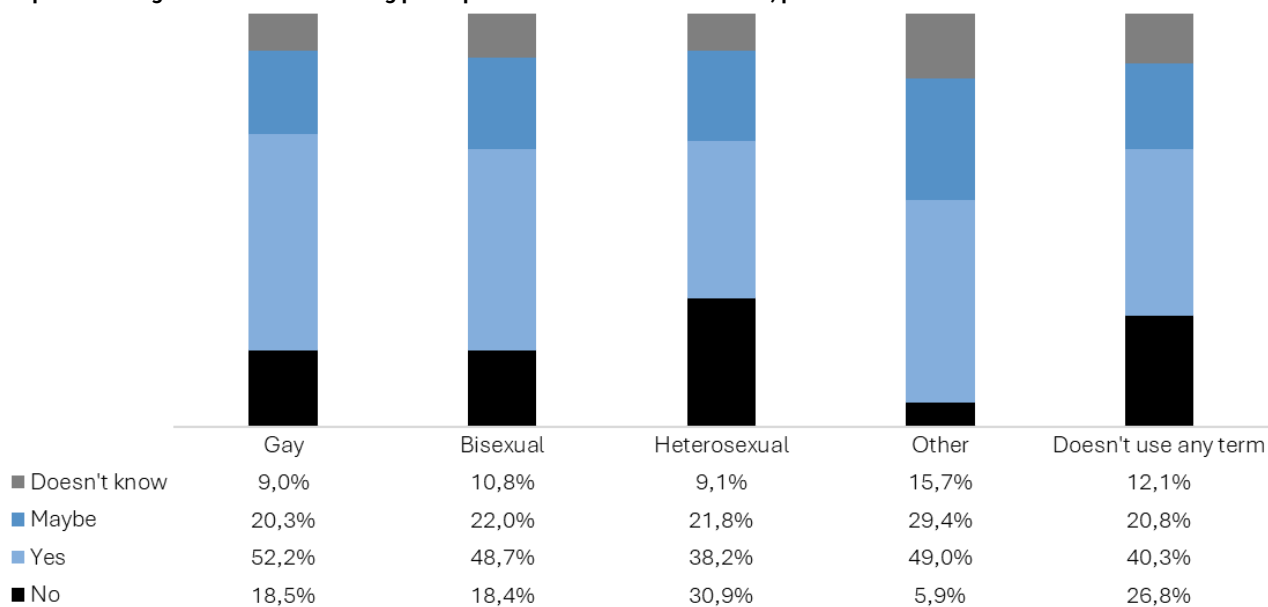
In Graph 17, we present PrEP awareness disaggregation per country of birth and sex work (as defined previously). Willingness was higher among those not born in Portugal and much higher among MSM having commercial sex (75.5%) than those not having (50.7%).

**Graph 17. Willingness to use PrEP among participants of the Lisbon MSM cohort, per country of origin status (native or not) and sex work status (yes or no) %**



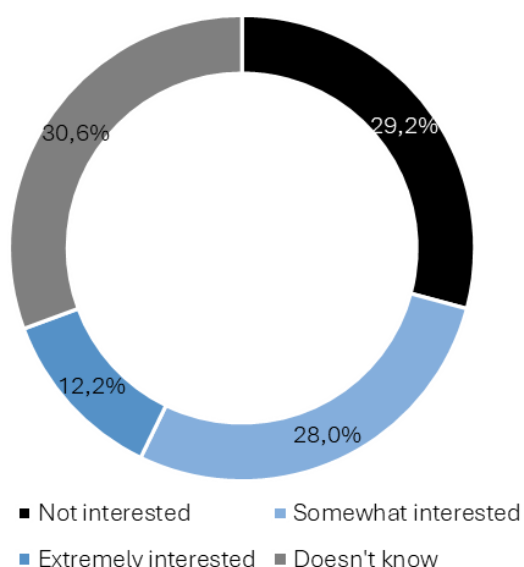
In Graph 18, we present PrEP awareness disaggregation per sexual orientation. Over 50% of those identifying as gay were willing to use PrEP (52.2%), while this was 38.2% among heterosexuals.

**Graph 18. Willingness to use PrEP among participants of the Lisbon MSM cohort, per sexual orientation %**



### 3.4.2. Portuguese Community-Based Screening Network data

**Graph 19. Willingness to use PrEP among the Portuguese Community-Based Screening Network participants %**



The willingness to use PrEP was inquired slightly differently within this network. Participants were asked, “How interested are you in using PrEP to prevent HIV, once it becomes available on a scale from zero (not interested at all) to four (extremely interested)? An “I don't know” answer was also possible. To facilitate the interpretation of data, we categorized replies as “Not interested” if 0, “Somewhat interested” if 1-3, and “Extremely interested” if 4. Overall, 23,382 individuals provided information to this question.

In Graph 19, overall, not being interested was reported by 29.2% of participants, 28.0% were somewhat interested, and 12.2% were highly interested. The remaining 30.6% did not know.

For comparison with other *ECDC indicators 1.3 Willingness to use PrEP* estimates, Table 13 presents data again according to the region of the community-based organization where the test was performed.

**Table 13. Willingness (somewhat or extremely interested) to use PrEP per year and per region of the community-based organization where the test was performed among the Portuguese Community-Based Screening Network participants at their first visit, % (n/N)**

NUTS regions		2016	2017	2018	2018	2020	2021	2022	Proportion of recruitment sites
I	II	III							
Norte		36.7% (73/199)	66.0% (99/150)	32.8% (178/542)	25.1% (349/1392)	20.2% (51/252)	24.4% (126/516)	19.4% (67/345)	25.6% (11/43)
	Alto Minho	25.7% (9/35)	74.1% (20/27)	15.1% (33/218)	18.6% (67/360)	8.4% (12/143)	3% (9/296)	6.7% (16/240)	2.3% (1/43)
	Cávado	-	-	-	-	-	-	-	-
	Ave	-	-	-	-	-	-	-	-
	Área Metropolitana do Porto	39% (64/164)	64.2% (79/123)	44.8% (145/324)	27.3% (282/1032)	35.8% (39/109)	53.2% (117/220)	48.6% (51/105)	23.3% (10/43)
	Alto Tâmega	-	-	-	-	-	-	-	-
	Tâmega e Sousa	-	-	-	-	-	-	-	-
	Douro	-	-	-	-	-	-	-	-
	Terras de Trás-os-Montes	-	-	-	-	-	-	-	-
Centro		60.1% (217/361)	60.5% (147/243)	33.6% (260/774)	28.9% (298/1030)	17.1% (140/820)	14.4% (190/1322)	7.3% (112/1533)	18.6% (8/43)
	Oeste	-	-	-	-	-	-	-	-
	Região de Aveiro	-	-	32.7% (32/98)	38.1% (8/21)	-	93.3% (14/15)	-	7.0% (3/43)
	Região de Coimbra	53.6% (98/183)	57.5% (96/167)	28.8% (90/313)	19% (89/468)	22.5% (120/533)	17.7% (98/555)	10.8% (76/706)	4.7% (2/43)
	Região de Leiria	66.9% (119/178)	67.1% (51/76)	38% (138/363)	37.2% (201/541)	7% (20/287)	10.4% (78/752)	4.4% (36/827)	7.0% (3/43)
	Viseu Dão Lafões	-	-	-	-	-	-	-	-
	Beira Baixa	-	-	-	-	-	-	-	-
	Médio Tejo	-	-	-	-	-	-	-	-
Beiras e Serra da Estrela	-	-	-	-	-	-	-	-	
AML	AML	38.3% (360/939)	65.9% (482/731)	57.4% (916/1595)	39.5% (822/2079)	42.7% (724/1695)	74% (1558/2105)	36.3% (1634/4505)	34.9% (15/43)
Alentejo		-	-	-	-	-	-	-	-
Algarve	Algarve	18.2% (6/33)	44.3% (31/70)	49.2% (91/185)	30.7% (90/293)	37.4% (49/131)	56.1% (161/287)	72.8% (163/224)	14.0% (6/43)

RAA	RAA	RAA	-	-	-	-	-	-	-	-
RAM	RAM	RAM	-	-	-	-	-	-	-	-
Continte			42.8%	63.6%	46.7%	32.5%	33.3%	48.1%	29.9%	93.0%
			(656/ 1532)	(759/ 1194)	(1445/ 3096)	(1559/ 4794)	(964/ 2898)	(2035/ 4230)	(1976/ 6607)	(40/43)
<b>Portugal</b>			<b>42.8%</b>	<b>63.6%</b>	<b>46.7%</b>	<b>32.5%</b>	<b>33.3%</b>	<b>48.1%</b>	<b>29.9%</b>	93.0%
			(656/ 1532)	(759/ 1194)	(1445/ 3096)	(1559/ 4794)	(964/ 2898)	(2035/ 4230)	(1976/ 6607)	(40/43)

**Technical notes:**

The addresses of community-based testing centers were used to determine the NUTS regions affiliation.

