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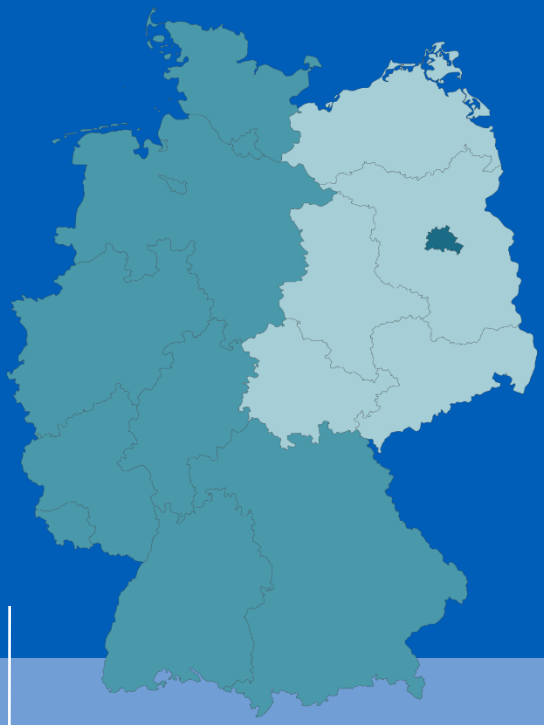

EUROPEAN MSM AND TRANS PEOPLE INTERNET SURVEY

National Report Germany

EMIS2024
EUROPEAN
MEN-WHO-HAVE-SEX-WITH-MEN
AND TRANS PEOPLE
INTERNET SURVEY

Bundesministerium
für Gesundheit

This report and all other EMIS-2024 publications are available at: www.emis-project.eu.

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Analyses were conducted in **R v.4.5.2** (R Core Team, Vienna, Austria) [1]. Data management used the tidyverse framework [2]. Figures and maps were generated using ggplot2 [3]. Reproducible reporting, including automated production of tables and Word documents, was implemented using markdown [4], flextable [5], and officer [6]. Spatial analyses were conducted using sf where applicable.

Shapefiles: © GeoBasis-DE/BKG, VG2500, 31.12.2022 (Federal States).

Cover image: Geographical distribution of poppers use in the past four weeks by German federal state (EMIS-2024)

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Contributions

The three co-principal investigators—**Kai J. Jonas**, **Ulrich Marcus** and **Axel J. Schmidt**—initiated the third wave of EMIS and led the design and implementation of the questionnaire.
Barbara Gunsenheimer-Bartmeyer coordinated the completion of the EMIS-2024 National Report Germany, translated the report into German and drafted the summary.
Liana Aphami—managed the online surveys and the resulting multilingual databases, led data cleaning and labelling, co-authored all tables, co-lead on markdowns, and led on chapters 2 and 6.
Tamás Bereczky—coordinated the survey across 38 countries in the Western Region; managed contracts, translations, and promotion efforts—including those involving G4E and ROMEO; translated the questionnaire into Hungarian; co-authored the variable manual [7]; and led on the EMIS-2024 first community report.
Jules L. Casalini—led on the trans sub-study, its associated outreach, supported markdowns, and led on chapter 8.
Nikolay Lunchenkov coordinated survey promotion across 12 countries in the Eastern Region, updated the Russian translation of the questionnaire, and supported scripting for figures, ECDC indicators, and markdowns for chapters 4, 5 and 9.
Kai J. Jonas—led the ethics approval process and data contracting, and assumed responsibility for legal matters related to the survey.
Ulrich Marcus—led recruitment via Hornet, contributed to recruitment via Grindr, supported several questionnaire translations, secured funding for the study implementations in Germany and 12 countries in the Eastern WHO European Region, served as the primary contact for GHPP and the German Ministry of Health, and led on chapters 4 and 5.
Axel J. Schmidt—compiled and calculated the population data presented in Table 2.1 (Section 2.9) of the European report [8], coordinated the German translation of the questionnaire, participated in data cleaning and management, co-authored the variable manual [7], coordinated R-scripting and -architecture across the three core institutions, co-led on markdowns, produced all maps, wrote sections 5.2.3 and 5.3.6, led on chapters 3, 7, and 9, served as the main liaison with ECDC, supported the German translation, substantially revised and finalised the summary, and finalised this report.

EMIS-2024 Execution and consortium

EMIS-2024 was executed by a consortium of three partners: Deutsche Aidshilfe (DAH), Maastricht University, and Robert Koch Institute (RKI).

Team DAH: Dr. Axel J. Schmidt (co-principal investigator), Dr. Tamás Bereczky (coordinator EEA/CH/IL; 2023–2025), Jules L. Casalini (coordinator EEA/CH/IL; 2026), with the support of Dr. Dirk Sander, Alexandra Gurinova, and Silke Klumb.

Team Maastricht: Prof. Dr. Kai J. Jonas (co-principal investigator), Liana Aphami (data coordinator), Jules L. Casalini (trans sub-survey coordinator).

Team RKI: Dr. Ulrich Marcus (co-principal investigator), Dr. Nikolay Lunchenkov (coordinator EECA), Dr. Barbara Gunsenheimer-Bartmeyer.

EMIS-2024 was backed by a large consortium of funders and collaborators as described in more detail below.

EMIS-2024 was conceived as a large-scale partnership, with a strong emphasis on involving organisations and representatives of affected communities in the study's design and recruitment. Each step of the process engaged the EMIS Network, drawing on its collective knowledge and needs.

In addition to generating data from MSM, EMIS-2024 aimed to include trans and non-binary individuals more broadly, build research capacity, transfer knowledge about online surveys, generate datasets in countries with fewer resources, facilitate dialogue between community, academic, and public health, and maximise the educational impact of survey completion.

A key benefit of EMIS has been the availability of the questionnaire in all official EEA languages, crucial for countries with large proportions of migrants from southern, eastern, or south-eastern Europe. For the same reason we also provided the survey in Arabic, as it has been the most common language among refugees coming to Europe since 2014.

Acknowledgements

We begin by expressing our sincere thanks to each study participant for making their voices heard! Special appreciation goes to our NGO partners who were instrumental in recruitment—by promoting the survey through their platforms, social media channels, and by displaying EMIS banners on their websites.

A special thank you goes to Steph Niaupari at Grindr for Equality for their instrumental support in recruitment via free messages on Grindr, which significantly contributed to the success of EMIS-2024.

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The following list acknowledges all EMIS partners by country. Individual names are included when a freelancer served as the main contact or contributed to questionnaire development without formal organisational representation. The order is: main NGO partner, other NGO partners, academic partners, governmental partners, and individuals.

Europe: Grindr for Equality, Grindr, ROMEO, Hornet, Aids Action Europe, European AIDS Treatment Group, Eurasian Coalition on Health, Rights, Gender and Sexual Diversity, South Eastern Europe Regional TB and HIV Community Network.

AL: Albanian Association of PLWHA. **AM:** New Generation Humanitarian NGO. **AT:** *Aids Hilfe Wien*. **BA:** Partnerships in Health. **BE:** Sensoa, Exaequo, Sciensano. **BG:** GLAS Foundation. **CH:** Swiss AIDS Federation, Swiss Federal Office of Public Health. **CY:** AIDS Solidarity Movement, Christos Krasidis. **CZ:** *Česká společnost AIDS pomoc*. **DE:** *Deutsche Aidshilfe*, Robert Koch Institute, IWWIT. **DK:** *Statens Serum Institut*, Dr. Susan Cowan, Dr. Maria Wessmann. **EE:** Estonia National Institute for Health Development, Dr. Kristi Rüütel, Dr. Sigrid Vorobjov. **ES:** SEISIDA, STOPSIDA, CEEISCAT, *Ministerio de Sanidad*. **FI:** *Positiiviset ry*. **GE:** Equality Movement. **GR:** Positive Voice. **HR:** Iskorak, Zoran Dominković. **HU:** Háttér Society. **IE:** EMIS-2024 Ireland Promotion Sub-Committee, Health Service Executive, Mick Quinlan. **IL:** Israel AIDS Task Force, Ministry of Health, Prof. Zohar Mor. **IT:** Fondazione LILA Milano ONLUS, University of Verona. **KZ:** Global Health Research Center of Central Asia (GHRCCA), Human Health Institute, Public Fund "Community Friends". **LT:** Demetra, National Public Health Center. **LV:** AGIHAS. **LU:** *Ministère de la Santé et de la Sécurité sociale*. **MD:** GENDERDOC-M Information Centre. **ME:** Cazas – Montenegrin Association against AIDS. **MK:** Stronger Together (Association for Support of People Living with HIV, Zaedno Posilni). **MT:** HIV Malta, Infectious Disease Prevention and Control Unit. **NL:** SOAids, Maastricht University, RIVM; **NO:** *Helseutvalget*, University of Tromsø –The Arctic University of Norway, Norwegian Institute of Public Health, Prof. Rigmor C. Berg. **PL:** *Fundacja Edukacji Społecznej*, Iwona Wawer; **PT:** GAT Portugal*, Instituto de Saúde Pública da Universidade do Porto*, Portuguese Directorate-General of Health. **RO:** ARAS, Tudor Kovacs. **RS:** TOC – Association for the Development of Sustainable Communities; Institute of Public Health of Serbia, Sladjana Baros. **SE:** RFSL, *Folkhälsomyndigheten*. **SI:** LEGEBITRA, ŠKUC. **SK:** Pride Kosice. **TR:** Sami Sarper Yazıcılaroğlu. **UA:** Alliance for Public Health, Alliance Global. **XK:** LGBTI Equal Rights Association for Western Balkans and Turkey. **Other:** Sigma Research (London School of Hygiene & Tropical Medicine)

Funding of EMIS-2024

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German Ministry of Health (*Bundesministerium für Gesundheit*, **DE**) / Global Health Protection Programme (GHPP, **DE**); European Centre for Disease Prevention and Control (ECDC, **EU**); Swiss AIDS Federation, Swiss Federal Office of Public Health (**CH**); Luxembourg Health Directorate (*Ministère de la Santé et de la Sécurité sociale*, **LU**); Norwegian Directorate of Health (*Helsedirektoratet*, **NO**); The Public Health Agency of Sweden (*Folkhälsomyndigheten*, **SE**); Sciensano (*Institut Scientifique de Santé Publique*, **BE**); Estonian Ministry of Social Affairs (*Sotsiaalministeerium*, **EE**); Health Service Executive (**IE**); Portuguese Directorate-General of Health (*Direção-Geral da Saúde*, **PT**); Spanish Ministry of Health (*Ministerio de Sanidad*, **ES**); Central Health Department, Israeli Ministry of Health (משרד הבריאות, **IL**); National Institute for Public Health and the Environment (RIVM) */ SOAids Nederland* (**NL**).

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All other financial contributions and contractual arrangements were based on a standard contract template with minor adaptations to accommodate the specific needs and capacities of each partner.

Abbreviations

Table 1.1 Abbreviations

Abbreviation	Meaning
AFAB	Assigned female at birth
AMAB	Assigned male at birth
CBVCT	Community based voluntary counselling and testing
cis gbMSM	cisgender MSM who identify as gay or bisexual
cis non-gb MSM	cisgender MSM who don't identify as gay or bisexual
DAH	Deutsche Aidshilfe (German AIDS Federation)
ECDC	European Centre for Disease Prevention and Control
ECOM	Eurasian Coalition on Health, Rights, Gender and Sexual Diversity
EEA	European Economic Area
EECA	Eastern Europe and Central Asia
EMIS	European MSM Internet Survey
EU	European Union
G4E	Grindr for Equality
GHPP	Global Health Protection Programme
HIV	Human Immunodeficiency Virus
LGBT	Lesbian, gay, bisexual, trans
MSM	Men who have sex with men
NGO	Non-governmental organisation
PWID	People who inject drugs
RKI	Robert Koch Institute
SEE RCN	South Eastern Europe Regional TB and HIV Community Network
STI	Sexually transmitted infection
WHO	World Health Organization

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Chapter 1: Introduction

The European MSM Internet Survey (EMIS) is a multi-country, multi-language, anonymous online survey targeting sexual minority populations at increased risk of HIV and STIs, primarily—but not exclusively—men who have sex with men (MSM, cis- and transgender) but also transgender women and non-binary individuals who have sex with men. EMIS provides data to support the planning, monitoring, and evaluation of HIV and sexual health interventions across Europe [9].

EMIS is a collaborative project involving community, academic, and governmental partners across Europe, designed to inform sexual health interventions for MSM. It was conducted in 2010 and 2017 with core funding from the *European Union Health Programme*. The survey was repeated in 2024 with core funding from the *European Centre for Disease Prevention and Control* (ECDC) and 12 national governmental partners.

EMIS-2024 covered 50 countries in the WHO European Region, including Germany. The survey was available online in the first half of 2024 in 35 languages simultaneously.

EMIS is among the largest multi-country surveys of men who have sex with men conducted to date, in terms of the number of participating countries, languages, respondents, and collaborating partners. A key strength of EMIS is its harmonised design, which enables direct comparison of sexual health indicators across countries. The use of a shared questionnaire, consistent recruitment approach, and simultaneous multi-language implementation provides a rare opportunity to examine geographic variation in morbidities, behaviours, unmet needs, and access to and performance of interventions across Europe and beyond. A central methodological challenge has been to ensure conceptual equivalence of survey items across languages and cultural contexts, ensuring that items capture the same underlying constructs across languages. EMIS has generated a substantial body of scientific publications and has contributed to major international monitoring efforts, including the WHO Key Population Atlas. Its instruments and indicators [1] have been adopted or adapted in other surveys, contributing to the harmonisation of sexual health surveillance among MSM. The data have also supported the development of estimates of MSM population size and distribution, including within-country variation in the concentration of MSM populations.

As a large-scale, internet-based survey using non-probability recruitment, EMIS is not designed to produce nationally representative estimates, but rather to identify patterns, differences, and inequalities across populations and settings.

The repeated implementation of EMIS enables the examination of temporal trends in key indicators across survey waves; however, such analyses require appropriate adjustment for changes in sample composition and are not presented in this report—see also *A Note on Comparability* in **Chapter 3** (Demographics).

EMIS aims to describe the differences in sexual health needs across diverse groups of men, as well as trans and non-binary people who have sex with men. It also seeks to estimate relative levels of various morbidities (**Chapter 4**), risk and precautionary behaviours (**Chapter 5**), unmet prevention needs (**Chapter 6**), and access to and performance of interventions (**Chapter 7**) across Europe and Germany. The aims of the study align with the structure of the survey and subsequently determine also the logic of this report.

For the first time, the EMIS-2024 National Report on Germany includes a dedicated chapter on trans and non-binary individuals who have sex with men (**Chapter 8**). It also features a chapter on health inequalities across a range of relevant subgroups (**Chapter 9**).

Furthermore, EMIS-2024 covers some areas not addressed in previous surveys including novel infections such as mpox, and novel prevention strategies, such as doxy-PEP.

Detailed descriptions of all variables, including routing, are provided in the **EMIS-2024 Variable Manual** [7].

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Chapter 2: Survey Design and Methods

The survey design and methodology are described in full detail in the EMIS-2024 methods paper [1].

2.1 Overview

Questionnaire design—the questionnaire was built on the foundations established from a previous version of the survey (EMIS-2017). The core questions and variables of EMIS have remained consistent from 2010 to 2017 to 2024. In EMIS-2024, a sub-study was developed specifically to meet the needs of trans and non-binary individuals. This sub-study was the result of modifications to the original EMIS questionnaires from 2010 and 2017, following an adaptation of the item language and terminology to be inclusive of all trans bodies. Additionally, several trans-specific items were added to investigate experiences unique to the trans community.

Final questionnaire content—the final version included:

- **Demographics**:
  28 items describing people that we are not trying to change
- **Morbidities**:
  17 items concerning health outcomes we aim to improve
- **Behaviour**:
  85 items concerning behaviours that directly influence health outcomes
- **Needs**:
  23 items or sets of needs-related items that concern opportunities, capabilities, and motivations shaping the behaviours above
- **Interventions**:
  45 items or sets of items on external actions and service-level factors that influence the needs above

From these items, we were able to construct:

- 35 ECDC indicators

Translation and online preparation—after translation from English and partner review, the online versions were checked for structural consistency. National partners confirmed that the terminology aligned with their perceptions of the norm for the target group in their country, reviewed the final survey, and signed off on their language version(s). The survey was available in 35 languages.

Online recruitment—online recruitment operated on different timelines and strategies across regions. The survey was open for submissions for six months from 22 December 2023 to 30 June 2024. Country leads coordinated national advertising including the number, size and specification of promotional materials. The core team commissioned advertising through dating platforms.

Final sample—the narrative of this report is based on 10 592 respondents, including 575 individuals with sex assigned at birth different from their reported gender identity (including non-binary gender identity), of which 423 (74 %) identified as part of the trans community, living in Germany.

Duration—The average completion time was 30 minutes.

Country-specific findings—**Chapters 3–7** present the key findings in tables by region of residence at the end of each chapter, with regions and additional cities presented alphabetically. Key differences among residents of specific regions are also illustrated in maps throughout the report.

Ethics approval was granted by the Ethics Review Committee Psychology and Neuroscience of Maastricht University (reference ERCPN-OZL_262_08_01_2023_S26) on the 30th of October 2023.

2.2 Designing the questionnaire

The primary aim of this study was to replicate the EMIS survey seven years after its implementation in 2017 [2], which was also a reiteration of EMIS-2010 [3]. Building on the foundations established for EMIS-2017, the EMIS-2024 questionnaire aimed to generate crucial data for the planning and monitoring of interventions related to HIV, STIs, and viral hepatitis. The core questions and variables of EMIS have remained consistent from 2010 to 2017 to 2024. While no formal tender was issued, we were committed to maintaining the survey's focus on the specific needs of MSM. Rather than creating a generalised health survey, we sought to expand the scope of the original study to address evolving trends and emerging needs within the community, particularly for transgender individuals, who often face unique challenges and disparities in sexual health, in order to understand their needs and experiences. A significant challenge in traditional HIV surveillance has been the grouping of transgender individuals with MSM, which obscures their unique vulnerabilities. To address this issue, we aimed to disaggregate data between transgender individuals and MSM, as well as between trans individuals assigned female at birth and trans individuals assigned male at birth.

To achieve this, filters were employed so that participants could receive customised questions based on their previous choices, ensuring the data collected were both relevant and respectful of individual experiences. The overall goal of this study was to generate data that would inform the planning of effective HIV and STI prevention and treatment interventions. This involved assessing the prevalence and distribution of HIV/STI-related morbidities, identifying associated risk and precautionary behaviours, and understanding the specific prevention needs and interventions required. To provide a comprehensive understanding of sexual health, we adopted an integrated approach that considers the interconnectedness of HIV/STIs, substance use, and mental health. This approach aligns with the work of our collaborators who focus on these three health outcomes. We developed a conceptual map for the EMIS-2024 questionnaire, based on EMIS-2017.

In EMIS-2024, we included a sub-study specifically tailored to the needs of trans and non-binary individuals. This sub-study was the result of modifications to the original EMIS questionnaires from 2010 and 2017, following an adaptation of the item language and terminology to be inclusive of all trans bodies. In addition to the original questionnaire, several trans-specific items were added to investigate experiences unique to the trans community.

A further design challenge concerned the balance between breadth and measurement precision: many concepts were assessed using single questions, while a smaller number were measured in greater detail using multiple items. Since its inception in 2010, the EMIS collaborative development process has yielded a wide range of topics for inclusion, reflecting diverse stakeholder priorities.

For event-based behaviours, a recency format was used, asking participants *"When did you last X?"* and offering a set of progressively longer time intervals. This approach provides an indication of the distribution and frequency of activities within the population. It also enables users of EMIS data to derive indicators aligned with different reference periods used in other surveys (*e.g.*, behaviours in the past 6 months versus the past 12 months).

To reduce respondent burden, some recency questions did not include a *"Never"* response option. Instead, these were preceded by a binary filter question (*e.g.*, *"Have you ever done X?"*), with *"No"* responses subsequently recoded as *"Never"*.

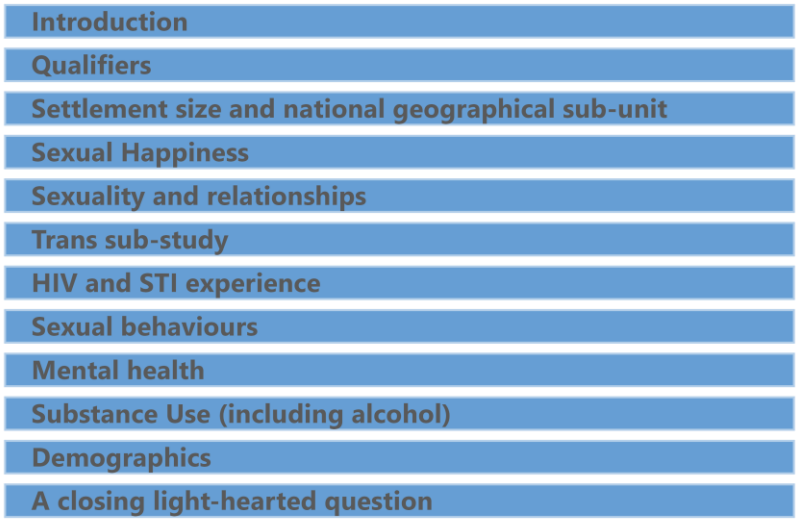
The final questionnaire supports the calculation of **35** ECDC [4] indicators related to HIV, STIs, and viral hepatitis among MSM for surveillance and monitoring purposes.

The final questionnaire sought **321** different data items from respondents; however, it was tailored with question filters (routing) wherever possible (for example, only participants with a steady partner were asked how long they had been in a relationship). The final English language questionnaire formed the basis for the EMIS-2024 ethics application. The study received a positive opinion by the Ethics Review Committee Psychology and Neuroscience of Maastricht University (reference ERCPN-OZL_262_08_01_2023) on 30 October 2023.

2.2.1 Structure of the questionnaire

The questionnaire is divided into several key sections to address diverse topics, as illustrated in **Figure 2.1**.

Figure 2.1 Sections of the questionnaire



The final questionnaire's content was organised into five conceptual layers. **Figure 2.2** provides a visual overview of these layers.

Demographics

28 descriptive items describing people that we are not trying to change, all of which are described in **Chapter 3** and in **Section 8.1** (specifically for the four transgender groups).

Morbidities

17 items concerning health outcomes we aim to improve, all of which are described in **Chapter 4** and in **Section 8.2** (specifically for the four transgender groups).

Behaviours

85 items concerning behaviours that directly influence the health outcomes above, all of which are described in **Chapter 5** and in **Section 8.3** (specifically for the four transgender groups).

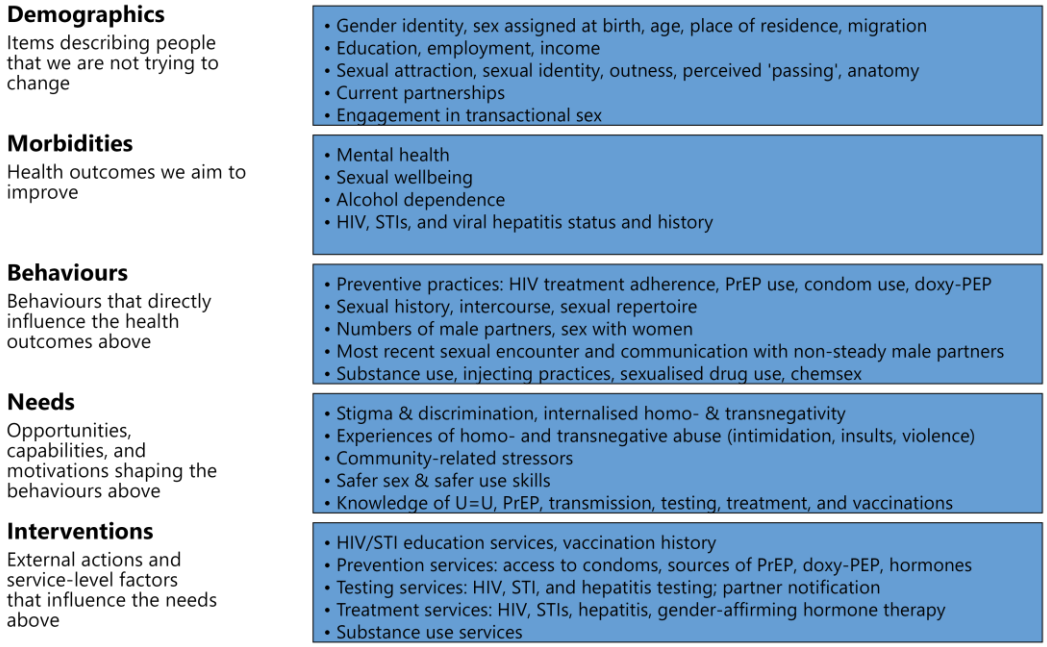
Needs

23 items or sets of needs-related items that concern opportunities, capabilities, and motivations shaping the behaviours above, all of which are described in **Chapter 6** and in **Section 8.4** (specifically for the four transgender groups).

Interventions

45 items or sets of items on external actions and service-level factors that influence the needs above, all of which are described in **Chapter 7** and in **Section 8.5** (specifically for the four transgender groups).

Figure 2.2 Conceptual layers of the questionnaire



2.3 Translations

Partnerships within the EMIS Network facilitated the translation process. Translators from the 33 core countries (excluding the UK and Ireland) were offered payment options, but only some accepted the compensation. National partners checked the translated versions for consistency in routing across questions, and the study team ensured that the data were saved in an identical format across all languages.

Ultimately, the survey was available in 35 languages: Albanian, Arabic, Armenian, Azeri, Bosnian/Croatian/Montenegrin/Serbian, Bulgarian, Czech, Danish, Dutch,

English, Estonian, Finnish, French, Georgian, German, Greek, Hebrew, Hungarian, Italian, Kazakh, Latvian, Lithuanian, Macedonian, Malti, Norwegian, Polish, Portuguese, Romanian, Russian, Slovak, Slovenian, Spanish, Swedish, Turkish, and Ukrainian, thus including all official European Union languages except Gaelic Irish.

2.4 Recruitment

Recruitment settings

EMIS-2024 was promoted by advertising on:

(1) Websites of supporting organisations (national/trans-national, public/commercial/NGOs HIV/LGBT organisations, etc.),

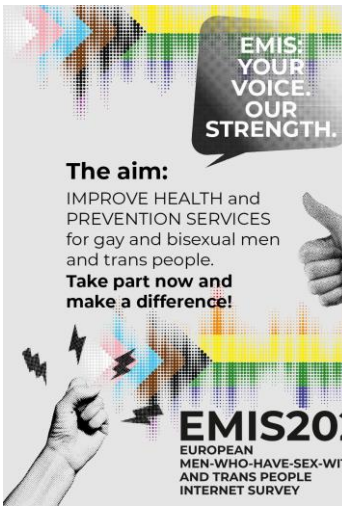
(2) Social networking sites for the general population (such as Facebook, Instagram, LinkedIn),

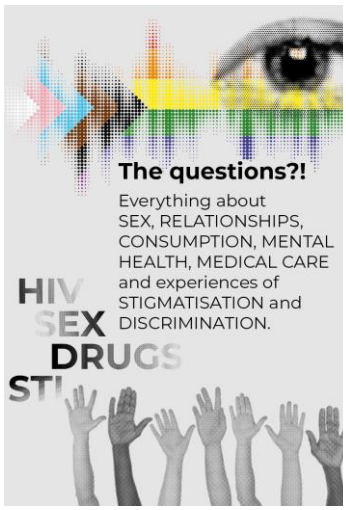
(3) MSM targeted smartphone dating apps and web applications (*e.g.*, Grindr, Hornet, ROMEO).

Across Germany, 42 % of participants were recruited via Grindr and Grindr for Equality, 38 % were recruited via ROMEO, and 0 % via Hornet. The dating app most effective in recruiting respondents to EMIS-2024 varied substantially by country [1].

Promotional materials

The EMIS-2024 visual identity and promotional materials, including the German campaign slogan *"Make it big! Your voice counts"*, are described in detail in the EMIS methods paper [1]. The materials were adapted and translated for local use where appropriate. Examples of the promotional materials are shown below.





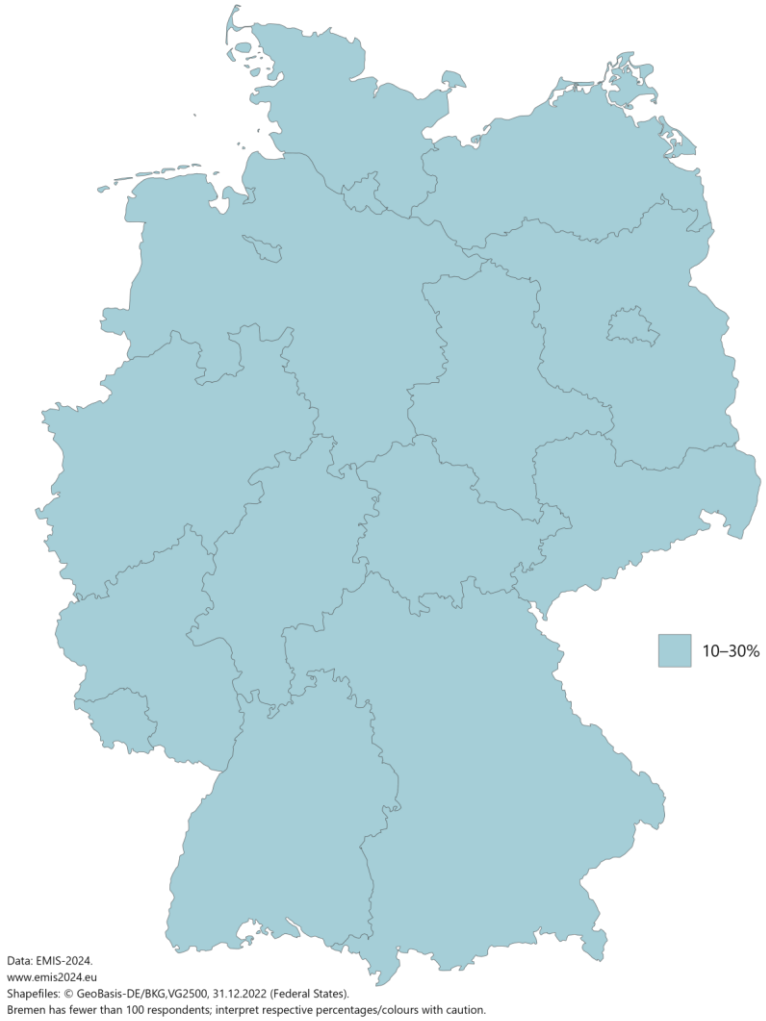


Recruitment by NGOs

The contribution of NGOs to participant recruitment varied substantially across countries and, to varying degrees, across regions within countries. In Germany, 20 % of respondents were recruited through non-governmental organisations (NGOs), with proportions varying by approximately ±5 percentage points across federal states. Differences between federal states are not apparent on the map (**Map 2.1**), as the categories (as for all maps in this report!) were defined for the European-wide comparison and all German federal states fall within the 10–30 % range.

Recruitment through NGOs in Germany was primarily facilitated by the national MSM sexual health promotion campaign *IWWIT* (see **Section 7.1.1**). Compared to other countries that contributed financially to the study, Germany had a relatively low proportion of participants recruited through NGOs.

Map 2.1: Percentage recruited by NGOs (as opposed to Apps)



2.5 Total returns and non-qualifiers

The survey was accessible to all eligible participants, while those who did not meet the criteria (based on country and gender identity) received a prompt to either continue or exit. Any non-qualifying respondents who proceeded were later excluded during data cleaning.

The data cleaning process followed four key steps:

(1) Handling missing data

- Excluded respondents with less than 95 % completion
- Removed duplicate submissions
- Excluded participants who did not provide consent
- Eliminated entries missing required responses for gender identity, sex assigned at birth, or age.

(2) Removing non-eligible respondents

- Cisgender women
- Individuals outside the designated countries
- Men, trans, or non-binary individuals without experience or interest in sex with men
- Persons less than 16 years of age.

(3) Exclusion of respondents with highly discrepant responses

(4) Assessing response duration (in seconds) to identify unusually short completion times that may indicate low-quality or non-genuine responses

16 703 total submissions, of which: **5183** did not meet the filter progress threshold of 95 %;

leaving **11 520** cases after filtering progress, of which: **none** were duplicates;

leaving **11 520** cases who gave informed consent, of which: **122** had missing data in required fields (gender identity, sex assigned at birth, or age);

leaving **11 398** cases with complete required data, of which: **2** were cis-gender women;

leaving **11 396** cases with eligible gender, of which: **14** reported neither sexual experience with nor sexual attraction to men;

leaving **11 382** cases with homosexual desire and/or experience, of which: 4 were below the required age threshold;

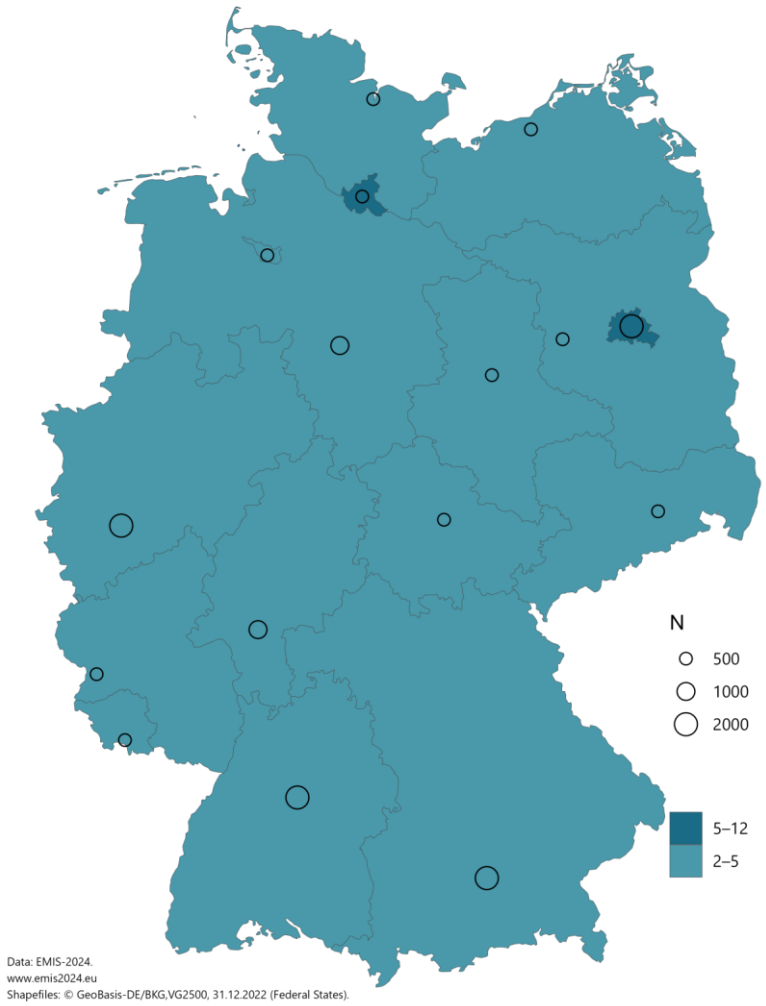
leaving **11 378** qualifying cases, of which: **784** had discrepant data;

leaving **10 594** cases after removing discrepant data, of which: **2** took less than three seconds per question, the threshold used to identify invalid responses;

leaving **10 592** final qualifying cases.

Map 2.2 shows the number of qualifying respondents and crude recruitment rate across Germany. Recruitment rates were calculated by dividing the number of qualifying cases by the estimated male population aged 15–64. Recruitment rates were particularly high in Berlin and Hamburg.

Map 2.2: Total respondents and recruitment rate per 10 000 men aged 15—64



2.6 Statistical approach

In this report our approach to data presentation is descriptive rather than statistical. **Please note that minor differences between the text and table may occur due to rounding.**

Each section in **Chapters 3** to **8** describes the questions asked and summarises the responses received. Confidence intervals based on sampling error were not calculated because EMIS uses a non-probability sample. To improve readability, percentages are reported without decimal places throughout the narrative of the report, except in **Chapter 9**, and when values are below 2 %.

Chapter 9 cross-tabulates responses to key demographic questions with other indicators. Its primary purpose here is to provide the indicators for sub-groups of concern. We did not calculate the probability that the observed differences arose by chance because EMIS uses a non-probability sample. We also did not provide unadjusted measures of association (*e.g.*, odds ratios or risk ratios) between the demographic groups and the indicators, as these can be calculated from the tables. Nor did we provide adjusted measures of association between the demographic groups and the indicators (*i.e.*, controlling for membership of the other demographics groups), as our aim is not to investigate the causality of these associations but to describe the levels of the many indicators across the numerous demographic groups. To facilitate comparisons, percentages in this chapter are rounded to one decimal place in both the tables and the accompanying text.

In regional variation tables, numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (n < 100) and numbers in brackets [ ] indicate that the total number of respondents is less than 20 (n < 20).

References

1. Aphami L, Bereczky T, Casalini JL, Lunchenkov N, Marcus U, Jonas KJ, Schmidt AJ. European Men-Who-Have-Sex-With-Men Internet Survey (EMIS-2024): Design and Methods. *Sexuality Research and Social Policy*. 2026; Available from: https://DOI.org/10.1007/s13178-026-01288-8

2. The EMIS Network. *EMIS-2010 – the European Men-Who-Have-Sex-With-Men Internet Survey. Findings from 38 countries*. Stockholm: European Centre for Disease Prevention and Control (ECDC); 2013 [cited 2026 Aug 17]. Available from: https://www.emis-project.eu/european-report-2010

3. The EMIS Network. *EMIS-2017 – the European Men-Who-Have-Sex-With-Men Internet Survey. Key findings from 50 countries*. Stockholm: European Centre for Disease Prevention and Control (ECDC); 2019 [cited 2026 Aug 17]. Report No.: ISBN 978-92-9498-341-1. Available from: https://www.emis-project.eu/european-report-2017

4. European Centre for Disease Prevention and Control (ECDC). *Dublin Declaration Monitoring 2024*. Stockholm: ECDC; 2024 [cited 2026 Aug 17]. Available from: https://www.ecdc.europa.eu/sites/default/files/documents/2024DDSurvey-EN_Final_2024FEB07.pdf

Chapter 3: Demographics

The variables reported in this chapter relate to characteristics of the German respondents and their situation that HIV/STI and health promotion programmes cannot change or are not usually trying to change. In other words, there is no 'preferred' response to the questions, although some programmes may have outcome targets related to these characteristics (for example, reducing harm related to sex work).

From the perspective of sexual health promotion, the characteristics reported in **Chapters 3–7** describe everyone invited to take part in EMIS-2024: Sexual minorities at increased risk for HIV and STIs, primarily—but not exclusively—men who have sex with men (MSM, cis- and transgender) but also transgender women and non-binary individuals who have sex with men.

Chapter 8 provides a more detailed comparison among the four transgender groups. The way in which morbidities, risk and precaution behaviour, health promotion needs, and experience of interventions vary across these characteristics is reported in **Chapter 9**. For a description of how these characteristics vary by country of residence see **Section 3.9**.

A note on comparability

As in all EMIS waves, this report is based on data from everyone who was invited to the survey and took part. In EMIS-2010, across Germany, both trans women (0.3 %) and trans men (0.2 %) were invited and participated. In EMIS-2017, only trans men were invited (0.7 % in Germany identified as trans men, and 0.6 % reported female sex assigned at birth). Both survey waves used basic routing for these groups, but there was no targeted promotion for trans or non-binary participants.

EMIS-2024, for the first time, included extensively tailored survey tracks for cisgender MSM as well as trans and non-binary individuals, and it involved targeted promotion for these groups. EMIS-2024, across Germany, includes 0.5 % transgender women, 2 % transgender MSM, and 0.9 % non-binary individuals assigned female at birth (AFAB). While we believe the tailored survey tracks reflect changes in the key-population landscape, these changes also introduce challenges. Especially in smaller jurisdictions or in regional analyses, differences in sampling between cisgender MSM and trans participants may bias reported outcomes.

Another sampling-related bias concerns age. When comparing EMIS data in Germany over time, it is important to bear in mind that EMIS was not designed for direct longitudinal comparisons. Willingness to participate in large surveys has declined over time, and the median age of respondents has increased accordingly in many countries, partly because participants may continue to engage with the survey as they grow older. In Germany, the median age was 33 in 2010, 39 in 2017, and 43 in 2024.

All of this must be considered when reviewing and interpreting trends across countries or across survey waves. In some countries or regions, the described bias may be entirely absent or particularly pronounced. The proportion of trans and non-binary respondents (including respondents who were assigned female at birth) was particularly high in Bremen, where they accounted for 11 of the total 89 respondents. The indicators most affected by this are presented in **Chapter 9.2** ("**Health Inequalities by Sexual Orientation and Gender Identity**"). Overall, we believe the results adequately reflect current health, needs, behaviours, and intervention performance in these populations.

3.1 Sex at birth and current gender identity

Gender identity and sex assigned at birth were part of the qualifying conditions for taking part in the survey (therefore, there is no missing data for this variable). All participants were asked: *"What is your current gender identity?"* and were offered the responses: man; woman; and non-binary, followed by a question regarding their sex assigned at birth (with options male; or female). Of the 10 592 respondents in the final German sample, almost all were cisgender men (94.6 %; n = 10 017), followed by non-binary individuals (2.9 %; n = 312).

Table 3.1 shows the associations between responses to these two questions; each reported percentage represents the proportion of the total sample falling into the respective category. **Section 3.9** presents variation in the percentage that were assigned female at birth across German federal states and cities.

Table 3.1 Current gender identity by sex assigned at birth (N = 10 592)

Gender identity by sex assigned at birth	N	% assigned male at birth	% assigned female at birth	Total %
Man	10 229	94.6	2.0	96.6
Woman	51	0.5	0.0	0.5
Non-binary	312	2.1	0.9	3.0
Total	**10 592**	**97.0**	**3.0**	**100.0**

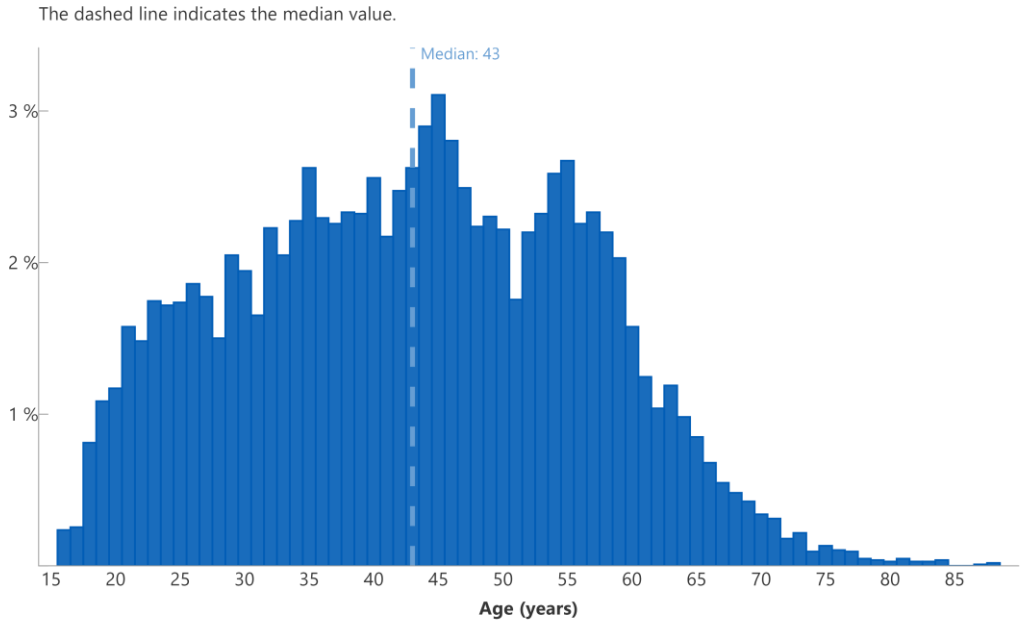
3.2 Age

Providing an age was a qualifying condition for the survey. Unlike in previous EMIS waves [1,2] where everyone being of or above the age of consent for sex with men in the country of residence was eligible (14 years in Germany), in EMIS-2024 study participants had to be at least 16 years old to take part—a requirement of Maastricht University.

The median age of German participants was 43 years (interquartile range: 33—53, mean 43, standard deviation 13). The age distribution rose sharply after age 16, while the right-hand tail was more strongly skewed. The median age in EMIS-2024 in Germany was higher than in EMIS-2017 [3], and higher still than in EMIS-2010 [4] and in the earlier *'Bochow studies'* conducted from *Berlin Social Science Center* (WZB) over many years, suggesting changing patterns of recruitment and participation bias over successive waves, potentially resulting in an apparent ageing of the respondent population.

Figure 3.1 shows the age distribution across the German sample.

Figure 3.1: Age distribution of EMIS-2024 respondents (N = 10 592)



3.3 Region of residence and settlement size

Study participants living in Germany were asked about the first two digits of their postal code, which were used to identify national regions and—combined with the settlement size information described below—major cities.

Table 3.2 shows the region where respondents currently live.

Table 3.2 Region of residence (federal state)

Place currently living in	N	% of all respondents
Baden-Württemberg	1223	11.6
Bavaria	1435	13.6
Berlin	1570	14.9
Brandenburg	218	2.1
Bremen	89	0.8
Hamburg	438	4.2
Hesse	834	7.9
Mecklenburg-Vorpommern	107	1.0
Lower Saxony	667	6.3
North Rhine-Westphalia	2336	22.2
Rhineland-Palatinate	343	3.3
Saarland	127	1.2
Saxony	495	4.7
Saxony-Anhalt	171	1.6
Schleswig-Holstein	324	3.1
Thuringia	160	1.5
Total	**10 537**	**100.0**

At the end of **Chapters 3–7**, the key variables for each chapter are presented by region of residence. A few selected cities were added for completeness: Cologne, Düsseldorf, Frankfurt, Hanover, Munich, Leipzig, and Stuttgart.

All participants were asked: *"How would you describe the place you live in?"* and were offered the responses in **Table 3.3**, which also shows the percentage indicating each response.

Table 3.3 Description of the size of settlements where respondents currently live (N = 10 518)

Size of settlement where respondents currently live	% of all respondents*
A very big city or town (a million or more people)	29.0
A big city or town (500 000–999 999 people)	13.9
A medium-sized city or town (100 000–499 999 people)	20.7
A small city or town (10 000–99 999 people)	22.0
A village/the countryside (less than 10 000 people)	14.4
Total	**100.0**

*Missing n = 74.

3.4 Migration history

Study participants were asked: *"Were you born in Germany?"* and were offered the responses *"Yes"* or *"No"*. Overall (N = 10 591, missing n = 1), 12 % indicated that they were not born in Germany. Those respondents were then asked: *"Which country were you born in? (If it does not exist anymore, please select the country that best applies.)"* and were offered the same list of countries as they were shown for the prior question. **Table 3.4** summarises responses recoded into continents (N = 10 588, missing n = 4).

Among respondents in the German sample who were born outside Germany (N = 1214), 62 % were born in continental Europe, a further 5 % in other countries of the WHO European Region (including Türkiye), 10 % in South America, and 9 % each in North America/the Caribbean and Asia.

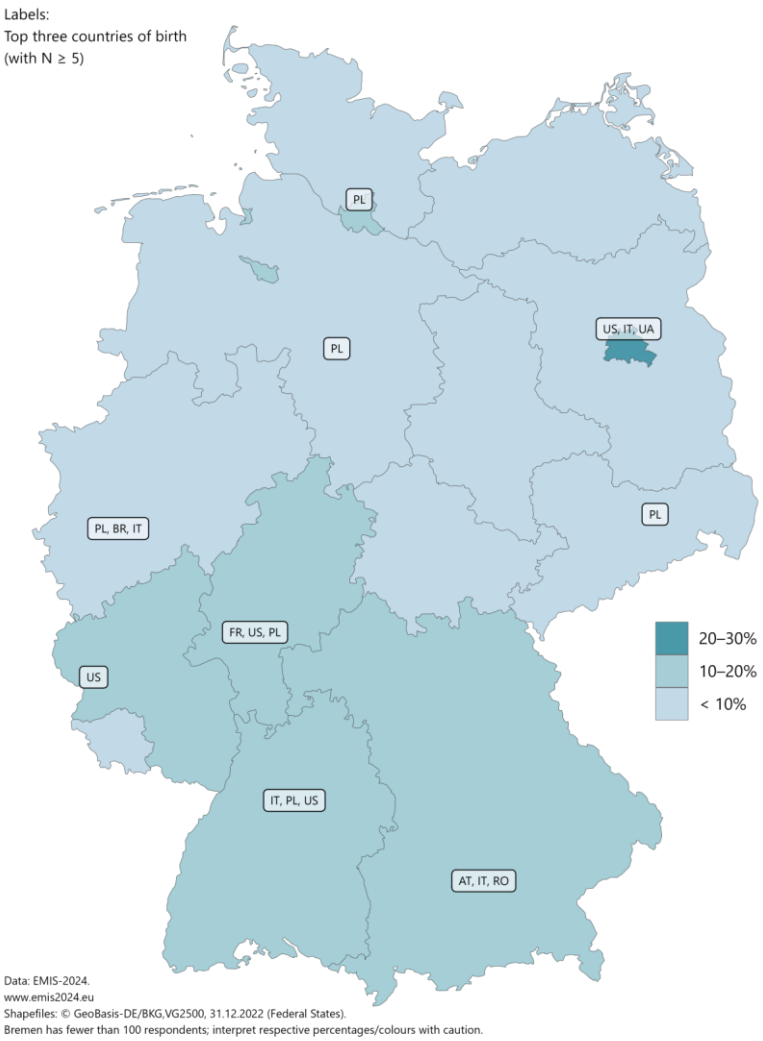
Table 3.4 Country of birth recoded to continents among all respondents (N = 10 588)

Country of birth recoded into continents	% of all respondents*
Continental Europe	95.4
Other countries in the WHO European Region: Armenia, Azerbaijan, Cyprus, Georgia, Israel, Kazakhstan, Türkiye; and French and British Overseas Territories	0.6
North America and the Caribbean	1.1
South America	1.2
Africa	0.5
Asia	1.1
Australia & Oceania	0.1
Total	**100.0**

*Missing n = 4.

Map 3.1 shows the percentage born abroad and three countries of birth, thereby highlighting moderate variation across Germany.

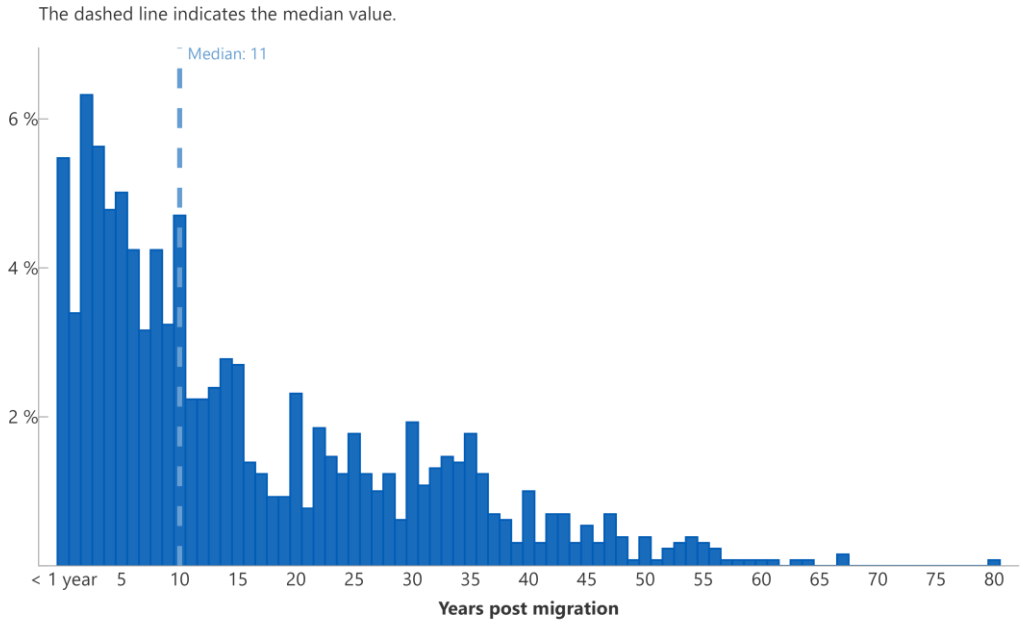
Map 3.1: Percentage born abroad and top three countries of birth (with N > 5) of those born abroad (N = 10 591)



The proportion of respondents born outside Germany was higher in the South. Participants born in the United States were among the three most common countries of birth in several southern federal states, ranking first in Rhineland-Palatinate, second in Hesse, and third in Baden-Württemberg, a pattern that likely reflects the presence of large US military communities in these regions. In Berlin, the United States was the most frequently reported country of birth, which may instead relate to the city's international character and its reputation as an attractive destination for gay men.

Study participants not born in the country they were living in were also asked, *"How many years have you been living in Germany?"* Among the 12 % of respondents not born in Germany, 6 % had lived in Germany for less than one year, 26 % for less than five years and 46 % for less than ten years. **Figure 3.2** illustrates the responses.

Figure 3.2 Years living in Germany post migration (N = 1297)



Study participants not born in Germany were asked, *"Why did you come to Germany?"* and were offered the responses in **Table 3.5**.

Table 3.5 Reasons for migration among respondents not born in Germany (N = 1214)

Reasons for migration	% of respondents born abroad N = 1214*	% of all respondents
I was brought as a child	18.3	2.2
To study	27.6	3.3
To work	45.9	5.5
To be with a partner	15.7	1.9
To live more openly as gay/bisexual/trans/queer	25.4	3.1
To seek asylum	3.8	0.5
I came as a refugee	4.8	0.6
I was brought against my will	0.3	0.0
Other answer	4.1	0.5

Note. Percentages do not total 100 % because respondents could select more than one response option.
*Missing n = 89.

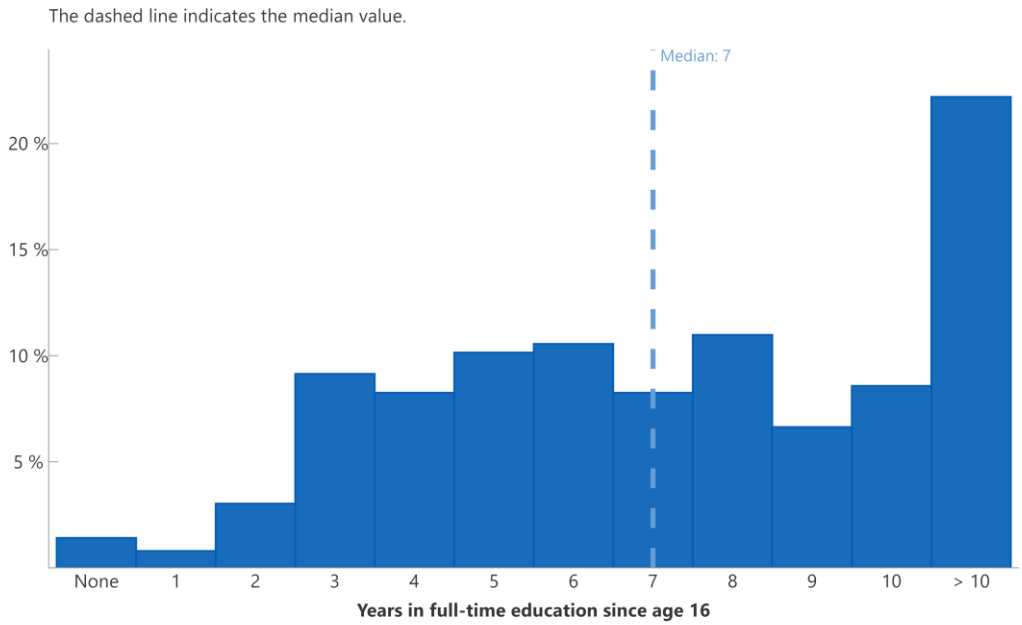
"*To work*" was the most commonly cited reason for coming to Germany, reported by 46 % of migrant respondents. Immigrating for work or to study was reported by 64 % of migrant respondents (some ticked both these reasons).

Of the respondents not born in Germany, 6 % indicated they had come to Germany as a refugee and/or asylum seeker (this proportion may be lower than the sum of the individual items presented in the table above, as responses to the multiple-choice question may overlap). The proportion of respondents identifying as refugees/asylum seekers corresponds to 0.8 % of the overall German sample. These respondents (n = 82) are compared with other migrants and non-migrants in **Chapter 9**.

3.5 Education, employment, and financial coping

Study participants were asked, *"How many years have you spent in full-time education since the age of 16?"* The median number of years was seven (N = 10 562, missing n = 30). The majority of the respondents fall between four and ten years in education after the age of 16 (63 %). **Figure 3.3** shows the distribution of years spent in full-time education beyond the age of 16. Although international guidance exists for mapping years of education to ISCED educational attainment categories [5], this report presents years of full-time education directly. Throughout this report, respondents with more than five years of full-time education after age 16 are classified as having higher education.

Figure 3.3: Years spent in full-time education beyond the age of 16 (N = 10 562)



Study participants were asked, *"Which of the following best describes your current occupation?"* and were offered the responses in **Table 3.6**.

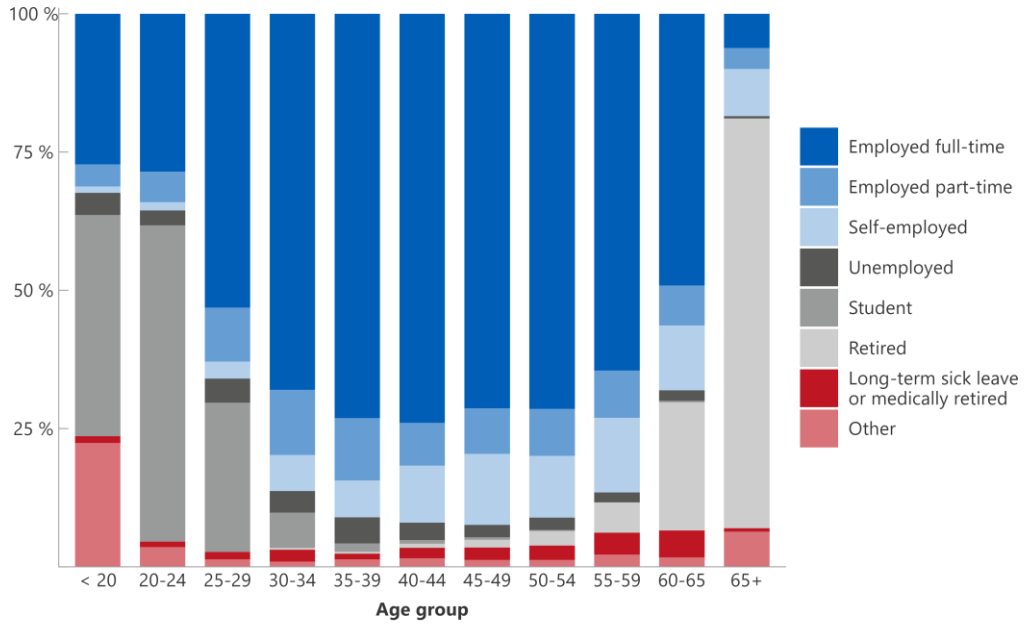
Table 3.6 Current occupation (N = 10 572)

Current occupation	% of all respondents*
Employed full-time	60.4
Employed part-time	8.5
Self-employed	8.8
Unemployed	2.9
Student	8.8
Retired	6.2
Long-term sick leave / medically retired	2.1
Other	2.3
Total	**100.0**

*Missing n = 20.

Around four out of five respondents (78 %) were employed. Around one in eleven respondents were self-employed (9 %), and around one in eleven (9 %) worked part-time. The unemployment rate was relatively low at 3 %, while students accounted for 9 % of the German sample. For a breakdown of unemployment rates by region of residence see **Section 3.9**. The distribution of self-reported employment status across age groups shows patterns consistent with expected life-course differences, indicating a high degree of internal consistency and supporting the validity of the data (**Figure 3.4**).

Figure 3.4: Employment status across age groups (N = 10 572)



Study participants were also asked, *"Which of these phrases would you say comes closest to your feelings about your income these days?"* and were offered the responses in **Table 3.7**.

Table 3.7 Feelings about income (N = 10 555)

Financial coping	% of all respondents*
Living really comfortably on present income	19.2
Living comfortably on present income	46.9
Neither comfortable nor struggling on present income	25.6
Struggling on present income	6.4
Really struggling on present income	1.9
Total	**100.0**

*Missing n = 37.

Overall, 8 % were struggling financially, 26 % were neither struggling nor comfortable on their present income, and 66 % were living comfortable on their present income. There was a strong relationship between employment status and financial status, as shown in **Table 3.8**. While overall 8 % were struggling financially, 48 % of unemployed respondents were struggling, as were 40 % of those medically retired or on long-term sick leave (differences from the table may occur due to rounding).

Table 3.8 Financial coping (feelings about current income) by employment status

Financial coping*	Occupation**							
	Full-time (%) N = 6382	Part-time (%) N = 900	Self-employed (%) N = 926	Un-employed (%) N = 308	Student (%) N = 927	Retired (%) N = 654	Medically retired (%) N = 227	Other (%) N = 248
Really comfort.	23.7	10.9	23.9	3.3	5.6	14.4	3.5	13.8
Comfortable	53.1	45.3	44.5	10.7	32.8	44.2	19.4	29.7
Neither	20.1	36.2	23.4	38.1	40.9	31.3	37.4	38.1
Struggling	2.5	6.3	6.9	31.6	16.3	9.2	27.3	13.0
Really struggling	0.6	1.3	1.3	16.3	4.3	0.9	12.3	5.4
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 37; **Missing n = 20.

3.6 Sexual attraction, sexual identity, and outness

Study participants were asked, *"Who are you sexually attracted to?"* and were asked to tick as many as apply from: *"Men"*, *"Women"*, *"Non-binary"*, and *"I am not attracted to anyone"*. **Table 3.9** contains the percentages giving each combination of answers. We categorised respondents who reported sexual attraction to only one gender (including non-binary) as *"monosexual"*, those reporting attraction to two genders (including non-binary) as *"bisexual"*, and those reporting attraction to more than two genders as *"polysexual"*. Respondents reporting no sexual attraction were classified as *"asexual"*.

Table 3.9 Sexual attraction (N = 10 588)

Sexual attraction	% of all respondents*
Monosexual	76.5
Men only	76.2
Women only	0.2
Non-binary people only	0.1
Bisexual	14.6
Men and women only	8.4
Men and non-binary people only	5.9
Women and non-binary people only	0.3
Polysexual	8.6
Men, women and non-binary people	8.6
Asexual	0.2
No one	0.2

*Missing n = 4.

Overall, 15 % reported sexual attraction to non-binary people, 18 % to women, and 99 % to men. Overall, 0.9 % reported no attraction to men; however, these respondents also indicated previous sexual experience with men.

Study participants were asked, *"Which of the following options best describes how you think of yourself?"* and were offered the responses: *"Gay or homosexual"*, *"Bisexual"*, *"Straight or heterosexual"*, *"Any other term"*, and *"I don't usually use a term"*. **Table 3.10** shows the percentages giving each response overall, and whom respondents were sexually attracted to.

Table 3.10 Sexual attraction by sexual identity (N = 10 588)

Sexual attraction*	Sexual identity**				
	Gay or homosexual (%) N = 8193	Bisexual (%) N = 1644	Straight or heterosexual (%) N = 57	Any other term (%) N = 316	Not using a term (%) N = 378
Men	92.5	14.4	31.6	18.7	47.9
Women	0.0	0.9	12.3	0.0	0.0
Non-binary	0.0	0.2	0.0	0.9	1.6
Men, women	0.7	46.4	24.6	4.1	13.0
Men, non-binary people	6.1	1.1	0.0	20.6	10.1
Women, non-binary people	0.0	1.0	12.3	1.6	1.6
Men, women, non-binary people	0.7	35.6	19.3	51.3	24.1
No one	0.0	0.4	0.0	2.8	1.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 4; **Missing n = 4.

Overall, 77 % of respondents identified as gay or homosexual and 16 % as bisexual. Among the remaining respondents, meaningful minorities reported not usually applying any term (4 %) or using another term for their sexual identity (3 %).

Respondents who were sexually attracted to men (99 % of all respondents) were asked: *"Thinking about all the people who know you (including family, friends and work or study colleagues), what proportion know that you are attracted to men?"* They were offered the response options in **Table 3.11**. 'Outness'—the opposite term being 'sexual orientation concealment'—has a major influence on morbidities, behaviour, needs, and access to interventions [6]. **Chapter 9** explores how morbidities, behaviour, needs, and interventions vary to the extent of outness regarding their sexual attraction to men.

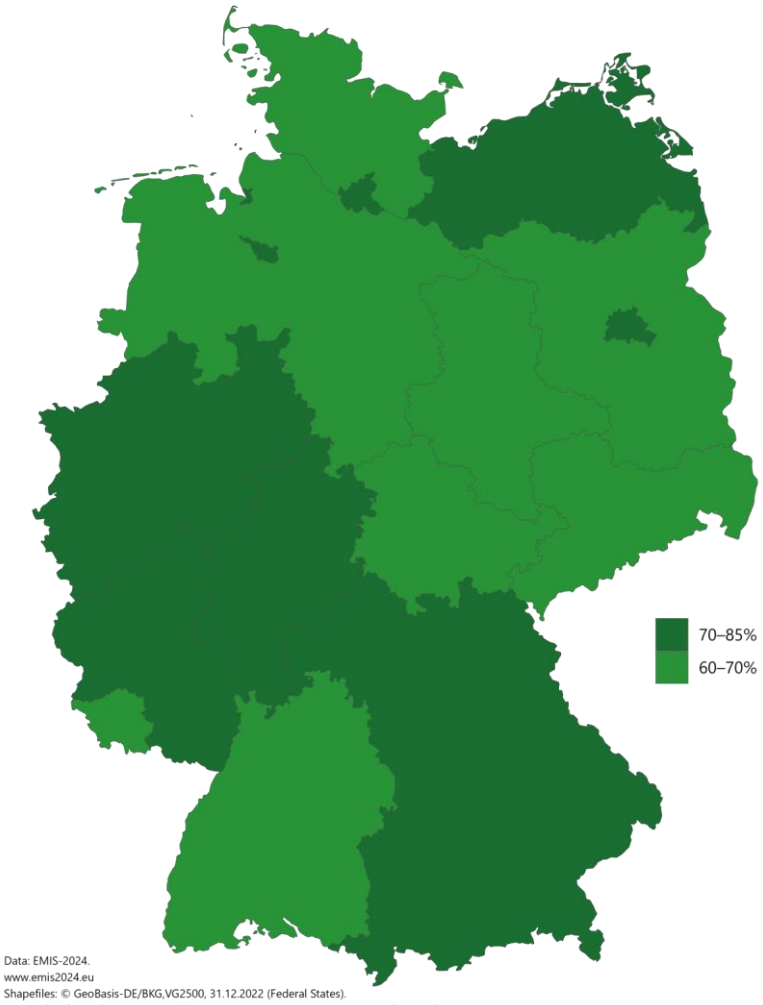
Table 3.11 Percentage of people that know respondents are attracted to men (N = 10 485)

Out to...	% of all respondents attracted to men N = 10 485*
...all or almost all	57.4
...more than half	16.1
...less than half	7.9
...few	12.5
...none	6.1
Total	**100.0**

*Missing n = 7.

Around three out of four respondents (73 %) were 'out' to the majority of people they knew about their attraction to men. **Map 3.2** shows the proportion of respondents who are 'out' among those reporting sexual attraction to men, thereby highlighting moderate variation across Germany.

Map 3.2: Percentage of respondents who are 'out' among those who reported sexual attraction to men (N = 10 485)



3.7 Current partnerships

Participants were asked: *"Do you currently have a 'steady partner', that is a lover or spouse that means you are not 'single'?"* and were offered the responses: *"No, I am single"*, *"Yes, I have a steady partner"*, *"I am not sure/it's complicated"*.

Those who indicated *"Yes, I have a steady partner"* were asked: *"Are you currently in a steady relationship with...?"* and offered the responses: *"One man"*; *"More than one man"*, *"One non-binary person"*, *"More than one non-binary person"*, *"One woman"*, *"More than one woman"*.

Table 3.12 shows the percentages giving each response.

Table 3.12 Current partnership and type of steady partner

Current partnership N = 10 590*	%	Type of partnership N = 5207**	%
Single n = 4762	45.0		
In a relationship with a steady partner n = 5213	49.2	One man	78.8
		More than one man	2.9
		One woman	14.0
		All other steady relationships	4.3
Complicated n = 615	5.8		
Total	**100.0**		**100.0**

*Missing n = 2; **Missing n = 8.

Around one in two respondents (49 %) had a current steady partner, most commonly one male partner (79 %); 45 % were currently single, and 6 % were uncertain about their relationship status.

Country level differences in the percentage of respondents with a current steady partner are described in **Section 3.9** and differences between single respondents and those with (a) current steady partner/s are described in **Chapter 9**.

3.8 Buying and selling sex

Participants who reported attraction to men were asked: *"When was the last time you paid a man to have sex with you? By paid we mean you gave him money, gifts or favours in return for sex."*; and: *"When was the last time you were paid by a man to have sex with him? By paid we mean he gave you money, gifts or favours in return for sex."* Each question offered a scale to indicate how recently this had occurred [7]. Unlike many other surveys, EMIS includes engagement in transactional sex as a demographic characteristic, recognising this group as an important at-risk population requiring targeted health services. MSM who frequently sell sex face greater sexual and substance-use risks than other MSM [8].

Table 3.13 Recency of transactional sex

The last time...	...you paid a man N = 10 582*		...you were paid N = 10 529**	
	%	% Cumulative	%	% Cumulative
Within the last 24 hours	0.3	0.3	0.3	0.3
Within the last 7 days	1.1	1.4	0.6	0.8
Within the last 4 weeks	2.2	3.6	0.8	1.6
Within the last 6 months	3.9	7.5	1.3	2.9
Within the last 12 months	3.1	10.6	1.4	4.3
Within the last 5 years	5.5	16.1	3.2	7.5
More than 5 years ago	6.3	22.4	8.9	16.4
Never	77.6	100.0	83.6	100.0
Total	**100.0**		**100.0**	

*Missing n = 10; **Missing n = 63.

More respondents had bought sex than had sold it, both in their lifetime (22 % versus 16 %) and in the last 12 months (11 % versus 4 %). Participants who had bought sex in the last 12 months were asked: *"In the last 12 months, how often have you paid a man to have sex with you?"* and respondents who had sold sex in the last 12 months were asked, *"In the last 12 months how often have you been paid by a man to have sex with him?"* For each question they were offered the responses in **Table 3.14**.

Table 3.14 Frequency of transactional sex in the last 12 months

Frequency of transactional sex in the last 12 months	Paid a man to have sex		Been paid by a man to have sex	
	N*	%	N**	%
1–2 times	639	57.1	217	49.0
3–10 times	389	34.7	152	34.3
11–50 times	80	7.1	54	12.2
More than 50 times	12	1.1	20	4.5
Total	**1 120**	**100.0**	**443**	**100.0**

*Missing n = 5; **Missing n = 7.

The majority of respondents who had either sold or bought sex in the last 12 months had done so only once or twice. For a description of how buying sex from a man and selling sex to men varies by country of residence see **Section 3.9**. **Chapter 9** compares the respondents who sold sex three or more times in the last 12 months with those who did less frequently, longer ago, or not at all.

3.9 Regional variation in demographics

Table 3.15 Regional variation in key demographics

Germany	Qualifying cases	% assigned female sex at birth	Median age	% living in 500 000+ settlements	% born abroad	% refugee or asylum seeker	% higher education [a]
Total	**10 592**	**2.9**	**43**	**42.9**	**12.1**	**0.8**	**67.2**
Federal States							
Baden-Württemb.	1223	1.3	44	15.3	11.0	0.7	68.5
Bavaria	1435	1.8	42	41.7	12.8	0.4	64.8
Berlin	1570	3.6	43	99.6	24.2	1.3	75.5
Brandenburg	218	0.9	44	2.3	3.2	0.5	57.4
Bremen	89	(10.1)	44	(73.9)	(12.4)	(0.0)	(73.0)
Hamburg	438	2.1	44	99.8	11.6	0.9	73.0
Hesse	834	2.6	45	32.3	13.1	1.0	68.8
Mecklenburg-V.	107	2.8	43	1.9	4.7	0.9	53.3
Lower Saxony	667	5.1	42	20.2	6.6	0.3	60.4
North Rhine-Westph.	2336	3.0	44	41.4	9.5	0.9	68.2
Rhineland-Palatinate	343	2.3	43	1.2	10.5	1.2	64.4
Saarland	127	0.8	48	0.8	7.1	0.0	58.3
Saxony	495	3.2	39	52.8	7.7	0.4	63.3
Saxony-Anhalt	171	4.7	44	2.9	5.3	0.0	57.7
Schleswig-Holstein	324	4.0	45	5.0	5.6	0.6	60.8
Thuringia	160	5.6	40	2.5	5.0	0.0	55.6
Cities							
Düsseldorf	176	2.8	44	100.0	15.3	1.7	73.9
Frankfurt	252	1.2	46	100.0	21.4	0.4	78.9
Hanover	124	5.6	41	100.0	9.7	0.8	70.2
Cologne	551	3.4	45	100.0	9.6	0.7	72.5
Leipzig	144	1.4	38	100.0	9.7	0.0	79.9
Munich	488	1.0	43	100.0	18.9	0.4	75.4
Stuttgart	159	1.3	45	100.0	13.2	1.3	75.5

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a]more than 5 years of full-time education after age 16. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

Table 3.15 Regional variation in key demographics (continued)

Germany	Qualifying cases	% unemployed	% struggling on present income	% identifying as gay/ homosexual	% out none or few	% steady partner	% bought sex [a]	% sold sex [b]
Total	**10 592**	**5.1**	**8.3**	**77.4**	**18.6**	**49.2**	**10.6**	**2.1**
Federal States								
Baden-Württemb.	1223	4.2	6.5	75.3	25.9	48.6	10.5	1.6
Bavaria	1435	3.4	7.3	79.2	19.8	48.8	8.7	1.7
Berlin	1570	7.6	10.6	82.6	8.6	47.5	10.6	3.5
Brandenburg	218	3.7	13.8	72.9	24.4	47.5	11.5	2.3
Bremen	89	(6.7)	(5.6)	(69.7)	(9.5)	(48.3)	(11.2)	(2.2)
Hamburg	438	3.7	5.5	86.3	9.6	53.2	13.9	2.1
Hesse	834	3.8	6.3	79.0	19.3	50.7	11.8	1.9
Mecklenburg-V.	107	10.3	14.0	65.1	23.6	46.7	7.5	2.8
Lower Saxony	667	4.7	10.9	70.9	21.8	46.0	10.8	1.6
North Rhine-Westph.	2336	5.4	7.0	79.1	17.3	52.1	11.3	2.2
Rhineland-Palatinate	343	4.1	10.6	74.9	22.4	49.0	9.9	0.6
Saarland	127	5.5	10.2	71.7	23.2	52.8	8.7	1.6
Saxony	495	4.7	9.7	72.9	25.1	44.6	10.9	3.0
Saxony-Anhalt	171	7.1	13.1	64.9	27.4	48.5	7.6	0.0
Schleswig-Holstein	324	6.5	9.0	68.8	22.4	50.9	10.2	1.9
Thuringia	160	4.4	8.1	70.0	22.3	43.1	5.0	2.5
Cities								
Düsseldorf	176	4.5	4.5	85.8	10.3	51.7	13.6	1.7
Frankfurt	252	2.0	3.6	86.5	14.0	52.4	12.3	2.4
Hanover	124	3.2	7.3	79.7	14.6	48.4	4.8	0.8
Cologne	551	5.6	6.9	86.4	7.9	52.3	12.5	0.9
Leipzig	144	3.5	11.1	72.9	17.9	34.0	10.4	2.8
Munich	488	2.0	3.7	87.1	12.3	52.0	10.7	1.6
Stuttgart	159	3.1	5.0	84.3	17.9	45.9	13.2	1.3

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a]bought sex from a man at least once in the last 12 months; [a]sold sex to a man 3+ times in the last 12 months. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

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Chapter 4: Morbidities

Morbidity includes both physical and psychological ill health. For a health programme, prevention of and reduction in prevalence or severity of morbidities are the ultimate outcomes sought. EMIS-2024 asked about two areas of morbidity: mental ill-health and HIV, other sexually transmitted infections, and viral hepatitis.

This chapter presents all morbidity indicators used in EMIS-2024 for the overall sample, as well as regional-level results shown in the tables at the end of the chapter. **Chapter 8** describes morbidity patterns in the four trans groups recruited in the survey. **Chapter 9** considers how these morbidity indicators vary between specific target groups for sexual health interventions, including age groups.

Because morbidity patterns differ between cisgender MSM, transgender MSM, and other trans and non-binary populations, readers should be aware that the regional tables and maps presented in this report do not always allow for straightforward comparisons of MSM health across German regions. In most regions, this limitation has little effect on rankings, as trans and non-binary respondents overall (5 %), and individuals assigned female at birth in particular (3 %), constitute a relatively small proportion of the German sample. However, in regions with higher proportions of gender minorities, rankings may differ from those based solely on cisgender MSM—or on cis- and transgender MSM plus non-binary AMAB individuals, which form the basis of the MSM indicators reported to ECDC.

For example, indicators of poorer sexual health may appear more favourable where there are higher proportions of trans men and non-binary AFAB individuals, due to lower reported prevalence of sexually transmitted infections in these groups, whereas indicators of poorer mental health may appear less favourable. **Section 3.9** (**Table 3.15**) shows the regional variation in the proportion of respondents assigned female at birth.

4.1 Mental health problems

Poor mental health is a major contributor to morbidity and is more prevalent among sexual minorities than among the sexual majority [1,2]. In addition, the link between poor mental health and HIV transmission risk—such as sexual risk-taking and poor adherence to medication—is well established [3,4]. This relationship is one pathway through which multiple health problems cluster within the same individuals, a phenomenon often described as *syndemics*.

4.1.1 Anxiety/depression (PHQ-4)

We used the Patient Health Questionnaire-4 [5], a short clinical screening tool that measures combined anxiety and depression, to give an indication of mental well-being. While the tool is not intended to be diagnostic, and may overestimate the prevalence of problems, it was chosen for its brevity and ease of interpretation. Study participants were asked: *"Over the last 2 weeks, how often have you been bothered by the following problems?"* and were offered the following four responses: *"Feeling nervous"*, *"Anxious or on edge"*; *"Not being able to stop or control worrying"*; *"Little interest or pleasure in doing things"*; *"Feeling down, depressed, or hopeless"*. Responses included: *"Not at all"* (0 points); *"Some days"* (1 point); *"More than half the days"* (2 points); *"Nearly every day"* (3 points). The total points give a score from 0 to 12 which can be grouped into four bands. **Table 4.1** presents the percentage of respondents in each category (with 0.8 % missing data) along with the standard interpretation of this validated scale.

Table 4.1 Anxiety and depression (PHQ-4) score

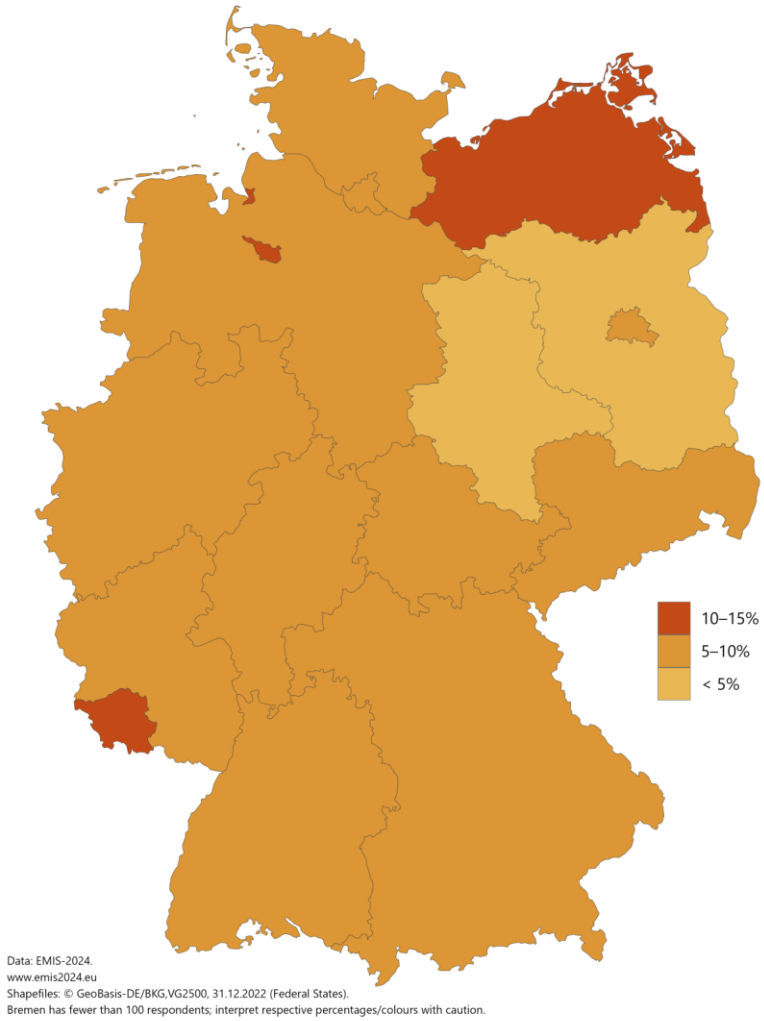
PHQ-4 score	Interpretation	N*	% of all respondents
0–2	Normal	5487	52.2
3–5	Mild anxiety and depression	3133	29.8
6–8	Moderate anxiety and depression	1116	10.6
9–12	Severe anxiety and depression	769	7.3
Total		**10 505**	**100.0**

*Missing n = 87.

Across Germany, 18 % reported at least *moderate* anxiety and depression in the last two weeks, with around one in 14 (7 %) experiencing severe anxiety and depression in the same time period. **Section 4.3** shows regional-level figures for the percentage experiencing *severe* anxiety and depression, and **Chapter 9** considers how the percentage experiencing severe anxiety and depression varies between key target groups.

Map 4.1 shows the prevalence of *severe* anxiety and depression (PHQ-4), thereby highlighting moderate variation across Germany.

Map 4.1: Percentage with severe depression/anxiety in the previous 2 weeks (PHQ-4) (N = 10 505)



4.1.2 Suicidal ideation

Study participants were asked: *"Over the last 2 weeks, how often have you been bothered by the following problems?"* followed by the statement: *"Thoughts that you would be better off dead, or of hurting yourself in some way"*. In 2024 an additional item of *"Thoughts about taking your own life"* was added [6]. **Table 4.2** gives the response options and the percentage of respondents indicating each option.

Table 4.2 Suicidal ideation over the last two weeks

Over the last 2 weeks, how often have you been bothered by thoughts...	...that you would be better off dead, or of hurting yourself (%) N = 10 530*	...about taking your own life (%) N = 10 496**
Not at all	83.7	88.9
Some days	12.1	8.7
More than half the days	2.2	1.3
Nearly every day	2.0	1.0
Total	**100.0**	**100.0**

*Missing n = 62; **Missing n = 96.

Across Germany, 16 % had thought of harming themselves in the past two weeks, and 4 % had thought of harming themselves on at least half of the days during that period. Around one in nine respondents (11 %) had thought about taking their own life in the past two weeks, and 2 % had thought about taking their own life on at least half of the days.

Section 4.3 shows regional-level figures for the percentage having had thoughts of harming themselves and taking their own life in the past two weeks. Chapter 9 considers how the percentage having had thoughts of harming themselves or taking their own life varies across key target groups.

