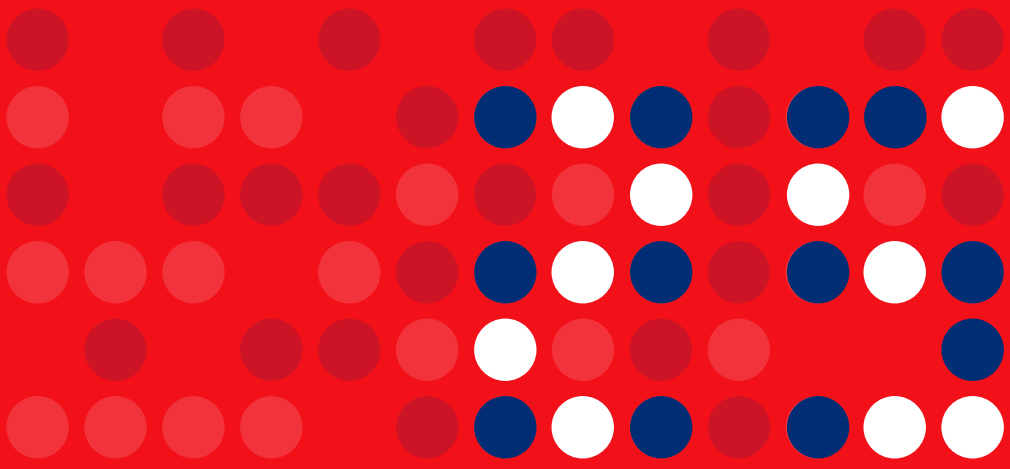
Human Immunodeficiency Virus (HIV)
Infection in the Netherlands

HIV Monitoring

HIV Monitoring Report 2025

Chapter 1: HIV in the Netherlands



1. HIV in the Netherlands

Ard van Sighem, Daniela Bezemer, Casper Rokx, Eline Op de Coul, Marc van der Valk

Introduction

By May 2025, stichting hiv monitoring (SHM) had registered 36,209 individuals with HIV. The vast majority of these (35,181, or 97.2%) agreed to the collection of further clinical data once registered, whereas 1,028 (2.8%) declined to take part. Among those whose clinical data had been collected, most (33,760) were registered with one of the HIV treatment centres in the Netherlands (*Figure 1.1*).

Of the 33,760 individuals registered in the Netherlands, the vast majority were diagnosed with HIV-1 (32,544, or 96%). Only 102 people were diagnosed with HIV-2, while 62 individuals were found to carry antibodies against both HIV-1 and HIV-2. Data is limited for individuals registered before the start of the AIDS Therapy Evaluation in the Netherlands (ATHENA) study in 1998, which accounts for the absence of serological information for most of the remaining 1,052.

The first part of this chapter focuses on the characteristics of people with HIV-1 at the time of diagnosis, and individuals with HIV-1 still in care at the end of 2024. This is followed by a brief overview of trans people with HIV-1. The chapter concludes with an outline of the population with an HIV-2 infection.

***Box 1.1:** Infection, diagnosis, entry into care, and registration.*

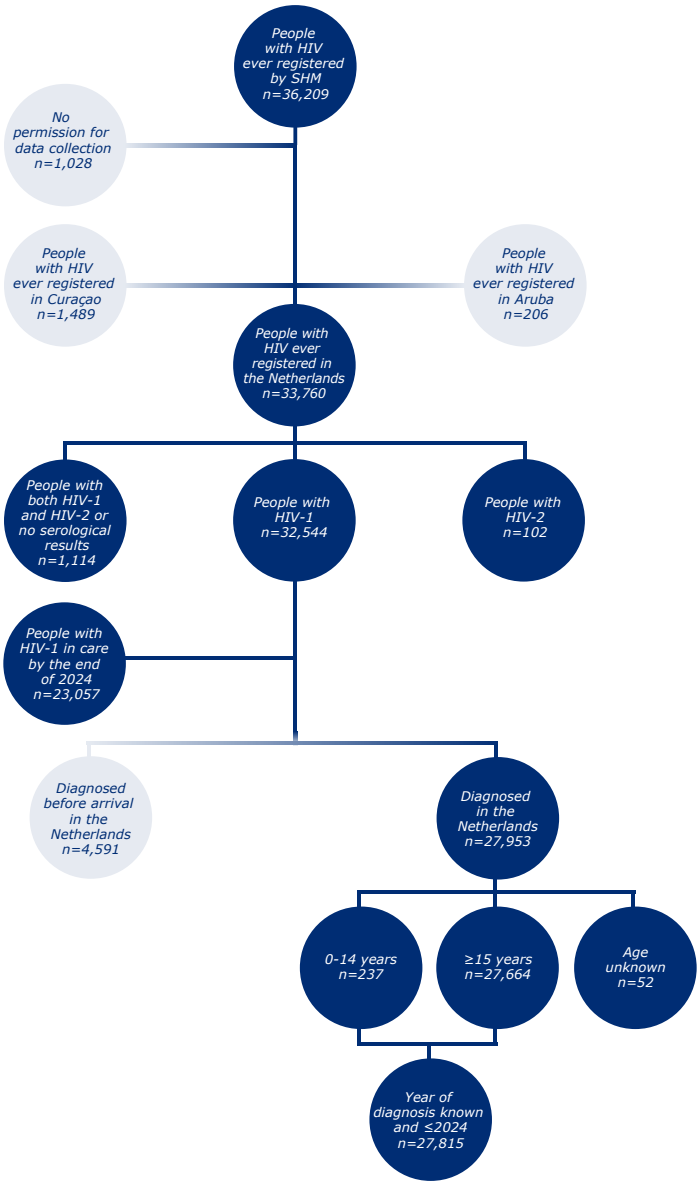
HIV infection	The moment an individual acquires HIV. The time of infection is often unknown.
HIV diagnosis	The moment an HIV infection in an individual is confirmed by blood tests. The time of diagnosis can be weeks, months, or years after infection.
Entry into care	The moment an individual with HIV first receives care at an HIV treatment centre. This usually takes place within a few weeks of HIV diagnosis.
Registration	The moment an HIV physician or nurse notifies SHM of an individual with HIV (in care) and the individual's details are recorded in the SHM database. Registration usually takes place within a few months of entering care, but can take longer. Demographic and clinical data from the time of HIV diagnosis can only be collected after registration.

HIV-1

Individuals with HIV-1

Of the 32,544 individuals in the Netherlands who were ever diagnosed with HIV-1, 4,591 (14%) were born abroad and had a documented HIV diagnosis prior to arrival in the Netherlands (*Figure 1.1*). These 4,591 individuals have been excluded from the analyses on newly diagnosed individuals later in this section. The remaining 27,953 individuals were newly diagnosed while living in the Netherlands, or their date of arrival in the country has not yet been recorded in the SHM database.

***Figure 1.1:** Overview of the population with HIV registered by stichting hiv monitoring (SHM).*



Individuals diagnosed before arriving in the Netherlands

Of the 4,591 individuals who were born abroad and had a documented HIV-1 diagnosis before arriving in the Netherlands, 1,337 (29%) arrived in the Netherlands in 2022-2024, including 302 in 2024 (*Figure 1.2A*). So far, SHM has registered 641 people who arrived in 2022, which is an increase of 99% compared with the average annual number of 322 migrants in the other years in the period 2018-2024. Information on diagnosis abroad and date of arrival in the Netherlands has been recorded for all newly registered individuals since early 2018, but is not yet available for everyone included in the SHM database.

Of the 1,337 people who arrived in 2022-2024 with a documented pre-arrival HIV diagnosis, 659 (49%) were men who have sex with men (MSM), 287 (21%) were other men, 343 (26%) were women, and 48 (4%) were trans people. The median age at the time of arrival was 37 years (interquartile range [IQR] 30-44); 122 (9%) were below 25 years of age, including 12 children under the age of 15, while 134 (10%) were 50 years of age or older. In terms of geographic origins, migrants arrived from:

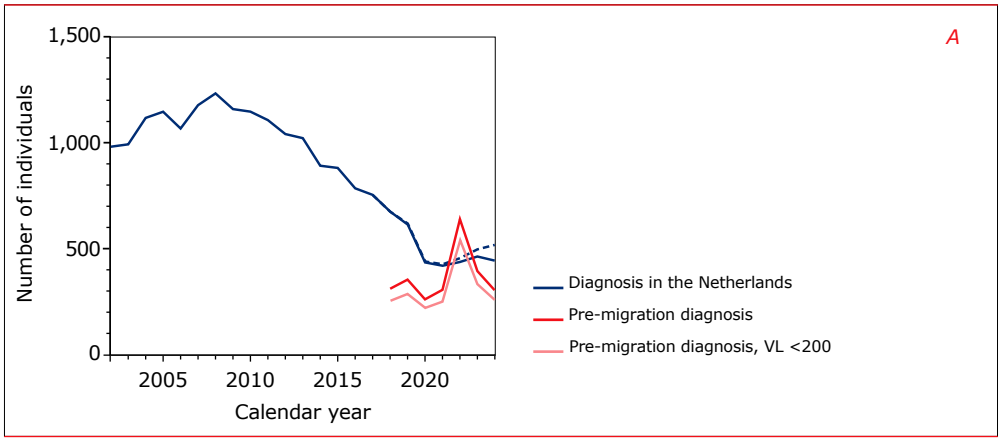
- eastern Europe (429, 32%);
- South America (247, 18%);
- sub-Saharan Africa (169, 13%);
- central Europe (111, 8%);
- western Europe (111, 8%);
- Middle East and north Africa (74, 6%);
- Caribbean (73, 5%);
- south and southeast Asia (62, 5%); and
- other regions (61, 5%).

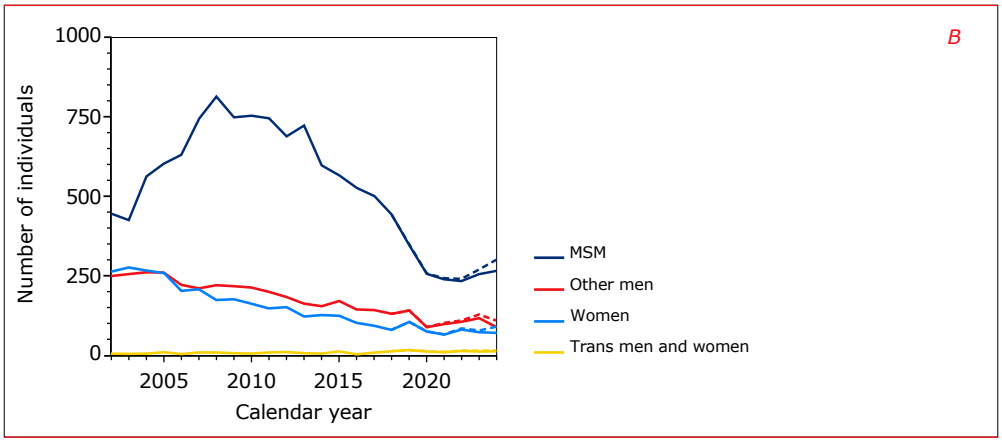
The most commonly reported countries of origin (from where at least 30 individuals with a known HIV diagnosis arrived in the Netherlands) were Ukraine (337, 25%), Brazil (80, 6%), Colombia (63, 5%), Russian Federation (57, 4%), Poland (50, 4%), Turkey (39, 3%), and Curaçao (35, 3%). Individuals from Ukraine and the Russian Federation accounted for 260 (41%) and 38 (6%), respectively, of the 641 people arriving in 2022; these numbers decreased to 24 (8%) and 7 (2%), respectively, in 2024.

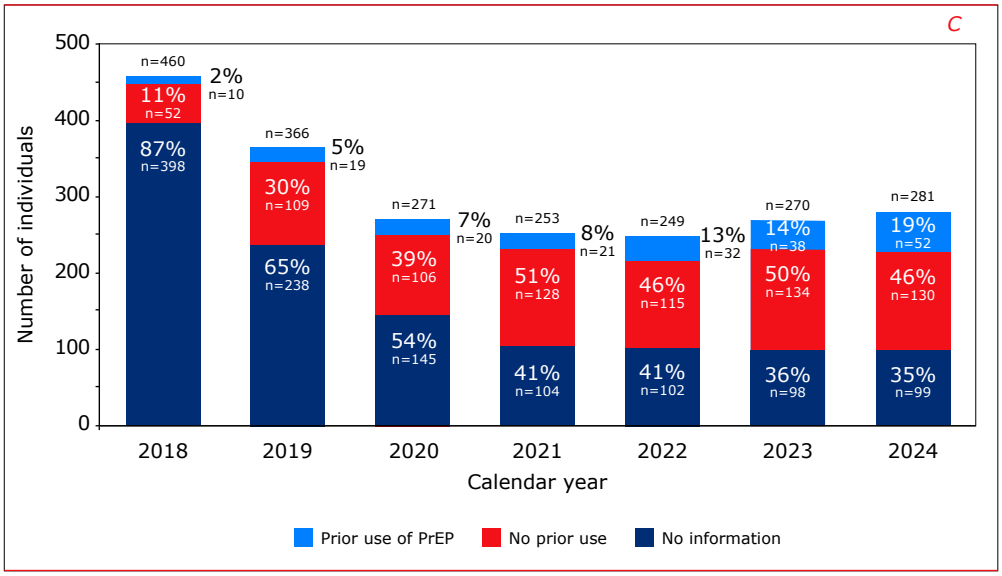
The majority (1,209, or 90%) of the 1,337 people had already started antiretroviral therapy (ART) before arriving in the Netherlands, while 40 (3%) started ART in the Netherlands; for 88 (7%) migrants there was no unequivocal evidence whether they started ART before or after arrival due to uncertainty in date of arrival and/or date of start ART. By the time the 1,337 individuals entered HIV care in

the Netherlands, their median CD4 counts were 660 (IQR 457-900) cells/mm^3, while 1,163 individuals had HIV RNA levels below 1,000 copies/ml (88% of the 1,326 who had an available viral load measurement), including 1,132 individuals with RNA levels below 200 copies/ml (85% of the 1,326 with a viral load measurement).