The question "How interested are you in using PrEP to prevent HIV, once it becomes available?".

The answer options ranged from zero (not interested) to four (extremely interested). To present the data, we dichotomized it into not interested (0) and interested (1-4).

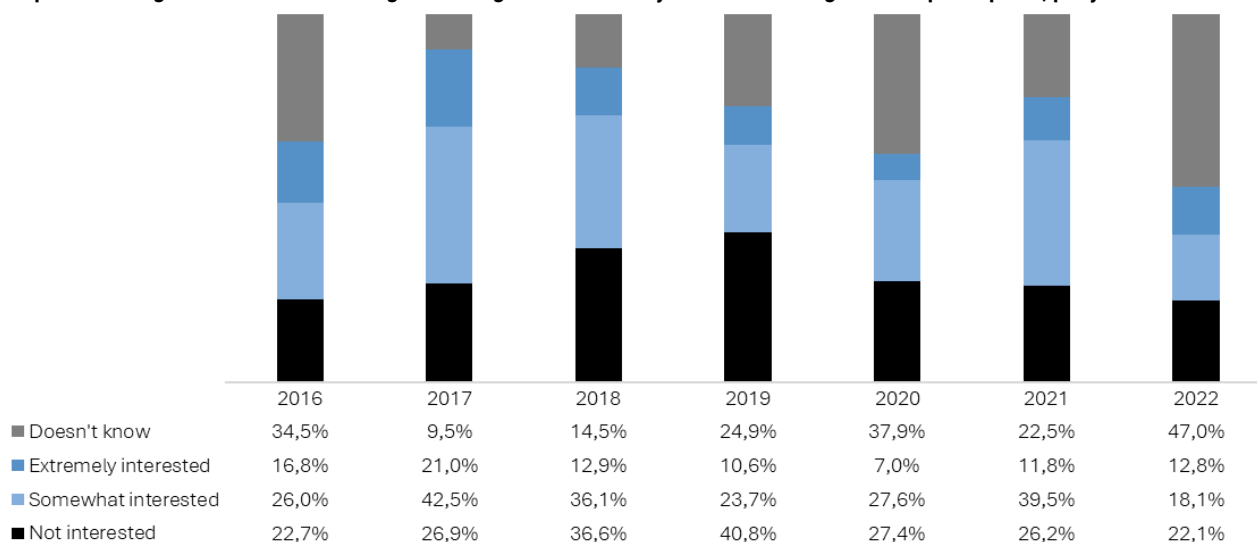
n = the number of people responding 1 to 4 "Extremely interested". N = the number of people responding to the question.

The nonresponses were excluded from the proportion.

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclatura das Unidades Territoriais para Fins Estatísticos, PrEP - Pre-exposure prophylaxis, RAA - Região Autónoma dos Açores, RAM - Região Autónoma da Madeira

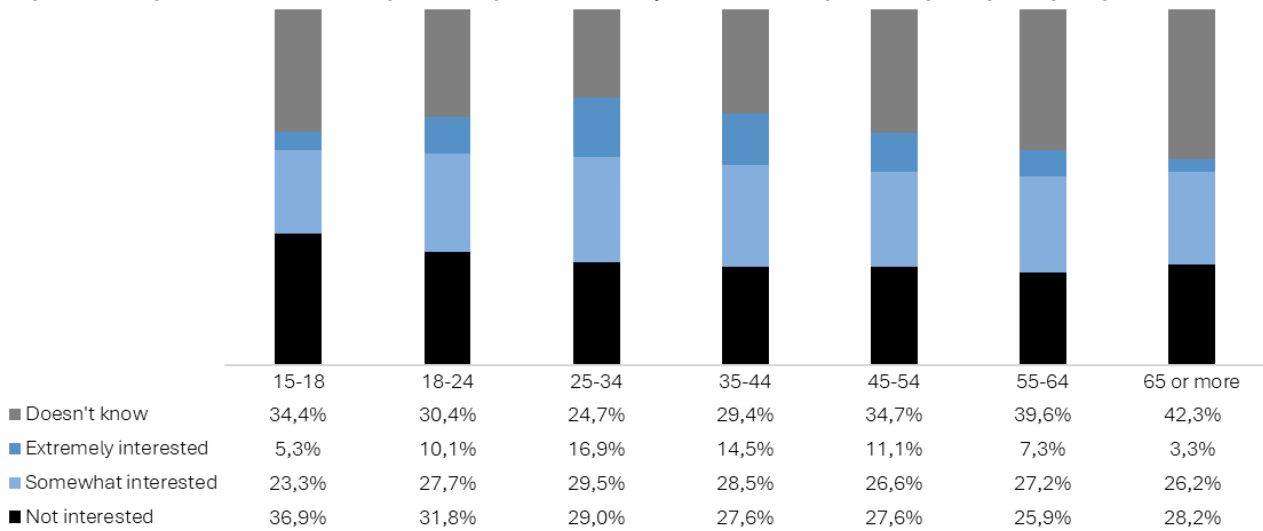
In Graph 20, we present the willingness to use PrEP disaggregation per year of visit. The interest in using PrEP according to year of entry showed no evident trend. Interest was higher in 2017. In 2022 the proportion of those not knowing whether they would be interested in PrEP was almost half of the participants, more than double the proportion in 2021.

**Graph 20. Willingness to use PrEP among the Portuguese Community-Based Screening Network participants, per year of first visit %**



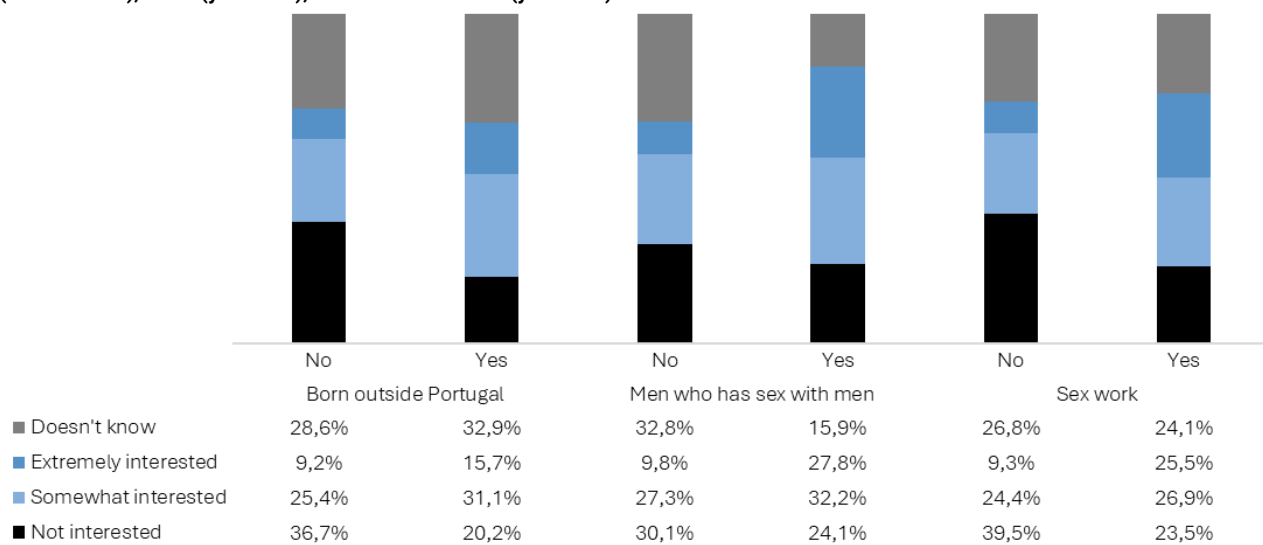
In Graph 21, we present the willingness to use PrEP disaggregation per decade age stratum, <25 and >65 years old, corresponding to youths and older adults, respectively. Younger participants were also more aware of PrEP, particularly those between 25 and 34. The distribution of interest in using PrEP also did not show very evident differences according to the age of participants. The highest proportion of interest was observed among those aged between 25 and 34. Those aged 65 or more presented the highest proportion of not knowing whether they would use PrEP.