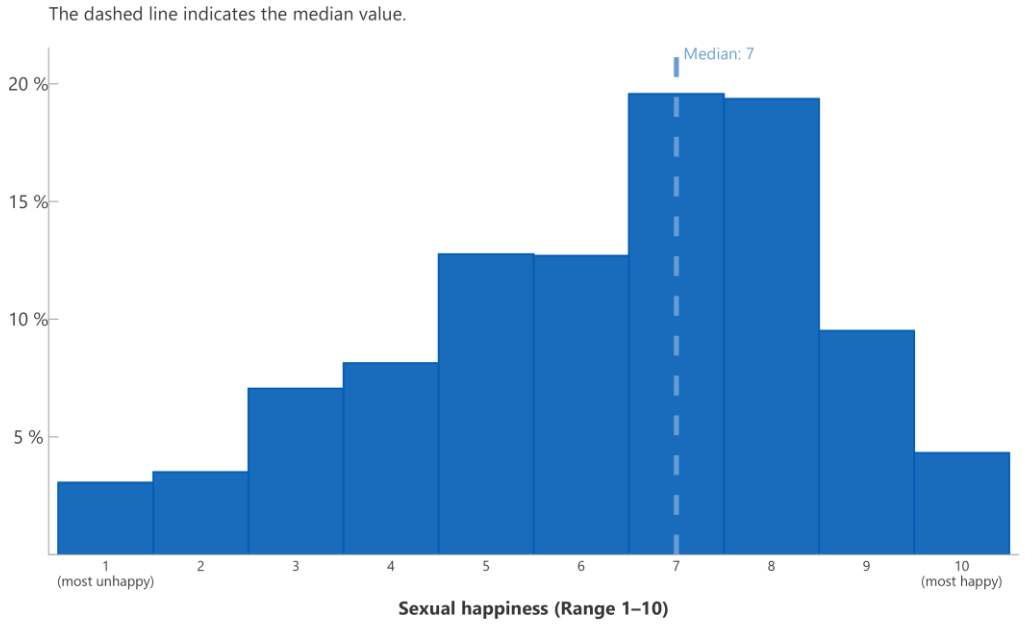
Morbidities are associated with each other

The frequency of suicidal ideation was strongly associated with reported levels of anxiety and depression. The proportion of respondents who thought about harming themselves every day was 0.05 % of those with a normal anxiety and depression score, 0.5 % of those with a mild anxiety and depression score, 2 % of those with a moderate anxiety and depression score, and 22 % of those with a severe anxiety and depression score.

4.1.3 Sexual unhappiness

Study participants were asked: *"On a scale of 1 to 10 (where 1 is the most unhappy and 10 is the most happy), how happy are you with your sex life?"* and were offered a ten-point scale labelled at the ends (1, most unhappy; 10, most happy). **Figure 4.1** shows the profile of all scores. Overall, 22 % gave a score of 4 or below, so around one in five respondents across Germany were not happy with their sex life. **Section 4.3** presents regional-level figures on the percentage reporting a sexual happiness score of 1–4, and **Chapter 9** considers how this percentage varies across key target groups.

Figure 4.1: Sexual happiness self-rating on a scale of 1 to 10,
where 1 is the most unhappy and 10 is the most happy (N = 10 545)



Morbidities are associated with each other

On average, a lower sexual happiness score was given by respondents with higher levels of anxiety and depression. The mean sexual happiness score for respondents with a normal anxiety and depression score was 7; for those with mild anxiety and depression, it was 6; for those with moderate anxiety and depression, it was 5; and for those with severe anxiety and depression, it was 5. Similarly, the more frequently respondents thought about suicide or self-harm, the lower their sexual happiness score.

4.1.4 Alcohol dependency (CAGE4)

We used the CAGE4 screening tool for alcohol dependency [7]. While this tool is not intended to be diagnostic and may overestimate the prevalence of alcohol dependency, it was chosen for its brevity and ease of interpretation.

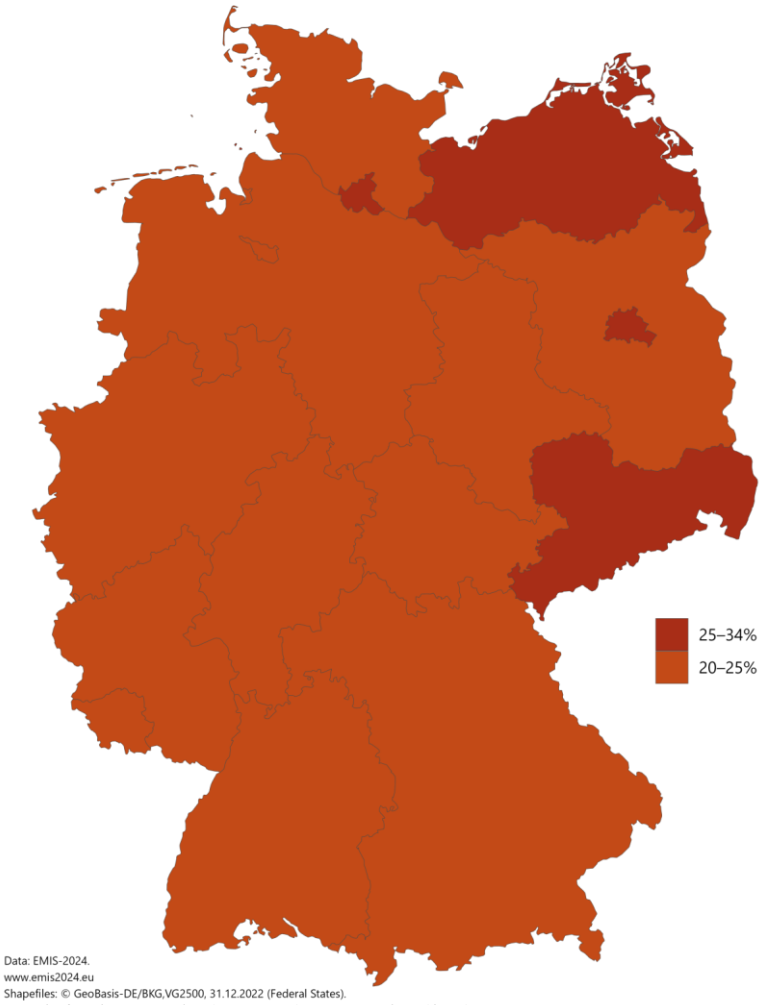
Study participants were asked: *"Thinking about drinking alcohol in the past 12 months..."* followed by four questions to which they could respond *"Yes"* or *"No"*:

- *"Have you tried to cut down on your drinking?"*
- *"Have people annoyed you by criticising your drinking?"*
- *"Have you felt bad or guilty about your drinking?"*
- *"Have you taken a drink first thing in the morning to steady your nerves or get rid of a hangover?"*

Indicating *"Yes"* to two or more statements is a positive response, indicating possible alcohol dependency. Overall, 23 % (n = 2476, missing n = 0) met the criteria for potential alcohol dependency. **Section 4.3** shows regional-level figures for likely alcohol dependence, and **Chapter 9** considers how this percentage varies between key target groups. **Chapter 7**, **Section 7.8** presents the uptake of professional support for concerns related to drug and alcohol use.

Map 4.2 shows the prevalence of potential alcohol dependency (CAGE4), thereby highlighting moderate variation across Germany.

Map 4.2: Percentage with potential alcohol dependency (CAGE4) (N = 10 575)



Morbidities are associated with each other

Potential alcohol dependency was more common in respondents with greater levels of anxiety and depression: 33 % in those with a severe anxiety and depression score; 31 % in those with a moderate score; 29 % in those with a mild score; and 18 % in those with a normal anxiety and depression score. Similarly, alcohol dependency was more common in respondents with more frequent suicidal ideation: 36 % among those who thought about it every day; 29 % among those who thought about it on more than half the days; 31 % of those who thought about it on some days; 22 % of those who had not thought about harming themselves in the last two weeks.

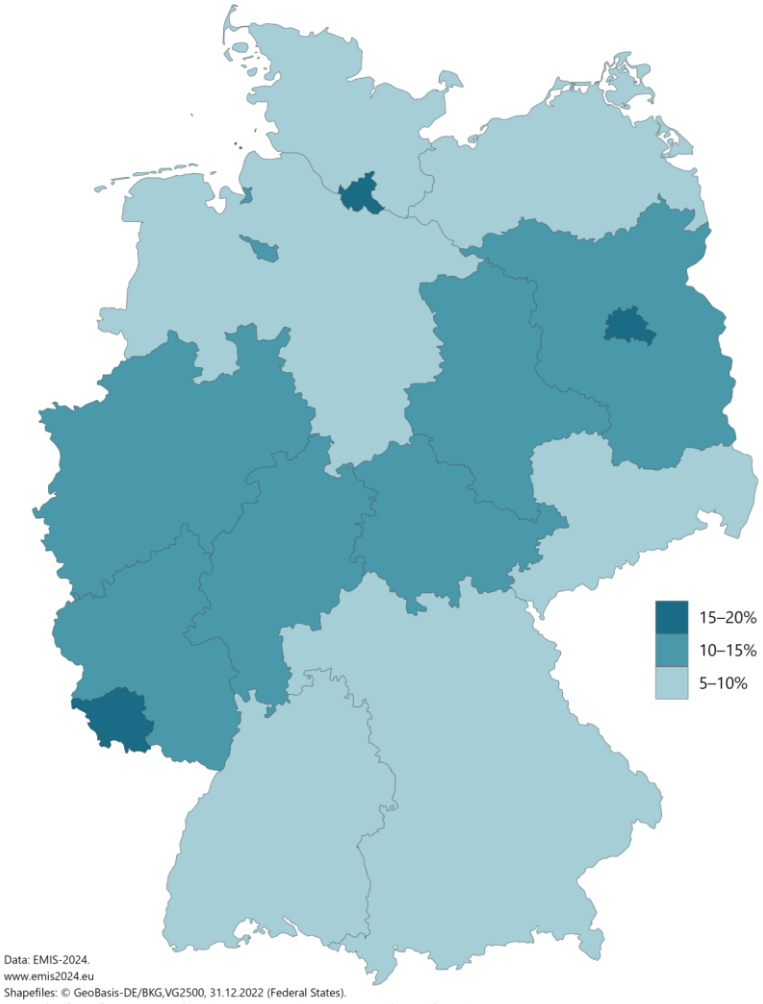
4.2 HIV and sexually transmitted infection diagnoses

Sexually transmitted infections are a common sexual health morbidity among MSM and a key concern driving EMIS-2024. Since all measures in the survey were self-reported, diagnoses of infections were used as a proxy for their acquisition.

4.2.1 Prevalence and incidence of HIV diagnoses

Study participants were asked: *"Have you ever been diagnosed with HIV?"* Around one in eight respondents (12 %) indicated *"Yes"*. **Section 4.3** shows regional-level figures for self-reported diagnosed HIV. **Chapter 9** compares the minority group of respondents living with diagnosed HIV against the majority of respondents without diagnosed HIV. **Map 4.3** shows HIV prevalence among EMIS-2024 respondents, thereby highlighting major variation across Germany.

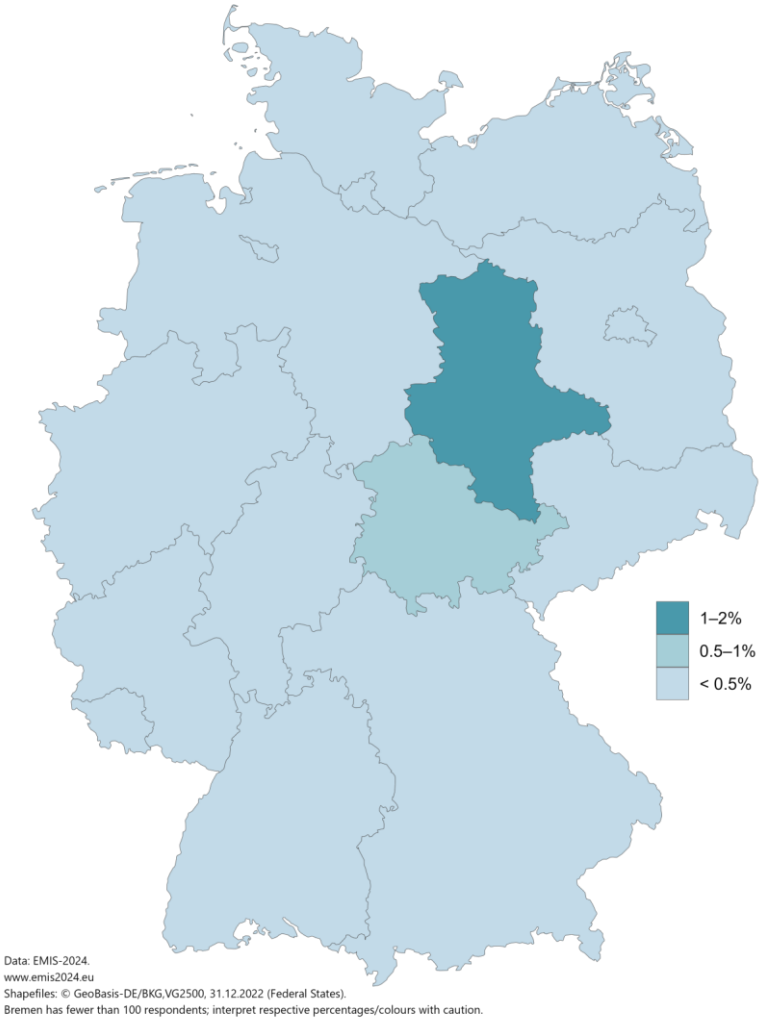
Map 4.3: Percentage ever diagnosed with HIV (N = 10 540)



Study participants living with diagnosed HIV were asked whether they had received their HIV diagnosis within the past 12 months. After excluding those who had been diagnosed more than 12 months ago (n = 1259), 0.3 % of the remaining respondents reported receiving an initial HIV diagnosis in the previous 12 months (n = 27). **Section 4.3** shows the regional variation in the proportion of respondents who were diagnosed with HIV in the previous 12 months.

Map 4.4 shows the percentage reporting being diagnoses with HIV in the past 12 months (a proxy for HIV incidence), thereby highlighting moderate (possibly due to small numbers) variation across Germany.

Map 4.4: Percentage diagnosed with HIV, previous 12 months (N = 9278)



4.2.2 Unsuppressed diagnosed HIV

Study participants who reported that they had ever received an HIV diagnosis (12 %) were asked: *"What was the result of your viral load test the last time you had your HIV infection monitored?"*. **Table 4.3** shows the responses offered and the percentages indicating each response.

Among respondents with diagnosed HIV, 1.6 % either did not know whether their viral load test was detectable during their last test or had never been medically monitored.

Among the 1262 respondents who knew the result of their most recent viral load test (*"knowledgeable respondents"* in column 3 below), 3 % reported a detectable viral load, and 97 % reported an undetectable viral load.

Overall, this corresponded to 0.4 % of the total sample living with diagnosed but unsuppressed HIV and therefore potentially transmissible, including respondents who had never had their HIV infection monitored and are assumed to be untreated. **Section 4.3** presents regional-level estimates for respondents with diagnosed but unsuppressed HIV.

Table 4.3 Last HIV viral load test result among respondents who ever had their HIV infection monitored

Last HIV viral load	% of all respondents N = 1279*	% of knowledgeable respondents N = 1262
Undetectable	95.7	97.0
Detectable	3.0	3.0
I was told but I don't remember the result	0.2	
It was measured but I was not told the result	0.5	
It was not measured		
I don't remember	0.5	
I don't understand the question	0.1	
[Never medically monitored]	0.2	
Total	**100.0**	**100.0**

*Missing n = 0.

4.2.3 Most recent diagnoses of syphilis, gonorrhoea and chlamydia

Study participants were asked: *"Have you ever been diagnosed with syphilis?"*. Respondents who answered *"Yes"*, were then asked, *"When were you last diagnosed with syphilis?"* and were offered a response scale indicating how recently the diagnosis had occurred. Identical questions were asked for *"gonorrhoea"* and *"chlamydia or LGV"*. **Table 4.4** presents the recency of diagnosis among respondents who reported ever having been diagnosed with any of these three sexually transmitted infections. For treatment uptake for syphilis and gonorrhoea, see **Chapter 7**, **Section 7.7.1**.

Table 4.4 Recency of diagnosis with syphilis, gonorrhoea, or chlamydia

Last time diagnosed with...	Syphilis N = 10 582*		Gonorrhoea N = 10 591**		Chlamydia/LGV N = 10 589***	
	%	Cumulative %	%	Cumulative %	%	Cumulative %
Within the last 24 hours	0.0	0.0	0.0	0.0	0.0	0.0
Within the last 7 days	0.1	0.1	0.3	0.3	0.3	0.3
Within the last 4 weeks	0.4	0.5	0.7	1.0	0.8	1.1
Within the last 6 months	2.1	2.6	3.7	4.7	3.2	4.3
Within the last 12 months	2.8	5.3	5.1	9.8	4.6	8.9
Within the last 5 years	8.4	13.7	9.9	19.8	10.1	19.0
More than 5 years ago	8.8	22.5	10.8	30.6	6.9	26.0
Never	77.5	100.0	69.4	100.0	74.0	100.0
Total	**100.0**		**100.0**		**100.0**	

*Missing n = 10; **Missing n = 1; ***Missing n = 3.

To distinguish between gonorrhoea and chlamydia diagnoses identified through screening of asymptomatic individuals and those prompted by symptoms, a question was included: *"The last time you were diagnosed with gonorrhoea/chlamydia, what was the reason for testing?"*

The response options were:

- *Symptoms*
- *STI check without symptoms*
- *Having been notified by a partner*
- *None of these*

The proportion of respondents with a gonorrhoea diagnosis who reported symptoms as the reason for testing was 53 %, while the corresponding proportion for chlamydia was 39 %. The distribution of reasons for testing is presented in **Table 4.5.**

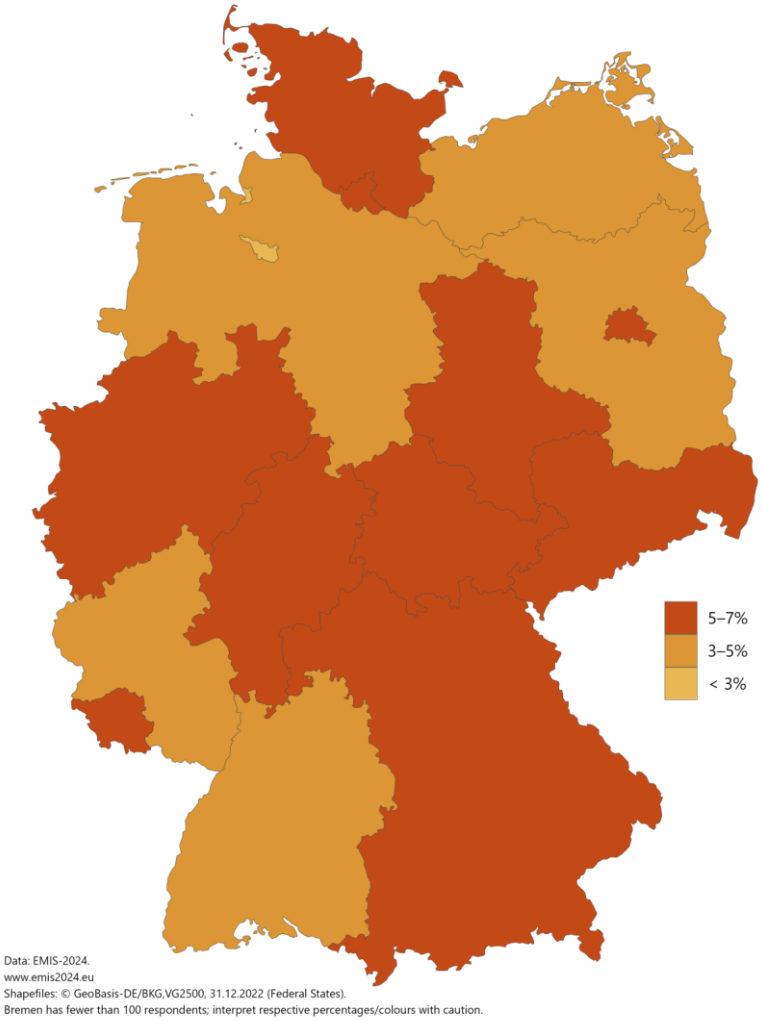
Table 4.5 Testing reasons for respondents diagnosed with gonorrhoea and chlamydia

Testing reason	Diagnosed gonorrhoea N = 1041*	Diagnosed chlamydia N = 941**
	%	%
I had symptoms (pain, discharge etc)	53.3	38.7
I checked for STIs without having symptoms	30.6	46.5
I was notified by a partner who had gonorrhoea/chlamydia	14.8	12.9
None of the above	1.2	1.9
Total	**100.0**	**100.0**

*Missing n = 2; **Missing n = 2.

Map 4.5 shows the percentage diagnosed with syphilis in the previous 12 months, thereby highlighting moderate variation across Germany.

Map 4.5: Percentage diagnosed with syphilis, previous 12 months (N = 10 582)

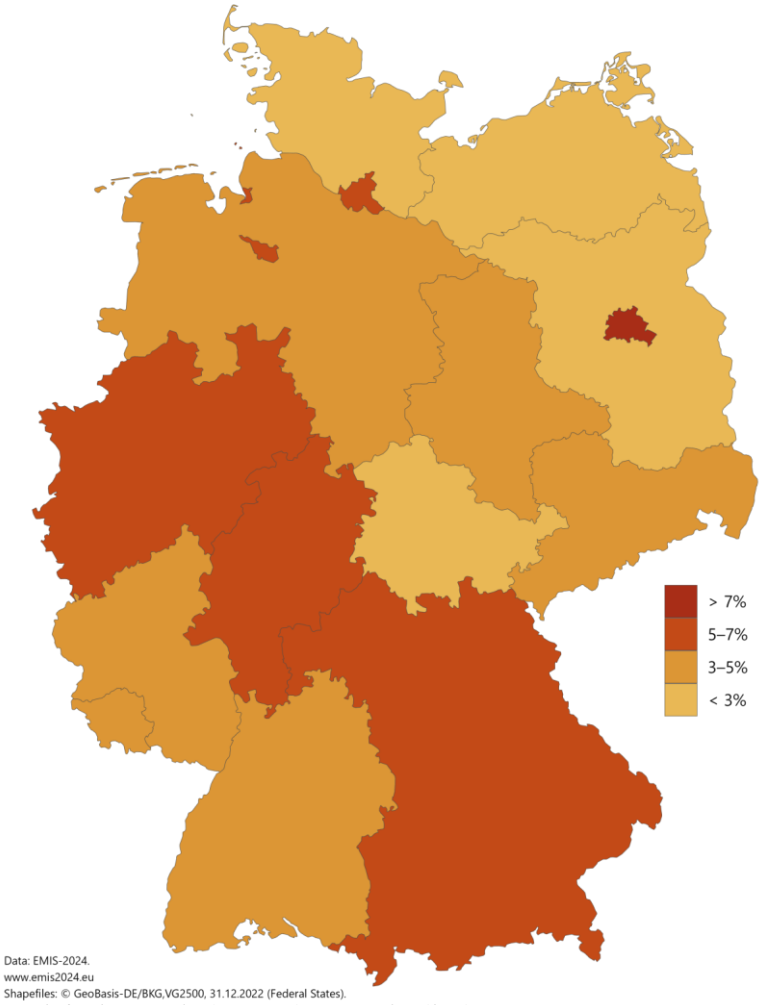


Data: EMIS-2024.
www.emis2024.eu
Shapefiles: © GeoBasis-DE/BKG,VG2500, 31.12.2022 (Federal States).
Bremen has fewer than 100 respondents; interpret respective percentages/colours with caution.

Gonorrhoea was the bacterial STI most commonly diagnosed, but all three infections followed a similar geographical pattern. **Section 4.3** presents regional-level data on self-reporting cases of the three infections in the last 12 months and **Chapter 9** examines how these infections vary across key target groups.

Map 4.6 shows the percentage diagnosed with symptomatic gonorrhoea in the previous 12 months, highlighting major variation across Germany.

Map 4.6: Percentage diagnosed with symptomatic gonorrhoea, previous 12 months (N = 10 592)

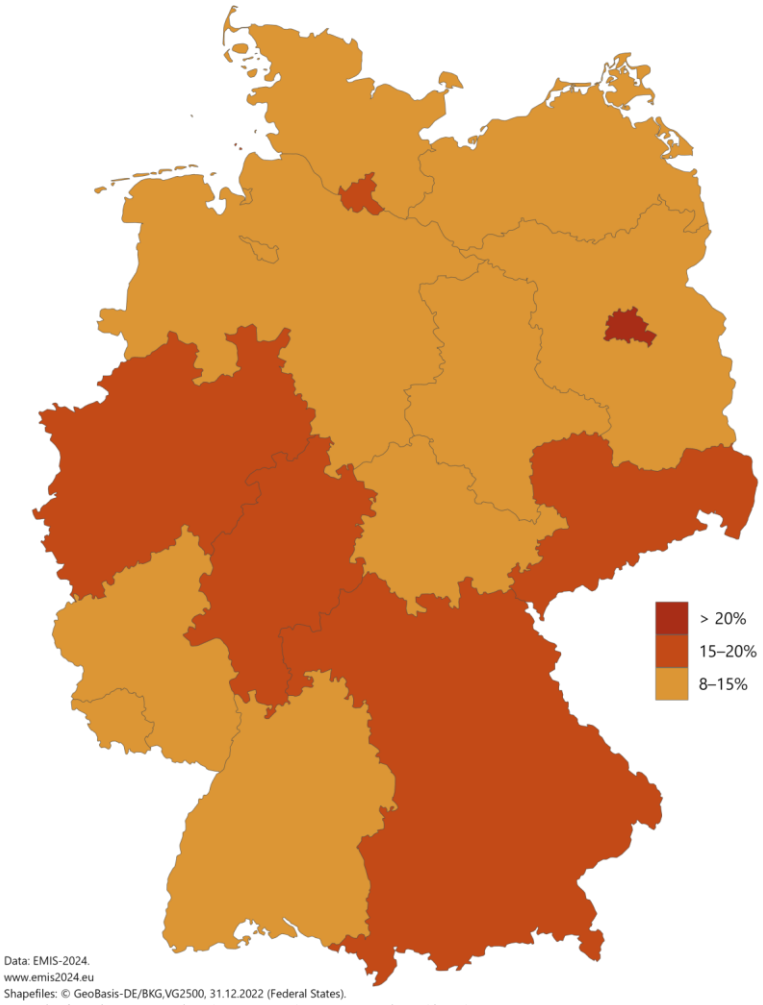


Data: EMIS-2024.
www.emis2024.eu
Shapefiles: © GeoBasis-DE/BKG,VG2500, 31.12.2022 (Federal States).
Bremen has fewer than 100 respondents; interpret respective percentages/colours with caution.

When all three bacterial STIs are combined (regardless of whether symptomatic or asymptomatic), 17 % of respondents were diagnosed with a bacterial STI in the last 12 months.

Map 4.7 shows the percentage diagnosed with bacterial STIs in the previous 12 months, thereby highlighting major variation across Germany. No notification data for gonorrhoea is available for Germany.

Map 4.7: Percentage diagnosed with a bacterial STI, previous 12 months (N = 10 592)



4.2.4 First diagnosis of anal or genital warts

Anal and genital warts are caused by the *Human Papilloma Virus* (HPV). They are among the most common sexually transmitted infections, yet they often go undiagnosed or even unnoticed, especially when they occur around or within the anus. A highly effective vaccine against human papillomavirus (HPV) is available, but in many European health care systems it has historically been recommended and reimbursed primarily for girls and young women rather than for boys and young men—see also **Chapter 7**, **Section 7.2.3** on HPV vaccination uptake. Because most MSM do not benefit from the herd immunity that accrues when a large proportion of their female partners are vaccinated, HPV infections and related warts continue to be a significant health concern in this population [8]. Unlike bacterial STIs, anal and genital warts are difficult to treat and can become chronic. For this reason, we asked study participants about their *first* rather than their *most recent* diagnosis of warts.

Study participants were asked: *"Have you ever been diagnosed with anal or genital warts?"*. Those who responded positively were asked: *"When were you first diagnosed with anal or genital warts?"* and were offered a response scale indicating how recently the diagnosis had occurred. **Table 4.6** presents the timing of first diagnoses.

Table 4.6 Recency of first diagnosis with anal or genital warts

First diagnosis of anal or genital warts	All respondents N = 10 591*	
	%	Cumulative %
Within the last 24 hours	0.0	0.0
Within the last 7 days	0.0	0.0
Within the last 4 weeks	0.2	0.2
Within the last 6 months	0.8	1.0
Within the last 12 months	1.1	2.0
Within the last 5 years	4.5	6.6
More than 5 years ago	13.0	19.6
Never	80.4	100.0
Total	**100.0**	

*Missing n = 1.

Around one in five respondents (20 %) reported ever having been diagnosed with anal or genital warts. **Section 4.3** presents regional-level data on self-reported lifetime diagnoses of anal or genital warts, while **Chapter 9** examines how the prevalence of this infection varies across key target groups.

4.2.5 Mpox

In April 2022, an outbreak of mpox (clade IIb) was detected in Europe that primarily affected men who have sex with men. In the following months, the outbreak spread to more than 100 countries worldwide [9]. Since late 2025 and early 2026, cases of a different mpox clade have been observed in Germany and elsewhere in Europe (clade Ib, as opposed to clade IIb, which caused the 2022 outbreak).

An attenuated poxvirus vaccine (MVA) was approved for vaccination against mpox; however, vaccine supplies were limited, and many countries experienced shortages—see **Chapter 7**, **Section 7.2.4** on mpox vaccination coverage. Study participants were asked: *"Have you had mpox (monkeypox) since 2022?"*. Response options and the frequency with which they were selected are shown in **Table 4.7**.

As not all mpox infections result in characteristic symptoms, and not all symptomatic individuals were clinically tested and diagnosed, the 1.7 % of respondents who reported an mpox diagnosis should be regarded as a lower bound of the true number of mpox infections among respondents. **Section 4.3** presents regional-level data on self-reported lifetime diagnosis of mpox.

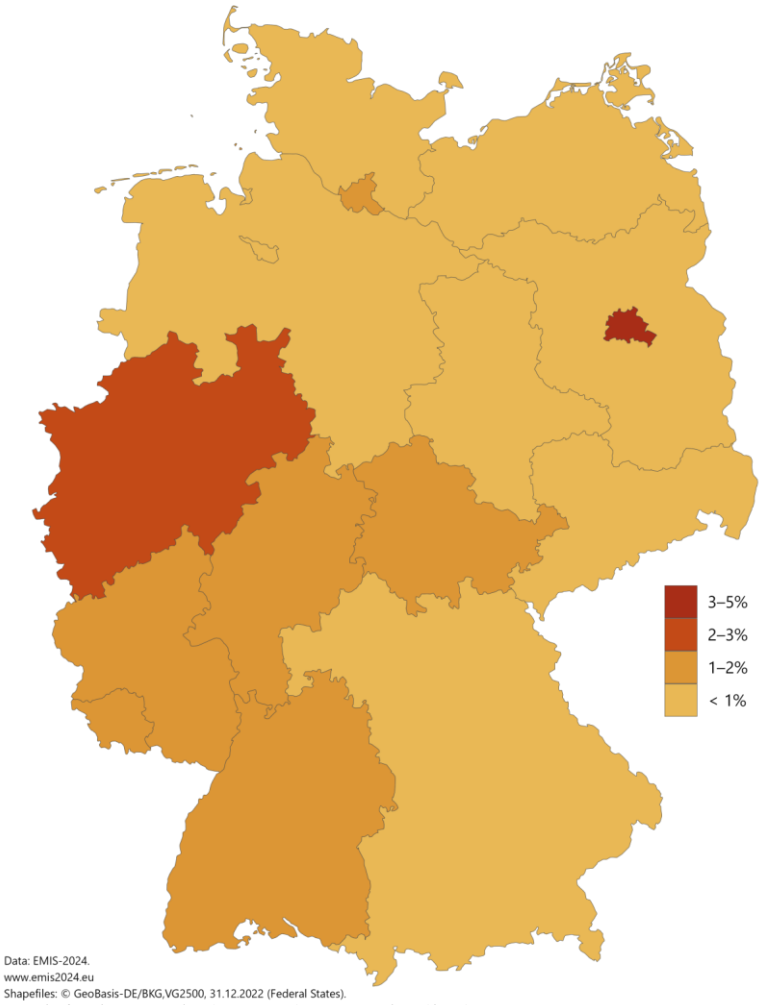
Table 4.7 Mpox diagnosis

Mpox diagnosis	% of all*
No, and I had no symptoms suggestive of mpox infection	96.8
No, but I had symptoms which might have been caused by mpox	0.9
Yes, and I was diagnosed by a doctor	1.4
Yes, but I was not diagnosed in a health care setting	0.3
I don't know	0.6
Total	**100.0**

*Missing n = 13.

Map 4.8 shows the percentage diagnosed with mpox since 2022, thereby highlighting major variation across Germany. Proportions are highly consistent with German mpox notification data.

Map 4.8: Percentage with mpox since 2022 (N = 10 579)



Morbidities are associated with each other

Respondents living with diagnosed HIV were more likely than those using HIV-PrEP or respondents neither taking PrEP nor diagnosed with HIV to report a diagnosis of syphilis in the past 12 months (11 % *vs* 10 % *vs* 1.8 %). They were also more likely to report ever having been diagnosed with anal or genital warts (41 % *vs* 25 % *vs* 12 %) or mpox (5 % *vs* 3 % *vs* 0.2 %).

By contrast, respondents taking HIV-PrEP were the most likely to have been diagnosed with gonorrhoea in the past 12 months (22 % *vs* 15 % among respondents with diagnosed HIV, *vs* 3 % among respondents with neither HIV nor PrEP), or chlamydia in the last 12 months (20 % *vs* 13 % *vs* 2 %).

These findings indicate that observed morbidity patterns reflect not only the co-occurrence of infections, but also differences in sexual behaviour and testing practices. In particular, higher levels of condomless intercourse and more frequent testing—including screening for asymptomatic extra-genital gonorrhoea and chlamydia infections, as commonly conducted among PrEP users—play an essential role in shaping diagnosis rates.

4.2.6 Viral hepatitis

Study participants were asked about their vaccination status for hepatitis A and B—see **Chapter 7**, **Section 7.2.2** on hepatitis A and B vaccination coverage.

Response options included: *"No, because I've had hepatitis A (and am now naturally immune)"* and *"No, because I've had hepatitis B (and am now naturally immune)"*, respectively. As hepatitis B infection can become chronic, an additional response option was provided: *"No, I have chronic hepatitis B infection"*. Overall, 4 % of respondents reported a past hepatitis A infection (n = 379; missing n = 21), and 3 % (n = 325; missing n = 14) reported past hepatitis B infection that had cleared. A further 0.3 % reported chronic hepatitis B. For hepatitis B and C treatment, see **Chapter 7**, **Section 7.7.2**.

Study participants were also asked: *"Have you ever been diagnosed with hepatitis C?"*, with the response options: *"No"*; *"Yes"*; *"I don't know"*. Overall across Germany, 3 % responded *"Yes"*, while 0.7 % responded *"I don't know"*. Those who indicated a history of hepatitis C were then asked: *"When were you first diagnosed with hepatitis C?"* and were offered a response scale indicating how recently the diagnosis had occurred (see **Table 4.8**). They were also asked: *"How many times have you picked up hepatitis C infection?"* and were offered the options: *Once*; *Twice*; *Three times or more*.

Table 4.8 Recency of first diagnosis with hepatitis C

First diagnosis of Hepatitis C	All respondents*	
	%	Cumulative %
Within the last 24 hours	0.0	0.0
Within the last 7 days	0.0	0.0
Within the last 4 weeks	0.0	0.0
Within the last 6 months	0.1	0.1
Within the last 12 months	0.1	0.2
Within the last 5 years	0.7	0.9
More than 5 years ago	1.7	2.6
Never	97.4	100.0
Total	**100.0**	

*Missing n = 2.

Among the 278 respondents with a history of hepatitis C, 7 % were first diagnosed in the previous 12 months (missing n = 12); 84 % reported having had the infection once, 13 % twice, and 3 % three times or more (missing n = 13).

Most respondents with a history of hepatitis C reported that the infection had cleared—either spontaneously without treatment (27 %) or following treatment (68 %), consistent with increasing uptake of hepatitis C treatment in recent years [10,11]. However, 1.1 % reported still having hepatitis C at the time of the survey, and a further 4 % did not know their current infection status.

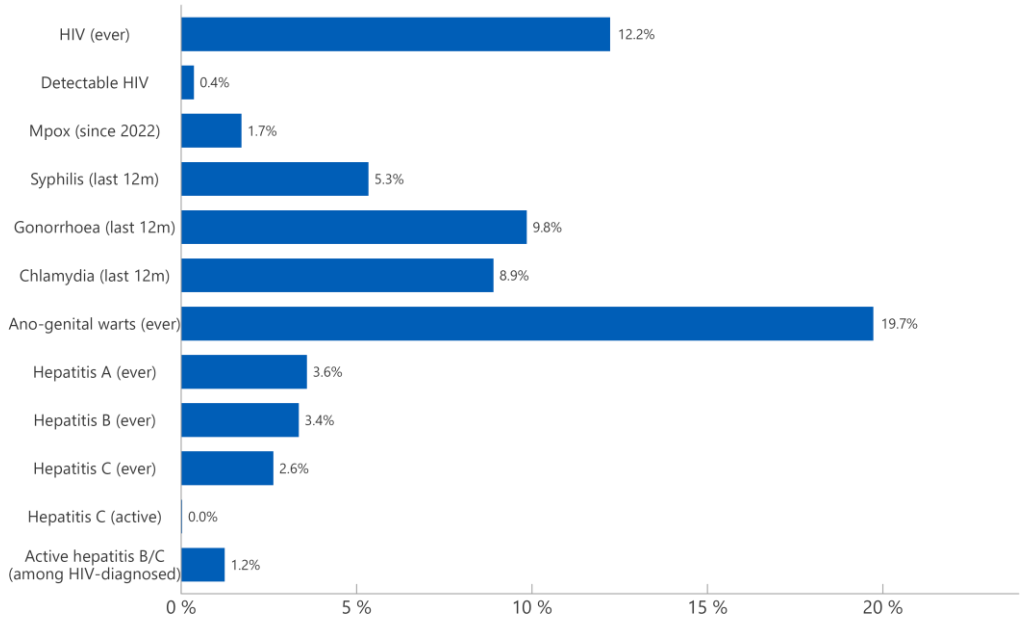
UNAIDS recommends the indicator *"Prevalence of hepatitis and infection with HIV among key populations (HBV+HCV)"* for Global AIDS Monitoring. Given that hepatitis B is difficult to cure once it becomes chronic, and that hepatitis C may clear spontaneously or following treatment, HIV/hepatitis co-infection was defined as diagnosed HIV combined with either chronic hepatitis B or currently active hepatitis C. Using this definition, 0.2 % of all respondents in Germany—or 1.2 % among respondents with diagnosed HIV—reported living with HIV/hepatitis co-infection at the time of survey completion.

Morbidities are associated with each other

Ever having been diagnosed with hepatitis C was much more common among respondents with diagnosed HIV (14 %) than among respondents taking HIV-PrEP (1.6 %) or respondents neither taking PrEP nor diagnosed with HIV (0.7 %)

Figure 4.2 summarises experiences of HIV, hepatitis and selected STIs.

Figure 4.2: Experience of HIV, hepatitis, and selected STIs (including mpox)



4.3 Regional variation in morbidities

Table 4.9 Regional variation in key morbidities

Germany	Qualifying cases	% severe anxiety/ depression [a]	% self-harm thoughts	% suicidal thoughts	% sexually unhappy	% potential alcohol dependency [b]
Total	**10 592**	**7.3**	**4.2**	**2.4**	**21.8**	**23.4**
Federal States						
Baden-Württemb.	1223	6.8	4.4	2.7	22.4	21.1
Bavaria	1435	6.8	3.5	1.8	22.7	23.2
Berlin	1570	8.6	4.0	2.7	19.0	28.2
Brandenburg	218	4.6	5.5	1.9	23.0	21.3
Bremen	89	(10.2)	(6.7)	(4.5)	(16.3)	(21.3)
Hamburg	438	6.7	2.3	1.4	19.9	27.4
Hesse	834	6.9	4.6	2.7	21.8	23.5
Mecklenburg-V.	107	12.3	5.7	1.9	29.0	28.0
Lower Saxony	667	7.2	5.0	2.3	22.3	20.5
North Rhine-Westph.	2336	7.2	3.8	2.1	20.4	22.2
Rhineland-Palatinate	343	9.7	5.0	3.2	25.9	21.1
Saarland	127	11.0	7.1	6.3	27.2	21.3
Saxony	495	5.9	4.9	2.2	24.4	25.3
Saxony-Anhalt	171	4.8	3.6	1.2	30.0	23.2
Schleswig-Holstein	324	7.1	5.3	2.8	22.9	21.6
Thuringia	160	6.9	3.1	0.6	23.3	20.0
Cities						
Düsseldorf	176	8.5	5.1	4.0	17.0	24.4
Frankfurt	252	4.0	3.2	2.0	13.1	26.7
Hanover	124	8.9	4.1	3.3	25.0	25.0
Cologne	551	6.6	3.3	1.6	18.0	30.9
Leipzig	144	7.6	4.9	3.5	22.2	30.6
Munich	488	4.1	2.3	1.0	16.8	23.8
Stuttgart	159	3.8	1.3	1.3	19.5	22.6

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a]PHQ-4; [b]CAGE-4. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

Table 4.9 Regional variation in key morbidities (continued)

Germany	Qualifying cases	% ever HIV-diagnosed	% newly HIV-diagnosed [a]	% detectable viral load [b]
Total	**10 592**	**12.2**	**0.3**	**3.0**
Federal States				
Baden-Württemb.	1223	9.4	0.3	0.9
Bavaria	1435	9.3	0.2	3.0
Berlin	1570	17.6	0.2	2.6
Brandenburg	218	10.1	0.0	(4.5)
Bremen	89	(13.5)	(0.0)	[0.0]
Hamburg	438	17.1	0.3	(2.8)
Hesse	834	12.2	0.4	(4.0)
Mecklenburg-V.	107	7.5	(0.0)	[0.0]
Lower Saxony	667	7.6	0.3	(6.1)
North Rhine-Westph.	2336	14.1	0.3	2.2
Rhineland-Palatinate	343	10.3	0.3	(2.9)
Saarland	127	15.1	0.0	[0.0]
Saxony	495	9.3	0.2	(6.5)
Saxony-Anhalt	171	11.8	1.3	[0.0]
Schleswig-Holstein	324	9.0	0.0	(6.9)
Thuringia	160	10.0	0.7	[18.8]
Cities				
Düsseldorf	176	17.0	0.7	(0.0)
Frankfurt	252	15.1	0.5	(5.4)
Hanover	124	5.6	0.0	[0.0]
Cologne	551	21.6	0.5	0.0
Leipzig	144	11.1	0.0	[0.0]
Munich	488	14.4	0.2	(0.0)
Stuttgart	159	15.1	1.5	(4.2)

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a] in the last 12 months; [b] among HIV-diagnosed. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

Table 4.9 Regional variation in key morbidities (continued)

Germany	Qualifying cases	% diagnosed syphilis [a]	% diagnosed gonorrhoea [a]	% diagnosed chlamydia [a]	% diagnosed anal/genital warts [b]	% diagnosed mpox [c]	% active hepatitis B or C
Total	**10 592**	**5.3**	**9.8**	**8.9**	**19.7**	**1.7**	**1.2**
Federal States							
Baden-Württemb.	1223	4.8	7.1	8.7	16.6	1.0	0.9
Bavaria	1435	5.0	9.1	7.5	17.9	0.6	0.8
Berlin	1570	6.7	18.0	15.0	28.9	4.2	1.8
Brandenburg	218	4.1	4.6	2.8	16.1	0.9	(9.1)
Bremen	89	(2.3)	(9.0)	(6.7)	(18.2)	(0.0)	[0.0]
Hamburg	438	5.5	11.4	9.6	25.4	1.1	(1.4)
Hesse	834	5.8	9.5	8.4	19.1	1.9	1.0
Mecklenburg-V.	107	3.7	3.7	3.7	10.4	0.0	[0.0]
Lower Saxony	667	3.8	6.1	5.2	16.8	0.5	(2.0)
North Rhine-Westph.	2336	5.5	9.8	9.6	21.9	2.4	0.9
Rhineland-Palatinate	343	3.5	7.9	7.3	14.6	1.5	(0.0)
Saarland	127	5.6	5.5	3.9	14.3	1.6	[5.3]
Saxony	495	5.7	8.7	6.5	11.3	0.8	(0.0)
Saxony-Anhalt	171	7.0	7.0	4.1	15.5	0.0	[0.0]
Schleswig-Holstein	324	5.0	4.6	5.9	11.1	0.0	(0.0)
Thuringia	160	5.6	5.6	5.6	13.2	1.2	[0.0]
Cities							
Düsseldorf	176	7.4	15.3	12.5	30.3	2.3	(0.0)
Frankfurt	252	6.0	13.5	13.5	22.9	3.2	(2.6)
Hanover	124	4.8	11.3	5.6	24.4	0.8	[0.0]
Cologne	551	7.8	12.2	13.4	30.2	4.9	0.0
Leipzig	144	6.2	11.1	7.6	9.1	0.0	[0.0]
Munich	488	4.5	12.7	8.4	24.2	1.2	(0.0)
Stuttgart	159	7.5	6.3	5.7	24.1	2.5	(0.0)

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a]in the last 12 months; [b]ever; [c]since May 2022. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

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Chapter 5: Risk and precautionary behaviour

This chapter describes the activities reported by respondents. EMIS-2024 focuses primarily on behaviours that either increase or reduce the risk of the morbidities outlined in **Chapter 4**—that is, risk and precautionary behaviours.

We asked about two categories of risk behaviour (sexual activity, drug use, and their combination) and five types of precautionary behaviour (use of antiretroviral medication, use of antibiotics for the prevention of syphilis and chlamydia (although not broadly recommended for this purpose), condom use, sharing HIV status information, and vaccination). All vaccination-related analyses are presented in **Chapter 7** on interventions.

This chapter includes a limited comparison with previous EMIS waves; results should be interpreted with caution due to differences in sample composition.

5.1 Taking HIV treatment among respondents living with diagnosed HIV

Overall, 12 % (n = 1289, missing n = 44) reported having been diagnosed with HIV (see **Section 4.2.1**). Among people diagnosed with HIV, taking antiretroviral treatment (ART) can lead to an undetectable viral load, which means the virus cannot be transmitted sexually (U=U; undetectable = untransmittable). Taking HIV treatment is therefore a precautionary behaviour that helps prevent onward HIV transmission among respondents living with HIV.

Study participants who had ever been diagnosed with HIV were asked: *"Have you ever taken antiretroviral treatment (sometimes known as ART or HAART) for your HIV infection?"* Those who reported having ever taken ART were then asked: *"Are you currently taking antiretroviral treatment?"*. The percentages for each response are shown in **Table 5.1**.

Table 5.1 Taking antiretroviral treatment (ART)

ART use among respondents with diagnosed HIV					
Ever	**N***	**%**	**Currently**	**N****	**%**
Ever taken ART	1 214	94.5	Currently taking	1 200	99.3
Never taken ART	43	3.3	No longer taking	8	0.7
I don't remember	28	2.2			
Total	**1 285**	**100.0**		**1 208**	**100.0**

*Missing n = 4; **Missing n = 6.

Among respondents with diagnosed HIV, 94 % reported that they had ever taken ART, or 97 % when excluding those who did not know whether they had taken ART. Of those who had ever taken ART, 99 % were currently taking it.

Overall, 93 % of respondents with diagnosed HIV indicated they were currently taking ART, or 95 %, when excluding those who did not know or did not provide an answer. **Chapter 7**, **Sections 7.7.3** and **7.7.4** examine HIV monitoring and treatment, as well as the timing of ART initiation, in more detail.

The estimate shown in **Table 5.21** (99 % currently taking ART) corresponds to stage 5 of the HIV care cascade. Unlike the estimates above, it is calculated among respondents who had already met the criteria for the preceding cascade stages and for whom the relevant information was available. As a result, respondents with missing information at earlier stages are excluded from the denominator, which contributes to the higher estimate.

5.2 HIV post- and pre-exposure prophylaxis

HIV-negative individuals can reduce their risk of acquiring HIV by using antiretroviral chemoprophylaxis. When taken correctly, post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP) are highly effective in preventing HIV infection after potential exposure (PEP) and during ongoing risk (PrEP). Seeking and using these interventions therefore represent forms of precautionary behaviour.

5.2.1 Seeking and taking PEP

Participants who had never taken an HIV test, as well as those whose most recent test result was HIV negative, were asked: *"Have you ever taken PEP?"*, see **Table 5.2**.

Table 5.2 Taking PEP, among all respondents not diagnosed with HIV (N = 9237)

History of PEP use	% among respondents not diagnosed with HIV N = 9237*
No, I never felt the need to take it	75.5
No, I could not get it	6.9
No, I had the opportunity but decided not to take it	3.4
Yes, I've taken one course of pills	4.5
Yes, I've taken more than one course of pills	8.7
I don't know	0.9
Total	**100.0**

*Missing n = 14.

Across Germany, 13 % reported ever having taken PEP, and 9 % had taken more than one course. Of those who had sought access to PEP 7 % were unable to obtain it.

5.2.2 Seeking and taking PrEP

All study participants who had not been diagnosed with HIV were asked: *"Have you ever tried to get PrEP?"* Across Germany, 40 % (n = 3667, missing n = 84) indicated they had ever tried to obtain PrEP. These respondents were then asked, *"Have you ever taken PrEP?"*, and were offered the response options shown in **Table 5.3**.

Table 5.3 History of PrEP use (N = 9219)

History of PrEP use	% among respondents not diagnosed with HIV N = 9218*
No	65.5
Yes, on a daily basis and I'm still taking it	21.4
Yes, on a daily basis but I'm no longer taking it	3.6
Yes, when I have needed it but not daily	9.5
I don't know	0.0
Total	**100.0**

*Missing n = 33.

Among the participants without diagnosed HIV, 34 % indicated ever having taken PrEP, and 31 % were using it either on a daily basis or when they needed it.

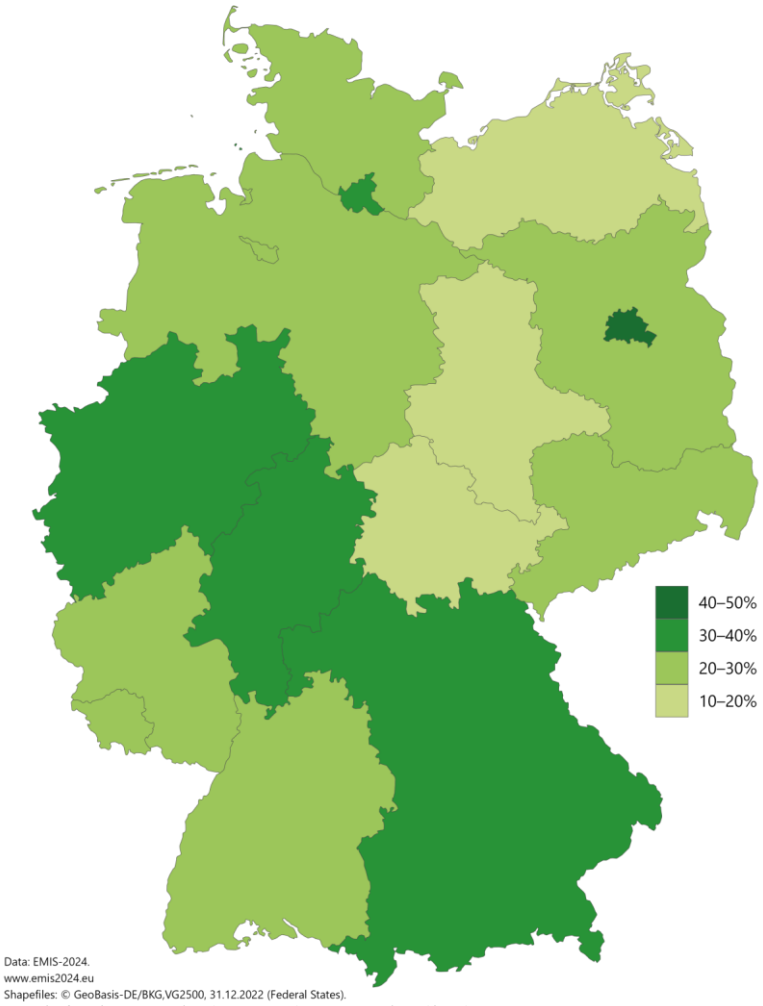
Participants were further asked: *"When was the last time you took PrEP?"* and provided with a response scale indicating how recently they had taken it.

Among current PrEP users reporting long-term daily use (n = 1970), 95 % had taken PrEP pills within the last 24 hours—suggesting that 5 % of them had missed their most recent dose.

This question also allows an estimation of the extent to which PrEP is used on demand. Among current users not reporting long-term daily use, 97 % had taken PrEP when needed within the previous 12 months, and 74 % had done so within the previous four weeks, suggesting frequent or regular use in this group.

Map 5.1 shows the percentage currently taking PrEP, highlighting major variation across Germany.

Map 5.1: Percentage currently taking PrEP (both continuously and on-demand), excluding HIV-diagnosed respondents (N = 9218)



In Europe, France was the first country to implement HIV-PrEP, in 2016. This was followed by a gradual rollout across Europe, with public reimbursement beginning in most countries between 2016 and 2018. Germany followed in 2019.Participants who reported having ever taken PrEP were asked: *"In which year did you start taking PrEP?"* with response options covering each year from 2012 to 2022, plus a combined category for 2023/24.

Accordingly, only 1.7 % of respondents started PrEP before 2016; 27% started between 2016 and 2019, and 71 % between 2020 and 2023/24.

One of the ECDC indicators [1] is the proportion of HIV-negative MSM who started PrEP in the past year, which in EMIS-2024 corresponds to the 2023/24 category. Across Germany, around one in four respondents (25 %) reported starting PrEP in the past year (that is, in 2023 or in the months preceding survey completion in the first half of 2024)

5.2.3 Antibiotic STI-prophylaxis ("doxy-PEP")

Doxy-PEP (doxycycline post-exposure prophylaxis) is a new prevention strategy aimed at reducing certain bacterial STIs, particularly syphilis and chlamydia. It involves taking a single dose of doxycycline after sex (ideally within 24 hours, but no later than 72 hour). Studies from the United States [2] and France [3] have shown promising reductions in bacterial STI rates among MSM and some transgender women, but the approach has not been widely adopted in Europe. Current discussions focus on its effectiveness, the potential for antibiotic resistance [4], and how it might be integrated into broader sexual health strategies [5,6].

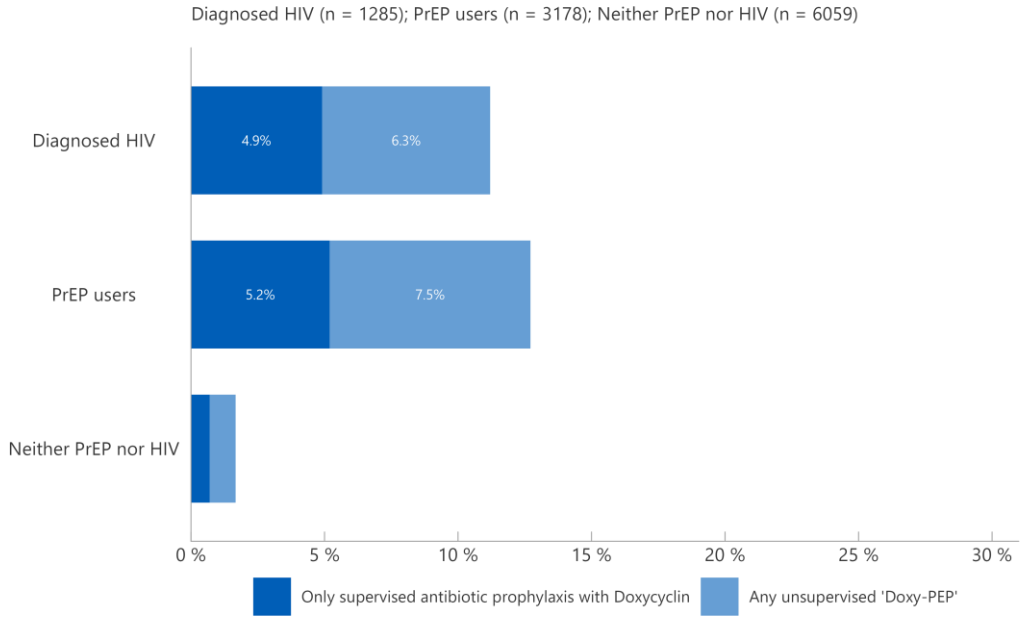
All study participants were asked: *"Have you ever taken antibiotics (e.g., doxycycline) before or after sex to reduce the risk of sexually transmitted infections? This is sometimes referred to as 'doxy-PrEP' or 'doxy-PEP'."* This was followed by a question on recency of use. **Chapter 7**, **Section 7.4.5** examines the sources of antibiotics for STI prevention ('doxy-PEP').

Across Germany, 6 % reported using antibiotics for the purpose of STI prevention. Higher proportions were reported among HIV-PrEP users (13 %), and by respondents diagnosed with HIV (11 %)—the two groups with regular HIV health care access.

However, 16 % of reported 'doxy-PEP' use was among respondents who were neither diagnosed with HIV nor taking PrEP, although no study to date has demonstrated an effect on any bacterial STI in this group, and this group is generally not identified as a priority population in current guidelines.

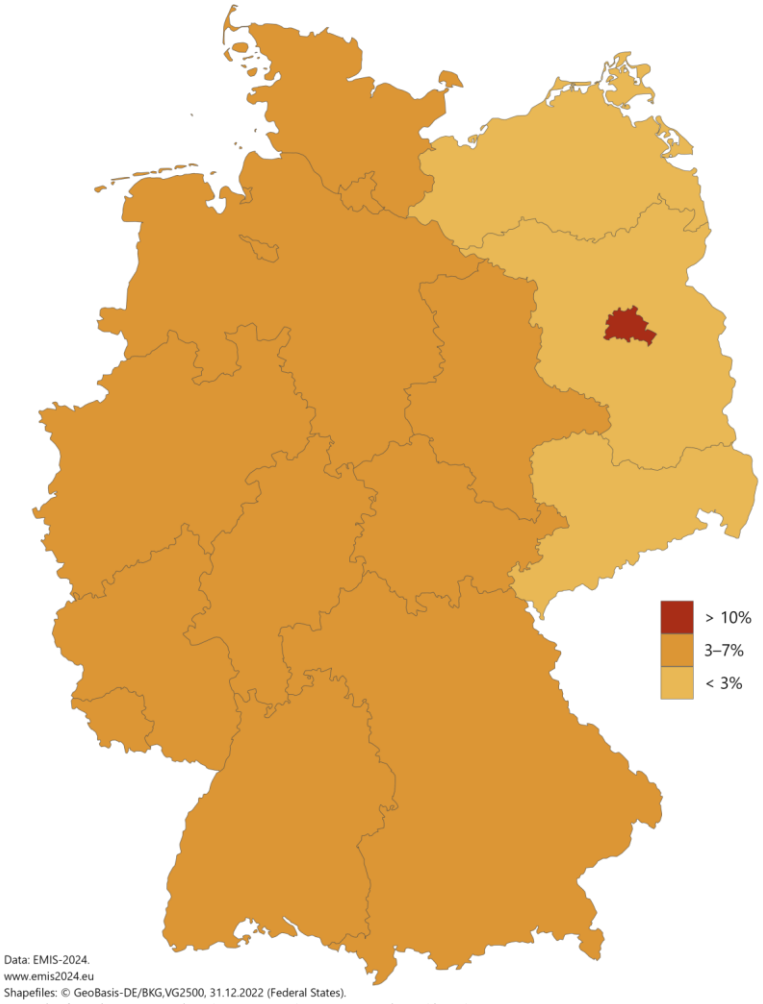
Figure 5.1 shows the proportions of respondents who reported using antibiotic STI prophylaxis in the past 12 months, either under medical supervision or without supervision, stratified by HIV/PrEP status.

Figure 5.1: Use of antibiotic prophylaxis for STIs ('doxy-PEP') in the past 12 months by HIV/PrEP status (N = 10 579)



Map 5.2 shows the percentage using antibiotic prophylaxis for STIs, thereby highlighting major variation across Germany.

Map 5.2: Percentage having used antibiotic prophylaxis for STIs ('doxy-PEP') in the last 12 months (N = 10 579)



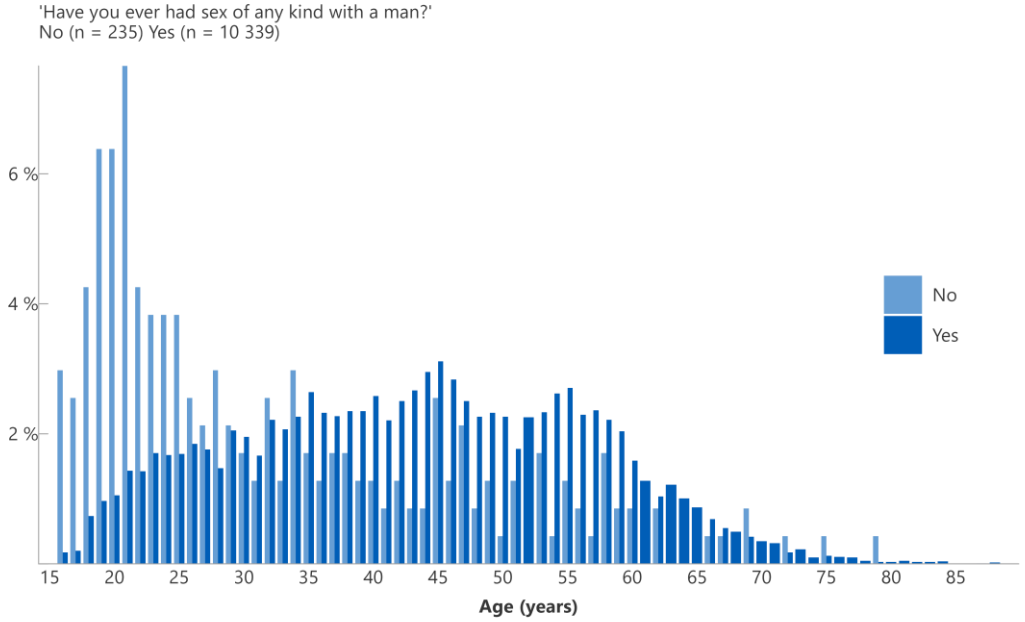
5.3 Having sex

Sections 5.3–5.6 describe the sexual experiences of respondents and their male sexual partners. Although most respondents were cisgender MSM (95 %), the sample also included transgender MSM (2 %), transgender women (0.5 %) and non-binary people assigned female at birth (0.9 %). As a result, the reported sexual activity consists predominantly of sex between men, particularly anal intercourse, but also includes a smaller proportion of heterosexual activity and vaginal intercourse, depending on respondents' bodies and partners. The findings and conclusions therefore primarily apply to sex between men and anal intercourse, but may not necessarily extend to heterosexual activity or vaginal intercourse. Differences between trans subgroups are examined in the relevant analyses in Chapter 8.

Study participants were informed: *"In this survey, we use 'sex' to mean physical contact to orgasm (or close to orgasm) for one or both partners."* They were then asked: *"Have you ever had any kind of sex with a man (please include any sexual contact, not just intercourse)?"*. Across Germany, 98 % answered *"Yes"* (n = 10 339, missing n = 18).

The chart below (**Figure 5.2**) shows the age profile of the 2 % who had not yet had sex with a man, compared with the majority who had. It indicates that respondents who had not yet had sex with a man were disproportionately younger (with a peak at 18), but that individuals of all ages taking part in EMIS-2024 reported being attracted to men without yet having had sex with a man.

Figure 5.2: Sexual experience with men across age



Among the minority who had not yet had sex with a man (n = 235), 54 % (58 % among cisgender MSM and non-binary AMAB individuals) were older than 25 years, and 43 % (47 % among cisgender MSM and non-binary AMAB individuals) were older than 30 years. These findings indicate that services for men who have recently begun, or are considering beginning, sexual activity with other men should be designed to meet the needs of individuals across a wide age range.

Study participants were also informed: *"In this survey we use the term 'intercourse' (fucking, screwing) to mean sex where one partner puts their penis into the other partner's anus or vagina, whether or not this occurs to ejaculation. 'Intercourse' does not include oral sex or the use of dildos."* They were then asked: *"Have you ever had intercourse with a man (either 'receptive' or 'insertive' fucking), either with or without a condom?"*.

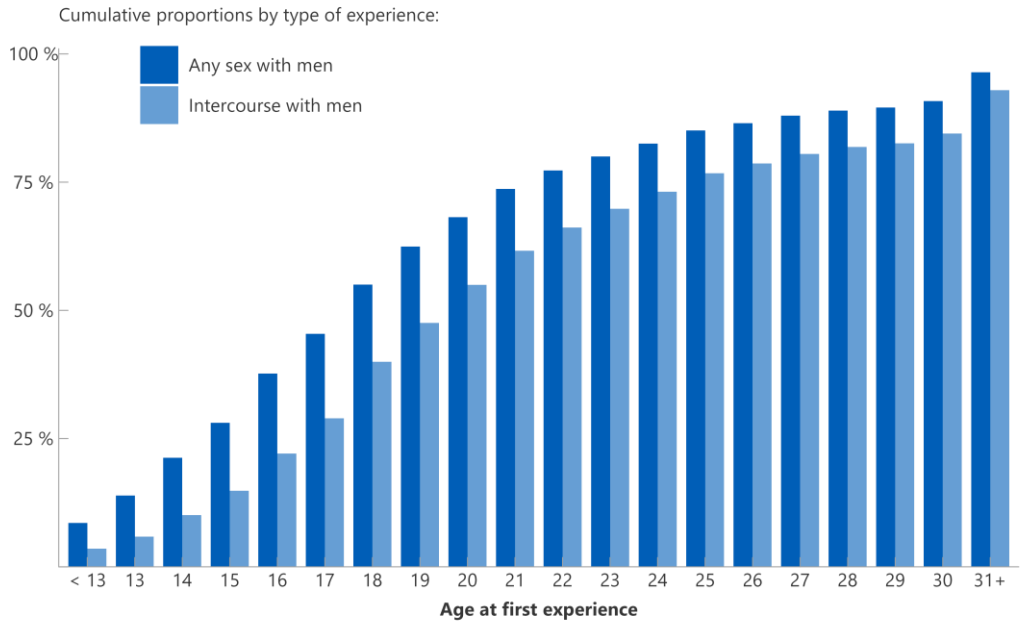
Of those who had ever had sex with a man, 96 % said *"Yes"* (n = 10 006, missing n = 30), and 88 % reported having had intercourse with a man in the previous 12 months.

Experience of anal intercourse was very common, though not universal, among homosexually active men; only around one in 20 reported never having engaged in it.

5.3.1 Age at first sexual experience with a man

Respondents who had ever had sex with a man were asked: *"How old were you the very first time you had any kind of sex with another male, or another male had any kind of sex with you?"*. Those who had ever had intercourse with a man were asked: *"How old were you the very first time you had intercourse with another male?"*. **Figure 5.3** shows the cumulative percentage of respondents who had experienced sex with a man, and intercourse, at each age.

Figure 5.3: At what age respondents first had sex with another man (N = 10 318)



The median age of first *sexual experience* with men (any sex with men) was 18 (IQR: 15–21), and the median age of first *intercourse* with men was 19 (IQR: 17–23).

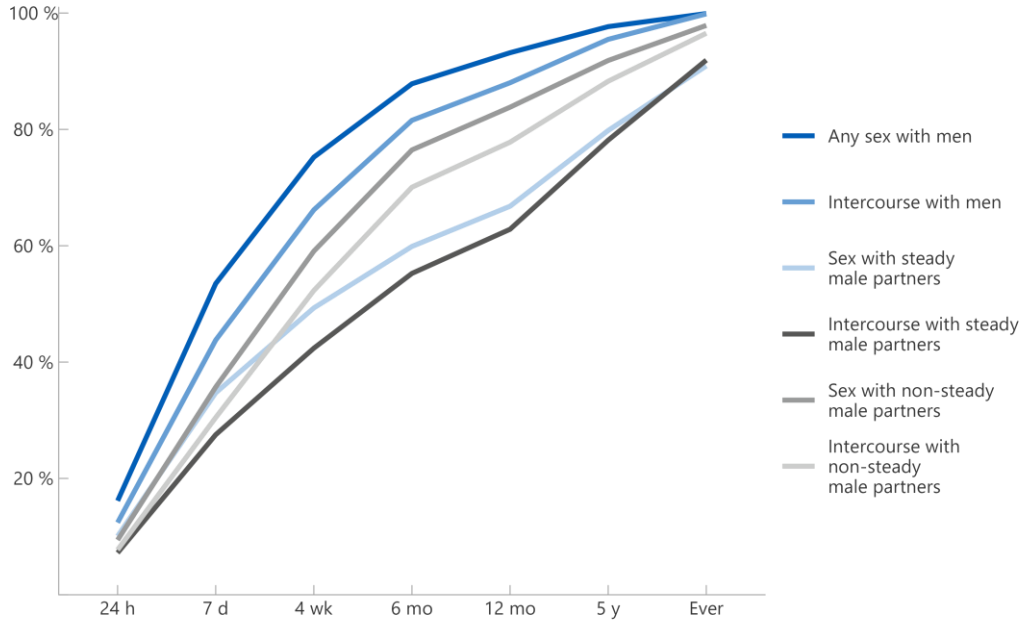
5.3.2 Recency of sexual experience with men

Respondents who had ever had sex with a man were asked: *"When did you last have any kind of sex with a steady/a non-steady male partner (please include any sexual contact, not just intercourse)?"*.

Those who had ever had intercourse with a man were asked: *"When did you last have intercourse with a steady/a non-steady male partner (either with or without a condom)?"*.

These items were also combined into a recoded variable indicating the recency of sex or intercourse with any male partner. For each question, respondents were offered the same response scale indicating how recently the event had occurred. Responses are shown below (**Figure 5.4**).

Figure 5.4: Cumulative recency of sex and intercourse with men (N = 10 339)



While 16 % reported sex in the last 24 hours, 12 % reported having had intercourse during that period. This suggests that around three out of four sexual encounters with men include intercourse.

5.3.3 Steady and non-steady male partners in the last 12 months

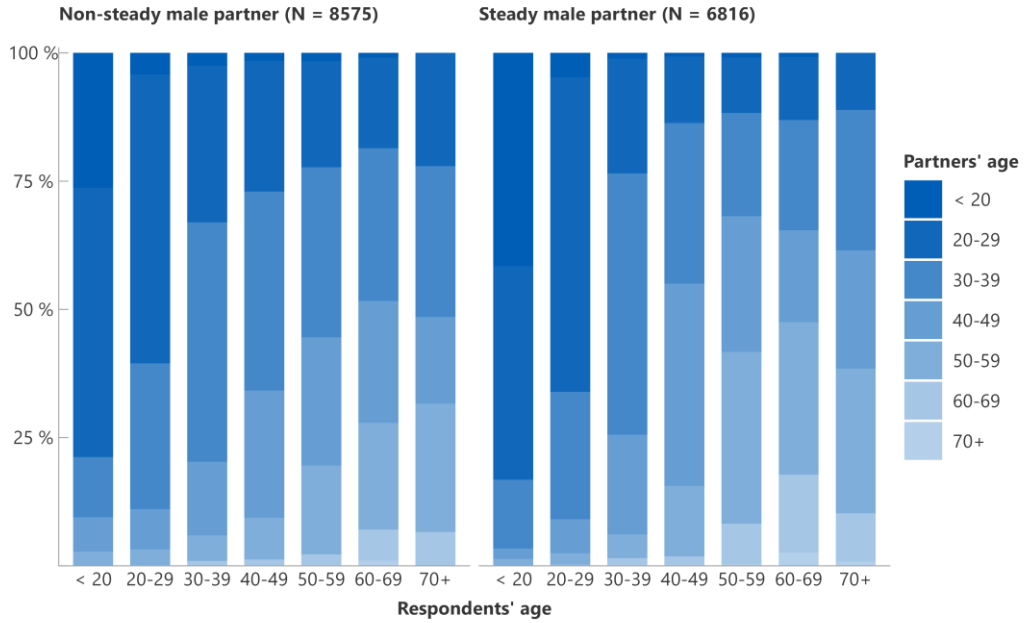
EMIS-2024 followed EMIS-2010 [7] and EMIS-2017 [8] in distinguishing between steady and non-steady male sexual partners and asking about them separately. Respondents (who had ever had sex with a man) were told: *"In this survey we use the term 'steady male partners' to refer to boyfriends or husbands that mean you are not 'single', but not to partners who are simply sex buddies."* They were then asked about steady male partners. Later in the survey they were told: *"In this survey we use the*

term 'non-steady male partners' to mean men you have had sex with once only, and men you have sex with more than once but who you don't think of as a steady male partner (including one-night stands, anonymous and casual partners, regular sex buddies)." They were then asked about non-steady male partners.

Participants were asked separately about steady and non-steady male partners: *"In the last 12 months, have you had any kind of sex with a steady/non-steady male partner?"*. Respondents answering *"Yes"* were then asked:

- *"What was the age of the last steady/non-steady male partner that you had sex with? (If there was more than one non-steady male partner at that event, think of only one of them). Please give an estimate if you are not sure."*
- *"How many different steady/non-steady male partners have you had sex with within the last 12 months?"*
- *"How many steady/non-steady male partners have you had intercourse with within in the last 12 months?"*

Figure 5.5: Age of the last non-steady and steady male partner



Among respondents aged 30 years and above, the reported age of steady male partners was more often the same as, or close to, the respondent's age than was the age of the most recent non-steady male partner (**Figure 5.5**). Among respondents under 30 years, non-steady male partners were more often older than steady male partners.

Among respondents who had ever had sex with a man, 67 % reported having had sex with a *steady* male partner in the last 12 months (n = 6834, missing n = 192), and 84 % reported having had sex with a *non-steady* male partner (n = 8581, missing n = 186). Sex with a steady male partner in the past 12 months was less commonly reported than sex with a non-steady male partner.

5.3.3.1 Numbers of non-steady male partners in the previous 12 months, intercourse and condomless intercourse with these partners

Table 5.4 shows the percentages of respondents reporting increasing numbers of non-steady male *sexual* partners (N = 10 525, missing n = 67), those with whom they had *intercourse* (N = 10 521, missing n = 71), and those with whom they had *condomless* intercourse (N = 10 401, missing n = 191).

Table 5.4 Number of non-steady male partners in the last 12 months among respondents who had ever had sex with a man

Number of male sexual partners in the last 12 months	Non-steady male partners (%) N = 10 525*	Non-steady male intercourse partners (%) N = 10 521**	Non-steady male condomless intercourse partners (%) N = 10 401***
None	19.1	27.8	45.3
1	6.5	7.3	8.6
2	8.1	7.9	6.7
3	7.2	6.6	4.6
4	5.6	5.0	3.6
5	6.1	5.0	3.6
6	4.2	3.6	2.3
7	2.0	1.7	1.2
8	2.7	2.4	1.5
9	0.7	0.6	0.6
10	5.2	4.6	3.1
11–20	13.7	11.9	7.8
21–30	6.9	5.8	3.9
31–40	3.2	2.6	1.9
41–50	2.2	1.8	1.3
More than 50	6.5	5.4	3.9
Total	**100.0**	**100.0**	**100.0**

*Missing n = 67; **Missing n = 71; ***Missing n = 191.

In the previous 12 months 19 % reported having no *sex* with non-steady male partners, 28 % reported no *intercourse* with non-steady male partners, and 45 % reported no *condomless* intercourse with non-steady male partners. Conversely, 55 % reported *condomless* intercourse with one or more non-steady male partners; 17 % reported *intercourse* with one or more non-steady male partners *but always used a condom*; and 8 % reported having *sex* with non-steady male partners without having intercourse with them.

Among those who reported *condomless* intercourse with a non-steady male partner, 42 % reported taking antiretroviral medication— PrEP or ART—which, when taken as prescribed, prevents HIV transmission.

Among the 81 % of respondents who had *sex* with at least one non-steady male partner in the previous year, 8 % reported having only one. The *median* number of non-steady male sexual partners (among those who had any) was eight. The distribution was wide, with 7 % reporting sex with more than 50 men in the past year.

When banded ordinal data on the number of sex partners among MSM are converted into a continuous scale variable [9], the *mean* number of non-steady male sexual partners (among those who had any) was 21. This conversion also allows the calculation of the interquartile range (IQR): 50 % of respondents with non-steady male partners reported between 3–16 partners.

5.3.3.2 Recency of sex with steady and non-steady male partners

Table 5.5 shows the percentages of respondents (who had ever had sex with a man) reporting steady and non-steady male partners across different time periods.

Table 5.5 Percentages of respondents that had steady and non-steady male partners in different time periods

When did you last have...	...sex with a steady male partner (%) N = 10 232[a]	...sex with a non-steady male partner (%) N = 9847[b]	...intercourse with a steady male partner (%) N = 10 238[c]	...intercourse with a non-steady male partner (%) N = 9853[d]
Within the last 24 hours	10.1	9.4	7.2	7.7
Within the last 7 days	24.6	26.3	20.3	22.7
Within the last 4 weeks	14.6	23.4	14.9	21.8
Within the last 6 months	10.6	17.4	12.9	17.8
Within the last 12 months	6.9	7.3	7.6	7.7
Within the last 5 years	13.0	8.0	15.3	10.5
More than 5 years ago	11.1	6.0	13.8	8.3
Never	9.1	2.1	8.1	3.5
Total	**100.0**	**100.0**	**100.0**	**100.0**

[a]Missing n = 26; [b]Missing n = 42; [c]Missing n = 20; [d]Missing n = 24.

Based on these responses, across Germany, 67 % had had *sex* and 63 % had had *intercourse* with a *steady* male partner in the previous 12 months. In the same period, 84 % had had *sex* and 78 % had had *intercourse* with a *non-steady* male partner.

5.3.4 Risk mitigation during intercourse with non-steady male partners

There are several strategies for reducing the risk of HIV transmission during intercourse with non-steady male partners. Commonly used strategies include condom use, HIV pre-exposure prophylaxis (PrEP), treatment as prevention among people diagnosed with HIV (U=U), HIV 'serosorting' (asking about partners' HIV status and having sex only with partners of the same HIV status), and 'PrEP-surfing' (relying on a partner's use of PrEP). Study participants were asked: *"What HIV prevention strategy do you use most frequently?"* Response options and results are shown in **Table 5.6** and **Table 5.7**. For example, 68 % of respondents with diagnosed HIV reported relying on U=U as their most frequently used HIV prevention strategy, while 65 % of respondents not taking PrEP reported condom use as their main HIV prevention strategy.

Table 5.6 Most frequently used HIV prevention strategy during intercourse with non-steady male partners, by HIV diagnosis and PrEP use

HIV diagnosis and PrEP use *	I rely on U=U (%) **	Condoms (%)	PrEP (%)	PrEP surfing (I rely on PrEP use of my partners) (%)	Asking about HIV status (%)	No particular prevention method (%)
Diagnosed HIV n = 1289	68.4	10.0	0.0	4.9	5.7	11.0
Taking PrEP n = 2796	0.7	8.4	88.1	1.2	1.2	0.4
Not taking PrEP (last test HIV negative) n = 4723	3.3	64.6	2.3	3.8	12.7	13.4
Never tested for HIV n = 1699	2.5	61.8	2.3	1.7	12.3	19.3

*Missing n = 0; **Missing n = 37.

5.3.5 Use of antiretroviral drugs to prevent HIV transmission during intercourse with non-steady male partners

The use of antiretroviral medication to prevent HIV transmission was the most commonly reported method among respondents diagnosed with HIV and among those taking HIV-PrEP (**Table 5.6**). Among respondents diagnosed with HIV, the primary reason for taking antiretroviral medication is the benefit to their own health. Among respondents *not* diagnosed with HIV, the use of antiretroviral medication as chemoprophylaxis (HIV-PrEP) has become increasingly common in recent years as a means of preventing HIV acquisition. In particular, long-term daily use of HIV-PrEP is often associated with higher numbers of sexual partners (**Table 5.7**), with 5 % of those reporting none or one non-steady partner in the previous 12 months using PrEP, compared with 67 % of those reporting more than 20 non-steady partners.

Table 5.7 Most frequently used HIV prevention strategy, by number of non-steady male partners in the last 12 months among respondents not diagnosed with HIV

Overall number of non-steady partners in the last 12 months *	I rely on U=U (%) **	Condoms (%)	I use PrEP (%)	PrEP surfing (I rely on PrEP use of my partners) (%)	Asking about HIV status (%)	No particular prevention method (%)
None or 1 n = 2696	2.4	61.1	5.0	1.4	12.4	17.8
2–5 n = 2842	2.7	56.7	16.5	2.5	10.5	11.1
6–10 n = 1557	2.9	44.8	31.4	4.3	9.6	6.9
11–20 n = 1445	2.0	34.8	48.8	3.4	5.3	5.7
More than 20 n = 1985	1.6	19.9	67.0	2.9	3.8	4.7

*Missing n = 0; **Missing n = 37.

5.3.6 Condom use during intercourse with non-steady male partners

Study participants who reported having a non-steady male intercourse partner in the last 12 months (74 % of those who had ever had sex with men) were asked: *"In the last 12 months, how often were condoms used when you had intercourse with non-steady male partners?"*. The response options and the percentage of respondents selecting each are shown in **Table 5.8**.

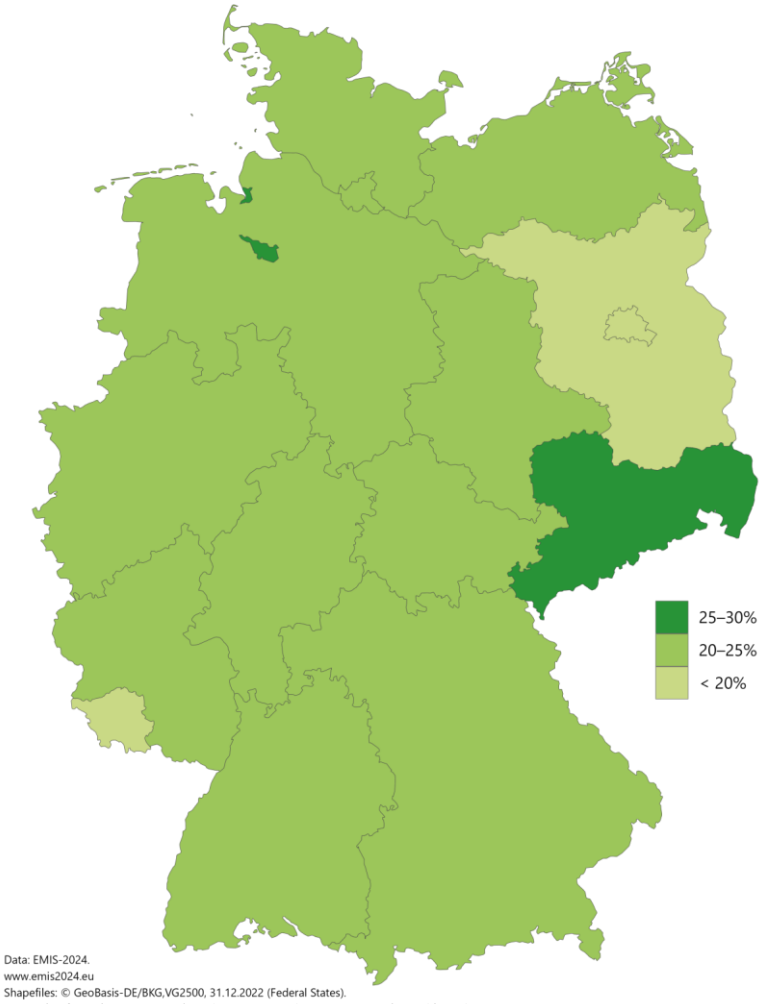
Table 5.8 Condom use for intercourse with non-steady male partners in last 12 months (N = 7593)

Frequency of condom use during intercourse	% of all with non-steady male partners in the last 12 months N = 7593*
Never	28.3
Seldom	20.9
Sometimes	13.5
Mostly	16.0
Always	21.2
Total	**100.0**

*Missing n = 2.