Figure 1.2: *(A) Annual number of individuals newly diagnosed with HIV-1 in the Netherlands or while living in the Netherlands (by year of diagnosis) or with documented diagnosis abroad before moving to the Netherlands (by year of arrival), (B) annual number of individuals newly diagnosed with HIV-1 in the Netherlands and aged 15 years or older at the time of diagnosis, according to key population, and (C) annual number of new diagnoses in men who have sex with men (MSM) and trans men and women stratified by whether or not prior use of PrEP was reported. In 2024, MSM accounted for 60% of the annual number of new diagnoses, other men for 20%, women for 16%, and trans men and women for 3%. Dashed lines indicate the number of diagnoses after adjusting for a delay in notification to SHM. VL <200: individuals with documented diagnosis abroad before moving to the Netherlands who already had a suppressed viral load below 200 copies/ml by the time they entered HIV care in the Netherlands. NB: individuals diagnosed in the Netherlands may include people born abroad for whom the date of arrival has not yet been recorded.*







Legend: *MSM = men who have sex with men; VL = viral load; PrEP = pre-exposure prophylaxis.*

Individuals newly diagnosed in the Netherlands

Of the 27,953 individuals who were living in the Netherlands at the time of their HIV-1 diagnosis, or whose date of arrival in the country had not yet been recorded in the SHM database, 237 (1%) were diagnosed as children under 15 years of age: they are described in more detail in *Chapter 8*. Among the 27,815 individuals for whom the date or period of diagnosis was known, 27,580 (99%) were diagnosed at 15 years of age or older. Of these 27,580 individuals, 16,442 (60%) were men who have sex with men, 5,889 (21%) were other men, 4,954 (18%) were women, and 295 (1%) were trans men and women (*Table 1.1*).

Table 1.1: Annual number of HIV-1 diagnoses among who men who have sex with men (MSM), other men, women, trans men and women, and children below 15 years of age. Numbers in the second column for each group are adjusted to reflect a delay in notification to SHM and due to rounding may not add up to the total number reported in the last column.

Year of diagnosis	MSM		Other men		Women		Trans men and women		<15 years of age		Total	
≤1995	2,095		719		561		15		53		3,443	
1996	367		159		100		3		10		639	
1997	421		188		138		5		11		763	
1998	317		155		126		1		11		610	
1999	332		159		150		5		13		659	
2000	355		205		201		5		15		781	
2001	425		230		239		7		17		918	
2002	447		250		265		6		15		983	
2003	427		257		278		10		21		993	
2004	563		263		269		9		13		1,117	
2005	604		262		259		10		11		1,146	
2006	631		223		204		6		4		1,068	
2007	744		213		208		9		4		1,178	
2008	814		223		175		12		9		1,233	
2009	749		219		177		9		6		1,160	
2010	753		214		164		8		8		1,147	
2011	746		201		149		10		1		1,107	
2012	688		186		153		12		3		1,042	
2013	722		164		124		10		1		1,021	
2014	599		156		128		7		2		892	
2015	567		172		126		15		1		881	
2016	528		146		104		5		2		785	
2017	502	502	144	144	95	95	12	12	1	1	754	754
2018	444	444	132	132	82	82	16	16	1	1	675	675
2019	348	350	143	144	107	107	18	18	1	1	617	620
2020	257	260	90	91	76	77	14	14	0	0	437	442
2021	240	245	99	102	67	69	13	13	1	1	420	430
2022	234	242	107	112	82	86	15	16	0	0	438	456
2023	256	271	119	130	75	82	14	15	0	0	464	498
2024	267	301	91	111	72	88	14	17	0	0	444	517
Total	**16,442**	**16,508**	**5,889**	**5,930**	**4,954**	**4,985**	**295**	**301**	**235**	**235**	**27,815**	**27,960**

Legend: MSM = men who have sex with men.

Number of new diagnoses

The annual registered number of new HIV diagnoses steadily fell from approximately 1,200 in 2008 to 437 in 2020 (*Table 1.1*; *Figure 1.2A*). Thereafter, the number of diagnoses remained around the same level and, so far, 444 new HIV diagnoses have been registered for 2024. However, taking into account the backlog[a] in registration of HIV cases, the projected number of new HIV diagnoses in 2024 after adjustment may be as high as 517.

In MSM, the annual number of diagnoses rose to 814 in 2008, gradually fell to 234 in 2022, and was 267 (adjusted for backlog in registration, 300) in 2024 (*Figure 1.2B*). Among other men and among women, the annual number of new diagnoses has decreased to 91 (adjusted for backlog in registration, 111) and 72 (adjusted for backlog in registration, 88), respectively, in 2024. Finally, the number of new diagnoses among trans men and women was approximately 15 in most recent calendar years.

SHM collects data on prior use of pre-exposure prophylaxis (PrEP) in all individuals newly diagnosed with HIV since 2018 (see for more details *Chapter 2*). Among MSM and trans individuals, who are the primary target groups of the national PrEP programme, the proportion of people reporting prior use of PrEP has steadily increased over calendar time (*Figure 1.2C*). In 2024, 52 (19%) of the 281 observed new diagnoses in MSM and trans individuals were in people who reported prior use of PrEP, while 130 (46%) people reported never to have used PrEP. For 99 (35%) individuals, information on prior use of PrEP was not available.

Number of newly acquired infections

The observed changes over time in the number of HIV diagnoses are, in part, a consequence of changes in the annual number of newly acquired HIV infections[1]. The estimated number of infections in people living in the Netherlands at the time they acquired HIV decreased from 910 (95% confidence interval [CI] 875-945) in 2010 to 300 (275-320) in 2020. Thereafter, the number of infections appeared to rise, albeit with considerable uncertainty, to 440 (365-500) in 2024 (*Figure 1.3A*). During the same period, the number of newly acquired HIV infections among MSM fell from 710 (680-745) in 2010 to 175 (160-190), and was 310 (250-365) in 2024 (*Figure 1.3B*).

In other men and in women, the estimated numbers of newly acquired infections in 2010 were 115 (95% CI 105-125) and 80 (75-90), respectively. By 2024 this had dropped in both groups, reaching 80 (55-110) in other men and 45 (25-65) in women (*Figure 1.3C* and *1.3D*).

a As it may take some time before people with HIV are registered in the SHM database by their treating physician, there is a backlog for the most recent calendar years. Based on past trends in registration, adjustment factors for 2017-2024 were estimated using the European Centre for Disease Prevention and Control (ECDC) HIV Platform Tool.

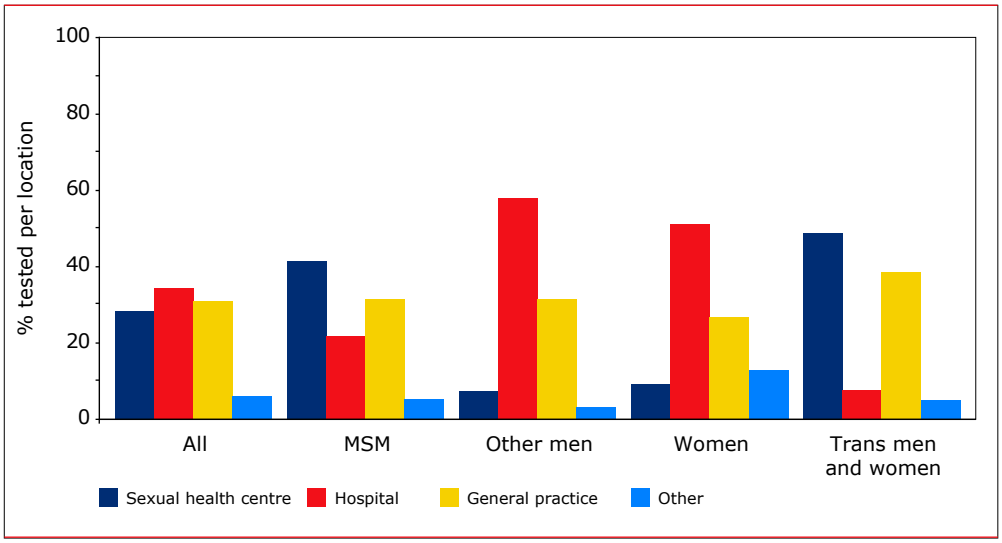
Figure 1.3: *Observed annual number of HIV diagnoses (red) and estimated annual number of newly acquired HIV infections (blue) in: the total population (A), in men who have sex with men (B), in other men (C), in women (D), according to the European Centre for Disease Prevention and Control (ECDC) HIV Platform Tool[1]. The red dashed lines represent the number of diagnoses after adjusting for the delay in notification to SHM, while the blue bands are the uncertainty bounds. The blue dashed lines indicate that estimates in 2021 and later are still uncertain, as these are quite sensitive to the observed number of diagnoses in those years. Estimates are based on adjusted numbers of diagnoses excluding migrants with a documented pre-arrival diagnosis and other migrants who were likely to have acquired their HIV infection before arrival in the Netherlands.*

Legend: *MSM = men who have sex with men.*

Setting in which HIV is diagnosed

Information on the setting in which HIV was diagnosed in the Netherlands was available for 1,273 (95%) of the 1,346 people diagnosed in 2022-2024, while 58 (4%) individuals were known to have been diagnosed abroad. Overall, 362 (28%) of these 1,273 individuals received their first HIV-positive test result at a sexual health centre, 439 (34%) at a hospital, 395 (31%) at a general practice, and 77 (6%) at another location (*Figure 1.4*). Among the 362 individuals diagnosed at sexual health centres, 302 (83%) were MSM, 21 (6%) were other men, 20 (5%) were women, and 19 (5%) were trans men and women, which was similar to the proportions directly reported by sexual health centres for 2024[2]. Among the 459 individuals diagnosed in a hospital, 159 (36%) were MSM, 167 (38%) were other men, 110 (25%) were women, and 3 (1%) were trans men and women, while among the 395 people diagnosed at a general practice 231 (58%) were MSM, 91 (23%) were other men, 58 (15%) were women, and 15 (8%) were trans men and women.

Figure 1.4: *Proportion of individuals diagnosed in 2022–2024, stratified by location of testing and key population. Location of testing in the Netherlands is known for 1,273 (95%) of 1,346 individuals diagnosed, of whom 730 (57%) MSM, 288 (23%) other men, 216 (17%) women, and 39 (3%) trans men and women, while 58 (4%) individuals were diagnosed abroad.*



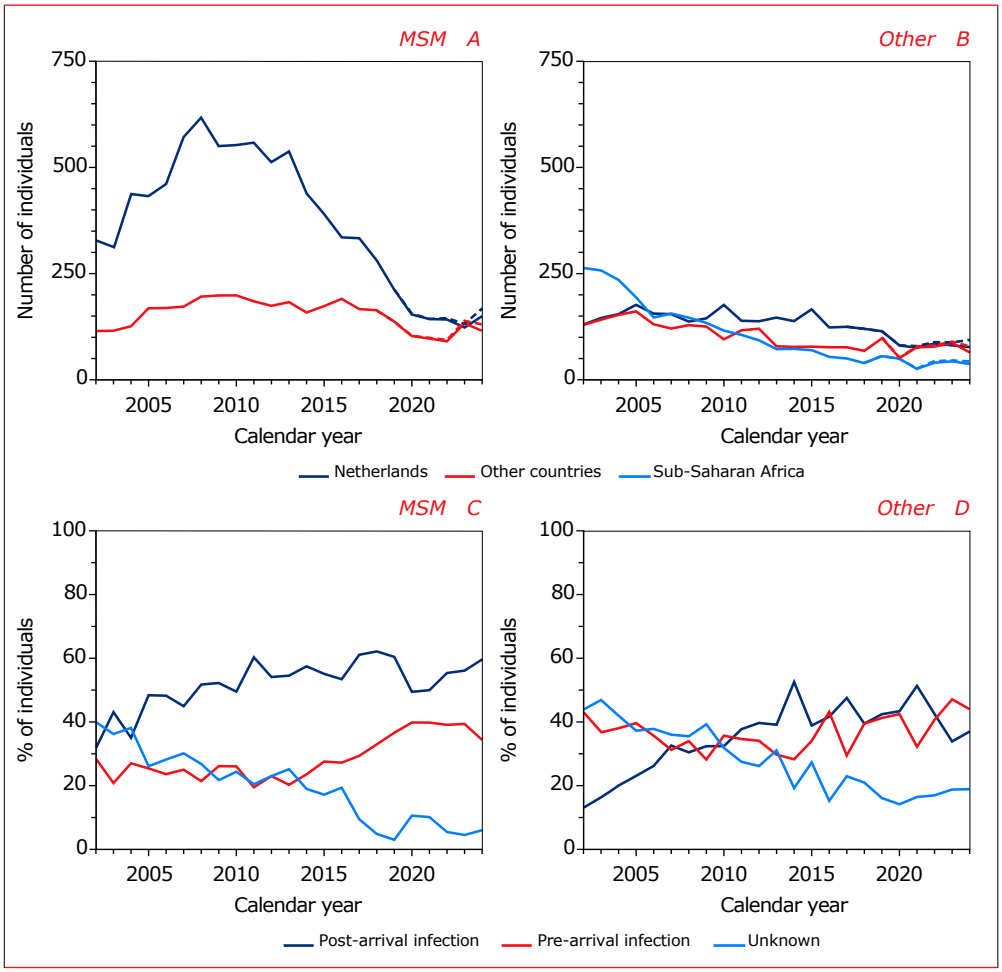
Legend: *MSM = men who have sex with men.*

Geographical region of origin

Of the 19,897 people diagnosed with HIV-1 in 2002-2024 at 15 years of age or older, 11,579 (58%) were born in the Netherlands and 8,318 (42%) outside the Netherlands. Of the 12,130 MSM, 71% originated from the Netherlands, 10% from other European countries, 6% from South America, 4% from the Caribbean, and 3% from south and southeast Asia (*Figure 1.5A*). In recent years (i.e. for diagnoses in 2022-2024), the proportion of MSM of Dutch origin was 55%, down from 72% before 2022, while the proportion of MSM from central Europe was 11%, up from 3% before 2022.

Among the 7,767 individuals other than MSM diagnosed in 2002-2024, 38% originated from the Netherlands, while 31% originated from sub-Saharan Africa, 9% from South America, 8% from other European countries, 5% from the Caribbean, and 4% from south and southeast Asia (*Figure 1.5B*). Between 2022 and 2024, 41% were of Dutch origin (38% before 2022), and 20% originated from sub-Saharan Africa (32% before 2022), while 8% were from central Europe (3% before 2022), and 8% from Eastern Europe (2% before 2022).