**Graph 21. Willingness to use PrEP among the Portuguese Community-Based Screening Network participants, per age strata %**



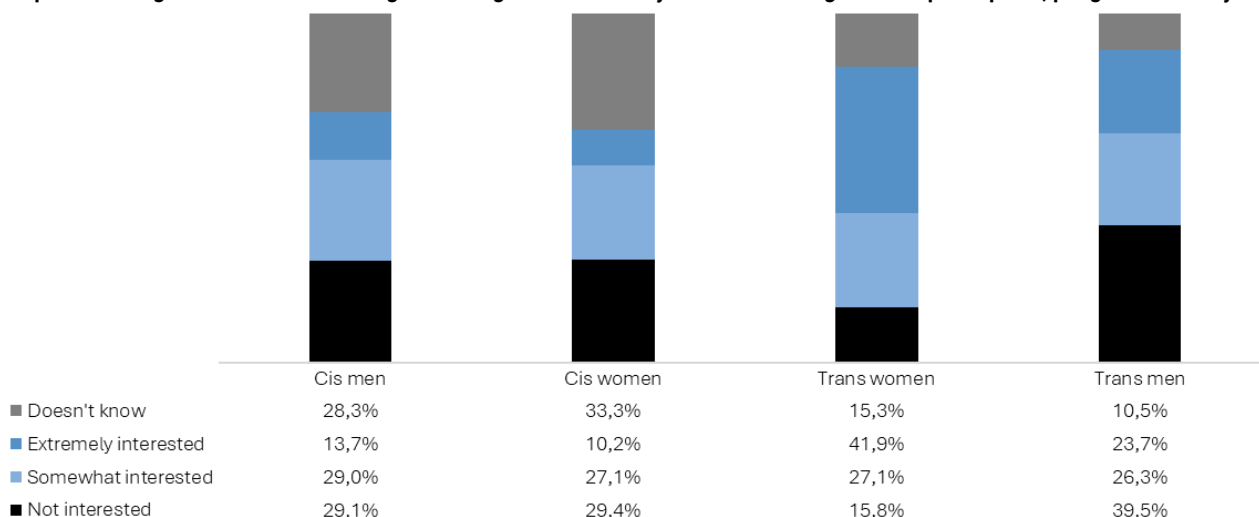
In Graph 22, we present the willingness to use PrEP disaggregation per country of birth, MSM, and sex work (as defined previously). Those born in Portugal were less interested in using PrEP than those born abroad. Men who have sex with men and sex workers reported more often to be interested in using PrEP than men not having sex with men and not sex workers, respectively.

**Graph 22. Willingness to use PrEP, among the Portuguese Community-Based Screening Network participants, per country of origin status (native or not), MSM (yes or no), and sex work status (yes or no) %**

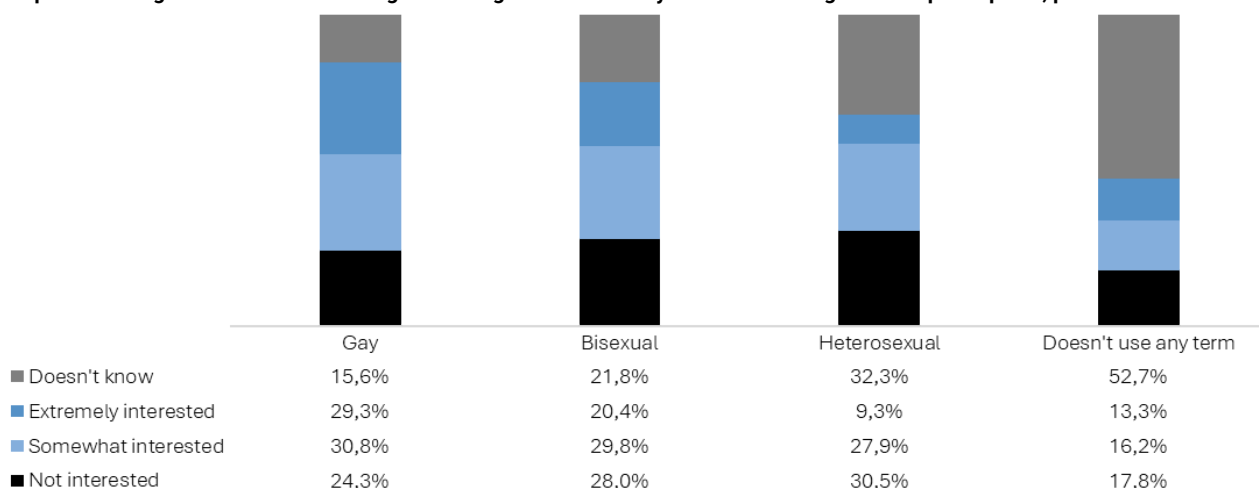


In Graphs 23 and 24, we present the willingness to use PrEP disaggregation per gender identity and sexual orientation, respectively. Interest was higher among trans women, while trans men showed the highest proportion of disinterest. Cisgender men and women showed a similar distribution of categories of interest. The distribution of interest in using PrEP according to the sexual orientation of participants also showed that gay or bisexual persons were more interested than heterosexuals. In contrast, over half of those who do not use any term for their sexual orientation did not know whether they would use PrEP.

**Graph 23. Willingness to use PrEP among the Portuguese Community-Based Screening Network participants, per gender identity %**



**Graph 24. Willingness to use PrEP among the Portuguese Community-Based Screening Network participants, per sexual orientation %**



### 3.5. Current PrEP users

The ECDC indicator 2.1 *Current PrEP users* describe the number of unique individuals who received PrEP for HIV prevention at least once in the last 12 months (calendar year). This indicator is key to assessing the reach and accommodation of a PrEP program. Hospital HIV teams provided this data. Table 14 presents data per NUTS II, as disaggregation per geographical area was recommended in the ECDC guidance. Table 15 provides the same data as the rate of current PrEP users per 100,000 habitants per year.

**Table 14. Current PrEP users per NUTS region and country per year**

NUTS region affiliation	NUTS region name	Current PrEP users					% respondent hospitals per region				
		2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
NUTS II	Norte	21	98	158	442	393	25,0	20,0	28,6	22,2	44,4
NUTS II	Centro	-	-	-	11	97	-	-	-	33,3	50,0
NUTS II	AML	287	736	562	1134	1114	66,7	87,5	80,0	75,0	75,0
NUTS II	Alentejo	6	1	1	3	16	50,0	50,0	50,0	50,0	33,3
NUTS II	Algarve	16	34	53	83	119	50,0	50,0	50,0	100,0	100,0
NUTS II & III	RAA	-	-	-	-	10	0,0	0,0	0,0	0,0	100,0
NUTS II & III	RAM	-	-	-	-	14	-	-	-	0,0	100,0
NUTS II & III	Continente	330	869	773	1673	1739	50,0	71,4	63,2	65,2	64,3
<b>Country</b>	<b>Portugal</b>	<b>330</b>	<b>869</b>	<b>773</b>	<b>1673</b>	<b>1739</b>	<b>46,7</b>	<b>50,0</b>	<b>50,0</b>	<b>50,0</b>	<b>62,5</b>

**Technical note:**

Eight hospitals reported the number of new PrEP users in the last 12 months only. We use that exact number for this indicator for those hospitals since the hospital's new users are the minimum current PrEP users in the last 12 months. One is from the Norte, four are from the Área Metropolitana de Lisboa, one is from Alentejo, and two are from the Algarve region. Hence, underestimation is expected.