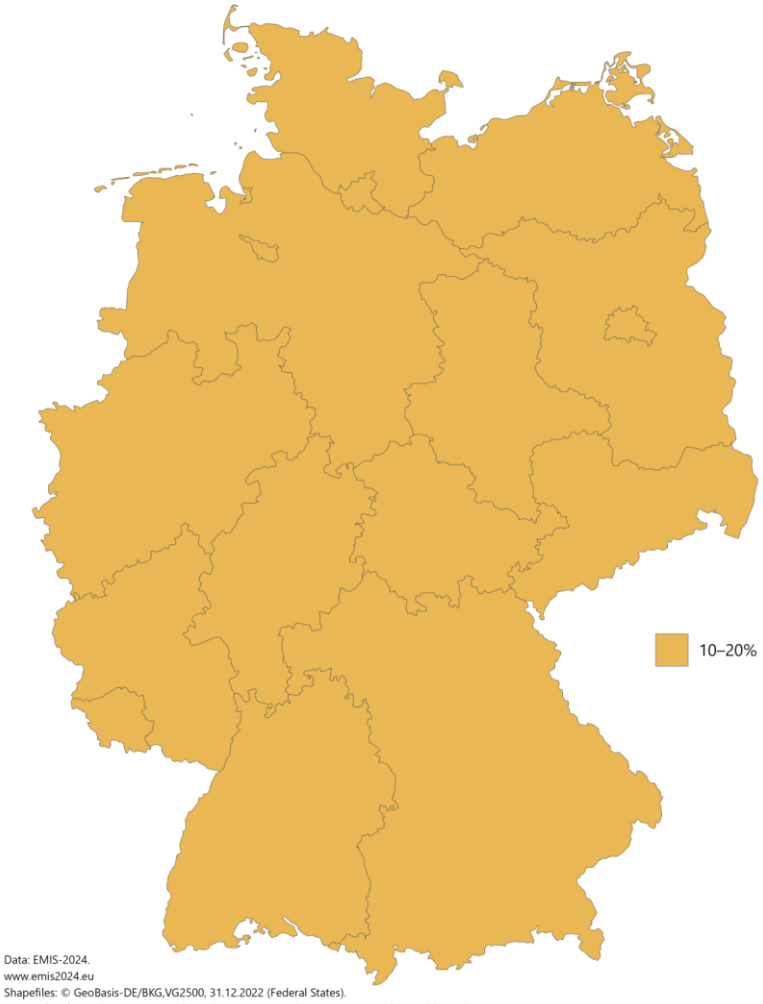
A clear majority of respondents (72 %) who had intercourse with non-steady male partners in the last 12 months had some experience of condom use, suggesting that condoms are still common during intercourse with non-steady male partners. However, *consistent* use is not the norm, with only 21 % of respondents (who had intercourse with non-steady male partners) being consistent users, 50 % being inconsistent users and 28 % never using condoms. **Map 5.3** shows consistent condom use in the previous 12 months, among respondents having anal intercourse with non-steady male partners, thereby highlighting moderate variation across Germany.

Map 5.3: Percentage with consistent condom use, previous 12 months, among participants having anal intercourse with non-steady male partners (N = 7595)



As the comparison between **Map 5.1** and **Map 5.3** shows, taking HIV-PrEP has, to some extent, replaced condoms as the preferred method of reducing the risk of acquiring HIV. The following **Map 5.4** shows the proportions of survey participants in Germany who neither used condoms consistently nor took HIV-PrEP nor were on antiretroviral treatment for HIV, and who had intercourse with non-steady male partners whose HIV status was unknown—thereby highlighting very limited observable variation across Germany. This suggests that PrEP use may, to some extent, have replaced condom use during anal intercourse, rather than being adopted in addition to it. At the same time, the maps indicate that a substantial proportion of respondents remain without consistent protection, implying that overall HIV risk may not have declined uniformly.

Map 5.4: Percentage who used neither condoms nor HIV-PrEP nor were treated for HIV with antiretroviral drugs and had anal intercourse with non-steady male partners of unknown HIV status in the last 12 months (N = 10592)



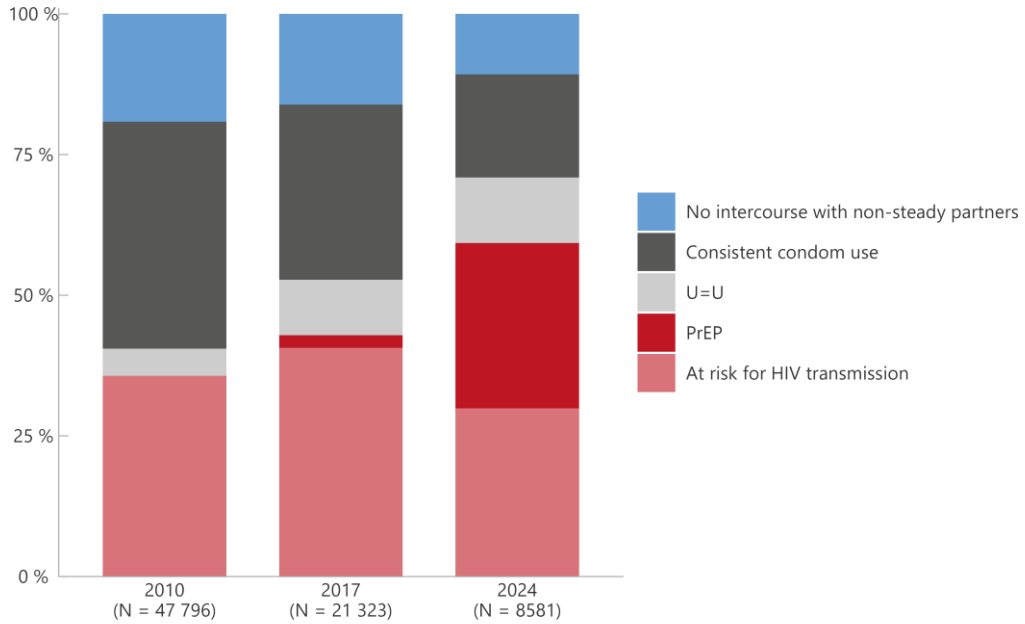
We examined changes in HIV risk-reduction strategies across EMIS waves among respondents reporting sex with non-steady male partners in the previous 12 months, as this context captures the most relevant HIV transmission risk, while recognising that risk may also occur within steady partnerships.

Ideally, this analysis would be stratified by HIV status, as changes in the proportion of respondents living with diagnosed HIV could influence the results. However, this proportion has remained largely stable over time. Not stratifying by HIV status has the advantage that behavioural HIV risk-management strategies—namely, avoiding anal intercourse with non-steady partners, consistent condom use, ART adherence resulting in an undetectable viral load (U=U), and PrEP use—as well as the remaining group reporting none of these strategies, can be presented within a single figure.

While acknowledging that not engaging in anal sex with non-steady partners may partly reflect sexual preference rather than deliberate risk management, a substantial proportion of respondents report no such behaviour. **Figure 5.6** shows that the proportion reporting consistent condom use has decreased, and that respondents living with diagnosed HIV are increasingly likely to have an undetectable viral load, reflecting improvements in the HIV care cascade. At the same time, as expected, the use of PrEP—unavailable in 2010 and only beginning to be rolled out in 2017—has increased substantially. However, the proportion of respondents at risk of HIV transmission has not declined markedly.

Of note, this figure uses a slightly different denominator than **Map 5.4** above (sex with non-steady male partners instead of anal [or vaginal] intercourse with non-steady male partners). Furthermore, in this figure, respondents living with HIV who did not engage in anal sex with non-steady partners are included in this category regardless of viral load status. Respondents reporting both consistent condom use and PrEP use were classified under consistent condom use. The figure also does not account for HIV risk associated with sex with steady male or female partners, nor does it consider other strategies such as 'PrEP surfing' (*i.e.*, relying on a partner's PrEP use) or 'serosorting' (see Section 5.3.7).

Figure 5.6: Change in HIV transmission risk reduction strategies across EMIS waves, among respondents reporting sex with non-steady male partners in the past 12 months



5.3.7 Other methods of risk mitigation in condomless intercourse with non-steady male partners

Not all instances of condomless intercourse with non-steady male partners among people not taking antiretroviral medication carry the same risk of HIV transmission. Several risk-reduction strategies used by MSM in these situations have been identified. These include *'serosorting'* (*i.e*, avoiding condomless intercourse except with partners whose HIV status is known); having condomless intercourse only with HIV-positive partners whose viral load is undetectable; and/or having condomless intercourse only with HIV-negative partners who are taking PrEP.

Across Germany, 98 % of respondents reported ever having had sex with a man. Among these, 74 % reported having had any *sex* with a non-steady partner in the previous 12 months. Among these 99 % reported anal or vaginal *intercourse*.

Among the 7595 respondents who had *intercourse* with a non-steady male partner in the previous 12 months, 5691 (75 %) reported *condomless* anal or vaginal intercourse (CAVI) with at least one non-steady male partner. This corresponds to 55 % of all respondents who had ever had sex with a man.

Among respondents reporting CAVI in the previous 12 months, 62 % reported either living with diagnosed HIV and receiving treatment (n = 930) or using PrEP (n = 2605). The remaining 38 % reported neither HIV treatment nor PrEP use and therefore may have been at risk of HIV transmission.

As shown in **Table 5.9**, all these percentages varied across respondents taking antiretroviral drugs for HIV treatment, as chemoprophylaxis (PrEP), and respondents reporting neither.

Table 5.9 Sexual behaviour by HIV and PrEP status

Sexual behaviour in the past 12 months	Not taking ART or PrEP (%) N = 6071	Taking PrEP (%) N = 3180	Taking ART (%) N = 1289
Any sex with non-steady male partners*	59.1	92.2	85.6
Among the above: Intercourse with non-steady male partners**	99.0	99.2	99.1
Among the above: CAVI with non-steady male partners*** [a]	57.8	89.6	91.2
Among all with non-steady male partners: CAVI with non-steady male partners [a]	33.9	81.9	77.3

*Missing n = 24; **Missing n = 71; ***Missing n = 191.

[a] CAVI = condomless anal or vaginal intercourse

Respondents using PrEP and those diagnosed with HIV and receiving treatment were more likely to report *condomless* intercourse with non-steady partners than other respondents. These findings suggest that, although preferences for *intercourse* were broadly similar across groups, MSM and trans and non-binary people using antiretroviral drugs, either as HIV treatment (ART) or as PrEP, engaged more frequently in *condomless* intercourse.

'Serosorting'

Respondents who reported condomless intercourse with a non-steady male partner in the previous 12 months were asked the following three No–Yes questions:

- *"In the last 12 months, have you had intercourse without a condom with a non-steady male partner who you knew at the time was HIV positive?"*
- *"In the last 12 months, have you had intercourse without a condom with a non-steady male partner who you knew at the time was HIV negative?"*
- *"In the last 12 months have you had intercourse without a condom with a non-steady male partner whose HIV status you did not know or think about at the time?"*

The percentages indicating *"Yes"* to each question are given in **Table 5.10**, stratified by HIV/PrEP status.

Table 5.10 Perceived HIV status of non-steady male condomless intercourse partners, by HIV/PrEP status

Respondents reporting inconsistent condom use with non-steady male partners in the last 12 months	...who you knew at the time was HIV positive (%)*	...who you knew at the time was HIV negative (%)**	...whose HIV status you did not know or think about at the time (%)***
Diagnosed HIV n = 1038	55.6	61.1	78.8
Taking PrEP n = 2687	24.8	72.5	75.0
Not taking PrEP n = 2221	5.6	61.2	51.1

Note. Row percentages do not total 100 % because respondents could select more than one response option.
*Missing n = 14; **Missing n = 95; ***Missing n = 20.

Among respondents reporting CAVI with non-steady male partners, those with **diagnosed HIV** reported the highest proportion of condomless intercourse with partners they also believed to be living with HIV (56 %). This pattern is consistent with 'serosorting', whereby men living with HIV preferentially select partners whom they believe to share the same HIV status. Such partner selection may, among other factors, reflect efforts to avoid rejection, minimise disclosure-related concerns, or reduce experiences of anticipated stigma. Given the effectiveness of antiretroviral therapy in preventing HIV transmission (U=U), serosorting among men living with HIV may now serve primarily as a strategy for managing disclosure, stigma, and partner negotiations rather than as a means of reducing HIV transmission risk.

Respondents **taking PrEP** reported a smaller but still substantial proportion of condomless intercourse with partners they believed to be living with HIV (25 %). This proportion was higher than the prevalence of HIV in the German EMIS sample (12 %). This suggests that PrEP users may feel broadly protected against HIV infection, which could reduce both fear of transmission and reluctance to have condomless sex with partners known to be living with HIV. This pattern may also be consistent with lower HIV-related stigma in partner selection.

In contrast, respondents not diagnosed with HIV and **not taking PrEP** reported the lowest proportion of condomless intercourse with partners they believed to be living with HIV (6 %). This proportion was substantially lower than would be expected based on the prevalence of diagnosed HIV in the wider population of potential partners, suggesting some degree of avoidance of partners perceived to be living with HIV. Respondents in this group also reported the lowest proportion of partners whose HIV status was unknown or not considered at the time (51 %).

Taken together, these findings suggest that partner selection according to perceived HIV status remains common, although it appears to serve different functions across groups: among respondents diagnosed with HIV, it may reflect serosorting and the management of disclosure and stigma; among PrEP users, it may reflect confidence in biomedical protection; and among respondents not taking PrEP, it may reflect avoidance of partners perceived to be living with HIV.

Communication about undetectable viral load (U=U) and PrEP

Participants who reported condomless intercourse with a non-steady male partner whom they knew at the time to be *HIV positive* were asked: *"Did that HIV-positive man/those HIV-positive men have undetectable viral load?"* Response options are shown in **Table 5.11**.

Participants who reported condomless intercourse with a non-steady male partner whom they knew at the time to be *HIV negative* were asked: *"Was that HIV-negative man/were those HIV-negative men taking PrEP?"*. **Table 5.11** presents the distribution of responses to these two questions, expressed as percentages of the respondents who were asked each question.

Among respondents reporting condomless intercourse with non-steady male partners in the previous 12 months, only very small proportions reported that they did not understand the questions about undetectable viral load and PrEP.

When knowing their partners' HIV status, respondents not diagnosed with HIV were more likely than those living with diagnosed HIV to report knowing (*"Yes, I knew..."; "No, he did not..."*) the viral load status of their HIV-positive condomless intercourse partners (not taking PrEP: 89 %; taking PrEP: 84 %; diagnosed HIV: 74 %.)

In contrast, PrEP users were more likely than respondents not taking PrEP or those living with diagnosed HIV to report having discussed (*"Yes, I knew..."; "No, he did not..."*) the PrEP status of their condomless intercourse partners (taking PrEP: 88 %; not taking PrEP: 71 %; diagnosed HIV: 79 %).

Table 5.11 Known viral load and PrEP status of non-steady condomless intercourse partners in the last year, by HIV status and HIV-PrEP use

In the last 12 months, have you had intercourse without a condom with a non-steady partner...	Not taking PrEP (N = 2221)	Taking PrEP (N = 2687)	Diagnosed HIV (N = 1038)
...who you knew at the time was HIV positive (%)[a]	5.6	24.8	55.6
Did that HIV-positive man/those HIV-positive partners have an undetectable viral load?[b]			
Yes, I knew he did/they all did	75.8	71.2	60.0
Yes, I knew some of them did	5.6	12.0	13.3
No, he did not/none of them did	7.3	0.3	1.0
I don't know	10.5	16.5	25.5
I don't understand the question	0.8	0.0	0.2
...who you knew at the time was HIV negative (%)[c]	61.2	72.5	61.1
Was that HIV-negative man/were those HIV-negative partners taking PrEP?[d]			
Yes, I knew he did/they all did	22.5	29.1	30.9
Yes, I knew some of them did	29.7	56.1	44.6
No, he did not/none of them did	18.9	3.3	3.9
I don't know	28.7	11.6	20.3
I don't understand the question	0.1	0.0	0.2
...whose HIV status you did not know or think about at the time (%)[e]	51.1	75.0	78.8

[a]Missing n = 14; [b]Missing n = 0; [c]Missing n = 95; [d]Missing n = 0; [e]Missing n = 20.

5.4 Last sex session with a non-steady male partner

This section addresses, among other topics, group sex. The analytic sample for this report includes not only cisgender and transgender MSM across Germany, but also non-binary individuals assigned male at birth, non-binary individuals assigned female at birth, and transgender women (see the introduction to Chapter 4, Section 5.3, Chapter 8, Section 9.2). We did not examine general group sex experiences specifically among transgender women and non-binary individuals assigned female at birth. Their experiences should not be assumed to mirror those of cisgender MSM or non-binary individuals assigned male at birth. Section 8.3.6.3 looks at multi-partner chemsex across trans groups (**Table 8.16**).

Across Germany, 8556 respondents provided information about their most recent sexual encounter with one or more non-steady male partners. These respondents constitute the denominator for all results presented in this section.

5.4.1 Number of sex partners involved

Participants who reported sex with a non-steady male partner in the last 12 months were asked: *"Were you having sex with one man or more than one man"*.

Around three out of four respondents (77 %) said that their most recent sexual encounter with a non-steady partner had been a twosome involving only themselves and that partner. In 7 % of cases, the encounter involved the respondent, his steady male partner, and one non-steady partner (a threesome). In 8 %, it involved the respondent and two non-steady partners (also a threesome), and in 8 % it involved the respondent and three or more other partners (group sex).

The overall percentage of respondents reporting multi-partner sex (*i.e.*, more than two people involved) during their most recent encounter with a non-steady partner was thus 23 %, with regional-level variation presented in **Table 5.21** (**Section 5.10**).

By age group, among respondents sexually attracted to men and reporting having had any kind of sex with a non-steady male partner in the past 12 months, multi-partner sex became more common with increasing age and peaked in the 50–59-year age group (26 %). Multi-partner sex was also common among respondents taking PrEP (28 %) and among respondents with diagnosed HIV (34 %).

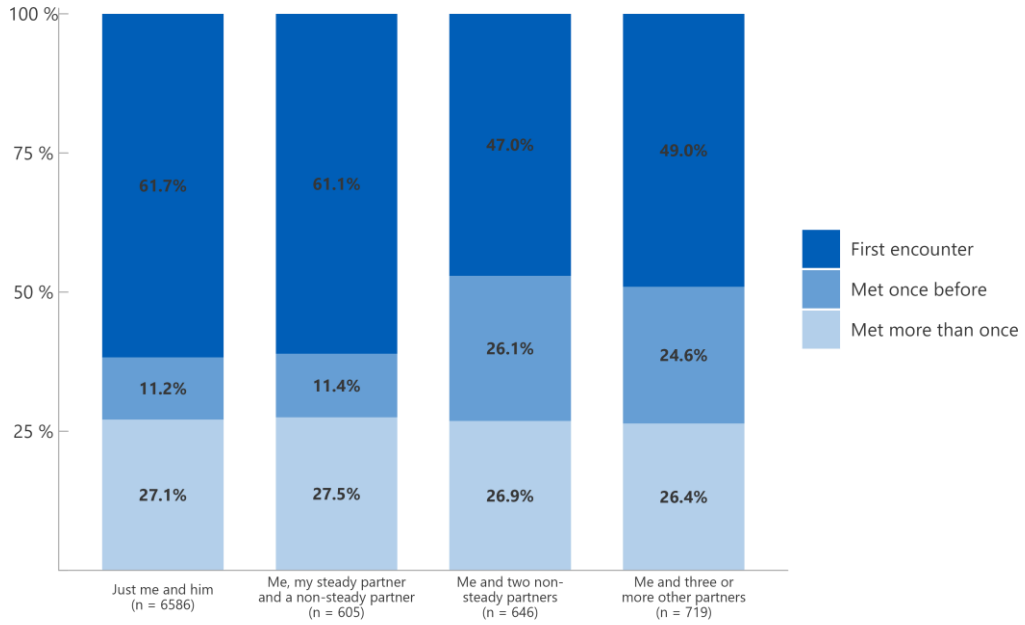
5.4.2 Previous sex with partner(s)

Participants were asked about their most recent non-steady sex partner(s): *"Have you had sex with him/them before (on a different occasion)?"* Most sexual encounters with non-steady male partners were with men the respondents had not met before; more than 60 % of all encounters were reported to be with a partner they had not had sex with previously.

Across all encounters with non-steady partners, 13 % involved a partner they had met once before, and 27 % involved partners they had met on multiple previous occasions. **Figure 5.7** shows those proportions across the four different types of sexual encounters described above: twosome, threesome with steady partner, threesome with two non-steady partners, and group sex.

Group sex and threesomes involving two non-steady partners were more likely to involve partners whom the respondent had met previously than were twosomes or threesomes involving a steady partner.

Figure 5.7: Prior acquaintance with most recent non-steady male partners by encounter type



5.4.3 Where partners first met

Participants were asked: *"Where did you first meet him/them?"*, with the response options shown in **Table 5.12**. The most common way respondents first met their most recent non-steady sex partner(s) was via a mobile phone app (59 %), and by elsewhere on the Internet (14 %).

This question was answered by 8526 respondents. However, because some encounters involved multiple partners, respondents could report the place where they first met each partner involved in that session. This resulted in a total of 8980 reported meeting places.

It is important to note that all subsequent analyses examining associations between meeting place and other factors are influenced by the survey's sampling frame. As most participants were recruited online, individuals who never or only rarely use smartphone apps or the Internet to find partners are likely to be underrepresented in the sample.

Table 5.12 Where last non-steady male partner(s) were first met

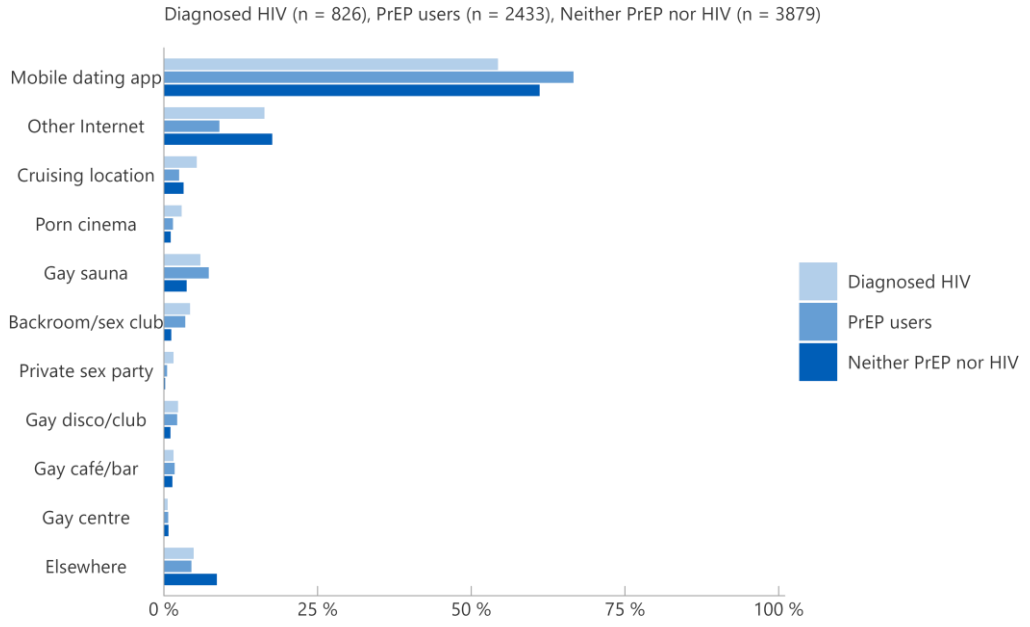
Location of first meeting with last non-steady partner(s)	One partner (%)* N = 7168	Multiple partners (%)** N = 1358
A gay community centre, gay organisation or gay social group	0.7	1.7
A gay café or gay bar	1.5	2.9
A gay disco or nightclub	1.6	4.6
A backroom of a bar, gay sex club, a public gay sex party	2.3	17.0
A gay sex party in a private home	0.5	9.4
A gay sauna	5.2	21.1
A porn cinema	1.4	5.6
A cruising location (street, roadside service area, park, beach, baths, lavatory)	3.2	11.1
On my mobile phone (or other GPS enabled device)	62.2	39.1
Elsewhere on the internet	14.5	14.2
Elsewhere	6.8	7.0
Total	**100.0**	—

Note. Percentages for the Multiple partners column do not total 100 % because respondents could select more than one response option.
*Missing n = 1; **Missing n = 3.

Across Germany, around three out of five respondents reported finding their most recent non-steady sex partner via mobile dating apps (59 %), with regional-level variation shown in **Table 5.21** (**Section 5.10**).

Using the Internet in general to establish sexual contacts did not vary across age groups, but the choice between mobile phone apps and other Internet sites did (**Figure 5.8**). Younger respondents (< 30 years) were more likely to report meeting partners through gay community organisations, community centres, and gay nightclubs, whereas older respondents (40+ years) more often reported meeting partners in bars, sex clubs, saunas, porn cinemas, and cruising locations.

Figure 5.8: Places where sex partners were first met, by HIV/PrEP status (N = 10 570)



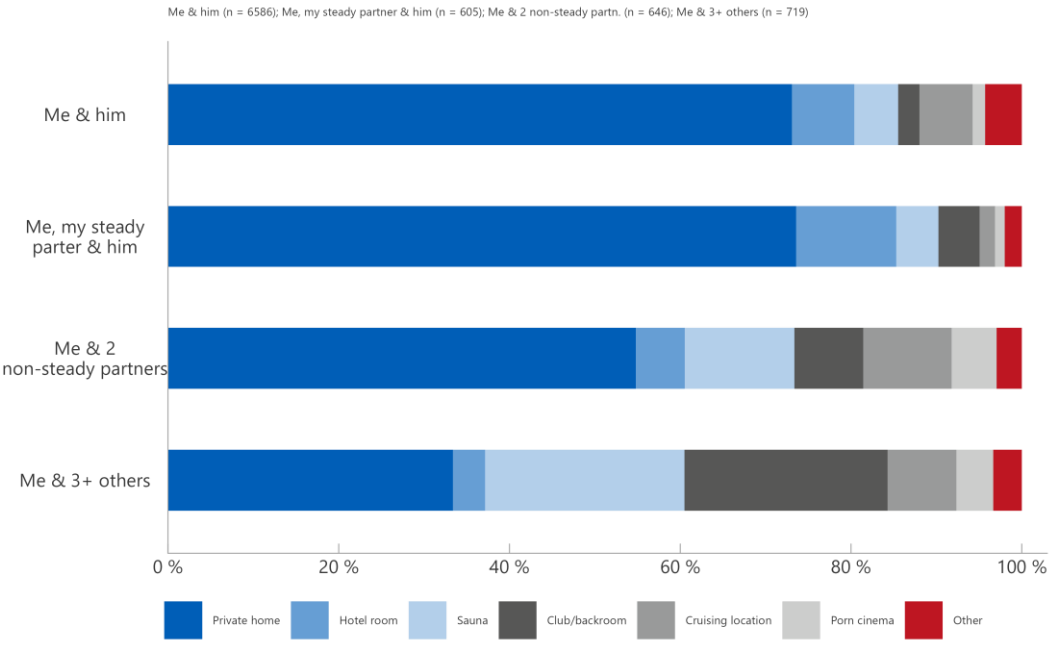
5.4.4 Where sex took place

Participants were asked: *"Where did you have sex?"* (with your most recent non-steady male partner(s).

The most common setting for sex with a non-steady partner was the privacy of a home (68 %, see **Figure 5.9**). This was followed by a hotel room (7 %), a cruising location (6 %), a sauna (7 %), a club or the backroom of a bar (5 %), and a porn cinema (2 %).

A cross-tabulation of where partners first met and where sex took place shows that—apart from explicitly sexual venues—most encounters occurred in a private home or hotel room, regardless of the initial meeting place. By contrast, when partners first met at a gay sex venue, the sexual encounter usually took place there as well. When partners first met in a gay sauna, 87 % of subsequent encounters also took place in the sauna. When they met in a backroom or gay sex club, 79 % of encounters took place at the same location. Similarly, when partners met in a porn cinema or at a cruising location, 86 % of subsequent encounters took place there.

Figure 5.9: Sexual encounter locations across partner constellations



5.4.5 Communication and risk mitigation before and during the sexual encounter

Respondents who reported having had sex with one or more non-steady partners in the previous 12 months were asked a series of questions about what, if anything, they had communicated with these partners regarding HIV status, PrEP use, and viral load. These included what they themselves had disclosed about their HIV status, what they knew or assumed about their partner's HIV status, whether PrEP use had been discussed, and—if they had disclosed living with HIV—whether they had talked about their most recent viral load measurement.

Communication with partners about HIV status, PrEP use, and viral load is shown by reported HIV testing history in **Figure 5.10**. These figures describe what respondents disclosed to their most recent non-steady partner. **Figure 5.11** presents the corresponding information that respondents reported receiving from, or assuming about, these partners.

Figure 5.10: What respondents said about their HIV status, PrEP use, and viral load at their last sexual encounter

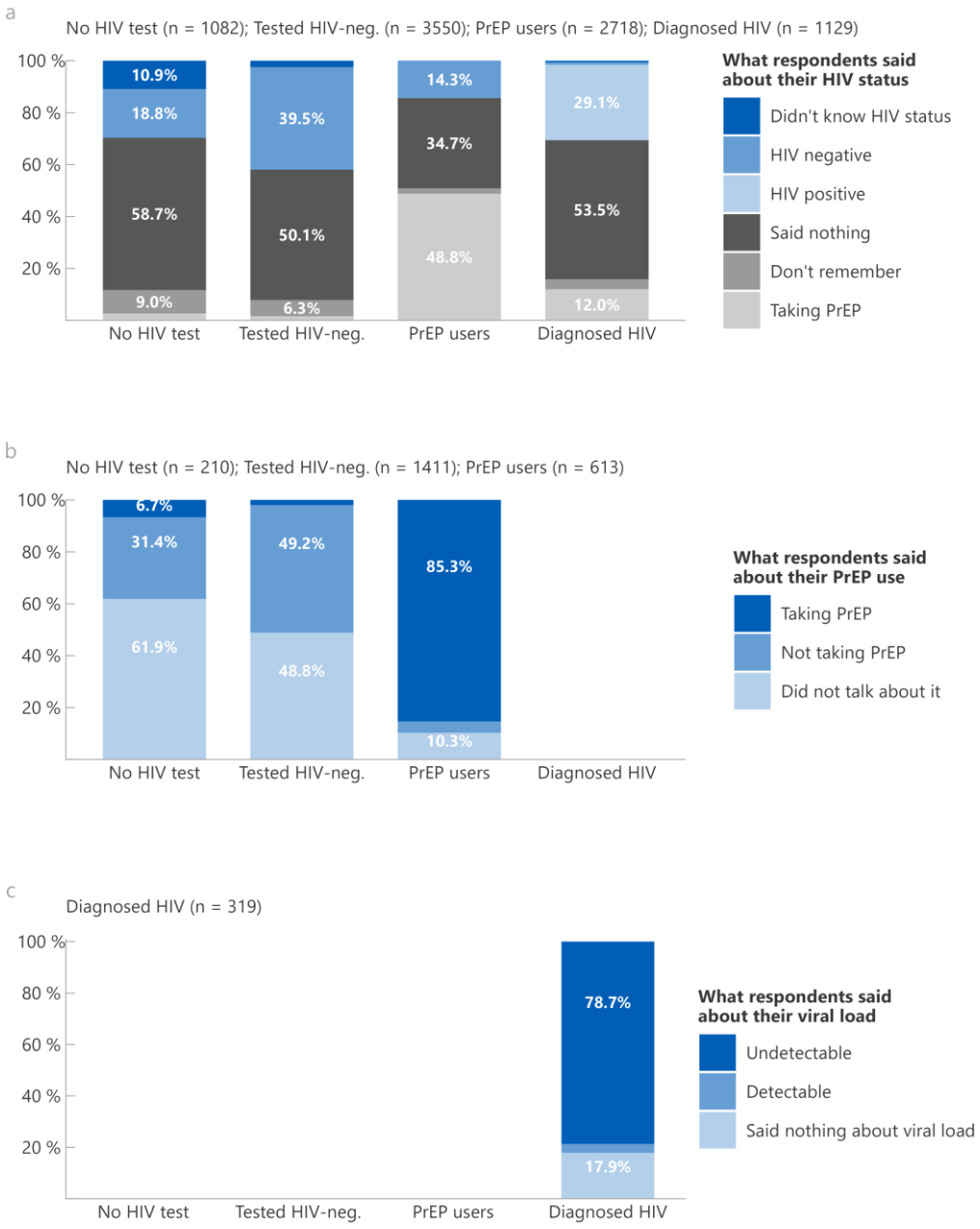
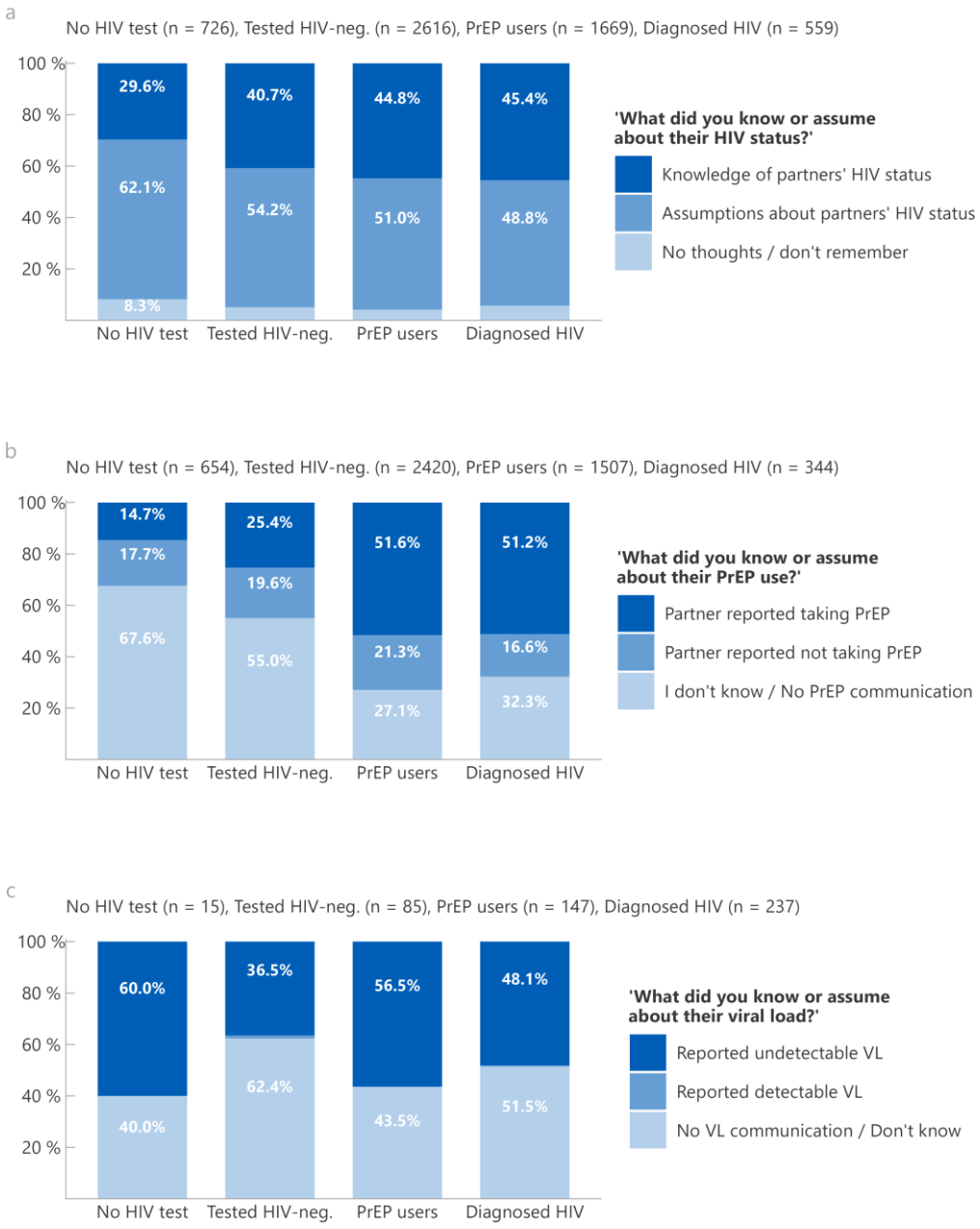


Figure 5.10a shows responses to the question *"What did you tell him/them about your HIV status before or during sex?"*, stratified by HIV/PrEP status: participants who had never been tested for HIV, those whose last HIV test was negative and who were not taking PrEP, those currently taking PrEP, and those diagnosed with HIV. PrEP users reported communicating about their HIV status most frequently (partly implicitly through disclosure of PrEP use), whereas most participants who had never been tested for HIV and most participants diagnosed with HIV preferred not to communicate their HIV status. Participants who reported that they had communicated a negative HIV status to their last non-steady partner(s) were then asked: *"What did you tell him/them about your PrEP use?"* Most PrEP users who had disclosed their

HIV status also reported telling their partner(s) that they were using PrEP (**Figure 5.10b**). Participants who had disclosed that they were living with HIV to their last non-steady male partner were subsequently asked: *"What did you tell them about your viral load?"*. Most reported that they had told their partner that their viral load was undetectable (**Figure 5.10c**).

Figure 5.11: What respondents knew or assumed about their partner(s)' HIV status, PrEP use, and viral load at their last sexual encounter



Study participants with non-steady male partners were also asked: *"What did you know or think about his/their HIV status before having sex?"* (**Figure 5.11a**). Reporting knowledge of a partner's HIV status—suggesting explicit communication—

ranged from 30 % to 45 %. In contrast, assumptions about a partner's HIV status were reported by 49 % to 62 %.

The proportion reporting that they had not thought about the HIV status of their most recent non-steady male partner was highest among participants who had never been tested for HIV, at 8 %.

Study participants knowing or assuming their partners being HIV negative were asked: *"Did he or any of them tell you he/they were on PrEP?"* (**Figure 5.11b**). PrEP use communication of the partner was most commonly reported by participants who themselves took HIV-PrEP, followed by participants diagnosed with HIV.

Those who knew or assumed that their partner was HIV positive were asked: *"Did he or any of them tell you he/they had undetectable viral load?"* Among those reporting such partners, disclosure of viral load status was reported by up to 49 % (**Figure 5.11c**).

5.4.6 Potential information inconsistencies

Because information on HIV testing history, antiretroviral treatment, and PrEP use was collected independently from the questions about the most recent sexual encounter, it is possible to compare these data with what respondents reported having communicated to their last non-steady sex partner. Discrepancies may arise for a variety of reasons and do not necessarily indicate intentional misrepresentation. For example, the exact timing of the most recent encounter is unknown (beyond having occurred within the last 12 months), and information that was accurate at the time may have changed since.

The most common inconsistency concerns the communication of a negative HIV status by respondents who reported elsewhere in the questionnaire that they had never been tested for HIV. This was reported by 19 % of untested respondents (**Figure 5.10a**).

Similarly, some respondents reported telling their last non-steady sex partner that they were using PrEP, despite indicating elsewhere in the questionnaire that they had never used PrEP; this was particularly observed among respondents diagnosed with HIV. In contrast to these discrepancies, reports of an undetectable viral load appeared to be more consistent. Only 2 % of respondents who told their last non-steady sex partner that their viral load was *undetectable* indicated elsewhere in the questionnaire that their most recent viral load had been *detectable* at last monitoring.

5.5 Sexual repertoire with non-steady male partners

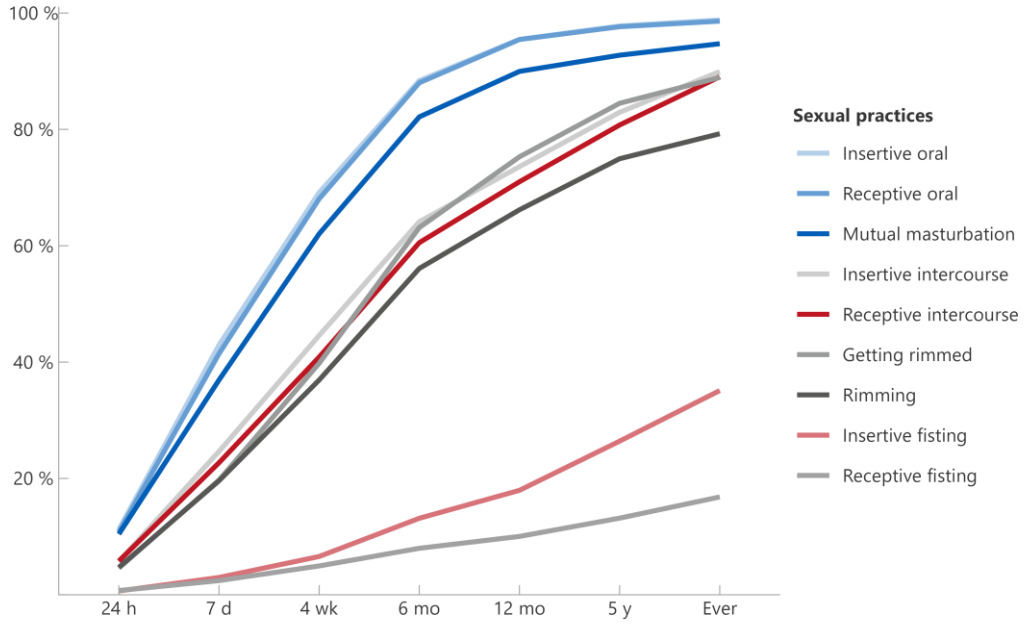
Study participants who reported sex with non-steady male partners were asked: *"Thinking about the sex you've had with non-steady male partners only, how long has it been since you engaged in each of the following? (please say when you last did something, even if this was not typical for you)"*. They were then presented with the following list (worded in the questionnaire using language adapted to respondents' needs):

1. mutual masturbation,
2. sucking a man's penis (*receptive oral* in the figure below),
3. having one's penis sucked (*insertive oral* in the figure below),
4. licking a man's anus (*rimming* in the figure below),
5. having a man lick one's anus (*getting rimmed* in the figure below),
6. insertive anal intercourse,
7. receptive anal intercourse,
8. inserting one's fist into a man's rectum (*insertive fisting* in the figure below),
9. having a man's inserting their fist in one's rectum (*receptive fisting* in the figure below).

The timing of most recent engagement in each of the nine sexual practices is displayed using separate recency curves. Participants who elsewhere indicated having a vagina rather than a penis were asked additional questions about receptive vaginal intercourse and fisting; these are not presented here but only in **Chapter 8**.

The Sexual Repertoire Score (SRS) [10] is an additive score ranging from 1 to 9, based on engagement in the above nine sexual practices with non-steady male partners during the previous 12 months. The diversity of sexual repertoire has been shown to influence STI risk among MSM, independent of partner numbers. Across Germany the median SRS was 6 (IQR: 5–7). Across age groups, the SRS increased from 5 among respondents under 20 years of age, peaked in the 40–44 age group (7) and declined slightly thereafter. It was higher among respondents who were fully 'out' about their attraction to men (7) than among those who were 'closeted' (6). It was also higher, for example, among respondents diagnosed with syphilis in the past 12 months (7) than among those without a recent syphilis diagnosis (6).

Figure 5.12: Cumulative recency of sexual repertoire with non-steady male partners



5.6 Sex with women

Study participants were reminded that *"In this survey, we use 'sex' to mean physical contact to orgasm (or close to orgasm) for one or both partners."* They were then asked: *"When did you last have any kind of sex with a woman?"* and were offered a scale indicating how recently this had occurred.

Due to an error in EMIS-2024, and in contrast to previous waves, questions were displayed only to participants who reported sexual attraction to women. As a result, information on the recency of sex with women was not collected from participants who did not report such attraction. While this limits both the completeness and comparability of the data, findings from EMIS-2017 suggest that very few of participants not attracted to women reported recent sexual activity with women (see **EMIS-2024 variable manual** [1]).

In EMIS-2024, among respondents who reported (also) being attracted to women (18 % of German sample), 93 % reported having had sex with a woman in the previous 12 months. Among respondents reporting a female steady partner, this proportion was 93 %, both of which suggest a high degree of internal validity in the responses.

5.7 Substance use

Information on substance use was a key priority for the EMIS Network. Data on licit and illicit drug use were collected by self-report. The recency-based response format reduced reliance on long-term recall, while the anonymous, self-completed online format is likely to have reduced social desirability bias. Nevertheless, despite extensive translation and harmonisation procedures, subtle differences in the interpretation of drug-related terminology across languages and cultural contexts cannot be excluded and may have influenced the comparability of responses between countries.

5.7.1 Use of legal drugs

Study participants were asked: *"When was the last time you consumed..."* followed by five substances or substance groups that are not illegal to possess in most of Europe: alcohol; tobacco products; poppers (nitrite inhalants); Viagra, Cialis, Levitra, or other substances used to help achieve or maintain an erection; and sedatives or tranquillisers (e.g. Valium, Rivotril, Rohypnol, Xanax, Seduxen, Phenazepam). We did not assess whether erection-enhancing drugs or sedatives had been prescribed.

Table 5.13 presents cumulative percentages for respondents who had used each substance over progressively longer recall periods. The bottom two rows show conditional proportions: first, the percentage of lifetime users reporting use in the past 12 months (an indicator of continued use), and second, the percentage of past-year users reporting use in the past 7 days (an indicator of more frequent use).

Table 5.13 Recency of specific substance use

Recency	Cumulative %				
	Alcohol	Tobacco	Poppers	Viagra etc.	Sedatives
	N = 10 263[a]	N = 7486[b]	N = 6356[c]	N = 4274[d]	N = 1555[e]
Within the last 24 hours	36.8	25.4	6.8	4.3	1.0
Within the last 7 days	70.7	30.0	17.6	13.4	1.9
Within the last 4 weeks	82.8	33.3	25.2	21.0	2.9
Within the last 6 months	89.2	38.1	32.9	27.5	4.7
Within the last 12 months	91.9	41.8	38.1	31.1	6.3
Within the last 5 years	94.3	49.1	47.2	36.4	9.8
Ever	97.0	70.8	60.1	40.4	14.7
7 days as a fraction of 12 months	76.9	71.7	46.2	43.2	30.1
12 months as a fraction of ever	94.8	59.0	63.4	77.0	42.7

[a]Missing n = 14; [b]Missing n = 24; [c]Missing n = 18; [d]Missing n = 17; [e]Missing n = 20.

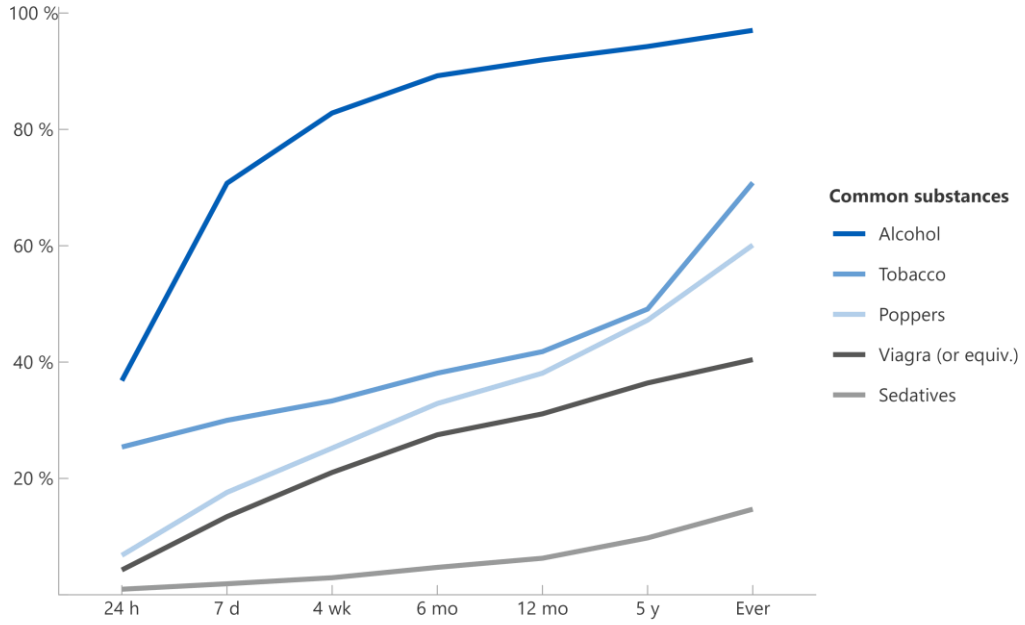
Figure 5.13 presents these data graphically, showing the cumulative percentages for those having used each of the drugs during their lifetime.

Alcohol was the most commonly used substance across all time intervals. Lifetime experience with alcohol was almost universal (97 %). Around one in three respondents (37 %) reported having consumed alcohol in the previous 24 hours, and this proportion increased sharply when considering use within the past seven days (71 %).

In contrast, a similar proportion reported using tobacco in the previous 24 hours (25 %), but the increase over a seven-day period was only modest (30 %). This suggests that most respondents who had used tobacco in the past week had also used it within the previous 24 hours, indicating more regular or daily consumption among tobacco users.

The other three substances, which are not illegal to possess in most of Europe, were used by substantially fewer respondents than alcohol and tobacco.

Figure 5.13: Cumulative recency of consuming alcohol, tobacco, poppers, Viagra (or equivalent), or sedatives



5.7.2 Use of illicit drugs

After being asked about substances that are not illegal to possess, all study participants were asked: *"Have you ever taken any other recreational or illicit drugs?"* Across Germany, 49 % answered *"Yes"*. Those who responded *"Yes"*" were then asked: *"When was the last time you consumed..."* followed by the 14 types of (mostly) illicit drugs listed below:

- *Cannabis* (hashish, marijuana)
- *Synthetic cannabinoids* (*e.g.* "spice", "K2", "herbal incense")
- *Ecstasy* (E, XTC, MDMA) (as a pill, crystal, or powder)
- *Amphetamine* (speed)

- *Crystal methamphetamine* (crystal, meth, "Tina", Pervitin)
- *Heroin or related drugs* ("poppy straw", "kompot", fentanyl)
- *Mephedrone* (4-MMC, "meow", methylone, "bubbles")
- *Synthetic stimulants other than mephedrone* (*e.g.* MXE, bathsalts, 3-MMC, 4-MEC, 4_FA, XTC-light)
- *Alpha PHP*
- *GHB/GBL* ("liquid ecstasy")
- *Ketamine* ("special K")
- *LSD* ("acid")
- *Cocaine*
- *Crack cocaine*

For each drug, respondents were given a scale indicating how recently they had used it [11]. The questions referred to each substance separately; poly-drug use (the combined use of multiple substances) was not assessed.

Tables 5.14 and **5.15** present the cumulative percentages of respondents who had used each drug over progressively longer recall periods. The bottom two rows show conditional proportions: first, the percentage of lifetime users reporting use in the past 12 months (an indicator of continued use), and second, the percentage of past-year users reporting use in the past 7 days (an indicator of more frequent use).

Table 5.14 Recency of illicit or recreational drug use (part 1)

Recency	Cumulative %						
	Cannabis N = 5036[a]	Ecstasy N = 2270[b]	Amphet-amines N = 950[c]	Synthetic Stimulants N = 806[d]	Alpha PhP N = 60[e]	GHB/GBL N = 1381[f]	Cocaine N = 2220[g]
Within the last 24 hours	5.0	0.5	0.3	0.4	0.0	0.5	0.5
Within the last 7 days	9.3	1.8	0.7	1.4	0.0	1.8	1.8
Within the last 4 weeks	13.3	4.0	1.4	3.1	0.1	2.9	3.6
Within the last 6 months	20.1	7.8	2.5	4.7	0.2	4.7	6.8
Within the last 12 months	25.4	10.2	3.6	5.8	0.2	6.0	9.3
Within the last 5 years	35.0	15.2	5.3	7.0	0.4	9.0	13.7
Ever	47.6	21.5	9.0	7.6	0.6	13.0	21.0
7d as a fraction of 12m	36.4	17.6	19.6	25.1	8.0	29.7	19.6
12m as a fraction of ever	53.5	47.7	40.3	75.6	41.7	46.1	44.3

[a]Missing n = 2; [b]Missing n = 14; [c]Missing n = 4; [d]Missing n = 26; [e]Missing n = 27; [f]Missing n = 9; [g]Missing n = 9.

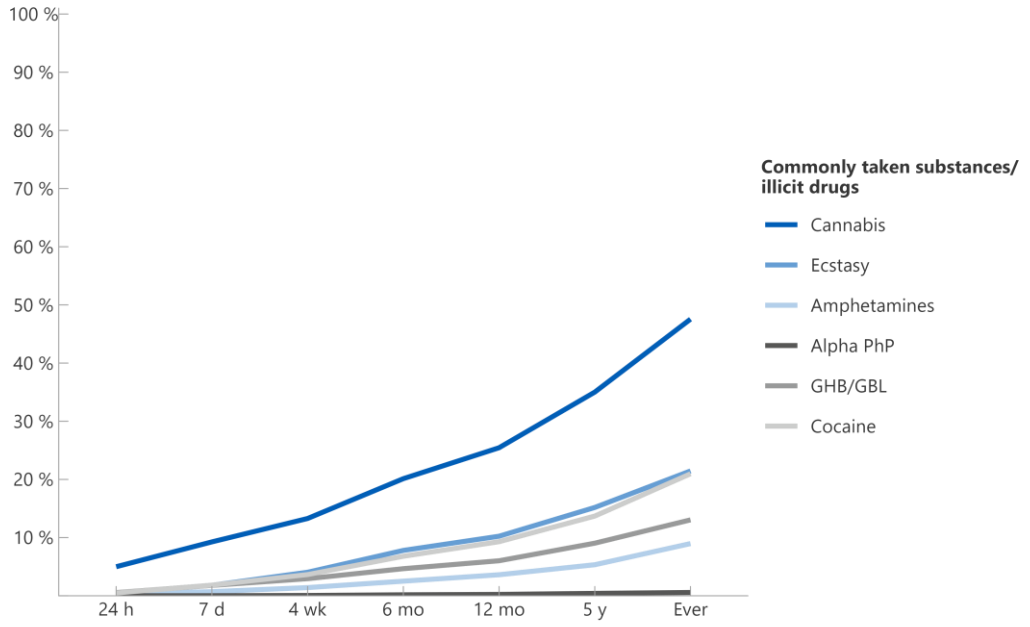
Table 5.15 Recency of illicit or recreational drug use (part 2)

Recency	Cumulative %						
	Synthetic cannabinoids N = 688[a]	Crystal meth N = 833[b]	Heroin N = 158[c]	Mephedrone N = 835[d]	Ketamine N = 1308[e]	LSD N = 1176[f]	Crack N = 110[g]
Within the last 24 hours	0.2	0.5	0.0	0.3	0.2	0.1	0.0
Within the last 7 days	0.5	1.0	0.1	1.5	1.1	0.3	0.1
Within the last 4 weeks	0.8	1.7	0.1	3.2	2.6	0.9	0.2
Within the last 6 months	1.7	2.9	0.2	4.9	5.0	2.4	0.2
Within the last 12 months	2.5	3.7	0.3	5.9	6.5	3.5	0.3
Within the last 5 years	3.7	5.5	0.6	7.3	9.4	6.3	0.5
Ever	6.5	7.9	1.5	7.9	12.4	11.1	1.0
7d as a fraction of 12m	20.2	28.0	30.6	25.0	17.3	9.6	21.6
12m as a fraction of ever	38.1	47.5	22.8	74.4	52.4	31.9	33.6

[a]Missing n = 5; [b]Missing n = 7; [c]Missing n = 22; [d]Missing n = 24; [e]Missing n = 18; [f]Missing n = 21; [g]Missing n = 9.

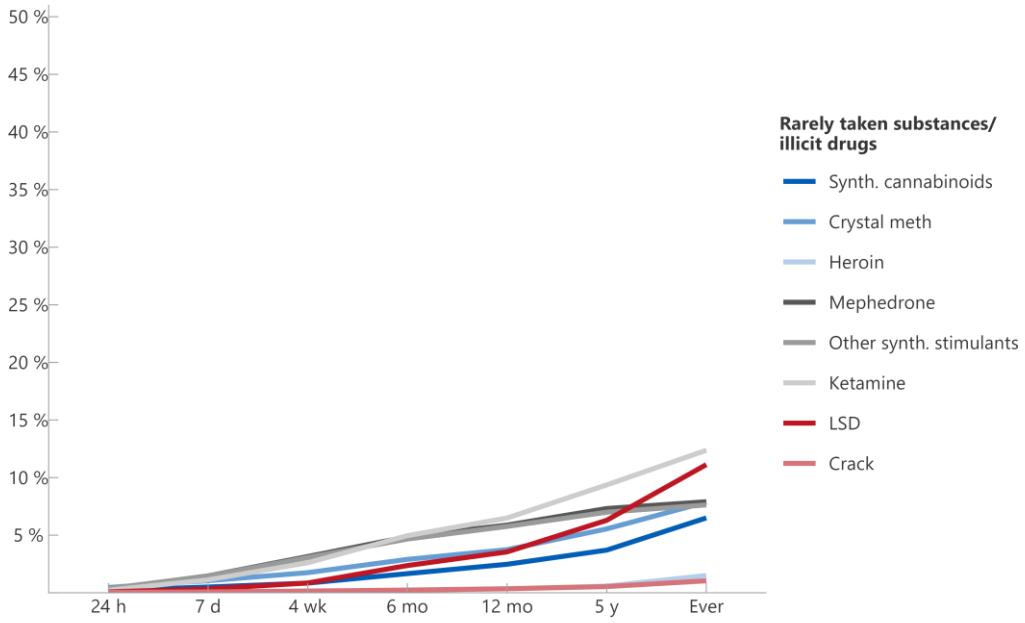
Figures 5.14–15 present these data graphically, showing the cumulative percentages for those having used each of the drugs during their lifetime. The most commonly used illicit drug in all time periods was cannabis, which had been used by 48 % ever and by 13 % in the last four weeks. This was followed by ecstasy (ever: 21 %, last four weeks: 4 %) and cocaine (ever: 21 %, last four weeks: 4 %) (see **Table 5.14** and **Figure 5.14**).

Figure 5.14: Cumulative recency of consuming illicit substances



Amphetamines showed a proportionately larger gap between reported use “ever” and use within the past five years than other drugs, suggesting that their popularity may have declined over time.

Figure 5.15: Cumulative recency of consuming other illicit substances



As with amphetamines, LSD showed a much larger proportional gap between reported use ever and use within the past five years than most other drugs, suggesting that a substantial share of those who had tried it were no longer using it (**Figure 5.15**).

5.8 Injecting drugs

Historically, at least in Germany, injecting drug use has been uncommon among MSM participating in community surveys. It is possible that patterns have shifted in recent years, for example in connection with changing chemsex practices, but the available evidence for such changes remains limited.

5.8.1 Prevalence of injecting drug use

Study participants who were assigned male sex at birth were asked: *"Have you ever injected anabolic steroids (testosterone) or had someone else inject into you?"* This restriction was applied to avoid confusion with transmasculine individuals using gender-affirming hormone therapy. Response options were: *"No, never"*; *"Yes, within the last 12 months"*; *"Yes, more than 12 months ago"*. The question covered both prescribed and non-prescribed substances, and it is possible that some respondents may have confused corticosteroid injections administered by health care professionals with anabolic steroid use.

Participants were also asked: *"Have you ever injected any drug to get high (other than anabolic steroids or prescribed medicines), or had someone else inject into you?"* The same response options were provided.

Table 5.16 Injecting drug use

Have you ever injected or had someone else inject into you...?	% anabolic steroids (e.g. testosterone) (N = 10 260)*	% any drug to get high (other than anabolic steroids or prescribed medicines) (N = 10 558)**
No, never	97.9	95.9
Yes, more than 12 months ago	1.3	2.1
Yes, within the last 12 months	0.7	2.1
Total	**100.0**	**100.0**

*Missing n = 27; **Missing n = 34.

Around one in 50 respondents (2 %) reported ever having injected anabolic steroids, compared with 4 % who reported ever injecting drugs to get high (**Table 5.16**); both behaviours were rare. Considering both behaviours together, 6 % indicated that they had ever injected steroids and/or injected drugs to get high.

Injecting steroids and injecting drugs to get high were positively associated but only partly overlapped. Among respondents who had injected steroids in the last 12 months, 20 % had also injected drugs to get high. Conversely, among those who had injected drugs to get high, 7 % had also injected steroids. However, the majority of respondents who injected steroids did not inject drugs to get high (80 %), and likewise, most respondents who injected drugs to get high did not inject steroids (93 %).

5.8.2 Frequency of injecting

The 2 % of respondents who had injected drugs to get high in the last 12 months (n = 217) were asked: *"In the last 12 months how many times have you injected any drug other than anabolic steroids or medicines, or had someone else inject into you?"* Response options ranged from *1 to 9* and *"10 or more"*.

As shown in **Table 5.17**, 49 % of those who had injected drugs to get high in the last 12 months had done so six times or fewer, while 46 % had done so more than 10 times. This corresponds to 0.9 % of all respondents (n = 97).

Table 5.17 Frequency of injecting drugs to get high in the last 12 months (N = 212)

Frequency of injecting to get high	Respondents who had injected to get high in the last 12 months (N = 212)*	
	%	Cumulative %
1	8.0	8.0
2	13.7	21.7
3	7.1	28.8
4	7.5	36.3
5	5.7	42.0
6	6.6	48.6
7	1.9	50.5
8	2.8	53.3
9	0.9	54.2
10 or more	45.8	100.0

*Missing n = 5.

5.8.3 Drugs being injected

Participants who had injected in the last 12 months (2 % of all respondents) were asked: *"Which drugs have you injected or had injected into you in the last 12 months?"* They were asked to select all applicable substances from the list shown in **Table 5.18**.

The most commonly injected drugs were synthetic stimulants other than mephedrone, crystal methamphetamine, ketamine, and mephedrone. These substances are commonly associated with chemsex (see below), although not all are stimulants.

Table 5.18 Drugs injected in the last year among respondents who have injected to get high (N = 217)

Which drugs have you injected or had injected into you in the last 12 months?	% of respondents who injected to get high N = 212*
Synthetic stimulants other than mephedrone (eg. MXE, bath-salts, 3MMC, 4MEC, 4_FA, XTC-light)	61.8
Crystal methamphetamine (crystal, meth, Tina, Pervitin)	46.5
Ketamine (special K)	18.9
Mephedrone (4MMC, meow, methylone, bubbles)	18.4
Cocaine	8.8
Amphetamines (speed)	4.6
Ecstasy (E, XTC, MDMA)	4.1
Heroin or related drugs (poppy straw, kompot, fentanyl)	3.2
Alpha PhP	1.4
Crack cocaine	0.9
I've injected drugs but I don't know which drugs	6.5

Note. Percentages do not total 100 % because respondents could select more than one response option.
*Missing n = 34.

5.8.4 Sharing injecting equipment

Participants who had ever injected anabolic steroids and/or injected drugs to get high in the last 12 months were asked: *"When was the last time you injected with a used needle or syringe given, lent, rented or sold to you by someone else?"* They were offered a scale indicating how recently this had occurred.

Across Germany, 0.07 % of all respondents (n = 7) reported having injected with a used needle or syringe within the last 12 months.

Among respondents with any history of injecting drug use, this corresponds to 1.2 % who had injected with used equipment in the previous 12 months.

5.9 Combining sex and drugs

Chemsex has become an increasing focus of concern since EMIS-2010. However, defining chemsex and developing a measure that would be meaningful and acceptable across different cultural contexts proved challenging [12]. We therefore chose not to use the term 'chemsex' in the survey itself and instead asked a series of both broader and more specific questions designed to capture different aspects of the phenomenon.

5.9.1 Sex under intoxication

Study participants who had had sex with a man in the last 12 months were asked: *"In the last 12 months, how much of the sex you've had with men has been under the influence of alcohol or any other drug?"* and were offered the responses shown in **Table 5.19**.

Table 5.19 Percentage of all sex with men that has been under the influence of alcohol or any other drug in the last 12 months (N = 9513)

Percentage of all sex with men that has been under the influence of alcohol or any other drug in the last 12 months	%*
None of it	42.9
Almost none of it	29.3
Less than half	10.5
About half	5.5
More than half	4.6
Almost all of it	5.3
All of it	1.8
Total	**100.0**

*Missing n = 29.

Across Germany, a clear majority of respondents (88 %) reported that half or less of the sex they had had in the previous 12 months had occurred while under the influence of alcohol or drugs, including 43 % who reported no sex under the influence. Conversely, 7 % indicated all or almost all of the sex they had had was under the influence of alcohol or drugs. It is worth noting that this question includes sex that occurs while using drugs and alcohol and drug use that is specifically intended to facilitate, alter or enhance sex.

5.9.2 Recency of sober sex and chemsex

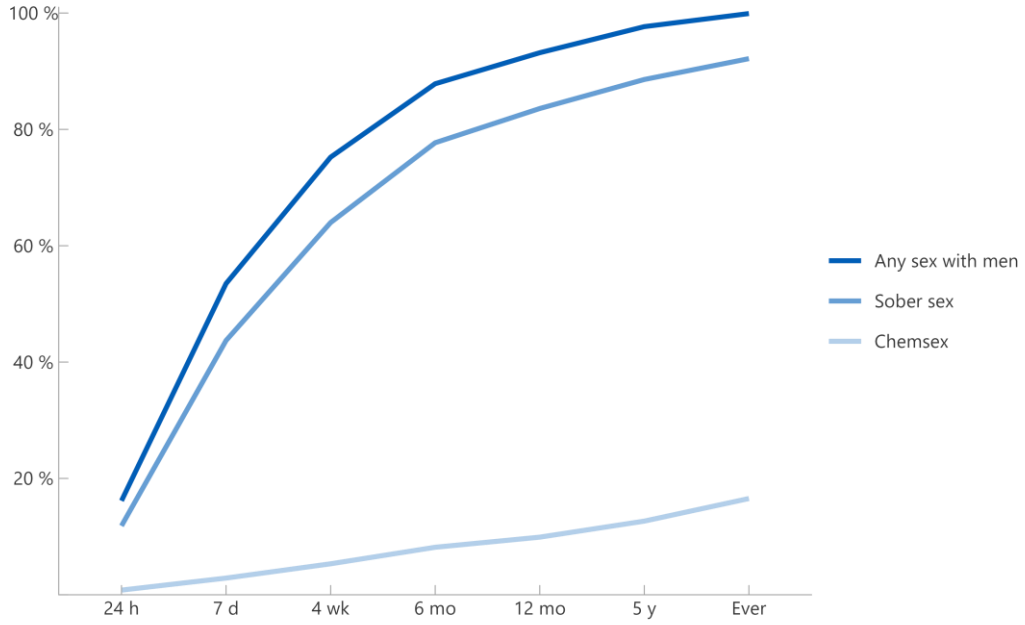
Participants were asked: *"When was the last time you had sober sex (that is, NOT under the influence of alcohol or any other drug)?"* and were offered a scale to indicate how recently this had occurred. They were also asked: *"When was the last time you used stimulant drugs to make sex more intense or last longer? (Note: the stimulant drugs include ecstasy/MDMA, cocaine, amphetamine (speed), crystal methamphetamine (Tina, Pervitin), mephedrone, ketamine, and alpha-PHP)"* and were offered a scale to indicate how recently this had occurred. It should be noted that ketamine has hallucinogenic, dissociative and anaesthetic effects and is a stimulant only in small doses [13]. The behaviour defined in this last question will, for ease of reference, hereafter be referred to as 'chemsex'. Chemsex is a recently emerged category of behaviour among MSM for which there is no agreed definition [14].

EMIS-2010 did not include a direct measure of chemsex. In subsequent publications (e.g. Schmidt *et al.* 2016 [11]), we therefore used a proxy indicator referred to as '4-chems', defined as the use of any of the following substances in the past four weeks: GHB/GBL, ketamine, crystal methamphetamine, or mephedrone. Using **EMIS-2024** data, it is possible to assess whether this construct remains a valid proxy, despite changes over time in the types and combinations of stimulant drugs used to intensify or prolong sex. The prevalence of reported *'chemsex'* in the past four weeks was 6 %, compared with 5 % based on the *'4-chems'* measure. Agreement between the two indicators was very high (97 %), with substantial agreement beyond chance ($\kappa = 0.69$, 95% confidence interval: 0.68–0.70). The somewhat lower κ value reflects the skewed distribution of the underlying binary variable.

While all definitions of chemsex involve the combination of sex and substance use, not all sex under the influence of drugs is considered chemsex. Additional elements often included in definitions are sex between men (*i.e.*, the concept is typically applied to male–male sexual contexts), encounters with casual partners or regular non-romantic partners rather than within romantic relationships, facilitation through smartphone dating apps, the use of specific drugs (most commonly GHB/GBL, crystal methamphetamine, mephedrone, and/or ketamine), extended duration of sexual sessions, and a broader social context shaped by stigma, marginalisation, and the legacy of the HIV epidemic, including internalised homophobia among some gay and bisexual men.

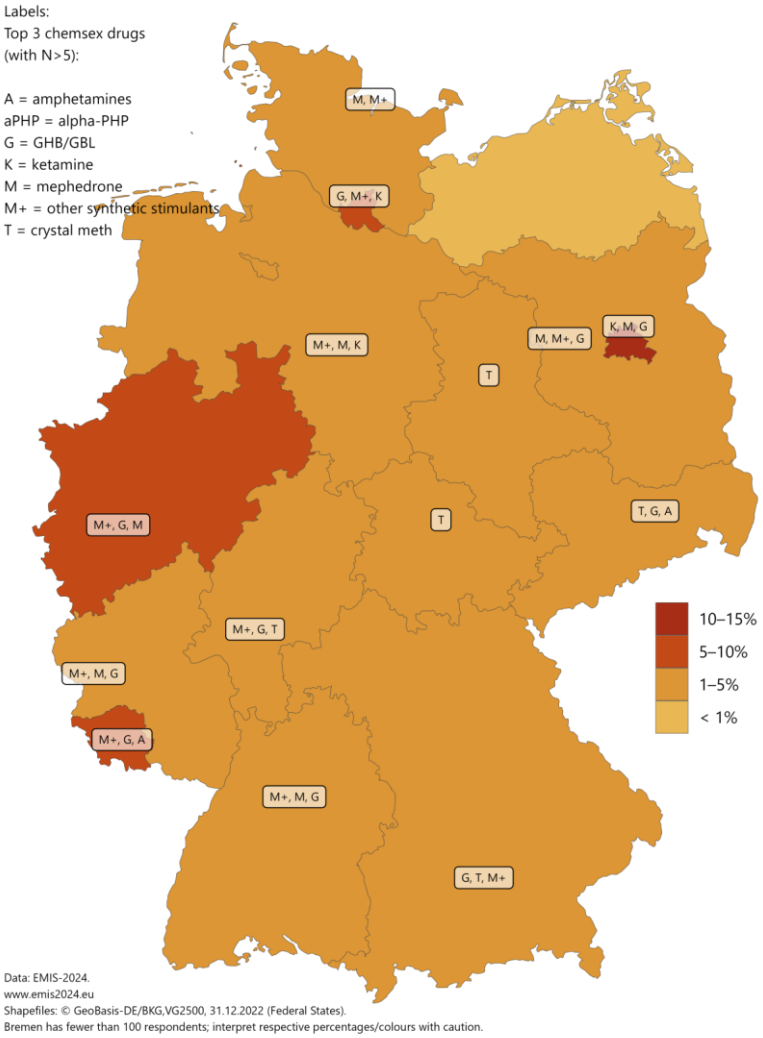
In this study, we chose to focus on the intentional use of stimulant drugs to intensify and prolong sex. We recognise that this does not constitute a definitive measure of chemsex—nor is a universally accepted definition likely to be achievable—but it offers a precise and transparent operationalisation. **Figure 5.16** presents these responses alongside the reported recency of both chemsex and sober sex with men.

Figure 5.16: Cumulative recency of selected sexual experiences



Sex without the use of drugs or alcohol was common: 84 % reported sober sex in the previous 12 months, whereas chemsex was much less frequently reported (10 % in the same time period). Across Germany, 17 % reported ever having engaged in chemsex; among these, 32 % had done so within the last four weeks. Overall, across Germany, 5 % reported chemsex in the last four weeks. **Map 5.5** shows engagement in chemsex in the last 4 weeks. The map also displays the three most commonly used substances in chemsex, highlighting major variation across Germany—both in prevalence and in the substances most frequently used.

Map 5.5: Percentage who used stimulant drugs to make sex more intense or last longer (chemsex), last four weeks (N = 10 590)

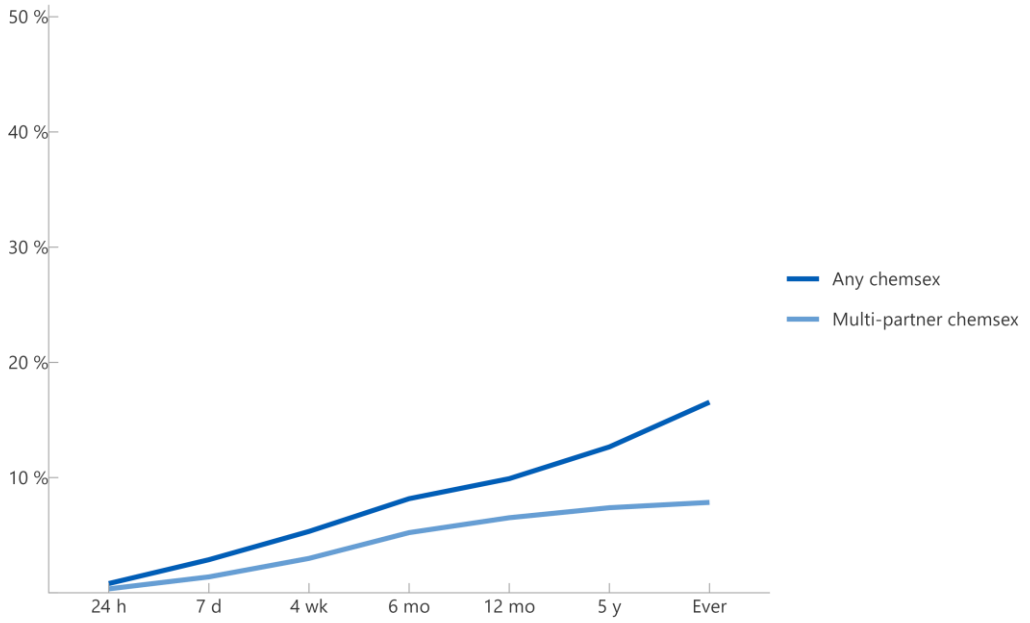


5.9.3 Features of chemsex

Respondents who had ever engaged in chemsex were asked: *"When was the last time you combined stimulant drugs and sex with more than one man at the same time?"* They were offered a scale indicating how recently this had occurred. We refer to this behaviour as *multi-partner chemsex*. **Figure 5.17** shows the recency distribution for multi-partner chemsex, overlaid on the recency distribution for any chemsex.

Around one in two respondents who had ever engaged in chemsex reported having engaged in multi-partner chemsex (47 %). Among respondents who had engaged in chemsex in the last four weeks, 53 % reported that it involved multiple partners. Multi-partner chemsex is therefore relatively common, although a substantial proportion of chemsex sessions appear to involve only two people.

Figure 5.17: Cumulative recency of chemsex experiences



Respondents who reported multi-partner chemsex in the last 12 months were then asked: *"Where did that most recent sex with stimulants and multiple partners take place?"* Response options are shown below (**Table 5.20**).

Table 5.20 Location of most recent sex with stimulants and multiple partners among respondents who had multi-partner chemsex in the last 12 months

Location of most recent multipartner chemsex	Respondents with multipartner chemsex in the last 12 months (%) N = 688*
Your home	23.4
Someone else's home	47.4
A hotel room	5.4
In a club or backroom of a bar	14.1
A sauna	5.4
A porn cinema	1.2
A cruising location (street, roadside service area, park, beach, baths, lavatory)	1.6
Other answer	1.6
Total	**100.0**

*Missing n = 2.

Private home(s) were by far the most common setting for multi-partner chemsex (71 %). The next most common location was in a club or backroom of a bar (14 %) and a hotel room (5 %).

Participants who had engaged in multi-partner chemsex in the last 12 months were also asked: *"For how many years have you been combining stimulant drugs and multiple sexual partners?"* (n = 690). The reported duration of involvement in multi-partner chemsex varied considerably. Around two out of five respondents (41 %) had been engaging in it for less than four years, while 31 % reported a duration of 10 years or more. At the same time, 10 % had been involved for less than one year, suggesting that new participants continue to enter this scene.

5.10 Regional variation in key behaviour

Table 5.21 Regional variation in key behaviour

Germany	Qualifying cases	% taking ART [a]	% ever took PEP [b]	% taking PrEP [b]	% used 'doxy-PEP' [c]
Total	**10 592**	**99.1**	**13.2**	**30.9**	**6.3**
Federal States					
Baden-Württemb.	1223	99.1	12.0	25.3	5.6
Bavaria	1435	98.4	13.7	30.4	5.5
Berlin	1570	100.0	20.3	47.4	10.6
Brandenburg	218	(95.5)	9.7	26.7	2.8
Bremen	89	[100.0]	(10.4)	(27.3)	(5.7)
Hamburg	438	(98.6)	16.7	36.8	6.8
Hesse	834	100.0	12.2	31.0	6.4
Mecklenburg-V.	107	[100.0]	(8.2)	(16.3)	0.9
Lower Saxony	667	(100.0)	9.2	23.6	4.6
North Rhine-Westph.	2336	99.0	14.5	33.2	6.5
Rhineland-Palatinate	343	(94.2)	9.2	26.3	5.5
Saarland	127	[100.0]	12.1	26.2	5.5
Saxony	495	(100.0)	7.2	20.4	2.6
Saxony-Anhalt	171	[95.0]	6.7	16.1	5.3
Schleswig-Holstein	324	(100.0)	7.8	20.8	3.7
Thuringia	160	[100.0]	6.2	17.4	3.8
Cities					
Düsseldorf	176	(96.7)	18.5	43.8	8.5
Frankfurt	252	(100.0)	18.7	46.2	9.2
Hanover	124	[100.0]	15.4	37.1	8.1
Cologne	551	100.0	21.0	40.7	8.2
Leipzig	144	[100.0]	10.9	32.0	3.5
Munich	488	(100.0)	16.1	42.8	7.2
Stuttgart	159	(100.0)	11.9	25.9	4.4

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a]HIV care cascade stage 5, among HIV-diagnosed; [b]excluding HIV-diagnosed; [c]in the last 12 months. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

Table 5.21 Regional variation in key behaviour (continued)

Germany	Qualifying cases	Number (median) of NON-STEADY male sex partners [a]	% condom-less inter-course [b]	% inject-ing drugs [c]	% chem-sex [d]
Total	**10 592**	**5**	**37.7**	**2.1**	**5.3**
Federal States					
Baden-Württemb.	1223	5	34.8	1.9	3.7
Bavaria	1435	5	35.5	1.5	3.1
Berlin	1570	10	46.9	2.2	11.3
Brandenburg	218	4	34.4	0.9	3.7
Bremen	89	5	(36.0)	(0.0)	(3.4)
Hamburg	438	7	39.3	2.1	7.3
Hesse	834	5	37.3	1.8	4.0
Mecklenburg-V.	107	2	32.7	0.9	0.9
Lower Saxony	667	4	34.3	2.1	3.9
North Rhine-Westph.	2336	5	39.1	2.7	6.0
Rhineland-Palatinate	343	4	33.5	2.1	2.6
Saarland	127	4	35.4	4.0	6.3
Saxony	495	4	32.7	1.6	2.8
Saxony-Anhalt	171	2	25.7	1.8	2.9
Schleswig-Holstein	324	3	34.9	1.9	4.3
Thuringia	160	4	33.1	2.5	1.2
Cities					
Düsseldorf	176	10	40.9	4.6	4.5
Frankfurt	252	9	46.8	3.2	5.6
Hanover	124	4	32.3	0.0	3.2
Cologne	551	10	45.4	3.6	11.6
Leipzig	144	5	36.1	1.4	2.1
Munich	488	7	41.0	1.9	4.1
Stuttgart	159	5	37.7	3.8	7.5

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a]in the last 12 months; [b]in the last 12 months, with NON-STEADY male partners of unknown HIV status; [c]in the last 12 months, excluding steroids; [d]defined as using stimulant drugs to make sex more intense or last longer, in the last 4 weeks. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

Table 5.21 Regional variation in key behaviour (continued)

Germany	Qualifying cases	% last NON-STEADY male partner sex involving 3+ people	% met their last NON-STEADY male partner online	% using a mobile phone app for partner acquisition	% last NON-STEADY male partner sex in sex venue/cruising location	% used U=U or PrEP for HIV prevention [a]
Total	**10 592**	**23.0**	**72.2**	**58.5**	**20.5**	**47.1**
Federal States						
Baden-Württemb.	1223	21.8	75.5	59.9	19.6	39.6
Bavaria	1435	22.3	73.8	62.7	19.9	43.2
Berlin	1570	22.8	67.5	57.0	21.7	63.0
Brandenburg	218	26.7	75.6	62.8	23.3	39.1
Bremen	89	(27.9)	(64.2)	(44.8)	(23.5)	(39.4)
Hamburg	438	22.8	70.1	56.3	21.4	50.6
Hesse	834	22.5	74.1	59.2	17.9	50.2
Mecklenburg-V.	107	(19.0)	(75.0)	(58.3)	(22.6)	(32.4)
Lower Saxony	667	21.8	73.5	56.7	16.1	39.2
North Rhine-Westph.	2336	25.6	69.5	56.6	22.2	50.4
Rhineland-Palatinate	343	24.4	72.9	58.6	23.3	41.0
Saarland	127	(28.6)	(69.1)	(50.5)	(26.5)	(42.7)
Saxony	495	18.9	76.8	60.6	17.1	32.6
Saxony-Anhalt	171	18.0	81.9	58.3	19.5	37.7
Schleswig-Holstein	324	24.0	76.7	60.2	20.4	38.7
Thuringia	160	18.0	76.7	59.2	14.8	31.9
Cities						
Düsseldorf	176	25.7	74.3	64.5	17.1	52.1
Frankfurt	252	24.1	67.1	56.3	22.6	63.3
Hanover	124	20.8	69.3	52.5	18.8	(50.0)
Cologne	551	26.7	66.2	53.7	20.6	58.2
Leipzig	144	17.9	78.4	61.2	20.5	40.6
Munich	488	24.3	71.5	63.8	18.0	54.3
Stuttgart	159	17.9	68.3	57.7	17.9	45.9

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a]last encounter featuring intercourse. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

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Chapter 6: Needs

We define sexual health needs as the capabilities, opportunities and motivations to engage in sexual health-related behaviour, both precautions and risks.

A central research objective of EMIS was to identify sexual health needs that are commonly unmet across the population of gay, bisexual, other MSM, and transgender and non-binary people to prioritise those needs for intervention. EMIS asked about needs related to several types of precautionary behaviour and health outcomes. It also asked about some health needs not related to specific behaviours, including experience of stigma and discrimination, stress within their community [1], and internalised homonegativity. Detailed findings for transgender participants are provided in **Chapter 8**. **Chapter 9** reports key indicators of health promotion needs across the target groups, identified in **Chapter 3**. A description of the regional variation in these needs is provided in **Section 6.7**.

6.1 Unmet needs related to all health behaviours

Some health needs are not behaviour-specific but relate to a wide range of behaviour types and outcomes. Essential provisions for the health of MSM include freedom from stigmatisation and discrimination in their personal environment, in public, and particularly in health care settings, as well as freedom from internalised homonegativity [2].

6.1.1 Stigma and discrimination

Stigma and discrimination remain significant unmet needs affecting the health and well-being of MSM, and transgender and non-binary people. Results specific to transgender respondents are presented in **Chapter 8**.