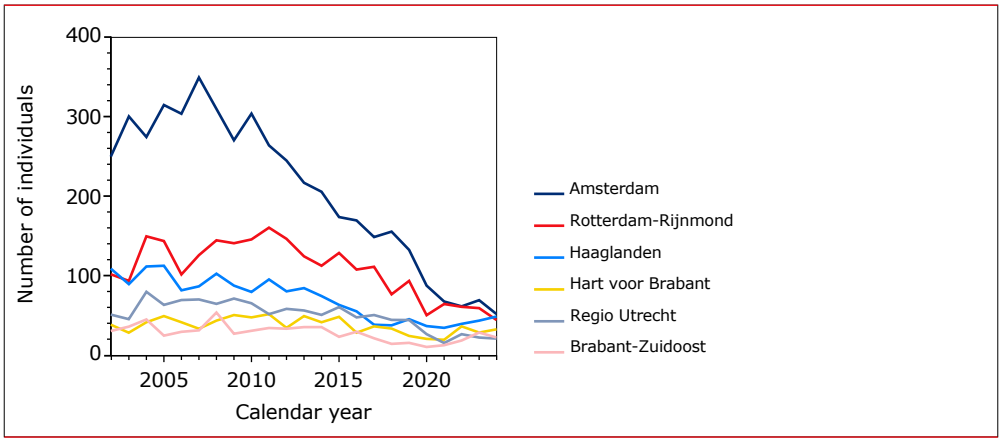
Figure 1.5: *Annual number of diagnoses by region of origin and, for individuals born outside the Netherlands, proportion of pre- and post-arrival infections among: (A, C) men who have sex with men (MSM), and (B, D) other people aged 15 years or older at the time of diagnosis. Of the 757 MSM diagnosed in 2022–2024, 417 (55%) originated from the Netherlands, 140 (18%) from other European countries, 59 (8%) from South America, 38 (5%) from the Caribbean, and 31 (4%) from south and southeast Asia. Of the other 589 people diagnosed in 2022–2024, 244 (41%) originated from the Netherlands, 107 (18%) from other European countries, 119 (20%) from sub-Saharan Africa, 52 (9%) from South America, 18 (3%) from the Caribbean, and 20 (3%) from south and southeast Asia.*



Legend: *MSM = men who have sex with men.*

Overall, 14% of individuals newly diagnosed in 2022-2024 were living in the Amsterdam public health service (PHS) region at the time of diagnosis, and 13% were living in the Rotterdam- Rijnmond PHS region (*Figure 1.6*). Of the people of Dutch origin diagnosed in these years, 9% and 13%, respectively, were living in each of the above PHS regions, while these proportions were 19% and 12%, respectively, for the people born outside the Netherlands. Among MSM, 16% were living in Amsterdam at the time of diagnosis and 13% were living in Rotterdam-Rijnmond, while among other individuals, 12% were living in Amsterdam and 13% in Rotterdam-Rijnmond. Other PHS regions with at least 5% of the new diagnoses in 2022-2024 were Haaglanden (10%, including Den Haag), Hart voor Brabant (8%, including Den Bosch and Tilburg), Utrecht (5%), and Brabant-Zuidoost (5%, including Eindhoven).

Figure 1.6: *Annual number of diagnoses by public health service (PHS) region. Only PHS regions with at least 5% of the new diagnoses in 2022–2024 are shown.*



HIV infections acquired before arrival in the Netherlands

Among the 1,346 individuals with an HIV diagnosis in the Netherlands in 2022-2024, 685 (51%) were born outside the Netherlands, of whom 340 MSM and 345 other men, women, or trans individuals. Overall, 280 (41%) most likely acquired their HIV infection before arrival in the Netherlands and 324 (47%) after arrival. The likelihood of pre- or post-migration infection was mainly based on whether an individual was diagnosed with a recent HIV infection, on the CD4 cell count at the time of diagnosis, on the time of arrival in the Netherlands, and on the rate of decline in CD4 cell counts after acquiring HIV[3,4]. For 81 (12%) individuals, there was not enough information to determine this likelihood.

In MSM born outside the Netherlands, the proportion with likely pre-migration infection appears to have increased since 2010 (*Figure 1.5C*). Of the 340 MSM born outside the Netherlands and diagnosed in 2022-2024, 128 (38%) most likely acquired their HIV infection before moving to the Netherlands, 194 (57%) most likely acquired their infection after arrival, while for 18 (5%) the likelihood of pre- or post-migration could not be determined. Among individuals other than MSM, there were no changes over time since 2010 and in 2022-2024, 152 (44%) most likely acquired HIV before arrival in the Netherlands, 130 (38%) after arrival, and for 63 (18%) the likelihood could not be determined (*Figure 1.5D*).

Age at time of HIV diagnosis

The age at which individuals are diagnosed with HIV has been slowly increasing over time. In 2002, the median age at the time of diagnosis was 36 years (interquartile range [IQR] 29-43); in 2024, it was 38 years (IQR 29-51). In 2002-2024, 20% of individuals who received an HIV diagnosis were aged 50 years or older; in 2024, 27% were 50 years or older (*Figure 1.7*).

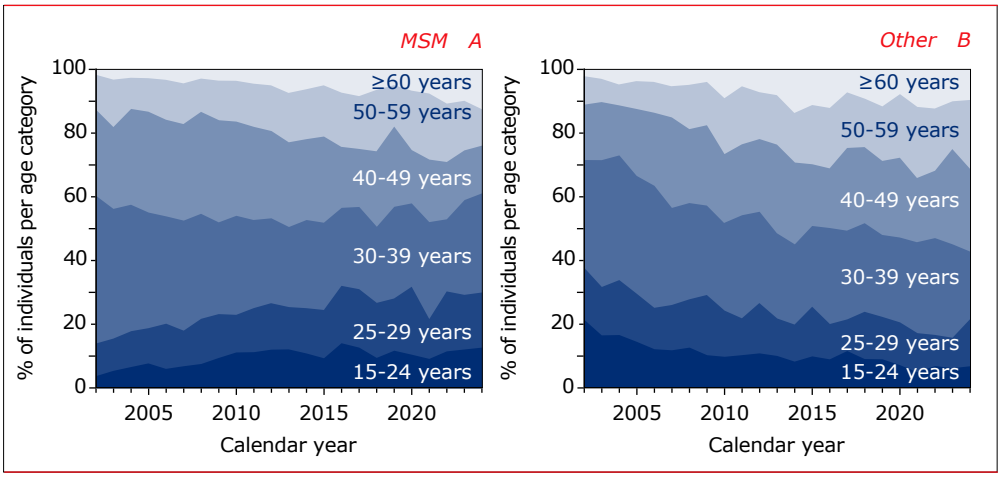
It is worth noting that although the median age at diagnosis in MSM (39 years) did not change between 2002 and 2024, both the proportion diagnosed below 30 years of age and the proportion diagnosed above 50 years of age increased during this period. In 2002, 14% of MSM were younger than 30 years at the time of their diagnosis while 13% were 50 years of age or older; these proportions were 30% and 24%, respectively, in 2024. The increases in the proportions do, however, not reflect increases in the annual number of HIV diagnoses but rather a steeper decrease in diagnoses in the group between 30 and 50 years of age. Between 2010 and 2024, the annual number of diagnoses among MSM 30 to 50 years of age decreased by 73%, from 457 to 123. During the same period, the number of diagnoses decreased from 173 to 80, or 54%, in MSM younger than 30 years, and from 123 to 64, or 48%, in MSM 50 years of age or older.

There were some age differences between MSM, other men, and women diagnosed in 2022-2024. MSM born in the Netherlands were diagnosed at a median age of 44 years (IQR 31-56), while MSM of foreign origin were diagnosed at a younger median age of 33 years (27-40). Men other than MSM were 44 years (35-54) of age at the time diagnosis, which was somewhat older than the median age of 41 years (31-51) for women. In 2024, 24% of MSM, 32% of other men, and 35% of women were 50 years or older at the time of diagnosis.

HIV diagnoses in people under 25 years of age

Between 2002 and 2024, 2,087 (10%) individuals who received an HIV diagnosis at 15 years of age or older were under 25 years of age (*Figure 1.7*). In 2024, 46 people under 25 years of age were diagnosed with HIV, which amounted to 10% of all people diagnosed with HIV that year. The number of individuals under 25 years of age diagnosed in 2024 was 34 (13%) among MSM, 2 (2%) among other men, and 9 (13%) among women. Of the 46 young people, 24 (52%) were born in the Netherlands, while five originated from South America, five from central Europe, four from sub-Saharan Africa, and eight from elsewhere.

Figure 1.7: *Age distribution at the time of diagnosis among: (A) men who have sex with men (MSM), and (B) other men and women with HIV-1. In 2002-2024, the proportion of individuals between 15 and 29 years of age changed from 14% to 30% for MSM, and from 38% to 21% for other individuals. During the same period, the proportion of MSM aged 50 years or older at the time of diagnosis changed from 13% to 24%, while these proportions were 11% and 31% for other individuals.*

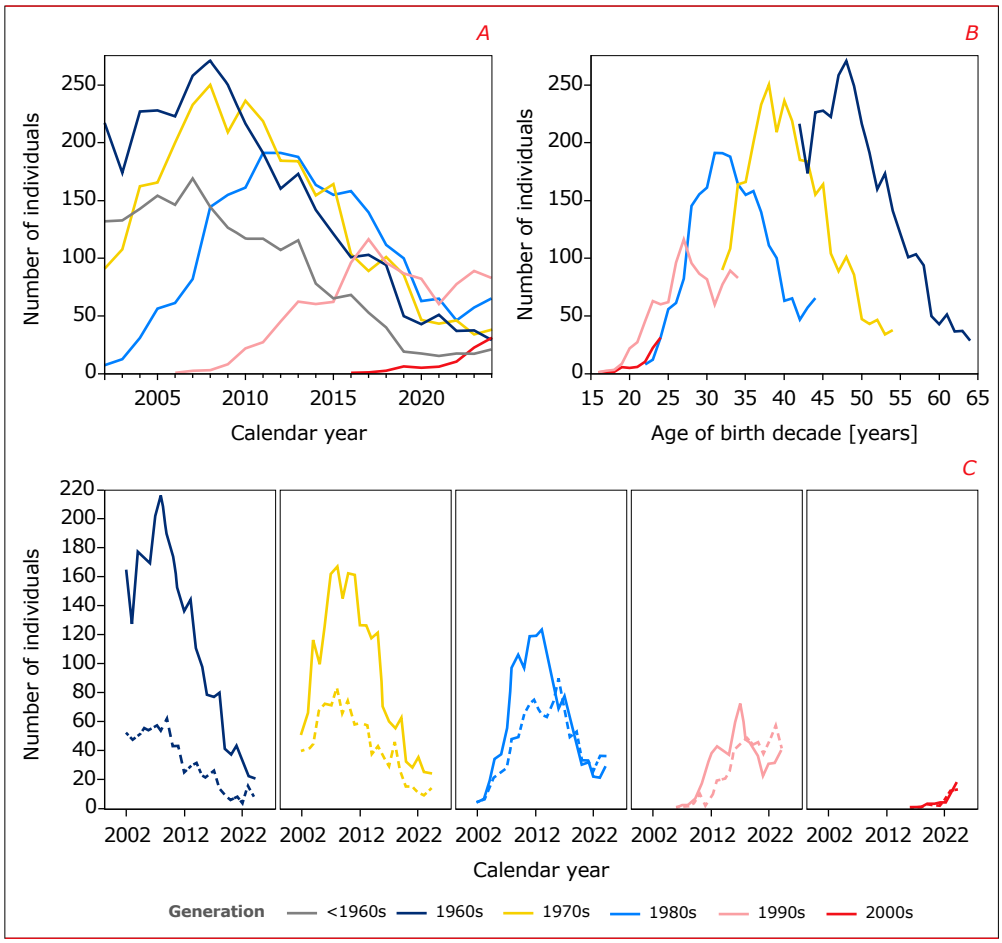


Legend: *MSM = men who have sex with men.*

HIV diagnoses in MSM by birth decades

Over time, MSM from younger generations became involved in HIV transmission although successive generations had lower maximum annual numbers that were reached at younger ages (*Figure 1.8A* and *1.8B*). Both figures also show that in the 1990s and 1980s birth cohorts, after years of decreases, the number of diagnoses is increasing. Separating the curves by region of origin shows that the number of diagnoses among MSM born in the Netherlands and abroad currently show a similar pattern (*Figure 1.8C*).

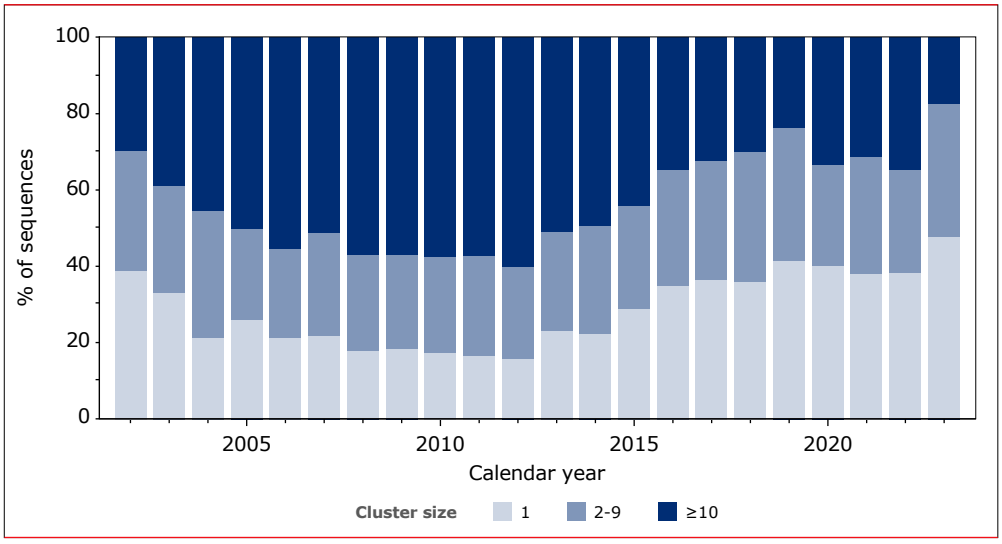
Figure 1.8: *(A) Annual number of new HIV diagnoses among men who have sex with men by birth decade, (B) annual number of diagnoses by age of each birth decade, (C) annual number of HIV diagnoses by birth decade stratified by being born in the Netherlands (solid lines) or abroad (dashed lines). Age of a birth decade is defined as the age of individuals born in the first year of the decade.*



Transmission clusters of MSM

We performed a cluster analysis on the polymerase sequences used for resistance screening that were available for 51% of MSM (see also *Chapter 5*). Clusters were defined as large if they included 10 or more sequences and as small if they included 2 to 9 sequences, and size 1 when sequences were not part of a cluster. The size of clusters indicates the level of onward national transmission and the number clusters of size 1 indicates the level of new or external introductions from abroad. Since 2010, there has been a significant decrease in sequences that were part of large clusters (*Figure 1.9*). Together with the decrease in the annual number of diagnoses up to 2020 (*Figure 1.2B*) this confirms less onwards transmission in the Netherlands. In line with this finding the total number of observed large clusters decreased by 50% from 109 in 2010 to 54 in 2020. Two new large clusters were observed since 2019. In addition, there were still many sequences in small clusters and clusters of size 1 indicating ongoing new introductions from abroad.