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclatura das Unidades Territoriais para Fins Estatísticos, PrEP - Pre-exposure prophylaxis, RAA - Região Autónoma dos Açores, RAM - Região Autónoma da Madeira

**Table 15. Rate of current PrEP users per 100,000 habitants per NUTS region and country per year**

NUTS region affiliation	NUTS region name	Current PrEP users per 100,000					% respondent hospitals per region				
		2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
NUTS II	Norte	1	3	4	12	11	25,0	20,0	28,6	22,2	44,4
NUTS II	Centro	-	-	-	0	4	-	-	-	33,3	50,0
NUTS II	AML	10	26	20	40	38	66,7	87,5	80,0	75,0	75,0
NUTS II	Alentejo	1	0	0	0	2	50,0	50,0	50,0	50,0	33,3
NUTS II	Algarve	4	8	12	18	25	50,0	50,0	50,0	100,0	100,0
NUTS II & III	RAA	-	-	-	-	4	0,0	0,0	0,0	0,0	100,0
NUTS II & III	RAM	-	-	-	-	6	-	-	-	0,0	100,0
NUTS II & III	Continente	3	9	8	17	17	50,0	71,4	63,2	65,2	64,3
<b>Country</b>	<b>Portugal</b>	<b>3</b>	<b>8</b>	<b>8</b>	<b>16</b>	<b>17</b>	<b>46,7</b>	<b>50,0</b>	<b>50,0</b>	<b>50,0</b>	<b>62,5</b>

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclatura das Unidades Territoriais para Fins Estatísticos, PrEP - Pre-exposure prophylaxis, RAA - Região Autónoma dos Açores, RAM - Região Autónoma da Madeira

**3.6. New PrEP users**

The ECDC indicator 2.2 *New PrEP users* describe the number of people who used PrEP for the first time in their lives during the last 12 months (calendar year). This indicator is key to assessing the ability of a program to engage new people in using PrEP. Again, these data were provided by hospitals. Table 16 presents data per NUTS II, as disaggregation per geographical area was recommended in the ECDC guidance. Table 17 provides the same data as the rate of new PrEP users per 100,000 habitants yearly.

**Table 16. New PrEP users per NUTS region and country per year**

NUTS region affiliation	NUTS region name	New PrEP users					% respondent hospitals per region				
		2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
NUTS II	Norte	21	98	158	270	278	25,0	20,0	28,6	22,2	44,4
NUTS II	Centro	-	-	-	11	32	-	-	-	33,3	50,0
NUTS II	AML	283	722	526	984	816	66,7	87,5	80,0	75,0	75,0
NUTS II	Alentejo	6	1	1	3	11	50,0	50,0	50,0	50,0	33,3
NUTS II	Algarve	16	34	53	83	85	50,0	50,0	50,0	100,0	100,0
NUTS II & III	RAA	-	-	-	-	-	0,0	0,0	0,0	0,0	0,0
NUTS II & III	RAM	-	-	-	-	-	-	-	-	0,0	0,0
NUTS II & III	Continente	326	855	738	1351	1222	50,0	71,4	63,2	65,2	64,3
<b>Country</b>	<b>Portugal</b>	<b>326</b>	<b>855</b>	<b>738</b>	<b>1351</b>	<b>1222</b>	<b>46,7</b>	<b>50,0</b>	<b>50,0</b>	<b>50,0</b>	<b>62,5</b>

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclatura das Unidades Territoriais para Fins Estatísticos, PrEP - Pre-exposure prophylaxis, RAA - Região Autónoma dos Açores, RAM - Região Autónoma da Madeira

**Table 17. Rate of new PrEP users per 100,000 habitants per NUTS region and country per year**

NUTS region affiliation	NUTS region name	New PrEP users per 100,000					% respondent hospitals per region				
		2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
NUTS II	Norte	1	3	4	8	8	25,0	20,0	28,6	22,2	44,4
NUTS II	Centro	-	-	-	-	1	-	-	-	-	50,0
NUTS II	AML	10	25	18	34	28	66,7	87,5	80,0	75,0	75,0
NUTS II	Alentejo	1	0	0	0	2	50,0	50,0	50,0	50,0	33,3
NUTS II	Algarve	4	8	12	18	18	50,0	50,0	50,0	100,0	100,0
NUTS II & III	RAA	-	-	-	-	-	0,0	0,0	0,0	0,0	0,0
NUTS II & III	RAM	-	-	-	-	-	-	-	-	0,0	0,0



NUTS II & III	Continente	3	9	8	14	12	50,0	71,4	63,2	65,2	64,3
<b>Country</b>	<b>Portugal</b>	<b>3</b>	<b>9</b>	<b>8</b>	<b>14</b>	<b>12</b>	<b>46,7</b>	<b>50,0</b>	<b>50,0</b>	<b>50,0</b>	<b>62,5</b>

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclatura das Unidades Territoriais para Fins Estatísticos, PrEP - Pre-exposure prophylaxis, RAA - Região Autónoma dos Açores, RAM - Região Autónoma da Madeira

### 3.7. PrEP coverage or PrEP-to-need ratio

No data fitted to calculate ECDC 2.3 PrEP coverage indicator. This indicator describes how many people currently use PrEP relative to the population in need of PrEP. The available estimates of people eligible for PrEP, according to Portuguese PrEP-eligibility criteria, are for men who have sex with men (48,49). The reported number of people currently using PrEP provided by hospitals is not disaggregated per key population. In addition, civil years of PrEP eligibility estimates and the reported number of people currently using PrEP do not overlap.

An alternative indicator for PrEP coverage is the ECDC 2.3b PrEP-to-need ratio (PnR). This indicator compares the number of current PrEP users (ECDC 2.1 PrEP indicator) relative to the number of new HIV diagnoses in a given area per calendar year. The number of new HIV diagnoses among persons 15 years or older per NUTS II area was obtained from the 2023 HIV national report (24). In Table 18, we present ECDC 2.3b PnR.

This indicator is not a true measure of coverage (i.e., it is not a proportion of PrEP users divided by PrEP eligible). This indicator compares the PrEP use to the 'epidemic need' for PrEP based on the number of new HIV diagnoses. In addition, the number of new HIV diagnoses does not equate to HIV incidence (new infections). Still, this metric may prove useful to reveal trends over time and allow for some comparison across geographical areas.

Table 18. PrEP-to-need ratio (PnR) per NUTS region and country per year

NUTS region affiliation	NUTS region name	Current PrEP users					People diagnosed with HIV					PrEP-to-need ratio (PnR)				
		2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
NUTS II	Norte	21	98	158	442	393	326	295	216	248	241	0,06	0,33	0,73	<b>1,78</b>	<b>1,63</b>
NUTS II	Centro				11	97	193	183	148	161	134				0,07	0,72
NUTS II	AML	287	736	561	1134	1114	611	626	477	510	314	0,47	<b>1,18</b>	<b>1,18</b>	<b>2,22</b>	<b>3,55</b>
NUTS II	Alentejo	6	1	1	3	16	43	46	22	31	27	0,14	0,02	0,05	0,10	0,59
NUTS II	Algarve	16	34	53	83	119	11	64	45	65	33	<b>1,45</b>	0,53	<b>1,18</b>	<b>1,28</b>	<b>3,61</b>
NUTS II & III	RAA					10	13	16	7	1	7					<b>1,43</b>
NUTS II & III	RAM					14	13	24	22	12	13					<b>1,08</b>
NUTS II & III	Continente	330	869	773	1673	1739	1184	1214	908	1015	749	0,28	0,72	0,85	<b>1,65</b>	<b>2,32</b>
<b>Country</b>	<b>Portugal</b>	<b>330</b>	<b>869</b>	<b>773</b>	<b>1673</b>	<b>1763</b>	<b>2394</b>	<b>2468</b>	<b>1845</b>	<b>2043</b>	<b>1518</b>	<b>0,14</b>	<b>0,35</b>	<b>0,42</b>	<b>0,82</b>	<b>1,16</b>

**Technical note:**

This indicator uses Current PrEP users number: underestimated for North, Lisbon Metropolitan Area, Alentejo, and Algarve regions. Eight hospitals from these regions did not report current PrEP users but only new PrEP users. Since new PrEP users are the minimum Current PrEP users, we copied those numbers to the above Current PrEP users' estimates.