Figure 6.1 presents the recency of these experiences, highlighting how frequently MSM face stigma, discrimination, and violence in different settings.

Social discrimination

All cisgender MSM were asked: *"When was the last time you..."* followed by three statements:

- *"...felt excluded from family activities because you have sex with men?"* (N = 9985)
- *"...felt that family members have made discriminatory remarks or gossiped about you because you have sex with men?"* (N = 9952)
- *"...felt rejected by your friends because you have sex with men?"* (N = 9951)

Around one in five cisgender MSM (22 %) reported ever being excluded from family activities. Additionally, 35 % felt they were ever discriminated against by their family, and around one in four ever felt rejected by friends due to their sexuality (27 %).

Healthcare-related discrimination

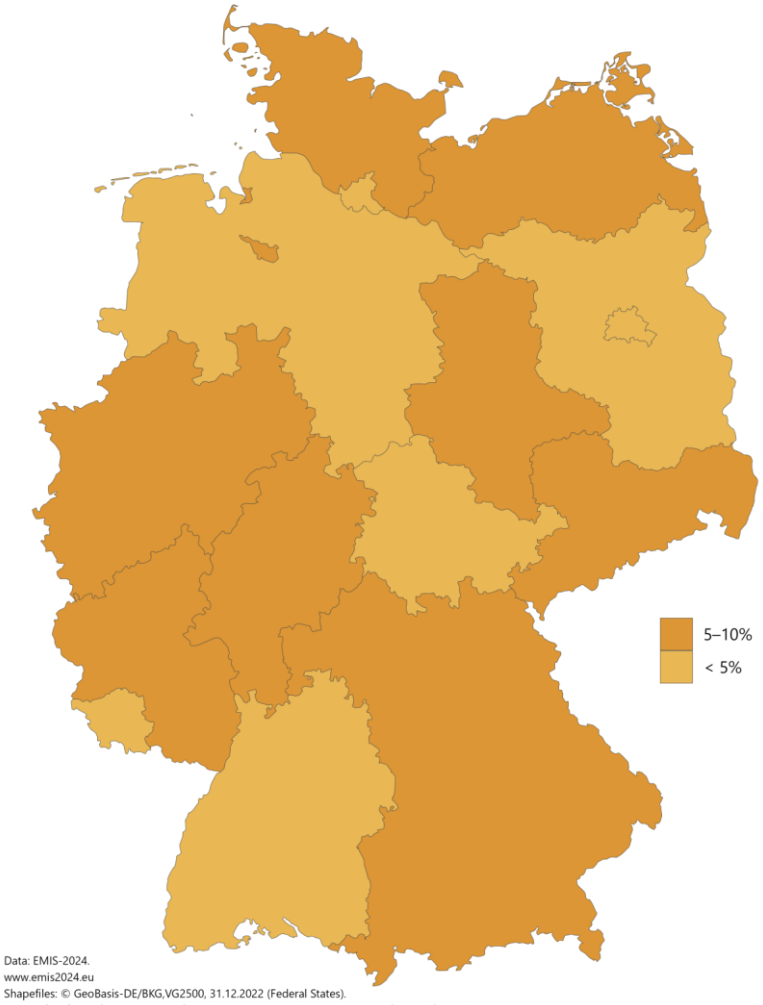
All cisgender MSM were asked: *"When was the last time you..."* followed by four statements:

- *"...felt afraid to go to health care services because you worry someone may learn you have sex with men?"* (N = 9917)
- *"...avoided going to health care services because you worry someone may learn you have sex with men?"* (N = 9914)
- *"...felt that you were not treated well in a health centre because someone knew that you have sex with men?"* (N = 9889)
- *"...heard health care providers gossiping about you (talking about you) because you have sex with men?"* (N = 9914)

Overall, 23 % cisgender MSM were afraid to access health care services in their lifetime, and 8 % in the last 12 months. Around one in eight (12 %) respondents had ever actively avoided health care. Around one in six respondents reported ever having received poor treatment in health care settings (18 %).

Around one in 20 (5 %) of all respondents reported discrimination by health care services, defined as homonegative discrimination among cisgender MSM and transnegative discrimination among trans and non-binary respondents. **Map 6.1** shows this combined indicator, with minor variation across Germany.

Map 6.1: Percentage experiencing homo- or transnegative discrimination by health care services, last 12 months (N = 10 592)



Data: EMIS-2024.
www.emis2024.eu
Shapefiles: © GeoBasis-DE/BKG,VG2500, 31.12.2022 (Federal States).
Bremen has fewer than 100 respondents; interpret respective percentages/colours with caution.

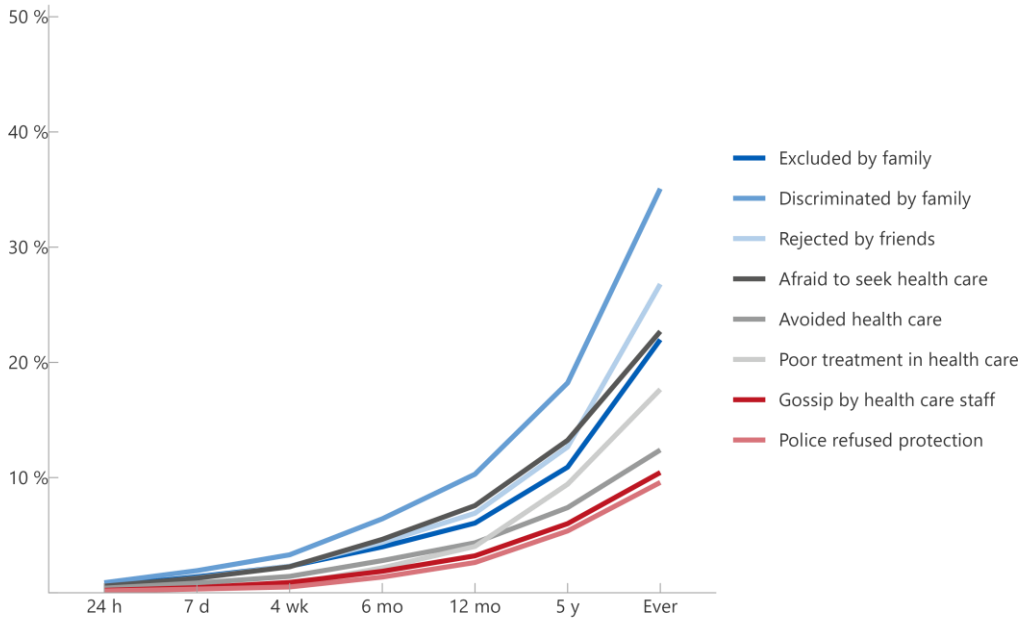
Law enforcement-related discrimination

All cisgender MSM were asked: *"When was the last time you..."*

- *"...felt that the police refused to protect you because you have sex with men?"* (N = 9894)

Across Germany, 10 % of cisgender MSM reported that the police refused to protect them in their lifetime, while 3 % reported this discriminatory experience within the last 12 months.

Figure 6.1: Cumulative recency of experiencing stigma and discrimination



6.1.2 Homonegative abuse: intimidation, insults and violence

The term *homonegative* is often preferred over *homophobic* because it more accurately captures a broad range of negative attitudes, beliefs, and biases against homosexuality or people perceived as gay, without implying clinical fear or phobia. The word *homophobia* suggests an irrational fear, which can be misleading when referring to systemic prejudice, moral judgement, or cultural stigma. *Homonegativity* better reflects the social and ideological dimensions of anti-gay bias, making it more appropriate for academic and research contexts.

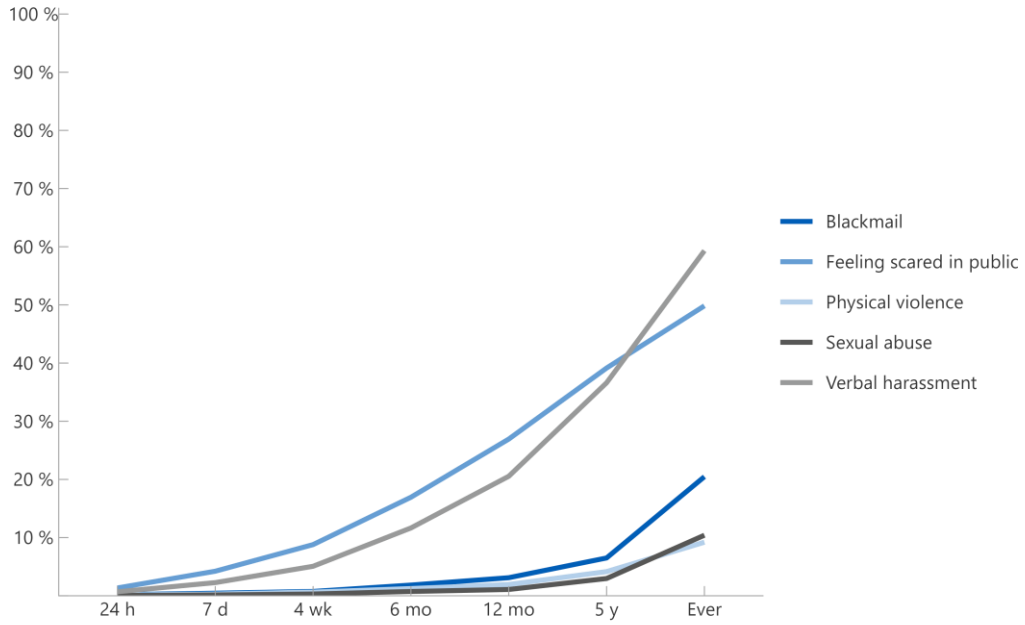
We asked about one negative intervention – homonegative abuse. Homonegative abuse undermines all health-related needs. It causes isolation and anxiety as well as physical harm. All cisgender MSM were asked: *"When was the last time you..."* followed by five statements:

- *"...were scared to be in public places because someone knew or presumed you are attracted to men?"* (N = 9901)
- *"...were verbally harassed because someone knew or presumed you are attracted to men?"* (N = 9901)

- *"...were physically hurt you (pushed, shoved, slapped, hit, kicked, choked or otherwise physically hurt you) because someone knew or presumed you are attracted to men?"* (N = 9877)
- *"...were blackmailed by someone because someone knew or presumed you are attracted to men?"* (N = 9872)
- *"...were forced you to have sex when you did not want to? (By forced, we mean physically forced, coerced to have sex, or penetrated with an object, when you did not want to)"* (N = 9865)

For each statement, respondents were provided with a scale to indicate how recently it had occurred. The cumulative percentages for having experienced each event within each time period are shown in **Figure 6.2**.

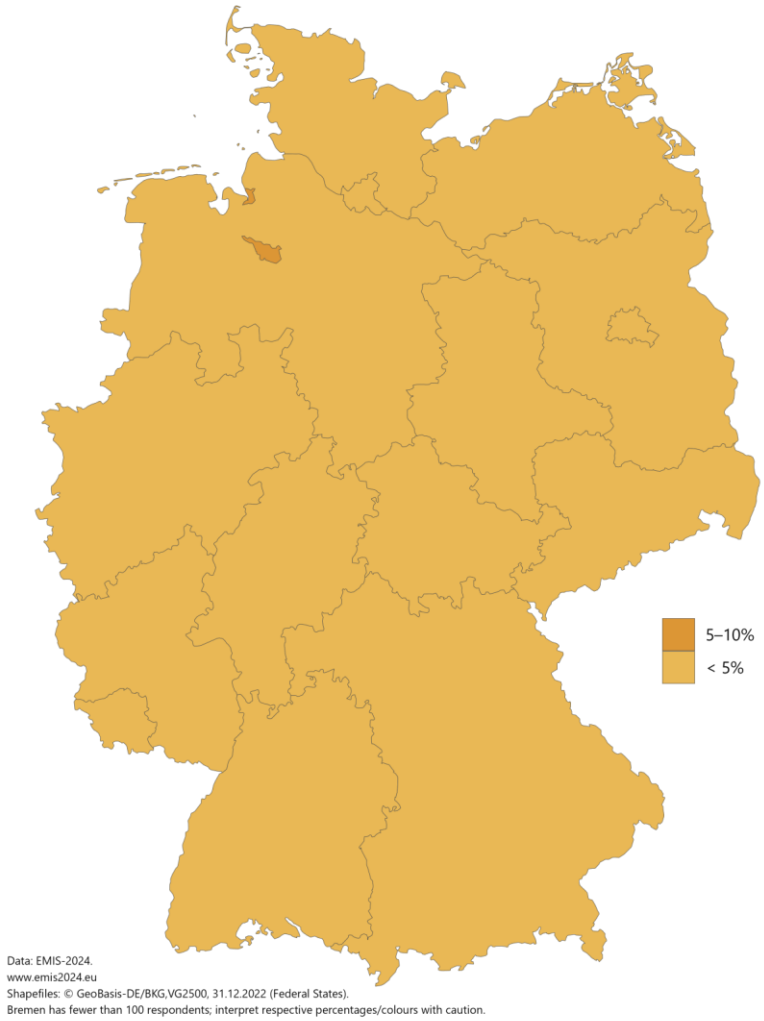
Figure 6.2: Cumulative recency of homonegative abuse / feeling scared in public



In the last 12 months, around one in 50 cisgender MSM (1.9 %) had been physically assaulted (*i.e.*, pushed, shoved, slapped, hit, kicked, choked or otherwise physically hurt). Around one in five (21 %) had been verbally insulted, and around one in four (27 %) had felt scared to be in public places because someone knew or presumed they were attracted to men. Overall, around one in 100 cisgender MSM (1.1 %) reported to have been coerced into having sex that they did not want within the last 12 months.

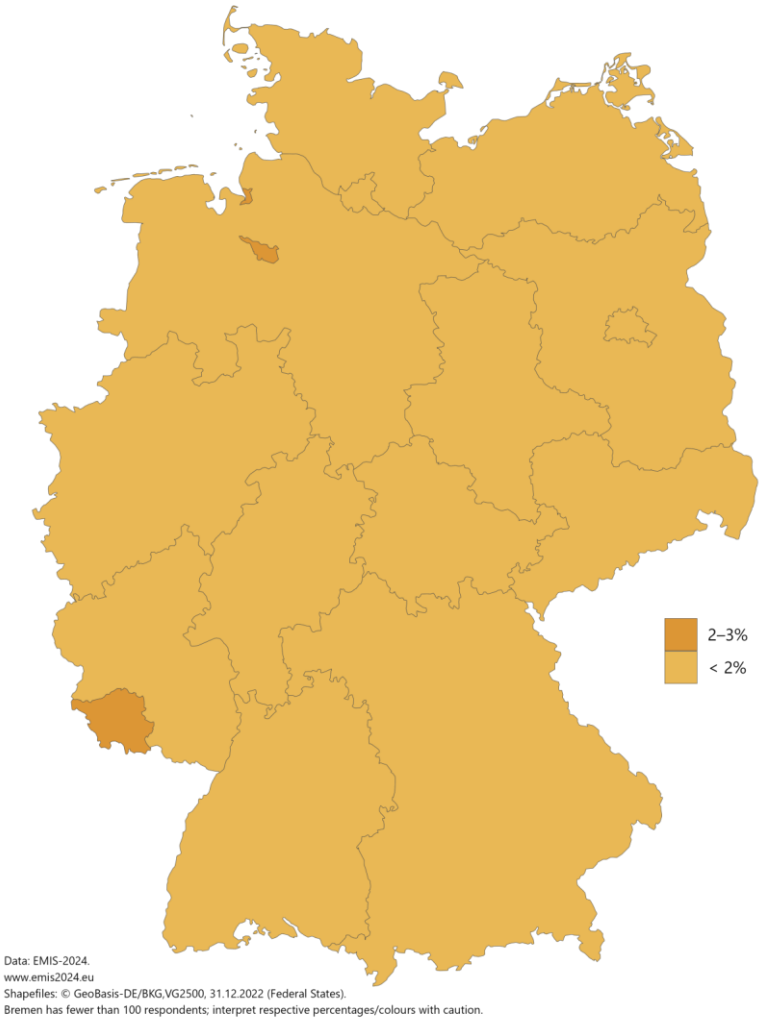
Maps 6.2 and **6.3** show the geographical distribution of two combined indicators for all respondents: experiencing physical violence and being physically forced or coerced into sex over the past 12 months, with minor variation across Germany.

Map 6.2: Percentage experiencing homo- or transnegative physical violence, last 12 months (N = 10 592)



Data: EMIS-2024.
www.emis2024.eu
Shapefiles: © GeoBasis-DE/BKG,VG2500, 31.12.2022 (Federal States).
Bremen has fewer than 100 respondents; interpret respective percentages/colours with caution.

Map 6.3: Percentage physically forced or coerced to have sex, last 12 months
(N = 10 592)



6.1.3 Internalised homonegativity

Negative feelings towards one's homosexuality are related to increased sexual risk-taking and less HIV testing, as well as being predictors of anxiety and depression among MSM.

To assess levels of internalised homonegativity among cisgender MSM, we used the short internalised homonegativity scale (SIHS), as validated by Tran *et al.* [3]. All cisgender MSM were asked: *"Do you disagree or agree with the following statements on a scale of 1 (Strongly Disagree) to 7 (Strongly Agree)? Please do not spend too much time thinking about any one statement (Tick one answer in each row)"*.

They were then presented with the following seven items:

- *I feel comfortable in gay bars/bars that are frequented by gay respondents*
- *Social situations with gay men make me feel uncomfortable*

- *I feel comfortable being seen in public with an obviously gay person*
- *I feel comfortable discussing homosexuality in a public situation*
- *I feel comfortable being a homosexual man*
- *Homosexuality is morally acceptable to me*
- *Even if I could change my sexual orientation, I wouldn't*

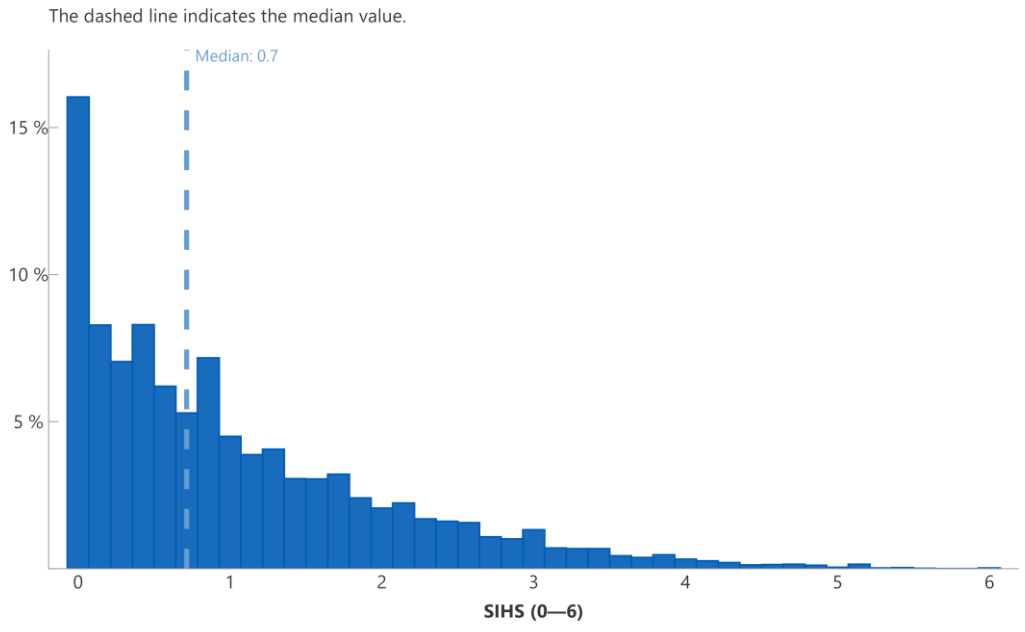
Responses to each item were provided on a 7-point scale (1 = Strongly Disagree to 7 = Strongly Agree). For scoring, items reflecting positive feelings towards homosexuality were reverse-coded (*e.g.*, a response of '1' was scored as 6, and '7' as 0), while items reflecting negative feelings were recoded from 1–7 to 0–6 without reversal (*e.g.*, 1 was scored as 0, and 7 as 6). This transformation resulted in individual item scores ranging from 0 to 6. A total SIHS score ranging from 0 to 42 was calculated by summing the seven item scores and then dividing the total by 7 to yield a mean SIHS score ranging from 0 to 6.

Ideally, we would want all scores to be as low as possible (*i.e.*, to be on the extreme left), as this indicates less internalised homonegativity. The mean score across Germany was 1 (median: 0.7).

Around one in six respondents (16 %) scored zero, the 'best' possible score, and 5 % scored above the midpoint on the scale (*i.e.* more than 3).

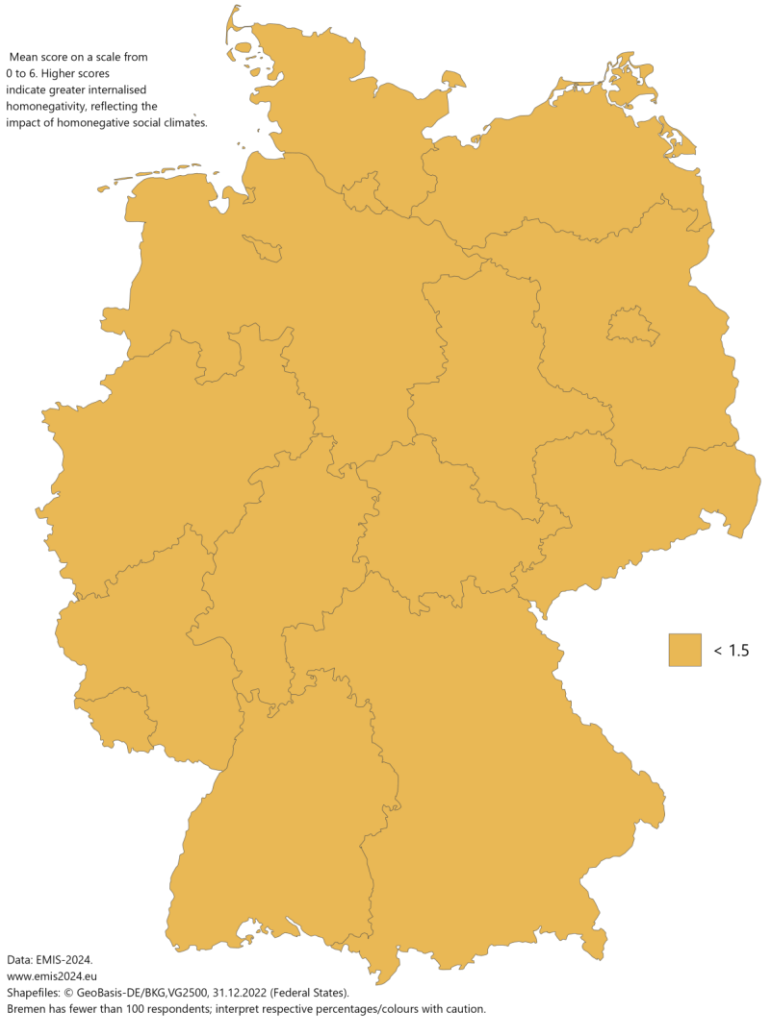
Internalised homonegativity in a population could be reduced through strengthening the human rights of lesbian, gay and bisexual people and reducing homonegative social climates [2]. **Figure 6.3** shows how internalised homonegativity varied across the sample.

Figure 6.3: Distribution of Short Internalised Homonegativity Scale (SIHS) scores (N = 8693)



Map 6.4 shows how the mean SIHS scores are distributed across Germany. Variation in internalised homonegativity across Germany was negligible.

Map 6.4: Short Internalised Homonegativity Scale scores (SIHS) (N = 8693)



6.1.4 Stressors within the community

Intra-minority stress theory (or gay Community stress theory), developed by Pachankis *et al.* [1], integrates three theoretical frameworks to explain mental health disparities among gay and bisexual men. These foundational theories are intra-sex competition theory [4], sexual field theory [5], and theory of precarious manhood [6]. Each describes how men, in general, experience stress due to status hierarchies within the gay community. The theory posits that sexual minority men's reliance on other men for social and sexual fulfilment can generate unique stressors, particularly through masculine, status-based competition. This dynamic may exacerbate stress related to social hierarchies, contributing to mental health challenges within gay and bisexual male communities.

The scale comprised 19 items covering appearance, social status, racial or ethnic marginalisation, competition and comparison, and rejection by other MSM. It consists of three subscales: stressors related to **sex** (6 items), **competition** (6 items), and **social exclusion** (7 items). Responses were rated on a 5-point Likert scale ranging from 1 (*"Strongly Disagree"*) to 5 (*"Strongly Agree"*), with higher scores indicating greater perceived intra-minority stress.

Overall, cisgender MSM reported a moderate level of intra-minority stress, with a mean score of 3.5 out of 5.

The mean scores for the three subscales were 3.7 for **sex**, 3.4 for **competition**, and 3.4 for **social exclusion**.

Nineteen percent of cisgender respondents had **high overall intra-minority stress (score ≥ 4)**, indicating that around one in five MSM experience persistent stress arising within the gay community.

6.1.4.1 Stressors related to sex

All cisgender MSM were asked: *"Do you disagree or agree with the following statements on a scale of strongly disagree to strongly agree? Please do not spend too much time thinking about any one statement"*.

- *The mainstream gay community values sex over meaningful relationships*
- *It is difficult to maintain a romantic relationship in the mainstream gay community*
- *The mainstream gay community is overly focused on sex*
- *In the mainstream gay community, everyone has sex with each other*
- *The mainstream gay community is overly preoccupied with hookup/dating apps*
- *In the mainstream gay community, there is a lot of risky sex*

Table 6.1 shows respondents' levels of agreement with six statements on sex-related stressors within the mainstream gay community.

Table 6.1 Agreement with statements on sex-related stressors within the mainstream gay community

Sex subscale agreement statements	Strongly disagree	Disa-gree	Neither / not sure	Agree	Strongly agree
	% of all cisgender men				
The mainstream gay community values sex over meaningful relationships n = 9739[a]	3.7	10.0	23.2	42.9	20.1
It is difficult to maintain a romantic relationship in the mainstream gay community n = 9743[b]	5.6	13.9	21.7	40.4	18.5
The mainstream gay community is overly focused on sex n = 9738[c]	2.1	6.6	13.9	48.4	29.0
In the mainstream gay community, everyone has sex with each other n = 9737[d]	11.7	22.8	26.3	31.2	8.0
The mainstream gay community is overly preoccupied with hookup/dating apps n = 9747[e]	1.6	5.7	18.1	50.8	23.7
In the mainstream gay community, there is a lot of risky sex n = 9741[f]	1.2	5.8	17.8	46.5	28.6

[a]Missing n = 278; [b]Missing n = 274; [c]Missing n = 279; [d]Missing n = 280; [e]Missing n = 270; [f]Missing n = 276.

Seventy-five percent of respondents felt that the mainstream gay community involves a great deal of risky sexual behaviour, and 77 % felt it is overly focused on sex. Of all cisgender MSM, 38 % reported high levels of sex-related stress.

6.1.4.2 Stressors related to competition

All cisgender MSM were asked: *"Do you disagree or agree with the following statements on a scale of strongly disagree to strongly agree? Please do not spend too much time thinking about any one statement"*.

- *The mainstream gay community is overly gossipy*
- *The mainstream gay community has a culture of competition and jealousy*
- *The mainstream gay community is overly cliquey*
- *In the mainstream gay community, there is a lot of mistrust among friends*
- *The mainstream gay community is overly judgemental*
- *The mainstream gay community is overly materialistic*

Table 6.2 shows respondents' levels of agreement with six statements on competition-related stressors within the mainstream gay community.

Table 6.2 Agreement with statements on competition-related stressors within the mainstream gay community

Competition subscale agreement statements	Strongly disagree	Disagree	Neither / not sure	Agree	Strongly agree
	% of all cisgender men				
The mainstream gay community is overly gossipy n = 9914[a]	2.4	8.5	33.4	37.8	17.8
The mainstream gay community has a culture of competition and jealousy n = 9911[b]	3.0	11.6	29.4	40.1	15.9
The mainstream gay community is overly cliquey n = 9898[c]	3.9	13.9	40.9	30.8	10.5
In the mainstream gay community, there is a lot of mistrust among friends n = 9892[d]	10.3	27.9	40.8	15.8	5.2
The mainstream gay community is overly judgemental n = 9893[e]	3.1	11.7	27.2	40.1	17.9
The mainstream gay community is overly materialistic n = 9887[f]	4.4	14.3	37.0	31.8	12.6

[a]Missing n = 103; [b]Missing n = 106; [c]Missing n = 119; [d]Missing n = 125; [e]Missing n = 124; [f]Missing n = 130.

Around one out of two cisgender respondents perceived the mainstream gay community as overly gossipy (56 %) and judgemental (58 %), while about 56 % felt that there is a culture of competition and jealousy, and that the community is overly cliquey (41 %). Of all cisgender MSM, 22 % reported high levels of competition-related stress.

6.1.4.3 Stressors related to exclusion

All cisgender MSM were asked: *"Do you disagree or agree with the following statements on a scale of strongly disagree to strongly agree? Please do not spend too much time thinking about any one statement"*.

- *The mainstream gay community is racist*
- *The mainstream gay community sexually objectifies men of colour*
- *The mainstream gay community discriminates against its members who have HIV/AIDS*
- *The mainstream gay community overly values physically fit bodies*
- *The mainstream gay community overly values penis size*
- *The mainstream gay community overly values being masculine*
- *The mainstream gay community sees older men as less desirable*

Table 6.3 shows respondents' levels of agreement with seven statements on exclusion-related stressors within the mainstream gay community.

Table 6.3 Agreement with statements on exclusion-related stressors within the mainstream gay community

Exclusion subscale agreement statements	Strongly disagree	Disagree	Neither / not sure	Agree	Strongly agree
	% of all cisgender men				
The mainstream gay community is racist n = 9946[a]	17.6	29.5	31.4	17.6	3.9
The mainstream gay community sexually objectifies men of colour n = 9939[b]	12.9	19.8	29.8	30.4	7.1
The mainstream gay community discriminates against its members who have HIV/AIDS n = 9935[c]	10.6	23.9	34.7	25.2	5.6
The mainstream gay community overly values physically fit bodies n = 9937[d]	2.0	5.4	14.1	47.0	31.5
The mainstream gay community overly values penis size n = 9937[e]	1.7	5.0	17.2	47.7	28.4
The mainstream gay community overly values being masculine n = 9929[f]	4.0	13.8	39.4	29.8	13.0
The mainstream gay community sees older men as less desirable n = 9938[g]	2.2	7.2	15.4	42.1	33.1

[a]Missing n = 71; [b]Missing n = 78; [c]Missing n = 82; [d]Missing n = 80; [e]Missing n = 80; [f]Missing n = 88; [g]Missing n = 79.

Around four out of five cisgender respondents agreed that the community overly values physically fit bodies (79 %) and penis size (76 %), while around two out of five felt there is pressure to conform to masculinity standards (43 %). Ageism was prevalent, with around three out of four agreeing that older men are seen as less desirable (75 %). Of all cisgender MSM, 21 % reported high levels of exclusion-related stress.

6.2 Unmet needs for Safer Sex

To engage in safer sex, respondents need opportunities, capabilities, and the motivation to do so. We measured knowledge (motivation), condom access (opportunities) and sexual self-efficacy (capabilities) to provide an overview of unmet safer sex needs.

6.2.1 Self-efficacy: safe as I want to be and easy to say 'No'

Study participants were asked whether they disagreed or agreed with the following two statements.

- *The sex I have is always as safe as I want it to be*
- *I find it easy to say "no" to sex I don't want*

Respondents generally reported high levels of sexual self-efficacy. 87 % agreed or strongly agreed that *the sex they have is always as safe as they want it to be*, while 86 % agreed or strongly agreed that *they find it easy to say "no" to sex they do not want*. **Table 6.4** shows the distribution of responses to each statement.

Table 6.4 Self-efficacy measures

Self-efficacy Agreement	The sex I have is always as safe as I want it to be (%) N = 10 582*	I find it easy to say 'no' to sex I don't want (%) N = 10 580**
Strongly agree	49.1	50.6
Agree	38.3	35.1
Neither / not sure	4.9	5.6
Disagree	5.7	7.1
Strongly disagree	1.9	1.7
Total	**100.0**	**100.0**

*Missing n = 10; **Missing n = 12.

6.2.2 HIV and STI transmission knowledge

All study participants were told: *"The following statements are all TRUE. Did you know this already?"*. Different wording was shown to trans and non-binary participants, highlighted in square brackets. The statements were as follows:

- *HIV cannot be passed during kissing, including deep kissing, because saliva does not transmit HIV*
- *You can pick up HIV through your penis while being 'active' in anal or vaginal sex (fucking) without a condom, even if you don't ejaculate* (shown to AFAB people with metoidioplasty or phalloplasty; without the ejaculation clause)
- *You can pick up HIV through your rectum while being "passive" during sex (being fucked)* (shown to AMAB people with a neo-vagina and to AFAB people with a vagina; with *'rectum/vagina'* instead of '*rectum*')

- *Most sexually transmitted infections can be passed on more easily than HIV*
- *Because they sometimes have no symptoms, people can have sexually transmitted infections without knowing it*
- *The correct use of condoms throughout intercourse reduces the likelihood of picking up and passing on STIs (including HIV)*

Table 6.5 shows the percentages of respondents selecting each response. The last column on the right (*"Did not already know"*) is the overall sum of the respondents who did not already know the statement was true.

Table 6.5 HIV and STI transmission knowledge

HIV and STI transmission knowledge statements	Already knew	Wasn't sure	Didn't know	Don't understand	Don't believe	Did not already know
	% of all respondents					
HIV cannot be passed during kissing, including deep kissing, because saliva does not transmit HIV n = 10 564[a]	91.8	5.8	1.7	0.1	0.7	8.2
You can pick up HIV through your penis while being 'active' in anal or vaginal sex (fucking) without a condom [even if you don't ejaculate] n = 10 232[b]	87.8	8.2	3.6	0.1	0.3	12.2
You can pick up HIV through your rectum/vagina while being 'passive' during sex (being fucked) n = 10 400[c]	95.7	2.8	1.4	0.0	0.1	4.3
Most sexually transmitted infections can be passed on more easily than HIV n = 10 554[d]	78.2	12.2	8.8	0.7	0.2	21.8
Because they sometimes have no symptoms, people can have sexually transmitted infections without knowing it n = 10 536[e]	84.1	8.5	6.8	0.6	0.1	15.8
The correct use of condoms throughout intercourse reduces the likelihood of picking up and passing on STIs (including HIV) n = 10 496[f]	96.3	1.8	1.4	0.2	0.3	3.7

[a]Missing n = 28; [b]Missing n = 39; [c]Missing n = 58; [d]Missing n = 38; [e]Missing n = 56; [f]Missing n = 96.

Basic knowledge about HIV/STI transmission was generally high. However, there is still a lack of knowledge on the HIV risk of insertive intercourse, the existence of asymptomatic infections, and the differences in transmissibility of other STIs compared with HIV.

Overall, 0.5 % of respondents *did not know any* of the *six HIV/STI transmission facts*, 0.9 % did not know *five*, 2 % did not know *four*, 5 % did not know *three*, 9 % did not know *two*, and 16 % did not know *one*. The remaining 66 % indicated they *already knew all six* HIV/STI transmission facts. Community-based education can address knowledge gaps in certain areas.

For comparisons across regions, an overall knowledge gap (%) was calculated as the mean percentage of the six HIV/STI transmission facts that respondents did not al-

ready know (**Table 6.14** and **Chapter 9**). Overall across Germany, the HIV/STI transmission knowledge gap was 12 %. Regional variation of this indicator is presented in **Section 6.7**, at the end of this chapter.

6.3 Unmet needs for safer drug use: drug use concern

Respondents who indicated that they had taken any illicit drug in the last 12 months were asked whether they disagreed or agreed with the following statement: *"I worry about my recreational drug use"*. While current good practice in drug use measurement recommends avoiding the term 'recreational' (as it is imprecise), we have retained it here as the question is identical to that asked in EMIS-2010 and EMIS-2017.

Table 6.6 Concern about recreational drug use among the German sample, and among respondents taking drugs in the last year

'I worry about my recreational drug use'	% of all respondents	% of respondents who used drugs in the last 12 months N = 5614*
Strongly disagree	26.7	50.3
Disagree	9.6	18.1
Neither / not sure	3.3	6.3
Agree	3.2	6.0
Strongly agree	1.2	2.3
I don't take drugs	9.1	17.1
[Not asked as indicated no drug use last 12m]	47.0	
Total	**100.0**	**100.0**

*Missing n = 2.

Among respondents who had used at least one illicit drug in the last 12 months, 8 % agreed that they worry about their recreational drug use, including 2 % who *strongly agreed* (**Table 6.6**). A further 17 % selected *"I don't take drugs"*, despite having reported earlier in the survey that they had used illicit drugs in the previous 12 months. This discrepancy may reflect respondents who had used drugs only infrequently or who had stopped using them during the past year.

Overall, the percentage of all respondents who agreed that they worry about their drug use was 4 %.

6.4 Unmet needs for HIV Pre-Exposure Prophylaxis

HIV pre-exposure prophylaxis (PrEP) is an HIV prevention tactic of taking anti-HIV drugs before and after exposure to prevent HIV infection. In order to take PrEP, respondents need the opportunity to use it, and the motivation to do so and the capability both to access PrEP and to take it effectively.

6.4.1 Unaware of PrEP

Study participants were asked: *"Have you heard of PrEP?"* 96 % indicated *"Yes"* and 4 % responded *"No"*. Therefore, almost all respondents (who were not diagnosed with HIV) had basic PrEP awareness.

6.4.2 PrEP knowledge

Study participants not diagnosed with HIV were asked: *"The following statements are all TRUE. Did you know this already?"* and were offered the following three basis PrEP statements:

- *Pre-Exposure prophylaxis (PrEP) involves someone who does not have HIV taking pills before as well as after sex to prevent them getting HIV*
- *PrEP can be taken as a single daily pill if someone does not know in advance when they will have sex*
- *If someone knows in advance when they will have sex, PrEP needs to be taken as a double dose approximately 2 to 24 hours before sex and then at both 24 and 48 hours after the double dose*

We added two additional facts concerning interactions between gender-affirming hormone therapy and currently available PrEP regimens. These were shown only to trans non-binary people who were taking or planning to take gender-affirming hormones and were followed by the statement: *"Taking PrEP just before and after sex has been shown to be protective in anal but not vaginal intercourse"*.

- *Gender-affirming hormone therapy with testosterone does not affect PrEP efficacy in any way*
- *If you are on oestrogen as part of your gender-affirming hormones, PrEP is effective only if taken in the modality of a single daily pill*

Table 6.7 below shows the percentages indicating each response. The last column on the right (*"Did not already know"*) is the overall sum of the respondents who did not already know the statement was true.

Table 6.7 Pre-Exposure Prophylaxis (PrEP) knowledge

PrEP knowledge statements	Already knew	Wasn't sure	Didn't know	Don't understand	Don't believe	Did not already know
	% of all respondents					
Pre-Exposure prophylaxis (PrEP) involves someone who does not have HIV taking pills before as well as after sex to prevent them getting HIV n = 9226[a]	80.3	11.1	7.6	0.2	0.8	19.7
PrEP can be taken as a single daily pill if someone does not know in advance when they will have sex n = 9197[b]	79.6	9.6	10.3	0.1	0.4	20.4
If someone knows in advance when they will have sex, PrEP needs to be taken as a double dose approximately 2 to 24 hours before sex and then at both 24 and 48 hours after the double dose n = 9186[c]	51.8	18.0	28.8	0.5	0.8	48.2
Gender-affirming hormone therapy with testosterone does not affect PrEP efficacy in any way n = 258[d]	38.4	26.4	34.1		1.2	61.6
If you are on oestrogen as part of your gender-affirming hormones, PrEP is effective only if taken in the modality of a single daily pill n = 66[e]	7.6	4.5	81.8	1.5	4.5	92.4

Note. The final column, 'Did not already know', combines all respondents who did not already know that the statement was true.

[a]Missing n = 25; [b]Missing n = 54; [c]Missing n = 65; [d]Missing n = 1; [e]Missing n = 0.

Overall, 12 % indicated they *did not already know any of the three PrEP facts*, 10 % did not know *two*, and 21 % did not know *one*. The remaining 57 % indicated they *already knew all three* PrEP facts.

For comparisons across regions and vulnerable groups, an overall knowledge gap (%) was calculated as the mean percentage of the first three PrEP facts that respondents did not already know (**Table 6.14** and **Chapter 9**). Overall across Germany, the PrEP knowledge gap was 27 %. Regional variation of this indicator is presented in **Section 6.7**, at the end of this chapter.

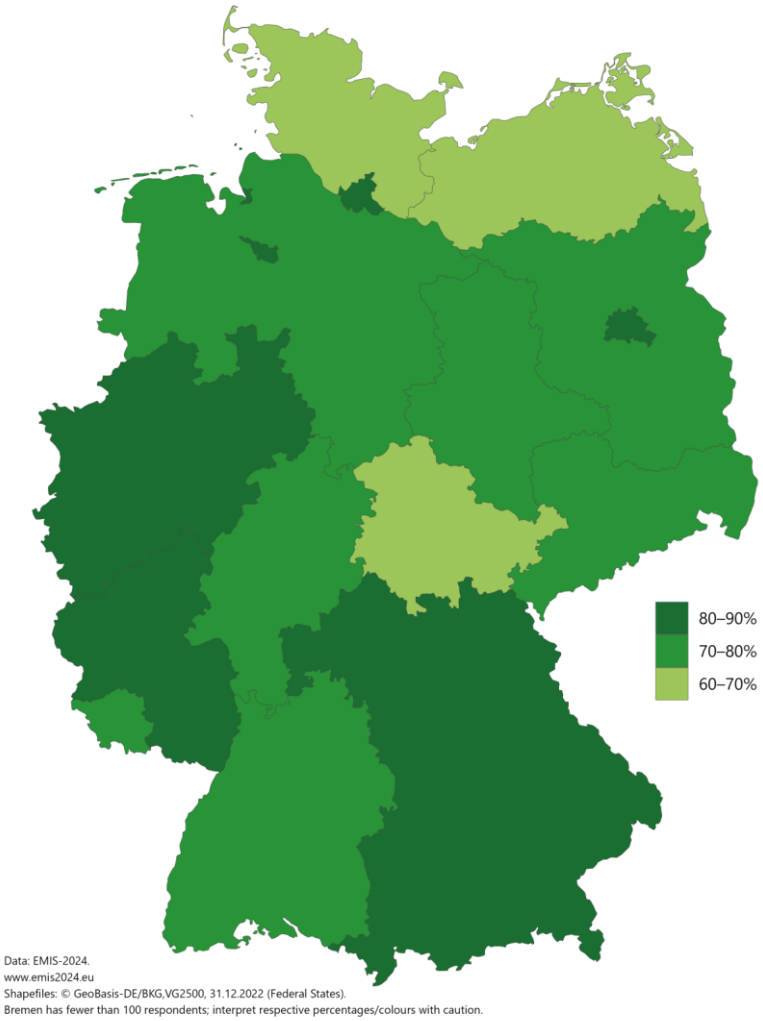
As condom knowledge has become universal after 40 years of condomisation campaigns targeting both the general population and MSM, it can serve as a benchmark for other types of sexual health knowledge (**Map 6.5**). Compared to EMIS-2017 results, across Germany, PrEP knowledge has substantially improved (**Map 6.6**).

Map 6.5: Percentage knowing that correct condom use during intercourse reduces STI (including HIV) transmission (N = 10 496)



Data: EMIS-2024.
www.emis2024.eu
Shapefiles: © GeoBasis-DE/BKG,VG2500, 31.12.2022 (Federal States).
Bremen has fewer than 100 respondents; interpret respective percentages/colours with caution.

Map 6.6: Percentage knowing that taking PrEP protects against HIV (N = 9226)



PrEP knowledge varied substantially across Germany; this unmet need can be addressed with community-based education.

6.4.3 Trusting in U=U or 'PrEP surfing' (relying on partner's PrEP use)

Study participants first received an introductory text defining **Safer Sex**: *Over the past decade, the definition of Safer Sex has experienced significant changes. Previously, Safer Sex primarily revolved around the consistent use of condoms during intercourse. However, our understanding has evolved, and we now recognise that individuals with an undetectable HIV viral load cannot transmit HIV through sexual contact (known as "U=U"), and the use of PrEP before and after sex can effectively prevent HIV infection.* Participants then specified their most frequently used HIV prevention strategy (information about HIV prevention strategies is provided in **Section 5.3.4** and **Table 5.6**).

The two questions on trust in HIV prevention strategies were asked only of a subset of respondents. They were shown to respondents whose last HIV test was negative or who had never been tested for HIV and who reported U=U or 'PrEP-surfing' as their most frequently used HIV prevention strategy. They were not shown to respondents diagnosed with HIV.

Eligible respondents were then asked to rate, on a scale from *"1—not at all"* to *"5—completely"*, the extent to which they...:

- *"...trust U=U (you resp. your partner has an undetectable viral load) as a way to prevent HIV transmission?"*
- *"...trust PrEP surfing (your partner uses PrEP) as an HIV prevention strategy?"*

A total of 211 non-HIV-diagnosed respondents reported relying on **U=U** as their most frequently used HIV prevention strategy. Among them, 26 % reported trusting U=U *"completely"*, while 15 % trusted it only *"a little"* or *"not at all"*.

A total of 237 non-HIV-diagnosed respondents reported relying on **PrEP-surfing** as their most frequently used HIV prevention strategy. Among them, 13 % reported trusting PrEP-surfing *"completely"*, while 9 % trusted it only *"a little"* or *"not at all"*.

Table 6.8 Trust in U=U and 'PrEP surfing' (partner uses PrEP

Amount of trust in U=U and 'PrEP surfing' as HIV prevention strategies	U=U [you or your partner has an undetectable viral load] (%) N = 211*	'PrEP surfing' [your partner uses PrEP] (%) N = 237**
None at all	6.0	3.6
A little	8.6	5.6
A moderate amount	20.6	26.8
A lot	39.3	50.7
Completely	25.5	13.2
Total	**100.0**	**100.0**

*Missing n = 1; **Missing n = 1.

6.5 Unmet needs for HIV testing and treatment

Effective HIV treatment functions as a primary HIV prevention strategy. Since HIV testing is the essential gateway for people with HIV, facilitating HIV testing is now a major goal of most HIV prevention programmes. To test for HIV, respondents need an opportunity to test, the motivation to seek or accept an offer of a test, and the capability of doing so.

6.5.1 HIV test/treatment knowledge

Respondents were told: *"The following statements are all TRUE. Did you know this already?"* and were offered each of the statements:

- *AIDS is caused by a virus called HIV*
- *You cannot be confident about whether someone has HIV or not from their appearance*
- *There is a medical test that can show whether or not you have HIV*
- *If someone becomes infected with HIV it may take several weeks before it can be detected in a test*
- *There is currently no cure for HIV infection (aside from a handful of people who appear to have been cured in the course of treatment for a specific rare type of cancer)*
- *HIV infection can be controlled with medicines so that its impact on health is much less*
- *A person with HIV who is on effective treatment (called "undetectable viral load") cannot pass their virus to someone else during sex*

Table 6.9 below shows the percentages selecting each response. The column on the right adds together all those who did not already know the statement was true.

Table 6.9 HIV testing and treatment knowledge

HIV testing and treatment knowledge statements	Already knew	Wasn't sure	Didn't know	Don't understand	Don't believe	Did not already know
	% of all respondents					
AIDS is caused by a virus called HIV n = 10 580[a]	98.7	0.7	0.2	0.0	0.4	1.3
You cannot be confident about whether someone has HIV or not from their appearance n = 10 546[b]	95.1	1.8	0.5	0.1	2.5	4.9
There is a medical test that can show whether or not you have HIV n = 10 539[c]	98.9	0.6	0.2	0.0	0.2	1.1
If someone becomes infected with HIV it may take several weeks before it can be detected in a test n = 10 539[d]	90.8	5.5	3.2	0.0	0.5	9.2
There is currently no cure for HIV infection (aside from a handful of people who appear to have been cured in the course of treatment for a specific rare type of cancer) n = 10 569[e]	89.9	6.4	2.6	0.2	0.8	10.1
HIV infection can be controlled with medicines so that its impact on health is much less n = 10 541[f]	96.1	3.0	0.7	0.0	0.2	3.9
A person with HIV who is on effective treatment (called 'undetectable viral load') cannot pass their virus to someone else during sex n = 10 541[g]	83.1	10.5	4.5	0.2	1.6	16.9

Note. The final column, 'Did not already know', combines all respondents who did not already know that the statement was true.

[a]Missing n = 12; [b]Missing n = 46; [c]Missing n = 53; [d]Missing n = 53; [e]Missing n = 23; [f]Missing n = 51; [g]Missing n = 51.

A clear majority of respondents (72 %) *already knew all seven HIV test and treat facts*, 0.08 % did *not know any*, 0.08 % did not know *six*, 0.4 % did not know *five*, 1.2 % did not know *four*, 3 % did not know *three*, 7 % did not know *two* and 17 % did not know *one* of the seven HIV test and treat facts.

For comparisons across regions, an overall knowledge gap (%) was calculated as the mean percentage of the seven HIV testing and treatment facts that respondents did not already know (**Table 6.14** and **Chapter 9**). Overall across Germany, the HIV testing and treatment knowledge gap was 7 %. Regional variation of this indicator is presented in **Section 6.7**, at the end of this chapter.

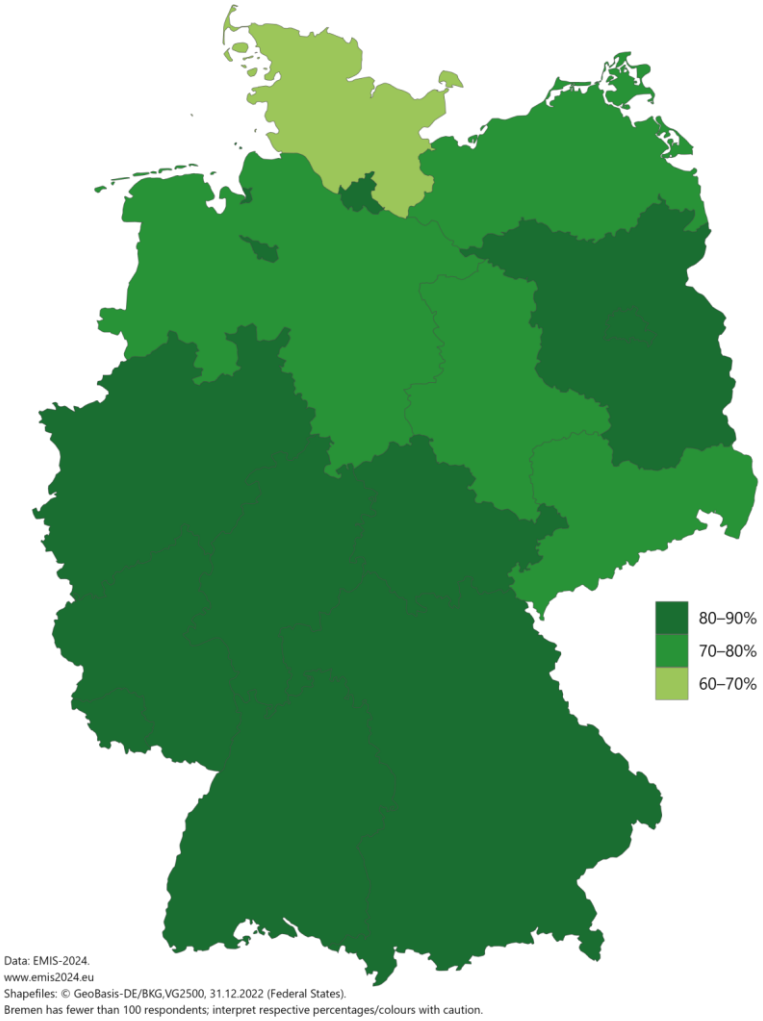
Knowledge of HIV testing and treatment was generally high, except for the fact that a person with HIV who is on effective treatment (called 'undetectable viral load') cannot pass their virus to someone else during sex, with a sum of 17 % who did not know.

The first country to publicly discuss U=U was Switzerland in 2008 (then known as the "Swiss statement")[1] [7]. In 2024, U=U knowledge still showed substantial regional variation across Germany.

Map 6.7 shows U=U knowledge across Germany, thereby highlighting moderate variation.

Beyond its prevention benefits, limited awareness of U=U represents a missed chance to reduce HIV-related stigma, as the certainty of non-transmissibility under effective treatment is central to social acceptance and self-perception among people living with HIV.

Map 6.7: Percentage familiar with U=U (N = 10 541)



[1] In Germany, the *Swiss Statement* is still sometimes referred to as the "*EKAF recommendation*". This term is both unspecific—the former Swiss Federal Commission for AIDS-related Issues (EKAF) issued numerous recommendations—and increasingly difficult to understand, as the Commission has not existed under this name for many years and the abbreviation is now scarcely recognised.

6.5.2 Not knowing where to get an HIV test

Respondents who had never tested for HIV (16 % of all respondents, see **Section 7.5.1**) were asked: *"Do you know where you could get an HIV test?"*. Among those, around one in four respondents (who had never been tested) *did not know* where to get an HIV test (23 %), and 26 % were *"unsure"*. This means a total of 49 % of respondents did not know or were unsure and hence did not have their need for knowing where to get an HIV test met. Increasing community education and promoting available services can help overcome the barrier of not knowing where to get an HIV test.

6.5.3 HIV testing preferences

Effective public health strategies to enhance HIV testing uptake require understanding the motivations and preferences that drive individuals' choices regarding different testing attributes.

All study participants were asked: *"What would be your first choice for HIV testing, if you could choose freely?"* and given the options:

- *General Practitioner/family doctor*
- *A doctor in private practice*
- *At a hospital, clinic or institute as an out-patient*
- *At a hospital as an in-patient*
- *At a community health service or drop-in centre (not in a hospital or clinic)*
- *At a gender-affirming care service*
- *At a blood bank, while donating blood*
- *I would like to use a self-sampling kit (taking my own sample, then send it away for analysis)*
- *I would like to use a self-testing kit (to find out the result on the spot)*
- *In a bar/pub, club or sauna*
- *Mobile testing unit*
- *Elsewhere*

They were then presented with the follow-up question: *"What are the main reasons for your previous choice regarding HIV testing? (Tick as many as apply)"*, to which they could respond with:

- *It is LGBT-friendly*
- *It is affordable*
- *It is non-judgemental*
- *It is easy to reach*

- *It is anonymous*
- *I receive personal advice*
- *It is possible to communicate in my native language*
- *It is led by medical professionals with expertise in sexual health*
- *It is led by peers with expertise in sexual health*
- *It offers additional services to HIV testing*
- *None of the above*

Table 6.10 summarises participants' most-preferred HIV testing options.

Table 6.10 HIV testing preferences

HIV testing preferences	% of respondents with a negative last HIV test N = 8570*
A doctor in private practise	27.6
General Practitioner/family doctor	26.1
At a community health service or drop-in (not in a hospital or clinic)	22.2
I would like to use a self-testing kit (to find out the result on the spot)	12.9
I would like to use a self-sampling kit (taking my own sample, then send it away for analysis)	3.5
At a blood bank, while donating blood	2.0
Mobile testing unit	1.7
At a hospital or clinic as an out-patient, or an institute	1.4
In a bar/pub/club	1.0
At a gender-affirming care service	0.7
Elsewhere	0.6
At a hospital as an in-patient	0.2
Total	**100.0**

*Missing n = 5.

Respondents most frequently preferred to be tested for HIV a doctor in private practise as their first choice (28 %), followed by general practitioner/family doctor (26 %).

The most frequently reported reasons for testing location preferences were: *Non-judgemental* (38 %); *LGBT-friendly* (33 %); *Offers additional services to HIV testing* (33 %); *Receive personal advice* (32 %); *Easy to reach* (31 %)

Among respondents who preferred a doctor in private practice, the most frequently selected reasons were that it is led by medical professionals with expertise in sexual health and that it is LGBT-friendly. Among those who preferred a general practitioner/family doctor, the most frequently selected reasons were that it is easy to reach and that it is non-judgemental. Among those who preferred a community health service or drop-in, the most frequently selected reasons were that it is anonymous and that it is LGBT-friendly. Among those who preferred a self-testing kit with immediate results, the most frequently selected reasons were that it is anonymous and that it is easy to reach.

6.6 Unmet needs for viral hepatitis, HPV, and mpox vaccination

Effective vaccines exist for both hepatitis A and B. In order to benefit from them, respondents need an opportunity to be vaccinated, the capability to be vaccinated, and the motivation to seek or accept vaccination.

6.6.1 Hepatitis A and B, HPV, and mpox knowledge

Respondents were told: *"The following statements are all TRUE. Did you know this already?"* and were offered the statements:

- *'Hepatitis' means inflammation of the liver*
- *Hepatitis is often caused by hepatitis viruses, named after the letters of the alphabet*
- *Vaccines exist for both hepatitis A and hepatitis B*
- *Doctors recommend men-who-have-sex-with-men are vaccinated against both hepatitis A and hepatitis B viruses*

Table 6.11a shows the percentages giving each response. The last column on the right (*"Did not already know"*) is the sum of the respondents who did not already know the statement was true.

Table 6.11a Hepatitis knowledge

Viral Hepatitis knowledge statements	Already knew	Wasn't sure	Didn't know	Don't understand	Don't believe	Did not already know
	% of all respondents					
'Hepatitis' means inflammation of the liver[a] n = 10 572	76.9	10.7	12.0	0.1	0.3	23.1
Hepatitis is often caused by hepatitis viruses, named after the letters of the alphabet[b] n = 10 554	88.0	6.4	5.1	0.3	0.2	12.0
Vaccines exist for both hepatitis A and hepatitis B[c] n = 10 543	91.7	6.2	1.9	0.1	0.1	8.3
Doctors recommend men-who-have-sex-with-men are vaccinated against both hepatitis A and hepatitis B viruses[d] n = 10 171	71.1	12.7	15.7	0.1	0.3	28.9

Note. The final column, 'Did not already know', combines all respondents who did not already know that the statement was true.

[a]Missing n = 20; [b]Missing n = 38; [c]Missing n = 49; [d]Missing n = 58.

Overall, 3 % of respondents *did not know any* of the *four hepatitis facts*, 6 % did not know *three*, 11 % did not know *two* and 20 % did not know *one*. The remaining 60 % *already knew all four* hepatitis facts.

The fact most commonly unknown was that *Doctors recommend men-who-have-sex-with-men are vaccinated against both hepatitis A and hepatitis B viruses*; a need which is unmet in 29 % of respondents.

For comparisons across regions, an overall knowledge gap (%) was calculated as the mean percentage of the four hepatitis facts that respondents did not already know (**Table 6.14** and **Chapter 9**). Overall across Germany, the hepatitis knowledge gap was 18 %. Regional variation of this indicator is presented in **Section 6.7**, at the end of this chapter.

Human Papilloma Virus (HPV) knowledge

Respondents were told: *"The following statements are all TRUE. Did you know this already?"* and were offered the statements:

- *Human Papilloma Virus (HPV) causes anal and genital warts*
- *Human Papilloma Virus (HPV) causes some types of cancer*
- *Vaccines exist for Human Papilloma Virus (HPV)*

Table 6.11b shows the percentages giving each response. The last column on the right (*"Did not already know"*) is the sum of the respondents who did not already know the statement was true.

Table 6.11b HPV knowledge

HPV knowledge statements	Already knew	Wasn't sure	Didn't know	Don't understand	Don't believe	Did not already know
	% of all respondents					
Human Papilloma Virus (HPV) causes anal and genital warts* n = 10 569	54.1	13.5	31.3	0.9	0.2	45.9
Human Papilloma Virus (HPV) causes some types of cancer** n = 10 519	55.5	10.5	33.2	0.6	0.2	44.5
Vaccines exist for Human Papilloma Virus (HPV)*** n = 10 509	58.8	10.3	30.2	0.3	0.4	41.2

Note. The final column, 'Did not already know', combines all respondents who did not already know that the statement was true.

*Missing n = 23; **Missing n = 73; ***Missing n = 83.

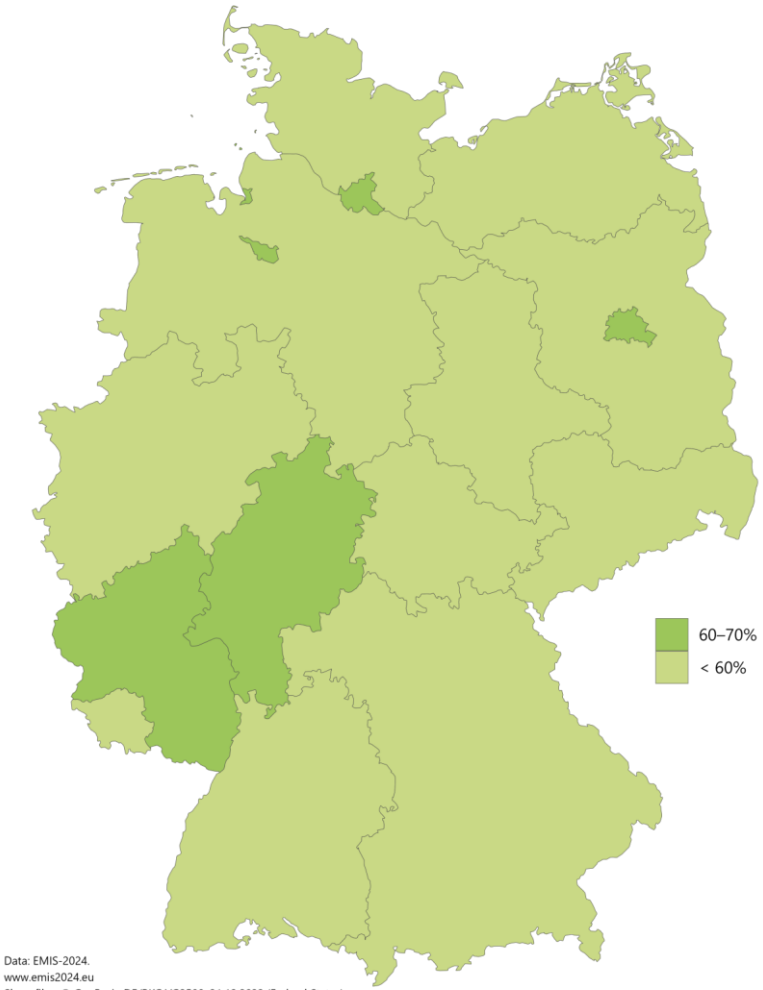
Overall, 30 % of respondents *did not know any* of the *three HPV facts*, 13 % did not know *two*, and 16 % did not know *one*. The remaining 42 % *already knew all three* HPV facts.

The fact most commonly unknown was that *Human Papilloma Virus (HPV) causes anal and genital warts*; a need which is unmet in 46 % of respondents.

For comparisons across regions, an overall knowledge gap (%) was calculated as the mean percentage of the three HPV facts that respondents did not already know (**Table 6.14** and **Chapter 9**). Overall across Germany, the HPV knowledge gap was 43 %. Regional variation of this indicator is presented in **Section 6.7**, at the end of this chapter.

Map 6.8 illustrates awareness of the HPV vaccine, showing minor variation across Germany.

Map 6.8: Percentage reporting awareness of the HPV vaccine (N = 10 509)



Mpox knowledge

Respondents were told: *"The following statements are all TRUE. Did you know this already?"* and were offered the statements:

- *Since the novel outbreak in 2022, mpox has predominantly affected men who have sex with men*
- *Mpox is mainly transmitted during sex or close physical contact*
- *There is a vaccine against mpox that significantly reduces the risk of contracting the disease*

Table 6.11c shows the percentages giving each response. The last column on the right (*"Did not already know"*) is the sum of the respondents who did not already know the statement was true.

Table 6.11c Mpox knowledge

Mpox knowledge statements	Already knew	Wasn't sure	Didn't know	Don't understand	Don't believe	Did not already know
	% of all respondents					
Since the novel outbreak in 2022, `monkeypox´ (mpox) has predominantly affected men who have sex with men and transgender people* n = 10 414	80.1	7.4	11.6	0.2	0.8	38.8
Mpox is mainly transmitted during sex or close physical contact** n = 10 540	80.7	7.6	11.3	0.1	0.3	19.3
There is a vaccine against mpox that significantly reduces the risk of contracting the disease*** n = 10 527	78.0	7.0	14.5	0.1	0.5	22.0

Note. The final column, 'Did not already know', combines all respondents who did not already know that the statement was true.
*Missing n = 26; **Missing n = 52; ***Missing n = 65.

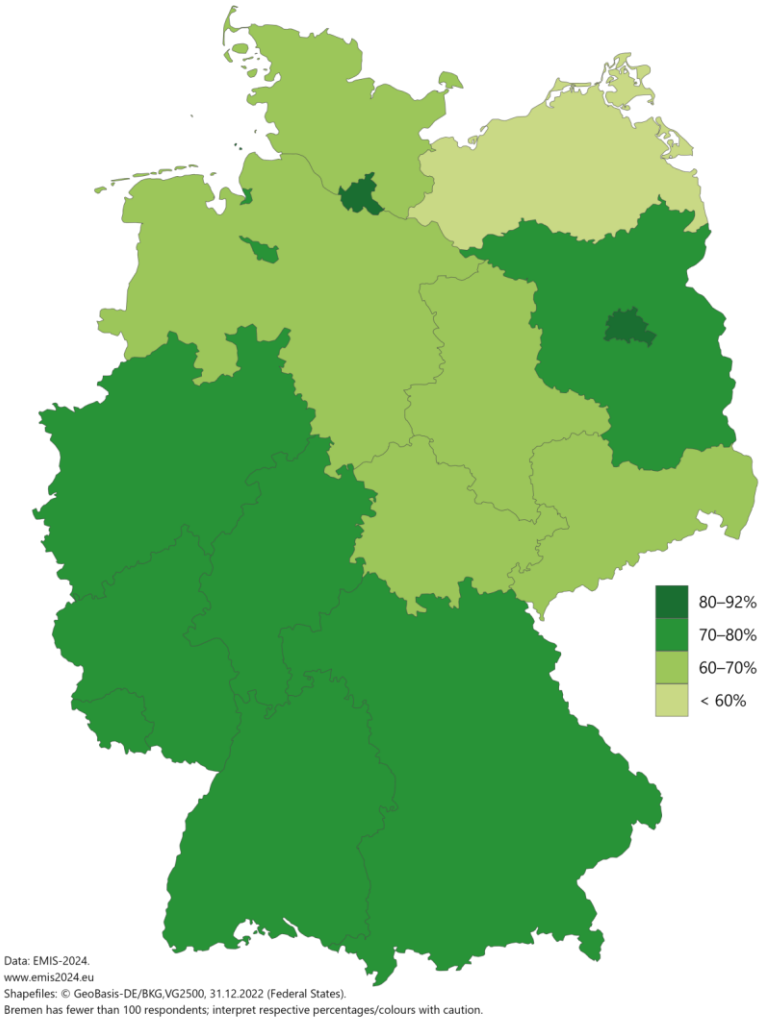
Overall, 12 % of respondents *did not know any* of the *three mpox facts*, 7 % did not know *two*, and 11 % did not know *one*. The remaining 70 % *already knew all three* mpox facts.

The fact most commonly unknown was that *"since the novel outbreak in 2022, `monkeypox´ (mpox) has predominantly affected men who have sex with men and transgender people"*; a need which is unmet in 39 % of respondents.

For comparisons across regions, an overall knowledge gap (%) was calculated as the mean percentage of the three mpox facts that respondents did not already know (**Table 6.14** and **Chapter 9**). Overall across Germany, the mpox knowledge gap was 20 %. Regional variation of this indicator is presented in **Section 6.7**, at the end of this chapter.

Map 6.9 illustrates awareness of the mpox vaccine, showing major variation across Germany.

Map 6.9: Percentage reporting awareness of the mpox vaccine (N = 10 527)



6.6.2 Not knowing where to get hepatitis A and B or mpox vaccination

Respondents who had not been vaccinated against hepatitis A (and did not know they were immune) (n = 1326, 13 %), who had not completed the vaccination course, or who did not know their hepatitis A vaccination status (collectively 30 % of all respondents) were asked: *"Do you know where you could get vaccinated against hepatitis A?"*.

Similarly, respondents who had not been vaccinated against hepatitis B (and did not know they were immune), who had not completed the vaccination course, who did not respond to the vaccination they received, or who did not know their hepatitis B vaccination status (collectively 32 % of all respondents) were asked: *"Do you know where you could get vaccinated against hepatitis B?"*. Responses to both questions are combined in **Table 6.12**.

Respondents who had not been vaccinated against mpox (collectively 67 %) were asked: *"Do you know where you could get vaccinated against mpox (monkeypox)?"*.

Table 6.12 shows the responses to these three questions.

Table 6.12 Knowledge of where to get hepatitis A and B or mpox vaccinations among respondents who could benefit from them

Knowledge where to get vaccinated	...against hepatitis A and/or B (%) (excluding vaccinated and naturally immune) N = 3805*	...against mpox (%) (excluding vaccinated and naturally immune) N = 7120**
No	18.5	40.3
Yes	63.5	46.1
Not sure	18.0	13.7
Total	**100.0**	**100.0**

*Missing n = 7; **Missing n = 24.

Overall, 18 % of respondents who could benefit from hepatitis A and/or B vaccination stated that they did not know where to access it, while a further 18 % were unsure. For mpox vaccination, the corresponding proportions were 40 % and 14 %, respectively.

6.6.3 Protective intentions in case of mpox outbreaks

All study participants were asked: *"If there was a rapid increase in mpox cases in your community, how likely would you take any of the following actions?"*

- *Get vaccinated against mpox [If not yet vaccinated]*
- *Avoid locations where spontaneous sex on the spot is possible*
- *Reduce the number of sexual partners/ avoid group sex*
- *Use condoms for anal intercourse more frequently*

Responses are presented in **Table 6.13**.

Table 6.13 Likelihood of adopting protective measures during a future mpox outbreak

Protective intentions in case of mpox outbreaks	Very unlikely	Quite unlikely	Not sure	Quite likely	Very likely
	% of all respondents				
Get vaccinated against mpox [if not yet vaccinated][a] n = 7125	11.0	7.4	5.8	28.4	47.5
Avoid locations where spontaneous sex on the spot is possible[b] n = 10 508	9.7	13.2	14.0	26.7	36.4
Reduce the number of sexual partners and/or avoid group sex[c] n = 10 516	9.4	11.8	11.6	28.2	38.9
Use condoms for anal intercourse more frequently[d] n = 10 512	12.6	10.4	9.2	17.2	50.6

[a]Missing n = 19; [b]Missing n = 84; [c]Missing n = 76; [d]Missing n = 80.

Across Germany, respondents expressed strong intentions to adopt protective measures in the event of a future mpox outbreak. Intentions were highest for *getting vaccinated against mpox [if not yet vaccinated]* (76 %) and *using condoms for anal intercourse more frequently* (68 %).

6.7 Regional variation in key needs

Table 6.14 Regional variation in key needs

Germany	Qualifying cases	Mean SIHS score [a]	% concerned about own drug use	% lacking control over sexual safety	% lacking control over unwanted sex
Total	**10 592**	**1.0**	**4.4**	**12.5**	**14.3**
Federal States					
Baden-Württemb.	1223	1.1	2.9	12.6	14.2
Bavaria	1435	1.0	2.9	13.6	15.4
Berlin	1570	0.9	8.2	12.2	14.8
Brandenburg	218	1.2	3.2	15.1	21.1
Bremen	89	0.8	(2.2)	(12.4)	(18.0)
Hamburg	438	0.8	5.5	12.1	11.6
Hesse	834	1.0	4.0	11.8	14.7
Mecklenburg-V.	107	1.2	4.7	13.1	13.1
Lower Saxony	667	1.1	2.4	12.0	13.0
North Rhine-Westph.	2336	1.0	4.8	11.6	13.3
Rhineland-Palatinate	343	1.2	3.5	11.4	11.7
Saarland	127	1.2	3.9	14.2	13.4
Saxony	495	1.2	4.4	14.1	16.6
Saxony-Anhalt	171	1.2	6.4	15.2	17.1
Schleswig-Holstein	324	1.1	1.5	13.0	14.8
Thuringia	160	1.1	1.9	13.1	12.0
Cities					
Düsseldorf	176	1.0	9.1	11.9	19.9
Frankfurt	252	1.0	5.2	8.3	13.5
Hanover	124	1.0	0.8	12.1	15.3
Cologne	551	0.8	5.6	10.7	13.3
Leipzig	144	1.2	6.2	12.5	17.4
Munich	488	0.9	4.5	10.3	12.1
Stuttgart	159	1.1	6.3	15.7	13.3

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a] Short Internalised Homonegativity Scale, range: 0–6. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

Table 6.14 Regional variation in key needs (continued)

Germany	Qualifying cases	% knowledge gap: HIV/STI transmission [a]	% not knowing U=U	% knowledge gap: PrEP [b]	% unaware of PrEP	% knowledge gap: HIV test/treat [c]	% not knowing where to test for HIV
Total	**10 592**	**11.7**	**16.9**	**26.7**	**19.7**	**7.1**	**7.8**
Federal States							
Baden-Württemb.	1223	11.7	17.6	26.7	21.7	7.1	9.6
Bavaria	1435	11.7	16.5	26.7	19.8	7.1	7.7
Berlin	1570	6.7	9.3	16.7	10.4	4.3	3.3
Brandenburg	218	11.7	19.3	30.0	23.5	7.1	10.6
Bremen	89	8.3	(11.2)	26.7	(19.5)	5.7	(9.0)
Hamburg	438	6.7	10.3	20.0	14.2	4.3	3.0
Hesse	834	10.0	16.2	26.7	20.2	5.7	6.5
Mecklenburg-V.	107	15.0	28.0	43.3	(35.7)	11.4	16.8
Lower Saxony	667	13.3	22.1	30.0	23.6	8.6	10.3
North Rhine-Westph.	2336	10.0	16.5	23.3	18.5	5.7	7.7
Rhineland-Palatinate	343	11.7	16.6	26.7	18.5	7.1	7.9
Saarland	127	15.0	19.7	30.0	21.5	8.6	9.4
Saxony	495	13.3	25.2	33.3	24.9	10.0	12.9
Saxony-Anhalt	171	11.7	28.0	33.3	28.9	10.0	12.3
Schleswig-Holstein	324	16.7	31.0	36.7	31.5	11.4	11.1
Thuringia	160	15.0	18.1	36.7	33.3	8.6	11.2
Cities							
Düsseldorf	176	8.3	14.8	16.7	10.3	5.7	1.7
Frankfurt	252	8.3	13.1	20.0	13.1	5.7	3.2
Hanover	124	10.0	8.9	16.7	11.2	4.3	8.9
Cologne	551	6.7	8.6	16.7	13.1	4.3	3.1
Leipzig	144	11.7	16.1	23.3	14.8	7.1	6.2
Munich	488	8.3	11.5	20.0	16.6	4.3	3.3
Stuttgart	159	10.0	12.6	23.3	14.3	4.3	2.5

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a]knowledge gap (%) based on 6 items; [b]knowledge gap (%) based on 3 items; [c]knowledge gap (%) based on 7 items. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

Table 6.14 Regional variation in key needs (continued)

Germany	Qualifying cases	% knowledge gap: hepatitis [a]	% not knowing where to get hepatitis A/B vacc.	% knowledge gap: HPV [b]	% not knowing HPV vaccine exists	% knowledge gap: mpox [b]	% not knowing where to get mpox vacc.	% not knowing mpox vaccine exists
Total	**10 592**	**17.5**	**11.4**	**43.3**	**41.2**	**20.0**	**22.0**	**40.2**
Federal States								
Baden-Württemb.	1223	20.0	12.7	46.7	44.5	23.3	24.5	47.8
Bavaria	1435	20.0	10.7	46.7	42.6	20.0	22.3	42.0
Berlin	1570	15.0	7.8	36.7	33.5	10.0	8.4	19.6
Brandenburg	218	17.5	10.1	46.7	40.6	23.3	25.8	47.2
Bremen	89	15.0	(11.2)	40.0	(31.8)	20.0	(20.7)	(39.8)
Hamburg	438	15.0	7.1	40.0	39.7	10.0	10.8	27.2
Hesse	834	15.0	9.8	40.0	38.8	20.0	23.0	43.0
Mecklenburg-V.	107	25.0	22.4	46.7	41.1	36.7	41.1	56.6
Lower Saxony	667	22.5	16.5	46.7	46.0	30.0	31.9	51.2
North Rhine-Westph.	2336	17.5	10.5	43.3	40.6	20.0	20.6	37.8
Rhineland-Palatinate	343	17.5	13.4	43.3	38.6	20.0	23.5	44.4
Saarland	127	17.5	11.8	46.7	47.2	23.3	24.6	50.4
Saxony	495	22.5	14.5	53.3	48.5	33.3	35.2	53.7
Saxony-Anhalt	171	20.0	22.4	50.0	47.1	33.3	38.5	54.7
Schleswig-Holstein	324	20.0	13.9	53.3	49.1	30.0	33.4	51.7
Thuringia	160	22.5	18.9	50.0	49.7	36.7	35.8	57.5
Cities								
Düsseldorf	176	15.0	7.4	43.3	44.9	13.3	15.9	30.7
Frankfurt	252	12.5	7.6	36.7	37.3	13.3	14.9	34.3
Hanover	124	17.5	11.3	36.7	32.3	16.7	16.9	36.9
Cologne	551	12.5	6.7	36.7	34.6	13.3	11.7	22.0
Leipzig	144	22.5	11.1	53.3	48.6	23.3	27.8	49.0
Munich	488	15.0	4.1	40.0	34.0	13.3	12.5	27.2
Stuttgart	159	17.5	12.6	43.3	42.9	20.0	22.0	41.1

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a]knowledge gap (%) based on 4 items; [b]knowledge gap (%) based on 3 items. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

Table 6.14 Regional variation in key needs (continued)

Germany	Qualifying cases	% experienced stigma in healthcare facilities [a]	% anticipated stigma in healthcare facilities [a]	% experienced homo- or trans-neg. verbal harassment [a]	% experienced homo- or trans-neg. violence [a]	% felt unsafe in public spaces [a]
Total	**10 592**	**6.6**	**9.8**	**21.2**	**3.2**	**27.5**
Federal States						
Baden-Württemb.	1223	6.5	10.1	18.6	3.4	26.6
Bavaria	1435	6.9	10.9	19.2	2.3	25.8
Berlin	1570	5.9	7.0	24.5	2.8	32.0
Brandenburg	218	5.5	9.2	17.4	3.7	22.9
Bremen	89	(7.9)	(14.6)	(31.5)	(5.6)	(39.3)
Hamburg	438	5.3	6.6	22.8	2.3	32.2
Hesse	834	7.1	10.1	19.4	4.3	28.3
Mecklenburg-V.	107	7.5	12.1	22.4	3.7	25.2
Lower Saxony	667	6.1	10.0	23.4	4.6	25.6
North Rhine-Westph.	2336	6.7	9.1	22.7	3.2	28.0
Rhineland-Palatinate	343	7.6	12.2	19.0	3.2	24.5
Saarland	127	7.1	8.7	18.9	2.4	21.3
Saxony	495	8.3	14.5	19.0	4.2	23.8
Saxony-Anhalt	171	7.0	11.1	19.9	1.2	23.4
Schleswig-Holstein	324	8.0	15.1	19.8	4.9	23.5
Thuringia	160	5.0	6.9	18.8	1.2	26.2
Cities						
Düsseldorf	176	5.1	8.5	18.2	5.7	31.8
Frankfurt	252	7.1	7.9	19.8	5.6	31.7
Hanover	124	7.3	7.3	24.2	5.6	29.0
Cologne	551	6.2	6.0	24.7	3.4	30.1
Leipzig	144	8.3	11.8	20.8	3.5	25.7
Munich	488	4.9	6.6	18.0	2.0	25.2
Stuttgart	159	5.0	3.8	15.1	2.5	26.4

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a]in the last 12 months. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

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Chapter 7: Interventions

To intervene means to take part in an activity in order to influence the course of events, usually making an outcome more or less likely. Within EMIS, relevant interventions are the actions of others that either support or undermine the health promotion needs described in **Chapter 6**.

Interventions may be positive (addressing needs) or negative (undermining needs and creating unmet need). Positive interventions include education, health and social services, as well as the many ways in which community members support one another. Negative interventions include homonegative legislation, exclusion, and abuse. Unlike in previous reports, we have included negative interventions in **Chapter 6** to improve readability for both NGOs (primarily concerned with needs) and European or governmental institutions (primarily concerned with the performance of health service interventions).

Effective sexual health strategies are grounded in a simple yet evidence-based logic:

1. Raise awareness about sexual health (Section 7.1)

Awareness-raising efforts include providing accessible, accurate, and culturally appropriate information on HIV, STIs, sexual well-being, and available prevention and care services. Education campaigns, programmes for and with key populations, peer-to-peer initiatives, and community outreach can empower individuals to make informed decisions and reduce stigma.

2. Vaccinate where effective vaccines exist and are recommended (Section 7.2)

Vaccination plays a key role in preventing sexually transmitted infections (STIs) such as hepatitis A, hepatitis B, HPV, and mpox, and should be implemented where efficacy is proven and public health guidelines support its use.

3. Protect where effective protective measures are available (Sections 7.3–4)

Protection interventions, including consistent condom use, pre-exposure prophylaxis (PrEP), and—if respective recommendations are implemented—doxycycline post-exposure prophylaxis (doxy-PEP) should be promoted where they have been shown to effectively reduce transmission.

4. Test and treat strategically (Sections 7.6–7)

Testing should be targeted based on the epidemiological situation to identify infections early. Treatment should aim to reduce individual suffering and be offered in cases where there is evidence of individual or public health benefit.

This chapter on intervention performance is divided into subchapters covering HIV/STI education services, vaccination interventions, protection interventions including access to condoms and pre-exposure prophylaxis services, testing interventions for HIV and STIs, treatment interventions, substance use services, and regional variation in interventions.

7.1 HIV/STI education services

Sexual health information—as well as health information more broadly—is more likely to be noticed, understood, and acted upon when it is tailored to the circumstances, identities, and (sexual) preferences of its key populations. For gay, bisexual and other men who have sex with men (MSM), as well as for trans and non-binary people, culturally competent and inclusive messages are particularly important, given the history of stigma and misinformation surrounding HIV and other sexually transmitted infections (STIs).

To assess the extent to which such targeted information currently reaches these groups, cis and trans MSM were asked, *"When was the last time you saw or heard any information about HIV or STIs specifically for men who have sex with men?"*; and trans and non-binary study participants were asked: *"When was the last time you saw or heard any information about HIV or STIs specifically for transgender people?"*. Both groups were then offered a scale to indicate how recently this had occurred. The results are presented in **Table 7.1**.

Table 7.1 Recency of seeing/hearing any information about HIV or STIs specifically for MSM / for transgender people

Last exposure to HIV/STI information specific for MSM, or trans/non-binary people	MSM % N = 10 209*	MSM Cumulative %	Transgender/ non-binary % N = 572**	Transgender/ non-binary Cumulative %
Within the last 24 hours	7.8	7.8	2.6	2.6
Within the last 7 days	19.1	27.0	6.1	8.7
Within the last 4 weeks	23.7	50.7	9.4	18.2
Within the last 6 months	24.9	75.6	13.3	31.5
Within the last 12 months	12.4	88.0	8.7	40.2
Within the last 5 years	6.5	94.5	5.9	46.2
More than 5 years ago	3.0	97.5	1.7	47.9
Never	2.5	100.0	52.1	100.0
Total	**100.0**		**100.0**	

*Missing n = 5; **Missing n = 0.

A clear majority of cis and trans MSM (88 %) had seen MSM-specific information about HIV or STIs in the past 12 months, and around one in two MSM (51 %) had done so in the past four weeks. Among trans and non-binary respondents, the corresponding proportions for exposure to transgender-specific information were 40 % and 18 %.