Figure 1.9: *Proportion of newly diagnosed men who have sex with men who are part of a large cluster (10 or more sequences), a small cluster (2 to 9 sequences), or a cluster of size 1.*



Entry into care

Of the 1,273 individuals diagnosed with HIV in 2022-2024 for whom the diagnosis setting was known, 59% entered HIV care within a week of diagnosis, 83% within two weeks, 95% within four weeks, and 98% within six weeks. For individuals diagnosed in 2024, these proportions were 60%, 83%, 95%, and 99%, respectively. The proportion in care within four weeks was 95% for individuals who received their first HIV-positive test at a sexual health centre, and similar for those who tested HIV-positive in a hospital (97%), at a general practice (94%), or at other locations (90%). The proportion in care within four weeks did neither differ between MSM, other men, and women, nor by age at the time of diagnosis. The proportion in care within four weeks of diagnosis was larger among individuals born in the Netherlands (97%) than among those born abroad (94%).

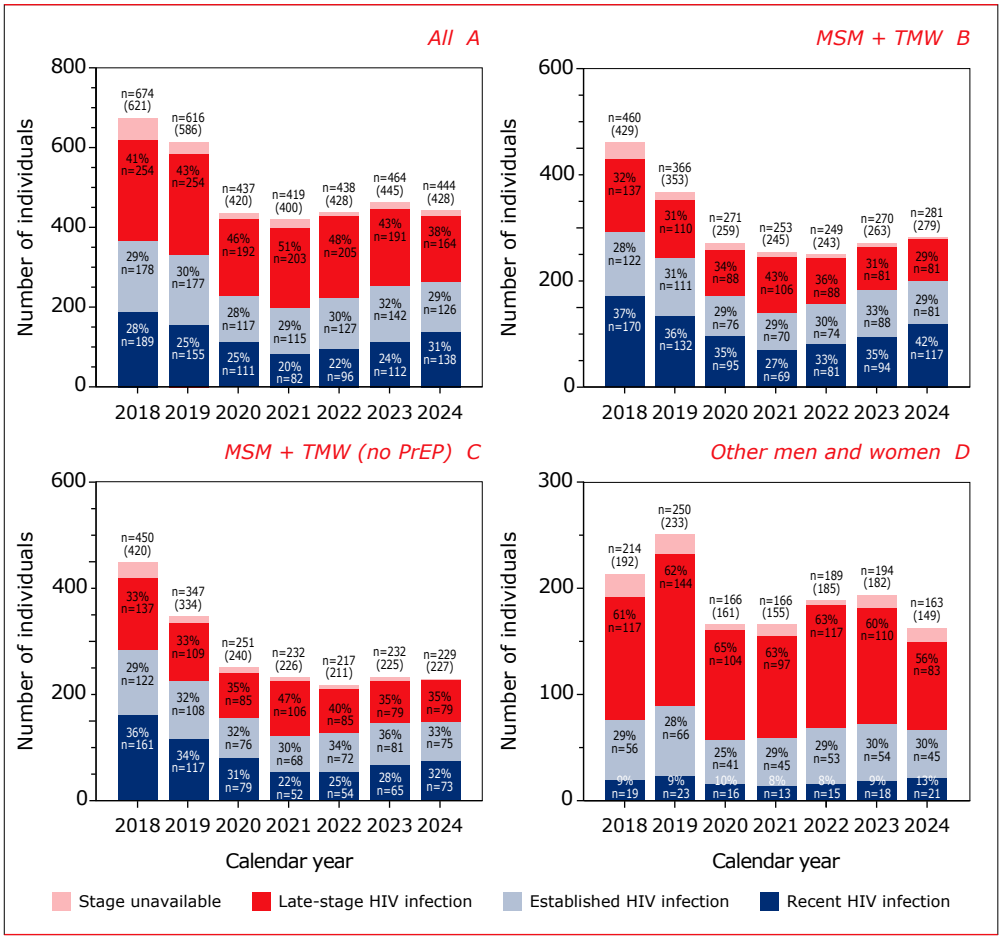
Stage at time of HIV diagnosis

Individuals newly diagnosed with HIV were classified into the following four mutually exclusive stages:

- recent HIV infection: evidence of having acquired HIV in the 12 months prior to diagnosis, based on having (i) a negative or indeterminate blot at the time of diagnosis, or (ii) a last negative test at most 12 months prior to diagnosis.
- established HIV infection: diagnosed with a CD4 count above 350 cells/mm^3, no AIDS-defining event at the time of diagnosis, and no evidence of having acquired HIV in the previous 12 months.
- late-stage HIV infection: diagnosed with a CD4 count below 350 cells/mm^3 or an AIDS-defining event regardless of CD4 count, and no evidence of having acquired HIV in the previous 12 months[5].
- stage unavailable: no evidence of having acquired HIV in the previous 12 months, no AIDS-defining event at the time of diagnosis, and no CD4 count available at the time of diagnosis.

The proportion of individuals diagnosed with recent HIV infection decreased from 28% in 2018 to 20% in 2021 and then increased to 31%, while the proportion with late-stage HIV was 41% in 2018, increased to 51% in 2021 and was 38% in 2024 (*Figure 1.10A*). Meanwhile, there were only minor changes in the proportion with established HIV infection. On closer inspection, these changes were to some extent the result of a decreasing number of MSM and trans men and women relative to the total annual number of newly diagnosed HIV infections, from 68% in 2018 to 63% in 2024. Besides, changes in the number and proportion of MSM and trans men and women diagnosed with recent, established, or late-stage HIV were also the result of the increasing share of people reporting prior use of PrEP among the annual number of new HIV diagnoses (*Figure 1.10B* and *1.10C*). In other men and women, changes in the proportion diagnosed in each of these three stages were less pronounced (*Figure 1.10D*).

Figure 1.10: *Annual number and proportion of individuals diagnosed with recent, established, or late-stage HIV infection in 2018-2024 (A) in the total population aged 15 years or older at the time of diagnosis, (B) in men who have sex with men (MSM) and trans men and women, (C) in MSM and trans men and women excluding those who reported prior use of pre-exposure prophylaxis, and (D) in other men and women. Recent HIV infection was (i) a negative or indeterminate blot at the time of diagnosis, or (ii) a last negative test at most 12 month prior to diagnosis; established HIV infection: no recent HIV infection, CD4 counts above 350 cells/mm³, and not having AIDS at the time of diagnosis; late-stage HIV infection: no recent HIV infection, CD4 counts below 350 cells/mm³ or having AIDS, regardless of CD4 count. Numbers above the bars are the total number of diagnoses in each year, while numbers in brackets are the number of diagnoses excluding individuals whose stage at diagnosis is unavailable. Percentages inside the bars are relative to the number in brackets for late-stage and established infection, and relative to the total number of diagnoses for recent HIV infection.*

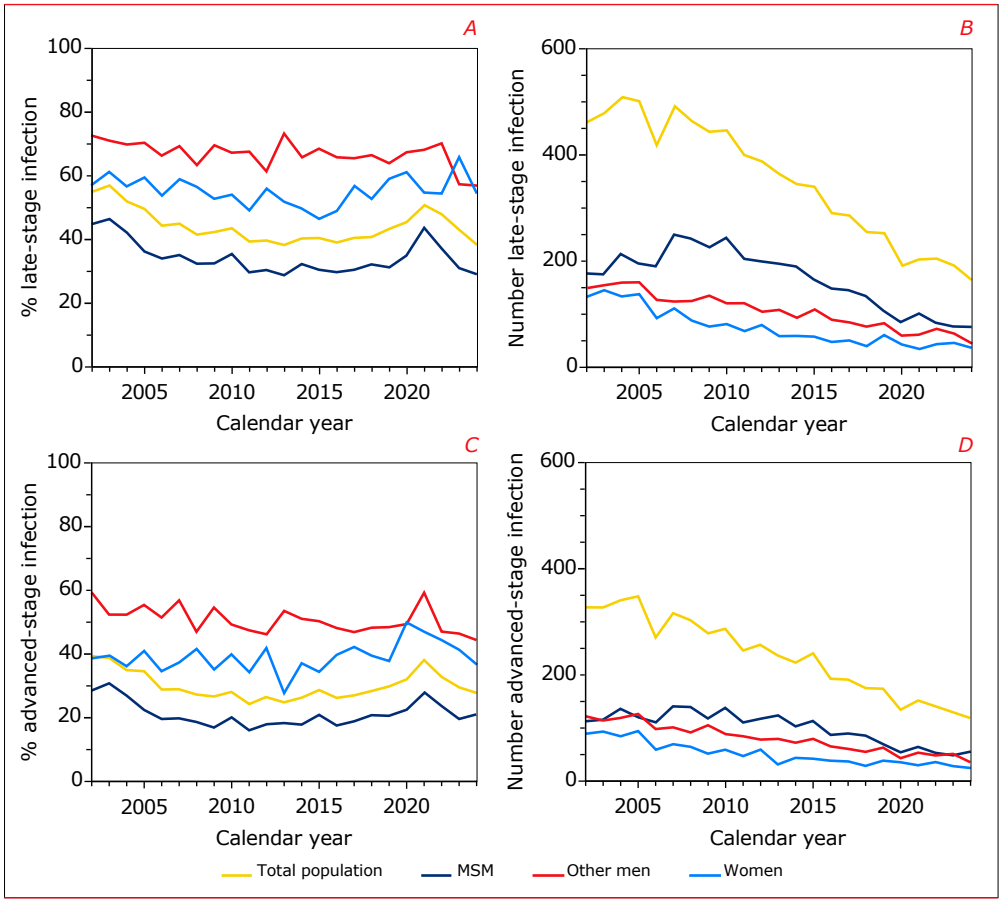


Legend: *MSM = men who have sex with men; TMW = trans men and women; PrEP = pre-exposure prophylaxis.*

Late diagnosis

Overall, 43% of the individuals diagnosed in 2022-2024 had a late-stage HIV infection at the time of diagnosis. Over time, the proportion of late-stage HIV diagnoses decreased from 55% in 2002 to a nadir of 38% in 2013, increased to 51% in 2021, and then again decreased to 43% in 2023, and 38% in 2024 (*Figure 1.11A*). This increase between 2013 and 2021 was mainly due to changes in the proportion of MSM diagnosed with late-stage HIV (see also *Figure 1.10B*). The proportion of individuals diagnosed with advanced HIV disease (i.e. with a CD4 count below 200 cells/mm^3 or AIDS-defining event, and no evidence of having acquired HIV in the previous 12 months), has followed a similar pattern, and reached 28% in 2024 (*Figure 1.11C*). Although the downward trend in these *proportions* appears to have halted after 2013, the *number* of individuals diagnosed with late-stage or advanced-stage HIV infection continued to decrease, albeit gradually (*Figure 1.11B* and *1.11D*). It is worth noting that although newly diagnosed MSM had the lowest proportion of late-stage HIV infections, they accounted for 238 (43%) of all 560 individuals diagnosed with late-stage HIV in 2022-2024.

Figure 1.11: *Proportion and number of individuals classified as having: (A, B) late-stage, or (C, D) advanced-stage HIV infection at the time of diagnosis. In 2024, 164 (38%) individuals were diagnosed with late-stage HIV infection: 77 (29%) men who have sex with men (MSM), 46 (57%) other men, 37 (54%) women, and 4 (29%) trans men and women. During the same year, 119 (28%) individuals were diagnosed with advanced-stage HIV infection: 56 (21%) MSM, 36 (44%) other men, 25 (37%) women, and 2 (14%) trans individuals. Late-stage HIV infection: CD4 counts below 350 cells/mm³ or having AIDS, regardless of CD4 count. Advanced-stage HIV infection: CD4 counts below 200 cells/mm³ or having AIDS. As a CD4 count measurement close to the time of diagnosis and before start of therapy was sometimes missing, the stage of the HIV infection could not be determined for all individuals. In 2022–2024, the stage of infection was unknown for 45 (3%) individuals.*



Legend: *MSM = men who have sex with men.*

Late diagnosis by region of origin, age, and setting of diagnosis

Among individuals diagnosed with HIV in 2022-2024, 238 (32%) MSM, 183 (62%) other men, 127 (58%) women and 12 (28%) trans men and women had a late-stage HIV infection. Late-stage HIV infections, in relative terms, were most common among people originating from sub-Saharan Africa (61%, or 80 individuals), Eastern Europe and Central Asia (54%, 39 individuals), or from south and southeast Asia (52%, 26 individuals) (*Table 1.2*).

Older age at the time of diagnosis was also associated with a higher proportion of late-stage HIV infection. Of those diagnosed in 2022-2024, late-stage HIV was seen in 54% of MSM, 69% of other men, and 40% of women aged 60 years or older, compared with 21% of MSM, 25% of other men, and 33% of women diagnosed below the age of 30 years (*Table 1.2*; *Figure 1.12*).