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclatura das Unidades Territoriais para Fins Estatísticos, PrEP - Pre-exposure prophylaxis, RAA - Região Autónoma dos Açores, RAM - Região Autónoma da Madeira

No threshold has been established indicating whether a specific PnR could be considered acceptable or favorable. A PnR above 1 means more people on PrEP than people diagnosed with HIV. All regions' PnR is increasing at different velocities. The Norte, Área Metropolitana de Lisboa, Algarve, Madeira, and Açores regions surpassed PnR=1. The Centro and Alentejo regions' PnR are below 1. Overall, the country's PnR is slightly above 1, mainly due to both the Área Metropolitana de Lisboa and Algarve regions' PnR above 3.

### 3.8. Recent PrEP use among people newly diagnosed with HIV

The ECDC 3.1 *Recent PrEP use among people newly diagnosed with HIV* indicator measures how many people who experienced an HIV seroconversion had recently used PrEP. It divides the number of people who received PrEP at least once in the 12 months before being diagnosed with HIV per the number of people newly diagnosed with HIV in the calendar year.

Only one site reported 1 HIV seroconversion in 2022 among those who received PrEP at least once in the 12 months before being diagnosed. This person had dropped PrEP follow-up in the prior 12 months. Table 19 presents the proportions (%) for this indicator per region per year of HIV seroconversion.

Table 19. Recent PrEP use among people newly diagnosed with HIV per NUTS region and country per year

NUTS region affiliation	NUTS region name	Recent PrEP use among people newly diagnosed with HIV										People diagnosed with HIV in the region					% respondents per region					Proportion %				
		2018					2019					2020					2021					2022				
		2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
NUTS II	Norte		0	0	0	326	295	216	248	241	0,0	0,0	14,3	11,1	22,2	0,00	0,00	0,00	0,00	0,00						
NUTS II	Centro			0	1	193	183	148	161	134				33,3	25,0	0,00	0,75									
NUTS II	AML	0	0	0	0	611	626	477	510	314	0,0	12,5	10,0	8,3	8,3	0,00	0,00	0,00	0,00	0,00						
NUTS II	Alentejo			0	0	43	46	22	31	27				50,0	33,3	0,00	0,00									
NUTS II	Algarve					11	64	45	65	33	0,0	0,0	0,0	0,0	0,0											
NUTS II & III	RAA					13	16	7	1	7	0,0	0,0	0,0	0,0	0,0											
NUTS II & III	RAM					13	24	22	12	13				0,0	0,0											
NUTS II & III	Continente	0	0	0	1	1184	1214	908	1015	749	50,0	71,4	63,2	65,2	64,3	0,00	0,00	0,00	0,13	0,13						
Country	Portugal	0	0	0	0	2394	2468	1845	2043	1518	46,7	50,0	50,0	50,0	62,5	0,00	0,00	0,00	0,00	0,00						

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclatura das Unidades Territoriais para Fins Estatísticos, PrEP - Pre-exposure prophylaxis, RAA - Região Autónoma dos Açores, RAM - Região Autónoma da Madeira

This indicator discloses cases of individuals who acquired HIV even though they recently had access to PrEP; which indicates a missed chance for prevention. These cases should evoke further qualitative investigations into why seroconversion occurred to distinguish person-related problems from health system-related ones.

### 3.9. PrEP continuation

The ECDC 3.2 *PrEP continuation* indicator describes how many people who started PrEP continue to use it 12 months after PrEP initiation. It divides the number of people with at least one follow-up visit 12 months after PrEP initiation per the number for the first lifetime PrEP use during the previous reporting period. A ratio superior to 1 indicates retention.

To calculate this indicator, we use data from sites that reported their current “n calendar year” PrEP users and new “n-1 calendar year” PrEP users count. Table 20 shows PrEP continuation among those who started PrEP in the prior year in all years and regions except years 2020 and 2022 in the Área Metropolitana de Lisboa. COVID-19's pandemic impact on healthcare provision, access, or health-seeking-behavior changes might explain the year 2020.

Table 20. PrEP continuation per NUTS region per year

NUTS region affiliation	NUTS region name	New PrEP users (data unfit excluded)					Current PrEP users (data unfit excluded)					PrEP continuation ratio					Number of sites (with data fit)									
		2018					2019					2020					2021					2022				
		2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022					
NUTS II	Norte		7	35	56		7	42	98		6,0	2,8	0	0	1	1	1									
NUTS II	Centro			11	32			11	67		6,1					1	1									
NUTS II	AML	172	362	323	621	435	172	356	327	633	522	2,1	0,9	2,0	0,8	1	2	2	3	3						
NUTS II	Alentejo																0	0								
NUTS II	Algarve																0	0	0	0	0					

NUTS II & III	RAA	0
NUTS II & III	RAM	0

**Acronyms:** AML - Área Metropolitana de Lisboa, NUTS - Nomenclatura das Unidades Territoriais para Fins Estatísticos, PrEP - Pre-exposure prophylaxis, RAA - Região Autónoma dos Açores, RAM - Região Autónoma da Madeira

Monitoring consistent PrEP use can be challenging. PrEP use is based on individual risk of HIV, and continuous use is not always necessary. Focusing on sustained use after initiation can reveal gaps in support and identify barriers to engagement. Low continuation rates (<1) do not necessarily mean program failures; users may discontinue for valid reasons. Still, this indicator provides insights into when and where users don't continue long-term. Hence, monitoring and reporting should be improved.

### 3.10. Reported PrEP barriers and facilitators

In February 2023, we searched for “pre-exposure prophylaxis” + “HIV” + “systematic review” MeSH terms at Pubmed (n=86) and Scopus (n=192), published between 2018 and 2023. After duplicate removal (n=21), the titles and abstracts were reviewed to identify the reviews that provided results on barriers, facilitators, or determinants of the PrEP care continuum (excluded n=224). The remaining 33 full articles were reviewed, and those with no inclusion of countries of the WHO European Region were excluded (excluded n=25). We extracted the following information from the eight reviews: first author and year, countries, study participants, PrEP care continuum domains, barriers, and facilitators. The PrEP care continuum domains (pre-uptake, uptake and coverage, and continuation and effective use)(42), as defined by ECDC, are not in the original papers but were used as themes to organize the barriers and facilitators identified in the original papers. The extraction table was divided according to whether the barriers and facilitators were evaluated from the PrEP user's (n=7) or PrEP providers' perspective (n=1). Table 21 compiles the reviews with results on barriers and facilitators from the PrEP user's perspective, while Table 22 shows the PrEP providers' perspective.