When combining the answers for MSM and trans/non-binary respondents, 87 % had seen MSM- or trans-specific information about HIV or STIs in the previous 12 months. **Map 7.1** shows reported exposure to MSM- or transgender-specific information on HIV and STIs, with minor variation across Germany.

Map 7.1: Percentage who saw or heard information about HIV or STIs, previous 12 months (N = 10 592)



7.1.1 *IWWIT*

The most prominent sexual health intervention for MSM living in Germany is organised by *Deutsche Aidshilfe* (German AIDS Federation). The national MSM sexual health promotion campaign *"Ich weiß, was ich tu" (IWWIT, "I Know What I'm Doing")* was launched in Germany in October 2008 [1]. It is primarily aimed at men who have sex with men and promotes HIV prevention, safer sex, and sexual self-determination. Since its inception, *IWWIT* has continuously developed and expanded its activities, becoming a central part of *Deutsche Aidshilfe*'s work in supporting sexual health and wellbeing within the gay community. In 2023, the campaign celebrated its 15th anniversary, marking a decade and a half of advocacy and education.

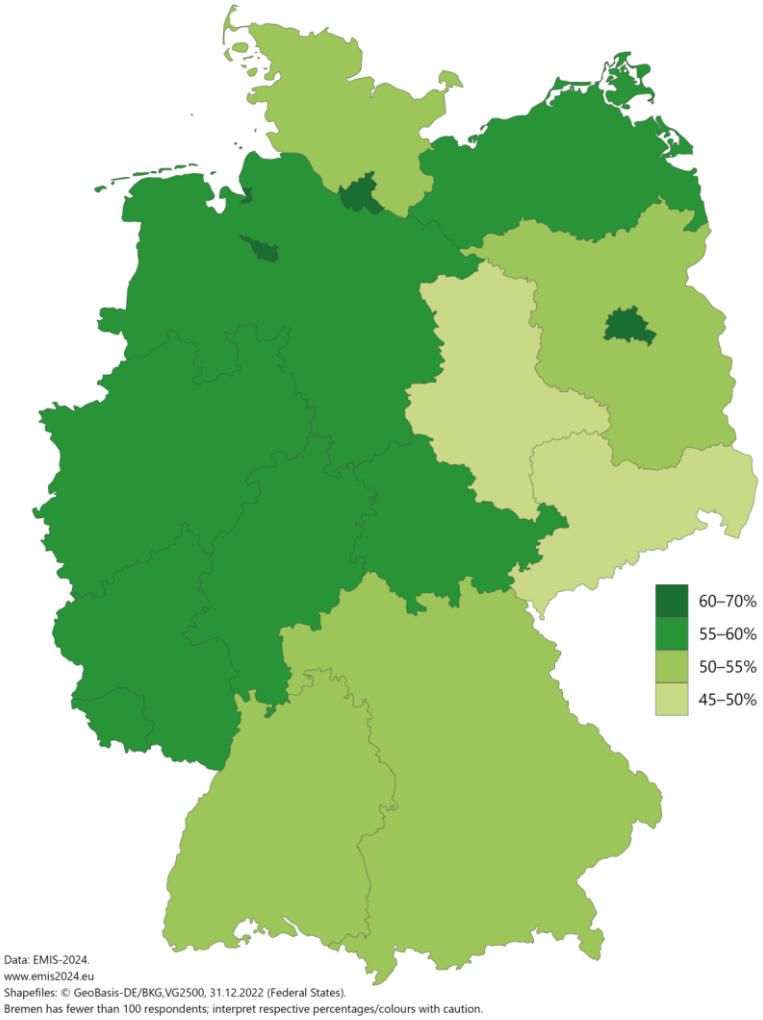
EMIS-2024 study participants residing in Germany who reported a male gender identity and did not identify as heterosexual were asked whether they were aware of *IWWIT*. Overall, 57 % responded *"Yes"*. Across the German federal states, this proportion reached from 48 % in Sachsen-Anhalt to 70 % in Hamburg (**Map 7.1b**), highlighting substantial geographical variation among respondents.

In this non-representative sample of MSM in Germany, most respondents reported being aware of the national sexual health campaign for MSM, *IWWIT*. These data should be interpreted with caution: they do not indicate how frequently respondents engaged with the campaign, whether they visited its website, what they think about it, or when they first became aware of it.

Awareness was generally higher among older respondents, those identifying as gay or homosexual, participants born in Germany and/or speaking German, and lower among trans men. The campaign also appears to particularly reach men living with HIV and those using HIV-PrEP. To better understand these patterns, the following sections examine awareness of *IWWIT* in relation to age, sexual and gender identity, migration background, and HIV status and PrEP use, highlighting key differences across these groups.

Map 7.1b shows the percentage of respondents aware of *IWWIT*, with moderate variation across Germany.

Map 7.1b: Percentage aware of the national sexual health promotion campaign for MSM '*IWWIT*' (N = 10 160)



7.1.1.1 *IWWIT* and age

On average, respondents who were aware of *IWWIT* were older, with a median age of 45 years (IQR: 36–54), compared to those who were not aware, whose median age was 40 (IQR: 28–52). In the youngest age group (16–19 years), 15 % were aware of *IWWIT*. This proportion steadily increased to 60 % in the 30–34 years age group before levelling off.

7.1.1.2 *IWWIT* and sexual / gender identity

Among respondents living in Germany, 77 % identified as "gay" or "homosexual". This proportion was significantly higher among respondents who were aware of *IWWIT* (87 %) compared to those who were not (71 %).

The proportion of respondents who identified as part of the trans community was slightly lower among those aware of *IWWIT* (1.5 %) than among those who were not (2.5 %). Notably, the *IWWIT* question was not shown to trans women and non-binary individuals, so these figures refer exclusively to trans men.

7.1.1.3 *IWWIT* and migrancy

Among respondents living in Germany, 12 % were born abroad. Those who were aware of *IWWIT* were less likely to have been born abroad (9 %) than those who were not (16 %). This pattern is consistent with the language data: respondents aware of *IWWIT* were more likely to have completed the survey in German rather than in one of the 34 other available languages (95 % *vs* 87 %), suggesting that awareness of the campaign is higher among German-born and German-speaking respondents.

7.1.1.4 HIV Diagnosis and PrEP use

Overall, 12 % of respondents residing in Germany reported living with diagnosed HIV. This proportion was notably higher among those aware of *IWWIT* (17 %) compared to those who were not (6 %). A similar trend was observed in the use of HIV pre-exposure prophylaxis (PrEP). While 27 % of respondents overall reported using PrEP, the proportion was significantly higher among those aware of *IWWIT* (34 %) compared to those who were not (19 %).

7.2 Vaccination interventions

Effective vaccines are available for both hepatitis A and B, human papillomavirus (HPV), and mpox. Vaccines against HPV have been in use for many years, but vaccination recommendations and reimbursement policies for MSM and trans people vary widely across European countries. An attenuated poxvirus vaccine has been approved for protection against mpox, though its availability during the 2022 European mpox outbreak varied considerably between countries. Completing a full vaccination course—whether for hepatitis, HPV, or mpox—can be considered a form of precautionary sexual health behaviour. In this context, self-reported vaccination coverage is presented as the outcome of a public health intervention rather than an individual-level behavioural choice.

All study participants were asked:

- *"Have you been vaccinated against hepatitis A?"*
- *"Have you been vaccinated against hepatitis B?"*
- *"Have you been vaccinated against mpox since May 2022?"*

All participants who positively answered knowing about vaccines against HPV were asked:

- *"Have you been vaccinated against HPV?"*

The responses offered and the percentages indicating each are set out in **Tables 7.2–7.4**.

7.2.1 Offers of hepatitis vaccination

All study participants were asked: *"Have you ever been offered any hepatitis vaccination by a health service?"* Overall, 69 % answered *"Yes"*, 23 % answered *"No"* and 7 % answered *"I don't know"* (N = 10 577, missing n = 15). Excluding those who did not know, 75 % had ever been offered hepatitis vaccination by a health service.

7.2.2 Hepatitis A and B vaccination

Among study participants in Germany without a history of hepatitis A and/or hepatitis B, 69 % reported having completed a full course of hepatitis A vaccination, and 68 % reported having completed a full course of hepatitis B vaccination. We counted *"Yes and I completed the course"* for hepatitis A, and *"Yes and I completed the course"* as well as *"Yes but I did not respond to the vaccine"* for hepatitis B. As the number of shots recommended for hepatitis B vaccination varies according to age and product and, as during the 2017 hepatitis A outbreaks among MSM [2,3], the recommended number of shots was reduced from two to one due to scarceness of vaccine availability [4], the questionnaire did not specify the number of shots needed to *"complete the course"* of vaccination.

Table 7.2 Hepatitis A and B vaccination status

Hepatitis vaccination status	% Hepatitis A N = 10 571*	% Hepatitis B N = 10 578**
No, because I've had hepatitis A/B (and am now naturally immune)	3.6	3.1
No, and I don't know if I'm immune	12.5	12.0
No, I have chronic hepatitis B infection	—	0.3
Yes, and I completed the course	66.6	64.4
Yes, but I did not complete the course	3.2	3.0
Yes, but I did not respond to the vaccinations	—	1.7
I don't know	14.1	15.5
Total	**100.0**	**100.0**

*Missing n = 21; **Missing n = 14.

Given the extensive media coverage of hepatitis A outbreaks among MSM across Europe between June 2016 and May 2017 [4], reporting on hepatitis A vaccination is likely to be more reliable than in earlier surveys (*e.g.*, EMIS-2010). However, it remains unclear how sustainable such media-driven awareness is over time. Most of the European countries affected by the outbreaks routinely recommended hepatitis A vaccine for MSM. Yet, seven years after the media attention, 69 % of MSM reported having been vaccinated.

Map 7.2 illustrates self-reported hepatitis A vaccination coverage with moderate variation across Germany.

Map 7.2: Percentage reporting a full course of hepatitis A vaccination, excluding individuals with a history of hepatitis A (N = 10 571, missing n = 21)



When respondents who were unsure about their hepatitis A vaccination status are excluded, the proportion of respondents reporting having completed the course increases from 69 % to 81 % for hepatitis A.

While hepatitis A vaccination is recommended for adults at increased risk of infection (*e.g.*, MSM), the situation differs for hepatitis B. Almost all countries within the WHO European Region recommend universal childhood vaccination against hepatitis B [5]. Thus, younger generations (who received hepatitis B vaccination as a child) might not always be aware of their hepatitis B vaccination status.

Map 7.3 illustrates self-reported hepatitis B vaccination coverage with moderate variation across Germany.

Map 7.3: Percentage reporting a full course of hepatitis B vaccination, excluding individuals with a history of hepatitis B (N = 10 578, missing n = 14)



When respondents who were unsure about their hepatitis B vaccination status are excluded, the proportion of respondents reporting having completed the course increases from 68 % to 81 % for hepatitis B.

7.2.3 HPV vaccination

Human papillomavirus (HPV) vaccination has been introduced across Germany as a key measure to prevent HPV-related cancers and genital warts. Most European countries now offer HPV vaccination programmes for adolescents, typically targeting girls, with an increasing number extending coverage to boys. Despite these efforts, uptake and programme implementation vary considerably between countries, influenced by factors such as national policy, health care infrastructure, and public awareness. Monitoring vaccination coverage and understanding barriers remain essential to maximise the public health benefits of HPV immunisation. Only respondents who knew that a vaccine against HPV exists were asked if they were vaccinated. **Table 7.3** shows the distribution of answers. Across Germany, 18 % reported having received at least

one shot of HPV vaccine, and 27 % said they would have wanted to if it had been available for their gender or age.

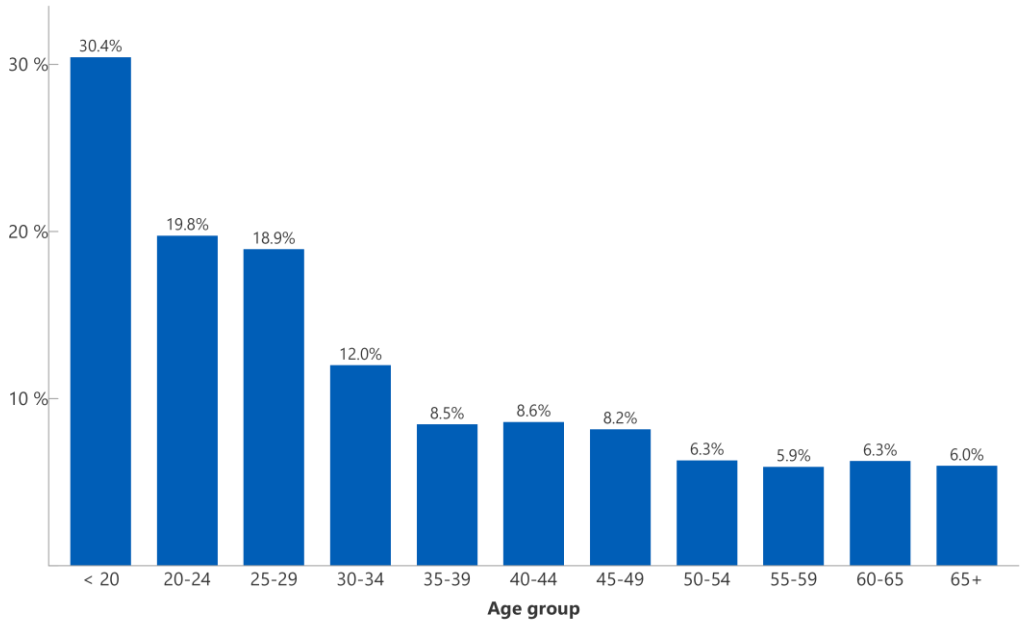
Table 7.3 HPV vaccination status (N = 6147)

HPV vaccination status	% among respondents who already knew about vaccines against HPV N = 6147*
No, I did not want to	32.0
No, I wanted to but it was not available to me because of my gender or my age	27.2
No, I wanted to but I could not afford it	7.5
Yes, at least one shot	17.8
I don't know	15.4
Total	**100.0**

*Missing n = 32.

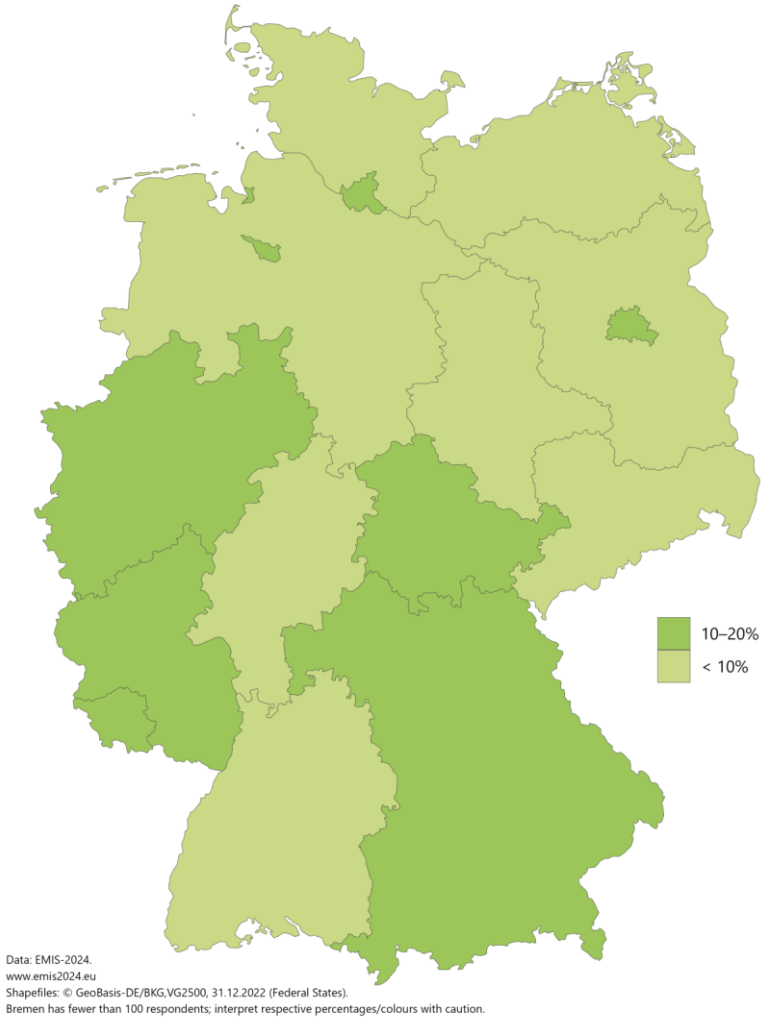
The recommended age for HPV vaccination in males varies across Europe [6]. In most countries, boys are offered vaccination in early adolescence, typically between 11 and 14 years, though some countries provide catch-up programmes for older adolescents and young adults. In the United Kingdom, for example, vaccination is recommended for MSM and trans people up to age 45, while in Switzerland and Italy, it is recommended up to age 26. In most other countries, the recommended upper age limit is lower. Given the relatively recent introduction of HPV vaccination recommendations for boys—*e.g.*, UK 2019 [7], Switzerland and Italy 2015 [8,9]—vaccination coverage shows a pronounced age gradient, as illustrated in **Figure 7.1**. Respondents who were unaware of the existence of an HPV vaccine were counted as unvaccinated.

Figure 7.1: Percentage with at least one shot of HPV vaccine, by age group
(N = 10 560, missing n = 32)



Map 7.4 illustrates self-reported HPV vaccination with minor variation across Germany.

Map 7.4: Percentage reporting at least one shot of HPV vaccine
(N = 10 560, missing n = 32)



When the analysis of self-reported HPV vaccination is restricted to respondents assigned male sex at birth, the overall proportion reporting vaccination decreases from 17.8 % to 16.6 %. In the first four age groups shown in **Figure 7.1**, the corresponding proportions are 26 %, 17 %, 18 %, and 10 %, respectively, while those in the remaining age groups remain unchanged.

7.2.4 Mpox vaccination

Mpox emerged as a notable public health concern in Europe in 2022, predominantly affecting men who have sex with men (MSM) [10,11]. Transmission occurred mainly through close physical and sexual contact [12–14], and several European countries implemented targeted vaccination campaigns and public health interventions for groups at high risk for infection. Despite these efforts, the epidemic highlighted substantial differences in preparedness, vaccination strategies, and outbreak response across countries.

For EMIS-2024, we introduced a question on mpox vaccination, asking: *"Have you been vaccinated against mpox ('monkeypox') since May 2022?"*. **Table 7.4** presents the responses. Around one out of two respondents (55 %) reported that they did not want the vaccination, while around one in eight (13 %) indicated that although they wanted to get vaccinated, the vaccine was not available to them.

Table 7.4 Mpox vaccination status (N = 10 549)

Mpox vaccination status	% of all respondents*
No, I did not want to	54.9
No, I wanted to but it was not available to me	12.8
Yes – with one dose	7.8
Yes – with two doses	19.8
Yes – but I am not sure how many doses	1.0
I don't know	3.8
Total	**100.0**

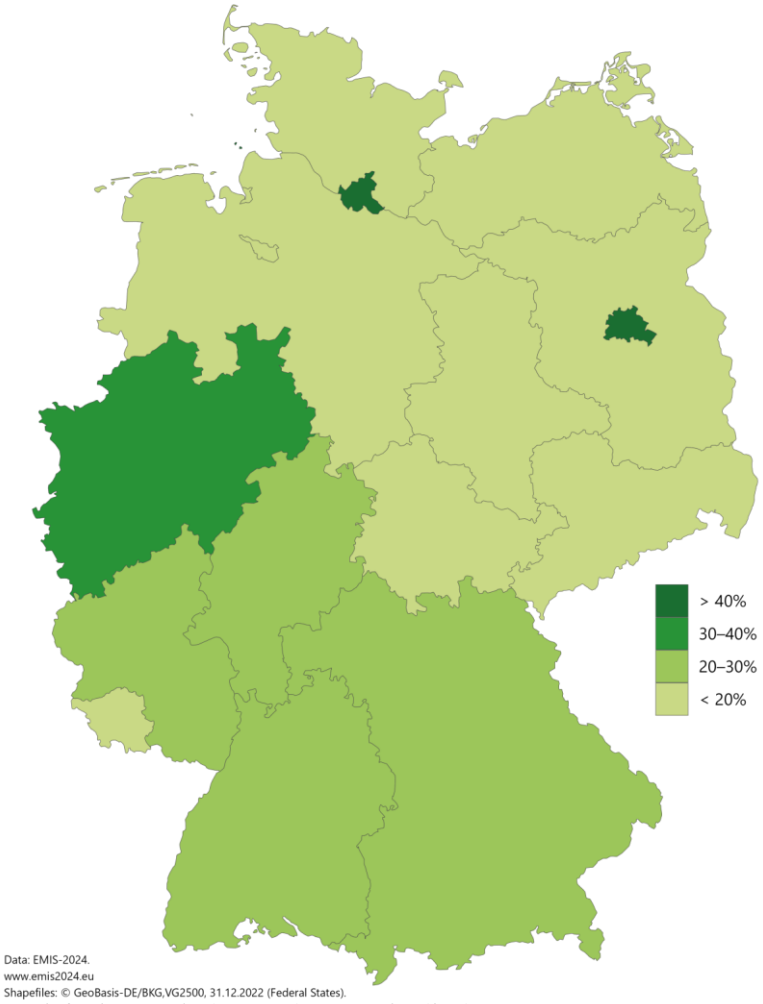
*Missing n = 43.

Respondents not yet vaccinated against mpox were asked, *"Do you know where to go to get vaccinated against mpox ('monkeypox')?"*, and 40 % said *"No"*, and another 14 % were not sure.

Overall, 29 % of respondents reported having received at least one mpox vaccination. A full vaccination course—defined as two doses for most respondents, or one dose for those aged 50 years or older—was reported by 24 %.

Map 7.5 shows the uptake of at least one dose, highlighting major variation across Germany.

Map 7.5: Percentage reporting at least one shot of mpox vaccine since May 2022
(N = 10 549, missing n = 43)



Data: EMIS-2024.
www.emis2024.eu
Shapefiles: © GeoBasis-DE/BKG,VG2500, 31.12.2022 (Federal States).
Bremen has fewer than 100 respondents; interpret respective percentages/colours with caution.

7.3 Protection interventions: Access to condoms

For the longest time in HIV prevention interventions, condom distribution has been a key intervention for increasing access to condoms, and condom packs often carry health promotion information on or inside their packaging. All study participants were asked: *"Where have you got condoms from in the last 12 months?"*, and were asked to tick as many responses as were appropriate from the range of sources in **Table 7.5** below.

Table 7.5 Sources of condoms in the previous 12 months (N = 10 576)

Source of condoms in the last 12 months	% of all respondents*
Bought online	24.1
Bought at physical shop	46.1
Bought from vending machine	1.5
Received from clinics	1.9
Received from gay/LGBTQ+ bars/clubs	17.0
Received from saunas	12.0
Received from community organizations	8.6
Received from friends/sex partners	10.9
Other	2.7
Did not get condoms	23.4

Note. Percentages do not total 100 % because respondents could select more than one response option.
*Missing n = 16.

The most common source of condoms was purchasing them from a physical shop, which was reported by around one in two respondents (46 %). The remaining respondents relied on a variety of other sources.

One of the *Dublin Declaration Monitoring* indicators for HIV assesses the extent of condom promotion and distribution among MSM. To construct this indicator, we combined reports of respondents receiving free condoms from community organisations, clinics, bars, or saunas. Overall, 27 % of respondents reported receiving condoms from at least one of these sources in the past year.

7.4 Protection interventions: PrEP services

Understanding and accessing HIV-PrEP (pre-exposure prophylaxis) requires educational interventions and services that will supply the pills or provide information on where to get them or how to order them online. While in some countries PrEP can be prescribed within national health systems, in other countries this is not possible, and private supplies must be sourced. In some countries neither of these options is available.

7.4.1 Speaking to MSM, trans and non-binary people about PrEP

All study participants without diagnosed HIV were asked: *"Has anyone at a health service in Germany ever spoken to you personally about PrEP?"* Those who answered *"Yes"* were then asked, *"Which health service has spoken to you about PrEP?"*, with

the response options shown in **Table 7.6**. Among them, 33 % reported that someone at a health service in their country had spoken to them about PrEP.

Few respondents reported contact with more than one type of service. Across Germany, common services discussing PrEP were community services outside hospitals or clinics (12 % of all respondents not diagnosed with HIV), outpatient services at hospitals or clinics (1.5 %), and doctors in private practice / general practitioners (29 %). Few had been talked to about PrEP at a gender-affirming care service; however, when restricting the denominator to those taking gender-affirming hormones, this proportion was 9 %.

Among respondents who had discussed PrEP at a health service, the respective proportions were substantially higher, while the relative ranking of services was largely unchanged. Differences between countries were large, but within countries variation was minor, reflecting national health-care organisation.

Table 7.6 Health service having spoken to study participants about PrEP (for all without diagnosed HIV)

Health service where respondents discussed PrEP	% of all respondents not diagnosed with HIV N = 9251*	% of respondents not diagnosed with HIV who had discussed PrEP N = 3022**
	%	%
General Practitioner/family doctor	8.7	26.7
A doctor in private practice	19.6	60.0
At a hospital or clinic as an out-patient	1.5	4.5
At a community service or drop-in	11.8	36.1
At a gender-affirming care service	0.1	0.2
Other	0.8	2.4

Note. Percentages do not total 100 % because respondents could select more than one response option.
*Missing n = 13; **Missing n = 13.

7.4.2 Consulting a health care professional before using PrEP

Access to PrEP is not only about availability of medication, but also about the quality of information and support surrounding its use. Talking to a health care professional before starting PrEP can influence adherence, monitoring, and overall effectiveness. Respondents who had ever taken PrEP were asked: *"Did you speak to a health care professional about PrEP before using it?"* Overall, 97 % of respondents who had taken PrEP (N = 3179, missing n = 1) indicated *"Yes"*, that they had spoken to a health professional before taking PrEP.

7.4.3 Where are PrEP pills obtained from?

Understanding how people obtain PrEP offers insights into accessibility, affordability, and health system preparedness. Sources of PrEP use can highlight gaps between official provision and community demand. Study participants who had ever taken PrEP were asked: *"Where have you got your PrEP pills from?"*. The responses are shown in **Table 7.7**.

Even in 2024, eight years after the first PrEP implementation in Europe (France) and following gradual rollout and public reimbursement starting around 2016–2018 (*e.g.*, Belgium, Germany, Israel, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, and the UK), a large proportion of respondents in some countries still received PrEP *"as a participant in a research study"*.

Around one in 20 respondents across Germany (5 %) reported receiving PrEP at a community health service.

Informal ways of obtaining PrEP—such as using PEP pills as PrEP, using someone else's ART, or receiving PrEP pills from a friend or sexual partner—were reported by 3 % of respondents across Germany.

Table 7.7 Sources of PrEP pills among respondents who had ever taken PrEP

Source of PrEP	% of respondents who had ever taken PrEP N = 3180*
As a participant in a research study	3.4
General Practitioner / family doctor	22.4
A doctor in private practice	58.7
At a hospital, clinic or institute	2.9
At a community health service or drop-in	4.8
From an online pharmacy/abroad	4.2
From a physical pharmacy in the country	26.8
Used PEP pills as PrEP	0.4
Used someone else's ART pills as PrEP	0.5
Given by friend or partner	2.5
At a gender-affirming care service	0.3
Other	0.6

Note. Percentages do not total 100 % because respondents could select more than one response option.
*Missing n = 85.

7.4.4 Involuntary interruptions of PrEP

Around the turn of 2023 to 2024, some people using HIV pre-exposure prophylaxis (PrEP) in Europe experienced interruptions in their medication. These disruptions arose from a range of factors, including difficulties in accessing health services during the COVID-19 pandemic, but were mainly driven by global shortages of PrEP caused by challenges in production, packaging, and transport logistics, alongside other personal or structural barriers to consistent use.

Understanding the frequency and reasons for such interruptions is important for assessing gaps in HIV prevention and ensuring equitable access to PrEP. In EMIS-2024, we therefore asked all study participants who had ever taken PrEP: *"When was the last time you experienced an involuntary interruption of your PrEP medication?"* Around three out of four respondents (73 %) answered *"Never"*, but around one in four (24 %) reported an involuntary PrEP interruption around 2023/24. Reports of interruptions in other years were less frequent and varied by country.

7.4.5 Using antibiotics for the prevention of certain bacterial STIs

Doxy-PEP (doxycycline post-exposure prophylaxis) is an emerging prevention strategy aimed at reducing the incidence of certain bacterial STIs, particularly syphilis and chlamydia. It involves taking a single dose of doxycycline after sexual exposure (ideally within 24 hours, but no later than 72 hours). While research from the United States [15] and France [16] has demonstrated promising reductions in bacterial STI rates among MSM, as well as some trans women, the approach has not yet been widely adopted in Europe. Current discussions focus on its effectiveness, both long-term and on population level, potential antibiotic resistance [17], and how it could fit into broader sexual health strategies [18]. Evidence suggests that antibiotics other than doxycycline are used/misused for STI prevention [19].

Respondents who had used antibiotics for STI prophylaxis in the past 12 months were asked: *"Where did you get your antibiotics from?"*. The responses are summarised in **Table 7.8**. As most antibiotic prophylaxis is likely to have been taken as doxy-PEP, we use this term throughout the report. For any informal use, however, we place the term in quotation marks (' '), as the exact antibiotic used cannot be confirmed.

Table 7.8 Sources of antibiotics for STI prevention ('doxy-PEP')

Source of antibiotics for STI prevention ('doxy-PEP')	% of respondents with 'doxy-PEP' in the past 12 months N = 663*
Prescribed by healthcare provider for STI prevention	50.8
Bought in pharmacy without prescription	6.6
Leftover from previous prescription	33.0
From sexual partner/friend/acquaintance	8.2
From drug dealer	0.5
Bought online or abroad	13.3
Other source	6.3

Note. Percentages do not total 100 % because respondents could select more than one response option.
*Missing n = 8.

Around one in two (51 %) reported being prescribed doxy-PEP for STI prevention by a health care provider, and 58 % reported using doxy-PEP informally or without a prescription. These categories are not mutually exclusive as participants had the option to select more than one source when answering. Substantial variation was observed across Germany in reported sources of antibiotics.

7.5 Testing interventions: HIV testing services

In recent years the regulations regarding HIV testing have been relaxed in many European countries, and HIV tests can be accessed in a variety of settings, including community-based testing (often in the absence of physicians [36] via trained personnel), self-sampling and self-testing [20]. This section considers how far HIV testing is penetrating, which services are providing the tests, whether respondents are satisfied with them and whether health services are pro-active in offering HIV tests.

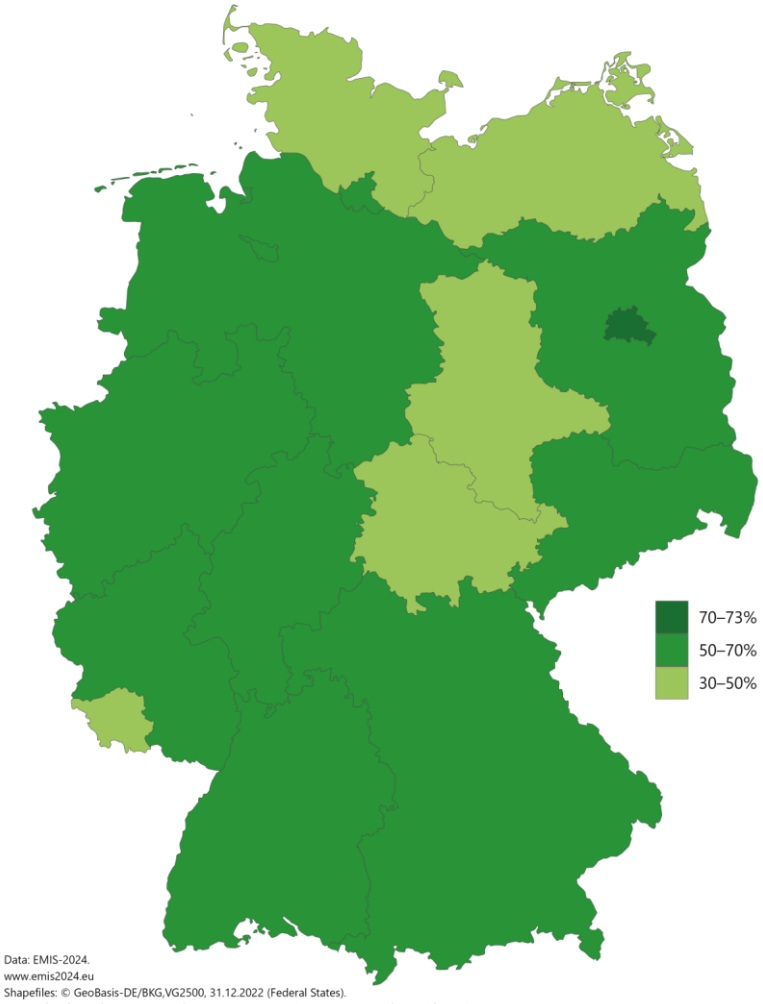
7.5.1 HIV test offers by health services and HIV testing uptake

Study participants were asked: *"Have you ever received an HIV test result?"*. Overall, 84 % (N = 10 584, missing n = 8) indicated that they had received a test result. In contrast, around one in 17 (16 %) answered *"No"* indicating they had never received an HIV test result. Among this group, 86 % reported that they had never been offered an HIV test by a health service (N = 1705, missing n = 1).

Conversely, 4 % reported that they had been *"forced or tricked into taking an HIV test"* when they did not want to take one.

Excluding respondents who had already been diagnosed with HIV more than 12 months ago, 60 % (n = 5524) had received an HIV test result in the previous 12 months. For comparisons with testing for other STIs see **Section 7.9**. **Map 7.6** shows HIV testing uptake, highlighting minor variation across Germany.

Map 7.6: Percentage tested for HIV, previous 12 months, excluding respondents diagnosed prior to this (N = 9278)



7.5.2 Settings for HIV testing and diagnosis

Where people access HIV testing has important implications for reach, equity, and linkage to care. Examining the settings in which tests and diagnoses occur helps identify both the role of mainstream health care services and the contribution of community-based approaches.

Study participants whose last test was negative were asked: *"Where did you go for your last HIV test?"*, and those who had been diagnosed with HIV were asked: *"Where were you initially diagnosed with HIV?"*. Both were offered the responses in **Table 7.9**.

Table 7.9 Setting of last HIV test for MSM whose last test was negative, and setting of first HIV diagnosis among those who tested positive for HIV

Where HIV testing or diagnosis took place	Last HIV test (%) N = 7541*	Initial HIV diagnosis (%) N = 1285**
General Practitioner/family doctor	27.9	30.4
A doctor in private practice	31.3	24.0
At a hospital or clinic as an out-patient, or an institute	3.4	6.1
At a hospital as an in-patient	3.2	11.8
At a community health service or drop-in (not in a hospital or clinic)	20.1	19.8
At a blood bank, while donating blood	3.8	3.0
I used a self-sampling kit (I took my own sample then sent it away to be analysed)	1.8	0.3
I used a self-testing kit (I found out the result on the spot)	5.9	1.7
In a bar/pub, club or sauna	0.2	0.0
At a mobile testing unit	0.3	0.2
At a gender-affirming care service	0.1	0.0
Elsewhere	2.0	2.6
Total	**100.0**	**100.0**

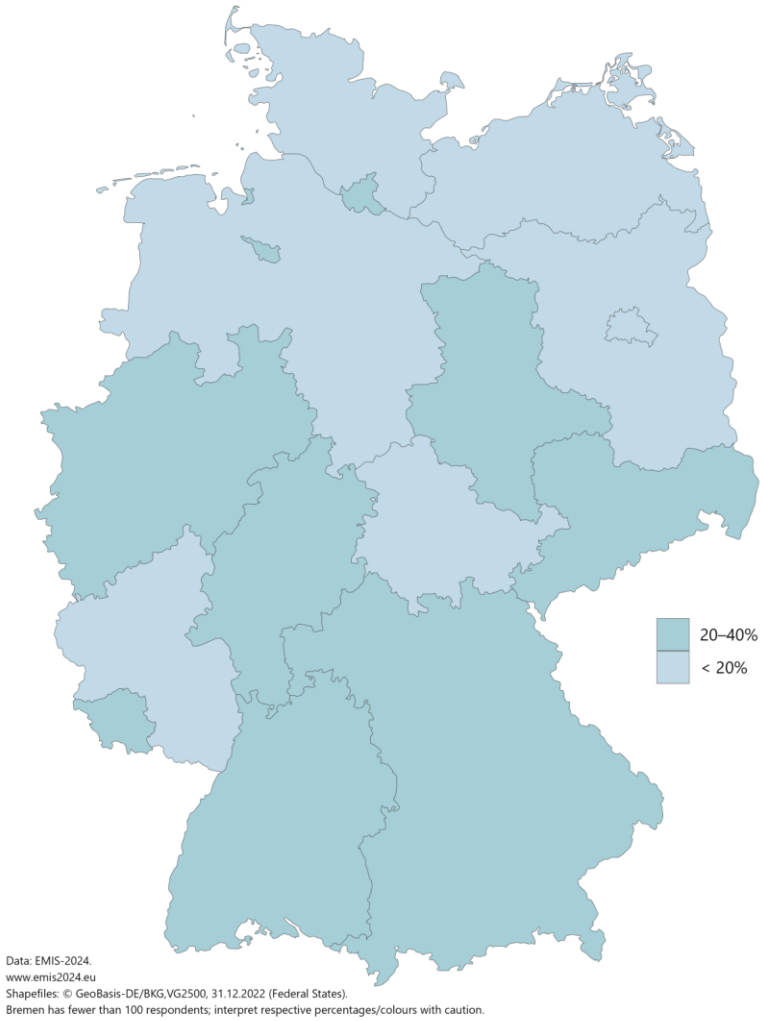
*Missing n = 4; **Missing n = 4.

HIV tests were provided across a range of service settings, with no single type of setting dominating. Respondents most commonly received an HIV test at a private practice—combining general practitioners and other private doctors—which accounted for 59 % of last tests among those who tested negative, and 54 % among HIV-diagnosed respondents. This was followed by a hospital or clinic (outpatient and inpatient taken together accounted for 7 % when the last test was negative, and 18 % among HIV-diagnosed respondents).

Thus, our data suggest that clinical settings still dominate HIV testing in Germany, whether this is an outpatient service at a hospital or in private practice. Which of the two clinical settings is dominant in a specific country depends largely on the health care system of that country.

The third most common setting for HIV testing was through community health services, including outreach work (21 %). **Map 7.7** shows the proportion of community based voluntary counselling and testing (CBVCT) at the last HIV test across Germany, highlighting moderate variation within Germany.

Map 7.7: Percentage using community-based HIV-testing at last HIV test (N = 8886)



Despite existing deferral policies for MSM (or for people engaging in anal intercourse) in many European countries, almost 4 % had had their last (negative) HIV test while donating blood [21].

HIV self-sampling and HIV self-testing had been used by 1.8 % and 6 %, respectively, of respondents whose last test was negative; and by 0.3 % and 1.7 %, respectively, of respondents who were diagnosed positive.

Preferences for future HIV testing differed from past testing patterns. When asked about their *preferred* HIV testing option (*"What would be your first choice for HIV testing, if you could choose freely?"*), responses were broadly similar across options, except for a lower proportion preferring a hospital setting (1.6 %), and higher proportions choosing self-sampling (4 %) or self-testing (13 %).

7.5.3 Acceptability of post-HIV test support

The experience of HIV testing goes beyond the test result itself; the support and information provided afterwards can shape how people understand their status, cope with the outcome, and engage with follow-up care. Assessing satisfaction with post-test support highlights both the strengths and the shortcomings of current testing services.

Study participants whose last HIV test was negative were asked: *"The last time you tested for HIV, how satisfied were you with the support and information you received?"* and respondents who had been diagnosed with HIV were asked: *"When you were diagnosed HIV positive, how satisfied were you with the support and information you received?"*. Both were offered the responses in **Table 7.10**.

Table 7.10 Satisfaction with support and information received during testing

Satisfaction with support and information received during HIV testing	Last HIV test negative (%) (N =7540)*	Diagnosed HIV (%) (N = 1285)**
I did not receive any support or information	18.2	11.4
Very satisfied	45.2	36.6
Satisfied	24.9	31.4
Dissatisfied	1.7	7.9
Very dissatisfied	1.6	7.2
I don't remember / I did not think about it	8.3	5.5
Total	**100.0**	**100.0**

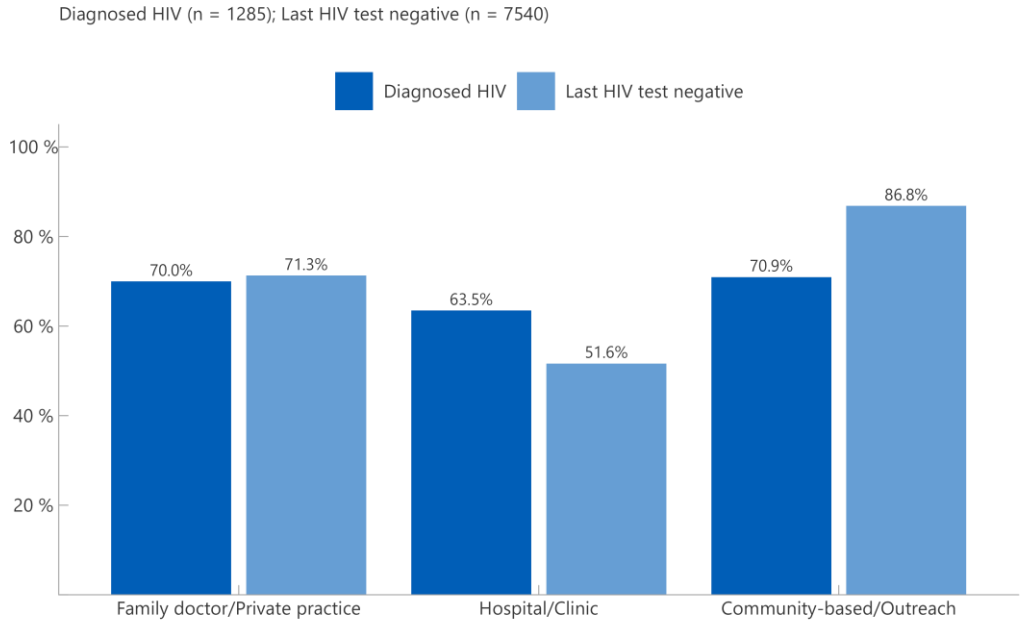
*Missing n = 4; **Missing n = 5.

Respondents were more likely to receive support or information if they were diagnosed with HIV than if they were not. However, around one in nine respondents with diagnosed HIV (11 %) still received no support or information.

Overall, 15 % of respondents who tested positive, compared with 3 % of respondents who tested negative, were dissatisfied with the support or information received.

As **Figure 7.2** demonstrates, satisfaction was highest among respondents reporting that their last HIV test was community-organised, either at a drop-in or during outreach.

Figure 7.2: Percentage satisfied or very satisfied with support and information received at last HIV test (N = 8825, missing n = 9)



7.6 Testing interventions: STI testing services

7.6.1 Awareness of client's sexuality among STI test providers

Whether or not health care providers are aware of a client's sexual behaviour can affect the quality of sexual health care they deliver, including the tests offered and the advice provided. Exploring disclosure and awareness helps to highlight barriers to open communication and potential gaps in STI prevention and treatment.

Study participants who had had an STI test in the previous year were asked: *"On that occasion (at the last test), did your health care provider know you have sex with men?"*. **Table 7.11** shows the possible responses and the proportions indicating each.

Table 7.11 Disclosure of sex with men to health care provider during an STI test

Disclosure of sex with men to healthcare provider during last STI test	% of all respondents who tested for STIs in the past 12 months N = 5480*
Yes, they definitely knew	81.5
Yes, they probably knew	11.0
No, they did not know	5.5
I don't know whether they knew or not	2.0
Total	**100.0**

*Missing n = 3.

Around four out of five respondents (81 %) who had undergone an STI test in the previous 12 months felt confident that their health care provider was definitely aware they had sex with men, while around one in 17 (6 %) reported that their provider was not aware.

7.6.2 Uptake of STI testing

Uptake of STI testing is central to early diagnosis and timely treatment for many STIs, yet patterns of uptake vary across populations and over time. Examining both lifetime and recent testing helps to identify groups with better access to routine screening as well as those more likely to test only when symptoms occur.

All study participants were asked: *"Have you ever had a test for sexually transmitted infections (STIs) other than HIV?"* Overall, across Germany, 72 % answered *"Yes"*, 25 % answered *"No"* and 3 % answered *"I don't know"*. When those who did not know were excluded, 75 % had ever had a test for STIs other than HIV.

Respondents who answered *"Yes"* were then asked, *"When did you last have a test for STIs other than HIV?"*, and asked to indicate how recently this had occurred. Overall, 54 % of respondents reported having had an STI test within the previous 12 months. This proportion has increased in Germany since 2010 (33 %; N = 47 796) and 2017 (40 %; N = 21 323).

Figure 7.3 shows these recency responses across four groups:

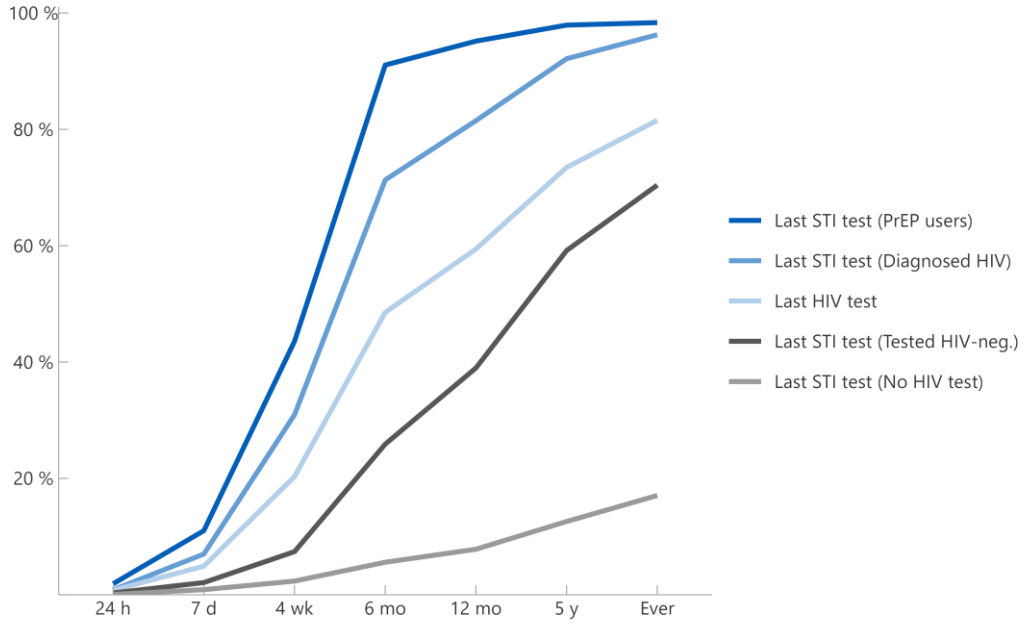
1. PrEP users, who in most European countries are recommended to have STI screening every three months
2. Respondents with diagnosed HIV, who are recommended to be screened for syphilis every six months
3. Other respondents who have ever tested for HIV
4. Other respondents who have never tested for HIV

The recency of STI testing in these groups is then compared with the timing of the last HIV test among all respondents not already diagnosed with HIV (see **Section 7.5.1**).

Among PrEP users, 95 % had been tested for STIs in the previous 12 months, compared to 81 % of respondents with diagnosed HIV, and 39 % and 8 % among non-PrEP users who had previously tested for HIV or had never tested, respectively.

Although bacterial STIs such as syphilis, gonorrhoea, and chlamydia are more easily transmitted and less stigmatised than HIV, respondents without regular clinical follow-up (including PrEP users and people living with HIV) reported STI testing less often than HIV testing. Most clinical guidelines for HIV-positive MSM and PrEP users recommend routine blood tests for syphilis, which explains the higher testing rates in these groups. However, many guidelines recommend syphilis screening every six months for all sexually active MSM [22].

Figure 7.3: Cumulative recency of testing for HIV and other STIs



Study participants who had an STI test in the previous 12 months were asked: *"Did you have any symptoms on that occasion?"* Overall, 83 % answered *"No"*, suggesting the test was part of routine screening; 16 % answered *"Yes"*, indicating that symptoms prompted them to seek health care; and 0.8 % responded *"I don't remember"* (N = 5718, missing n = 10). Excluding those who did not remember, 83 % of respondents who had an STI test in the previous 12 months were asymptomatic at their last test. This suggests that most STI testing among MSM is driven by routine screening recommendations.

To better understand the impact of screening and partner notification on diagnoses, EMIS-2024 respondents diagnosed with gonorrhoea in the previous 12 months (n = 1043), as well as respondents diagnosed with chlamydia (n = 943), were asked: *"The last time you were diagnosed with [gonorrhoea/chlamydia], what was the reason for testing?"*.

Regarding diagnosed gonorrhoea, around one out of two (53 %) reported having symptoms (pain, discharge, etc.), while 15 % were tested following partner notification, and 31 % had a routine check-up. Similarly, for diagnosed chlamydia, 39 % reported symptoms, 13 % were notified by a partner with chlamydia, and 47 % had a routine check-up. These results indicate that gonorrhoea, particularly penile gonorrhoea, is more likely than chlamydia to cause noticeable symptoms.

7.6.3 Uptake of hepatitis C testing

Hepatitis C is rarely transmitted sexually, even among MSM [23]. For EMIS-2024, respondents were given the following information: *"While there is currently no vaccine available for hepatitis C, the good news is that most infections can be fully cured with daily medication taken over a period of 8 to 12 weeks. The majority of infections result from exposure to blood due to unsafe injection practices or due to sexual activities that can lead to blood exposure. It is recommended that individuals who engage in these practices undergo testing for hepatitis C."*

All study participants were then asked: *"When have you last been tested for hepatitis C?"*, with a scale to indicate how recently this had occurred. Overall, 34 % of respondents had been tested for hepatitis C within the previous 12 months.

Figure 7.4 shows testing recency for the same four groups presented earlier:

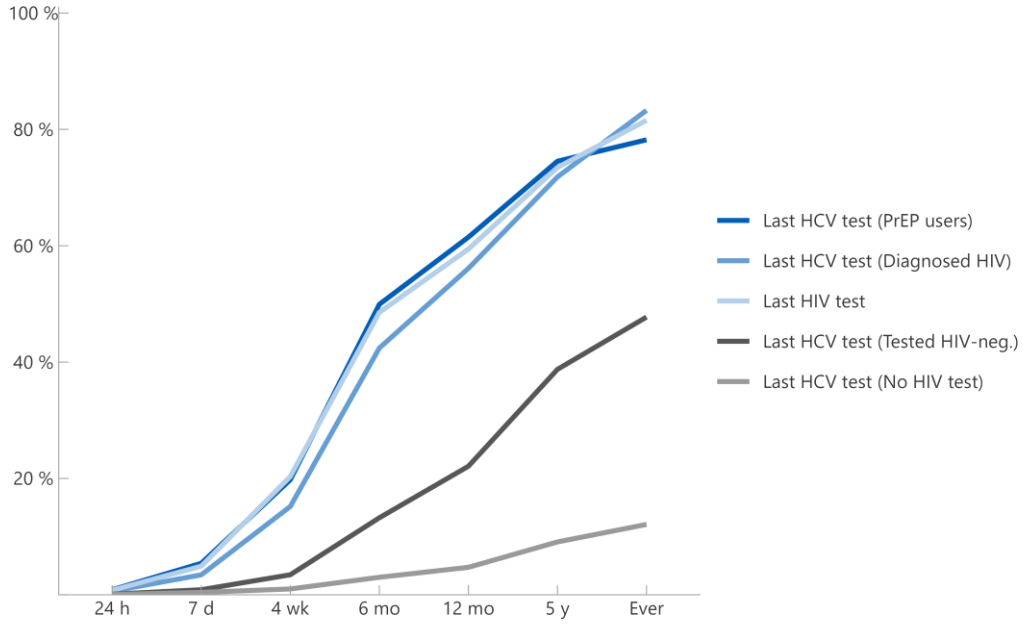
1. PrEP users, who in most European countries are recommended to have regular hepatitis C screening
2. Respondents with diagnosed HIV, who are recommended to be screened for hepatitis C every six months
3. Other respondents who have ever tested for HIV
4. Other respondents who have never tested for HIV

The recency of hepatitis C testing in these groups is also compared with the timing of the last HIV test among all respondents not already diagnosed with HIV (see **Section 7.5.1**).

Among PrEP users, 61 % had been tested for hepatitis C in the previous 12 months, compared with 56 % of respondents with diagnosed HIV, and 22 % and 5 % among non-PrEP users who had previously tested for HIV or had never tested, respectively.

Respondents without regular clinical follow-up reported lower levels of hepatitis C testing than of HIV or STI testing. This likely reflects current screening practices: as hepatitis C is less efficiently transmitted sexually than HIV, routine testing is recommended primarily for specific groups. Most clinical guidelines for MSM living with HIV, and many guidelines for PrEP users, include regular hepatitis C testing, which helps explain the comparatively higher testing rates observed in these groups.

Figure 7.4: Cumulative recency of testing for HIV and hepatitis C



7.6.4 Elements of STI testing

STI testing is not a single procedure but a combination of different components that vary according to a person's body, clinical guidelines, and local practice. Assessing which elements are included helps to understand the quality and completeness of testing across populations.

7.6.4.1 Genital STI testing

In EMIS-2024, transgender and non-binary participants were asked to respond to the following: *"So we can ask appropriate questions about STI tests, and because people's bodies differ, please let us know if you have... (Tick all that apply)"* with the options depending on previous answers: For respondents assigned female at birth: "*A vagina*"; "*A vulva with no vaginal opening*"; "*A penis (metoidioplasty)*"; "*A penis (phalloplasty)*"; and for respondents assigned male at birth: "*A penis*", "*Testicles*", "*A (neo)vagina*", "*A (neo)vulva with no vaginal depth (without vaginal opening)*".

All study participants were then asked a series of questions (appropriate to their morphology) about what elements of an STI screening they had experienced in the previous year. Unfortunately, due to a technical error, two questions used in the previous two EMIS waves were *not* shown to respondents: *"Have you provided a blood sample as part of any STI test in the last 12 months?"* and *"Have you provided a urine sample as part of any STI test in the last 12 months?"*. The remaining questions and responses are given in **Table 7.12**.

As described above, respondents were asked morphology-specific questions about elements of STI screening they had experienced in the previous year. Vaginal swabs are more sensitive for detecting genital gonorrhoea and chlamydia than urine samples. Among respondents with a vagina or related body parts (N = 118 who answered the question), 75 % reported having had a vaginal swab as part of STI testing in the past 12 months. In comparison, among respondents with a penis or related body parts (N = 5545 who answered the question), 40 % reported a urethral swab as part of STI testing in the past 12 months.

However, due to a technical error, EMIS-2024 cannot report the overall proportion of respondents tested for genital STIs, as the question on providing a urine sample was omitted, regardless of body parts.

Table 7.12 Elements of STI testing among those who tested for STIs in the previous 12 months

Elements of STI testing experienced in the last 12 months	Urethral swab (%) N = 5545[a]	Penis examination (%) N = 5455[b]	Vaginal swab (%) N = 118[c]	Vagina examination (%) N = 117[d]	Anal swab (%) N = 5698[e]	Anus examination (%) N = 5692[f]
No	59.2	63.0	23.7	53.0	34.3	68.1
Yes	39.9	35.8	75.4	41.9	65.2	30.4
Not sure	0.8	1.2	0.8	5.1	0.5	1.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

[a]Missing n = 1; [b]Missing n = 41; [c]Missing n = 0; [d]Missing n = 1; [e]Missing n = 30; [f]Missing n = 36.

7.6.4.2 Anal swabbing

Following our EMIS-2010 and EMIS-2017 publications on the performance of STI screening services for gay and bisexual men across European cities [24,25], we recommended including an indicator for comprehensive STI testing in the ECDC monitoring framework. A full STI screen was defined as having reported the following tests in the previous 12 months: an HIV test (unless already diagnosed with HIV), a blood test for other STIs, an anal swab, and either a urethral/meatal or vaginal swab or a urine sample. However, due to the loss of two questions caused by a technical error, this indicator can no longer be constructed.

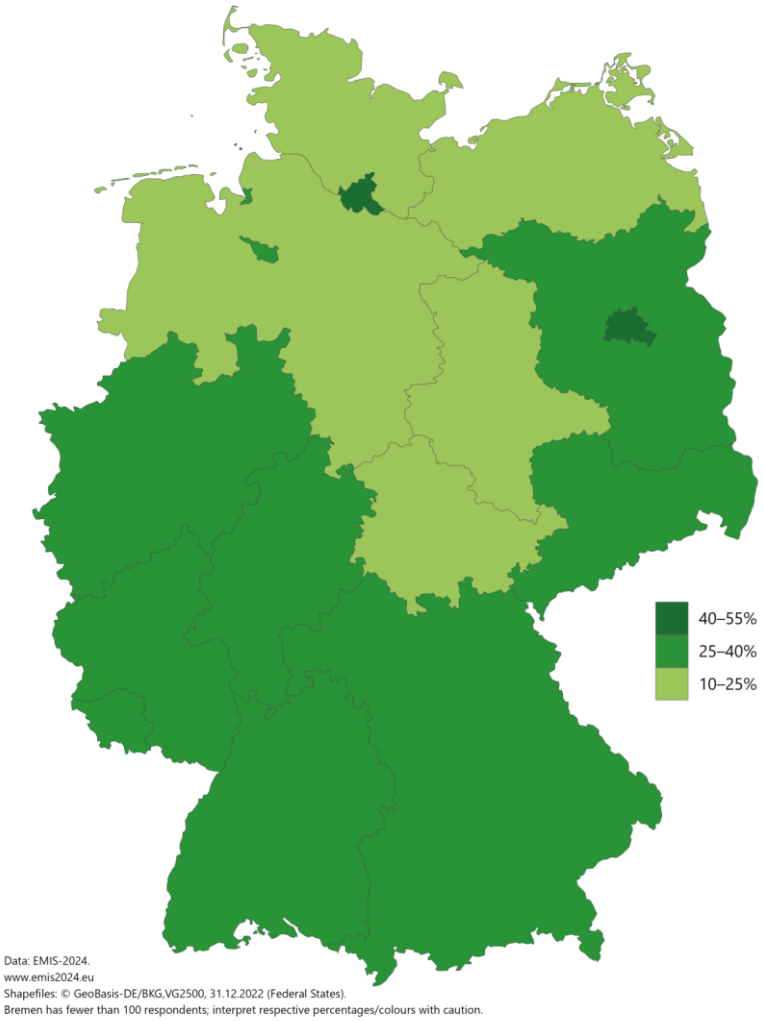
Whether regular and widespread STI screens for gonorrhoea and chlamydia provide a public health benefit remains under debate, with recent research suggesting they may not [26–29]. These debates, however, do not affect the continued need to screen MSM for syphilis. Syphilis testing is blood-based rather than reliant on anal, genital, or pharyngeal swabs, and in previous EMIS rounds it was almost universally included in STI testing [24,25]. In EMIS-2017, blood testing for STIs—primarily syphilis—was included in 92 % of all reported STI tests [30].

Between 2010 and 2017, the use of anal swabbing increased markedly across European cities [25]. Shortly after the completion of EMIS-2024 fieldwork, Belgium and the Netherlands issued new guidelines that discontinued routine asymptomatic screening—even for MSM—despite the fact that asymptomatic infections among MSM occur most frequently in the oropharynx and rectum/anus where they often don't cause symptoms [31].

In EMIS-2017, across Europe, anal swabbing was performed in 37 % of all reported STI tests conducted in the previous 12 months [30]; in Germany, the corresponding proportion was 36 % (N = 21 323), up from 21 % (N = 47 796) in EMIS-2010 [32]. By EMIS-2024, this proportion had increased to 65 % in Germany—although sampling bias cannot be ruled out as a possible explanation for differences in the crude proportions. If this substantial increase is not entirely a sampling artefact, it could largely explain the recently observed rises in diagnosed gonorrhoea and chlamydia in Europe [27,33], including Saxony (the only German federal state where gonorrhoea has been notifiable since 2001, whereas routine notification has not yet been fully implemented nationwide).

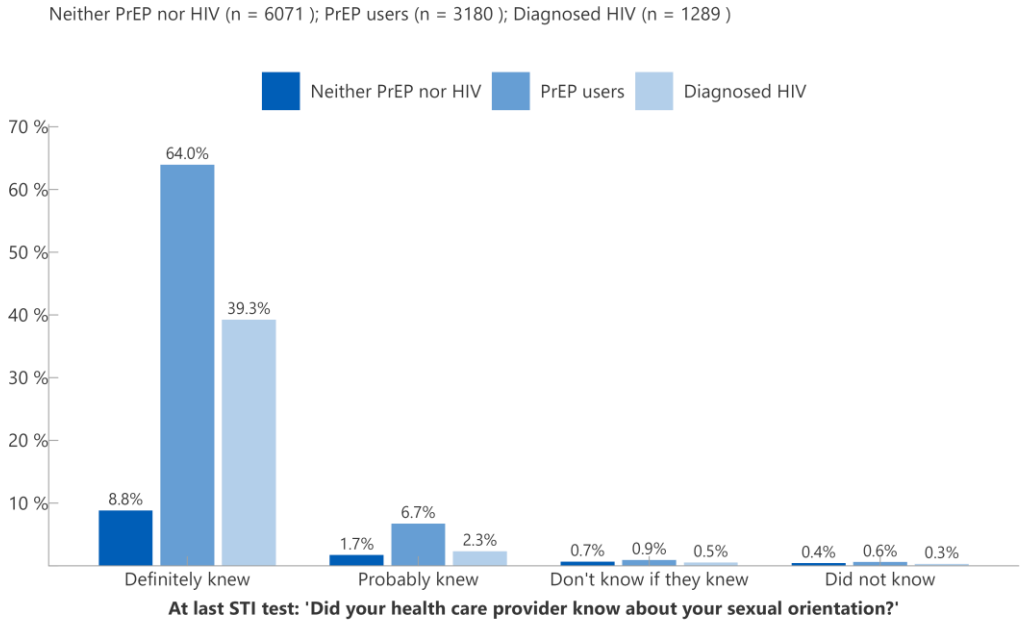
The previous figures refer to the proportion of STI tests that included an anal swab. In contrast, **Map 7.8** presents a respondent-based measure: the proportion of all respondents (regardless of whether they reported an STI test) who reported undergoing an anal swab in the past 12 months, thereby highlighting major variation across Germany.

Map 7.8: Percentage receiving anal swabbing as part of STI testing, previous 12 months (N = 10 592)



Having received anal swabbing in the past 12 months was associated with disclosure of having sex with men, as well as with PrEP use or being in clinical care for HIV (**Figure 7.5**). Clinical guidelines in 2024 recommended anal swabbing for all PrEP users: 64 % of PrEP users received anal swabbing in the past 12 months when their provider knew they had sex with men, *vs* 0.6 % when they did not. Among respondents not using PrEP (and not being diagnosed with HIV), anal swabbing was reported by 9 % when their provider knew they had sex with men, *vs* 0.4 % when they did not.

Figure 7.5: Anal swabbing as part of STI testing, by disclosure of sex with men (basis: all respondents with an STI screen in the previous 12 months)



7.6.4.3 Genital and anal physical examinations

Among respondents with a vagina or related body parts (N = 117 who answered the question)—none of whom were cisgender women—a vaginal physical examination, which is standard practice in gynaecology, was reported by 42 %. By comparison, among respondents with a penis or related body parts (N = 5455 who answered the question), 36 % reported having undergone a physical examination of the penis (**Table 7.12**).

In contrast, anal examinations—typically carried out to detect anal warts or non-transmissible conditions such as fissures—were the least frequently reported element of STI testing. Only around one in three (30 %) respondents indicated having had such an examination (N = 5692). This low prevalence reflects a shift in clinical practice: as anal self-swabbing has increasingly replaced physician-performed swabbing, comprehensive anal physical examinations are becoming uncommon and, in many settings, are now the exception rather than the rule.

Anal fissures are a fairly common anorectal condition, and they can occur among anally receptive men, particularly those with less experience. Traumatic injury to the anal canal (for example, from stretching, friction, or passing large or hard objects) is implicated in fissure development.

7.6.5 Partner notification for diagnosed gonorrhoea

Partner notification is a key element of STI control, enabling early diagnosis and treatment to prevent onward transmission. Examining how often and under what circumstances partners are informed provides insight into both individual behaviour and the role of health care providers in supporting this process.

Study participants who had been diagnosed with gonorrhoea in the previous 12 months were asked: *"The last time you were diagnosed with gonorrhoea, did you (or your health care provider) inform your recent sexual partners that they also needed a test/treatment?"*. An identical question was asked of respondents diagnosed with syphilis in the previous 12 months, however, due to a technical mistake, this question was lost.

Table 7.13 Partner notification for gonorrhoea when diagnosed in the previous 12 months

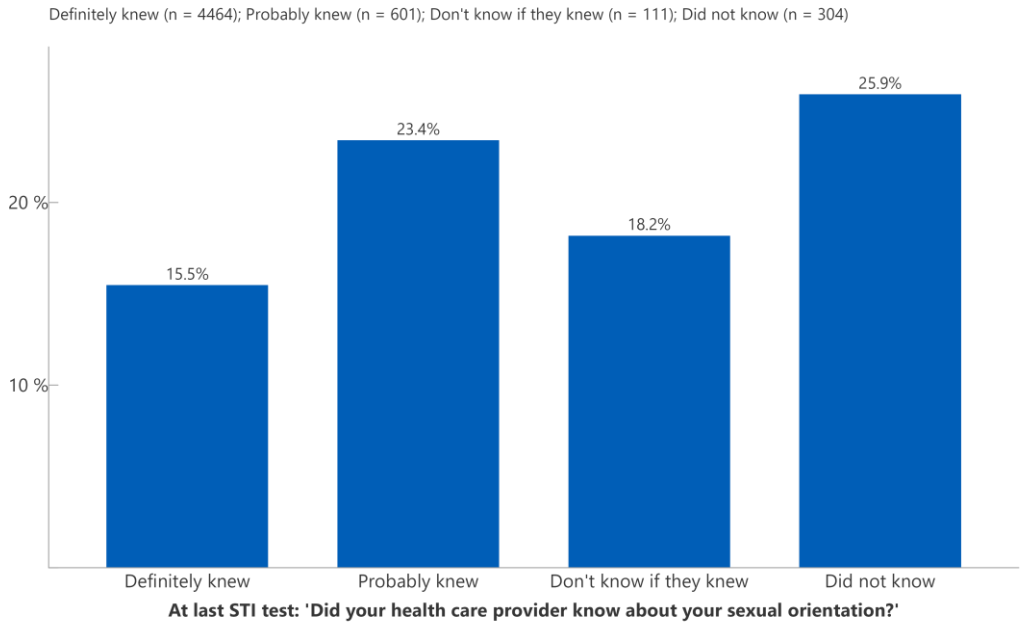
Partner notification for gonorrhoea	% of respondents diagnosed with gonorrhoea in the previous 12 months N = 1043*
No, none of them	15.1
Yes, some of them	40.1
Yes, all of them	43.3
I don't remember	1.4
Total	**100.0**

*Missing n = 0.

Around four out of five (83 %) diagnosed with gonorrhoea in the previous 12 months informed at least some of their sexual partners that they needed to seek a test or treatment (**Table 7.13**).

Partner notification was associated with disclosure of having sex with men. Among respondents undergoing STI testing in the previous 12 months who were sure the health care provider knew they had sex with men, 15 % did not notify their sex partners regarding their diagnosis of gonorrhoea, compared to 26 % who said their health care provider did not know (**Figure 7.6**). Thus, taking a sexual history might have a direct impact on onward transmission of STIs.

Figure 7.6: Absence of partner notification for gonorrhoea as a function of disclosure of sex with men at last STI test



7.7 Treatment interventions

Access to and uptake of treatment is a cornerstone of effective sexual health interventions. This section examines treatment for STIs, viral hepatitis, and HIV, with attention to adherence to guidelines and progress towards international goals.

7.7.1 STI treatment

STI treatment uptake was nearly universal. Among respondents diagnosed with syphilis or gonorrhoea, 98 % and 99 %, respectively, reported having received treatment. Focusing on gonorrhoea, for which all European treatment guidelines recommend ceftriaxone administered by injection, around one in four respondents (27 %) reported being treated oral medication only. A further 33 % received both oral medication and an injection, while 38 % were treated with an injection alone.

7.7.2 Treatment for Hepatitis B and C

Chronic viral hepatitis remains a major health concern, but effective treatment can prevent long-term complications and onward transmission. Here we assess access to specialist care for hepatitis B and reported clearance of hepatitis C following treatment.

Among the 30 respondents in Germany reporting chronic hepatitis B, only 63 % received specialist care.

Among the 278 respondents ever diagnosed with hepatitis C, 68 % reported that their infection had been cleared with treatment.

7.7.3 HIV monitoring and treatment: cascade of care

Successful HIV treatment requires both consistent clinical monitoring and access to antiretroviral therapy. Analysing the HIV care cascade provides insight into how many people with diagnosed HIV are linked to, retained in, and benefiting from care.

Study participants with diagnosed HIV (12 % of all respondents, see **Chapter 3** were asked, *"When did you last see a health professional for monitoring your HIV infection?"*, and were offered a scale to indicate how recently this had occurred. **Table 7.14** shows the responses.

Table 7.14 Recency of seeing a health professional to monitor HIV infection (among HIV-diagnosed respondents)

Recency of HIV monitoring by a health professional N = 1286*	Respondents diagnosed with HIV*	
	%	Cumulative %
Within the last 24 hours	2.4	2.4
Within the last 7 days	10.5	12.9
Within the last 4 weeks	46.0	58.9
Within the last 6 months	39.3	98.1
Within the last 12 months	0.9	99.0
Within the last 5 years	0.5	99.5
More than 5 years ago	0.3	99.8
Never	0.2	100.0
Total	**100.0**	

*Missing n = 3.

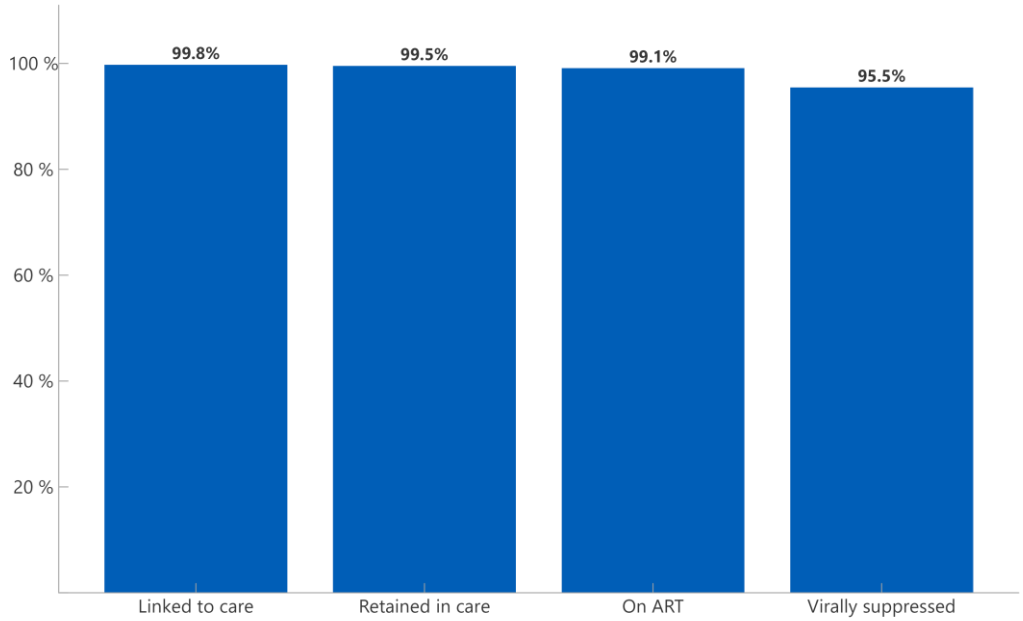
In Europe (and Germany) HIV RNA is routinely monitored every 3–6 months in people receiving ART, with more frequent testing during treatment initiation and until viral suppression has been achieved [34]. Accordingly, almost all (98 %) were monitored within the previous six months. However, 1 % indicated having had their infection medically monitored longer than 12 months ago or never.

For the construction of ECDC monitoring indicators related to HIV care, we defined ever having an HIV infection monitored as **linked to care** (HIV care cascade stage 3), and having an HIV infection monitored in the past six months as **retained in care** (HIV care cascade stage 4). Measuring the proportion of HIV-diagnosed MSM linked to and retained in care is challenging using clinical data, such as HIV cohort studies [35]. According to the above definition, across Germany, 100 % were linked to care, and 100 % were retained in care (**Figure 7.7**). The difference between the **retained in care** indicator and monitoring within the last six months is due to the receipt of antiretroviral treatment, as in some settings viral load measurements are conducted less frequently than every six months.

As for the subsequent two stages of the HIV care cascade, 99 % of HIV-diagnosed respondents were **receiving ART** (HIV care cascade stage 5, see **Chapter 5**), and 95 % of HIV-diagnosed respondents had **undetectable viral load** (HIV care cascade stage 6). The latter corresponds to 96 % of respondents receiving antiretroviral treatment.

Among HIV-diagnosed EMIS-2024 study participants in Germany, the second (on ART among diagnosed) and third (virally suppressed among those on ART) of UNAIDS' three 95-95-95 goals were reached in 2024.

Figure 7.7: Clinical stages of the HIV care cascade for MSM in Germany

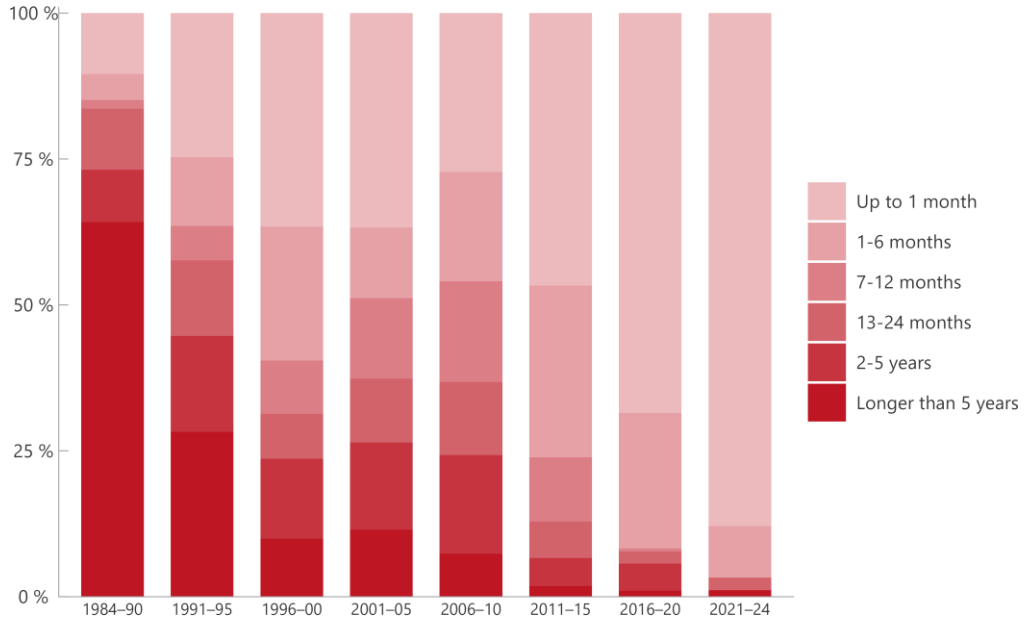


7.7.4 Timing of ART initiation

Prompt initiation of antiretroviral therapy (ART) after an HIV diagnosis is critical for both individual health and reducing onward transmission. **Figure 7.8** illustrates how the interval between diagnosis and starting ART has changed over time, highlighting the temporary adoption of the 'Hit hard and early' strategy in 1996 and the overall trend towards progressively earlier treatment initiation.

Across Germany, among people diagnosed with HIV between 2021 and 2024, 88 % initiated ART within one month of diagnosis, and a further 9 % within one to six months—representing a marked improvement over time.

Figure 7.8: Delay of ART initiation by year of HIV diagnosis (N = 1289)



7.7.5 Involuntary interruption of antiretroviral treatment (ART)

Around the turn of 2023 to 2024, some people in Europe using antiretroviral treatment (ART) for HIV experienced interruptions in their medication. These disruptions arose from a range of factors, including difficulties in accessing health services during the COVID-19 pandemic, but were primarily driven by global shortages of antiretrovirals caused by challenges in production, packaging, and transport logistics, alongside other personal or structural barriers to consistent use.

Understanding the frequency and reasons for such interruptions is important for assessing gaps in the HIV cascade of care and ensuring equitable access to ART.

In EMIS-2024, all participants taking ART were asked: *"When was the last time you experienced an involuntary interruption of your anti-HIV medication?"* Almost all respondents (93 %) reported *"Never"*, while the remainder indicated experiencing interruptions in the past. Around one in 100 respondents (1.4 %) reported an involuntary interruption of their life-saving medication around 2023/24. Reports of interruptions in other years were less frequent and varied by country. The much lower proportion of involuntary ART interruptions contrasts sharply with the experience of involuntary PrEP interruptions.

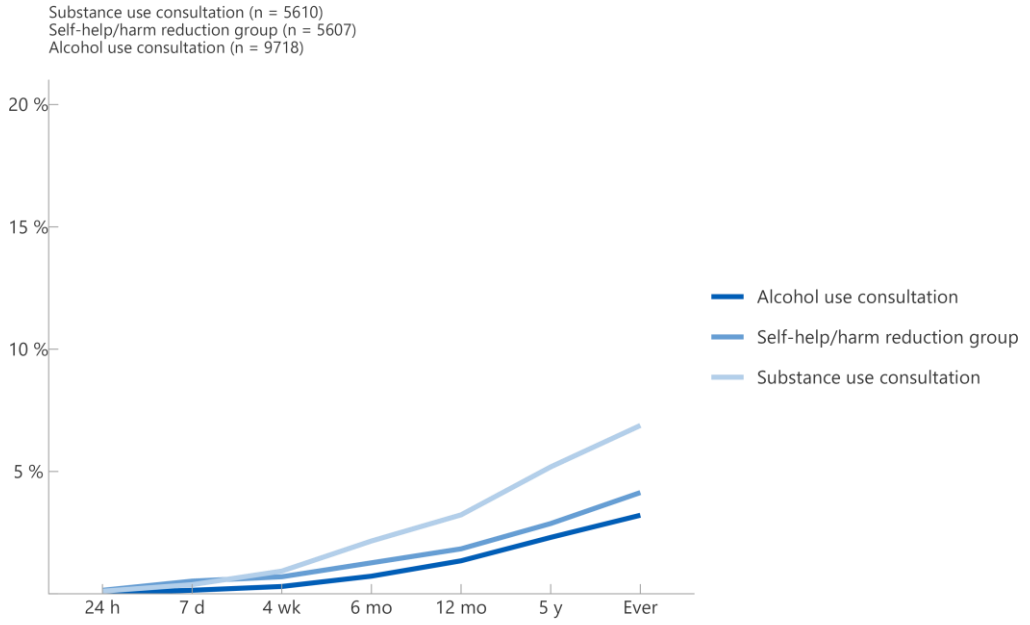
7.8 Substance use services

Substance use services—such as counselling, one-to-one therapy, and group session—can support individuals in managing their drug use, including progressing towards abstinence. Respondents who reported any substance or alcohol use in the previous 12 months, regardless of the level of consumption, were asked three questions about their use of substance use services:

- *"Have you ever consulted a health professional for your alcohol use concerns?"*
- *"Have you ever consulted a health professional for your drug use concerns (apart from tobacco use)?"*
- *"Have you ever attended a self-help group, harm reduction programme or counsellor about your drug us (apart from tobacco use)?"*

For each statement, study participants were offered a scale to indicate how recently this had occurred. The cumulative percentages for having done these three things within each period are shown in **Figure 7.9** which also shows the percentage for each response.

Figure 7.9: Cumulative recency of consulting health services for drug/alcohol use concerns (among people using drugs or alcohol)



Among respondents who had used alcohol in the previous 12 month (92 % of the German sample), 0.03 % had consulted a health professional for alcohol use concerns. Among respondents who had used illicit drugs (including cannabis) in the past 12 months, around one in 33 respondents (3 %) had consulted a health professional for drug use concerns, and around one in 50 (1.8 %) reported attending a self-help group, a harm reduction programme or counsellor regarding drug use (apart from tobacco use).