Table 1.2: *Characteristics of the 560 individuals with a late-stage HIV infection among the 1,346 individuals diagnosed with HIV in 2022–2024. In total, as a result of missing CD4 cell counts at diagnosis, it was not possible to classify whether 45 (3%) individuals (15 MSM, 20 other men, 10 women, and no trans individuals) had a late-stage HIV infection. For each of the five groups (MSM, other men, women, trans men and women, and total), percentages represent the proportion with late-stage infection of the total number of individuals diagnosed in each category listed in the first column.*

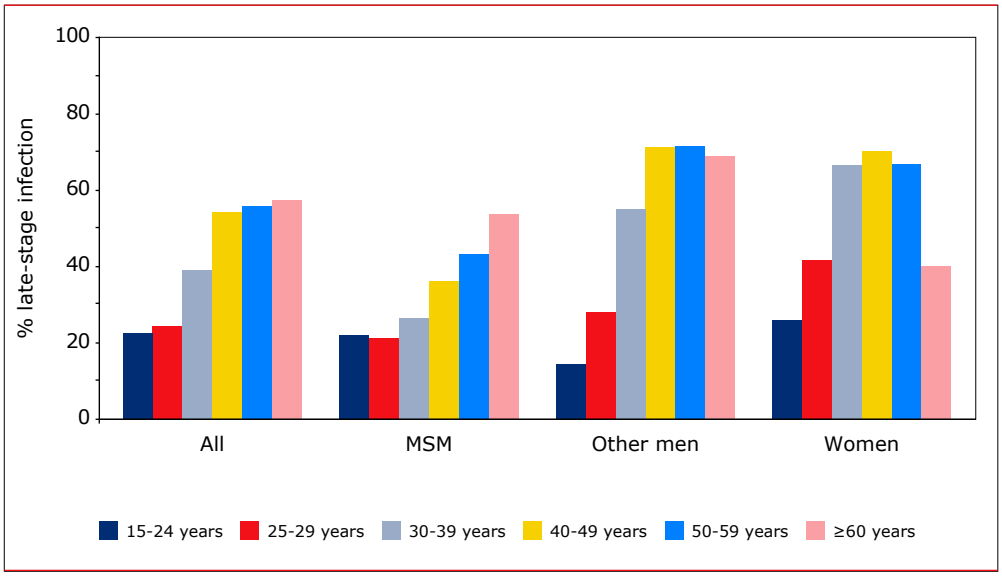
	MSM (n=742)		Other men (n=297)		Women (n=219)		Trans men and women (n=43)		Total (n=1,301)	
	n	%	n	%	n	%	n	%	n	%
Overall	238	32	183	62	127	58	12	28	560	43
Age at diagnosis (years)										
15–24	19	22	1	14	7	26	1	33	28	23
25–29	28	21	7	28	10	42	2	17	47	24
30–39	56	27	44	55	32	67	8	35	140	39
40–49	44	36	60	71	40	70	0	0	144	54
50–59	48	43	40	71	32	67	1	50	121	56
60–69	29	46	19	63	5	42	0	0	53	50
≥70	14	82	12	80	1	33	0	0	27	77
Region of origin										
Western	*138*	*31*	*95*	*57*	*28*	*39*	*2*	*40*	*263*	*38*
The Netherlands	127	31	93	57	26	38	2	40	248	39
Other western*	11	29	2	50	2	40	0	0	15	32
Non-Western	*100*	*34*	*88*	*68*	*99*	*67*	*10*	*26*	*297*	*49*
Sub-Saharan Africa	7	32	29	81	44	60	0	0	80	61
Central Europe	24	31	19	70	9	64	1	50	53	44
Eastern Europe and Central Asia	4	17	10	59	25	86	0	0	39	54
South America	19	32	10	67	8	57	6	26	43	39
Caribbean	12	32	4	50	3	60	2	40	21	38
South and southeast Asia	14	45	5	56	6	86	1	3	26	52
Middle East and north Africa	12	40	8	62	4	79	0	0	24	48
Other/unknown	8	50	3	60	0	0	0	0	11	52
Location of HIV diagnosis										
Sexual health centre	51	17	10	50	4	21	5	26	70	19
Hospital	104	67	128	79	86	78	1	33	319	74
General practice	65	28	33	39	24	43	3	20	125	33
Other/unknown	18	32	12	39	13	38	3	50	46	36
Last negative test†										
(1,2] years	20	29	3	25	2	18	3	60	28	29
(2–4] years	20	34	9	64	13	72	3	33	45	45
>4 years	70	63	23	77	30	70	1	100	124	67
Never tested / not available	128	56	148	72	82	64	5	38	363	63

Legend: *MSM = men who have sex with men;*

* *includes western Europe, North America, Australia and New Zealand;*

† *all individuals with a negative test within 1 year prior to diagnosis are classified as recent HIV infection.*

Figure 1.12: Proportion of individuals diagnosed with late-stage HIV infection stratified by age category at the time of diagnosis for those diagnosed in 2022-2024 or later.



Legend: MSM = men who have sex with men.

Late-stage HIV was also observed more frequently in people who received their HIV diagnosis at a hospital (74%) than among those who were tested at a general practice (33%), a sexual health centre (19%), or another testing location (36%). These proportions did not change over time except for individuals diagnosed at a hospital, in whom the proportion with late-stage HIV increased from 64% in 2010 to 78% in 2024. Late diagnosis was less common (36%) among people who had a most recent negative HIV test one to four years prior to their diagnosis than among individuals whose last negative test was more than four years previously (67%) or who did not report ever having tested for HIV before (63%).

Late diagnosis and hospitalisation

Hospitalisation around the time of HIV diagnosis was more frequently reported for individuals diagnosed with late-stage HIV infection than for those with recent or established HIV infection (*Table 1.3*). Among the 560 people diagnosed with late-stage HIV infection in 2022-2024, 233 (42%) were hospitalised within a year of diagnosis, including 192 (34%) as a direct result of their HIV infection. In contrast, only 68 (9%) of the 741 individuals diagnosed with recent or established HIV infection were hospitalised within a year of diagnosis, including

24 (3%) hospitalisations due to HIV. Within the group of people with late-stage HIV infection, hospitalisation was most frequently recorded among those who were diagnosed with AIDS (*Table 1.3*).

Late diagnosis and mortality

Of the 560 individuals diagnosed with late-stage HIV infection in 2022-2024, 17 (3%) died within a year of diagnosis, including 9 (2%) who died of AIDS (*Table 1.3*). Among the 741 people diagnosed with recent or established HIV infection, 4 (1%) died within a year of diagnosis, including no one who died of AIDS.

Table 1.3: *Number and proportion of individuals diagnosed in 2022–2024 who were hospitalised or who died within a year of diagnosis, stratified by stage of infection; [a]one accident/violent death, one suicide, one heart/vascular, and one unknown/unclassifiable cause; [b]nine AIDS-related deaths, one lung cancer, one non-AIDS infection, one liver cirrhosis, one heart/vascular, one sudden death, and three unknown/unclassifiable causes.*

		Hospitalisation				Death			
		Total		HIV-related		Total		AIDS-related	
Stage	**n**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Recent or established HIV infection	741	68	9	24	3	[a]4	1	0	0
Late-stage HIV infection	560	233	42	192	34	[b]17	3	9	2
CD4 200-349, no AIDS	169	26	15	12	7	1	1	0	0
CD4 <200, no AIDS	183	48	26	28	15	3	2	1	1
AIDS	208	159	76	152	73	13	6	8	4

Note: *AIDS = AIDS-defining event.*

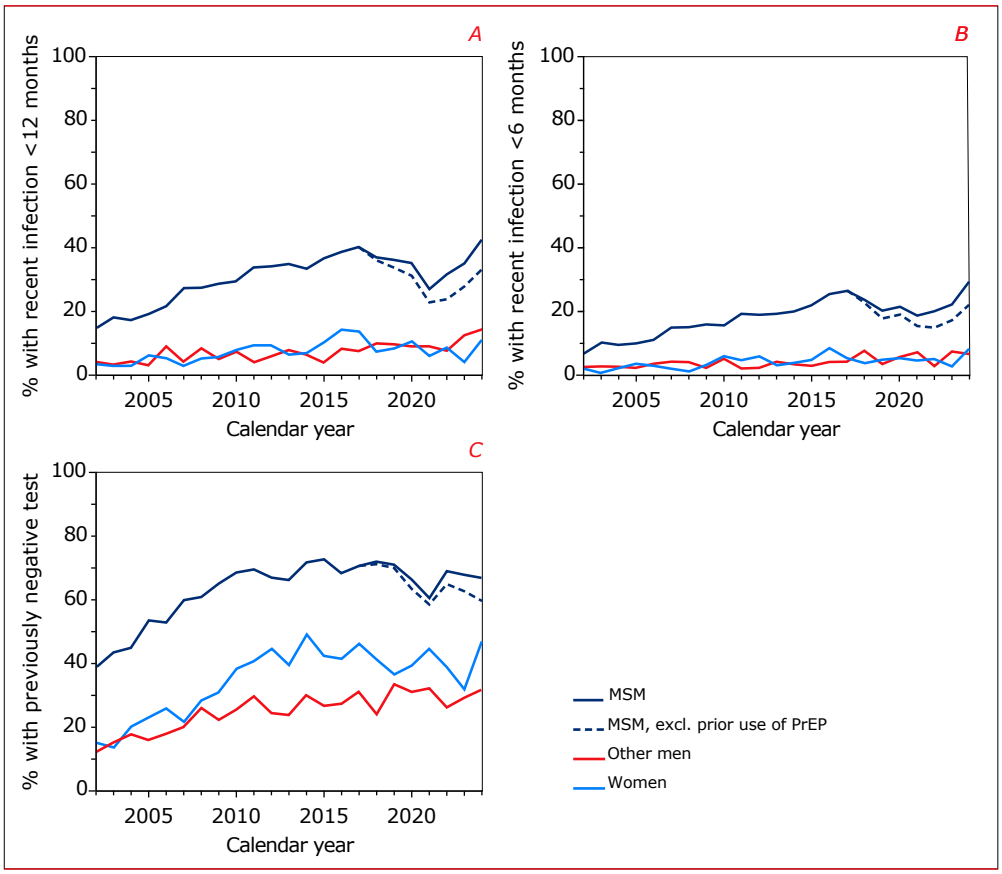
Late diagnosis and prior use of PrEP

Among MSM and trans men and women diagnosed in 2022-2024, 250 (32%) were diagnosed with a late-stage HIV infection (*Figure 1.10B*). When people who reported prior use of PrEP were excluded, the number diagnosed with late-stage HIV reduced to 243, but this represented a slightly higher proportion, 37%, of those diagnosed (*Figure 1.10C*).

Recent infection

Although many individuals are diagnosed with a late-stage HIV infection, a considerable proportion of people receive their HIV diagnosis early in the course of their infection. In total, among the individuals diagnosed in 2022-2024, 26% had evidence of having acquired their HIV infection in the 12 months prior to diagnosis, while 16% had evidence of having acquired HIV in the six months prior to diagnosis (*Figure 1.13A* and *1.13B*). For MSM, these proportions were 37% and 24%, respectively, while they were similar for trans men and women, 35% and 16%, respectively. Among other men and among women these proportions were considerably lower (10% and 5%, respectively).

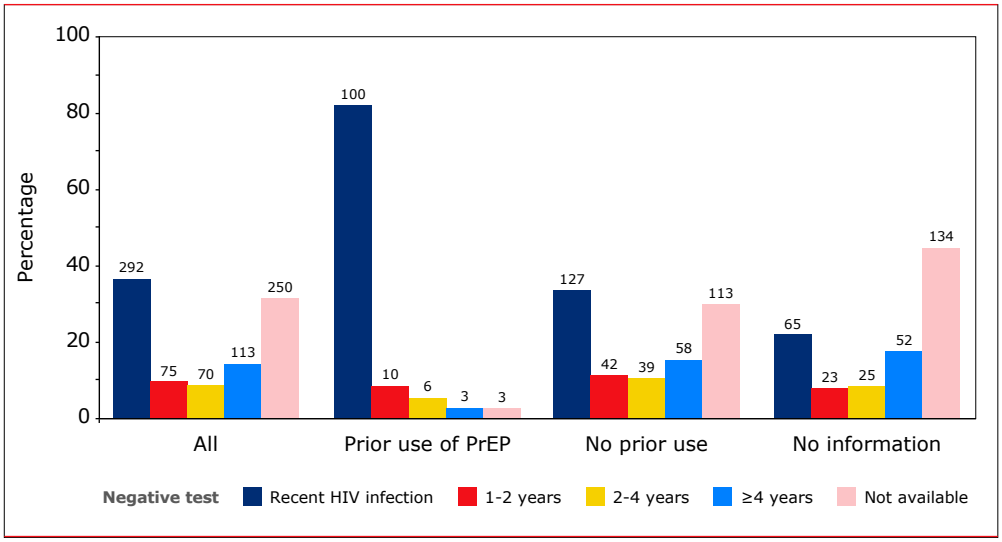
Figure 1.13: *Proportion of people diagnosed (A) with evidence of having acquired their HIV infection at most 12 months prior to their diagnosis, (B) at most 6 months prior to their diagnosis, (C) with a previously negative test at any time prior to their diagnosis. Evidence of a recent infection was (i) a negative or indeterminate blot at the time of diagnosis, or (ii) a last negative test at most 12 months or 6 months prior to diagnosis. In total, 113 (42%) men who have sex with men (MSM), or 73 (33%) MSM when excluding those who reported prior use of pre-exposure prophylaxis (PrEP), 13 (14%) other men, 8 (11%) women, 4 (29%) trans men and women, and 138 (31%) of all 444 individuals diagnosed in 2024 had evidence of having acquired HIV at most 12 months before diagnosis. In the same year, 79 (30%) MSM, or 49 (22%) MSM when excluding those who reported prior use of PrEP, 6 (7%) other men, 6 (8%) women, 3 (21%) trans men and women, and 94 (21%) of all 444 individuals had evidence of having acquired HIV at most six months before diagnosis.*



Legend: *MSM = men who have sex men; PrEP = pre-exposure prophylaxis.*

It is worth noting that the proportion of MSM with evidence of having acquired their HIV infection in the 12 months prior to diagnosis was 36% in 2018-2020, appeared to be lower, 27%, in 2021, and then increased to 42% in 2024 (*Figure 1.13A*). The lower proportion in 2021 may have been, in part, a consequence of disrupted testing services due to the (partial) lockdowns in response to the COVID-19 pandemic and/or changes in sexual behaviour during the pandemic. The increase after 2021 appeared to be to a large extent due to the growing proportion of MSM reporting prior use of PrEP. When these MSM were excluded the proportions with a recent HIV infection were considerably lower, 23% in 2021 and 33% in 2024. A similar reduction in the proportion with recent HIV infection after excluding individuals reporting prior use of PrEP was seen in the combined population of MSM and trans men and women (*Figure 1.10B* and *1.10C*). The reason that the proportion with recent HIV infection decreased after excluding people reporting prior use of PrEP is that in this group of former PrEP users, the proportion diagnosed with recent HIV infection was much higher, 82%, than in people who never used PrEP or for whom no information on PrEP use was available (*Figure 1.14*).

Figure 1.14: *Proportion of men who have sex with men (MSM) and trans men and women diagnosed in 2022–2024 whose most recent negative HIV test was less than 1 year (i.e. recent HIV infection, including those with negative or indeterminate blot at the time of diagnosis), 1 to 2 years, 2 to 4 years, or more than 4 years prior to their HIV diagnosis, or who reported never having tested for HIV, overall and stratified by whether or not they reported prior use of PrEP. Numbers above the bars are the number of individuals diagnosed in each category and represented by each bar.*



The proportion of people with a recorded previously negative HIV test any time before their HIV diagnosis increased from 26% in 2002 to 57% in 2024. MSM were more likely to have a previously negative HIV test than other men and women. In 2024, 67% of MSM newly diagnosed with HIV had a previously negative test, while this proportion was 39% both in other men and in women (*Figure 1.13C*). Overall, of MSM diagnosed in 2022-2024, 68% reported a previously negative test, meaning that a third (32%) never had an HIV test before their HIV diagnosis (see also *Figure 1.14*). In all three groups (MSM, other men, and women), the proportion of people without a reported previously negative HIV test has remained around the same level since 2010. The proportion with a known previously negative test was highest among those diagnosed at a sexual health centre (80%), compared with 33% of those diagnosed in a hospital, and 57% of those diagnosed at a general practice.