### 3.10.1. Barriers and facilitators from PrEP users' perspective

Table 21. Data extracted for systematic reviews about PrEP in, or including countries in, the WHO European Region with results on barriers and facilitators from PrEP users' perspective (n=7)

Author	Countries	Studies participants	PrEP care continuum domain	Barriers	Facilitators
Coukan et al., 2023 (50)	UK	All PrEP users, mostly MSM	"pre-uptake"	Lack of awareness, knowledge, and willingness Lack of HIV-risk self-perception Societal PrEP stigma Societal HIV stigma	Peer support Good HIV knowledge Prior HIV testing Agency and self-care
			"uptake and coverage"	Inadequate PrEP guidelines or recommendations Lack of access to PrEP provider Suboptimal PrEP uptake	Sexual pleasure and satisfaction Peer support
			"continuation and effective use"	Suboptimal PrEP adherence	Sexual pleasure and satisfaction Peer support
Glick et al., 2020 (51)	Global	Cisgender women who sell sex and/or use drugs	"pre-uptake"	Lack of PrEP awareness Cost Side effects Efficacy Low HIV risk perception Provision setting	High interest in or willingness to take PrEP Peers acceptability HIV knowledge Choice, control Exposure to violence Type of regimen
			"continuation and effective use"	Challenge of daily intake Interaction with substance use Side effects PrEP stigma Partners opinion Travel challenges Cost	Injectable PrEP Self-control of intake Peers Services trust
Mwaturura et al., 2021(52)	Global	African migrants residing in high income countries	Across domains	Reluctance to discuss sex and sexual health Religious and cultural beliefs (intergenerational) PrEP stigma Low HIV self-risk perception Low PrEP knowledge Side effects Governmental-based PrEP services Cost	Peer education Cultural-competent providers Social support Serodiscordant relationships
Peng et al., 2018 (53)	Global	MSM PrEP users	"pre-uptake"	High PrEP acceptability	Risk perception of HIV infection PEP history
			"uptake and coverage"	Lack of knowledge Out-of-pocket costs Efficacy Side effects Location of providers HIV stigma	Prior history of daily pill intake Self-protection Sex work Choice regarding condom Less HIV-related anxiety

				Mistrust of providers	
			"continuation and effective use"	PrEP stigma Daily pill intake	Serodiscordant relationships Access to HIV/STI testing
Sidebottom et al., 2018(54)	Global	All PrEP trials participants, mostly MSM	"continuation and effective use"	Low regimen knowledge Side effects Low HIV risk perception Daily pill intake PrEP stigma Cost Lack of governmental policy	Decision making power
Sun et al., 2022 (55)	Global	MSM PrEP users	"pre-uptake"	Side effects Efficacy Daily intake Condom preference Non-gay sexual orientation Cost Low HIV risk perception	High PrEP awareness Condomless anal sex history STI history HIV/STI testing history PEP history Peers using/recommending PrEP High number of sex partners Serodiscordant relationships
Vaitses Fontanari et al., 2019 (56)	Global	Transgender PrEP users	"pre-uptake"	Interactions between PrEP and other medications Side effects Prior health-related discrimination Efficacy PrEP stigma	Increasing PrEP awareness Increasing PrEP interest

### 3.10.2. Barriers and facilitators from PrEP providers' perspective

Table 22. Data extracted for systematic reviews about PrEP in, or including countries in, the WHO European Region with results on barriers and facilitators from PrEP providers perspective (n=1)

Author	Countries	Studies participants	PrEP care continuum domain	Barriers	Facilitators
Hillis et al., 2020 (57)	Global	PrEP providers	Across domains	Distance between users and providers Lack of prescribers "Purview paradox" Lack of follow-ups Poor/minimal lab monitoring Pills refill disruptions Provider-user communication	Near patient pharmacies Unified or integrated approach Home-based provision Task-shifting PrEP navigators Providers training Patient-centered models Provider-user communication

In addition, to obtain granular information on barriers from Portuguese PrEP providers' perspective, alongside asking NHS HIV clinics for information relating to ECDC PrEP indicators, we have asked what were the team's main difficulties while providing PrEP (open-ended question). The corpus of the analysis was the email replies and the interviewer's record of the answers provided by telephone. We summarized the responses into themes related to perceived barriers, as shown in Table 23.

**Table 23. Hospitals reported information on barriers and facilitators to PrEP implementation/provision (n=8)**

NUTS II	PrEP care continuum domain	Themes Barriers
North region (n=1), Centro Region (n=1), Lisbon Metropolitan Area (n=5) and Autonomous Region of the Azores (n=1)	"pre-uptake"	Lack of referrals to the PrEP appointments (H4) Low demand from other key populations besides GBMSM (H2) Perception that candidates believe PrEP is to replace condoms (H3) High number of missed appointments, which then increases waiting times (H1, H3, H5) Low perceived knowledge of candidates about PrEP (H2) (H3)
	"uptake and coverage"	Low perceived knowledge about the commitment needed for follow-up (H2) No perceived knowledge about side effects (H3) Lag time to obtain lab monitoring results (H6)
	"continuation and effective use"	High number of recommended follow-up appointments (H2, H5, H7) High number of additional appointments due to STI detection (H2, H5) Lag time to obtain lab monitoring results (H6) Retention in care is challenging (H3, H5)
	Across domains	High demand and low accommodation capacity (H2, H5) Lack of medical staff (H6, H7, H8) Lack of hours allocated to PrEP services (H6) No geographical restrictions, leading to the perception that the local population needs are unmet (H2) Aspects related to mental health, psychological well-being or addictions are unmet (H2) Economic and labor constraints, hamper commute for medical follow-up (H5) COVID-19 pandemic (H8)

### 3.10.3. Barriers and facilitators from the WHO European region government's perspective

In the scope of the monitoring implementation of the 2004 Dublin Declaration, in 2022, the ECDC collected information on key issues and priorities for action on PrEP in the 53 countries of the WHO European region (Europe and Central Asia), plus Kosovo and Liechtenstein (58). Those data showed that 23 countries had PrEP available and reimbursed through their healthcare system, 15 countries reported that generic PrEP was available in healthcare settings, although not fully reimbursed, and 17 (five EU countries) had not formally implemented PrEP through their healthcare systems.

In Europe and Central Asia, 30 countries stated that PrEP guidelines had been developed and are being implemented; five countries stated that PrEP guidelines had been developed (no information as to whether or not they are implemented); one country stated that PrEP guidelines had been developed but were not yet being implemented and 15 countries stated that no PrEP guidelines had been developed. Four countries did not respond.

The 15 countries which have not yet developed PrEP guidelines reported some barriers that are preventing or limiting PrEP implementation, which include:

- Concerns about the increased transmission of other STIs (n=4)
- Concerns about lower condom use (n=4)
- Concerns about the adherence (n=3)
- Cost of the drug (n=3)
- The technical capacity to consider PrEP is limited (n=3)
- Concerns about drug resistance (n=2)

- Cost of service delivery (n=2)
- There is no identified population group with the sufficiently high incidence per the WHO guidelines (n=2)
- Other concerns included legal barriers, the impact of the COVID19 pandemic and government priorities (n=7)

In terms of accessibility other barriers were identified:

- PrEP needs to be prescribed by doctors in 36 countries. In 4 countries, the doctor must be an infectious disease specialist. Nurses could prescribe in 2 countries, and pharmacists could not in any country.
- Only 19 countries reported that PrEP is available for undocumented migrants. In the other 4 countries, PrEP is only available for migrants in private practice or at cost.

### **3.11. TWG section recommendation**

Considering the available quantitative data on the PrEP continuum of care, including qualitative data on barriers and facilitators identified, we recommend:

- Maintaining multiple referral pathways to access PrEP.
- The use of SIGA to request PrEP appointments, irrespective of referral pathways to PrEP, to guarantee proper tracking from the request to the first medical appointment, to ensure that the appointment is known by all parties (person referred and referee institution), and optimize linkage to care and process quality assessment.
- Open more PrEP provision points per NUTS III regions according to resident population size and HIV prevalence estimates, prioritizing those underserved or uncovered and special settings like prisons.
- Increasing access (affordability, availability, accessibility, accommodation, and acceptability) through diversified PrEP delivery models.
- Training people who work on sexual and reproductive health and harm reduction to identify people at substantial risk for HIV and refer them to comprehensive prevention services, including PrEP; special focus on key populations other than MSM is warranted.
- Reviewing the curricula of medical and other health professionals' schools to ensure effective training on PrEP and other HIV comprehensive prevention services.
- Set information campaigns to increase awareness about PrEP, targeting key populations other than MSM and heterosexual cisgender men and women.