7.9 Regional variation in interventions

Table 7.15 Regional variation in key interventions

Germany	Qualifying cases	% saw/heard specific HIV/STI information [a]	% has been offered hepatitis vaccination [b]	% full course of HAV vacc. [c]	% full course of HBV vacc. [d]	% at least one shot of HPV vaccine	% at least one shot of mpox vaccine [e]
Total	**10 592**	**86.8**	**69.4**	**69.1**	**68.4**	**10.3**	**28.5**
Federal States							
Baden-Württemb.	1223	87.1	67.8	67.3	65.6	9.2	22.0
Bavaria	1435	87.9	69.2	67.3	67.8	10.2	24.8
Berlin	1570	91.0	80.3	77.6	77.1	14.3	53.0
Brandenburg	218	86.7	70.2	67.8	66.7	8.7	19.2
Bremen	89	(77.5)	(68.5)	(68.2)	(66.3)	(10.1)	(19.3)
Hamburg	438	92.2	76.0	74.2	75.4	11.0	43.2
Hesse	834	85.3	71.8	71.1	71.0	9.8	27.0
Mecklenburg-V.	107	80.4	57.9	56.3	55.4	8.4	10.4
Lower Saxony	667	81.9	56.6	58.8	59.1	7.8	16.9
North Rhine-Westph.	2336	87.6	68.7	71.0	69.3	10.5	30.3
Rhineland-Palatinate	343	86.6	61.8	64.8	65.8	10.2	23.1
Saarland	127	85.0	66.7	65.6	65.3	10.2	10.2
Saxony	495	82.2	69.4	71.8	68.0	7.7	12.0
Saxony-Anhalt	171	81.3	58.0	54.0	54.5	6.4	11.2
Schleswig-Holstein	324	78.4	60.5	59.9	58.2	7.7	18.0
Thuringia	160	81.9	63.7	60.8	60.8	10.6	6.9
Cities							
Düsseldorf	176	88.6	71.0	76.8	75.9	9.7	40.9
Frankfurt	252	87.7	76.1	77.3	77.7	8.7	41.4
Hanover	124	89.5	64.5	62.1	68.3	11.3	25.4
Cologne	551	91.8	78.2	84.3	82.3	12.5	47.4
Leipzig	144	88.2	70.6	70.4	69.6	9.7	10.5
Munich	488	90.2	79.9	81.2	80.4	13.3	41.4
Stuttgart	159	89.9	71.7	70.1	70.3	5.7	29.1

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a]MSM-specific when attracted to men, trans-specific when identifying as trans, in the last 12 months; [b]ever, by a health service; [c] excluding respondents with past hepatitis A; [d] excluding respondents with past hepatitis B; [e] excluding respondents with past mpox. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

Table 7.15 Regional variation in key interventions (continued)

Germany	Qualify-ing cases	% talked to about PrEP [a]	% tested for HIV [b]	% CBVCT [c]	% HIV self-sam-pling [c]	% HIV self-testing [c]	% tested for STIs [d]	% received anal swab-bing [d]
Total	**10 592**	**32.7**	**59.5**	**20.4**	**1.6**	**5.3**	**54.1**	**35.1**
Federal States								
Baden-Württemb.	1223	28.2	55.4	24.7	2.1	6.9	47.3	31.5
Bavaria	1435	31.3	60.4	20.3	3.7	5.6	53.6	31.5
Berlin	1570	49.6	72.7	15.0	0.6	2.8	71.0	53.2
Brandenburg	218	24.5	53.6	15.9	1.1	7.4	46.3	30.3
Bremen	89	(28.6)	(50.6)	(28.4)	(4.1)	(8.1)	(52.8)	(33.7)
Hamburg	438	42.6	68.1	23.5	0.5	2.5	63.5	44.1
Hesse	834	28.8	56.1	22.0	1.9	6.0	51.4	35.3
Mecklenburg-V.	107	(12.2)	(42.9)	(17.3)	(0.0)	(9.3)	37.4	15.9
Lower Saxony	667	26.0	53.6	18.5	1.9	5.1	41.8	19.5
North Rhine-Westph.	2336	36.4	61.7	21.2	1.1	5.3	57.3	36.9
Rhineland-Palatinate	343	25.7	60.3	18.5	2.1	9.4	49.0	30.0
Saarland	127	19.6	49.5	(21.6)	(1.0)	(3.1)	50.4	31.5
Saxony	495	24.2	52.9	27.2	1.1	5.0	50.1	32.3
Saxony-Anhalt	171	16.1	44.7	22.5	1.6	7.0	35.1	13.5
Schleswig-Holstein	324	24.4	46.8	16.9	0.8	4.5	38.0	22.2
Thuringia	160	15.4	47.6	16.9	1.7	7.6	36.2	20.0
Cities								
Düsseldorf	176	50.0	73.5	25.6	0.0	4.3	67.0	43.8
Frankfurt	252	41.1	67.4	24.0	1.3	3.1	68.7	50.4
Hanover	124	46.2	65.0	16.7	0.9	2.8	58.1	22.6
Cologne	551	47.3	70.9	16.5	0.8	2.8	71.0	44.3
Leipzig	144	33.6	62.5	13.3	0.8	5.8	57.6	42.4
Munich	488	43.5	69.1	20.1	2.9	2.9	63.7	40.4
Stuttgart	159	27.4	54.0	28.4	1.4	4.3	46.5	30.8

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a] ever, by a health service; [b] in the last 12 months, excluding respondents diagnosed prior to that; CBVCT, *community-based voluntary counselling and testing*; [c] at last STI test; [d] in the last 12 months. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

Table 7.15 Regional variation in key interventions (continued)

Germany	Qualifying cases	% notified partners of gonorrhoea [a]	% linked to care [b]	% retained in care [c]	% virally suppressed [d]	% substance use counselling/ self-support [a]
Total	**10 592**	**83.4**	**99.8**	**99.5**	**95.4**	**1.8**
Federal States						
Baden-Württemb.	1223	(83.9)	100.0	99.1	98.2	1.6
Bavaria	1435	74.0	100.0	100.0	95.3	0.4
Berlin	1570	85.2	100.0	100.0	95.3	4.0
Brandenburg	218	[70.0]	(100.0)	(95.5)	(95.5)	(0.0)
Bremen	89	[87.5]	[100.0]	[100.0]	[100.0]	(2.3)
Hamburg	438	(88.0)	(100.0)	(100.0)	(94.4)	1.5
Hesse	834	(77.2)	100.0	100.0	94.9	0.7
Mecklenburg-V.	107	[75.0]	[100.0]	[100.0]	[100.0]	(2.3)
Lower Saxony	667	(87.8)	(100.0)	(100.0)	(95.6)	2.6
North Rhine-Westph.	2336	88.3	99.7	99.7	96.0	1.5
Rhineland-Palatinate	343	(92.6)	(97.1)	(94.2)	(91.0)	0.6
Saarland	127	[57.1]	[100.0]	[100.0]	[100.0]	(0.0)
Saxony	495	(81.4)	(100.0)	(100.0)	(92.9)	2.6
Saxony-Anhalt	171	[83.3]	[95.0]	[95.0]	[90.0]	(2.7)
Schleswig-Holstein	324	[86.7]	(100.0)	(100.0)	(96.3)	0.7
Thuringia	160	[55.6]	[100.0]	[100.0]	[86.7]	(2.8)
Cities						
Düsseldorf	176	(88.9)	(96.7)	(96.7)	(96.7)	(1.0)
Frankfurt	252	(70.6)	(100.0)	(100.0)	(92.1)	0.7
Hanover	124	[78.6]	[100.0]	[100.0]	[100.0]	(0.0)
Cologne	551	(88.1)	100.0	100.0	100.0	3.1
Leipzig	144	[81.2]	[100.0]	[100.0]	[100.0]	(1.3)
Munich	488	(77.4)	(100.0)	(100.0)	(100.0)	0.3
Stuttgart	159	[90.0]	(100.0)	(100.0)	(95.7)	(4.9)

Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
[a]in the last 12 months [b]HIV care cascade stage 3, among HIV-diagnosed; [c]HIV care cascade stage 4, among HIV-diagnosed; [d]HIV care cascade stage 6, among HIV-diagnosed. When interpreting regional differences, the sometimes small sample sizes and differences in the composition of regional samples should be taken into account. See Table 3.15, the note on comparability at the beginning of Chapter 3, and the analyses of health inequalities in Chapter 9.

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Chapter 8: Trans community

This chapter provides data on our variables among the sub-sample of transgender and non-binary respondents. We identified four subgroups:

1. Transgender men, who reported *"Man"* as their gender identity and *"female"* as their sex assigned at birth;
2. Transgender women, who reported *"Woman"* as their gender identity and *"male"* as their sex assigned at birth;
3. Non-binary AFAB people, who reported *"Non-binary"* as their gender identity and *"female"* as their sex assigned at birth;
4. Non-binary AMAB people, who reported *"Non-binary"* as their gender identity and *"male"* as their sex assigned at birth [1].

We took the choice of dividing non-binary people into these last two subgroups in order to better understand and report on topics which may greatly differ based on sex assigned at birth (*e.g.*, morbidities and behaviours) [2].

The needs and behaviours of transgender and non-binary people may be different than those of cisgender MSM, and some of our variables investigated issues specific to this community. These are:

(a) Gender-affirming care,

(b) Transphobic discrimination,

(c) Transphobic abuse, and

(d) Transgender community perception.

Therefore, in this chapter we discuss the relevant binary indicators among transgender and non-binary people. For conciseness and brevity, we will refer to these four populations as *"trans groups"* throughout the chapter.

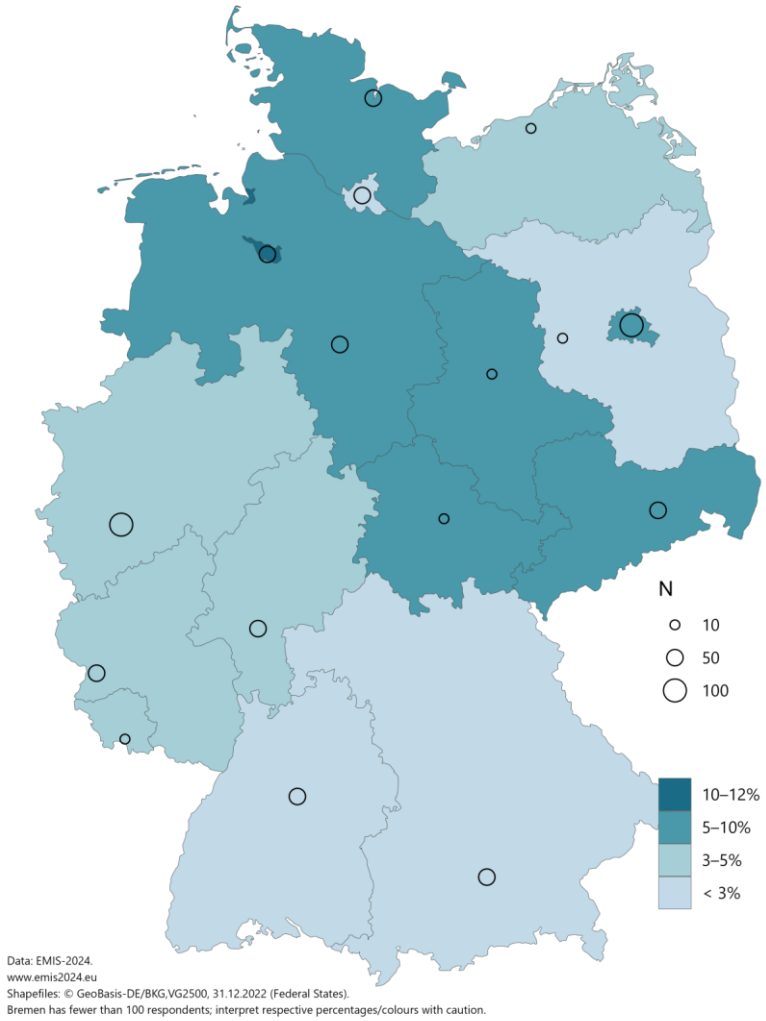
We provide data for the four trans groups on a total of 90 health indicators:

- 16 demographics indicators,
- 17 morbidity indicators,
- 27 behaviour indicators,
- 12 needs indicators, and
- 18 intervention indicators.

8.1 Demographics

The variables reported in this paragraph relate to characteristics of the participants and their situation that health promotion programmes cannot change or are usually not trying to change. In other words, there is no "preferred" response to the questions, although some programmes may have outcome targets related to these characteristics. From the perspective of sexual health promotion, the characteristics reported in this paragraph sometimes describe a key population for interventions (*e.g.*, transgender women). **Map 8.1** shows the number and proportion of trans and non-binary respondents who also identified as part of the trans community, thereby highlighting major variation across Germany.

Map 8.1: Number of trans and non-binary respondents who identify as part of the trans community and percentage of the sample by federal state (N = 423)

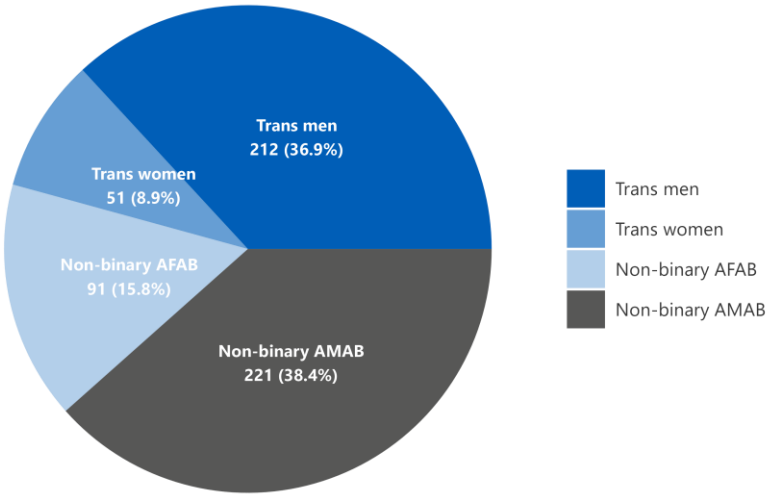


The proportion of trans and non-binary respondents (including those assigned female at birth) was notably high in Bremen, where they comprised 11 of the 89 respondents.

8.1.1 Trans and non-binary groups

This chapter describes the demographic characteristics of 575 respondents residing in Germany: 212 transgender men, 51 transgender women, 91 non-binary individuals assigned female at birth (AFAB), and 221 non-binary individuals assigned male at birth (AMAB), see **Figure 8.1**.

Figure 8.1: Number of trans and non-binary respondents (N = 575)



All study participants were asked: *"What is your current gender identity?"* and were offered the responses *"Man"*; *"Woman"*; *"Non-binary"*. Then, they were asked: *"What sex were you assigned at birth?"* and offered the responses: *"male"* or *"female"*.

Respondents who selected *"Man"* as gender identity but *"female"* as sex assigned at birth were categorised as *"Trans Men"*. Respondents who selected *"Woman"* as gender identity but *"male"* as sex assigned at birth were categorised as *"Trans Women"*. Respondents who selected *"Non-binary"* as gender identity were divided in *non-binary AFAB* (if they selected *"female"* as sex assigned at birth) and *non-binary AMAB* (if they selected *"male"* as sex assigned at birth).

The trans and non-binary sub-sample was primarily constituted of trans men (37 %) and non-binary AMAB respondents (38 %). 16 % were non-binary AFAB respondents, and 9 % were trans women.

Respondents whose reported gender identity differed from their sex assigned at birth (*e.g.*, those who did not indicate *"Man–Male"* or *"Woman–Female"*) were asked: *"You have selected that your gender differs from your sex assigned at birth. Do you identify as part of the trans community?"* Response options were *"Yes"*; *"No"*; *"I don't know"*.

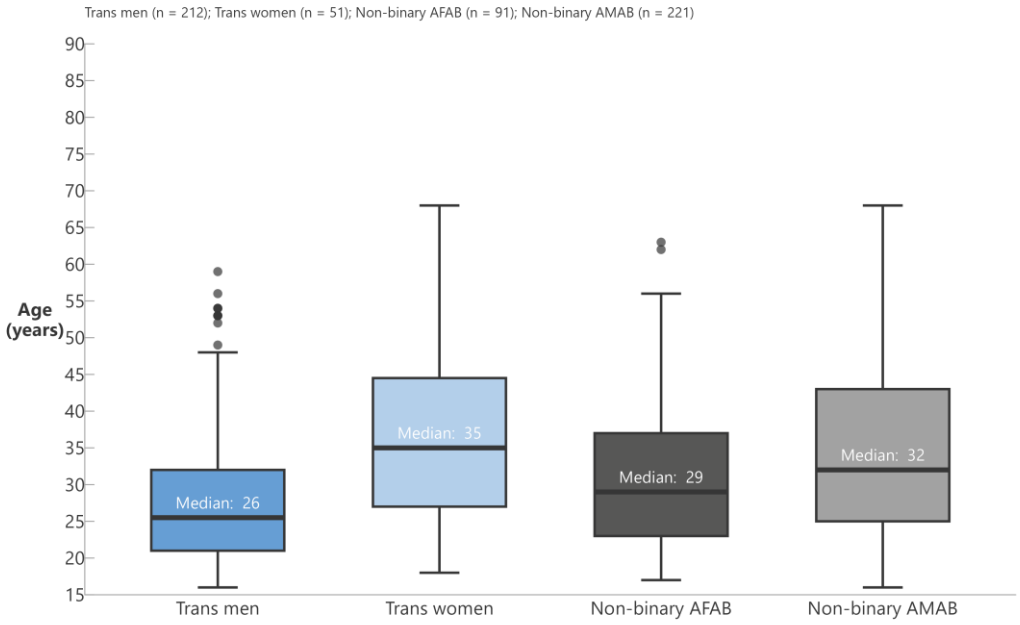
High proportions of trans men and women identified as part of the trans community (92 % and 94 %, respectively). Among non-binary respondents, these proportions were lower. Among non-binary AFAB respondents, 86 % identified as part of the trans community, while 11 % were unsure.

Among non-binary AMAB respondents, 46 % identified as part of the trans community, 24 % were unsure, and 30 % explicitly stated that they did not identify as part of the trans community. **This is relevant because many subsequent questions were asked only of respondents who identified as part of the trans community.**

8.1.2 Age

The median age of trans and non-binary respondents was 29 (IQR: 23–38), much younger than the cisgender sub-sample (median age 40 years). Trans women and non-binary AMAB respondents were older, with median ages of 35 and 32 years, respectively. In contrast, trans men and non-binary AMAB respondents were younger 26 and 29 years, respectively). **Figure 8.2** illustrates these differences.

Figure 8.2: Age distribution across the trans and non-binary groups



8.1.3 Migration history

All study participants were asked: *"Were you born in Germany?"* and were offered the response options *"Yes"* and *"No"*. Among trans and non-binary respondents, 12 % indicated that they were not born in Germany. These respondents were then asked: *"Which country were you born in?"* and were offered a list of countries. **Table 8.1** summarises all respondents' countries of birth, grouped by continent.

Table 8.1 Migration History (N = 575)

Country of birth recoded to continents*	Trans men (%)	Trans women (%)	Non-binary AFAB (%)	Non-binary AMAB (%)	All trans and non-binary (%)
Europe	98.1	88.2	97.8	93.7	95.5
Other countries in the WHO European Region: Armenia, Azerbaijan, Cyprus, Georgia, Israel, Kazakhstan, Türkiye; and European overseas territories	0.0	2.0	0.0	1.4	0.7
North America (and Caribbean)	0.5	2.0	2.2	0.5	0.9
South America	0.0	2.0	0.0	2.3	1.0
Africa	0.5	0.0	0.0	0.0	0.2
Asia	0.9	3.9	0.0	2.3	1.6
Australia & Oceania	0.0	2.0	0.0	0.0	0.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 0.

Almost all trans and non-binary respondents (96 %) were born in Europe. Among respondents born outside Europe, the most common regions of birth were Asia and South America.

All study participants not born in the country they lived in were asked: *"Why did you come to Germany?"* and were provided the responses in **Table 8.2**.

Table 8.2 Reasons for migration among migrants

Reasons for migration among migrants	Trans men (%) N = 12	Trans women (%) N = 10	Non-binary AFAB (%) N = 10	Non-binary AMAB (%) N = 39	All trans and non-binary (%) N = 71*
I was brought as a child	16.7	22.2	44.4	17.1	21.5
To study	58.3	22.2	22.2	40.0	38.5
To work	41.7	33.3	11.1	40.0	35.4
To be with a partner	16.7	22.2	0.0	8.6	10.8
To live more openly as gay/bisexual/trans/queer	33.3	33.3	22.2	42.9	36.9
To seek asylum	16.7	0.0	11.1	14.3	12.3
I came as a refugee	8.3	0.0	11.1	8.6	7.7
I was brought against my will	0.0	0.0	0.0	2.9	1.5
Other answer	0.0	11.1	11.1	17.1	12.3

Note. Percentages do not total 100 % because respondents could select more than one response option.
*Missing n = 6.

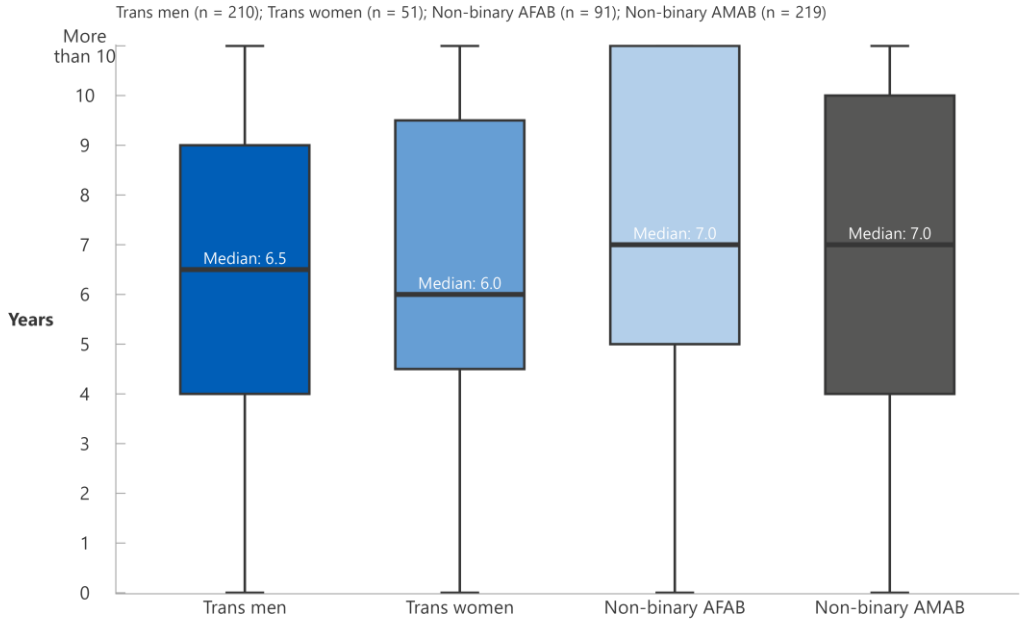
The three most commonly cited reasons for migration among trans and non-binary respondents were *"To study"* (38%), *"To live more openly as gay/bisexual/trans/queer"* (37%), and *"To work"* (35%). 12% came to Germany to seek asylum, and 8% came as refugees.

8.1.4 Education

All study participants were asked: *"How many years have you spent in full-time education since the age of 16?"*. **Figure 8.3** compares the median number of years of full-time education beyond the age of 16 across the four trans and non-binary subgroups. Although international guidance exists for mapping years of education to ISCED educational attainment categories [3], this report presents years of full-time education after age 16 directly.

The median number of years in education beyond age 16 among trans and non-binary respondents was 7 and largely consistent across subgroups. The great majority of trans and non-binary respondents (98 %) reported at least some education after age 16, and 62 % reported more than five years. Throughout this report, respondents with more than five years of full-time education after age 16 are classified as having higher education.

Figure 8.3: Years spent in full-time education beyond the age of 16



Then, study participants were asked: *"Which of the following best describes your current occupation?"*, and we offered the responses in **Table 8.3**.

Table 8.3 Current occupation/work status

Current occupation N = 572*	Trans men (%)	Trans women (%)	Non-binary AFAB (%)	Non-binary AMAB (%)	All trans and non-binary (%)
Employed full-time	33.8	35.3	22.0	30.0	30.6
Employed part-time	11.9	25.5	24.2	19.1	17.8
Self-employed	3.3	7.8	8.8	9.1	6.8
Unemployed	7.1	9.8	5.5	8.6	7.7
Student	30.5	11.8	30.8	19.1	24.5
Retired	1.0	3.9	0.0	2.3	1.6
Long-term sick leave / medically retired	6.7	2.0	3.3	5.9	5.4
Other	5.7	3.9	5.5	5.9	5.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 3.

Most of the trans and nonbinary respondents were either still students (24 %) or in full-time employment (31 %), and 8 % were unemployed. This pattern is consistent with the relatively young age profile of the respondents.

8.1.5 Financial coping

All study participants were asked: *"Which of these phrases would you say comes closest to your feelings about your income these days?"* and were offered the responses in Table 8.4.

Table 8.4 Financial coping (feelings about current income)

Financial coping N = 569*	Trans men (%)	Trans women (%)	Non-binary AFAB (%)	Non-binary AMAB (%)	All trans and non-binary (%)
Really comfortable	3.8	9.8	5.5	7.8	6.2
Comfortable	30.8	23.5	40.7	35.2	33.5
Neither comfortable nor struggling	37.5	47.1	37.4	32.9	36.6
Struggling	19.2	15.7	9.9	16.0	16.2
Really struggling	8.7	3.9	6.6	8.2	7.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 6.

While 24 % of trans and non-binary respondents were struggling financially, among those 25 % were in long-term sick leave or medically retired and 26 % were unemployed. A total of 40 % were feeling comfortable with their current income.

8.1.6 Sexual Orientation

All study participants were asked: *"Which of the following options best describes how you think of yourself with respect to your sexuality?"* and were offered the responses shown in **Table 8.5**. Around one in four within the trans and non-binary sub-sample identified as *bisexual* (28 %), and around one in three as *gay/lesbian or homosexual* (30 %). Transgender men (41 %) and non-binary respondents assigned male at birth (33 %) identified more commonly as *gay/lesbian or homosexual* than non-binary people assigned female at birth (13 %) and transgender women (6 %). In addition, across all four groups, only 1.9 % identified as *straight*, with the highest proportion observed among transgender women (18 %). Overall, 28 % preferred *any other term* not included in the list, and 13 % did not use *any term*.

Table 8.5 Sexual orientation

Sexual orientation N = 575*	Trans men (%)	Trans women (%)	Non-binary AFAB (%)	Non-binary AMAB (%)	All trans and non-binary (%)
Gay/Lesbian or homosexual	40.6	5.9	13.2	33.0	30.3
Bisexual	32.5	31.4	25.3	22.6	27.5
Straight or heterosexual	0.0	17.6	0.0	0.9	1.9
Any other term	16.5	31.4	45.1	29.9	27.5
I don't usually use a term	10.4	13.7	16.5	13.6	12.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 0.

8.1.7 Partnership status

All study participants were asked: *"Do you currently have a 'steady partner', that is a lover or spouse, that means you are not 'single'?"* and were offered the responses: *"No, I am single"*; *"Yes, I have a steady partner"*; *"I'm not sure/it's complicated"*. Participants who reported a steady partner were then asked: *"Are you currently in a relationship with...? (Tick as many as apply)"* and offered the responses: *"One man"*; *"More than one man"*; *"One non-binary person"*; *"More than one non-binary person"*; *"One woman"*; *"More than one woman"*. Among trans and non-binary respondents reporting a steady partner (40 %), 53 % were in a relationship with one man, and 27 % with a non-binary person (**Table 8.6**).

Table 8.6 Percentages with a current 'steady partner' and type of partnership

Current Partnership		Type of Partnership	
N = 575*	%	N = 230	%
Single	50.8		
In a relationship with a steady partner	40.0	One man	52.6
		More than one man	7.4
		One non-binary person	20.4
		More than one non-binary person	7.4
		One woman	27.0
		More than one woman	2.2
Complicated	9.2		
Total	**100.0**		

*Missing n = 0.

8.1.8 Transactional sex

All study participants were asked: *"When was the last time you paid a man to have sex with you?" (By paid we mean you gave him money, gifts or favours in return for sex)* and *"When was the last time you were paid by a man to have sex with him?" (By paid we mean he gave you money, gifts or favours in return for sex)* and each question offered a scale to indicate how recently this had occurred.

More transgender and non-binary respondents had been paid for sex rather than having had paid someone else, both in their lifetime (20% versus 6 %) and in the last 12 months (8% versus 2 %).

This observation was consistent for all subgroups, but there were striking differences in the number of trans and non-binary respondents buying/selling sex among the four groups (**Figure 8.4**).

Selling sex

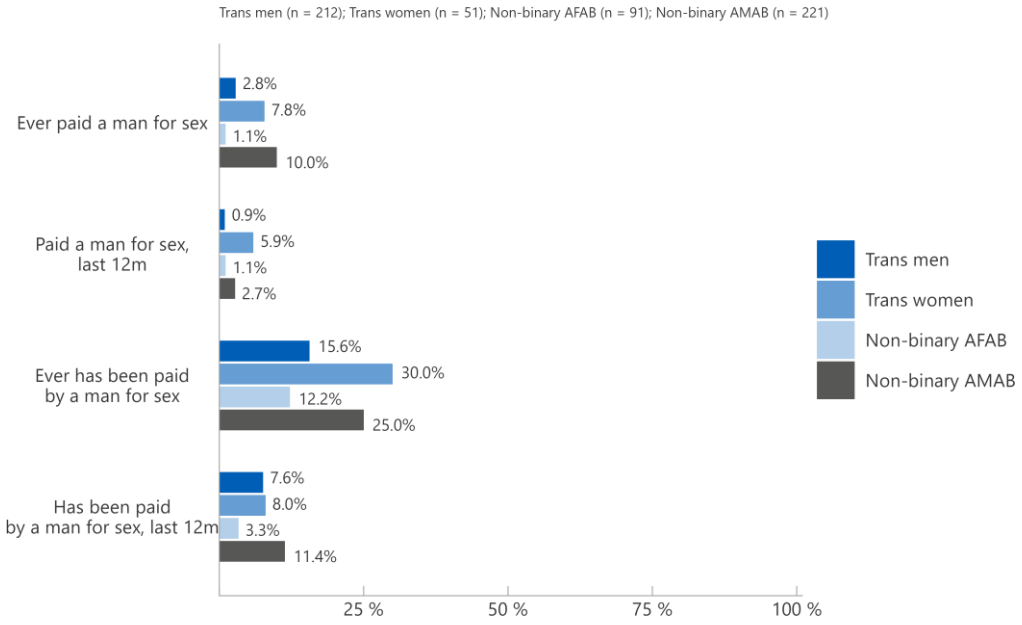
Trans women were most likely to have been paid by a man for sex, both in their lifetime (30 %) and in the last 12 months (8 %).

Buying sex

Non-binary AMAB respondents most commonly reported having paid a man for sex, both in their lifetime (10 %) and in the last 12 months (3 %).

Eight percent of trans women reported *ever* having paid a man for sex, while 3 % of trans men, and 1.1 % of non-binary AFAB respondents had done so.

Figure 8.4: Percentage that have paid a man for sex, and been paid by a man for sex

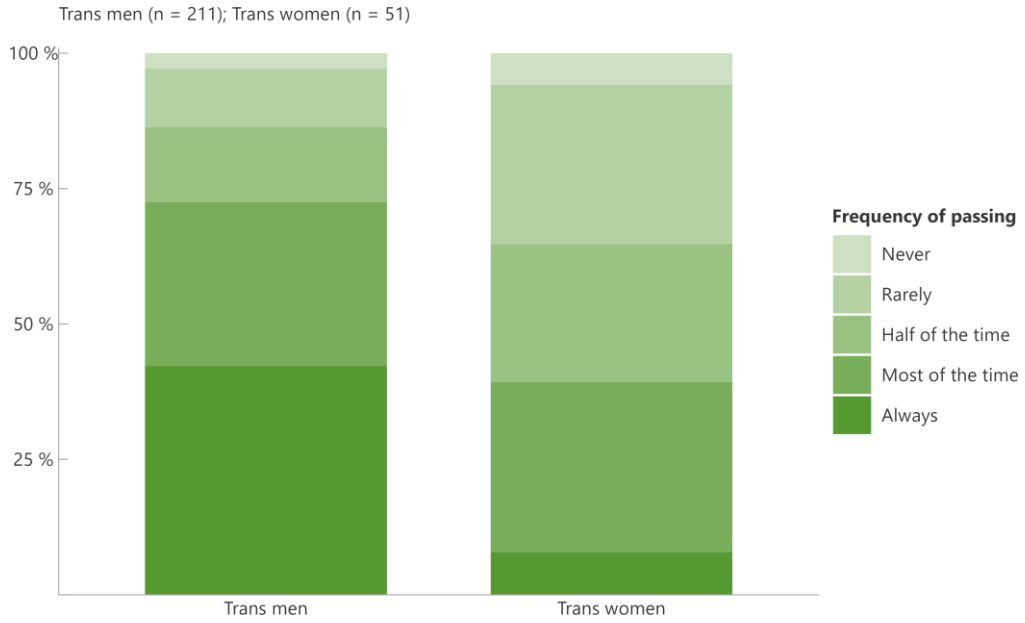


8.1.9 Passing

Given the role that it may play in other variables such as mental health and discrimination, we asked (binary) transgender individuals the extent to which they *'pass'*. By *'Passing'*, we mean that they get perceived by strangers in accordance with their gender identity and not to their sex assigned at birth (*e.g.*, a transgender man being categorised as a man rather than a woman by someone that does not know that he is transgender).

We asked (binary) transgender participants *"How often do you 'pass' (get perceived by strangers as the gender you identify as)?* and offered the following response options: *"Always"*, *"most of the time"*, *"Half of the time"*, *"Rarely"*, and *"Never"*. **Figure 8.5** shows the responses.

Figure 8.5: Passing as one's gender identity



Around three out of four (74 % reported 'passing' (*i.e.,* being perceived by others in accordance with their gender identity) at least half of the time. However, there were differences between subgroups: 86 % of trans men did so, compared with 65 % of trans women.

8.2 Morbidities

Morbidity includes both physical and psychological ill health. Health programmes seek to reduce ad prevent morbidity as their ultimate outcome. EMIS-2024 asked about two areas of sexual morbidity: Mental health and Sexually Transmitted Infections.

8.2.1 Mental health

Transgender and non-binary people generally face worse mental health outcomes compared to cisgender people [4,5]. They experience higher rates of psychological distress, and they are more likely to receive a mental health diagnosis, such as depression or anxiety. Additionally, they are at a greater risk for suicidal ideation compared to the general population [6–8].

8.2.1.1 Anxiety/depression

To investigate mental well-being, we used the Patient Health Questionnaire (PHQ-4) [9], a short clinical screening tool that measures combined anxiety and depression. While the tool is not intended to be diagnostic and may overestimate the prevalence of mental distress, it was chosen for its brevity and ease of interpretation.

All study participants were asked: *"Over the last 2 weeks, how often have you been bothered by the following problems?"* and were offered the following four items: *"Feeling nervous, anxious, or on edge"*; *"Not being able to stop or control worrying"*, *"Little interest or pleasure in doing things"*, *"Feeling down, depressed, or hopeless"*.

Responses to each item included: *"Not at all"* (0 points); *"Some days"* (1 point); *"More than half the days"* (2 points); *"Nearly every day"* (3 points). The total points range from 0 to 12 and can be grouped into four bands.

Table 8.7 presents the percentage of trans and non-binary respondents in each band, along with the usual interpretation for this validated scale.

Table 8.7 Anxiety and depression (PHQ-4) score

PHQ-4 score	Interpretation	N*	All trans and non-binary (%)	Trans men (%)	Trans women (%)	Non-binary AFAB (%)	Non-binary AMAB (%)
0–2	Normal	127	22.3	19.6	27.5	16.5	26.1
3–5	Mild anxiety and depres-	206	36.2	40.2	21.6	40.7	33.9
6–8	Moderate anxiety and	110	19.3	20.6	15.7	22.0	17.9
9–12	Severe anxiety and de-	126	22.1	19.6	35.3	20.9	22.0
Total		**569**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 6.

Around two out of five trans and non-binary respondents (41 %) reported at least *moderate* anxiety and depression in the last two weeks, while 22 % experienced *severe* anxiety and depression. Only minor differences were observed between subgroups.

8.2.1.2 Suicidal ideation

All study participants were asked: *"Over the last 2 weeks, how often have you been bothered by the following problems?"* This section includes two items: thoughts of being better off dead or of self-harm (**Table 8.8a**) and thoughts of taking one's own life (**Table 8.8b**). Response options were *"Nearly every day"*; *"More than half the days"*; *"Some days"*; and *"Not at all"*. Both tables present the distribution of responses among the four groups, with the final column showing the distribution for all trans and non-binary respondents.

Table 8.8a Thoughts of death or self-harm over the last two weeks (N = 573)

Over the last 2 weeks, how often have you been bothered by thoughts that you would be better off dead, or of hurting yourself in some way?*	Trans men (%)	Trans women (%)	Non-binary AFAB (%)	Non-binary AMAB (%)	All trans and non-binary (%)
Not at all	63.5	43.1	60.4	59.5	59.7
Some day	24.2	27.5	29.7	24.1	25.3
More than half	5.7	19.6	4.4	7.3	7.3
Everyday	6.6	9.8	5.5	9.1	7.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 2.

Table 8.8b Thoughts of suicide over the last two weeks (N = 573)

Over the last 2 weeks, how often have you been bothered by thoughts about taking your own life?*	Trans men (%)	Trans women (%)	Non-binary AFAB (%)	Non-binary AMAB (%)	All trans and non-binary (%)
Not at all	81.5	56.9	76.9	71.8	74.9
Some day	10.4	31.4	19.8	19.1	17.1
More than half	2.8	7.8	1.1	5.0	3.8
Everyday	5.2	3.9	2.2	4.1	4.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 2.

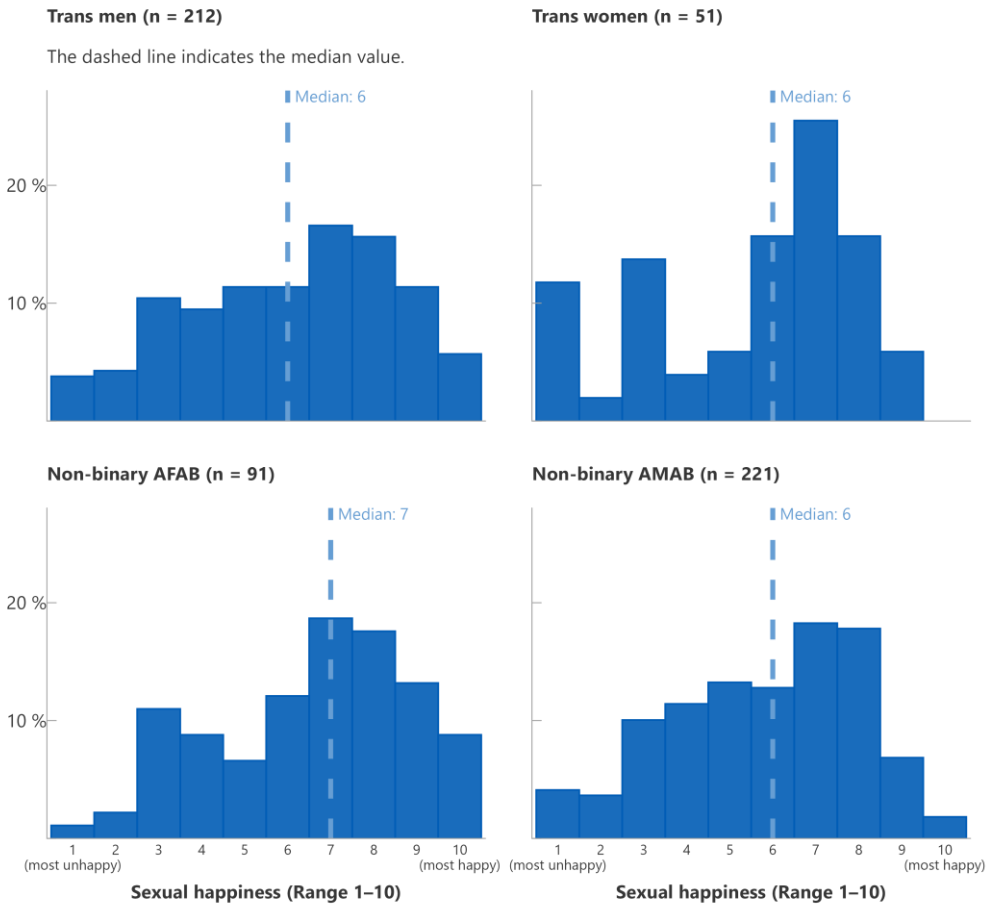
Overall, 40 % of trans and non-binary respondents reported having been bothered by thoughts that they would be better off dead or of hurting themselves in some way during the previous two weeks. In addition, 25 % reported having been bothered by thoughts of taking their own life. Variation across the four groups was minimal.

8.2.1.3 Sexual un(happiness)

All study participants were asked: *"On a scale of 1 to 10 (where 1 is the most unhappy and 10 is the most happy), how happy are you with your sex life?"* and were offered a ten-point scale labelled at the ends *(1—most unhappy to 10—most happy)*.

Overall, 28 % of trans and non-binary respondents scored 4 or below, indicating unhappiness with their sex life, with a median score of 6. **Figure 8.6** shows the distribution of sexual happiness across the four subgroups.

Figure 8.6: Sexual happiness self-rating on a scale of 1 to 10, across the trans and non-binary groups



8.2.1.4 Alcohol dependency (CAGE4)

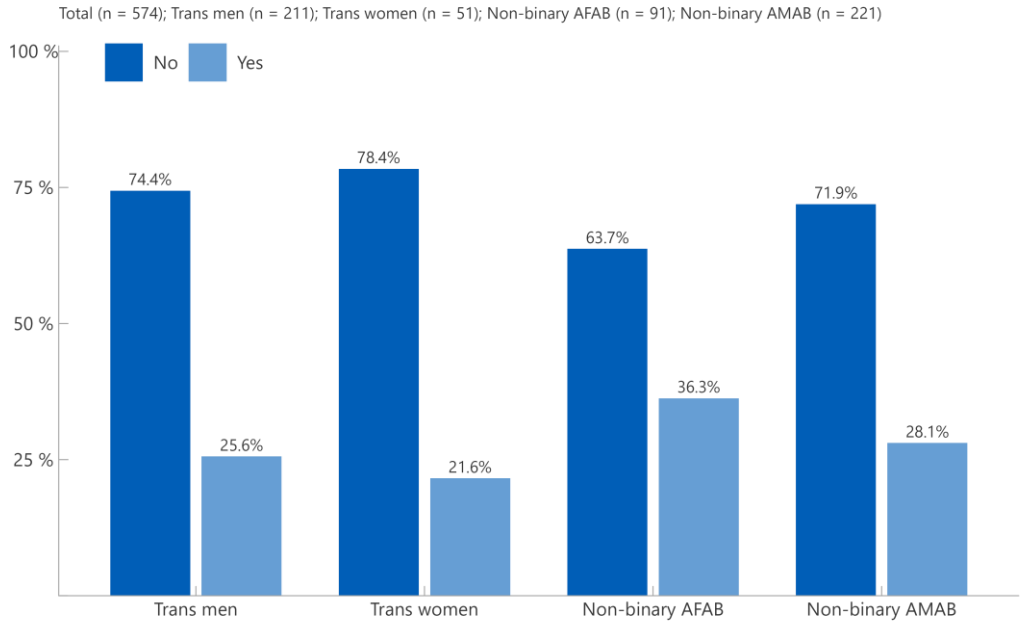
We used the CAGE4 screening tool for alcohol dependency [10]. While the tool is not intended to be diagnostic and may overestimate the prevalence of problems, it was chosen for its brevity and ease of interpretation.

Respondents were shown: *"Thinking about drinking alcohol in the past 12 months..."* followed by four questions to which they could respond *"Yes"* or *"No"*:

- *"Have you tried to cut down on your drinking?"*
- *"Have people annoyed you by criticising your drinking?"*
- *"Have you felt bad or guilty about your drinking?"*
- *"Have you taken a drink first thing in the morning to steady your nerves or get rid of a hangover?"*

Responding *"Yes"* to two or more statements constitutes a positive CAGE screen for possible alcohol dependency. Overall, 28 % of trans and non-binary respondents screened positive for possible alcohol dependency. **Figure 8.7** presents the results across the four groups.

Figure 8.7: Potential alcohol dependency (CAGE4) across the trans and non-binary groups



8.2.2 Diagnoses of HIV, STIs, and viral hepatitis

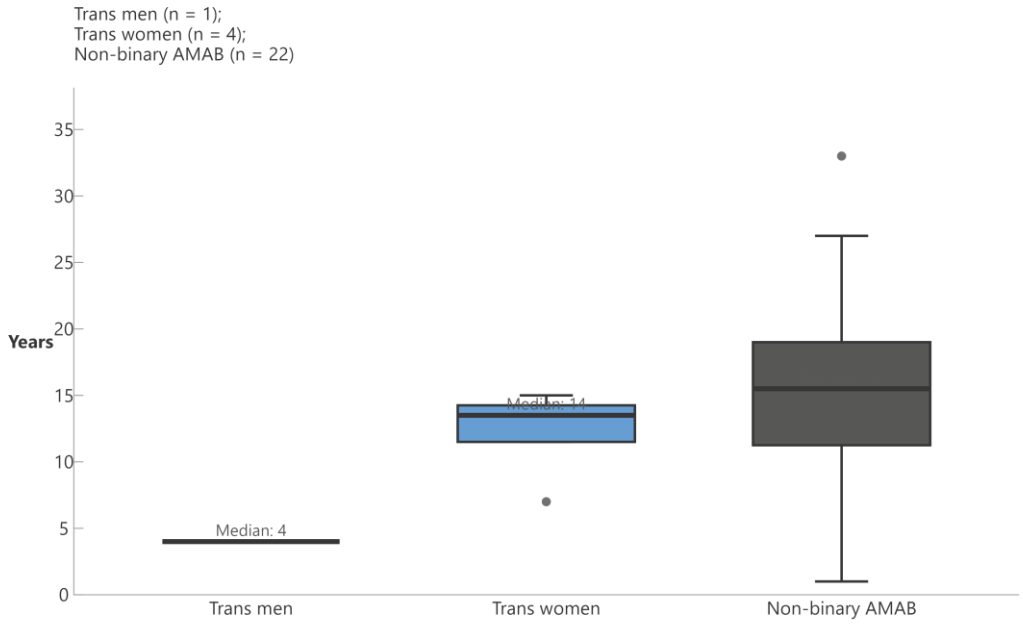
HIV diagnosis

All study participants were asked: *"Have you ever been diagnosed with HIV?"*. Overall, 5 % (n= 27) trans and non-binary respondents selected *"Yes"*. Among them, 15 % (n= 4) were transgender women, 81 % (n= 22) were non-binary AMAB respondents, 4 % (n= 1) were transgender men, and 0 % (n= 0) were non-binary AFAB respondents. Participants diagnosed with HIV were asked to report the year in which they were diagnosed, allowing the calculation of the median time since diagnosis (**Figure 8.8**).

The median time since HIV diagnosis was 14 years, similar to non-binary AMAB respondents (16 years). Trans men had been diagnosed more recently, with a median time since HIV diagnosis of 4 years.

Newly diagnosed HIV, defined as a first HIV diagnosis within the past 12 months, was reported by 0.4 % of trans and non-binary respondents.

Figure 8.8: Years living with diagnosed HIV



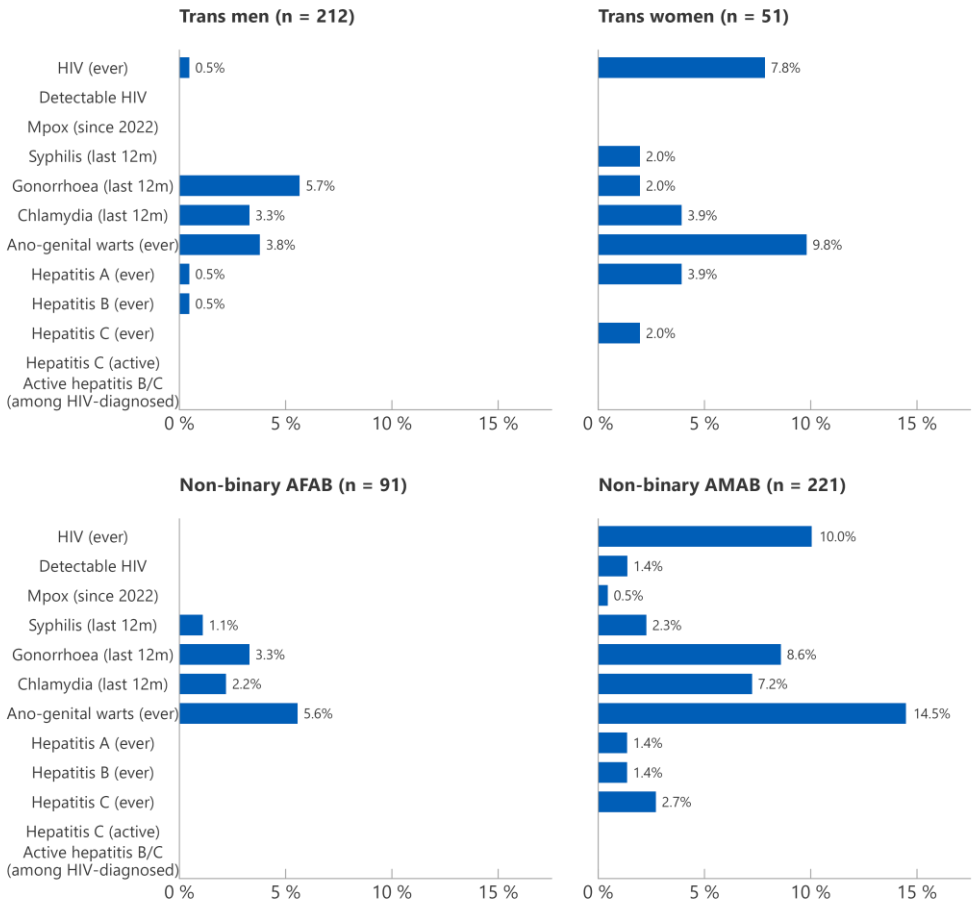
Diagnoses of STIs and viral hepatitis

All study participants were asked: *"Have you ever been diagnosed with Syphilis?"* and identical questions were asked for *"gonorrhoea"*, *"chlamydia or LGV"*, *"anal or genital warts"*, and *"hepatitis C"*. Participants were also asked about their vaccination status regarding hepatitis A and B: *"Have you been vaccinated against hepatitis A?"* (with an identical question asked about hepatitis B). The answer options included: *"No, because I've had hepatitis A (and am now naturally immune)"* or *"No, because I've had hepatitis B (and am now naturally immune)"*, respectively. As hepatitis B can become

chronic, an additional answer was offered: *"No, I have chronic hepatitis B infection"*. Additionally, they were asked: *"Have you had mpox ('monkeypox') since 2022?"*.

Overall, among trans and non-binary respondents, 1.2 % reported a diagnosis of syphilis, 6 % of gonorrhoea, and 5 % of chlamydia (including LGV) in the past 12 months. In addition, 9 % reported ever having been diagnosed with anal or genital warts. Lifetime diagnoses of viral hepatitis were reported by 1 % for hepatitis A, 0.7 % for hepatitis B, and 1.2 % for hepatitis C—the latter being broadly consistent with estimates for the general population in Germany [11]. **Figure 8.9** shows self-reported diagnoses of HIV, STIs, and viral hepatitis across the four groups.

Figure 8.9: Experience of HIV, viral hepatitis, and selected STIs (including mpox)



Regarding trans men, 0.5 % had been diagnosed with HIV and 4 % reported a history of ano-genital warts. During the past 12 months, gonorrhoea (6 %) and chlamydia (3 %) were the most frequently reported bacterial STIs.

Among trans women, a history of ano-genital warts remained the most common STI diagnosis (10 %), followed by HIV (8 %). Among diagnoses reported in the previous 12 months, gonorrhoea was the most frequently reported bacterial STI (2 %). Syphilis was also diagnosed in 2 % during the previous 12 months, indicating that it remains an important target for STI screening in this group.

Non-binary AFAB respondents showed a similar pattern to trans men. Ano-genital warts were the most common lifetime STI diagnosis (6 %), while gonorrhoea (3 %) and chlamydia (2 %) were reported at similar levels during the past 12 months.

Non-binary AMAB respondents had the highest proportions of all reported STIs. Ano-genital warts remained the most common lifetime diagnosis (14 %), followed by HIV (10 %). Among diagnoses reported in the previous 12 months, gonorrhoea (9 %) and chlamydia (7 %) were the most commonly reported bacterial STIs. Syphilis was reported by 2 %, highlighting its continued importance as a target for STI screening in this group.

8.3 Risk and Precaution Behaviour

This chapter reports on risk and precaution behaviours, that is, behaviours that may contribute to or reduce the morbidities described above. We asked about two types of risk behaviour (having sex, taking drugs and doing them together) and four types of precaution behaviour (taking antiretroviral drugs, sharing HIV status information, using condoms, and being vaccinated).

8.3.1 Taking ART

Overall, 5 % (n = 27) reported living with diagnosed HIV.

Taking antiretroviral treatment (ART) can suppress HIV viral load to undetectable levels, corresponding to a non-infectious state [12,13]. Taking HIV medication is therefore a type of precautionary behaviour to prevent HIV transmission for individuals diagnosed with HIV.

All study participants who had ever been diagnosed with HIV were asked: *"Have you ever taken antiretroviral treatment (sometimes known as ART or HAART) for your HIV infection?"* The 23 trans and nonbinary respondents reporting ever having taken ART were then asked: *"Are you currently taking antiretroviral treatment?"* The distribution of responses across the four groups is shown in **Table 8.9**.

Table 8.9 Taking ART with diagnosed HIV

History of taking ART *	Trans men (%) N = 1	Trans women (%) N = 4	Non-binary AFAB (%) N = 0	Non-binary AMAB (%) N = 22	All trans and non-binary (%) N = 27
Ever taken ART	100.0	100.0		86.4	88.5
Of these: currently taking **	*100.0*	*100.0*		*100.0*	*100.0*
Of these: no longer taking					
Don't remember				4.5	3.8
Never taken ART				9.1	7.7
Total	**100.0**	**100.0**		**100.0**	**100.0**

*Ever taken antiretroviral treatment: Missing n = 1; **currently taking antiretroviral treatment: Missing n = 0

8.3.2 PrEP Use

All study participants were asked: *"Have you ever tried to get PrEP?"*. They were then asked: *"Have you ever taken PrEP?"* and offered the responses shown in **Table 8.10**.

Table 8.10 Taking PrEP

History of PrEP use (among non-HIV-diagnosed)*	Trans men (%) N = 209	Trans women (%) N = 47	Non-binary AFAB (%) N = 91	Non-binary AMAB (%) N = 197	All trans and non-binary (%) N = 544
No	88.5	85.1	90.1	74.6	83.6
Yes, on a daily basis and I'm still taking it	6.2	8.5	5.5	14.2	9.2
Yes, on a daily basis but I'm no longer tak-	3.3	2.1	3.3	3.6	3.3
Yes, when I have needed it but not daily	1.9	4.3	1.1	7.6	4.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 2.

Seventeen percent % (n = 90) of trans and non-binary respondents reported ever having taken PrEP. Among them, 56 % were currently using it on a long-term daily basis. Non-binary AMAB respondents had the highest PrEP uptake and accounted for 56 % of PrEP users in the trans and non-binary sub-sample.

8.3.3 PEP use

Participants who had never been diagnosed with HIV were asked: *"Have you ever taken PEP?"* and offered the responses shown in **Table 8.11**.

Table 8.11 Taking PEP

History of PEP use (among non-HIV-diagnosed)*	Trans men (%) N = 211	Trans women (%) N = 47	Non-binary AFAB (%) N = 91	Non-binary AMAB (%) N = 197	All trans and non-binary (%) N = 546
No, I never felt the need to take it	88.6	80.9	91.2	75.1	83.7
No, I could not get it	5.7	8.5	4.4	9.6	7.2
No, I had the opportunity but decided not to take it	1.9	0.0	0.0	3.6	2.0
Yes, I've taken one course of pills	1.9	4.3	4.4	5.6	3.9
Yes, I've taken more than one course of pills	1.4	6.4	0.0	5.6	3.1
I don't know	0.5	0.0	0.0	0.5	0.4
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 0.

Overall, 7 % of trans and non-binary respondents had ever taken PEP, 3 % had taken more than one course of PEP, and 7 % had wanted to get PEP, but could not get it. Among respondents who wanted to get PEP but could not get it, 49 % were non-binary AMAB respondents and 31 % were trans men.

8.3.4 Sexual Repertoire

Study participants who reported ever having had sex with non-steady partners were asked: *"Thinking about the sex you've had with non-steady male partners only, how long has it been since you engaged in each of the following? (please say when you last did something, even if this was not typical for you.)"* The following 11 sexual practices were listed:

(1) mutual masturbation,

(2) sucking a man's penis (*receptive oral* in the figure below),

(3) get one's penis sucked (only shown to cis men, non-binary AMAB and trans women with a penis, and non-binary AFAB and trans men that underwent metoidioplasty or phalloplasty; *insertive oral* in the figure below),

(4) lick a man's anus (*rimming* in the figure below),

(5) have a man lick one's anus (*getting rimmed* in the figure below),

(6) have "active" anal intercourse (only shown to cis men, non-binary AMAB people and trans women with a penis, and non-binary AFAB people and trans men that underwent metoidioplasty or phalloplasty; *insertive anal* in the figure below)

(7) have "passive" anal intercourse (*receptive anal* in the figure below),

(8) have "passive" vaginal intercourse (shown only to respondents with a vagina or neo-vagina; *receptive vaginal* in the figure below),

(9) put one's hand in a man's rectum (*insertive fisting* in the figure below),

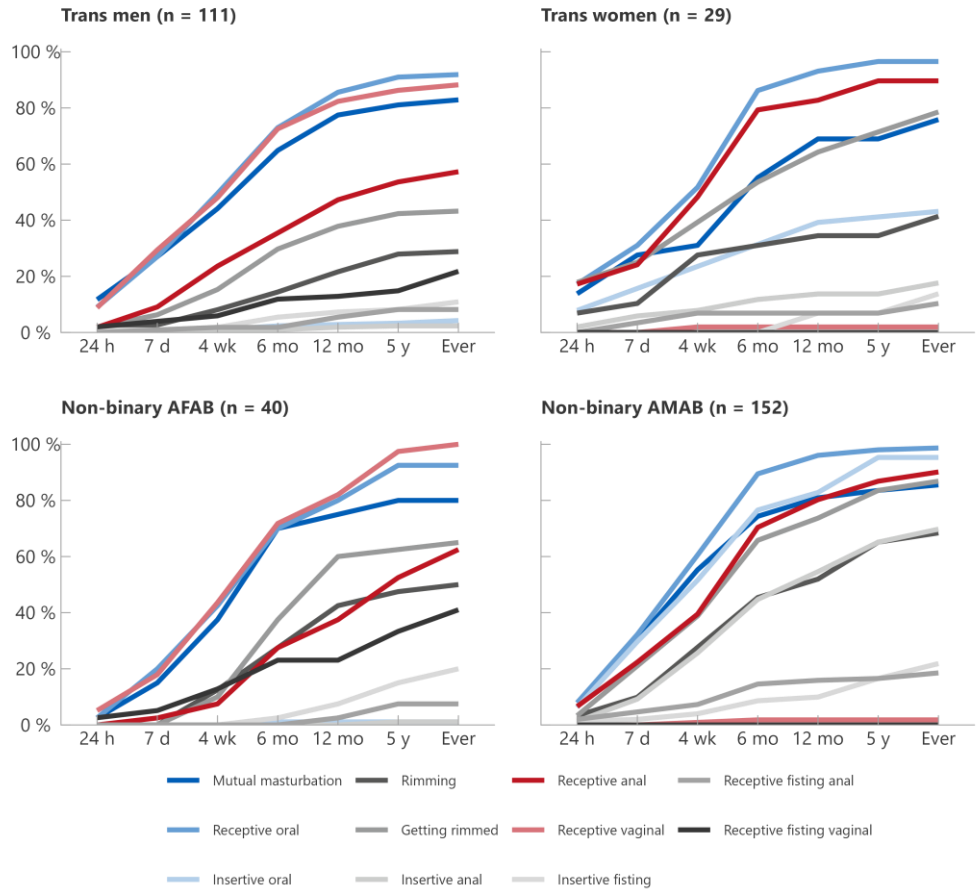
(10) have a man's hand in one's rectum (*receptive fisting anal* in the figure below),

(11) have a man's hand in your vagina (shown only to respondents with a vagina or neo-vagina; *receptive fisting vaginal* in the figure below)

For all four subgroups, receptive oral sex was the most commonly reported sexual practice (95 % overall reported ever having engaged in receptive oral sex). Among trans men and non-binary AFAB respondents, receptive vaginal sex was the second most common practice (88 % and 100 %, respectively), whereas among trans women receptive anal sex was the second most common (90 %). For non-binary AMAB respondents, insertive oral sex ranked second (95 %).

Figure 8.10 presents recency curves for the 11 sexual practices across the four groups.

Figure 8.10: Cumulative recency of sexual practices with non-steady male partners across the trans and non-binary groups



Around three out of five trans men (57 %) and a similar proportion of non-binary AFAB respondents (62 %) reported ever having engaged in receptive anal sex.

Around four out of five trans and non-binary respondents reported ever having engaged in mutual masturbation (83 % of trans men, 76 % of trans women, 80 % of non-binary AFAB respondents, and 86 % of non-binary AMAB respondents).

Trans women reported the highest lifetime prevalence of receptive anal fisting (10 %). Among trans men and non-binary AFAB respondents, receptive vaginal fisting (27) %) was more common than receptive anal fisting (8 %). Rimming was more commonly reported by trans women (41 % had ever given rimming and 79 % had ever received rimming) and non-binary AMAB respondents (68 % and 87 %, respectively), than by trans men (29 % and 43 %) or non-binary AFAB respondents (50 % and 65 %).

8.3.5 Substance use

Information on substance use was a key priority for the EMIS Network. Data on licit and illicit drug use were collected by self-report. The recency-based response format reduced reliance on long-term recall, while the anonymous, self-completed online format is likely to have reduced social desirability bias. Nevertheless, despite extensive translation and harmonisation procedures, subtle differences in the interpretation of drug-related terminology across languages and cultural contexts cannot be excluded and may have influenced the comparability of responses between countries.

8.3.5.1 Use of legal substances

All study participants were asked: *"When was the last time you consumed..."* followed by five different drugs, which are not illegal to possess in most of Europe:

- Alcohol
- Tobacco products
- Poppers (nitrite inhalants)
- Viagra, Cialis, Levitra or other substances that help to get/keep an erection
- Sedatives or tranquillisers (Valium, Rivotril, Rohypnol, Xanax, Seduxen, Phenazepam)

Table 8.12 presents cumulative percentages of trans and non-binary respondents who reported using each substance over progressively longer recall periods. The bottom two rows show conditional proportions: the percentage of lifetime users reporting use in the past 12 months (an indicator of *continued use*), and the percentage of past-year users reporting use in the past 7 days (an indicator of *more frequent use*).

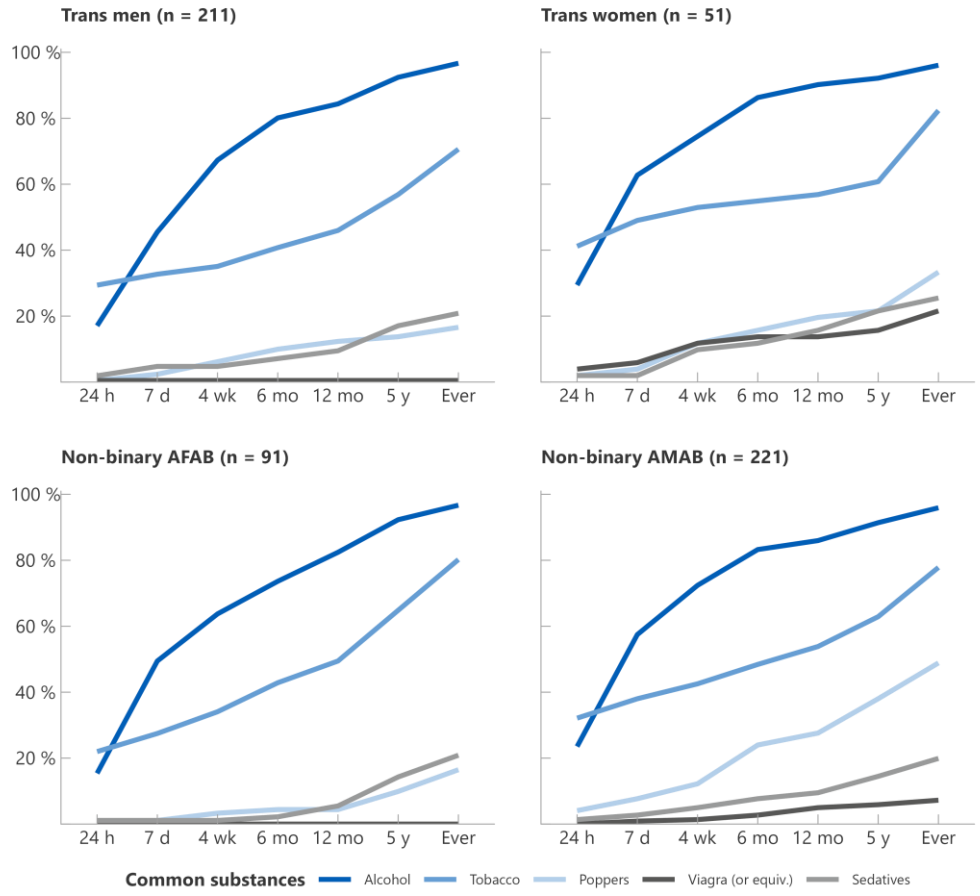
Table 8.12 Use of legal substances

Recency	Cumulative %				
	Alcohol	Tobacco	Poppers	Viagra etc.	Sedatives
	N = 553[a]	N = 436[b]	N = 175[c]	N = 28[d]	N = 120[e]
Within the last 24 hours	20.4	30.3	1.9	0.5	1.6
Within the last 7 days	52.3	35.4	4.4	1.0	3.1
Within the last 4 weeks	69.3	39.4	8.5	1.7	4.7
Within the last 6 months	80.8	45.3	15.0	2.4	7.0
Within the last 12 months	85.2	50.5	17.6	3.3	9.4
Within the last 5 years	92.0	60.8	23.2	3.8	16.0
Ever	96.3	76.0	30.5	4.9	20.9
7 days as a fraction of 12 months	61.3	70.0	24.8	31.6	33.3
12 months as a fraction of ever	88.4	66.5	57.7	67.9	45.0

[a]Missing n = 1; [b]Missing n = 1; [c]Missing n = 1; [d]Missing n = 0; [e]Missing n = 1.

Figure 8.11 presents recency curves for the use of each substance across the four groups, showing the cumulative proportion of respondents reporting use within progressively longer look-back periods.

Figure 8.11: Cumulative recency of consuming alcohol, tobacco, poppers, Viagra (or equiv.), or sedatives across the trans and non-binary groups



Alcohol was the most commonly used drug across all time intervals, with near-universal lifetime use (96 %). Around one in five trans and non-binary respondents (20 %) had consumed alcohol in the last 24 hours and 52 % in the previous week.

In contrast, while 76 % had ever consumed tobacco, 30 % did so in the last 24 hours and 35 % in the previous seven days, but the increase between the 24-hour and 7-day measures was smaller (plus 5 percentage points). This suggests that most respondents who had used tobacco in the past week had also used it within the previous 24 hours, indicating more regular or daily consumption among tobacco users.

8.3.5.2 Use of recreational substances

All study participants were then asked: *"Have you ever taken any other recreational or illicit drugs?"* Overall, 68 % answered *"Yes"*.

Those who answered *"Yes"* were then asked: *"When was the last time you consumed..."* followed by the 14 types of recreational substances listed below:

- *Cannabis* (hashish, marijuana)
- *Synthetic cannabinoids* (*e.g.*, "spice", "K2", "herbal incense")
- *Ecstasy* (E, XTC, MDMA) (as a pill, crystal, or powder)
- *Amphetamines* (speed)
- *Crystal methamphetamine* (crystal, meth, "Tina", Pervitin)
- *Heroin or related drugs* ("poppy straw", "kompot", fentanyl)
- *Mephedrone* (4-MMC, "meow", methylone, "bubbles")
- *Synthetic stimulants other than mephedrone* (*e.g.*, MXE, bathsalts, 3-MMC, 4-MEC, 4_FA, XTC-light)
- *Alpha PhP*
- *GHB/GBL* ("liquid ecstasy")
- *Ketamine* ("special K")
- *LSD* ("acid")
- *Cocaine*
- *Crack cocaine*

For each drug, respondents were offered a scale to indicate how recently they had used it. It should be noted that the questions referred to each drug separately and poly drug use (combining drugs) was not measured [14].

Table 8.13 and **Table 8.14** presents cumulative percentages of trans and non-binary respondents who reported using each substance over progressively longer recall periods. The bottom two rows show conditional proportions: the percentage of lifetime users reporting use in the past 12 months (an indicator of continued use), and the percentage of past-year users reporting use in the past 7 days (an indicator of more frequent use). **Figures 8.12** and **8.13** present recency curves for the use of each substance across the four groups, showing the cumulative proportion of respondents reporting use within progressively longer look-back periods.

Table 8.13 Use of recreational substances (part 1)

Recency	Cumulative %						
	Canna-bis N = 382[a]	Ecstasy N = 153[b]	Amphet-amines N = 44[c]	Synthetic Stimulants N = 35[d]	Alpha PhP N = 4[e]	GHB/ GBL N = 65[f]	Cocaine N = 129[g]
Within the last 24 hours	11.5	0.5	0.5	0.2	0.0	0.3	0.3
Within the last 7 days	18.1	1.6	1.0	0.7	0.0	1.2	2.3
Within the last 4 weeks	25.6	4.4	1.2	1.7	0.2	2.3	4.9
Within the last 6 months	33.6	10.6	2.6	3.5	0.2	3.3	8.7
Within the last 12 months	40.3	14.8	3.7	4.4	0.4	4.7	12.2
Within the last 5 years	54.6	21.5	5.2	5.1	0.5	7.5	16.7
Ever	66.4	26.7	7.7	6.1	0.7	11.3	22.5
7d as a fraction of 12m	44.8	10.6	28.6	16.0	0.0	25.9	18.6
12m as a fraction of ever	60.7	55.6	47.7	71.4	50.0	41.5	54.3

[a]Missing n = 0; [b]Missing n = 2; [c]Missing n = 0; [d]Missing n = 1; [e]Missing n = 4; [f]Missing n = 0; [g]Missing n = 1.

Figure 8.12: Cumulative recency of consuming substances / illicit drugs across the trans and non-binary groups

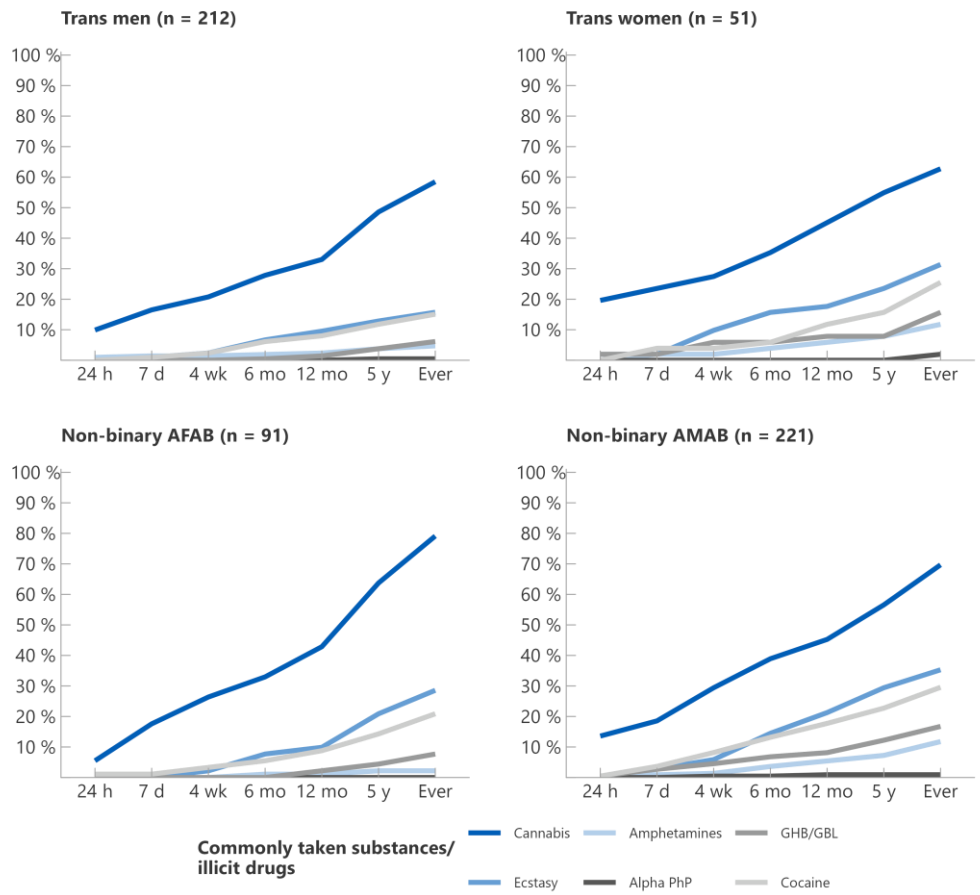


Table 8.14 Use of recreational substances (part 2)

Recency	Cumulative %						
	Synthetic cannabinoids N = 54[a]	Crystal meth N = 37[b]	Heroin N = 14[c]	Mephedrone N = 42[d]	Ketamine N = 84[e]	LSD N = 105[f]	Crack N = 8[g]
Within the last 24 hours	0.5	0.5	0.0	0.0	0.7	0.2	0.0
Within the last 7 days	1.0	0.7	0.2	0.9	1.7	0.5	0.0
Within the last 4 weeks	1.6	1.9	0.2	2.1	3.8	1.6	0.3
Within the last 6 months	2.4	2.4	0.2	4.4	7.7	5.1	0.5
Within the last 12 months	3.5	3.0	0.3	5.2	10.5	7.8	0.7
Within the last 5 years	5.2	4.2	0.9	6.6	13.4	13.1	1.0
Ever	9.4	6.4	2.4	7.3	14.6	18.3	1.4
7d as a fraction of 12m	30.0	23.5	50.0	16.7	16.7	6.7	0.0
12m as a fraction of ever	37.0	45.9	14.3	71.4	71.4	42.9	50.0

[a]Missing n = 0; [b]Missing n = 0; [c]Missing n = 1; [d]Missing n = 2; [e]Missing n = 1; [f]Missing n = 1; [g]Missing n = 0.

Among trans and non-binary respondents, the five most commonly *ever* used illicit drugs were:

1. Cannabis (66 %)
2. Ecstasy (27 %)
3. Cocaine (22 %)
4. LSD (18 %)
5. Ketamine (15 %)

The least *ever* used illicit drugs were: *Alpha PhP*, *Crack*, *Heroin, Synthetic Stimulants* and *Crystal meth*.

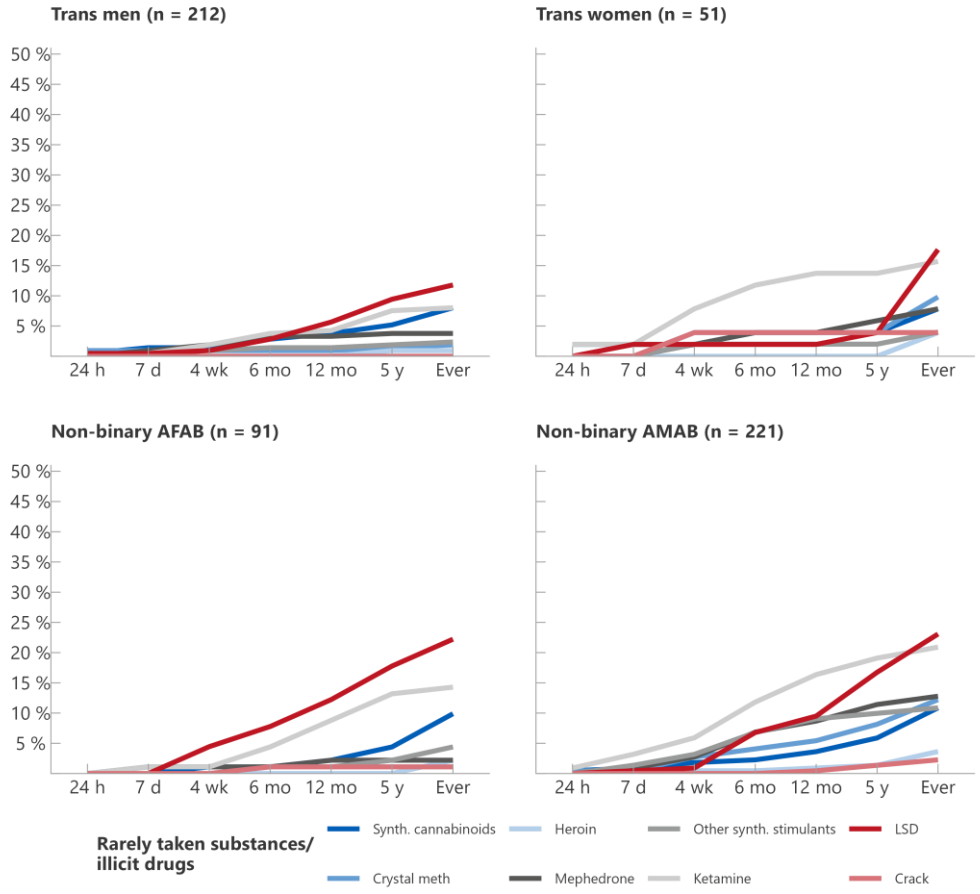
Lifetime use of *Cannabis* was highest, ranging from 58 % among trans men to 79 % among non-binary AFAB. The second most commonly used substance was *Ecstasy*, with lifetime use ranging from 16 % among trans men to 35 % among non-binary AMAB. Lifetime use of *Cocaine* ranged from 15 % among trans men to 30 % among non-binary AMAB.

Regarding less frequently used illicit substances, *LSD* was the most commonly used substance (**Figure 8.13**). Lifetime use was highest among non-binary AMAB (23 %), followed by non-binary AFAB (22 %), trans women (18 %), and trans men (12 %).

The second most commonly used substance in this group was *Ketamin*, with lifetime use ranging from 8 % among trans men to 21 % among non-binary AMAB.

Mephedron ranked third in this group, with corresponding proportions of 13 %, 10 %, 10 %, and 8 % among non-binary AMAB, non-binary AFAB, trans women, and trans men, respectively.

Figure 8.13: Cumulative recency of consuming other illicit substances across the trans and non-binary groups



8.3.6 Combining sex and drugs

Chemsex has emerged as a public health issue since EMIS-2010. Chemsex is a category of behaviour for which there is no agreed definition [15]. While all definitions include the combining of sex and substances, not all sex under intoxication is considered chemsex. Other necessary features of chemsex may include sex between men or transgender people; sex between casual partners and/or fuck-buddies (*i.e.* not between those romantically involved); facilitation by smartphone dating apps; use of specific drugs (typically GHB/GBL, crystal methamphetamine, mephedrone, and/or ketamine) [16]. Defining chemsex and developing an acceptable measure that was appropriate across cultures was a major challenge [17]. We decided not to use the word 'chemsex' in the survey itself and to ask a series of both broader and narrower questions.

8.3.6.1 Sex under intoxication

All study participants who had sex with men in the last 12 months were asked: *"In the last 12 months, how much of the sex you've had with men has been under the influence of alcohol or any other drug?"* and were offered the responses shown in **Table 8.15**.

Table 8.15 Percentage of all sex with men that was under the influence of alcohol or any other drug in the last 12 months (N = 426)

Percentage of all sex with men that has been under the influence of alcohol or any other drug in the last 12 months*	Trans men (%)	Trans women (%)	Non-binary AFAB (%)	Non-binary AMAB (%)	All trans and non-binary (%)
None of it	43.6	47.1	47.8	42.6	44.1
Almost none of it	26.2	17.6	23.9	25.0	24.6
Less than half	11.4	5.9	9.0	9.7	9.9
About half	6.7	0.0	9.0	8.5	7.3
More than half	2.7	8.8	3.0	2.8	3.3
Almost all of it	5.4	14.7	6.0	9.1	7.7
All of it	4.0	5.9	1.5	2.3	3.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 3.

Overall, 21 % of trans and non-binary respondents reported that at least half of the sex they had in the previous 12 months occurred under the influence of alcohol or other drugs. This included 11 % who reported that all or almost all of their sex occurred under the influence. Conversely, 44 % reported that none of their sex in the past 12 months had occurred under the influence of alcohol or other drugs, *i.e.*, that all of their sex had been sober.

8.3.6.2 Sober sex and 'Chemsex'

All study participants were asked: *"When was the last time you had sober sex (that is, NOT under the influence of alcohol or any other drug)?"* and were offered a scale to indicate how recently this had occurred. Followed by, *"When was the last time you used stimulant drugs to make sex more intense or last longer? (Note: the stimulant drugs include ecstasy/MDMA, cocaine, amphetamine (speed), crystal methamphetamine (Tina, Pervitin), mephedrone, ketamine, and Alpha PhP)"* and were offered a scale to indicate how recently this had occurred. The behaviour defined in this last question will, for ease of reference, hereafter be referred to as chemsex.

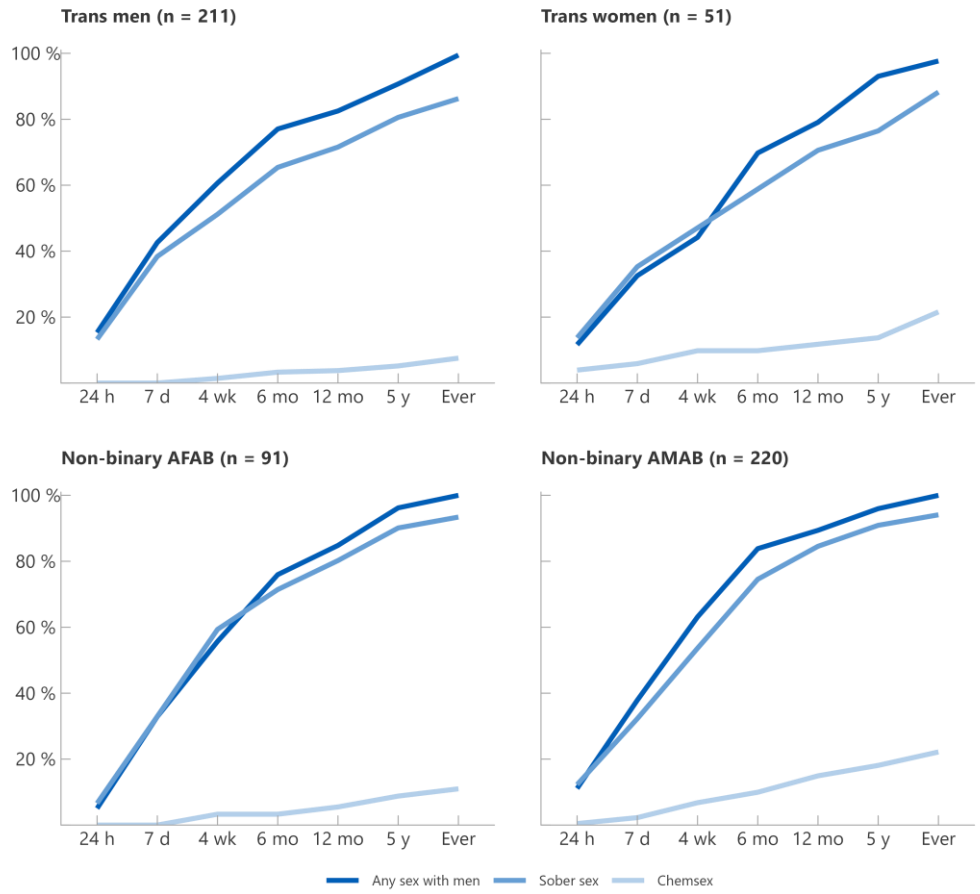
We chose to focus our measurement on the intentional use of stimulant drugs to intensify and prolong sex. We recognise that no single measure can definitively capture the concept of chemsex, but this operationalisation offers greater precision and clarity.

Figure 8.14 compares recency curves for any sex with men, sober sex, and chemsex across the four groups.

Sober sex was considerably more common than chemsex: 91 % of trans and non-binary respondents reported ever having had sober sex. Overall, 15 % reported ever having engaged in chemsex, and 10 % had done so in the past 12 months.

Non-binary AMAB respondents reported the highest lifetime prevalence of chemsex (22 %), followed by trans women (22 %). Lifetime prevalence was lower among non-binary AFAB respondents (11 %) and trans men (8 %).

Figure 8.14: Cumulative recency of selected sexual experiences across the trans and non-binary groups



8.3.6.3 Features of Chemsex

All study participants who reported ever having engaged in chemsex (n = 86) were asked: *"When was the last time you combined stimulant drugs and sex with more than one man at the same time?"* and were offered a scale to indicate how recently this had occurred. We refer to this behaviour as 'multi-partner chemsex'.

Table 8.16 Location of most recent multi-partner chemsex in the last 12 months

Location of most recent multipartner chemsex	Trans and non-binary respondents with multi-partner chemsex in the last 12 months (%) N = 26*
Your home	34.6
Someone else's home	34.6
A hotel room	3.8
In a club or backroom of a bar	7.7
A sauna	7.7
A porn cinema	3.8
A cruising location (street, roadside service area, park, beach, baths, lavatory)	7.7
Other answer	0.0
Total	**100.0**

*Missing n = 0.

Private homes were by far the most common settings for multi-partner chemsex (someone else's home: 35 %; own home: 35 %). The next most common locations were clubs or the backrooms of bars (8 %), saunas (8 %), and cruising locations (8 %). Hotel rooms (4 %) and porn cinemas (4 %) were reported less frequently by trans and non-binary respondents.

8.4 Needs

We define sexual health needs as the capabilities, opportunities, and motivations to engage in sexual health-related behaviour, both precautions and risks. A central research objective of EMIS was to identify sexual health needs that are commonly unmet across the population of transgender and non-binary people to prioritise those needs for intervention. EMIS asked about needs related to several types of precautionary behaviour and health outcomes. It also asked about some health needs not related to specific behaviour, including internalised transnegativity.

8.4.1 Transphobic stigma and discrimination

Those who self-identified as part of the trans community were asked: *"Please say when something last happened, even if this was not typical for you"*, and were presented with items relating to social, health-care-related, or law enforcement-related discrimination.