Time between HIV infection and viral suppression

Individuals with a suppressed viral load below 200 copies/ml cannot sexually transmit HIV to other people (undetectable equals untransmittable, or U=U)[6-9]. Hence it is crucial to minimise the time between the moment a person acquires HIV and the point at which they achieve this threshold, not only for people with HIV, but also from a public health perspective. However people with HIV must first be diagnosed, then linked to care, and subsequently start therapy in order to be able to reach viral suppression.

Over time there have been significant improvements in several of these steps in the HIV care continuum. Between 2010 and 2024, the median time from diagnosis to reaching a viral load level below 200 copies/ml decreased from 10.0 months (IQR 4.4-31.1) to 2.0 months (IQR 1.3-3.6). This decrease in time to viral suppression was achieved mainly as a result of starting therapy sooner after entry into care, and individuals with HIV reaching viral suppression faster once therapy had begun. The estimated time between infection to diagnosis was the greatest contributing factor to the delay between acquiring HIV and achieving viral suppression. In 2024, this was estimated to be a median of 2.5 years (IQR 1.2-4.7).

Population in care

In total, 23,057 (71%) of the 32,544 individuals with HIV-1 ever registered in the Netherlands were known to be in clinical care by the end of 2024 (*Figure 1.1*; *Table 1.4*). People were considered to be in clinical care if they had visited their treating physician in 2024, or had a CD4 count or HIV RNA measurement in that year, and were still living in the Netherlands. Of the 9,487 people who were not in care by the end of 2024, 4,463 (47%) had died, of whom 2,457 (55%) died before the end of 2014. Another 2,715 (29%) had moved abroad, including 1,209 (45%) who did so before the end of 2014. The remaining 2,309 (24%) individuals:

- were lost to care (2,156, 93%);
- were only diagnosed with HIV in 2025 (82, 4%);
- had only moved to the Netherlands in 2025 (26, 1%); or
- had newly entered care in 2025 (45, 2%).

Of the people who moved abroad, 2,196 (81%) had RNA levels below 200 copies/ml at their last viral load measurement; in those lost to care, that figure was 1,401 (65%).

Table 1.4: Characteristics of the 23,057 people with HIV-1 in clinical care by the end of 2024.

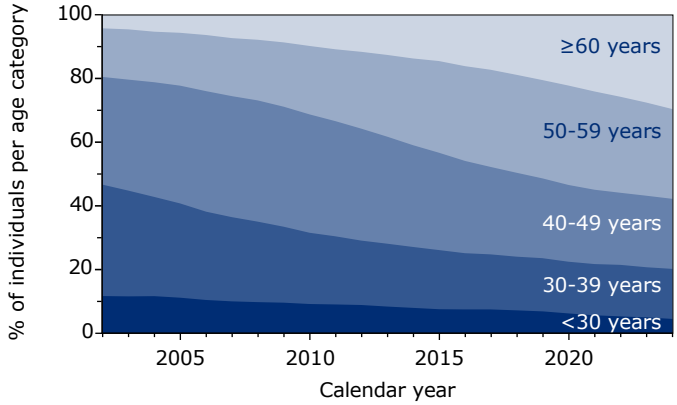
	MSM (n=14,155, 61%)		Other men (n=4,165, 18%)		Women (n=4,371, 19%)		Trans men and women (n=366, 2%)		Total (n=23,057)	
	n	%	n	%	n	%	n	%	n	%
Transmission										
Sex with men	13,077	92	0	0	3,795	87	283	77	17,155	74
Sex with women	11	0	2,669	64	3	0	10	3	2,693	12
Sex, unspecified	970	7	120	3	0	0	39	11	1,129	5
IDU	12	0	200	5	84	2	1	0	297	1
Blood/blood products	21	0	200	5	123	3	4	1	348	2
Other/unknown	64	0	976	23	366	8	29	8	1,435	6
Current age (years)										
0–14	0	0	49	1	47	1	0	0	96	0
15–24	107	1	83	2	101	2	10	3	301	1
25–29	419	3	85	2	123	3	37	10	664	3
30–39	2,295	16	500	12	622	14	142	39	3,559	15
40–49	2,859	20	860	21	1,283	29	79	22	5,081	22
50–59	3,958	28	1,209	29	1,283	29	73	20	6,523	28
60–69	3,230	23	978	23	675	15	23	6	4,906	21
≥70	1,287	9	401	10	237	5	2	1	1,927	8
Region of origin										
The Netherlands	9,212	65	1,872	45	1,219	28	69	19	12,372	54
Sub-Saharan Africa	251	2	956	23	1,697	39	12	3	2,916	13
Western Europe	888	6	143	3	114	3	8	2	1,153	5
Central Europe	589	4	167	4	111	3	6	2	873	4
Eastern Europe and Central Asia	260	2	190	5	271	6	5	1	726	3
South America	1,122	8	301	7	378	9	145	40	1,946	8
Caribbean	642	5	188	5	205	5	69	19	1,104	5
South and southeast Asia	501	4	108	3	264	6	37	10	910	4
Middle East and north Africa	281	2	177	4	75	2	14	4	547	2
Other	328	2	35	1	26	1	0	0	389	2
Unknown	81	1	28	1	11	0	1	0	121	1
Years aware of HIV infection										
<1	267	2	89	2	77	2	13	4	446	2
1–2	527	4	234	6	164	4	30	8	955	4
3–4	569	4	213	5	170	4	38	10	990	4
5–9	2,645	19	726	17	624	14	81	22	4,076	18
10–19	6,329	45	1,553	37	1,693	39	127	35	9,702	42
20–29	2,848	20	1,103	26	1,344	31	65	18	5,360	23
≥30	959	7	231	6	283	6	10	3	1,483	6
Unknown	11	0	16	0	16	0	2	1	45	0

Legend: MSM = men who have sex with men; IDU = injecting drug use.

Ageing population

The median age of the population in clinical care by the end of 2024 was 53 years (IQR 43-62). This figure has been increasing since 2002 (*Figure 1.15*), which is mainly a result of the improved life expectancy of people with HIV following the introduction of combination antiretroviral therapy (ART). Moreover, individuals are being diagnosed at an increasingly older age, as discussed earlier in this chapter. Consequently, more than half of those currently in care (58%) are 50 years or older (60% of MSM, 62% of other men, 50% of women, and 27% of trans men and women), and 30% are 60 years or older. As the population with HIV continues to age, the number of individuals with age-related comorbidities also increases. These conditions are known to complicate the management of people with HIV (see *Chapter 6*).

Figure 1.15: *Increasing age of the population with HIV-1 in clinical care over calendar time. In 2002, 12% of the individuals in care were younger than 30 years of age, whereas 20% were 50 years or older. In 2024, these proportions were 5% and 58%, respectively, while 30% of individuals in care were 60 years of age or older. The proportion of individuals in clinical care as of 31 December each calendar year is shown according to age category: <30 years of age, 30–39 years, 40–49 years, 50–59 years, and 60 years or older.*



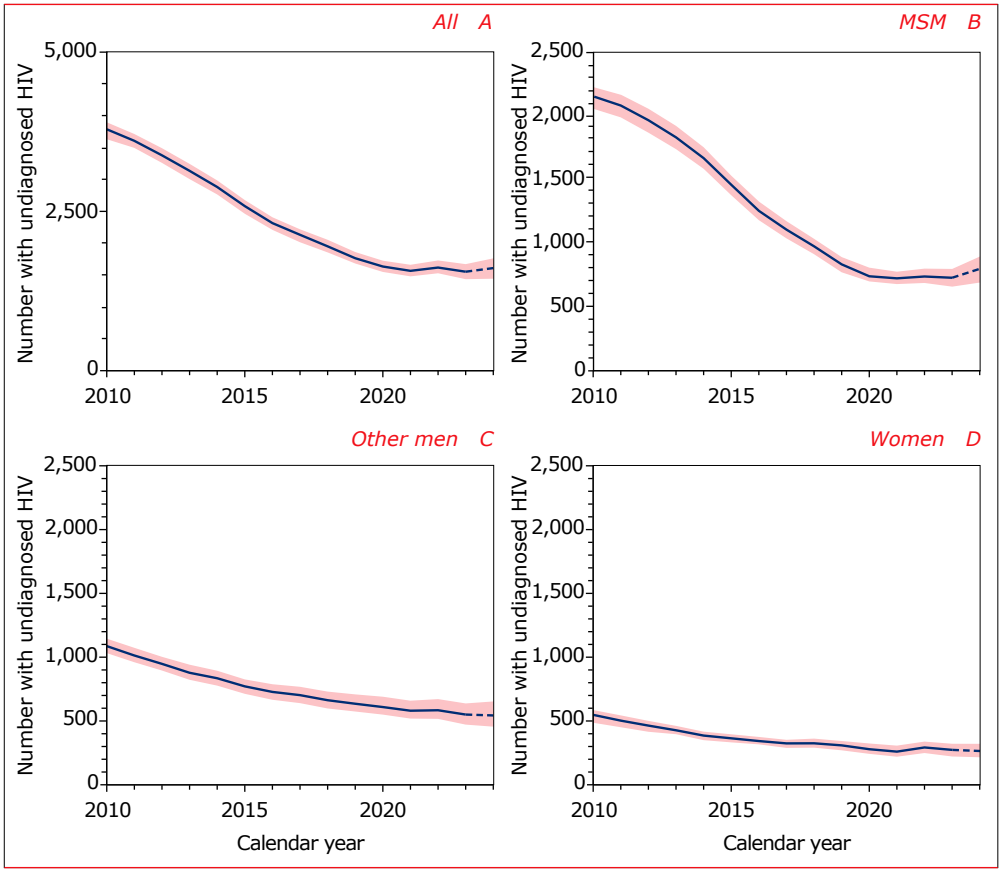
Duration of infection

People in clinical care by the end of 2024 were known with HIV for a median of 15.1 years (IQR 9.3-21.5). Therefore, a large group (72%) of those in care have been living with HIV for more than 10 years, including 30% who have done so for more than 20 years. The median time since diagnosis was 14.5 years for men who have sex with men (MSM), 15.3 years for other men, 17.1 years for women, and 11.5 years for trans men and women.

Undiagnosed population

The estimated number of people with an undiagnosed HIV infection decreased from 3,780 (95% CI 3,670-3,890) in 2010 to 1,610 (1,450-1,760) in 2024 (*Figure 1.16A*). The 1,610 individuals with an undiagnosed HIV infection comprised 1,395 (1,235-1,545) who most likely acquired their HIV infection in the Netherlands and an estimated 215 individuals who acquired their HIV infection before migrating to the Netherlands. This decrease was mostly driven by MSM, among whom the number of undiagnosed HIV cases fell from 2,145 (2,050-2,225) in 2010 to 805 (690-900) by the end of 2024 (*Figure 1.16B*). Among other men, the estimated number with undiagnosed HIV was 1,085 (1,030-1,145) in 2010 and 545 (455-650) in 2024, while in women these numbers were 550 (500-585) and 265 (210-325), respectively (*Figures 1.16C* and *1.16D*).

Figure 1.16: *Estimated number of people with undiagnosed HIV in the Netherlands: (A) overall, (B) men who have sex with men (MSM), (C) other men, and (D) women, according to the European Centre for Disease Prevention and Control (ECDC) HIV Platform Tool[i]. Estimates for the overall population do not include trans individuals and children.*



Legend: *MSM = men who have sex with men.*

Continuum of HIV care – national level

The total number of people with HIV in the Netherlands by the end of 2024 was 25,890 (95% CI 25,730-26,040), including the estimated 1,610 (1,450-1,760) who remained undiagnosed[1]. Adjusted for backlog in registration, of this total:

- 24,282 individuals (94% of the total number of people with HIV) had been diagnosed, linked to care, and registered by SHM;
- 23,194 (90%, or 96% of those diagnosed and linked to care) were retained in care (i.e. they had at least one documented HIV RNA or CD4 count measurement, or a clinic visit in 2024) (*Figure 1.17A*);
- 23,104 (89%, or 95% of those diagnosed and linked to care) had started ART;
- 22,401 (87%, or 97% of those treated) had a most recent HIV RNA measurement below 1,000 copies/ml;
- 22,240 (86%, or 96% of those treated) had a most recent HIV RNA measurement below 200 copies/ml; and
- 21,709 (84%, or 94% of those treated) had a most recent measurement below
- 50 copies/ml.

Overall, 86% of the total estimated population with HIV and 92% of those diagnosed and ever linked to care had a suppressed viral load below 200 copies/ml. This means that by 2024 the Netherlands had almost reached the Joint United Nations Programme on HIV/AIDS (UNAIDS) 95-95-95 target for 2025[10]; with the estimate standing at 94-95-96, or 94-95-97 if 1,000 copies/ml, and 94-95-94 if 50 copies/ml is used as a threshold of viral suppression[11]. Of the 21,310 (92%) people still in care by the end of 2024 who had at least one CD4 count measurement in 2022-2024, 17,019 (80%) had a most recent CD4 count of 500 cells/mm^3 or higher.

Viral suppression

In total, 842 individuals (without adjusting for registration delays) had started therapy but did not have a suppressed viral load below 200 copies/ml by the end of 2024. On closer inspection, 398 (47%) of these individuals did not have an HIV RNA measurement available in 2024; 334 (84%) of these 398 individuals had an HIV RNA level below 200 copies/ml at their last measurement in 2023, 20 (5%) had an HIV RNA level of 200 copies/ml or above, and 44 (11%) also had no HIV RNA measurement in 2023. At the time of analysis, 148 (37%) of the 398 individuals had an RNA measurement in 2025, of which 135 (91%) below 200 copies/ml.

The median HIV RNA level among the 444 (53%) people with a viral load measurement and a viral load level above 200 copies/ml was 5,687 copies/ml (IQR 498-71,877). Of these 444 people, 66 (15%) started therapy after their last available viral load measurement in 2024. Another 32 (7%) had only started therapy in the six months prior to that last measurement and may not have had sufficient follow up to achieve a documented suppressed viral load.