## 4. TWG recommendations summary

In alignment with ECDC policy briefs (58) we recommend:

### 4.1. Greater access to PrEP and more progress in implementation

To enable PrEP universal provision, we recommend focusing on selling protection, not risk reduction. Communication strategies that seek to raise awareness around PrEP through messages emphasizing risk reduction rather than safety, health or wellness, and pleasure might inadvertently miss and potentially distance large portions of the populations that could most benefit from PrEP (that might not consider themselves at risk). In addition, to enable PrEP universal provision, we recommend focusing on universal choice, not on indication to some (59,60). Targeted PrEP roll-out strategies created inequalities in awareness, knowledge, referrals, and access across and within key populations, especially among women. This universal approach will unlikely result in too many people wanting or using PrEP since PrEP interest, willingness, and case-by-case eligibility determination will keep narrowing access. This approach will likely increase those seeking PrEP before actual risk, rather than only those who at past or current risk seek PrEP (61), and this will provide more timely HIV prevention opportunities to all.

### 4.2. Make PrEP accessible: more people, more settings for delivery

To enable PrEP scale-up, we recommend focusing on person-centered services, where streamlining, defragmenting, simplifying, and task-shifting PrEP-related care are needed. The current PrEP delivery model characteristics do not enable scalability at a country level or match the acceptability studies results from key populations (13,46,62). In addition, they exclude people in prison or other closed settings and often exclude people between 13 and 17 years old.

New delivery models should be endorsed and supported. Future delivery models should consider the following service characteristics (59,60,63–65) to enable scalability:

1. Nesting PrEP services in health settings where HIV testing and comprehensive prevention services to HIV-negative people are already in place, such as outpatient STI clinics, CAD (*Centro de Aconselhamento e Detecção Precoce VIH*), and community-based sexual health centers.
2. Online (re)scheduling appointments, with the possibility to book to any region site were the person is presently working, studying or living.
3. Pre-appointment online self-administered questionnaires about health for both in-person and telemedicine appointments.
4. Diverse (non-HIV specialist) medical prescribers.
5. Telemedicine appointments of PrEP-related follow-ups, as standard practice. Telemedicine for medical follow-up monitoring and renewal of laboratory requisitions or medical prescriptions. Remote medicine prescriptions and lab monitoring results access.
6. Clinical guidelines/protocols for nurse-led follow-ups (task-shifting).
7. Medicine dispensing with a home delivery or at a street pharmacy. Multi-month dispensing, as standard practice.
8. Laboratory specimens self-sampling/self-collection methods, with a postal delivery option, as standard practice.



#### **4.3. Strengthen PrEP surveillance and monitoring systems**

This report reveals either a lack of, unfit, or dispersed data, all hampering efforts to investigate for health, research, or advocacy purposes. A national PrEP monitoring system is warranted to monitor each transition point/key step of the HIV PrEP continuum and identify which regions require health planning and implementation of interventions related to PrEP. This information system design should adopt the ECDC PrEP monitoring framework (36).

Not starting HIV PrEP or stopping it at any moment in the HIV PrEP continuum, when unrelated to the PrEP candidate's or beneficiary's decision or with an absolute PrEP contraindication or HIV seroconversion, may display barriers to access. Systematic barriers experienced by PrEP candidates, beneficiaries, or providers may translate into 'bottlenecks' in the HIV PrEP continuum. Here, the ECDC monitoring indicators will be useful to quantify the number of people at each transition point/key step in the HIV PrEP continuum. A steeper decrease from one transition point/key step to the other along the HIV PrEP continuum would be an alert on where to act.

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## Annex 1 - Portuguese hospital units: PrEP delivery status and date and response to PrEP data request for ECDC indicators, as of November 2023

NUTS region level	NUTS region name	Public Health Institutions with Hospital units	Hospital unit's name	NHS hospital referral network for HIV infection unit type	Offers PrEP as of November 2023?	TWG direct contact to request data?	Date of reply	Share data for ECDC indicators?
NUTS II	Norte							
NUTS III	Alto Minho	Hospital de Braga, EPE	--	Local unit	Yes	Yes	Nonresponsive	--
		Unidade Local de Saúde do Alto Minho, EPE	Hospital Conde de Bertiandos – Ponte de Lima	-	No	No	-	-
			Hospital Santa Luzia de Viana do Castelo	Local unit	Unknown	No	-	-
NUTS III	Cávado	Hospital Santa Maria Maior, EPE	--	--	No	No	--	--
NUTS III	Ave	Centro Hospitalar do Médio Ave, EPE	Unidade Hospitalar de Famalicão	--	No	No	--	--
			Unidade Hospitalar de Santo Tirso	--	No	No	--	--
		Hospital da Senhora da Oliveira Guimarães, EPE	--	--	No	No	--	--
NUTS III	Área Metropolitana do Porto	Centro Hospitalar de Entre o Douro e Vouga, EPE	Hospital Distrital São João da Madeira	--	Unknown	No	--	--
			Hospital São Miguel – Oliveira de Azeméis	--	Unknown	No	--	--
			Hospital São Sebastião	--	Unknown	No	--	--
		Centro Hospitalar de Vila Nova de Gaia/Espinho, EPE	Unidade I (antigo Hospital Eduardo Santos Silva)	Reference unit	Yes	Yes	2023-03	Yes
			Unidade II (antigo Hospital Distrital Vila Nova de Gaia)	--	No	No	--	--
			Unidade III (antigo Hospital Nossa Senhora da Ajuda – Espinho)	--	No	No	--	--
		Centro Hospitalar Póvoa de Varzim/Vila do Conde, EPE	Unidade da Póvoa de Varzim	--	No	No	--	--
			Unidade de Vila do Conde	--	No	No	--	--
		Centro Hospitalar Universitário de Santo António, E. P. E.	Centro Materno-Infantil do Norte Dr. Albino Aroso	--	Unknown	No	--	--
			Hospital de Santo António	Highly differentiated unit	Yes	Yes	Nonresponsive	--
				Hospital Magalhães Lemos	--	No	No	--
		Centro Hospitalar Universitário de São João, EPE	Hospital São João	Highly differentiated unit	Yes	Yes	2023-01	Yes
			Hospital São João - decentralized PrEP consultation	--	Yes	Yes	2022-12	Yes, disaggregated from Hospital São João which provides this service
				Hospital Nossa Senhora da Conceição de Valongo	--	No	No	--
		Unidade Local de Saúde de Matosinhos, EPE	Hospital Pedro Hispano	Reference unit	Yes	Yes	2023-06	Yes