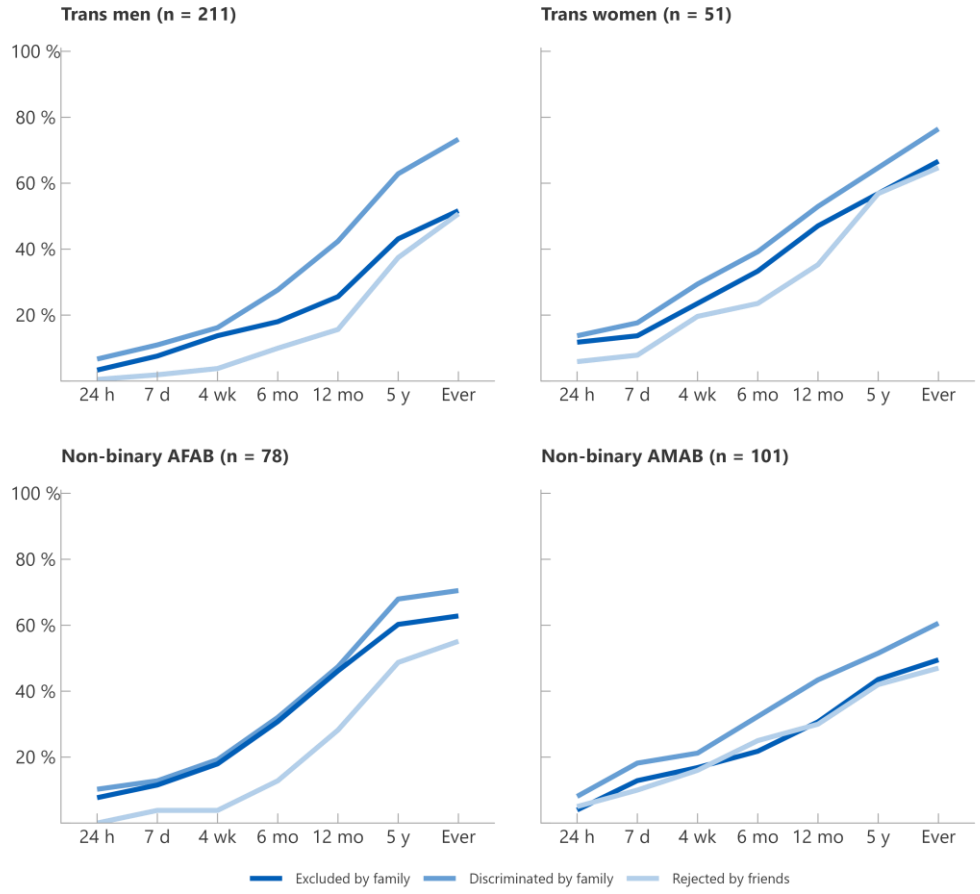
8.4.1.1 Social discrimination

Those who self-identified as part of the trans community were asked: *"When was the last time you..."*:

- *"...felt excluded from family activities because you are transgender?"*
- *"...felt that family members have made discriminatory remarks or gossiped about you because you are transgender?"*
- *"...felt rejected by your friends because you are transgender?"*

Overall, 70 % of trans and non-binary respondents reported ever having felt discriminated against by their family because they are transgender, and 55 % reported ever having felt excluded by their family. Around one in two respondents (52 %) had ever felt rejected by their friends because they are transgender. **Figure 8.15** shows the recency of these experiences across the four groups.

Figure 8.15: Cumulative recency of transnegative social discrimination across the trans and non-binary groups



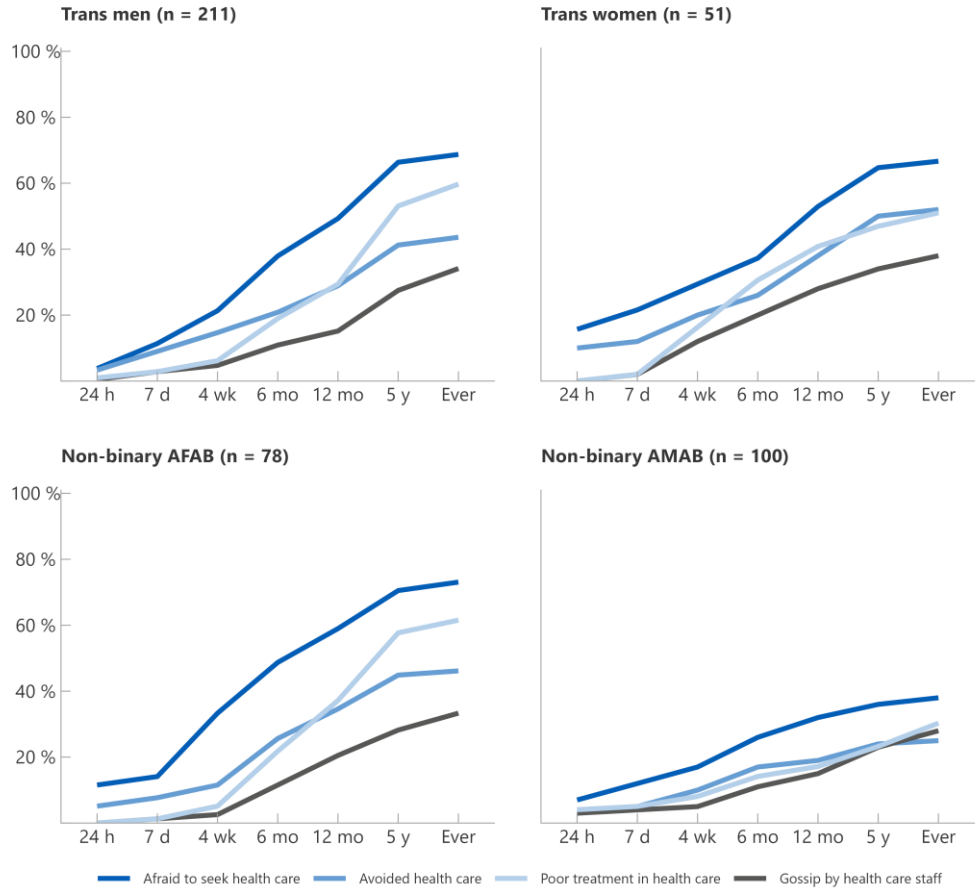
8.4.1.2 Healthcare-related discrimination

Those who self-identified as part of the trans community were asked: *"When was the last time you..."*:

- *"...felt afraid to go to health care services because you worry someone may learn you are transgender?*
- *"...avoided going to health care services because you worry someone may learn you are transgender?*
- *"...felt that you were not treated well in a health centre because someone knew you are transgender?*
- *"...heard health care providers gossiping about you (talking about you) because you are transgender?*

Around three out of five respondents who self-identified as part of the trans community (62 %) had ever felt afraid of seeking health care because they worried someone may learn they are transgender. Furthermore, 41 % had ever avoided seeking health care because of the same concern. **Figure 8.16** shows the recency of these experiences across the four groups.

Figure 8.16: Cumulative recency of transnegative health-care-related discrimination across the trans and non-binary groups



Overall, around one in two (52 %) of trans and non-binary respondents reported having ever received poor treatment in a health care setting.

Furthermore, 33 % reported having ever heard health care providers gossip about them because they were transgender.

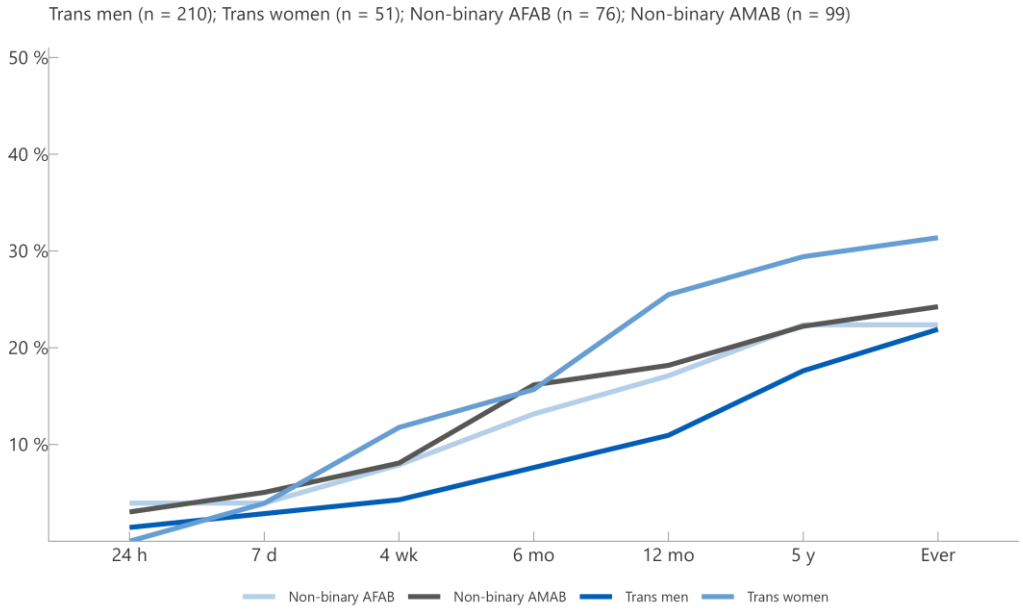
These lifetime experiences of discrimination in health care were particularly common among trans men and non-binary AFAB respondents. Among trans men, 69 % had ever felt afraid of seeking health care, and 44 % had ever avoided seeking health care services. Among non-binary AFAB respondents, the corresponding proportions were 73 % and 46 %, respectively.

8.4.1.3 Law enforcement-related discrimination

Those who self-identified as part of the trans community were asked: *"When was the last time you felt that the police refused to protect you because you are transgender?"*

24 % of trans and non-binary respondents reported having ever felt that the police refused to protect them because they were transgender. This lifetime experience was more commonly reported by trans women (31 % and non-binary AMAB respondents (24 %). **Figure 8.17** shows the recency of this experience for the four groups.

Figure 8.17: Cumulative recency of transnegative discrimination by police across the trans and non-binary groups



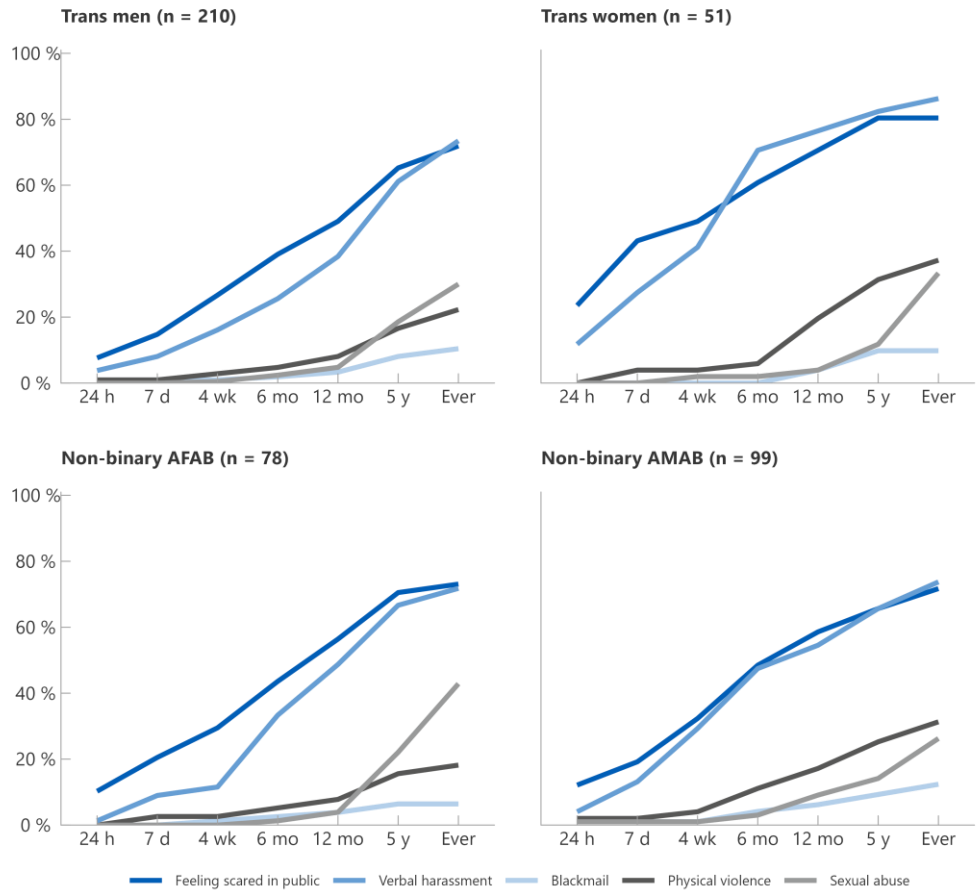
8.4.2 Transphobic abuse

Those who self-identified as part of the trans community were asked: *"Please say when something last happened, even if this was not typical for you"*, followed by three statements:

- *"...felt scared to be in public places because someone knew or presumed you are transgender?"*
- *"...been verbally harassed because someone knew or presumed you are transgender?"*
- *"...been blackmailed by someone because someone knew or presumed you are transgender?"*
- *"...someone physically hurt you (pushed, shoved, slapped, hit, kicked, choked or otherwise physically hurt you) because someone knew or presumed you are transgender?"*
- *"...someone forced you to have sex when you did not want to? (By forced, we mean physically forced, coerced to have sex, or penetrated with an object, when you did not want to)"*

For each statement, participants were offered a scale to indicate how recently this had occurred. The cumulative percentages for having experienced each event are shown in **Figure 8.18**.

Figure 8.18: Cumulative recency of feeling unsafe in public and experiencing trans-negative abuse (verbal harassment, blackmail, physical violence, and sexual violence) across the trans and non-binary groups



Around three out of four trans and non-binary respondents (73 %) reported ever having felt scared to be in public spaces, and 55 % had experienced this in the past 12 months.

Around three out of four trans and non-binary respondents (75 %) reported ever having been verbally harassed because someone knew or presumed they were transgender, and 48 % had experienced this in the past 12 months.

Over the past 12 months, 11 % reported having been physically hurt because someone knew or presumed they were transgender.

Additionally, 32 % reported ever having been coerced into having sex, and 5 % had experienced this in the past 12 months.

8.4.3 Internalised Transnegativity

We used a Short Internalised Transnegativity Scale (SITS), adapted from the Short Internalised Homonegativity Scale (SIHS) as validated by Tran *et al.* [18], to assess levels of internalised transnegativity among those who identified as part of the trans community. They were asked: *"Do you disagree or agree with the following statements on a scale of 1 (Strongly disagree) to 7 (Strongly agree)? Please do not spend too much time thinking about any one statement."* The seven statements were:

- *I am proud of being a transgender person*
- *I am comfortable revealing to others that I am transgender*
- *I feel comfortable being out in public with transgender people*
- *Being transgender makes me feel like a freak*
- *I don't mind being perceived as transgender*
- *I often ask myself: why can't I just be normal?*
- *I am comfortable with the reality that I am transgender*

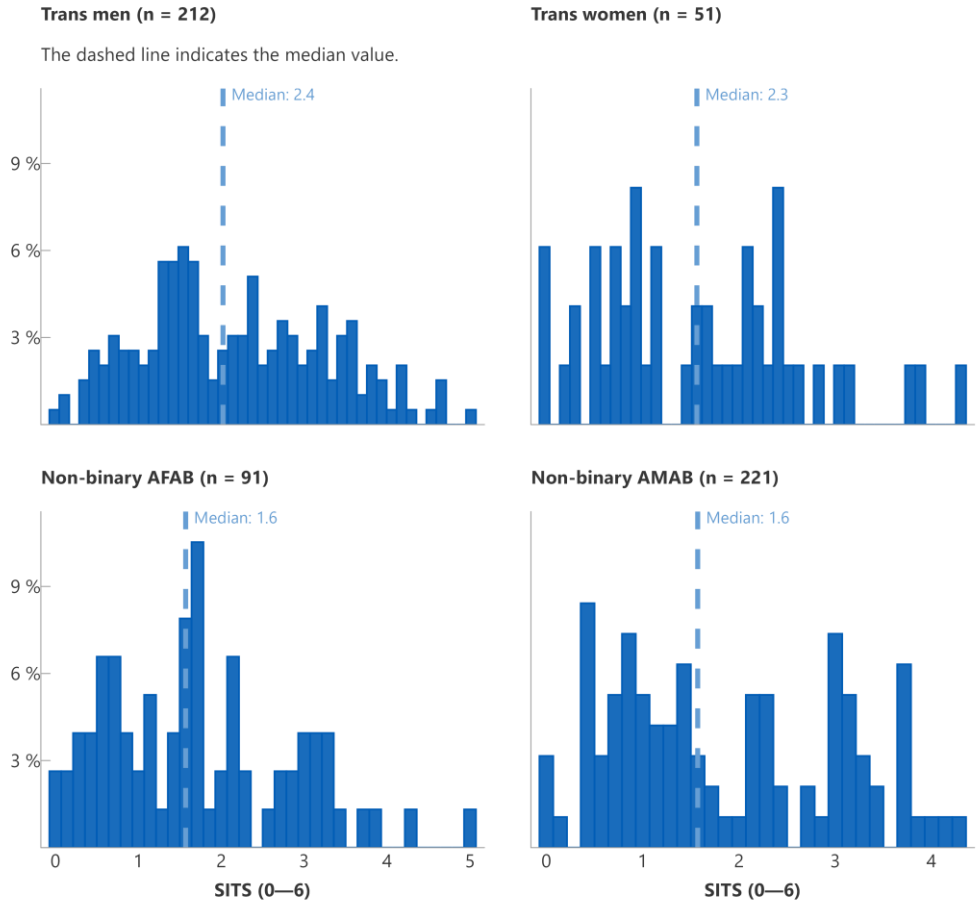
Responses to each item were provided on a 7-point scale (1 = Strongly Disagree to 7 = Strongly Agree). For scoring, items reflecting positive feelings towards being transgender were reverse-coded (*e.g.*, a response of '1' was scored as 6, and '7' as 0), while items reflecting negative feelings were recoded from 1–7 to 0–6 without reversal (*e.g.*, 1 was scored as 0, and 7 as 6). This transformation resulted in individual item scores ranging from 0 to 6. A total SITS score ranging from 0 to 42 was calculated by summing the seven item scores and then dividing the total by 7 to yield a mean SITS score ranging from 0 to 6.

Figure 8.19 shows the distribution of mean SITS scores across the four trans and non-binary groups. Lower mean scores indicate lower levels of internalised transnegativity.

The adapted SITS has not yet been formally validated. The results should therefore be interpreted with appropriate caution.

The mean SITS score across Germany was 2.2 (median: 2). Overall, 1.4 % scored zero, the 'best' possible score, and 28 % scored above the midpoint on the scale (*i.e.* more than 3), indicating comparatively higher levels of internalised transnegativity.

Figure 8.19: Distribution of Short Internalised Transnegativity Scale (SITS) scores across the trans and non-binary groups



8.4.4 Stress within the community

This section, adapted for the transgender community, is based on the **intra-minority stress theory** (also known as the **gay community stress theory**), developed by Pachankis *et al.* [19]. The theory integrates three foundational frameworks—**intra-sex competition theory** [20], **sexual field theory** [21], and **theory of precarious manhood** [22]—to explain mental health disparities. The theory describes how stress from status hierarchies within the transgender community can intensify stress related to social hierarchies, thereby contributing to mental health challenges. We used a modified, 9-item scale relevant to the transgender community to measure this stress. The scale focuses on racial or ethnic marginalisation, competition and comparison, and rejection from the mainstream LGBT community. Responses were rated on a 5-point *Likert* scale (1 = *"Strongly Disagree"*, to 5 = *"Strongly Agree"*), where higher scores indicate greater perceived intra-minority stress.

8.4.4.1 Stressors related to competition

Those who self-identified as part of the trans community were asked to rate the following statements on a 5-point *"Disagree–Agree"* scale the following questions:

- *The mainstream transgender community is overly gossipy*
- *The mainstream transgender community has a culture of competition and jealousy*
- *The mainstream transgender community is overly cliquey*
- *In the mainstream transgender community, there is a lot of mistrust among friends*
- *The mainstream transgender community is overly judgemental*
- *The mainstream transgender community is overly materialistic*

Table 8.17 shows respondents' levels of agreement with six statements on competition-related stressors within the mainstream trans community.

For scoring, responses to each scale item were ranked from most negative to most positive (*i.e.*, *"Strongly Disagree"* = 1, *"Disagree"* = 2, [...], *"Strongly Agree"* = 5). The mean score across the six scale items was 3.4. Overall, 22 % reported high competition-related stress, defined as a mean score of 4 or higher across the six scale items.

Table 8.17 Agreement with statements on competition-related stressors within the mainstream trans community

Competition subscale agreement statements	Strongly disagree	Disagree	Neither / not sure	Agree	Strongly agree
The mainstream transgender community is overly gossipy[a] n = 437	16.5	22.7	34.6	20.1	6.2
The mainstream transgender community has a culture of competition and jealousy[b] n = 436	19.0	24.9	23.3	27.0	5.7
The mainstream transgender community is overly cliquey[c] n = 437	11.4	20.1	34.2	24.7	9.6
In the mainstream transgender community, there is a lot of mistrust among friends[d] n = 436	27.2	30.2	29.5	9.6	3.4
The mainstream transgender community is overly judgemental[e] n = 435	12.2	23.6	26.1	28.0	10.1
The mainstream transgender community is overly materialistic[f] n = 433	27.4	23.7	32.9	10.6	5.3

[a]Missing n = 6; [b]Missing n = 6; [c]Missing n = 5; [d]Missing n = 6; [e]Missing n = 7; [f]Missing n = 9.

Overall, 26 % of trans and non-binary respondents agreed that the mainstream transgender community is overly gossipy, while 35 % were unsure. Similarly, 33 % agreed that the mainstream transgender community has a culture of competition and jealousy.

Similarly, 34 % agreed that the mainstream transgender community is overly cliquey or overly judgemental (38 %). Agreement was less common for the statements that the community is materialistic (16 %) or that there is a great deal of mistrust among friends within the community (13 %).

8.4.4.2 Stressors related to exclusion

Those who self-identified as part of the trans community were asked to rate on a 5-point *"Disagree—Agree"* scale the following questions:

- *The mainstream transgender community is racist*
- *The mainstream transgender community discriminates against its members who have HIV/AIDS*
- *In the mainstream LGBTQ+ community, there is a lot of transphobia*

Table 8.18 shows respondents' levels of agreement with three statements on exclusion-related stressors within the mainstream trans community.

For scoring, responses to each scale item were ranked from most negative to most positive (*i.e.*, *"Strongly Disagree"* = 1, *"Disagree"* = 2, [...], *"Strongly Agree"* = 5). The mean score across the three scale items was 3.4. Overall, 16 % reported high exclusion-related stress, defined as a mean score of 4 or higher across the three scale items.

Table 8.18 Agreement with statements on exclusion-related stressors within the mainstream trans community

Exclusion subscale agreement statements	Strongly disagree	Disagree	Neither / not sure	Agree	Strongly agree
The mainstream transgender community is racist* n = 437	21.2	26.7	27.9	20.3	3.9
The mainstream transgender community discriminates against its members who have HIV/AIDS** n = 436	24.3	30.2	32.3	11.4	1.8
In the mainstream LGBTQ+ community, there is lots of transphobia*** n = 437	6.8	15.5	22.6	38.1	16.9

*Missing n = 5; **Missing n = 6; ***Missing n = 5.

Overall, 48 % of trans and non-binary respondents disagreed that the trans community is racist, while 28 % were unsure and 24 % agreed.

Similarly, 54 % disagreed that the trans community discriminates against its members who have HIV. 32 % were unsure, while only 13 % agreed.

By contrast, 55 % agreed that there is widespread transphobia within the LGBT community, compared with 22 % who disagreed and 23 % who were unsure.

8.4.5 PrEP Knowledge

All study participants were asked: *"Have you heard of PrEP?"*. Overall, 88 % of trans and non-binary respondents answered *"Yes"*, and 12 % had not heard of it. All study participants were also told: *"The following statements are all TRUE. Did you know this already?"* and were offered the following statements:

- *Pre-Exposure prophylaxis (PrEP) involves someone who does not have HIV taking pills before as well as after sex to prevent them getting HIV*
- *PrEP can be taken as a single daily pill if someone does not know in advance when they will have sex*
- *If someone knows in advance when they will have sex, PrEP needs to be taken as a double dose approximately 2 to 24 hours before sex and then at both 24 and 48 hours after the double dose*

Two additional statements on interactions between gender-affirming hormone therapy and currently available PrEP dosing regimens were included. These were shown only to trans and non-binary respondents who were taking or planning to take the relevant gender-affirming hormones. They were then presented with the following statement: *"Please note: taking PrEP just before and after sex has been shown to be protective in anal but not vaginal intercourse"*.

- *Gender-affirming hormone therapy with testosterone does not affect PrEP efficacy in any way*
- *If you are on oestrogen as part of your gender-affirming hormones, PrEP is effective only if taken in the modality of a single daily pill*

Table 8.19 presents the distribution of responses to each statement. The column on the right adds together participants who did not already know the statement was true (*i.e.* everyone who did not select *"Already knew"*).

Table 8.19 Pre-Exposure Prophylaxis (PrEP) knowledge

% of all trans respondents	Already knew	Wasn't sure	Didn't know	Don't understand	Don't believe	Did not already know
Pre-Exposure prophylaxis (PrEP) involves someone who does not have HIV taking pills before as well as after sex to prevent them getting HIV n = 545[a]	66.1	14.1	19.8	0.2	0.0	34.1
PrEP can be taken as a single daily pill if someone does not know in advance when they will have sex n = 544[b]	62.5	11.8	25.6	0.0	0.4	37.7
If someone knows in advance when they will have sex, PrEP needs to be taken as a double dose approximately 2 to 24 hours before sex and then at both 24 and 48 hours after the double dose n = 542[c]	33.2	16.6	48.9	0.4	1.1	67.0
Gender-affirming hormones therapy with testosterone does not affect PrEP efficacy in any way n = 258[d]	38.4	26.4	34.1	0.0	1.2	61.6
If you are on oestrogen as part of your gender-affirming hormones, PrEP is effective only if taken in the modality of a single daily pill n = 66[e]	7.6	4.5	81.8	1.5	4.5	92.4

[a]Missing n = 0; [b]Missing n = 1; [c]Missing n = 3; [d]Missing n = 1; [e]Missing n = 0.

Around two out of three trans and non-binary respondents (66 %) already knew that PrEP involves someone who does not have HIV taking pills before and after sex to prevent HIV. In addition, 62 % of trans and non-binary participants already knew that PrEP can be taken as a single daily pill.

Around one in three trans and non-binary respondents (33 %) already knew that PrEP can be taken as a double dose 24–2 hours before sex and then both at 24 and 48 hours after the double dose.

Regarding interactions between PrEP and gender-affirming hormone therapy, 62 % of trans men and AFAB non-binary respondents who were taking or planning to take gender-affirming hormones did *not* already know that testosterone does not affect PrEP efficacy.

Likewise, there was a substantial knowledge gap among trans women and non-binary AMAB respondents who were taking or planning to take gender-affirming hormones: 92 % did *not* already know that PrEP is effective with continuous daily dosing for people taking oestrogen as part of gender-affirming hormone therapy, but not with the event-driven 2-1-1 regimen. This statement refers specifically to the 2-1-1 regimen and does not apply to regimens involving a longer period of daily dosing after the last sexual exposure, such as seven days. This included 4 % who were unsure and 4 % who did not believe this.

8.4.6 Sexual rejection

A clear majority of trans and non-binary respondents (70 %) reported that they were rarely or never sexually rejected by men because they are transgender, whereas 30 % reported being sexually rejected at least half of the time.

Frequent sexual rejection (reported *always* or *most of the time*) was substantially more common among trans men (14 %) and trans women (26 %) as among non-binary AFAB (4 %) and non-binary AMAB respondents (12 %). **Table 8.20** presents the distribution of responses across the four groups.

Table 8.20 Sexual rejection experiences from men based on transgender identity

Sexual rejection *	Trans men (%) N = 194	Trans women (%) N = 47	Non-binary AFAB (%) N = 77	Non-binary AMAB (%) N = 102	All trans and non-binary (%) N = 420
Always	0.5	0.0	0.0	0.0	0.2
Most of the time	13.9	25.5	3.9	11.8	12.9
Half of the time	18.0	23.4	16.9	13.7	17.4
Rarely	43.3	19.1	37.7	30.4	36.4
Never	24.2	31.9	41.6	44.1	33.1

*Missing n = 3.

8.5 Interventions

To intervene is to participate in an activity so to alter a course of events, usually to make something less or more likely to occur.

This chapter focuses on interventions intended to improve the health and well-being of trans and non-binary people. It summarises respondents' experiences with gender-affirming hormone therapy, HIV and STI education services, PrEP services, and HIV and STI testing services.

8.5.1 Gender-affirming hormone therapy

Some transgender people may entrust themselves to gender-affirming hormone therapy, to alleviate the distress caused by the experience of gender dysphoria—referring to the discomfort or distress that a person experiences due to incongruence between their gender identity and sex assigned at birth. For instance, trans men and non-binary AFAB people can take testosterone, while trans women and non-binary AMAB people can take oestrogen and optionally androgen blockers [23].

Non-binary people, on the other hand, are generally less likely to seek gender-affirming hormone therapy [24]. This may be because they experience less body dissatisfaction or gender incongruence, or, possibly, because of social stigma, lack of information targeted towards this group, and several obstacles and challenges in accessing care. Barriers and difficulties in accessing gender-affirming hormone therapy may

pose significant burdens on the mental and sexual health of trans and non-binary people [24].

Those who self-identified as part of the trans community were asked: *"Are you currently taking gender-affirming hormones?"* and offered the responses *"Yes"*, *"No"*, *"I was, but not anymore"*. If they answered *"No"*, they were asked: *"Do you plan on starting gender-affirming hormones in the future?"* and offered *"Yes"*, *"No"*, and *"Not sure"*. **Table 8.21** summarises the responses.

Table 8.21 Use of Gender-Affirming Hormones

Use of gender-affirming hormones N = 443*	Trans men (%) N = 212	Trans women (%) N = 51	Non-binary AFAB (%) N = 78	Non-binary AMAB (%) N = 102
Currently not taking gender aff. hormones	12.3	37.3	48.7	83.3
...not planning to start	0.5	7.8	9.0	31.7
...planning to start	10.4	21.6	19.2	15.8
...undecided on starting	1.4	7.8	20.5	35.6
Currently taking gender affirming hormones	86.8	60.8	50.0	13.9
Stopped taking gender affirm. hormones	0.9	2.0	1.3	3.0

*Missing n = 0.

Most binary trans people were either already taking (87 % of trans men *vs* 61 % of trans women) or planning to take (10 % *vs* 22 %, respectively) gender-affirming hormones. Only 0.5 % of trans men and 8 % of trans women did not plan to start taking gender-affirming hormones in the future.

Among respondents who identified as part of the trans community, current use of gender-affirming hormones was also common among non-binary AFAB respondents, with around one in two currently taking hormones (50 %). Those not currently using hormones (49 %) included 9 % who reported that they did not intend to start treatment, while 0 % had previously taken hormones but had discontinued them.

Hormone use was less common among non-binary AMAB respondents, although around one in seven (14 %) were currently taking gender-affirming hormones. Those not currently taking hormones (83 %) included 32 % who reported that they had no plans to start.

These questions were asked only of respondents who identified as part of the trans community. Consequently, the proportions reported here should not be interpreted as estimates for all non-binary respondents.

Those who answered *"Yes"* to *"Are you currently taking gender-affirming hormones?"* were asked the follow-up question: *"Are you currently being monitored by a health care provider for your gender-affirming hormones?"*. The distribution of responses is presented in **Table 8.22**.

Table 8.22 Gender-affirming hormones monitoring

Gender-affirming hormone therapy monitoring N = 268*	Trans men (%) N = 184	Trans women (%) N = 31	Non-binary AFAB (%) N = 39	Non-binary AMAB (%) N = 14
No, I am monitoring my gender-affirming therapy myself	2.2	6.5	2.6	14.3
No, I am being helped by someone else (who is not my healthcare provider)	0.0	3.2	0.0	7.1
Yes, by my general practitioner/ family doctor	9.8	16.1	15.4	7.1
Yes, by a medical specialist (e.g. endocrinologist)	88.0	74.2	82.1	71.4
Total	**100.0**	**100.0**	**100.0**	**100.0**

*Missing n = 0.

Among respondents currently taking gender-affirming hormones, 85 % reported that their hormone therapy was currently monitored by a medical specialist, while 11 % were monitored by their general practitioner. In contrast, 3 % reported monitoring their hormone therapy themselves, commonly referred to as *"DIY"*.

Those who answered *"I was, but not anymore"*, to the question *"Are you currently taking gender-affirming hormones?"* were asked the follow-up question: *"Why are you not on gender-affirming hormones anymore?"*. The distribution of responses is shown in **Table 8.23**.

Table 8.23 Reasons for not taking gender-affirming hormones any more

Reasons for no longer taking gender-affirming hormones N = 7*	%
They are currently not available in the country I live in	0.0
They are not covered by insurance / too expensive	14.3
I had to stop them for medical reasons	28.6
I was forced to stop them (for non-medical reasons, e.g., by my family)	0.0
I decided to stop them	42.9
Other reasons	14.3
Total	**100.0**

*Missing n = 0.

Those who answered *"Yes"* to the question *"Are you currently taking gender-affirming hormones?"* were asked the follow-up question: *"Where have you got your gender-affirming hormones from? (Tick as many as apply)"*. The distribution of responses is presented in **Table 8.24**.

Table 8.24 Source of gender-affirming hormones

Source of gender affirming hormones N = 267*	Trans men (%) N = 183	Trans women (%) N = 31	Non-binary AFAB (%) N = 39	Non-binary AMAB (%) N = 14
General practitioner/family doctor	13.7	22.6	20.5	14.3
Medical specialist (*e.g.* endocrinologist)	81.4	61.3	76.9	78.6
Hospital, clinic or institute	0.5	3.2	0.0	0.0
Community health service or drop-in	0.0	0.0	0.0	0.0
Online pharmacy / abroad	0.5	6.5	2.6	7.1
Physical pharmacy in the country I live in	3.3	6.5	0.0	0.0
Friend and/or partner	0.0	0.0	0.0	0.0
Alternative use of hormone medication (*e.g.* contraceptive pills)	0.0	0.0	0.0	0.0
'Drug dealer' or on the 'black market'	0.0	0.0	0.0	0.0
Gender-affirming care service	0.5	0.0	0.0	0.0

Note. Percentages do not total 100 % because respondents could select more than one response option.
*Missing n = 1.

Around four out of five trans and non-binary respondents (78 %) reported receiving their gender-affirming hormones from a medical specialist, followed by their general practitioner (16 %). 0.4 % reported getting their hormones from a gender-affirming care service, 3 % from a physical pharmacy in the country they live in, 1.9 % from an online pharmacy, and 0.7 %from a hospital or clinic.

8.5.2 HIV/STI education services

Sexual health information (and health information generally) is more likely to be attended to if it is tailored to, and inclusive of, the circumstances and preferences of its target group.

Those who self-identified as part of the trans community were asked: *"When was the last time you saw or heard any information about HIV or STIs specifically for transgender people?"*. They were offered a scale for indicating how recently this had occurred.

Around one in two trans and non-binary respondents (52 %) reported that they had never seen information about HIV or STIs specifically for transgender people, whereas 40 % had heard or seen such information in the previous 12 months.

8.5.3 PrEP services

Trans and non-binary study participants who had ever used PrEP (n = 90) were asked: *"Where have you got your PrEP pills from?"*. **Table 8.25** presents the reported sources of PrEP across the four groups.

Table 8.25 Source of PrEP pills among trans and non-binary participants who had ever taken PrEP

Source of PrEP*	Trans men (%) N = 24	Trans women (%) N = 7	Non-binary AFAB (%) N = 9	Non-binary AMAB (%) N = 50	All trans and non-binary (%) N = 90
As a participant in a research study	4.3	0.0	11.1	2.0	3.4
General Practitioner / family doctor	26.1	33.3	44.4	32.0	31.8
A doctor in private practice	56.5	33.3	33.3	50.0	48.9
At a hospital, clinic or institute	4.3	0.0	0.0	2.0	2.3
At a community health service or drop-in	13.0	0.0	0.0	12.0	10.2
From an online pharmacy/abroad	0.0	0.0	0.0	4.0	2.3
From a physical pharmacy in the country	26.1	50.0	33.3	34.0	33.0
Used PEP pills as PrEP	0.0	0.0	0.0	2.0	1.1
Used someone else's ART pills as PrEP	0.0	0.0	0.0	0.0	0.0
Given by friend or partner	0.0	16.7	0.0	6.0	4.5
At a gender-affirming care service	0.0	16.7	11.1	0.0	2.3
Other	0.0	0.0	0.0	0.0	0.0

Note. Percentages do not total 100 % because respondents could select more than one response option.
*Missing n = 2.

Around one in two trans and non-binary respondents received PrEP a doctor in private practice (49 %), while 6 % reported accessing PrEP through informal sources, such as using PEP pills as PrEP, using someone else's ART, or receiving PrEP pills from a friend or sexual partner.

8.5.4 Testing services

8.5.4.1 HIV testing

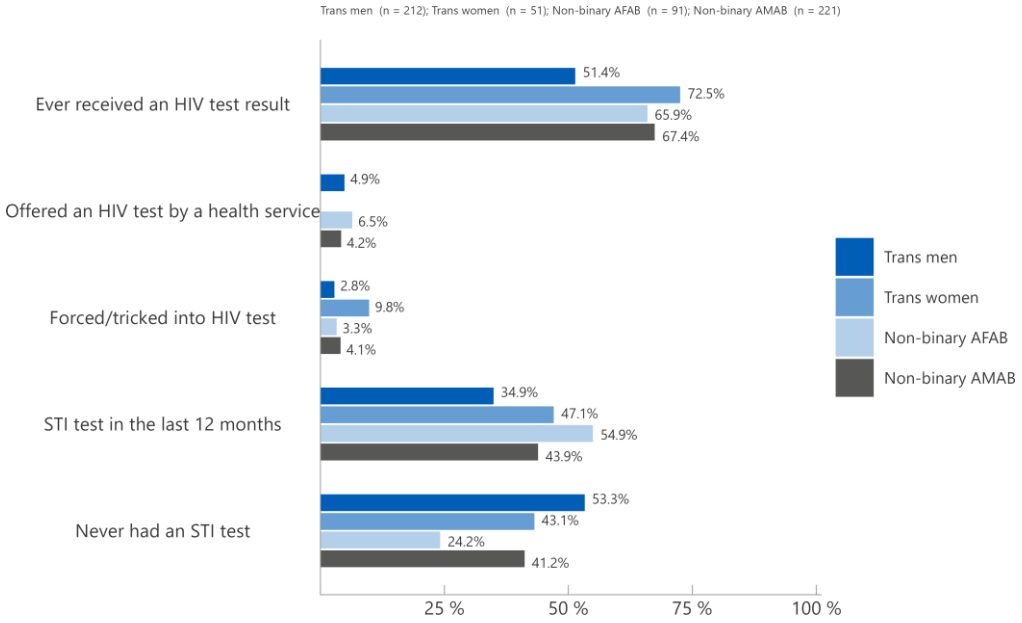
Regulations governing HIV testing have been relaxed in many European countries, and HIV tests are now available in a variety of settings, including community-based testing (often provided by trained personnel rather than physicians) [25], self-sampling and self-testing [26]. This section examines the uptake of HIV testing, the settings in which tests are provided, respondents' satisfaction with testing services, and the extent to which health services proactively offer HIV testing.

Among trans and non-binary respondents who never received an HIV test result, 5 % reported ever having been offered an HIV test by a health care service. Among the four trans groups, non-binary AFAB were the most likely to have been offered a test (6 %) (**Figure 8.20**).

Around three out of five trans and non-binary respondents (62 %) reported ever having received an HIV test result, with the highest proportions observed among trans women (73 %) and non-binary AMAB (67 %).

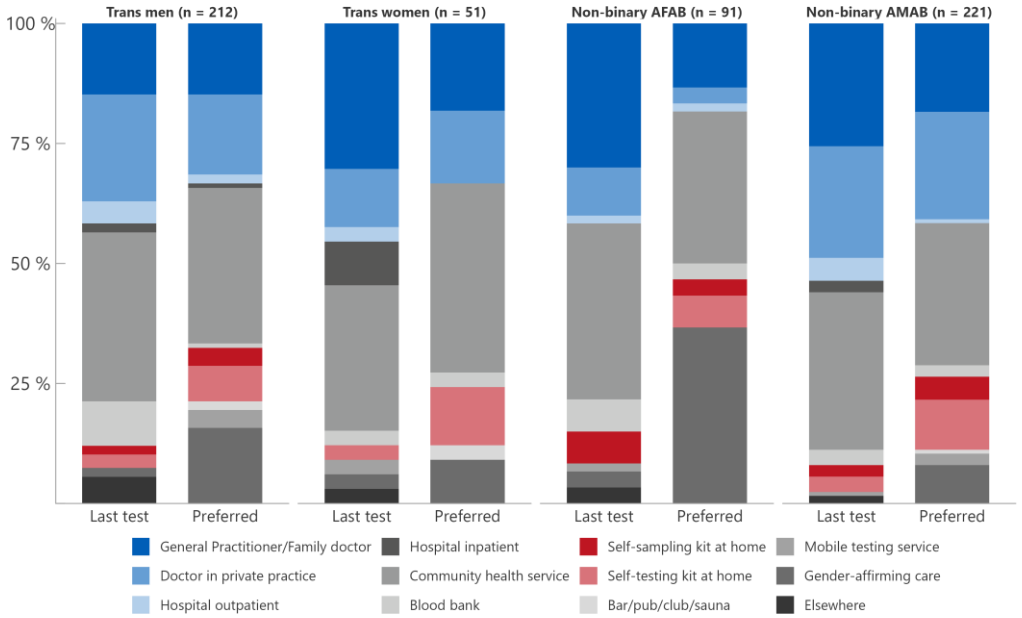
Four percent of trans and non-binary respondents reported ever having been forced or tricked into taking an HIV test. In addition, 39 % reported never having had an STI test, whereas 43 % had been tested for STIs within the past 12 months.

Figure 8.20: Testing experiences for HIV and STIs across the trans and non-binary groups



Participants who reported ever having taken an HIV test were asked: *"Where did you go for your last HIV test?"* and *"What would be your first choice for HIV testing, if you could choose freely?"*. **Figure 8.21** compares the responses to these two questions.

Figure 8.21 Current *vs* preferred location of HIV testing across the four trans groups



The three most commonly reported locations for the most recent HIV test and the preferred location for future HIV testing were:

- **Community health centre**: 34 % (most recent test), *vs* 32 % (preferred location).
- **Hospital as an outpatient**: 4 % (most recent test), *vs* 1.2 % (preferred location).
- **General Practitioner/Family doctor**: 23 % (most recent test), *vs* 16 % (preferred location).

Participants who had been diagnosed with HIV were asked: *"When you were diagnosed HIV positive, how satisfied were you with the support and information you received?"*. Participants whose last HIV test was negative were asked: *"The last time you tested for HIV, how satisfied were you with the support and information you received?"* (N = 326, missing n = 5). Both groups were offered the same response options, and the distribution of responses is presented in **Table 8.26**.

Table 8.26 Satisfaction with support and information received during HIV testing

Satisfaction with support and information received during HIV testing	Diagnosed HIV (%) N = 27*	Last HIV test negative (%) N = 325**
I did not receive any support or information	7.4	16.9
Very satisfied	29.6	40.0
Satisfied	40.7	24.6
Dissatisfied	7.4	4.9
Very dissatisfied	3.7	1.8
I don't remember / I did not think about it	11.1	12.0
Total	**100.0**	**100.0**

*Missing n = 4; **Missing n = 5.

Around two out of three trans and non-binary respondents (65 %) were satisfied or very satisfied with the support and information they received. However, 16 % reported not having received any support or information. However, dissatisfaction with information and support was higher among respondents who tested positive (11 %) than in those who tested negative (7 %).

8.5.4.2 STI testing

All study participants were asked: *"When did you last have a test for STIs other than HIV?"* and were offered a scale to indicate how recently this had occurred. Among trans and non-binary respondents 57 % had ever tested for STIs, and 43 % had done so in the previous 12 months.

Across the four trans groups, STI testing in the previous 12 months was most common among non-binary AFAB (55 %) and least common among trans men (35 %).

Those who tested for STIs in the previous 12 months (N = 245) were asked: *"Did you have any symptoms on that occasion?"*. Overall, 78 % answered *"No"*, 20 % answered *"Yes"*, and 2 % responded *"I don't remember"*. Among the four trans groups, the proportion undergoing asymptomatic STI testing (*i.e.* STI screening) varied little (74 %–82 %).

8.5.4.3 Elements of STI testing

Trans and non-binary participants were asked: *"So we can ask appropriate questions about your sexual life, and because people's bodies differ, please let us know if you have... (tick all that apply)"*. The response options differed according to sex assigned at birth.

For those assigned female at birth, the options were *"A vagina"*; "*A vulva with no vaginal opening"*; *"A penis (metoidioplasty)"*; *"A penis (phalloplasty)"*.

For those assigned male at birth, the options were *"A penis"*, *"Testicles"*, *"A (neo)vagina"*, *"A (neo)vulva with no vaginal depth (without vaginal opening)"*.

Respondents were then asked a series of questions, tailored to their reported sexual characteristics, about the elements of STI testing they had received in the previous 12 months. These questions included:

- *"Was something inserted into the opening of your penis (urethral swab) as part of any STI test?"*
- *"Has your penis been examined as part of any STI test?"*
- *"Was something inserted into your vagina (vaginal swab) as part of any STI test?"*
- *"Has your vagina been examined as part of any STI test?"*
- *"Was something inserted into your anus (anal swab) as part of any STI test?"*
- *"Has your anus been examined as part of any STI test?"*

Unfortunately, as also described in **Section 7.6.4.1**, a technical error [27] resulted in two questions included in the previous two EMIS waves *not* being shown to respondents: *"Have you provided a blood sample as part of any STI test in the last 12 months?"* and *"Have you provided a urine sample as part of any STI test in the last 12 months?"*. The remaining elements of STI testing are summarised in **Table 8.27**.

Vaginal swabs are more sensitive than urine samples for detecting genital gonorrhoea and chlamydia. Among respondents with a vagina or related body parts who were tested for STIs in the previous 12 months (n = 118), 75 % reported having had a vaginal swab as part of STI testing in the past 12 months. In comparison, among respondents with a penis or related body parts (n = 63), 36 % reported a urethral swab as part of STI testing in the past 12 months.

Table 8.27 Elements of STI testing experienced in the last 12 months

Elements of STI testing in the last 12 months N = 245	Trans men (%) N = 74	Trans women (%) N = 24	Non-binary AFAB (%) N = 50	Non-binary AMAB (%) N = 97
Urethral swab n = 63[a]	[50.0]	[35.0]	—	(35.9)
Penis examination n = 68[b]	[18.2]	[30.0]	—	(24.3)
Vaginal swab n = 118[c]	(74.2)	[75.0]	(76.1)	[100.0]
Vagina examination n = 117[d]	(45.5)	[25.0]	(37.8)	[50.0]
Anal swab n = 244[e]	(42.5)	(66.7)	(40.0)	(73.2)
Anus examination n = 243[f]	(9.6)	(16.7)	(0.0)	(29.2)

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
Urethral swab / penis examination only shown to cis men, other AMAB people with a penis, and AFAB people with phalloplasty; vaginal swab/examination only shown to AMAB people with a neo-vagina, and AFAB people with a vagina.
[a]Missing n = 116; [b]Missing n = 4; [c]Missing n = 0; [d]Missing n = 1; [e]Missing n = 1; [f]Missing n = 2.

Among trans men with a vagina, 74 % received a vaginal swab, while anal swabs were less common (42 %). Among trans men with a penis who were tested for STIs in the previous 12 months (n = 4), 50 % received a urethral swab.

Among trans women with a penis, 35 % received a urethral swab, and 67 % received an anal swab. Among trans women with a vagina who were tested for STIs in the previous 12 months (n = 6), 75 % received a vaginal swab.

Among non-binary AFAB respondents, vaginal swabbing (76 %) and vaginal examinations (38 %) were equally common as among trans men, while non-binary AMAB respondents had the highest proportions of anal swabbing and anal examinations (73 % and 29 %, respectively).

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Chapter 9: Health inequalities

This chapter investigated, *"What are the levels of (1) sexual morbidities, (2) risk and precaution behaviour, (3) unmet prevention needs and (4) use of interventions, across the varied groups of MSM in the populations that are targets for sexual health promotion?"* To do this we consider how the binary indicators described in **Chapters 4** to **7** vary across key target groups for sexual health promotion identified in **Chapter 3**.

We take this descriptive approach to facilitate access to data that can address the many specific questions EMIS data users may have. Our partners and stakeholders have several different health concerns about a wide range of sub-populations of the EMIS-2024 sample—mainly cisgender MSM (95 % of the German sample), but also trans and non-binary individuals. This chapter provides data tailored to their concerns. For example, the chapter shows the percentage of respondents with diagnosed HIV experiencing anxiety/depression, or the percent of respondents under 25 years who do not have access to condoms.

Each sub-chapter begins with a demographic overview of the groups presented, allowing differences between groups to be properly contextualised.

We then look at the indicators across six key demographic factors: age; sexual and gender identity; 'outness'; relationship status; country of birth and migration-related characteristics; and HIV diagnosis. We also consider two minority groups (MSM injecting drugs; MSM selling sex) using the same set of indicators. We provide data on a total of 64 binary health indicators: 13 morbidity indicators; 10 behaviour indicators; 22 needs indicators; and 19 intervention indicators.

We provide these binary indicators for a total of 28 groups: 4 age groups; 6 groups based on sexual and gender identity; 3 groups based on the level of 'outness'; 3 groups based on relationship status; 4 migrant groups; 2 groups based on HIV diagnosis; 4 selling sex groups; and 2 injecting groups. In total, this chapter supplies 1792 measures. The chapter also considers the question *"Which subgroups of respondents have multiple prevention needs that are poorly met and should be priority target groups?"*

Our approach to data presentation is descriptive rather than statistical. We have not calculated the probabilities of the observed differences being random as this is a non-probability sample. We have not provided unadjusted associations (*e.g.*, odds ratios, risk ratios) between the demographic groups and the indicators as these can be calculated from the data in the tables. We have not provided adjusted associations between the demographic groups and the indicators (*i.e.*, controlling for membership of the other demographic groups) as we are not aiming to explore the causality of these associations but rather describing the levels of the indicators in the target groups.

In all subsequent tables shading indicates the sub-group in which the indicator is most extreme. This highlights the sub-group with most morbidity, most risk behaviour or least precaution behaviour, greatest unmet health promotion needs, least experience of interventions to improve health and most experience of health-diminishing interventions. Columns with many highlighted cells indicate sub-groups with

consistently greater morbidities, higher risks, lower precautions, greater unmet needs and less experience of interventions relative to other sub-groups. This allows for identification of priority groups in terms of those characteristics.

In the tables below, values based on denominators of fewer than 20 (n < 20) are shown in square brackets [ ], while values based on denominators of fewer than 100 (n < 100) are shown in parentheses ( ).

9.1 Age-related health inequalities

The age profile of the sample is described in **Section 3.2**. The tables below present key demographics and key indicators by age group.

Table 9.1 Key demographics by age group

Age groups and demographics	< 25 years (n = 1068)	25–39 (n = 3273)	40–64 (n = 5749)	65+ (n = 502)	All (N = 10 592)
Age (mean)	21.2	32.5	50.6	69.3	42.9
Age (SD)	2.1	4.3	6.7	4.4	13.3
Age (median)	21	33	50	68	43
% higher education	36.4	74.9	68.4	69.1	67.2
% current steady partner	21.3	44.2	57.1	50.6	49.2
% fully out [a]	42.2	57.7	59.4	52.0	56.8
% born abroad	8.6	18.1	9.7	6.8	12.1
% sex workers [b]	5.1	2.4	1.5	1.0	2.1
% PWID [c]	1.2	1.2	2.7	1.8	2.1

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] all/almost all know about sexual attraction to men; [b] sold sex 3+ times in the last 12 months; [c] People who injected drugs (excluding steroids) in the last 12 months.

Respondents under the age of 25 had the lowest proportion reporting a steady partner (21.3 %) and the highest proportion engaged in frequent sex work (5.1 %). Those aged 40–64 had the highest proportion of people who inject drugs (PWID; 2.7 %).

9.1.1 Age and morbidities

The levels of morbidities varied for different age groups (**Table 9.2**). Severe anxiety and depression was most common in the 40–64 age group. Self-harm thoughts, having been diagnosed with HIV in the last 12 months, active hepatitis B or C, and chlamydia were most common among those aged 65 and older. In addition, the most common morbidities among those aged 25–39 were potential alcohol dependency, mpox, and syphilis.

Table 9.2 Key morbidities by age group

Age groups and morbidities	< 25 years (n = 1068)	25–39 (n = 3273)	40–64 (n = 5749)	65+ (n = 502)	All (N = 10 592)
% severe anxiety/depression [a]	14.1	9.9	5.0	2.4	7.3
% self-harm thoughts [a]	30.9	19.8	12.2	8.0	16.2
% sexually unhappy [b]	25.3	20.6	21.8	21.5	21.8
% potential alcohol dependency [c]	26.3	27.0	21.3	18.2	23.4
% ever HIV-diagnosed	0.5	6.5	16.8	23.1	12.2
% newly HIV-diagnosed [d]	0.2	0.4	0.3	0.0	0.3
% detectable viral load [e]	[0.0]	5.8	2.4	2.6	3.0
% active hepatitis B or C	0.0	0.1	0.4	1.0	0.3
% diagnosed mpox [f]	0.2	2.0	2.0	0.0	1.7
% diagnosed syphilis [d]	1.2	5.0	6.4	4.6	5.3
% diagnosed gonorrhoea [d]	6.9	13.8	8.7	3.4	9.8
% diagnosed chlamydia [d]	5.1	11.7	8.5	3.0	8.9
% diagnosed anal/genital warts [g]	3.6	16.2	24.6	21.4	19.7

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] in the last two weeks; [b] scoring less than 5 on the 1 to 10 scale; [c] in the last two weeks (CAGE-4); [d] in the last 12 months; [e] among HIV-diagnosed; [f] since May 2022; [g] ever.

9.1.2 Age and behaviour

Precautionary behaviour was least common in the youngest group, while risky behaviour was most common in the age group 40–65, including highest number of non-steady male sex partners and sexual repertoire [1]. Precautionary behaviour (taking ART and PrEP) was most common in the age group with most risk behaviour (**Table 9.3**).

Table 9.3 Key behaviour by age groups

Age groups and behaviours	< 25 years (n = 1068)	25–39 (n = 3273)	40–64 (n = 5749)	65+ (n = 502)	All (N = 10 592)
% engaging in safer sex [a]	27.1	52.5	56.3	45.0	51.6
% condoms consistently [b]	26.7	23.0	19.6	18.6	21.2
% taking PrEP [c]	11.6	31.8	27.7	12.5	26.6
% taking ART [d]	[60.0]	92.9	92.8	97.4	93.1
% ever took HIV-PEP [c]	5.9	11.5	13.0	6.6	11.5
% used 'doxy-PEP' [e]	3.1	7.4	6.5	3.0	6.3
Number (median) of NON-STEADY male sex partners	3	5	6	3	5
SRS (mean) [f]	5.3	6.0	6.1	6.0	6.0
% engaging in chemsex [g]	2.5	5.3	6.0	3.6	5.3
% injecting drugs [h]	1.2	1.2	2.7	1.8	2.1

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] consistent condom or PrEP use or undetectable viral load; [b] consistent condom use with NON-STEADY male intercourse partners; [c] excluding HIV-diagnosed; [d] among HIV-diagnosed; [e] took antibiotics in the last 12 months, '(e.g., doxycycline) before or after having sex to reduce the risk of getting some sexually transmitted infections. (Doxy-PrEP/Doxy-PEP)'; [f] The Sexual Repertoire Score (SRS) is an additive score ranging from 1 to 9, based on previous-12-months engagement in 9 sexual practices with NON-STEADY male partners. [g] defined as using stimulant drugs to make sex more intense or last longer, last 4 weeks; [h] excluding steroids, last 12 months.

9.1.3 Age and needs

Respondents under 25 years of age reported higher levels of unmet prevention needs across most indicators. Exceptions included concerns related to drug use and certain knowledge needs, which were more prevalent among older respondents (**Table 9.4**).

Table 9.4 Key needs by age groups

Age groups and needs	< 25 years (n = 1068)	25–39 (n = 3273)	40–64 (n = 5749)	65+ (n = 502)	All (N = 10 592)
Mean SIHS score [a]	1.3	1.1	0.9	0.9	1.0
% concerned about own drug use	4.4	5.7	4.0	1.0	4.4
% lacking control over sexual safety	11.3	8.1	6.6	7.0	7.6
% lacking control over unwanted sex	17.7	11.2	5.9	5.8	8.7
% experienced homo- or transnegative violence [b]	7.7	3.7	2.1	0.6	3.1
% experienced physically forced or coerced to have sex [b]	5.2	1.4	0.5	0.4	1.2
% experienced stigma in healthcare facilities [b]	13.2	8.4	4.7	2.4	6.6
% anticipated stigma in healthcare facilities [b]	27.5	12.6	5.6	2.0	9.8
% felt unsafe in public spaces [b]	54.3	34.8	20.1	6.8	27.5
% knowledge gap: HIV/STI transm. [c]	18.3	10.0	10.0	18.3	11.7
% not knowing U=U [d]	28.9	14.4	15.3	26.1	16.9
% knowledge gap: PrEP [e]	46.7	23.3	23.3	33.3	26.7
% unaware of PrEP	35.8	17.0	17.0	30.6	19.7
% knowledge gap: HIV test/treat [f]	14.3	5.7	5.7	8.6	7.1
% not knowing where to test for HIV	33.6	7.7	3.4	4.6	7.8
% knowledge gap: hepatitis [g]	42.5	22.5	12.5	10.0	17.5
% not knowing where to get hepatitis A/B vaccination	23.8	11.5	9.0	12.0	11.4
% knowledge gap: HPV [e]	56.7	40.0	43.3	56.7	43.3
% not knowing HPV vaccine exists	48.1	35.1	41.9	58.8	41.2
% knowledge gap: mpox [e]	36.7	16.7	16.7	33.3	20.0
% not knowing mpox vaccine exists	38.3	17.2	17.1	31.5	19.9
% not knowing where to get mpox vaccination	67.8	40.2	34.5	46.7	40.2

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] Short Internalised Homonegativity Scale, range: 0–6; [b] in the last 12 months; [c] knowledge gap (%) based on 6 items; [d] a person with undetectable viral load cannot pass on HIV sexually; [e] knowledge gap (%) based on 3 items; [f] knowledge gap (%) based on 7 items; [g] knowledge gap (%) based on 4 items.

These data highlight specific and actionable needs among the youngest segment of the MSM population across Germany. While the behavioural data suggest they may, as yet, not be engaging in sexual risk behaviour to the same extent as older respondents, they show levels of need that can only expose them to significant risk of future sexual ill health. In this age group, 11.3 % reported a lack of control over safer sex, 17.7 reported lack of control over unwanted sex; and 5.2 % reported having been physically forced or coerced to have sex in the last 12 months.

A high proportion of respondents under 25 years of age did not know what PrEP is (35.8 %), 28.9 % were unaware that a person with an undetectable viral load cannot transmit HIV (U=U), and 33.6 % did not know where to test for HIV. Furthermore, 23.8 % did not know where to obtain hepatitis A/B vaccination, 48.1 % were unaware

that an HPV vaccine exists, and 67.8 % did not know where to obtain mpox vaccination. Failure to meet these relatively simple needs related to information and access to services, as well as failure to promote available prevention measures effectively, can only exacerbate future sexual health morbidity.

9.1.4 Age and interventions

The youngest and oldest age groups were the least likely to report encountering or accessing interventions (**Table 9.5**). While HIV prevalence increases with age, and new diagnoses were most common among the 25–39 age group, those under 25-year-olds with diagnosed HIV were least likely to have ever had their HIV infection monitored ('Linked to care'; HIV care cascade stage 3); to have had it monitored in the last six months ('Retained in care' HIV care cascade stage 4); and to have an undetectable viral load (HIV care cascade stage 6). Respondents under 25 years of age were the least likely to report hepatitis A or a hepatitis B vaccination, or to have received an anal swab in the past 12 months. However, consistent with most national guidelines, they had the highest proportion with at least one dose of HPV vaccine (22.3 %).

Table 9.5 Key interventions by age group

Age groups and interventions	< 25 years (n = 1068)	25–39 (n = 3273)	40–64 (n = 5749)	65+ (n = 502)	All (N = 10 592)
% saw/heard specific HIV/STI information [a]	77.2	86.9	88.4	87.6	86.8
% offered hepatitis vaccination [b]	51.5	70.1	72.8	63.5	69.4
% full course of HAV vaccination [c]	45.0	67.9	74.8	65.3	69.1
% full course of HBV vaccination [d]	44.8	68.7	73.2	63.7	68.4
% at least one shot of HPV vaccine	22.3	12.6	7.2	6.0	10.3
% at least one shot of mpox vaccine [e]	6.8	29.9	32.6	18.7	28.5
% received free condoms [f]	23.3	28.2	27.0	29.7	27.1
% talked to about PrEP [g]	16.6	40.5	32.6	15.9	32.7
% tested for HIV [h]	39.1	60.8	51.3	32.9	52.2
% used community HIV-testing [i]	27.8	22.0	19.1	17.9	20.4
% used self-sampling [i]	2.2	2.1	1.4	0.2	1.6
% used self-testing [i]	9.0	6.5	4.3	3.8	5.3
% linked to care [j]	[75.0]	100.0	99.8	100.0	99.8
% retained in care [k]	75.0	100.0	99.5	100.0	99.5
% on ART [l]	75.0	100.0	98.9	100.0	99.1
% virally suppressed [m]	75.0	93.4	95.9	96.4	95.5
% tested for STIs [n]	33.9	59.3	56.2	39.2	54.1
% received anal swabbing [n]	19.5	42.1	35.5	17.9	35.1
% substance use counselling/self-support [n]	1.5	2.4	1.7	0.5	1.8

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] MSM-specific when attracted to men, trans-specific when identifying as trans, in the last 12 months; [b] ever, by a health service; [c] excluding respondents with past hepatitis A; [d] excluding respondents with past hepatitis B; [e] excluding respondents with past mpox; [f] from civil society organisations, clinic, bars, or saunas, in the last 12 months; [g] excluding HIV-diagnosed; [h] in the last 12 months, excluding respondents diagnosed prior to that; [i] at last HIV test; [j] HIV care cascade stage 3, among HIV-diagnosed; [k] HIV care cascade stage 4, among HIV-diagnosed; [l] HIV care cascade stage 5, among HIV-diagnosed; [m] HIV care cascade stage 6, among HIV-diagnosed; [n] in the last 12 months.

9.2 Health inequalities related to gender identity

Section 3.1 describes the distribution of combinations of sex assigned at birth and current gender identity across the sample. Trans respondents, particularly trans men and non-binary AFAB respondents, were substantially younger than cisgender MSM and therefore less likely to have attained higher levels of education. Cisgender MSM who don't identify as gay or bisexual (cis non-gb MSM) were less likely than other groups to be 'out' about their attraction to men and less likely to report a steady partnership.

Table 9.6 Key demographics by sex and gender group

Sex and gender groups and demographics	Cis gbMSM (n = 9505)	Cis non-gb MSM (n = 508)	Trans men (n = 212)	Trans women (n = 51)	Non-binary AFAB (n = 91)	Non-binary AMAB (n = 221)	All (N = 10 588)
Age (mean)	43.7	40.3	27.9	(37.0)	(30.7)	34.5	42.9
Age (SD)	13.1	13.4	9.4	(12.9)	(9.6)	11.8	13.3
Age (median)	44	39	25.5	35	29	32	43
% higher education	67.3	71.1	56.2	(64.7)	(72.5)	62.1	67.2
% current steady partner	50.3	39.8	39.6	(45.1)	(54.9)	33.0	49.2
% fully out [a]	58.2	31.7	56.1	(49.0)	(61.5)	52.9	56.8
% born abroad	12.0	12.4	5.7	(19.6)	(11.0)	17.6	12.1
% sex workers [b]	2.0	2.2	4.7	(5.9)	(1.1)	5.9	2.1
% PWID [c]	2.0	2.6	0.5	(0.0)	(1.1)	3.7	2.1

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] all/almost all know about sexual attraction to men; [b] sold sex 3+ times in the last 12 months; [c] People who injected drugs (excluding steroids) in the last 12 months.

9.2.1 Sex/gender and morbidities

Poor mental health and substance dependency were higher in trans and non-binary groups, while infections were more common among cisgender MSM, particularly in those identifying as gay or bisexual (cis gbMSM, **Table 9.7**). Anxiety/depression and suicidal ideation were particularly high among trans and non-binary respondents.

Table 9.7 Key morbidities by sex and gender group

Sex and gender groups and morbidities	Cis gbMSM (n = 9505)	Cis non-gb MSM (n = 508)	Trans men (n = 212)	Trans women (n = 51)	Non-binary AFAB (n = 91)	Non-binary AMAB (n = 221)	All (N = 10 588)
% severe anxiety/depression [a]	6.2	12.1	19.6	(35.3)	(20.9)	22.0	7.3
% self-harm thoughts [a]	14.4	23.8	36.3	(56.9)	(39.6)	40.3	16.2
% sexually unhappy [b]	21.2	25.9	28.0	(31.4)	(23.1)	29.2	21.8
% potential alcohol dependency [c]	23.1	24.6	25.6	(21.6)	(36.3)	28.1	23.4
% ever HIV-diagnosed	13.0	6.5	0.5	(7.8)	(0.0)	10.0	12.2
% newly HIV-diagnosed [d]	0.3	0.6	0.0	(0.0)	(0.0)	1.0	0.3
% detectable viral load [e]	2.8	(3.1)	[0.0]	[0.0]	-	(13.6)	3.0
% active hepatitis B or C	0.3	0.0	0.0	(0.0)	(0.0)	0.5	0.3
% diagnosed mpox [f]	1.8	1.2	0.0	(0.0)	(0.0)	0.5	1.7
% diagnosed syphilis [d]	5.7	3.0	0.0	(2.0)	(1.1)	2.3	5.3
% diagnosed gonorrhoea [d]	10.2	7.5	5.7	(2.0)	(3.3)	8.6	9.9
% diagnosed chlamydia [d]	9.3	6.9	3.3	(3.9)	(2.2)	7.2	8.9
% diagnosed anal/genital warts [g]	20.6	15.8	3.8	(9.8)	(5.6)	14.5	19.7

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] in the last two weeks; [b] scoring less than 5 on the 1 to 10 scale; [c] in the last two weeks (CAGE-4); [d] in the last 12 months; [e] among HIV-diagnosed; [f] since May 2022; [g] ever.

9.2.2 Sex/gender and behaviour

Among trans and non-binary respondents, engaging in safer sex was less common than in cisgender MSM who identify as gay or bisexual (**Table 9.8**). Gay and bisexual cisgender MSM also reported higher number of non-steady male sex partner than other cisgender MSM (cis non-gb MSM) or trans and non-binary respondents. PrEP use was particularly common in cisgender gbMSM. However, trans women were much more likely to engage in chemsex.

Table 9.8 Key behaviour by sex and gender group

Sex and gender groups and behaviours	Cis gbMSM (n = 9505)	Cis non-gb MSM (n = 508)	Trans men (n = 212)	Trans women (n = 51)	Non-binary AFAB (n = 91)	Non-binary AMAB (n = 221)	All (N = 10 588)
% engaging in safer sex [a]	53.5	38.8	25.0	(29.4)	(24.2)	43.0	51.6
% condoms consistently [b]	20.5	27.9	(40.0)	(20.0)	(51.6)	25.9	21.2
% taking PrEP [c]	28.0	17.5	8.0	(11.8)	(6.6)	19.0	26.7
% taking ART [d]	93.2	(93.9)	[100.0]	[75.0]	-	(86.4)	93.1
% ever took HIV-PEP [c]	12.0	8.5	3.3	(9.8)	(4.4)	10.0	11.5
% used 'doxy-PEP' [e]	6.7	2.8	3.8	(2.0)	(2.2)	2.7	6.3
Number (median) of NON-STEADY male sex partners	5	3	1	1	0	3	5
SRS (mean) [f]	6.0	5.8	4.0	(4.3)	(4.8)	5.3	6.0
% engaging in chemsex [g]	5.4	5.1	1.4	(9.8)	(3.3)	6.8	5.3
% injecting drugs [h]	2.0	2.6	0.5	(0.0)	(1.1)	3.7	2.1

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] consistent condom or PrEP use or undetectable viral load; [b] consistent condom use with NON-STEADY male intercourse partners; [c] excluding HIV-diagnosed; [d] among HIV-diagnosed; [e] took antibiotics in the last 12 months, '(e.g., doxycycline) before or after having sex to reduce the risk of getting some sexually transmitted infections. (Doxy-PrEP/Doxy-PEP)' [f] The Sexual Repertoire Score (SRS) is an additive score ranging from 1 to 9, based on previous-12-months engagement in 9 sexual practices with NON-STEADY male partners.; [g] defined as using stimulant drugs to make sex more intense or last longer, last 4 weeks; [h] excluding steroids, last 12 months.

9.2.3 Sex/gender and needs

For nearly every indicator of need, trans men and women—as well as cisgender MSM who did not identify as gay or bisexual (cis non-gb MSM)—reported the highest levels of unmet needs (**Table 9.9**). Trans men and women were particularly likely to experience homo-/transphobic violence, rape, or stigma within health care settings.

Table 9.9 Key needs by sex and gender group

Sex and gender groups and needs	Cis gbMSM (n = 9505)	Cis non-gb MSM (n = 508)	Trans men (n = 212)	Trans women (n = 51)	Non-binary AFAB (n = 91)	Non-binary AMAB (n = 221)	All (N = 10 588)
Mean SIHS score [a]	1.0	1.5	-	-	-	-	1.0
% concerned about own drug use	4.2	6.1	5.2	(3.9)	(4.4)	6.8	4.4
% lacking control over sexual safety	7.3	8.7	8.0	(15.7)	(8.8)	13.1	7.6
% lacking control over unwanted sex	8.2	8.7	17.0	(17.6)	(16.5)	18.6	8.7
% experienced homo- or transnegative violence [b]	3.0	4.3	3.3	(3.9)	(3.3)	2.7	3.1
% experienced physically forced or coerced to have sex [b]	1.0	2.2	4.7	(3.9)	(3.3)	4.1	1.2
% experienced stigma in healthcare facilities [b]	5.6	6.5	32.5	(41.2)	(33.0)	9.0	6.6
% anticipated stigma in healthcare facilities [b]	7.9	13.2	51.4	(52.9)	(51.6)	14.5	9.8
% felt unsafe in public spaces [b]	26.5	29.1	48.6	(70.6)	(48.4)	26.2	27.5
% knowledge gap: HIV/STI transmission [c]	10.0	13.3	13.3	(15.0)	(15.0)	13.3	11.7
% not knowing U=U [d]	16.0	23.8	25.9	(33.3)	(18.9)	24.1	16.9
% knowledge gap: PrEP [e]	23.3	33.3	50.0	(40.0)	(46.7)	36.7	26.7
% unaware of PrEP	18.4	26.5	41.2	(29.8)	(31.9)	28.4	19.7
% knowledge gap: HIV test/treat [f]	5.7	10.0	12.9	(10.0)	(10.0)	10.0	7.1
% not knowing where to test for HIV	6.6	12.2	30.7	(19.6)	(19.8)	19.5	7.8
% knowledge gap: hepatitis [g]	17.5	25.0	37.5	(15.0)	(22.5)	17.5	17.5
% not knowing where to get hepatitis A/B vaccination	10.3	18.5	25.0	(23.5)	(26.4)	23.1	11.4
% knowledge gap: HPV [e]	43.3	46.7	46.7	(43.3)	(33.3)	46.7	43.3
% not knowing HPV vaccine exists	41.5	43.8	31.6	(37.3)	(19.8)	42.0	41.2
% knowledge gap: mpox [e]	20.0	26.7	40.0	(40.0)	(33.3)	26.7	20.0
% not knowing mpox vaccine exists	18.7	27.3	43.1	(35.4)	(34.6)	35.3	19.9
% not knowing where to get mpox vaccination	38.1	53.7	68.4	(72.5)	(72.2)	50.9	40.2

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] Short Internalised Homonegativity Scale, range: 0–6; [b] in the last 12 months; [c] knowledge gap (%) based on 6 items; [d] a person with undetectable viral load cannot pass on HIV sexually; [e] knowledge gap (%) based on 3 items; [f] knowledge gap (%) based on 7 items; [g] knowledge gap (%) based on 4 items.

9.2.4 Sex/gender and interventions

Access to all the positive interventions was generally lower in the trans groups than among cisgender MSM who identified as gay or bisexual (cis gbMSM, **Table 9.10**).

Table 9.10 Key interventions by sex and gender group

Sex and gender groups and interventions	Cis gbMSM (n = 9505)	Cis non-gb MSM (n = 508)	Trans men (n = 212)	Trans women (n = 51)	Non-binary AFAB (n = 91)	Non-binary AMAB (n = 221)	All (N = 10 588)
% saw/heard specific HIV/STI information [a]	88.3	81.9	80.7	(41.2)	(87.9)	47.1	86.8
% offered hepatitis vaccination [b]	70.7	58.7	50.5	(64.7)	(59.3)	62.9	69.4
% full course of HAV vaccination [c]	70.7	59.0	48.8	(61.2)	(45.1)	56.0	69.1
% full course of HBV vaccination [d]	70.0	58.2	47.4	(56.9)	(53.8)	52.8	68.4
% at least one shot of HPV vaccine	9.6	6.3	37.3	(19.6)	(35.2)	11.8	10.4
% at least one shot of mpox vaccine [e]	30.0	15.8	10.8	(7.8)	(12.2)	21.8	28.5
% received free condoms [f]	26.8	24.6	35.4	(23.5)	(38.5)	33.9	27.1
% talked to about PrEP [g]	34.0	24.5	17.1	(17.0)	(17.6)	27.6	32.7
% tested for HIV [h]	53.2	46.7	32.5	(45.1)	(49.5)	43.0	52.2
% used community HIV-testing [i]	19.5	26.7	34.9	(32.4)	(38.3)	31.5	20.4
% used self-sampling [i]	1.6	1.3	1.8	(0.0)	(6.7)	2.0	1.6
% used self-testing [i]	5.3	8.0	2.8	(2.7)	(0.0)	2.7	5.3
% linked to care [j]	99.8	(100.0)	[100.0]	[100.0]	-	(100.0)	99.8
% retained in care [k]	99.5	(100.0)	[100.0]	[100.0]	-	(100.0)	99.5
% on ART [l]	99.1	(100.0)	[100.0]	[100.0]	-	(100.0)	99.1
% virally suppressed [m]	95.6	(93.5)	[100.0]	[100.0]	-	(89.5)	95.5
% tested for STIs [n]	55.4	42.9	34.9	(47.1)	(54.9)	43.9	54.1
% received anal swabbing [n]	36.1	28.9	14.6	(31.4)	(22.0)	32.1	35.1
% substance use counselling/self-support [n]	1.7	3.7	(2.1)	(0.0)	(0.0)	4.6	1.8

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] MSM-specific when attracted to men, trans-specific when identifying as trans, in the last 12 months; [b] ever, by a health service; [c] excluding respondents with past hepatitis A; [d] excluding respondents with past hepatitis B; [e] excluding respondents with past mpox; [f] from civil society organisations, clinic, bars, or saunas, in the last 12 months; [g] excluding HIV-diagnosed; [h] in the last 12 months, excluding respondents diagnosed prior to that; [i] at last HIV test; [j] HIV care cascade stage 3, among HIV-diagnosed; [k] HIV care cascade stage 4, among HIV-diagnosed; [l] HIV care cascade stage 5, among HIV-diagnosed; [m] HIV care cascade stage 6, among HIV-diagnosed; [n] in the last 12 months.

9.3 'Outness' and health inequalities

The extent to which respondents were open about their attraction to men is reported in **Section 3.6**. In **Table 9.11** we compare indicators across three 'outness' groups based on the proportion of respondents' family, friends and work colleagues who knew of their attraction to men: none or few (18 %); some (24 %) and all or almost all (57 %).

Table 9.11 Key demographics by 'outness' group

Outness groups and demographics	None or few (n = 1952)	Some know (n = 2519)	All / almost all (n = 6014)	All (N = 10 485)
Age (mean)	44.7	40.2	43.5	42.9
Age (SD)	14.5	13.5	12.7	13.3
Age (median)	46	40	44	43
% higher education	61.3	69.3	68.2	67.2
% current steady partner	39.9	37.2	57.3	49.2
% born abroad	12.7	14.1	10.9	12.0
% sex workers [b]	1.7	2.1	2.3	2.1
% PWID [c]	1.1	1.6	2.5	2.0

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[b] sold sex 3+ times in the last 12 months; [c] People who injected drugs (excluding steroids) in the last 12 months.

9.3.1 'Outness' and morbidities

Sexual unhappiness, poor mental health, and poorly treated HIV were more common in respondents with few or no acquaintances aware of their attraction to men (**Table 9.12**). Conversely, the respondents who were 'out' were more likely to experience alcohol dependency and a range of infections.

Table 9.12 Key morbidities by 'outness' group

Outness groups and morbidities	None or few (n = 1952)	Some know (n = 2519)	All / almost all (n = 6014)	All (N = 10 485)
% severe anxiety/depression [a]	9.0	7.2	6.6	7.2
% self-harm thoughts [a]	15.1	17.4	15.9	16.1
% sexually unhappy [b]	31.9	23.1	17.9	21.8
% potential alcohol dependency [c]	18.2	22.4	25.6	23.4
% ever HIV-diagnosed	5.4	8.9	15.9	12.3
% newly HIV-diagnosed [d]	0.2	0.2	0.4	0.3
% detectable viral load [e]	6.9	3.2	2.6	3.0
% active hepatitis B or C	0.5	0.2	0.3	0.3
% diagnosed mpox [f]	0.5	1.9	2.1	1.7
% diagnosed syphilis [d]	3.1	4.3	6.5	5.4
% diagnosed gonorrhoea [d]	4.5	9.2	11.9	9.9
% diagnosed chlamydia [d]	4.4	8.5	10.6	9.0
% diagnosed anal/genital warts [g]	12.3	16.4	23.7	19.8

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] in the last two weeks; [b] scoring less than 5 on the 1 to 10 scale; [c] in the last two weeks (CAGE-4); [d] in the last 12 months; [e] among HIV-diagnosed; [f] since May 2022; [g] ever.

9.3.2 'Outness' and behaviour

Sexual risk behaviour and sexual precautions, as well as injection drug use were more common in the respondents who were 'out' than those who were not 'out' (**Table 9.13**). Respondents who were not 'out' were less likely to use ART if they had HIV, or PrEP if they did not.

Table 9.13 Key behaviour by 'outness' group

Outness groups and behaviours	None or few (n = 1952)	Some know (n = 2519)	All / almost all (n = 6014)	All (N = 10 485)
% engaging in safer sex [a]	35.4	48.9	58.7	52.0
% condoms consistently [b]	28.5	23.0	18.5	21.2
% taking PrEP [c]	13.1	26.4	31.5	26.8
% taking ART [d]	90.5	91.5	93.8	93.1
% ever took HIV-PEP [c]	6.6	10.9	13.5	11.6
% used 'doxy-PEP' [e]	3.2	5.3	7.7	6.3
Number (median) of NON-STEADY male sex partners	3	5	6	5
SRS (mean) [f]	5.6	5.9	6.1	6.0
% engaging in chemsex [g]	2.6	4.1	6.7	5.3
% injecting drugs [h]	1.1	1.6	2.5	2.0

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] consistent condom or PrEP use or undetectable viral load; [b] consistent condom use with NON-STEADY male intercourse partners; [c] excluding HIV-diagnosed; [d] among HIV-diagnosed; [e] took antibiotics in the last 12 months, '(e.g., doxycycline) before or after having sex to reduce the risk of getting some sexually transmitted infections. (Doxy-PrEP/Doxy-PEP' [f] The Sexual Repertoire Score (SRS) is an additive score ranging from 1 to 9, based on previous-12-months engagement in 9 sexual practices with NON-STEADY male partners.; [g] defined as using stimulant drugs to make sex more intense or last longer, last 4 weeks; [h] excluding steroids, last 12 months.

9.3.3 'Outness' and needs

In contrast to risk behaviour, for almost all indicators, unmet need was more common in respondents who were 'out' to fewer people (**Table 9.14**). Respondents who were 'out' to few people or no-one knew less, had less confidence, less access, less support and more concerns.

Table 9.14 Key needs by 'outness' group

Outness groups and needs	None or few (n = 1952)	Some know (n = 2519)	All / almost all (n = 6014)	All (N = 10 485)
Mean SIHS score [a]	2.0	1.3	0.7	1.0
% concerned about own drug use	2.4	4.2	5.2	4.4
% lacking control over sexual safety	9.3	8.5	6.6	7.6
% lacking control over unwanted sex	9.2	10.0	8.0	8.7
% experienced homo- or transnegative violence [b]	2.2	3.2	3.3	3.1
% experienced physically forced or coerced to have sex [b]	1.4	1.4	1.0	1.2
% experienced stigma in healthcare facilities [b]	6.3	7.5	6.2	6.5
% anticipated stigma in healthcare facilities [b]	19.0	12.1	5.5	9.6
% felt unsafe in public spaces [b]	17.2	30.6	29.5	27.5
% knowledge gap: HIV/STI transmission [c]	20.0	11.7	8.3	11.7
% not knowing U=U [d]	34.9	18.2	10.2	16.7
% knowledge gap: PrEP [e]	43.3	26.7	20.0	26.7

Outness groups and needs	None or few (n = 1952)	Some know (n = 2519)	All / almost all (n = 6014)	All (N = 10 485)
% unaware of PrEP	33.1	20.1	14.3	19.5
% knowledge gap: HIV test/treat [f]	12.9	7.1	4.3	7.1
% not knowing where to test for HIV	18.2	9.1	3.7	7.7
% knowledge gap: hepatitis [g]	25.0	20.0	15.0	17.5
% not knowing where to get hepatitis A/B vaccination	20.2	12.3	8.0	11.3
% knowledge gap: HPV [e]	56.7	46.7	40.0	43.3
% not knowing HPV vaccine exists	53.6	41.6	36.9	41.1
% knowledge gap: mpox [e]	40.0	20.0	13.3	20.0
% not knowing mpox vaccine exists	36.7	20.9	13.5	19.6
% not knowing where to get mpox vaccination	62.3	43.7	31.0	39.9

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] Short Internalised Homonegativity Scale, range: 0–6; [b] in the last 12 months; [c] knowledge gap (%) based on 6 items; [d] a person with undetectable viral load cannot pass on HIV sexually; [e] knowledge gap (%) based on 3 items; [f] knowledge gap (%) based on 7 items; [g] knowledge gap (%) based on 4 items.

9.3.4 'Outness' and interventions

Despite being most likely to be in need, respondents who were not 'out' were least likely to encounter or access interventions (**Table 9.15**).