Lost to care

Of the people diagnosed and linked to care, 2,156 individuals were lost to care by the end of 2024, and of these:

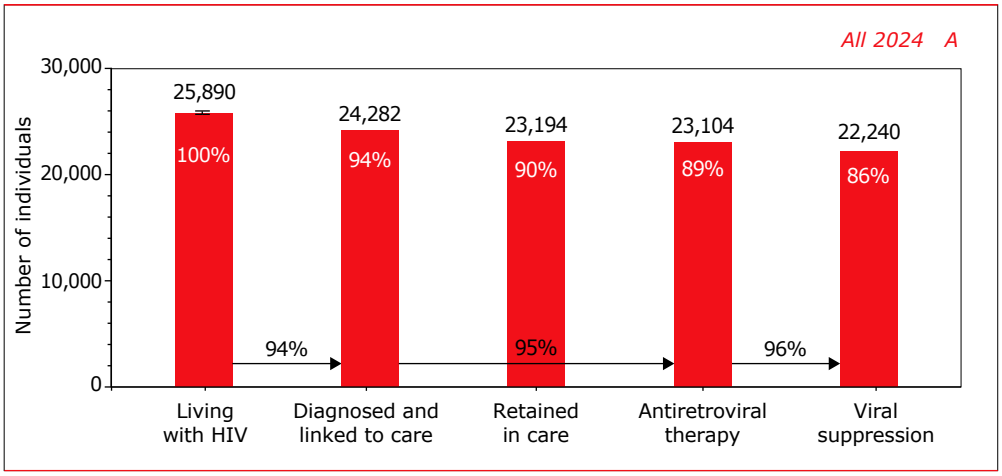
- 1,116 (52%) were last seen for care before the end of 2014;
- 493 (23%) in 2015-2020;
- 101 (5%) in 2021;
- 147 (7%) in 2022; and
- 299 (14%) in 2023[b].

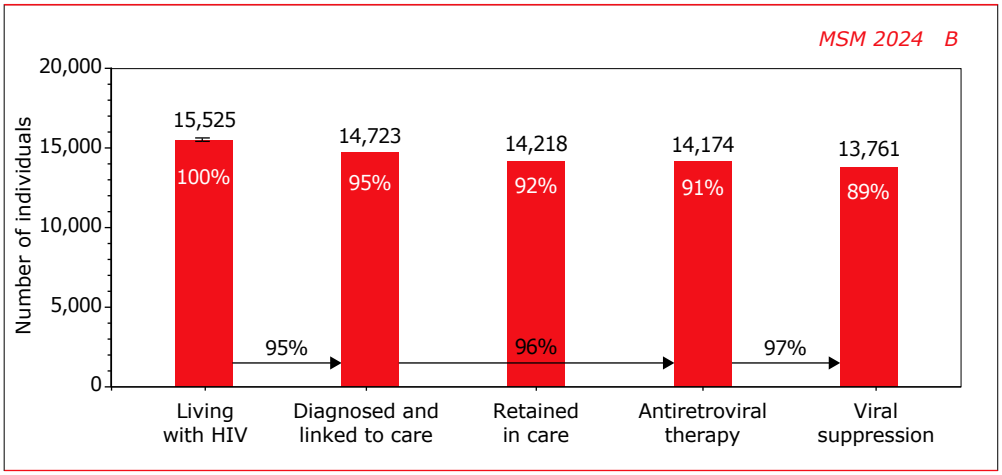
The 1,116 individuals who were lost to care in or before 2014, were excluded from the estimated number of people with HIV and the number of people diagnosed and linked to care. It was assumed to be unlikely that these 1,116 individuals were still living in the Netherlands by the end of 2024 without requiring care or ART during that ten-year period.

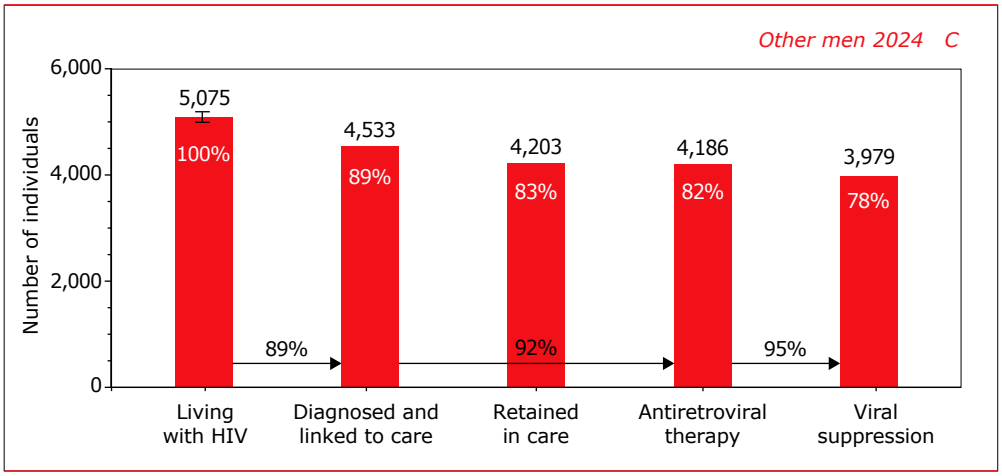
Of the 1,040 individuals lost to care after 2014, 69% were born outside the Netherlands; this proportion was only 46% for those who were still in care by the end of 2024. This suggests that some of those lost to care may have moved abroad; in particular, back to their country of birth. It should be pointed out that 75 (7%) of the 1,040 individuals were lost to care because they had planned transfer of care to another treatment centre, but there was no confirmation that they did indeed register at a new centre. Of the 446 individuals last seen for care in 2022 or 2023, 333 (75%) had a suppressed viral load below 200 copies/ml, 65 (15%) had a viral load level above 200 copies/ml, and 48 (11%) had no measurement available. At the time of analysis, 107 (25%) of the 446 individuals had a documented HIV RNA or CD4 count measurement, or a clinic visit in 2025.

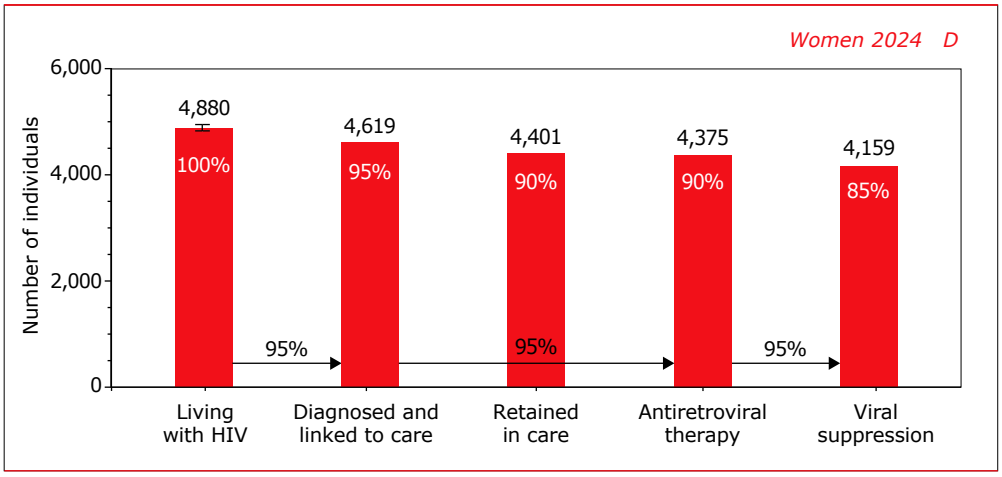
b In addition to the 2,156 individuals lost to care there were 45 individuals who had already been diagnosed by the end of 2024 and were living in the Netherlands but entered care in 2025. These 45 individuals (47 with adjustment for registration delay), as well as the 1,040 lost to care after 2014 (1,042 with adjustment), are counted in the first and second stage of the continuum but not in the other stages.

Figure 1.17: *Continuum of HIV care for people with HIV in the Netherlands by the end of 2024: (A) the total population with HIV-1, (B) men who have sex with men (MSM), (C) other men, and (D) women. Viral suppression was defined as an HIV RNA measurement below 200 copies/ml. Percentages at the top of the bars are calculated relative to the number with HIV, while percentages at the bottom correspond to the UNAIDS' 95-95-95 targets for 2025. Numbers were adjusted for a backlog in registration.*









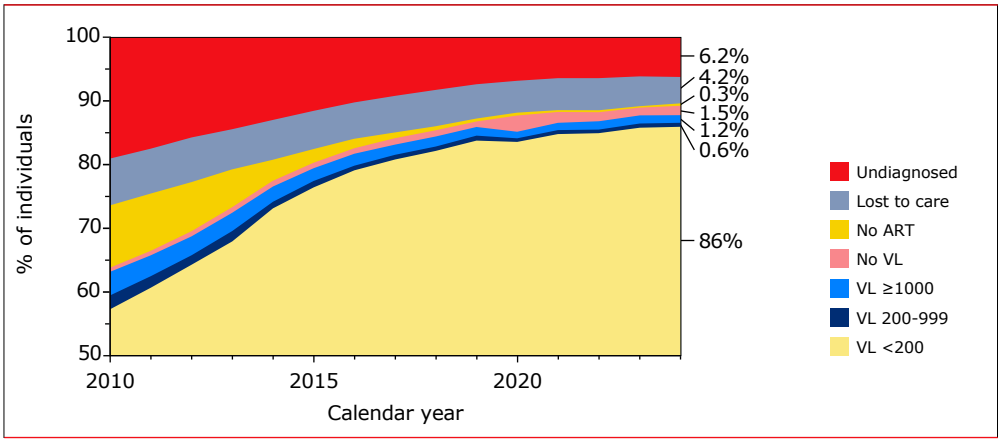
Legend: *MSM = men who have sex with men.*

Transmittable levels of HIV

The proportion of people with HIV living in the Netherlands (at the end of each calendar year) who were using ART and had a confirmed viral load level below 200 copies/ml, grew steadily between 2010 and 2024 (*Figure 1.18*). In 2010, 57% of the estimated 19,870 (95% CI 19,760-19,985) people with HIV had a suppressed viral load below 200 copies/ml, while this proportion was 86% in 2024. During the same period, the proportion using ART with a viral load below 1,000 copies/ml grew from 59% in 2010 to 87% in 2024. This increase was mainly the result of a reduction in the proportion of people unaware of their infection, from 19% in 2010 to 6% in 2024, and, to a lesser extent, of a smaller proportion not yet on ART (10% in 2010, 0.3% in 2024).

The number of individuals with HIV who were likely to have an unsuppressed viral load of 1,000 copies/ml or higher by the end of 2024 was estimated to be 3,490, or 13% of all people with HIV, which is the difference between the first and the last stage in the HIV care continuum. These individuals could still pass HIV onto individuals without HIV. The number of 3,490 individuals includes the 1,610 (46%) people who were not yet diagnosed by the end of 2024. The remaining 1,880 (diagnosed) individuals are likely to be an overestimate of the true number with an unsuppressed viral load in the Netherlands because, as discussed above, some of the people who were lost to care may have moved abroad and may be receiving HIV care outside the Netherlands.

Figure 1.18: *Estimated proportions of people with HIV across the various stages in the HIV care continuum. The numbers to the right of the graph are the proportions in 2024.*



Legend: *ART = antiretroviral therapy; VL = viral load.*

Continuum of care in MSM, other men, and women

The number of MSM with HIV at the end of 2024 was estimated at 15,525 (95% CI 15,415-15,625), of whom 805 (690-900) had yet to be diagnosed. Of these:

- 14,723 (95%) had been diagnosed and linked to care;
- 14,218 (92%) were still in care;
- 14,174 (91%) had started ART; and
- 13,761 (89%) had a most recent HIV RNA below 200 copies/ml, while 13,830 (89%) had a viral load below 1,000 copies/ml.

In terms of the 2025 UNAIDS 95-95-95 target, this translates to 95-96-97, meaning that in MSM, the UNAIDS targets have already been met (*Figure 1.17B*). In total, 10,865 (76%, or 83% of those with a CD4 measurement) of MSM still in care by the end of 2024 had a CD4 count of 500 cells/mm^3 or higher at their last measurement in 2022-2024.

Among other men, the estimated number with HIV in 2024 was 5,075 (95% CI 4,990-5,185), including 545 (455-650) who were not yet diagnosed (*Figure 1.17C*). Of these:

- 4,533 (89%) men had been diagnosed and linked to care;
- 4,203 (83%) were still in care;
- 4,186 (82%) had started ART; and
- 3,979 (78%) had a suppressed viral load below 200 copies/ml, while 4,030 (79%) had a viral load below 1,000 copies/ml,

which translates to 89-92-85 in term of the 2025 UNAIDS 95-95-95 target.

The number of women with HIV was estimated to be 4,880 (95% CI 4,830-4,940), of whom 265 (210-325) were not yet diagnosed (*Figure 1.17D*). Of these women:

- 4,619 (95%) had been diagnosed and linked to care;
- 4,401 (90%) were still in care;
- 4,375 (90%) had started ART; and
- 4,159 (85%) had a suppressed viral load below 200 copies/ml, while 4,199 (86%) had a viral load below 1,000 copies/ml,

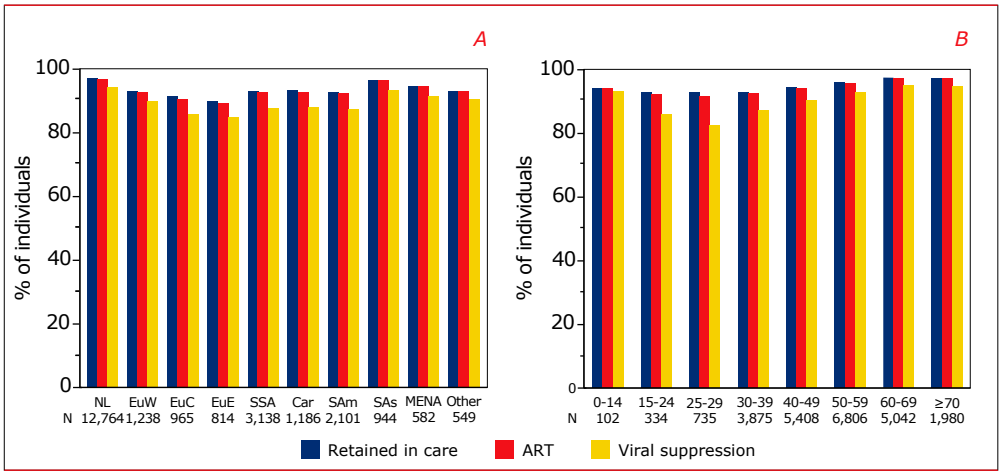
which translates to 95-95-95 in term of the 2025 UNAIDS 95-95-95 target.