NUTS region level	NUTS region name	Public Health Institutions with Hospital units	Hospital unit's name	NHS hospital referral network for HIV infection unit type	Offers PrEP as of November 2023?	TWG direct contact to request data?	Date of reply	Share data for ECDC indicators?
NUTS III	Alto Tâmega	-	-	-	-	-	-	-
NUTS III	Tâmega e Sousa	Centro Hospitalar do Tâmega e Sousa, EPE	Hospital de São Gonçalo – Amarante	--	Yes	No	--	--
			Hospital Padre Américo – Penafiel	Local unit	Yes	No	--	--
NUTS III	Douro	Centro Hospitalar de Trás-os-Montes e Alto Douro, EPE	Hospital de Chaves	--	No	No	--	--
			Hospital de Lamego	--	No	No	--	--
			Hospital de Vila Real	Local unit	Yes	No	--	--
NUTS III	Terras de Trás-os-Montes	Unidade Local de Saúde do Nordeste, EPE	Unidade Hospitalar de Bragança	-	No	No	-	-
			Unidade Hospitalar de Macedo de Cavaleiros	-	No	No	-	-
			Unidade Hospitalar de Mirandela	-	No	No	-	-
NUTS II	Centro							
NUTS III	Oeste	Centro Hospitalar do Oeste, EPE	Unidade de Caldas da Rainha	Local unit	No	No	--	--
			Unidade de Peniche	Local unit	No	No	--	--
			Unidade de Torres Vedras	--	No	No	--	--
NUTS III	Região de Aveiro	Centro Hospitalar do Baixo Vouga, EPE	Hospital Infante D. Pedro – Aveiro	Reference unit	Yes	Yes	2023-06	Yes
			Hospital Distrital de Águeda	--	No	No	--	--
			Hospital Visconde de Salreu – Estarreja	--	No	No	--	--
NUTS III	Região de Coimbra	Centro Hospitalar e Universitário de Coimbra, EPE	Hospitais da Universidade de Coimbra	Highly differentiated unit	Yes	Yes	2023-01	No
			Hospital Geral	--	No	No	--	--
			Hospital Pediátrico de Coimbra	Highly differentiated unit	Unknown	No	--	--
			Hospital Sobral Cid	--	No	No	--	--
			Maternidade Bissaya Barreto	Highly differentiated unit	Unknown	No	--	--
			Maternidade Dr. Daniel de Matos	Highly differentiated unit	Unknown	No	--	--
NUTS III	Região de Leiria	Centro Hospitalar de Leiria, EPE	Hospital Bernardino Lopes de Oliveira – Alcobaça	--	No	No	--	--
			Hospital de Santo André – Leiria	--	No	No	--	--
			Hospital Distrital Pombal	--	No	No	--	--
NUTS III	Viseu Dão Lafões	Centro Hospitalar Tondela Viseu, EPE	Hospital Cândido de Figueiredo – Tondela	--	No	Yes	Nonresponsive	--
			Hospital São Teotónio – Viseu	Local unit	Yes	Yes	Nonresponsive	--
NUTS III	Beira Baixa	Unidade Local de Saúde de Castelo Branco, EPE	Hospital Amato Lusitano	--	No	No	--	--
NUTS III	Médio Tejo	Centro Hospitalar do Médio Tejo, EPE	Hospital Dr. Manoel Constâncio – Abrantes	--	No	No	--	--
			Hospital Nossa Senhora da Graça – Tomar	--	No	No	--	--
			Hospital Rainha Santa Isabel – Torres Novas	--	No	No	--	--



NUTS region level	NUTS region name	Public Health Institutions with Hospital units	Hospital unit's name	NHS hospital referral network for HIV infection unit type	Offers PrEP as of November 2023?	TWG direct contact to request data?	Date of reply	Share data for ECDC indicators?
NUTS III	Beiras e Serra da Estrela	Centro Hospitalar Universitário Cova da Beira, EPE	Hospital Pêro da Covilhã	--	No	Yes	Nonresponsive	--
			Hospital do Fundão	Local unit	Yes	Yes	Nonresponsive	--
		Unidade Local de Saúde da Guarda, EPE	Hospital Nossa Senhora da Assunção – Seia	--	No	No	--	--
			Hospital Sousa Martins – Guarda	--	No	No	--	--
NUTS II & III	Área Metropolitana de Lisboa	Centro Hospitalar Barreiro Montijo, EPE	Hospital Distrital do Montijo	Reference unit	Yes	Yes	2023-03	Yes
			Hospital Nossa Senhora do Rosário	Reference unit	Yes	Yes	2023-03	Yes
		Centro Hospitalar de Lisboa Ocidental, EPE	Hospital Egas Moniz	Highly differentiated unit	Yes	Yes	2023-06	Yes
			Hospital Santa Cruz	--	No	No	--	--
			Hospital São Francisco Xavier	Highly differentiated unit	No	No	--	--
		Centro Hospitalar de Setúbal, EPE	Hospital São Bernardo	Reference unit	Yes	Yes	2023-01	Yes
			Hospital Ortopédico Sant'Iago do Outão	--	No	No	--	--
		Centro Hospitalar Universitário de Lisboa Central, EPE	Hospital Curry Cabral	Highly differentiated unit	Yes	Yes	2023-06	Yes
			Hospital Dona Estefânia	Highly differentiated unit	No	Yes	2023-10	No
			Hospital Santa Marta	--	No	No	--	--
		Hospital Santo António dos Capuchos	Hospital Santo António dos Capuchos	Highly differentiated unit	No	No	--	--
			Hospital São José	Highly differentiated unit	No	No	--	--
		Maternidade Dr. Alfredo da Costa	Highly differentiated unit	Unknown	No	--	--	
		Centro Hospitalar Universitário Lisboa Norte, EPE	Hospital Santa Maria	Highly differentiated unit	Yes	Yes	2023-01	Yes
			Hospital Pulido Valente	Highly differentiated unit	No	No	--	--
		Hospital de Cascais	--	Decentralized medical unit	No	No	--	--
		Hospital de Loures, EPE	--	Local unit	Yes	Yes	2023-10	Yes
		Hospital de Vila Franca de Xira, EPE	--	Decentralized medical unit	No	No	--	--
		Hospital Garcia de Orta, EPE	Hospital Garcia de Orta, EPE	Local unit	Yes	Yes	2023-01	Yes
			GAT Almada	--	Yes	Yes	2023-01	Yes, aggregated with Hospital Garcia de Orta which provides the service
Hospital Professor	--	Reference unit	Yes	Yes	2023-01	Yes		

NUTS region level	NUTS region name	Public Health Institutions with Hospital units	Hospital unit's name	NHS hospital referral network for HIV infection unit type	Offers PrEP as of November 2023?	TWG direct contact to request data?	Date of reply	Share data for ECDC indicators?
		Doutor Fernando Fonseca, EPE						
NUTS II	Alentejo							
NUTS III	Alentejo Litoral	Unidade Local de Saúde do Litoral Alentejano, EPE	Hospital Litoral Alentejano	-	Yes	Yes	2023-10	Yes, aggregated with Hospital São Bernardo which provides the service
NUTS III	Baixo Alentejo	Unidade Local de Saúde do Baixo Alentejo, EPE	Hospital José Joaquim Fernandes	Local unit	Yes	Yes	2023-01	Yes
NUTS III	Lezíria do Tejo	Hospital Distrital de Santarém, EPE	--	Local unit	Yes	Yes	2023-02	Yes
NUTS III	Alto Alentejo	Unidade Local de Saúde do Norte Alentejano, EPE	Hospital Dr. José Maria Grande – Portalegre	Decentralized medical unit	No	No	-	-
			Hospital Santa Luzia de Elvas	Decentralized medical unit	Unknown	No	-	-
NUTS III	Alentejo Central	Hospital do Espírito Santo de Évora, EPE	--	Local unit	Yes	Yes	Nonresponsive	--
NUTS III	Algarve	Centro Hospitalar Universitário do Algarve, EPE	Hospital de Faro	Reference unit	Yes	Yes	2023-06	Yes
			Hospital de Portimão	Reference unit	Yes	Yes	2023-02	Yes
			Hospital Terras do Infante	--	No	No	--	--
			Centro de Medicina Física e Reabilitação do Sul	--	No	No	--	--
NUTS I&II&III	Região Autónoma dos Açores	Hospital da Horta (Açores)	--	Not included - autonomous health region	Unknown	No	--	--
		Hospital do Divino Espírito Santo de Ponta Delgada (Açores)	--	Not included - autonomous health region	Yes	Yes	2023-01	Yes
		Hospital do Santo Espírito da Ilha Terceira (Açores)	--	Not included - autonomous health region	Yes	Yes	2023-09	Yes, aggregated with Hospital do Divino Espírito Santo de Ponta Delgada data
NUTS I&II&III	Região Autónoma da Madeira	Hospital dos Marmeleiros (Madeira)	--	Not included - autonomous health region	Yes	Yes	Nonresponsive	--
		Hospital Dr. João de Almada (Madeira)	--	Not included - autonomous health region	No	No	--	--
		Hospital Dr. Nélcio Mendonça (Madeira)	--	Not included - autonomous health region	No	Yes	2023-03	Yes



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