Table 9.15 Key interventions by 'outness' group

Outness groups and interventions	None or few (n = 1952)	Some know (n = 2519)	All / almost all (n = 6014)	All (N = 10 485)
% saw/heard specific HIV/STI information [a]	81.2	86.3	89.0	86.9
% offered hepatitis vaccination [b]	54.8	66.5	75.6	69.5
% full course of HAV vaccination [c]	52.6	66.4	76.0	69.3
% full course of HBV vaccination [d]	51.7	66.3	75.1	68.6
% at least one shot of HPV vaccine	6.3	11.4	11.3	10.4
% at least one shot of mpox vaccine [e]	9.5	25.2	36.5	28.7
% received free condoms [f]	16.0	29.1	29.9	27.1
% talked to about PrEP [g]	14.3	31.2	40.5	32.9
% tested for HIV [h]	39.3	53.8	56.0	52.3
% used community HIV-testing [i]	20.9	23.3	19.1	20.3
% used self-sampling [i]	1.9	1.8	1.5	1.6
% used self-testing [i]	8.1	6.2	4.2	5.3
% linked to care [j]	100.0	100.0	99.7	99.8
% retained in care [k]	100.0	100.0	99.4	99.5
% on ART [l]	100.0	99.0	99.0	99.1
% virally suppressed [m]	91.5	95.7	95.8	95.5
% tested for STIs [n]	33.2	52.3	61.9	54.3
% received anal swabbing [n]	17.5	34.2	41.4	35.2
% substance use counselling/self-support [n]	0.5	1.6	2.2	1.9

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] MSM-specific when attracted to men, trans-specific when identifying as trans, in the last 12 months; [b] ever, by a health service; [c] excluding respondents with past hepatitis A; [d] excluding respondents with past hepatitis B; [e] excluding respondents with past mpox; [f] from civil society organisations, clinic, bars, or saunas, in the last 12 months; [g] excluding HIV-diagnosed; [h] in the last 12 months, excluding respondents diagnosed prior to that; [i] at last HIV test; [j] HIV care cascade stage 3, among HIV-diagnosed; [k] HIV care cascade stage 4, among HIV-diagnosed; [l] HIV care cascade stage 5, among HIV-diagnosed; [m] HIV care cascade stage 6, among HIV-diagnosed; [n] in the last 12 months.

9.4 Partnership status and health inequalities

Section 3.7 reports on the extent of steady partnerships in the sample. Below we compare indicators for respondents who are single, have a steady partner (note that partners may be male, female, or non-binary, and may be multiple) and those who indicated *"I'm not sure/it's complicated"* (**Table 9.16**).

Table 9.16 Key demographics by relationship status group

Relationship status groups and demographics	Single (n = 4762)	Steady partner (n = 5213)	Complicated (n = 615)	All (N = 10 590)
Age (mean)	39.9	45.4	45.3	42.9
Age (SD)	13.9	12.1	14.2	13.3
Age (median)	39	46	46	43
% higher education	63.8	70.4	66.7	67.2
% fully out	47.9	66.1	46.3	56.8
% born abroad	13.0	11.2	12.4	12.1
% sex workers [b]	2.8	1.3	3.6	2.1
% PWID [c]	2.1	1.8	3.9	2.1

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[b] sold sex 3+ times in the last 12 months; [c] People who injected drugs (excluding steroids) in the last 12 months.

9.4.1 Partnership status and morbidities

Single respondents were a great deal more likely to be sexually unhappy, but most other mental health issues were more common among respondents who said their relationship was unclear or complicated (**Table 9.17**). Single respondents also showed slightly higher proportions of most STIs.

Table 9.17 Key morbidities by relationship status group

Relationship status groups and morbidities	Single (n = 4762)	Steady partner (n = 5213)	Complicated (n = 615)	All (N = 10 590)
% severe anxiety/depression [a]	9.5	5.0	9.9	7.3
% self-harm thoughts [a]	20.9	11.5	20.5	16.3
% sexually unhappy [b]	29.5	14.9	19.6	21.8
% potential alcohol dependency [c]	24.6	22.2	24.9	23.4
% ever HIV-diagnosed	10.8	13.5	12.6	12.2
% newly HIV-diagnosed [d]	0.3	0.3	0.2	0.3
% detectable viral load [e]	3.8	2.6	(1.3)	3.0
% active hepatitis B or C	0.3	0.4	0.2	0.3
% diagnosed mpox [f]	1.8	1.7	1.5	1.7
% diagnosed syphilis [d]	5.4	5.2	6.2	5.3
% diagnosed gonorrhoea [d]	10.7	9.1	9.8	9.8
% diagnosed chlamydia [d]	9.2	8.6	9.4	8.9
% diagnosed anal/genital warts [g]	17.1	22.1	20.3	19.7

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] in the last two weeks; [b] scoring less than 5 on the 1 to 10 scale; [c] in the last two weeks (CAGE-4); [d] in the last 12 months; [e] among HIV-diagnosed; [f] since May 2022; [g] ever.

9.4.2 Partnership status and behaviour

With respect to behaviour, respondents in a steady relationship were slightly less likely to report sexual risk behaviour than the other two groups (**Table 9.18**).

Table 9.18 Key behaviour by relationship status group

Relationship status groups and behaviours	Single (n = 4762)	Steady partner (n = 5213)	Complicated (n = 615)	All (N = 10 590)
% engaging in safer sex [a]	49.8	53.3	51.1	51.6
% condoms consistently [b]	19.1	23.6	18.9	21.2
% taking PrEP [c]	26.9	26.4	26.2	26.6
% taking ART [d]	91.8	94.3	(90.9)	93.1
% ever took HIV-PEP [c]	11.9	11.3	11.1	11.5
% used 'doxy-PEP' [e]	5.6	6.7	7.5	6.3
Number (median) of NON-STEADY male sex partners	5	5	5	5
SRS (mean) [f]	5.9	6.1	6.0	6.0
% engaging in chemsex [g]	4.9	5.2	9.3	5.3
% injecting drugs [h]	2.1	1.8	3.9	2.1

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] consistent condom or PrEP use or undetectable viral load; [b] consistent condom use with NON-STEADY male intercourse partners; [c] excluding HIV-diagnosed; [d] among HIV-diagnosed; [e] took antibiotics in the last 12 months, '(e.g., doxycycline) before or after having sex to reduce the risk of getting some sexually transmitted infections. (Doxy-PrEP/Doxy-PEP'; [f] The Sexual Repertoire Score (SRS) is an additive score ranging from 1 to 9, based on previous-12-months engagement in 9 sexual practices with NON-STEADY male partners.; [g] defined as using stimulant drugs to make sex more intense or last longer, last 4 weeks; [h] excluding steroids, last 12 months.

9.4.3 Partnership status and needs

Unmet need was most common in the group of respondents who were single or those who were unsure if they were in a relationship or not (**Table 9.19**). Drug use concerns were notably more common among single respondents.

Table 9.19 Key needs by relationship status group

Relationship status groups and needs	Single (n = 4762)	Steady partner (n = 5213)	Complicated (n = 615)	All (N = 10 590)
Mean SIHS score [a]	1.2	0.9	1.2	1.0
% concerned about own drug use	5.4	3.4	5.4	4.4
% lacking control over sexual safety	9.0	6.0	10.1	7.6
% lacking control over unwanted sex	10.5	6.7	11.7	8.7
% experienced homo- or transnegative violence [b]	4.1	2.1	3.3	3.1
% experienced physically forced or coerced to have sex [b]	1.7	0.6	3.1	1.2
% experienced stigma in healthcare facilities [b]	7.6	5.5	8.3	6.6
% anticipated stigma in healthcare facilities [b]	12.3	7.2	12.4	9.8
% felt unsafe in public spaces [b]	28.6	26.5	27.5	27.5
% knowledge gap: HIV/STI transmission [c]	13.3	8.3	13.3	11.7
% not knowing U=U [d]	19.4	14.7	16.7	16.9
% knowledge gap: PrEP [e]	26.7	23.3	26.7	26.7
% unaware of PrEP	21.8	17.6	21.2	19.7
% knowledge gap: HIV test/treat [f]	8.6	5.7	7.1	7.1
% not knowing where to test for HIV	11.5	4.6	7.0	7.8
% knowledge gap: hepatitis [g]	22.5	15.0	15.0	17.5

Relationship status groups and needs	Single (n = 4762)	Steady partner (n = 5213)	Compli-cated (n = 615)	All (N = 10 590)
% not knowing where to get hepatitis A/B vaccination	14.0	9.0	11.9	11.4
% knowledge gap: HPV [e]	46.7	40.0	43.3	43.3
% not knowing HPV vaccine exists	44.7	37.8	42.8	41.2
% knowledge gap: mpox [e]	23.3	16.7	23.3	20.0
% not knowing mpox vaccine exists	23.4	16.5	21.8	19.9
% not knowing where to get mpox vac-cination	43.7	36.5	44.0	40.2

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] Short Internalised Homonegativity Scale, range: 0–6; [b] in the last 12 months; [c] knowledge gap (%) based on 6 items; [d] a person with undetecta-ble viral load cannot pass on HIV sexually; [e] knowledge gap (%) based on 3 items; [f] knowledge gap (%) based on 7 items; [g] knowledge gap (%) based on 4 items.

9.4.4 Partnership status and interventions

Data on access to sexual health interventions similarly showed that single respond-ents and those reporting their relationship status as *'complicated'* had less access to most interventions than respondents with a steady partner, although the pattern is not quite so clear cut as with needs (**Table 9.20**). While HIV prevalence was highest among respondents in a steady relationship, single and *'it's complicated'* respondents with diagnosed HIV were less likely to have an undetectable viral load (HIV care cas-cade stage 6). Compared to respondents in a steady relationship, they were also less likely to have been offered any hepatitis vaccination or to have ever received a hepati-tis A, B, or mpox vaccination.

Table 9.20 Key interventions by relationship status group

Relationship status groups and inter-ventions	Single (n = 4762)	Steady partner (n = 5213)	Compli-cated (n = 615)	All (N = 10 590)
% saw/heard specific HIV/STI information [a]	84.1	89.2	86.2	86.8
% offered hepatitis vaccination [b]	66.4	72.2	68.4	69.4
% full course of HAV vaccination [c]	64.5	73.4	68.7	69.1
% full course of HBV vaccination [d]	64.2	72.5	66.3	68.4
% at least one shot of HPV vaccine	11.0	9.6	11.2	10.3
% at least one shot of mpox vaccine [e]	25.8	31.3	25.7	28.5
% received free condoms [f]	26.9	27.3	27.3	27.1
% talked to about PrEP [g]	32.3	32.9	33.8	32.7
% tested for HIV [h]	51.5	52.5	54.3	52.1
% used community HIV-testing [i]	19.8	20.7	22.4	20.4
% used self-sampling [i]	1.6	1.6	1.0	1.6
% used self-testing [i]	5.8	4.8	5.4	5.3
% linked to care [j]	100.0	99.6	(100.0)	99.8
% retained in care [k]	99.8	99.3	(100.0)	99.5
% on ART [l]	99.2	99.0	(100.0)	99.1
% virally suppressed [m]	95.3	95.4	(97.1)	95.5
% tested for STIs [n]	53.0	55.0	54.1	54.1
% received anal swabbing [n]	34.1	35.8	36.4	35.1
% substance use counselling/self-support [n]	2.7	1.0	1.8	1.8

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] MSM-specific when attracted to men, trans-specific when identifying as trans, in the last 12 months; [b] ever, by a health service; [c] excluding re-spondents with past hepatitis A; [d] excluding respondents with past hepatitis B; [e] excluding respondents with past mpox; [f] from civil society organi-sations, clinic, bars, or saunas, in the last 12 months; [g] excluding HIV-diagnosed; [h] in the last 12 months, excluding respondents diagnosed prior to that; [i] at last HIV test; [j] HIV care cascade stage 3, among HIV-diagnosed; [k] HIV care cascade stage 4, among HIV-diagnosed; [l] HIV care cascade stage 5, among HIV-diagnosed; [m] HIV care cascade stage 6, among HIV-diagnosed; [n] in the last 12 months.

9.5 Migration-related health inequalities

Section 3.4 examines whether respondents are born abroad, their regions of origin, and their reasons for migration (**Table 9.21**). Refugees and asylum seekers reported the lowest proportions with higher education, steady partners, or being 'out' about their sexual attraction to men.

Table 9.21 Key demographics across different groups of migrants

Migrant groups and demographics	Born in country of residence (n = 9313)	Refugees / asylum seekers (n = 82)	Migrated to live as gay / bi / trans (n = 432)	Other migrants (n = 764)	All (N = 10 591)
Age (mean)	43.4	(35.2)	40.1	40.0	42.9
Age (SD)	13.5	(11.6)	11.3	11.6	13.3
Age (median)	44	33	38	39	43
% higher education	66.0	(68.3)	76.2	77.1	67.2
% current steady partner	49.7	(28.0)	53.5	43.1	49.2
% fully out [a]	57.5	(32.9)	57.9	49.9	56.8
% sex workers [b]	1.9	(3.7)	4.2	3.3	2.1
% PWID [c]	2.0	(3.7)	2.8	1.7	2.1

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] all/almost all know about sexual attraction to men; [b] sold sex 3+ times in the last 12 months; [c] People who injected drugs (excluding steroids) in the last 12 months.

9.5.1 Migration and morbidities

Refugees and asylum seekers were more likely to report poor mental health (**Table 9.22**). They were also the most likely to have ever or recently been diagnosed with HIV and, overall, to have detectable HIV. Current hepatitis B or C was similarly prevalent as among respondents with diagnosed HIV. In contrast, gonorrhoea, chlamydia, and anal or genital warts appeared to be more commonly experienced by respondents who migrated to live as gay or bisexual men.

Table 9.22 Key morbidities across different groups of migrants

Migrant groups and morbidities	Born in country of residence (n = 9313)	Refugees / asylum seekers (n = 82)	Migrated to live as gay / bi / trans (n = 432)	Other migrants (n = 764)	All (N = 10 591)
% severe anxiety/depression [a]	7.0	(20.7)	11.7	6.8	7.3
% self-harm thoughts [a]	15.4	(34.1)	21.8	21.1	16.2
% sexually unhappy [b]	22.1	(22.0)	17.5	20.3	21.8
% potential alcohol dependency [c]	23.4	(19.5)	27.1	21.9	23.4
% ever HIV-diagnosed	12.2	(21.0)	13.9	10.6	12.2
% newly HIV-diagnosed [d]	0.3	(1.5)	0.8	0.3	0.3
% detectable viral load [e]	2.8	[29.4]	(1.7)	(1.3)	3.0
% active hepatitis B or C	0.3	(0.0)	0.9	0.5	0.3
% diagnosed mpox [f]	1.6	(2.4)	3.2	2.6	1.7
% diagnosed syphilis [d]	5.1	(7.3)	9.0	5.9	5.3
% diagnosed gonorrhoea [d]	8.8	(17.1)	19.0	17.0	9.8
% diagnosed chlamydia [d]	8.2	(9.8)	15.5	13.5	8.9
% diagnosed anal/genital warts [g]	19.5	(15.9)	25.8	19.2	19.7

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] in the last two weeks; [b] scoring less than 5 on the 1 to 10 scale; [c] in the last two weeks (CAGE-4); [d] in the last 12 months; [e] among HIV-diagnosed; [f] since May 2022; [g] ever.

9.5.2 Migration and behaviour

Sexual risk with non-steady partners, including numbers of partners, sexual repertoires, injecting and chemsex were most common among respondents who had migrated to live sexually liberated lives, but they were also more commonly using PrEP (**Table 9.23**). Refugees and asylum seekers were also more likely than the overall sample to report injecting drug use but were less likely to be taking ART or PrEP. By contrast, the use of antibiotics for STI prophylaxis ('doxy-PEP') was substantially more common across all migrant groups.

Table 9.23 Key behaviour across different groups of migrants

Migrant groups and behaviours	Born in country of residence (n = 9313)	Refugees / asylum seekers (n = 82)	Migrated to live as gay / bi / trans (n = 432)	Other migrants (n = 764)	All (N = 10 591)
% engaging in safer sex [a]	50.6	(35.4)	64.1	59.4	51.6
% condoms consistently [b]	21.8	(8.9)	15.5	19.7	21.2
% taking PrEP [c]	25.2	(14.6)	41.0	36.9	26.6
% taking ART [d]	93.7	[100.0]	(83.3)	(90.1)	93.1
% ever took HIV-PEP [c]	10.7	(12.2)	19.9	16.5	11.5
% used 'doxy-PEP' [e]	5.7	(6.1)	11.3	10.1	6.3
Number (median) of NON-STEADY male sex partners	5	5	10	8	5
SRS (mean) [f]	6.0	(5.7)	6.1	6.0	6.0
% engaging in chemsex [g]	4.9	(7.3)	11.6	6.9	5.3
% injecting drugs [h]	2.0	(3.7)	2.8	1.7	2.1

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] consistent condom or PrEP use or undetectable viral load; [b] consistent condom use with NON-STEADY male intercourse partners; [c] excluding HIV-diagnosed; [d] among HIV-diagnosed; [e] took antibiotics in the last 12 months, '(e.g., doxycycline) before or after having sex to reduce the risk of getting some sexually transmitted infections. (Doxy-PrEP/Doxy-PEP'; [f] The Sexual Repertoire Score (SRS) is an additive score ranging from 1 to 9, based on previous-12-months engagement in 9 sexual practices with NON-STEADY male partners.; [g] defined as using stimulant drugs to make sex more intense or last longer, last 4 weeks; [h] excluding steroids, last 12 months.

Similarly, non-migrant MSM were substantially less likely to report all types of risk behaviour, including having had less non-steady partners in the last 12 months. Among the migrants, refugees and asylum seekers were most likely to report the most sexual risk behaviour but there is more variety in the behavioural measures and less consistency in the pattern for the three migrant groups.

9.5.3 Migration and needs

For most indicators, refugees and asylum seekers were the group most likely to report unmet needs, including needs related to specific preventive measures (*e.g.*, hepatitis vaccination, access to HIV testing, and access to condoms) as well as educational and information-based needs (**Table 9.24**). Concerns about drug use and levels of internalised homonegativity were also notably high. As a group, refugees and asylum seekers reported high levels of homophobic violence, sexual violence, and stigma in health care settings.

Table 9.24 Key needs across different groups of migrants

Migrant groups and needs	Born in country of residence (n = 9313)	Refugees / asylum seekers (n = 82)	Migrated to live as gay / bi / trans (n = 432)	Other migrants (n = 764)	All (N = 10 591)
Mean SIHS score [a]	1.0	(1.8)	1.1	1.2	1.0
% concerned about own drug use	3.9	(15.9)	10.4	6.3	4.4
% lacking control over sexual safety	6.7	(25.6)	13.7	13.1	7.6
% lacking control over unwanted sex	8.1	(18.3)	11.6	13.4	8.7
% experienced homo- or transnegative violence [b]	2.9	(4.9)	4.2	4.3	3.1
% experienced physically forced or coerced to have sex [b]	1.2	(6.1)	2.1	1.2	1.2
% experienced stigma in healthcare facilities [b]	6.5	(11.0)	8.6	6.8	6.6
% anticipated stigma in healthcare facilities [b]	9.5	(15.9)	12.3	11.6	9.8
% felt unsafe in public spaces [b]	27.6	(31.7)	29.4	23.8	27.5
% knowledge gap: HIV/STI transmission [c]	11.7	(16.7)	8.3	10.0	11.7
% not knowing U=U [d]	17.2	(26.6)	11.6	14.7	16.9
% knowledge gap: PrEP [e]	26.7	(26.7)	20.0	23.3	26.7
% unaware of PrEP	20.4	(27.0)	14.3	14.2	19.7
% knowledge gap: HIV test/treat [f]	7.1	(14.3)	5.7	5.7	7.1
% not knowing where to test for HIV	8.1	(11.0)	3.5	6.0	7.8
% knowledge gap: hepatitis [g]	17.5	(27.5)	17.5	20.0	17.5
% not knowing where to get hepatitis A/B vaccination	10.9	(40.2)	16.2	12.2	11.4
% knowledge gap: HPV [e]	43.3	(50.5)	30.0	36.7	43.3
% not knowing HPV vaccine exists	42.2	(54.3)	30.1	34.2	41.2
% knowledge gap: mpox [e]	20.0	(50.0)	16.7	16.7	20.0
% not knowing mpox vaccine exists	20.0	(48.7)	18.3	16.4	19.9
% not knowing where to get mpox vaccination	40.3	(61.7)	38.1	37.9	40.2

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] Short Internalised Homonegativity Scale, range: 0–6; [b] in the last 12 months; [c] knowledge gap (%) based on 6 items; [d] a person with undetectable viral load cannot pass on HIV sexually; [e] knowledge gap (%) based on 3 items; [f] knowledge gap (%) based on 7 items; [g] knowledge gap (%) based on 4 items.

9.5.4 Migration and interventions

As a group, refugees and asylum seekers were less likely than the overall sample to encounter information about HIV and STIs or to have access to vaccination services (**Table 9.25**). Among those diagnosed with HIV, they were less likely to have their infection regularly monitored and managed and were more likely to have a detectable viral load.

Table 9.25 Key interventions across different groups of migrants

Migrant groups and interventions	Born in country of residence (n = 9313)	Refugees / asylum seekers (n = 82)	Migrated to live as gay / bi / trans (n = 432)	Other migrants (n = 764)	All (N = 10 591)
% saw/heard specific HIV/STI information [a]	86.7	(85.4)	88.4	86.6	86.8
% offered hepatitis vaccination [b]	69.1	(53.7)	72.4	72.5	69.4
% full course of HAV vaccination [c]	69.7	(41.6)	64.6	67.9	69.1
% full course of HBV vaccination [d]	68.5	(41.0)	69.5	69.8	68.4
% at least one shot of HPV vaccine	10.0	(8.5)	11.1	13.7	10.3
% at least one shot of mpox vaccine [e]	27.4	(16.0)	39.4	37.7	28.5
% received free condoms [f]	26.3	(39.0)	38.2	30.2	27.1
% talked to about PrEP [g]	30.7	(31.2)	54.7	45.2	32.7
% tested for HIV [h]	50.5	(50.0)	66.7	63.9	52.1
% used community HIV-testing [i]	20.2	(30.9)	21.8	21.2	20.4
% used self-sampling [i]	1.6	(2.9)	1.2	2.2	1.6
% used self-testing [i]	5.5	(13.2)	2.0	3.2	5.3
% linked to care [j]	99.7	[100.0]	(100.0)	(100.0)	99.8
% retained in care [k]	99.5	[100.0]	(100.0)	(100.0)	99.5
% on ART [l]	99.0	[100.0]	(100.0)	(100.0)	99.1
% virally suppressed [m]	95.7	[70.6]	(98.0)	(95.8)	95.5
% tested for STIs [n]	52.0	(50.0)	73.8	68.7	54.1
% received anal swabbing [n]	33.2	(28.0)	52.5	49.1	35.1
% substance use counselling/self-support [n]	1.7	(6.5)	3.4	1.9	1.8

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] MSM-specific when attracted to men, trans-specific when identifying as trans, in the last 12 months; [b] ever, by a health service; [c] excluding respondents with past hepatitis A; [d] excluding respondents with past hepatitis B; [e] excluding respondents with past mpox; [f] from civil society organisations, clinic, bars, or saunas, in the last 12 months; [g] excluding HIV-diagnosed; [h] in the last 12 months, excluding respondents diagnosed prior to that; [i] at last HIV test; [j] HIV care cascade stage 3, among HIV-diagnosed; [k] HIV care cascade stage 4, among HIV-diagnosed; [l] HIV care cascade stage 5, among HIV-diagnosed; [m] HIV care cascade stage 6, among HIV-diagnosed; [n] in the last 12 months.

9.6 Health inequalities related to HIV diagnoses

The prevalence of diagnosed HIV in the sample is reported in **Section 4.2.1**. Below, the indicators are presented separately for respondents with and without diagnosed HIV (**Table 9.26**). Respondents diagnosed with HIV were older, more likely to be 'out', and more likely to report a history of sex work or injecting drug use.

Table 9.26 Key demographics by HIV status group

HIV status groups and demographics	Not HIV-diagnosed (n = 9251)	Diagnosed HIV (n = 1289)	All (N = 10 540)
Age (mean)	41.8	50.6	42.9
Age (SD)	13.3	10.6	13.3
Age (median)	42	51	43
% higher education	67.2	66.5	67.2
% current steady partner	48.5	54.3	49.2
% fully out [a]	54.4	74.0	56.8
% born abroad	12.1	12.3	12.1
% sex workers [b]	1.9	3.7	2.1
% PWID [c]	1.1	8.5	2.0

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] all/almost all know about sexual attraction to men; [b] sold sex 3+ times in the last 12 months; [c] People who injected drugs (excluding steroids) in the last 12 months.

9.6.1 HIV diagnosis and morbidities

Other infections were notably more common among respondents diagnosed with HIV than among those not diagnosed with HIV. In contrast, poor mental health, sexual unhappiness, and potential alcohol dependency were slightly more common among respondents not diagnosed with HIV (**Table 9.27**).

Table 9.27 Key morbidities by HIV status group

HIV status groups and morbidities	Not HIV-diagnosed (n = 9251)	Diagnosed HIV (n = 1289)	All (N = 10 540)
% severe anxiety/depression [a]	7.4	6.4	7.3
% self-harm thoughts [a]	16.3	15.8	16.2
% sexually unhappy [b]	22.1	19.1	21.8
% potential alcohol dependency [c]	23.7	21.9	23.4
% active hepatitis B or C	0.2	1.2	0.3
% diagnosed mpox [d]	1.2	5.4	1.7
% diagnosed syphilis [f]	4.5	11.2	5.3
% diagnosed gonorrhoea [f]	9.1	14.8	9.8
% diagnosed chlamydia [f]	8.3	13.0	8.9
% diagnosed anal/genital warts [g]	16.7	40.8	19.7

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] in the last two weeks; [b] scoring less than 5 on the 1 to 10 scale; [c] in the last two weeks (CAGE-4); [d] since May 2022; [f] in the last 12 months; [g] ever.

HIV-diagnosed respondents reported substantially higher rates of syphilis, gonorrhoea, and chlamydia diagnoses in the previous 12 months, were more likely to have been diagnosed with mpox since 2022, and more likely to have ever been diagnosed with anal or genital warts or to have active hepatitis B or C. Although they were older than respondents not diagnosed with HIV, they did not report poorer mental health

and were slightly less likely to report sexual unhappiness or potential alcohol dependency.

9.6.2 HIV diagnosis and behaviour

Because ART and PrEP are each relevant to only one of the two groups, and because the question on PEP use was not asked of respondents diagnosed with HIV, these indicators are not presented. Respondents diagnosed with HIV reported higher numbers of sexual partners (**Table 9.28**) and higher Sexual Repertoire Scores [1]. The use of stimulants in conjunction with sex, as well as injecting drug use, was also notably more common among respondents diagnosed with HIV. Despite lower reported condom use with non-steady male partners, the overall indicator of safer sex remained very high because of U=U.

Table 9.28 Key behaviour by HIV status group

HIV status groups and behaviours	Not HIV-diagnosed (n = 9251)	Diagnosed HIV (n = 1289)	All (N = 10 540)
% engaging in safer sex [a]	45.8	95.5	51.8
% condoms consistently [b]	24.0	5.0	21.3
% used 'doxy-PEP' [c]	5.5	11.3	6.2
Number (median) of NON-STEADY male sex partners	5	10	5
SRS (mean) [c]	5.9	6.4	6.0
% engaging in chemsex [d]	3.8	16.2	5.3
% injecting drugs [e]	1.1	8.5	2.0

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] consistent condom or PrEP use or undetectable viral load; [b] consistent condom use with NON-STEADY male intercourse partners; [c] took antibiotics in the last 12 months, '(e.g., doxycycline) before or after having sex to reduce the risk of getting some sexually transmitted infections. (Doxy-PrEP/Doxy-PEP'; [c] The Sexual Repertoire Score (SRS) is an additive score ranging from 1 to 9, based on previous-12-months engagement in 9 sexual practices with NON-STEADY male partners.; [d] defined as using stimulant drugs to make sex more intense or last longer, last 4 weeks; [e] excluding steroids, last 12 months.

9.6.3 HIV diagnosis and needs

Respondents diagnosed with HIV were more likely to report not being as safe sexually as they wanted to be, lacking access to condoms, and being concerned about drug use (**Table 9.29**). They were also better informed about hepatitis vaccination. Conversely, respondents not diagnosed with HIV were less likely to be aware of U=U.

Table 9.29 Key needs by HIV status group

HIV status groups and needs	Not HIV-diagnosed (n = 9251)	Diagnosed HIV (n = 1289)	All (N = 10 540)
Mean SIHS score [a]	1.1	0.8	1.0
% concerned about own drug use	3.7	9.7	4.4
% lacking control over sexual safety	7.3	9.8	7.6
% lacking control over unwanted sex	8.9	7.2	8.7
% experienced homo- or transnegative violence [b]	3.1	2.6	3.1
% experienced physically forced or coerced to have sex [b]	1.4	0.5	1.2
% experienced stigma in healthcare facilities [b]	6.5	7.1	6.6

HIV status groups and needs	Not HIV-diagnosed (n = 9251)	Diagnosed HIV (n = 1289)	All (N = 10 540)
% anticipated stigma in healthcare facilities [b]	10.3	6.3	9.8
% felt unsafe in public spaces [b]	28.7	19.0	27.5
% knowledge gap: HIV/STI transmission [c]	11.7	5.0	11.7
% not knowing U=U [d]	18.9	2.5	16.9
% knowledge gap: HIV test/treat [e]	7.1	2.9	7.1
% knowledge gap: hepatitis [f]	20.0	5.0	17.5
% not knowing where to get hepatitis A/B vaccination	12.7	2.6	11.4
% knowledge gap: HPV	46.7	30.0	43.3
% not knowing HPV vaccine exists [g]	42.8	30.4	41.3
% knowledge gap: mpox	23.3	10.0	20.0
% not knowing mpox vaccine exists [g]	21.5	8.8	19.9
% not knowing where to get mpox vaccination	43.9	14.0	40.2

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] Short Internalised Homonegativity Scale, range: 0–6; [b] in the last 12 months; [c] knowledge gap (%) based on 6 items; [d] a person with undetectable viral load cannot pass on HIV sexually; [e] knowledge gap (%) based on 7 items; [f] knowledge gap (%) based on 4 items; [g] knowledge gap (%) based on 3 items.

9.6.4 HIV diagnosis and interventions

Respondents not diagnosed with HIV were less likely to report encountering or accessing any of the interventions surveyed (**Table 9.30**). In addition, respondents diagnosed with HIV were more likely to report receiving substance use counselling or attending self-support groups related to substance use.

Table 9.30 Key interventions by HIV status group

HIV status groups and interventions	Not HIV-diagnosed (n = 9251)	Diagnosed HIV (n = 1289)	All (N = 10 540)
% saw/heard specific HIV/STI information [a]	86.1	91.2	86.7
% offered hepatitis vaccination [b]	66.7	88.6	69.4
% full course of HAV vaccination [c]	66.7	87.7	69.1
% full course of HBV vaccination [d]	66.0	87.2	68.4
% at least one shot of HPV vaccine	9.6	15.5	10.4
% at least one shot of mpox vaccine [e]	25.2	51.4	28.4
% received free condoms [f]	26.6	30.7	27.1
% used community HIV-testing [g]	20.6	20.0	20.5
% used self-sampling [g]	1.8	0.3	1.6
% used self-testing [g]	5.9	1.7	5.3
% tested for STIs [h]	50.2	81.3	54.0
% received anal swabbing [h]	33.8	43.6	35.0
% substance use counselling/self-support [h]	1.4	4.2	1.8

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] MSM-specific when attracted to men, trans-specific when identifying as trans, in the last 12 months; [b] ever, by a health service; [c] excluding respondents with past hepatitis A; [d] excluding respondents with past hepatitis B; [e] excluding respondents with past mpox; [f] from civil society organisations, clinic, bars, or saunas, in the last 12 months; [g] at last HIV test; [h] in the last 12 months.

9.7 Sex work and health inequalities

Section 3.8 describes the frequency of buying and selling sex in the sample. Below in **Table 9.31**, the indicators are presented separately for respondents who had sold sex three or more times in the previous 12 months (2 %), those who had done so less frequently (2 %), those who had sold sex in the past but not in the previous 12 months, and those who had never sold sex.

Although respondents were not asked whether they identified as sex workers, selling sex three or more times in the previous 12 months provides a useful proxy for sex work [2]. Across these groups, the proportions of migrants and people who inject drugs increased with the frequency of selling sex, whereas the average age decreased. Nevertheless, the median age of respondents classified as sex workers in this sample was 36.

Table 9.31 Key demographics by groups—selling sex

Selling sex groups and demographics	Sold sex 3+ times in the last 12 months (n = 226)	Sold sex less frequently (n = 217)	Sold sex longer ago (n = 1285)	Never sold sex (n = 8864)	All (N = 10 592)
Age (mean)	37.0	35.7	42.6	43.3	42.9
Age (SD)	13.8	13.0	12.0	13.4	13.3
Age (median)	36	33	42	44	43
% higher education	60.4	59.9	66.8	67.6	67.2
% current steady partner	31.0	38.2	51.7	49.6	49.2
% fully out [a]	61.1	53.9	65.8	55.4	56.8
% born abroad	20.4	17.1	14.3	11.4	12.1
% PWID [b]	12.4	4.6	4.1	1.4	2.1

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] all/almost all know about sexual attraction to men; [b] People who injected drugs (excluding steroids) in the last 12 months.

9.7.1 Sex work and morbidities

Respondents who sold sex were more likely to report all infection-related conditions, including recent HIV diagnosis, a detectable HIV viral load, and active hepatitis B or C (**Table 9.32**). Moreover, they reported lower levels of sexual unhappiness.

Table 9.32 Key morbidities by groups—selling sex

Selling sex groups and morbidities	Sold sex 3+ times in the last 12 months (n = 226)	Sold sex less frequently (n = 217)	Sold sex longer ago (n = 1285)	Never sold sex (n = 8864)	All (N = 10 592)
% severe anxiety/depression [a]	6.2	12.0	8.9	7.0	7.3
% self-harm thoughts [a]	23.5	28.6	18.2	15.5	16.2
% sexually unhappy [b]	9.3	15.7	18.7	22.7	21.8
% potential alcohol dependency [c]	22.6	28.6	27.1	22.8	23.4
% ever HIV-diagnosed	21.3	11.1	25.5	10.1	12.2
% newly HIV-diagnosed [d]	0.6	2.0	0.6	0.2	0.3
% detectable viral load [e]	(4.4)	(8.3)	1.9	3.2	3.0
% active hepatitis B or C	0.4	0.0	0.5	0.3	0.3
% diagnosed mpox [f]	4.4	3.2	4.6	1.2	1.7
% diagnosed syphilis [d]	11.5	11.1	8.2	4.6	5.3
% diagnosed gonorrhoea [d]	27.4	20.7	15.7	8.3	9.8
% diagnosed chlamydia [d]	19.0	13.4	14.2	7.8	8.9
% diagnosed anal/genital warts [g]	25.2	20.6	28.5	18.3	19.7

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] in the last two weeks; [b] scoring less than 5 on the 1 to 10 scale; [c] in the last two weeks (CAGE-4); [d] in the last 12 months; [e] among HIV-diagnosed; [f] since May 2022; [g] ever.

9.7.2 Sex work and behaviour

Respondents who sold sex were more likely to engage in drug-related risk behaviours (**Table 9.33**). PrEP use increased with the frequency or recency of selling sex, offsetting lower reported condom use. Higher rates of chemsex and injecting drug use were also observed. However, among respondents diagnosed with HIV, ART use was less common among those who sold sex. Across groups defined by the frequency of selling sex, the number of sexual partners increased, whereas the Sexual Repertoire Score remained broadly unchanged.

Table 9.33 Key behaviour by groups—selling sex

Selling sex groups and behaviours	Sold sex 3+ times in the last 12 months (n = 226)	Sold sex less frequently (n = 217)	Sold sex longer ago (n = 1285)	Never sold sex (n = 8864)	All (N = 10 592)
% engaging in safer sex [a]	64.6	55.8	64.2	49.4	51.6
% condoms consistently [b]	12.5	14.2	14.9	22.9	21.2
% taking PrEP [c]	36.3	34.1	29.2	25.8	26.6
% taking ART [d]	(83.3)	(91.7)	94.2	93.3	93.1
% ever took HIV-PEP [c]	20.8	15.2	13.2	11.0	11.5
% used 'doxy-PEP' [e]	15.2	10.6	10.5	5.3	6.3
Number (median) of NON-STEADY male sex partners	12	11	11	4	5
SRS (mean) [f]	5.7	6.0	6.2	5.9	6.0
% engaging in chemsex [g]	22.6	12.0	11.9	3.8	5.3
% injecting drugs [h]	12.4	4.6	4.1	1.4	2.1

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] consistent condom or PrEP use or undetectable viral load; [b] consistent condom use with NON-STEADY male intercourse partners; [c] excluding HIV-diagnosed; [d] among HIV-diagnosed; [e] took antibiotics in the last 12 months, '(e.g., doxycycline) before or after having sex to reduce the risk of getting some sexually transmitted infections. (Doxy-PrEP/Doxy-PEP'; [f] The Sexual Repertoire Score (SRS) is an additive score ranging from 1 to 9, based on previous-12-months engagement in 9 sexual practices with NON-STEADY male partners.; [g] defined as using stimulant drugs to make sex more intense or last longer, last 4 weeks; [h] excluding steroids, last 12 months.

9.7.3 Sex work and needs

For most indicators, respondents who sold sex frequently were the group most likely to report unmet needs (**Table 9.34**). They were also more likely to report experiences of homophobic violence, rape, and a lack of control over unwanted sex.

Table 9.34 Key needs by groups—selling sex

Selling sex groups and needs	Sold sex 3+ times in the last 12 months (n = 226)	Sold sex less frequently (n = 217)	Sold sex longer ago (n = 1285)	Never sold sex (n = 8864)	All (N = 10 592)
Mean SIHS score [a]	1.0	1.1	0.9	1.0	1.0
% concerned about own drug use	13.3	10.1	8.0	3.5	4.4
% lacking control over sexual safety	12.8	12.4	8.1	7.2	7.6
% lacking control over unwanted sex	22.6	18.9	10.0	7.9	8.7
% experienced homo- or transnegative violence [b]	13.3	7.8	4.1	2.5	3.1
% experienced physically forced or coerced to have sex [b]	11.1	4.6	1.6	0.8	1.2
% experienced stigma in healthcare facilities [b]	13.3	12.4	6.4	6.3	6.6
% anticipated stigma in healthcare facilities [b]	14.2	16.6	7.4	9.9	9.8
% felt unsafe in public spaces [b]	39.4	38.7	29.7	26.5	27.5
% knowledge gap: HIV/STI transm. [c]	11.7	11.7	8.3	11.7	11.7
% not knowing U=U [d]	17.3	17.6	11.6	17.6	16.9
% knowledge gap: PrEP [e]	16.7	23.3	16.7	26.7	26.7
% unaware of PrEP	13.6	19.2	14.5	20.5	19.7
% knowledge gap: HIV test/treat [f]	8.6	8.6	4.3	7.1	7.1
% not knowing where to test for HIV	8.8	9.7	2.5	8.5	7.8
% knowledge gap: hepatitis [g]	20.0	22.5	15.0	17.5	17.5
% not knowing where to get hepatitis A/B vaccination	13.7	15.7	9.5	11.5	11.4
% knowledge gap: HPV [e]	40.0	46.7	36.7	43.3	43.3
% not knowing HPV vaccine exists	41.1	45.3	38.2	41.5	41.2
% knowledge gap: mpox [e]	20.0	20.0	16.7	20.0	20.0
% not knowing mpox vaccine exists	19.4	20.8	15.9	20.5	19.9
% not knowing where to get mpox vaccination	37.6	37.3	29.5	41.9	40.2

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] Short Internalised Homonegativity Scale, range: 0–6; [b] in the last 12 months; [c] knowledge gap (%) based on 6 items; [d] a person with undetectable viral load cannot pass on HIV sexually; [e] knowledge gap (%) based on 3 items; [f] knowledge gap (%) based on 7 items; [g] knowledge gap (%) based on 4 items.

9.7.4 Sex work and interventions

Respondents who sold sex were more likely to have been tested for STIs in the past 12 months, including anal swabbing, and to have received counselling about PrEP at a health service (**Table 9.35**). However, they were no more likely to have been offered hepatitis vaccination, and among those diagnosed with HIV, viral suppression was less common.

Table 9.35 Key interventions by groups—selling sex

Selling sex groups and interventions	Sold sex 3+ times in the last 12 months (n = 226)	Sold sex less frequently (n = 217)	Sold sex longer ago (n = 1285)	Never sold sex (n = 8864)	All (N = 10 592)
% saw/heard specific HIV/STI info. [a]	84.5	90.8	88.5	86.5	86.8
% offered hepatitis vaccination [b]	70.8	68.7	73.1	68.8	69.4
% full course of HAV vaccination [c]	70.6	68.1	73.9	68.4	69.1
% full course of HBV vaccination [d]	70.7	67.0	74.2	67.6	68.4
% at least one shot of HPV vaccine	16.4	11.5	11.1	10.1	10.3
% at least one shot of mpox vaccine [e]	38.9	29.5	38.7	26.7	28.5
% received free condoms [f]	34.1	26.3	31.8	26.3	27.1
% talked to about PrEP [g]	44.3	42.0	42.4	31.1	32.7
% tested for HIV [h]	57.1	68.2	52.9	51.5	52.2
% used community HIV-testing [i]	23.6	15.1	17.8	20.9	20.4
% used self-sampling [i]	1.0	1.6	1.3	1.7	1.6
% used self-testing [i]	2.1	7.0	4.5	5.4	5.3
% linked to care [j]	(100.0)	(100.0)	100.0	99.7	99.8
% retained in care [k]	(100.0)	(100.0	99.7	99.4	99.5
% on ART [l]	(97.6)	(100.0)	99.7	99.0	99.1
% virally suppressed [m]	(95.1)	(90.9)	96.1	95.4	95.5
% tested for STIs [n]	70.4	64.1	67.9	51.4	54.1
% received anal swabbing [n]	52.2	41.5	46.8	32.8	35.1
% substance use couns./self-support [n]	3.9	3.8	3.7	1.3	1.8

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] MSM-specific when attracted to men, trans-specific when identifying as trans, in the last 12 months; [b] ever, by a health service; [c] excluding respondents with past hepatitis A; [d] excluding respondents with past hepatitis B; [e] excluding respondents with past mpox; [f] from civil society organisations, clinic, bars, or saunas, in the last 12 months; [g] excluding HIV-diagnosed; [h] in the last 12 months, excluding respondents diagnosed prior to that; [i] at last HIV test; [j] HIV care cascade stage 3, among HIV-diagnosed; [k] HIV care cascade stage 4, among HIV-diagnosed; [l] HIV care cascade stage 5, among HIV-diagnosed; [m] HIV care cascade stage 6, among HIV-diagnosed; [n] in the last 12 months.

9.8 Health inequalities related to injecting drug use

Section 5.8 reports the prevalence of injecting drug use in the sample. Below, we present indicators for respondents who injected drugs to get high in the past 12 months (2 %) compared with those who did not (**Table 9.36**). Respondents who injected drugs were substantially older and, consistent with their higher age, were more likely to report higher educational attainment. They were less likely to have a steady partner and more likely to have been born abroad or to report frequently selling sex.

Table 9.36 Key demographics by groups—injecting to get high

Injecting drug use groups and demographics	Injected drugs last 12 months (n = 217)	Did not inject drugs last 12 months (n = 10 123)	All (N = 10 340)
Age (mean)	46.9	42.8	42.9
Age (SD)	11.9	13.4	13.4
Age (median)	48	43	43
% higher education	68.4	67.2	67.3
% current steady partner	42.9	49.3	49.1
% fully out [a]	70.0	56.2	56.5
% born abroad	12.9	12.0	12.0
% sex workers [b]	12.9	1.9	2.1

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] all/almost all know about sexual attraction to men; [b] sold sex 3+ times in the last 12 months.

9.8.1 Injecting drug use and morbidities

Although respondents who injected drugs were slightly less likely to report sexual unhappiness than those who did not, all other morbidities—including hepatitis B and C—were more common (**Table 9.37**). This group also included a substantially higher proportion of respondents diagnosed with HIV, who were much more likely to have received their HIV diagnosis in the previous 12 months.

Table 9.37 Key morbidities by groups—injecting to get high

Injecting drug use groups and morbidities	Injected drugs last 12 months (n = 217)	Did not inject last 12 months (n = 10 123)	All (N = 10 340)
% severe anxiety/depression [a]	8.0	7.3	7.3
% self-harm thoughts [a]	21.7	16.1	16.2
% sexually unhappy [b]	18.0	21.8	21.7
% potential alcohol dependency [c]	21.7	23.3	23.3
% ever HIV-diagnosed	50.9	10.6	11.5
% newly HIV-diagnosed [d]	0.9	0.2	0.2
% detectable viral load [e]	3.8	2.5	2.6
% active hepatitis B or C	1.8	0.3	0.3
% diagnosed mpox [f]	7.8	1.6	1.7
% diagnosed syphilis [d]	19.0	5.0	5.3
% diagnosed gonorrhoea [d]	28.6	9.3	9.7
% diagnosed chlamydia [d]	20.7	8.6	8.9
% diagnosed anal/genital warts [g]	38.9	19.0	19.4

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] in the last two weeks; [b] scoring less than 5 on the 1 to 10 scale; [c] in the last two weeks (CAGE-4); [d] in the last 12 months; [e] among HIV-diagnosed; [f] since May 2022; [g] ever.

9.8.2 Injecting drug use and behaviour

Respondents who injected drugs had substantially higher numbers of sexual partners, a higher Sexual Repertoire Score [1] and were much more likely to engage in chemsex or use 'doxy-PEP' (**Table 9.38**). They were less likely to use condoms but more likely to take PrEP, thereby engaging in safer sex.

Table 9.38 Key behaviour by groups—injecting to get high

Injecting drug use groups and behaviours	Injected drugs in the last 12 months (n = 217)	Did not inject drugs last 12 months (n = 10 123)	All (N = 10 340)
% engaging in safer sex [a]	77.9	50.7	51.2
% condoms consistently [b]	1.0	22.2	21.6
% taking PrEP [c]	30.4	26.6	26.7
% taking ART [d]	89.9	93.5	93.1
% ever took HIV-PEP [c]	17.1	11.4	11.5
% used 'doxy-PEP' [e]	18.9	5.9	6.2
Number (median) of NON-STEADY male sex partners	11	5	5
SRS (mean) [f]	7.3	5.9	6.0
% engaging in chemsex [g]	66.4	3.4	4.8

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] consistent condom or PrEP use or undetectable viral load; [b] consistent condom use with NON-STEADY male intercourse partners; [c] excluding HIV-diagnosed; [d] among HIV-diagnosed; [e] took antibiotics in the last 12 months, '(e.g., doxycycline) before or after having sex to reduce the risk of getting some sexually transmitted infections. (Doxy-PrEP/Doxy-PEP'; [f] The Sexual Repertoire Score (SRS) is an additive score ranging from 1 to 9, based on previous-12-months engagement in 9 sexual practices with NON-STEADY male partners.; [g] defined as using stimulant drugs to make sex more intense or last longer, last 4 weeks.

9.8.3 Injecting drug use and needs

Respondents who injected drugs were more likely to report needs related to control over their sexual activity and lack of access to condoms (**Table 9.39**). They were also much more likely to express concern about their drug use. However, injectors were more knowledgeable about HIV (including U=U), STIs, PEP, PrEP and hepatitis, than non-injectors.

Table 9.39 Key needs by groups—injecting to get high

Injecting drug use groups and needs	Injected drugs last 12 months (n = 217)	Did not inject drugs last 12 months (n = 10 123)	All (N = 10 340)
Mean SIHS score [a]	0.8	1.0	1.0
% concerned about own drug use	35.5	3.5	4.2
% lacking control over sexual safety	13.8	7.4	7.6
% lacking control over unwanted sex	14.3	8.6	8.8
% experienced homo- or transneg. violence [b]	3.2	3.1	3.1
% experienced physically forced or coerced to have sex [b]	5.1	1.2	1.2
% experienced stigma in healthcare facilities [b]	10.6	6.5	6.6
% anticipated stigma in healthcare facilities [b]	5.1	10.0	9.9
% felt unsafe in public spaces [b]	21.7	27.8	27.7
% knowledge gap: HIV/STI transmission [c]	6.7	11.7	11.7
% not knowing U=U [d]	5.1	17.3	17.0
% knowledge gap: PrEP [e]	10.0	26.7	26.7
% unaware of PrEP	12.4	19.9	19.8
% knowledge gap: HIV test/treat [f]	4.3	7.1	7.1
% not knowing where to test for HIV	2.8	8.0	7.9
% knowledge gap: hepatitis [g]	10.0	17.5	17.5
% not knowing where to get hepatitis A/B vaccination	5.1	11.7	11.6
% knowledge gap: HPV [e]	33.3	43.3	43.3
% not knowing HPV vaccine exists	31.3	41.5	41.3
% knowledge gap: mpox [e]	10.0	20.0	20.0
% not knowing mpox vaccine exists	11.4	20.2	20.0
% not knowing where to get mpox vaccination	19.4	41.1	40.6

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] Short Internalised Homonegativity Scale, range: 0–6; [b] in the last 12 months; [c] knowledge gap (%) based on 6 items; [d] a person with undetectable viral load cannot pass on HIV sexually; [e] knowledge gap (%) based on 3 items; [f] knowledge gap (%) based on 7 items; [g] knowledge gap (%) based on 4 items.

9.8.4 Injecting drug use and interventions

Respondents who injected drugs to get high in the past 12 months accessed many interventions to a similar or greater extent than those who did not inject (**Table 9.40**). Injectors were more likely to have been offered and received hepatitis vaccination, to have received counselling about PrEP at a health service, and to have been tested for STIs in the past 12 months—including anal swabbing. They were also, unsurprisingly, more likely to report receiving substance use counselling or attending self-support groups related to substance use.

Table 9.40 Key interventions by groups—injecting to get high

Injecting drug use groups and interventions	Injected drugs last 12 months (n = 217)	Did not inject drugs last 12 months (n = 10 123)	All (N = 10 340)
% saw/heard specific HIV/STI information [a]	93.1	86.6	86.7
% offered hepatitis vaccination [b]	81.6	68.9	69.2
% full course of HAV vaccination [c]	85.6	68.4	68.8
% full course of HBV vaccination [d]	83.7	67.8	68.2
% at least one shot of HPV vaccine	12.9	10.2	10.2
% at least one shot of mpox vaccine [e]	53.9	27.5	28.1
% received free condoms [f]	29.5	27.1	27.2
% talked to about PrEP [g]	52.4	32.4	32.6
% tested for HIV [h]	40.6	52.7	52.4
% used community HIV-testing [i]	17.6	20.6	20.5
% used self-sampling [i]	0.5	1.6	1.6
% used self-testing [i]	1.5	5.4	5.3
% linked to care [j]	100.0	99.7	99.7
% retained in care [k]	99.1	99.5	99.5
% on ART [l]	97.1	99.3	99.1
% virally suppressed [m]	95.1	95.9	95.5
% tested for STIs [n]	82.5	53.1	53.7
% received anal swabbing [n]	55.8	34.5	34.9
% substance use counselling/self-support [n]	12.7	1.2	1.7

Numbers in parentheses ( ) indicate that the total number of respondents for that category is less than 100 (N < 100).
Numbers in brackets [ ] indicate that the total number of respondents is less than 20 (N < 20).
[a] MSM-specific when attracted to men, trans-specific when identifying as trans, in the last 12 months; [b] ever, by a health service; [c] excluding respondents with past hepatitis A; [d] excluding respondents with past hepatitis B; [e] excluding respondents with past mpox; [f] from civil society organisations, clinic, bars, or saunas, in the last 12 months; [g] excluding HIV-diagnosed; [h] in the last 12 months, excluding respondents diagnosed prior to that; [i] at last HIV test; [j] HIV care cascade stage 3, among HIV-diagnosed; [k] HIV care cascade stage 4, among HIV-diagnosed; [l] HIV care cascade stage 5, among HIV-diagnosed; [m] HIV care cascade stage 6, among HIV-diagnosed; [n] in the last 12 months.

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Chapter 10: Summary and Conclusions

Since its inception, EMIS has brought together academic institutions, governmental public health organisations and civil society organisations. This collaborative approach enables the different stakeholders to learn from each other and combines their respective expertise in research, public health and community-based prevention. EMIS is one of the largest recurring sexual health surveys of its kind in Germany, Europe and worldwide.

EMIS-2024 was jointly implemented by German AIDS Federation (*Deutsche Aidshilfe*), Maastricht University, and the Robert Koch Institute, together with a large network of national partners across the WHO European Region. Funding was provided by the European Centre for Disease Prevention and Control (ECDC), the German Federal Ministry of Health (BMG, including through its Global Health Protection Programme (GHPP), and institutions in Belgium, Estonia, Ireland, Israel, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden and Switzerland. BMG funding was particularly important for the implementation of EMIS-2024 in Germany, while GHPP funding supported its implementation in Eastern Europe and Central Asia.

Unlike previous EMIS waves, which received core funding through European Commission health programmes, EMIS-2024 was conducted without dedicated multi-year core funding. Instead, funding from several sources had to be combined, with different funding periods, timelines and requirements. This substantially increased the complexity of planning and implementing the survey and resulted in tighter timelines for some stages of its development than in previous rounds.

EMIS-2024 provides an extensive evidence base for investigating a wide range of scientific and public health questions relevant to MSM and trans and non-binary people. These include mental and sexual health; sexual histories and practices, including sexual debut, sexual repertoire and settings; age differences and age pairing between respondents and their sexual partners; and the acquisition and number of sexual partners. The survey also covers substance use in detail, including the substances used in sexual and non-sexual contexts and chemsex.

A further major focus is the prevention of HIV and other sexually transmitted infections (STIs), including sexual health awareness and knowledge; vaccination; other prevention measures, including HIV pre-exposure prophylaxis (PrEP) and doxycycline post-exposure prophylaxis (Doxy-PEP); testing; and access to care and treatment. EMIS-2024 also enables analyses of outness, internalised homonegativity, minority stress, stigma and discrimination, violence and sexual coercion, and their associations with sexual health. Particular attention is given to differences in unmet prevention needs and access to interventions between population groups.

The European scope of EMIS provides important additional context for interpreting national findings. Harmonised measures allow indicators observed in one country to be compared with those in other countries and regions, helping to assess whether national levels are relatively high or low and to identify common patterns and important

differences across Europe. Each participating country therefore benefits from the participation of the others. EMIS-2024 was conducted in 35 languages across 50 countries. This extensive multilingual coverage also facilitates the inclusion of migrants, who may be insufficiently reached by national surveys conducted in only one or a small number of languages.

The study builds on the previous EMIS waves conducted in 2010 and 2017. Compared with the previous surveys, the inclusion of trans and non-binary people was substantially expanded through specific survey pathways and targeted recruitment efforts. Given the breadth of the survey, this report can present only the main descriptive findings for Germany.

The EMIS-2024 dataset provides a rich resource for more detailed analyses of specific scientific and public health questions, particular population groups, cross-country differences and changes across survey rounds. EMIS-2024 data have already contributed to national reporting for Dublin Declaration monitoring and have been used in ECDC-led analyses to model the potential antibiotic consumption associated with Doxy-PEP and the effects of future vaccination campaigns on mpox transmission. As with previous EMIS surveys, the data are expected to provide a basis for scientific publications and dedicated analyses for many years to come.

Underlying EMIS is an understanding of sexual health that goes beyond the absence or prevention of infection. Since the first EMIS wave in 2010, sexual happiness has therefore been considered an important health outcome alongside morbidity. A guiding principle of EMIS is to provide the evidence needed to enable people to make informed choices for the best sex with the least harm. This acknowledges that sexual health involves balancing the benefits and pleasures of sexual activity with the prevention and reduction of avoidable harms, rather than seeking to eliminate risk altogether.

10.1 Recruitment and Demographics

Recruitment patterns in Germany differed from those observed across the European Economic Area (EEA) overall. While 37 % of qualifying cases across the EEA were recruited through NGO partners, this proportion was 20 % in Germany. Conversely, ROMEO accounted for a substantially larger share of recruitment in Germany (38 %) than across the EEA overall (17 %), while recruitment through Grindr and G4E was broadly similar (42 % *vs* 46 %). The comparatively lower contribution of NGO recruitment in Germany should therefore be considered in the context of the particularly strong contribution of ROMEO and the resulting differences in the recruitment mix.

Despite these differences, recruitment in Germany resulted in 10 592 qualifying cases, the largest national sample in EMIS-2024. Germany accounted for around one quarter (26 %) of all qualifying cases in the EEA sample. EEA averages are therefore substantially influenced by the German sample, and comparisons between Germany and the EEA overall should be interpreted accordingly. The relative response, which relates the number of qualifying cases to the size of the male population aged 15–64 years, was 4.0 in Germany compared with 2.9 across the EEA. Germany therefore achieved an above-average relative response, although substantially higher values were observed in several other countries. Differences in recruitment channels should be considered when interpreting the German sample, as NGO- and dating-platform-based recruitment may reach populations with different sociodemographic characteristics, levels of community connection and prevention needs.

The **German sample** included 10 592 participants. Of these, 10 017 (94.6 %) were cisgender MSM, 212 (2.0 %) trans MSM, 51 (0.5 %) trans women, 91 (0.9 %) non-binary persons assigned female at birth (AFAB) and 221 (2.1 %) non-binary persons assigned male at birth (AMAB). Consistent with previous EMIS waves, the report includes all participants who met the survey's inclusion criteria and were invited to participate; analytical subgroups are defined according to the question being addressed. **Chapter 8** additionally examines the four trans and non-binary groups separately.

For specific epidemiological purposes, including indicators used for Dublin Declaration monitoring, a broader MSM definition was applied comprising cisgender and trans MSM as well as non-binary AMAB participants (n = 10 450; 98.7 %). This purpose-specific analytical definition does not classify non-binary participants as men; gender identity and membership of an epidemiologically defined population are treated as distinct dimensions.

Recruitment for EMIS-2024 in Germany proved more difficult than in previous EMIS waves; in particular, the proportion of younger MSM was lower. A major extension of EMIS-2024 was the integration of a trans sub-study, with specific survey pathways and targeted recruitment of trans and non-binary people. The composition of EMIS samples has changed across waves, particularly with regard to age and the inclusion and targeted recruitment of trans and non-binary people. These differences need to be considered when comparing findings across countries, regions or EMIS waves. Further details are provided in the **Note on comparability** at the beginning of **Chapter 3**.

Compared with participants across the EEA, participants in Germany were older (median age 43 *vs* 39 years) and less likely to report struggling on their present income (8 % *vs* 13 %). The proportion born outside the country of residence was also somewhat lower in Germany (12 % *vs* 15 %), while the proportion with higher education was similar (67 % *vs* 66 %). Most participants identified as gay or homosexual (77 %) or bisexual (16 %). In the previous 12 months, 11 % had paid a man for sex at least once and were therefore considered clients of male sex work. 2 % had been paid for sex with a man on three or more occasions; this frequency was considered indicative of sex work.

Several findings support the validity of the demographic data. Employment status varied across age groups in patterns consistent with expected life-course differences, providing evidence of internal consistency. In Germany, this correspondence was apparent in several federal states, while differences were observed in others; for some federal states, EMIS samples were too small to allow such assessment. In Germany, similar patterns by age and sexual identity were also observed in independent data from MSM attending community-based HIV/STI counselling and testing services. In both datasets, younger MSM were less likely to identify as gay or homosexual and more likely to identify as bisexual or use other terms. Among MSM aged under 25 years, for example, 65 % of EMIS-2024 participants identified as gay or homosexual and 21 % as bisexual, compared with 67 % and 25 %, respectively, among MSM of the same age attending community-based counselling and testing services. A further 7 % of EMIS participants used another term for their sexual identity; similarly, 7 % in the community-based services data identified as queer or used another term.

10.2 Morbidities

Germany generally ranked in the middle to upper range of EEA countries for diagnosed sexually transmitted infections. For the proportions of participants diagnosed with syphilis, gonorrhoea or chlamydia, Germany ranked among the ten countries with the highest values. Anal and genital warts were also comparatively common, placing Germany sixth. Unlike asymptomatic bacterial STIs, anal and genital warts are not diagnosed through screening. Their comparatively high lifetime prevalence is therefore also relevant in the context of Germany's low HPV vaccination coverage.

Germany was also among the five countries with the highest proportion reporting an mpox diagnosis. Active hepatitis B or C was reported by 1.2 %, similar to the level observed across the EEA overall (1.1 %).

In Germany, 5 % of participants reported a syphilis diagnosis, 10 % gonorrhoea and 9 % chlamydia in the previous 12 months. Anal or genital warts had ever been diagnosed in 20 %, while 1.7 % reported an mpox diagnosis since 2022.

Overall, 12 % of participants in Germany had ever been diagnosed with HIV, placing Germany among the ten EEA countries with the highest proportions ever diagnosed with HIV. In contrast, new HIV diagnoses in the previous 12 months were comparatively uncommon (0.3 %). Among participants with diagnosed HIV, only 3 % reported a detectable viral load.

Mental health indicators showed a different pattern. Germany was among the EEA countries with the lowest proportions reporting severe symptoms of anxiety or depression or suicidal thoughts. Severe symptoms of anxiety or depression were reported by 7 %, compared with 10 % across the EEA overall. Suicidal thoughts were reported by 4 %, also among the lowest levels observed across EEA countries. Sexual unhappiness was more common (22 %) and close to the EEA average (21 %). In contrast, signs of potential alcohol dependence were reported by 23 %, placing Germany among the ten EEA countries with the highest proportions.

Sexual happiness was closely related to mental health. The mean sexual happiness score (scale: 1–10) declined from 7 among participants with normal anxiety and depression scores to 5 among those with moderate or severe symptoms. Lower sexual happiness was similarly associated with more frequent thoughts of suicide or self-harm, illustrating the close relationship between sexual and mental health observed in EMIS-2024.

Marked differences in morbidity were observed between population groups. Mental health problems showed a strong age gradient: severe symptoms of anxiety or depression declined from 14 % among participants aged under 25 years to 2 % among those aged 65 years or older, while thoughts of self-harm declined from 31 % to 8 %. Conversely, the proportion ever diagnosed with HIV increased markedly with age, from 0.5 % among those aged under 25 years to 23 % among those aged 65 years or older. Recent diagnoses of gonorrhoea and chlamydia were most common among participants aged 25–39 years.

Mental health problems were particularly pronounced among trans and non-binary participants. Severe symptoms of anxiety or depression were reported by 20–35 %

across the four trans and non-binary groups, compared with 6 % of cisgender MSM who identified as gay or bisexual (cis gbMSM). Similarly, 36–57 % of trans and non-binary participants reported thoughts of self-harm in the previous two weeks, compared with 14 % of cis gbMSM.

Refugees and asylum seekers also showed substantial mental health burdens. Participants who had migrated in order to live more openly as gay, bisexual, trans or queer reported higher levels of several recently diagnosed STIs, particularly syphilis, gonorrhoea and chlamydia.

Mental health indicators differed little according to HIV status. In contrast, participants with diagnosed HIV reported substantially higher levels of several infectious morbidities, including mpox, syphilis, gonorrhoea, chlamydia and anal or genital warts.

Participants who had sold sex three or more times in the previous 12 months reported substantially higher proportions of recently diagnosed syphilis, gonorrhoea and chlamydia than those who had never sold sex. They also more often reported thoughts of self-harm, while sexual unhappiness was less common.

10.3 Risk and precautionary behaviour

Patterns of sexual behaviour and HIV prevention in Germany were broadly similar to those observed across the EEA, although some differences were apparent. The median number of non-steady male sex partners was five, identical to the EEA median, and the proportions reporting sex involving three or more people, meeting their last non-steady male partner online, or using mobile phone apps to find partners were close to EEA levels. Sex with the last non-steady male partner in a sex venue or cruising location was comparatively common (21 %), placing Germany among the EEA countries with the highest proportions. Condomless intercourse was also somewhat more common than across the EEA overall (38 % *vs* 35 %). Chemsex in the previous four weeks was reported by 5 %, similar to the EEA level (6 %). Although injecting drug use remained uncommon (2 %), Germany was among the EEA countries with the highest proportions reporting it.

Among participants who had had sex with men, the median age at first sexual experience with a man was 18 years (IQR: 15–21), and the median age at first intercourse with a man was 19 years (IQR: 17–23). Across all participants, only 29 % had had anal intercourse with a man by age 17 and fewer than half (48 %) by age 19. The timing of sexual debut is relevant to the provision of age-dependent preventive interventions, particularly HPV vaccination.

The use of biomedical HIV prevention was comparatively high. Among participants without diagnosed HIV, 31 % were taking PrEP, compared with 23 % across the EEA. Overall, 47 % of participants reported using either PrEP or an undetectable viral load (U=U) for HIV prevention, compared with 39 % across the EEA. Antibiotic use before or after sex to reduce the risk of acquiring some bacterial STIs ('Doxy-PEP') was reported by 6 %, close to the EEA level.

The strategies used to reduce HIV transmission risk during sex with non-steady male partners have changed substantially across EMIS waves. Among participants reporting sex with non-steady male partners in the previous 12 months, consistent condom use declined from 40 % in 2010 to 31 % in 2017 and 18 % in 2024. Over the same period, the proportion protected by an undetectable viral load increased from 5 % to 10 % and 12 %, while PrEP use increased from 0 % in 2010 and 2 % in 2017 to 29 % in 2024. The proportion reporting no anal intercourse with non-steady male partners also declined, from 19 % to 11 %. Although these are unadjusted comparisons and changes in sample composition and recruitment across EMIS waves need to be considered, these findings illustrate a major shift from predominantly condom-based towards biomedical HIV prevention. Nevertheless, the proportion classified in this analysis as remaining at risk of HIV transmission declined only moderately, from 36 % in 2010 to 30 % in 2024, after reaching 41 % in 2017.

Patterns of sexual behaviour and prevention differed substantially between population groups. Outness was associated with both greater sexual activity and greater use of HIV and STI prevention. The median number of non-steady male sex partners increased from three among participants who were out to none or few people to six among those who were out to all or almost all people. Chemsex increased from 3 % to 7 % and injecting drug use from 1 % to 3 %. At the same time, PrEP use increased from 13 % to 32 %, and the proportion covered by the combined safer-sex indicator increased from 35 % to 59 %, despite consistent condom use declining from 29 % to 19 %.

Participants living with diagnosed HIV also reported greater sexual activity and more frequent drug use in sexual contexts. They had a median of ten non-steady male sex partners compared with five among participants without diagnosed HIV, and reported a broader sexual repertoire. Chemsex was reported by 16 % compared with 4 %, and injecting drug use by 9 % compared with 1 %. Consistent condom use was substantially less common among participants with diagnosed HIV (5 % *vs* 24 %); however, owing largely to the high level of viral suppression. However, owing to the high level of viral suppression, 96 % met the definition of safer sex used in this report.

Distinct patterns were also observed among migrants. Participants who had migrated in order to live more openly as gay, bisexual, transgay, bisexual, trans or queer reported a median of ten non-steady male sex partners compared with five among participants born in Germany, and more frequently reported chemsex (12 % *vs* 5 %). They also made greater use of pharmacological prevention: 41 % were taking PrEP and 11 % reported ‘Doxy-PEP’ use, compared with 25 % and 6 %, respectively, among participants born in Germany. Their combined safer-sex indicator was correspondingly higher (64 % *vs* 51 %), illustrating that different migrant groups should not be regarded as a homogeneous population.

Participants who had sold sex on three or more occasions in the previous 12 months similarly combined higher levels of sexual activity with greater use of prevention. They reported a median of 12 non-steady male sex partners compared with four among participants who had never sold sex, and substantially more often reported

chemsex (23 % *vs* 4 %) and injecting drug use (12 % *vs* 1 %). Although consistent condom use was less common (13 % *vs* 23 %), PrEP use was higher (36 % *vs* 26 %), as was 'Doxy-PEP'use (15 % *vs* 5 %), and the combined safer-sex indicator was higher overall (65 % *vs* 49 %).

Participants who reported injecting drug use in the previous 12 months showed a particularly distinct pattern of sexual behaviour and prevention. They reported a higher median number of non-steady male sex partners (11 *vs* 5) and a broader sexual repertoire (mean SRS 7.3 *vs* 5.9 out of 9), while 66 % reported chemsex in the previous four weeks compared with 3 % among participants who had not injected drugs. Consistent condom use was rare (1 % *vs* 22 %), but overall use of the HIV risk-reduction strategies captured by the safer-sex indicator was substantially higher (78 % *vs* 51 %). PrEP and 'Doxy-PEP' were also more commonly used, with 'Doxy-PEP' reported by 19 % compared with 6 % among participants who had not injected drugs.

10.4 Needs

Overall, several indicators of unmet need in Germany compared favourably with those observed across the EEA. Germany had the lowest mean internalised homonegativity score among EEA countries (mean SIHS: 1.0, compared with 1.3 across the EEA). Lack of control over sexual safety was also comparatively uncommon (13 % *vs* 22 %), as were experienced and anticipated stigma in healthcare settings (7 % *vs* 8 % and 10 % *vs* 13 %, respectively) and homo- or transnegative violence (3 % *vs* 6 %). However, feeling unsafe in public spaces was somewhat more common in Germany (28 % *vs* 25 %), as was verbal harassment (21 % *vs* 19 %).

Knowledge of HIV and STI prevention was generally similar to or somewhat better than across the EEA. In Germany, 17 % did not know that people with an undetectable HIV viral load cannot sexually transmit HIV, 20 % did not know what PrEP is, and 8 % did not know where to obtain an HIV test. Knowledge gaps relating to hepatitis and mpox were also smaller than across the EEA. HPV was a notable exception: 43 % showed a knowledge gap concerning HPV and 41 % did not know that an HPV vaccine exists, compared with 37 % and 32 %, respectively, across the EEA.

Needs varied markedly by age. Participants aged under 25 years showed particularly large gaps in prevention knowledge: 36 % were unaware of PrEP, 29 % did not know about U=U and 34 % did not know where to obtain an HIV test. They also reported substantially more anticipated stigma in healthcare settings and greater insecurity in public spaces than older participants. More than half (54 %) had felt unsafe in public spaces in the previous 12 months, compared with 20 % of those aged 40–64 years and 7 % of those aged 65 years or older. Experiences of physically forced or coerced sex also declined markedly with age, from 5 % among those aged under 25 years to less than 1 % among those aged 40 years or older.

Marked differences were also observed according to sexual and gender identity. Trans and non-binary participants generally reported greater unmet needs than cis gbMSM, particularly in relation to healthcare, sexual autonomy and prevention knowledge. Among trans men, 33 % reported stigma in healthcare settings in the previous 12 months and 51 % anticipated such stigma, compared with 6 % and 8 %, respectively, among cis gbMSM. Trans men also more frequently reported lacking control over unwanted sex (17 % *vs* 8 %) and being physically forced or coerced to have sex (5 % *vs* 1 %). Knowledge gaps were also more common: 41 % of trans men were unaware of PrEP and 31 % did not know where to obtain an HIV test, compared with 18 % and 7 % of cis gbMSM. Similar patterns were observed in several of the other trans and non-binary groups, although estimates for the smaller groups should be interpreted with caution.

Among cisgender MSM, outness was strongly associated with several indicators of need. The mean SIHS score declined from 2.0 among participants who were out to none or few people to 0.7 among those who were out to all or almost all people. Over the same gradient, the proportion unaware of U=U declined from 35 % to 10 %, the proportion unaware of PrEP from 33 % to 14 %, and the proportion not knowing where to obtain an HIV test from 18 % to 4 %. Anticipated stigma in healthcare settings declined from 19 % to 6 %. These patterns indicate that participants who were less open about their attraction to men were also less well reached by important prevention information and experienced greater anticipated barriers to healthcare. Cis MSM who did not identify as gay or bisexual also showed greater knowledge and access needs than cis gbMSM, including lower awareness of PrEP and greater uncertainty about where to obtain HIV testing and mpox vaccination. This heterogeneous group includes participants with different sexual identities and levels of outness and community connection, and these differences should therefore not be interpreted as effects of sexual identity alone.

Stigma and social exclusion nevertheless extended beyond healthcare settings. Among cisgender MSM, 35 % had ever felt discriminated against by their family because of their sexuality, 22 % had ever been excluded from family activities and 27 % had ever felt rejected by friends. Overall, 23 % had ever been afraid to access healthcare services, 12 % had ever actively avoided healthcare and 18 % had ever received poor treatment in a healthcare setting.

Importantly, psychosocial stress was not confined to stigma and discrimination originating outside sexual and gender minority populations. Stressors within minority communities themselves were also common; among cisgender MSM, 38 % reported high levels of sex-related intra-minority stress, while 22 % reported high competition-related stress and 21 % high exclusion-related stress.

The pattern of needs among migrants varied substantially according to migration history. Participants who had migrated in order to live more openly as gay, bisexual, trans or queer generally showed fewer gaps in HIV prevention knowledge than participants born in Germany; for example, 14 % were unaware of PrEP compared with 20 %, and 4 % did not know where to obtain an HIV test compared with 8 %. At the same time, they more frequently reported concern about their own drug use (10 % *vs* 4 %) and lacking control over sexual safety (14 % *vs* 7 %). Refugees and asylum seekers showed high levels of unmet need across several indicators, although the small number of participants in this group means that these estimates should be interpreted with caution.

Participants who had sold sex on three or more occasions in the previous 12 months showed substantial needs relating to sexual autonomy, violence and drug use rather than consistently greater gaps in prevention knowledge. Around one in five (23 %) reported lacking control over unwanted sex, compared with 8 % of participants who had never sold sex. They also more frequently reported physically forced or coerced sex (11 % *vs* 0.8 %), homo- or transnegative violence (13 % *vs* 3 %) and concern about their own drug use (13 % *vs* 4 %).

A similarly distinct pattern was observed among participants who had injected drugs in the previous 12 months. More than one third (36 %) were concerned about their own drug use, compared with 4 % of those who had not injected drugs, and they more frequently reported lacking control over sexual safety (14 % *vs* 7 %) and physically forced or coerced sex (5 % *vs* 1 %). At the same time, their knowledge of HIV and STI prevention was generally better: 5 % were unaware of U=U compared with 17 % among those who had not injected drugs, and 10 % showed a PrEP knowledge gap compared with 27 %. These findings illustrate that greater sexual or drug-related exposure and substantial psychosocial or sexual-safety needs do not necessarily coincide with poorer prevention knowledge.

10.5 Interventions

EMIS considers sexual health interventions within a framework that moves from raising awareness, through vaccination and protective measures, to strategically targeted testing and treatment. Overall, the reach of many sexual health interventions in Germany was high, although substantial differences were observed between interventions and population groups.

The reach of sexual health information was comparatively high. In Germany, 87 % of participants had seen or heard specific HIV/STI information in the previous 12 months, compared with 83 % across the EEA. However, reach was lower among participants aged under 25 years (77 %) and in several trans and non-binary groups. Among cis MSM, reach also increased with outness, from 81 % among those who were out about their attraction to men with none or few people to 89 % among those who were out to all or almost all people.

The guiding principle of enabling people to make informed choices for the best sex with the least harm also underpins targeted HIV and STI prevention in Germany. The national campaign *Ich weiß, was ich tu* (*IWWIT*; 'I know what I'm doing'), launched by the German AIDS Federation (*Deutsche Aidshilfe*) in 2008 to promote sexual health among MSM, was known to 57 % of eligible EMIS-2024 participants. Awareness varied considerably by age and between population groups. Among participants aged 16–19 years, 15 % knew *IWWIT*, compared with 60 % among those aged 30–34 years. Awareness was also lower among participants who did not identify as gay or homosexual, were born outside Germany or completed the survey in a language other than German, and among trans men. These findings therefore show that the campaign reaches different parts of its target population to differing degrees.

Vaccination showed a mixed but generally favourable pattern. Germany was above the EEA average for hepatitis vaccination: 69 % had ever been offered hepatitis vaccination by a health service, while 69 % had completed hepatitis A and 68 % hepatitis B vaccination, compared with 59 %, 54 % and 57 %, respectively, across the EEA. Mpox vaccination was also more common in Germany, with 29 % having received at least one dose compared with 23 % across the EEA. HPV vaccination was a notable exception: only 10 % had received at least one dose, compared with 16 % across the EEA. Coverage was nevertheless substantially higher among participants aged under 25 years (22 %) than in older age groups, suggesting greater reach of HPV vaccination among younger cohorts.

The reach of protective interventions varied considerably between population groups. Overall, 33 % of participants without diagnosed HIV had spoken to a healthcare professional about PrEP, similar to the EEA level (32 %). However, this proportion ranged from 17 % among participants aged under 25 years and 16 % among those aged 65 years or older to 41 % among those aged 25–39 years. Among cis MSM, a particularly strong gradient was observed by outness: 14 % of those who were out about their attraction to men with none or few people had spoken to a healthcare professional about PrEP, compared with 41 % of those who were out to all or almost all people. Receipt of free condoms showed a similar, although less pronounced, pattern.

Current levels of HIV and STI testing in Germany were broadly similar to those observed across the EEA. In the country comparison, 60 % had received an HIV test in the previous 12 months, compared with 59 % across the EEA, while 54 % had received an STI test, compared with 55 %. The proportion of all participants reporting anal swabbing in the previous 12 months was somewhat higher in Germany (35 % *vs* 32 %).

More importantly, STI testing in Germany has intensified substantially across EMIS waves. The proportion reporting an STI test in the previous 12 months increased from 33 % in 2010 to 40 % in 2017 and 54 % in 2024. At the same time, anal swabbing became substantially more common among those tested, increasing from 21 % to 36 % and 65 %, respectively. As a result, the proportion of all participants reporting anal swabbing increased approximately fivefold, from 7 % in 2010 to 14 % in 2017 and 35 % in 2024. Although differences in sample composition and recruitment across EMIS waves need to be considered, this represents a substantial expansion of testing and, in particular, testing at anatomically relevant sites. If this increase is not entirely attributable to differences between the samples, it is likely to explain a large proportion of the recently observed increases in diagnosed gonorrhoea and chlamydia in Europe and the German federal state of Saxony. Increasing diagnosis rates should therefore not be equated with corresponding increases in infection incidence.

The HIV treatment cascade indicated very high levels of engagement with care. Among participants with diagnosed HIV, 99.8 % had been linked to care, 99.5 % remained in care and 99.1 % were receiving ART; around 95 % reported viral suppression. In the country comparison, viral suppression was higher in Germany than across the EEA overall (95.4 % vs 92.4 %). Treatment initiation has also accelerated substantially over time. Among participants diagnosed with HIV between 2021 and 2024, 88 % had initiated ART within one month of diagnosis and a further 9 % within one to six months.

Across intervention domains, outness emerged as one of the most consistent markers of reach among cis MSM. Greater outness was associated not only with greater exposure to targeted information but also with higher levels of hepatitis and mpox vaccination, receipt of free condoms, PrEP-related healthcare contact, HIV and STI testing, and anal swabbing. For example, STI testing increased from 33 % among those who were out about their attraction to men with none or few people to 62 % among those who were out to all or almost all people, while anal swabbing increased from 18 % to 41 %. Together with the greater knowledge and access needs observed among less out participants, these findings indicate that important sexual health interventions reach this group less effectively.

Other groups with substantial sexual health or psychosocial needs were not necessarily less well reached. Participants who had migrated in order to live more openly as gay, bisexual, trans or queer, participants who had sold sex on three or more occasions in the previous 12 months, participants with diagnosed HIV, and those who had injected drugs in the previous 12 months showed comparatively high uptake of several interventions. Among participants who had injected drugs, for example, 82 %

had been offered hepatitis vaccination, 54 % had received at least one mpox vaccination, 52 % of those without diagnosed HIV had spoken to a healthcare professional about PrEP, and 83 % had received an STI test in the previous 12 months. These patterns underline that greater exposure or need does not necessarily coincide with poorer reach of sexual health interventions.

10.6 Conclusions

EMIS-2024 provides a comprehensive and multidimensional picture of the sexual and mental health of MSM and trans and non-binary people in Germany. Overall, the findings show considerable achievements in HIV prevention and care alongside persistent inequalities in health, prevention needs and access to interventions. HIV care performs particularly well: almost all participants with diagnosed HIV were linked to and retained in care and receiving ART, and around 95 % reported viral suppression. Treatment initiation has also become substantially faster over time.

HIV prevention has changed fundamentally across EMIS waves. Consistent condom use with non-steady male partners has declined substantially, while PrEP and protection through an undetectable viral load have become increasingly important. This reflects a shift from predominantly condom-based prevention towards a combination of prevention strategies, particularly pharmacological HIV prevention. The comparatively high use of PrEP and high level of viral suppression indicate that these developments have been widely adopted in Germany.

STI testing has also changed substantially. The proportion reporting an STI test increased from 33 % in 2010 to 54 % in 2024, while the proportion of all participants reporting anal swabbing increased approximately fivefold, from 7 % to 35 %. This expansion of testing and anatomical coverage is likely to have substantially increased case detection. Trends in diagnosed gonorrhoea and chlamydia therefore need to be interpreted in the context of changing testing practices and should not be regarded as direct measures of changes in infection incidence.

Despite these achievements, important inequalities remain. Across the different indicators examined, few consistent geographical patterns were observed within Germany, and in particular there were no systematic East–West differences. Regional differences generally did not follow a consistent pattern; a more distinct East–West pattern was observed only for poppers use (see map on the cover page). Overall, the findings suggest that geographical differences within Germany play a smaller role in health risks, prevention needs, and the reach of interventions than differences between population groups.

Younger participants showed substantial gaps in prevention knowledge and were less well reached by several interventions. Among cis MSM, low outness was particularly consistently associated with greater knowledge and access needs and lower reach of prevention interventions. Several trans and non-binary groups also reported substantial mental health burdens, experiences of stigma and discrimination, and gaps in the reach of targeted information and healthcare interventions. These findings identify populations for whom existing approaches need to be adapted or strengthened.

At the same time, greater health needs or exposure did not necessarily coincide with poorer reach. Participants with diagnosed HIV, those who had migrated in order to live more openly as gay, bisexual, trans or queer, those who had sold sex repeatedly, and those reporting injecting drug use were comparatively well reached by several relevant interventions. Prevention strategies should therefore be based on the specific pattern of needs and intervention reach within each population rather than assuming that groups with greater exposure are necessarily underserved.

Vaccination provides a clear example of the need for differentiated priorities. Hepatitis A and B vaccination coverage in Germany compared favourably with the EEA overall, as did mpox vaccination. HPV vaccination remained substantially lower, however, and knowledge gaps concerning HPV and its vaccination were comparatively large. Improving HPV vaccination awareness and uptake should therefore be a particular priority.

The current German recommendation to complete catch-up HPV vaccination before the age of 18 may warrant reconsideration for MSM. EMIS-2024 showed that first intercourse with men frequently occurred after the age covered by the current recommendation: only 29 % of participants had had anal intercourse with a man by age 17, and fewer than half (48 %) by age 19. Although these data do not establish previous exposure to individual HPV types, they indicate that many MSM may remain potential beneficiaries of HPV vaccination beyond the currently recommended age for catch-up vaccination. Extending the recommendation to older MSM, or otherwise facilitating vaccination based on individual risk and potential benefit, should therefore be considered.

Effective sexual health promotion requires both accessible services and attention to the social conditions in which they are used. Targeted information, HIV and STI testing, vaccination, PrEP services, mental health and psychosocial support, harm-reduction services and trans-competent healthcare need to be responsive to the populations that remain less well reached. Medical practices, community-based organisations, checkpoints and public health services can play complementary roles in providing and linking these interventions. At the same time, reducing stigma, discrimination and violence in healthcare, families, public spaces and other social settings remains an important component of improving sexual and mental health.

These priorities are closely aligned with Germany's national *BIS 2030* strategy (*Bedarfsorientiert, Integriert, Sektorübergreifend* – needs-oriented, integrated and cross-sectoral), which provides the national framework for the prevention and control of HIV, hepatitis B and C and other STIs. EMIS-2024 provides evidence both on areas in which these approaches appear to be working well and on populations and interventions for which further improvement is needed.

Beyond HIV and STI prevention, the findings concerning mental health, stigma, discrimination and the healthcare needs of trans and non-binary people also relate to broader policies addressing sexual and gender diversity. The *Queer leben* action plan adopted by the previous Federal Government in 2022 included health and community-based counselling and support among its areas of action. Although it is not being

continued by the current Federal Government as a cross-ministerial action plan, several of the needs addressed by it remain evident in the EMIS-2024 findings.

EMIS-2024 provides a rich evidence base for further analyses of specific populations and health needs, cross-country differences and changes across EMIS waves. Its breadth makes it possible to examine how sexual behaviour, prevention strategies, substance use, social and minority stressors, healthcare access and health outcomes relate to one another, and to identify where existing prevention and healthcare approaches are working well and where further adaptation is needed.