Among women and other men still in care by the end of 2024, the proportion with viral suppression was 95%, which was somewhat lower than among MSM (97%).

Continuum of care by region of origin and age

Individuals originating from the Netherlands and south and southeast Asia generally engaged more with the various stages of the care continuum than people from other countries (*Figure 1.19A*). Engagement with all stages of the care continuum was highest among the youngest and the oldest age group. Levels of engagement were generally lower in the other age groups, but both the proportion of people who were still in care and the proportion who had started ART by the end of 2024, increased with age, and exceeded 95% in people aged 50 years or older (*Figure 1.19B*). As a consequence, the proportion of people with viral suppression also increased with age; rising from 81% among those aged 15 to 24 years, to more than 90% for people aged 40 years or older.

Figure 1.19: *Continuum of HIV care: (A) by region of origin, and (B) by age group (in years) for the total population with HIV-1. Proportions are given relative to the number of people diagnosed and linked to care, which are shown below the figures.*



Legend: *NL = the Netherlands; EuW = western Europe; EuC = central Europe; EuE = eastern Europe and Central Asia; SSA = sub-Saharan Africa; Car = Caribbean; SAm = South America; SAs = south and southeast Asia; MENA = Middle East and north Africa; Other = other regions of origin; ART = antiretroviral therapy.*

Continuum of HIV care – regional level

We also determined the continuum of care (including the first stage: estimated number of people with HIV) for the eight STI surveillance regions[c] in the Netherlands, and for the five largest cities in the country (*Table 1.5*). By the end of 2024, more than half (52%) of all estimated people with HIV were living in Noord-Holland/Flevoland and in Zuid-Holland Zuid, which include the cities of Amsterdam and Rotterdam. In total an estimated 525 (32%) people with undiagnosed HIV were living in these two regions. The highest number of people with undiagnosed HIV, 320 (250-390), was living in Zeeland/Brabant. All eight regions had reached or were close to reaching most of the UNAIDS' 95-95-95 targets for 2025, and the proportion of all people with HIV who had a suppressed viral load below 200 copies/ml varied between 82% and 89%, or between 83% and 89% when considering a viral load below 1,000 copies/ml. Those diagnosed and linked to care showed similar levels of engagement in the various stages of the care continuum across all 25 public health service regions in the Netherlands (*Table 1.6*).

c Reporting to the national STI surveillance system is organised in eight regions, which each consist of one or more public health service regions (see also Table 1.6).

Table 1.5: *Continuum of care by the end of 2024 for the total population with HIV-1 living in the Netherlands in each of the eight sexually-transmitted infection (STI) surveillance regions, or in one of the five most populous cities. For each region or city, percentages on the first row are relative to the estimated number of people with HIV, while those on the second row correspond to UNAIDS' 95-95-95 targets. For 46 individuals diagnosed and linked to care, region of residence was unknown.*

	Estimated population with HIV		Diagnosed and linked to care	
	Undiagnosed	Total		
	n	n	n	%
Region				
Noord	175	1,660	1,486	89
	115–240	1,600–1,725		*89*
Oost	250	3,065	2,813	92
	195–325	3,010–3,135		*92*
Noord-Holland/Flevoland	295	9,450	9,153	97
	245–350	9,395–9,500		*97*
Utrecht	70	1,465	1,391	95
	50–110	1,440–1,500		*95*
Zuid-Holland Noord	235	2,060	1,826	89
	165–300	1,990–2,125		*89*
Zuid-Holland Zuid	230	4,030	3,803	94
	180–310	3,980–4,110		*94*
Zeeland/Brabant	320	3,000	2,679	89
	250–390	2,930–3,070		*89*
Limburg	75	1,160	1,087	94
	45–110	1,130–1,195		*94*
Total	1,655	25,890	24,236	94
	1,535–1,835	25,770–26,070		*94*
City				
Amsterdam	180	6,585	6,404	97
	140–230	6,545–6,635		*97*
Rotterdam	110	2,210	2,101	95
	65–150	2,165–2,255		*95*
Den Haag	110	1,395	1,284	92
	75–160	1,360–1,440		*92*
Utrecht	25	600	575	*95*
	15–55	590–630		*95*
Eindhoven	60	475	420	88
	30–90	450–510		*88*
Total	490	11,270	10,784	96
	405–580	11,190–11,365		*96*

	Retained in care		Antiretroviral therapy		Viral suppression	
	n	%	n	%	n	%
	1,425	86	1,418	85	1,385	83
				95		*98*
	2,723	89	2,715	89	2,596	85
				97		*96*
	8,695	92	8,675	92	8,324	88
				95		*96*
	1,342	92	1,340	92	1,303	89
				96		*97*
	1,772	86	1,757	85	1,693	82
				96		*96*
	3,643	90	3,622	90	3,491	87
				95		*96*
	2,568	86	2,553	85	2,478	83
				95		*97*
	1,026	88	1,024	88	970	84
				94		*95*
	23,194	90	23,104	89	22,240	86
				95		*96*
	6,097	93	6,081	92	5,860	89
				95		*96*
	2,013	91	1,999	90	1,924	87
				95		*96*
	1,250	90	1,237	89	1,194	86
				96		*97*
	559	93	558	*93*	541	*90*
				97		*97*
	388	81	387	81	373	78
				92		*97*
	10,306	91	10,262	91	9,891	88
				95		*96*

In total, 11,270 (95% CI 11,190-11,365) people with HIV were estimated to be living in the five largest cities in the Netherlands, which amounts to 44% of the total number of people in the country with HIV. Of these 10,795 people, 490 (405-580) were estimated to be undiagnosed (30% of the national estimate of 1,610 individuals with an undiagnosed HIV infection). Of the five cities, Amsterdam had the largest population of people with HIV; an estimated 6,585 (6,545-6,635) individuals, of whom 180 (140-230) were still undiagnosed (*Table 1.5*). Of the 11,270 people with HIV in the five largest cities:

- 10,784 (96%) had been diagnosed and linked to care;
- 10,262 (91%, or 95% of those diagnosed) had started ART; and
- 9,891 (88%, or 96% of those on therapy) had a suppressed viral load below 200 copies/ml.

Most cities had reached or were close to reaching the UNAIDS' 95-95-95 targets for 2025 with the current combined estimate for the cities standing at 96-95-96.

As shown in *Tables 1.5* and *1.6*, some of the regions have relatively small numbers of people with HIV. Estimates of the undiagnosed population are based on observed annual numbers of newly diagnosed HIV infections and on the CD4 count distribution at the time of diagnosis. With an increasingly smaller annual number of diagnoses, estimates become more sensitive to year-on-year fluctuations in newly diagnosed infections. As a result, the relative uncertainty in the estimates becomes larger. In this respect, it is reassuring that the total estimated number of 1,655 (95% CI 1,535-1,835) individuals living with undiagnosed HIV across the eight STI surveillance regions, is reasonably close to the number of 1,610 (1,450-1,760) we have estimated for the total nationwide population.

Table 1.6: Continuum of HIV care for the total population with HIV-1 in the Netherlands diagnosed and linked to care, stratified by the public health service region in which people were living at the end of 2024. Proportions are given relative to the number of people diagnosed and linked to care.

	Diagnosed and linked to care	Retained in care		Antiretroviral therapy		Viral suppression	
Public health service region	**n**	**n**	**%**	**n**	**%**	**n**	**%**
Noord							
Groningen	703	671	95	669	95	654	93
Fryslân	435	418	96	415	95	406	93
Drenthe	347	335	97	333	96	325	94
Oost							
IJsselland	410	397	97	397	97	383	93
Twente	505	490	97	489	97	468	93
Noord- en Oost-Gelderland	563	545	97	543	96	513	91
Gelderland Midden	833	805	97	804	97	766	92
Gelderland-Zuid	501	485	97	483	96	467	93
Utrecht							
Regio Utrecht	1,391	1,342	96	1,340	96	1,303	94
Noord-Holland/Flevoland							
Flevoland	626	591	94	589	94	561	89
Gooi & Vechtstreek	282	267	95	266	94	258	92
Hollands Noorden	490	463	94	463	94	449	92
Zaanstreek-Waterland	424	397	94	397	94	377	89
Amsterdam	6,701	6,381	95	6,364	95	6,135	92
Kennemerland	630	597	95	597	95	545	87
Zuid-Holland Noord							
Haaglanden	1,826	1,772	97	1,757	96	1,693	93
Zuid-Holland Zuid							
Hollands Midden	623	599	96	596	96	578	93
Rotterdam-Rijnmond	2,823	2,709	96	2,694	95	2,595	92
Dienst Gezondheid & Jeugd ZHZ	356	335	94	332	93	318	89
Zeeland/Brabant							
Zeeland	269	255	95	255	95	241	90
West-Brabant	635	624	98	618	97	603	95
Hart voor Brabant	971	937	96	932	96	911	94
Brabant-Zuidoost	805	752	94	748	93	724	90
Limburg							
Limburg-Noord	457	430	94	429	94	409	90
Zuid Limburg	630	596	95	595	94	560	89
Unknown	46	0	0	0	0	0	0
Total	**24,282**	**23,194**	**95**	**23,104**	**95**	**22,240**	**92**

Trans people

Geographical region of origin

Of the 32,544 individuals with an HIV-1 infection, 452 were trans people; 431 (95%) trans women and 21 (5%) trans men. In this group of 452 individuals, the most commonly-reported regions of origin were South America (177, 39%), the Caribbean (88, 19%), the Netherlands (81, 18%), and south and southeast Asia (43, 10%). Interestingly, many of the trans people originated from only a few specific countries. Among the 177 individuals from South America, there were 44 people from Colombia, 33 from Ecuador, 32 from Brazil, 22 from Venezuela, and 19 from Suriname. Most frequently reported countries of origin in the Caribbean were the former Netherlands Antilles (38) and Cuba (19), while 20 people from south and southeast Asia originated from Thailand.

In total, 150 trans people, or 40% of those born abroad, had a documented HIV-1 diagnosis before moving to the Netherlands. The majority (105, or 85%) of these 123 people had already started ART before arrival. By the time these 105 people entered HIV care in the Netherlands, 76 (72%) had HIV RNA levels below 200 copies/ml, which was somewhat lower than in cis people of whom 84%, or 2,922 out of 3,475, had RNA levels below 200 copies/ml.

Diagnosis

In 2022-2024, 43 trans people were newly diagnosed with HIV in the Netherlands. These 43 individuals were relatively young, with a median age of 33 years (IQR 28-35) at the time of their HIV diagnosis, and most of them (38, 88%) were born abroad. Similar to MSM, the majority of the trans men and women, 49%, received their HIV diagnosis at a sexual health centre (*Figure 1.4*). Among the 43 people, 15 had a recent HIV infection at the time of diagnosis, 16 had an established infection (CD4 counts above 350 cells/mm^3), and 12 had a late-stage HIV infection (CD4 counts below 350 cells/mm^3 or AIDS), which was comparable to the distribution across these stages among MSM.

Population in care

In total, 366 (81%) of the 452 trans people with HIV-1 were known to be in clinical care by the end of 2024. Of the 86 people who were not in care anymore, 21 had died, including seven who died of AIDS, while another 23 had moved abroad. The remainder were either lost to care (35), were only diagnosed in 2025 (two), or only entered HIV care in 2025 (five). In total, 18 of the people who moved abroad and 23 of those lost to care had HIV RNA levels below 200 copies/ml at their last viral load measurement.

Clinical condition

The majority of trans people in clinical care (364, or 99%), had started ART by the end of 2024. Of the 356 people in care with a viral load measurement in 2024, 338 (95%) had a last measurement in that year below 200 copies/ml. The most recent CD4 count in 2022-2024 of those in care stood at a median of 730 (IQR 533-1080) cells/mm^3, which was comparable to the CD4 counts in the total population in care.

HIV-2

In total, 102 of the 33,760 registered individuals with HIV acquired an HIV-2 infection (12 MSM, 34 other men, and 56 women); 7 of these were diagnosed in 2013 or later. HIV-2 is endemic in West Africa, and 65 people originated from this region, mostly from Ghana (25 people) or Cape Verde (24 people). Twenty-two individuals were born in the Netherlands.

Population in care

By the end of 2024, a total of 55 people were still in clinical care, i.e., they visited their treating physician in 2024, or had a CD4 count or HIV RNA measurement in that year, and were still living in the Netherlands. Of the other 47 individuals, 24 had died, seven had moved abroad, and 16 had no contact with HIV care during that year. The median age of those still in care was 65 years (IQR 60-69); 51 (93%) individuals were 50 years or older. The majority (93%) of those in care had been living with HIV-2 for more than 10 years, while 60% had been living with it for more than 20 years.

Clinical condition

Of the 55 people still in care, 49 had a most recent viral load measurement below 200 copies/ml, and 5 people had no available HIV-2 RNA result in 2024; there was one individual with a viral load above 200 copies/ml. Most people in care (40, 73%) had started ART. Of the 15 individuals who were still in care but had not started therapy, 13 had a viral load measurement below 200 copies/ml, while the other 2 people had no HIV-2 RNA measurement in 2024. CD4 counts in the group of 59 people in care were a median of 700 (IQR 500-897) cells/mm^3.

Conclusions

Since 2020 the annual number of new HIV diagnoses has remained around the same level, with 444 new diagnoses recorded in 2024. Notably, among MSM, the annual number of diagnoses appears to be increasing. This increase in HIV diagnoses can, in part, be attributed to a rise in the estimated annual number of newly acquired HIV infections. Two in five newly diagnosed MSM have evidence of having acquired their infection at most one year before. Late-stage HIV infection continues to be a concern among other men, women, and people with certain migratory backgrounds.

In 2024, 19% of the new HIV diagnoses among MSM and trans men and women were in people who reported prior use of PrEP. This proportion of people with previous PrEP use is rising. People with prior use of PrEP accounted for a large share of the rise in the proportion of individuals diagnosed with a recent HIV infection compared with 2021. These trends underscore the need to enhance PrEP adherence support and regular HIV testing, thus maximising the effectiveness of PrEP programmes.

Apart from the 444 new HIV diagnoses in 2024, there were 302 people born abroad who arrived in the Netherlands in 2024 and had a documented HIV-1 diagnosis prior to arrival. The large majority of this group had already started antiretroviral therapy before arriving in the Netherlands and had a suppressed viral load. This highlights the importance of cross-border continuity of care, to ensure seamless integration into the Dutch healthcare system for migrants with HIV, and to reach national and international HIV elimination goals.

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