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Roadmap for eliminating HIV/AIDS in Switzerland

Federal Commission for Sexual Health (FCSH)

FCSH/ENS

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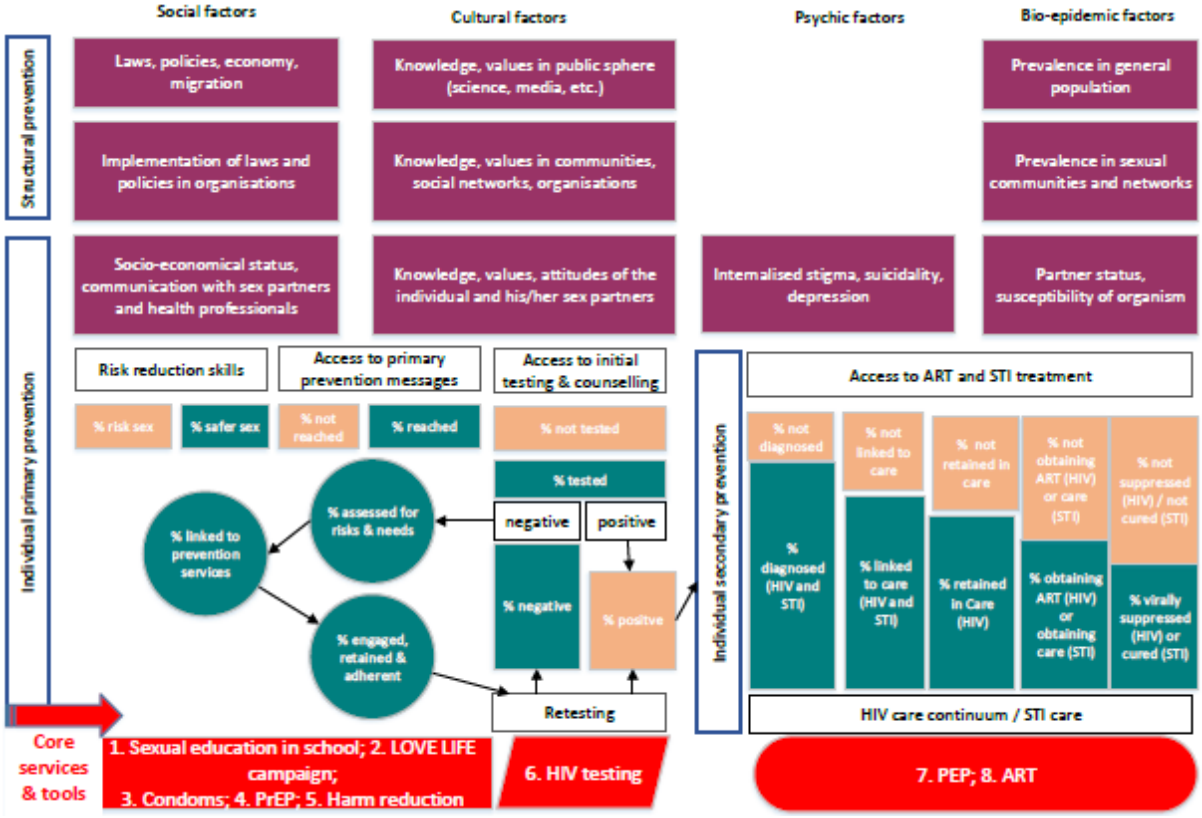
Executive Summary

The *National Programme on HIV and Other Sexually Transmitted Infections 2011–2017/21 (NPHS)* expires at the end of 2021. The Federal Council is to decide on a new programme in 2021. Based on its mandate, the Federal Commission for Sexual Health (FCSH) recommends to the Federal Council that the future national programme on HIV and STI target the ***elimination of HIV/AIDS in Switzerland***. Elimination of this epidemic would be beneficial not only for thousands of individuals but, even more importantly, for society at large. Stopping HIV/AIDS could save some CHF 8 million per year, thus saving some CHF 400 million in direct therapy and treatment costs over the next 50 years. In order to reach the target of elimination, the Commission considers an annual decrease in the number of new cases by 30% as necessary and feasible under the current and projected circumstances.

The FCSH defines the phrase “eliminating HIV/AIDS in Switzerland” as follows: Stopping HIV transmissions and AIDS cases among people living in Switzerland as a result of deliberate and ongoing efforts and measures as well as effective surveillance to prevent reintroduction. With regard to a depiction and narrative of “eliminating HIV/AIDS”, the FCSH suggests the following framework:

Framework for comprehensive HIV elimination processes



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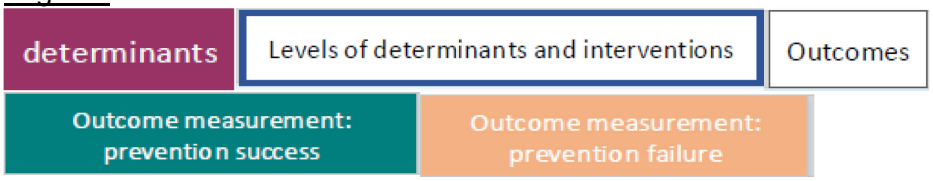


Narrative of HIV/AIDS elimination

Every new HIV infection is preventable and every HIV-related death is avoidable. Missed HIV prevention and treatment opportunities must be regarded as public health emergencies, and efforts to quickly fill gaps in service provision for all people living

with and vulnerable to HIV infection must be prioritized. Programmes to eliminate HIV and other STIs should be embedded in a broader context of sexual health.. This will not only improve the integration of disease control services in health-promoting settings and thus improve the former's acceptability and accessibility, it will also promote people's rights and empower them to make healthy choices and prevent further stigmatisation of key populations.

Switzerland has a **concentrated HIV/AIDS epidemic**. It particularly affects men who have sex with men (MSM) as well as heterosexual women from abroad.

There were 445 **new HIV diagnoses** in 2017. This constitutes a historic low and a decrease of 16% compared to the previous year. The Federal Office of Public Health (FOPH) estimates that at the end of 2017, around 16,600 HIV-positive persons were living in Switzerland. Of those, an estimated 15,000 (90%) were diagnosed, 14,400 (96%) were undergoing HIV treatment, and in 13,800 cases (96%) virus replication was successfully suppressed. In other words, based on FOPH estimates, Switzerland has already reached the three 90-90-90 targets of the WHO's "HIV Cascade of Care". This is an indication of the overall very good quality of the health system when it comes to diagnosis, treatment and treatment outcomes of people who have been infected with HIV.
The FOPH interprets the marked decrease in new infections in 2017 largely as a positive effect of its **test-and-treat strategy**. ***The FCSH considers that the chemical infection prophylaxis PrEP is and will increasingly be of tremendous importance in preventing new infections. It expects the medically controlled use and epidemiological monitoring of PrEP's influence on case numbers to be systematised in future.***

The FCSH is convinced that **conditions are now met for a strategy to eliminate HIV/AIDS**. All the necessary core services and tools are available, namely sex education in schools, the LOVE LIFE campaign, condoms and PrEP prevention measures, harm reduction for people who inject drugs (PWID), a wide range of tests, medication for emergency prophylaxis, antiretroviral treatment and medical care for persons with HIV. The FCSH is convinced that these services and instruments can be made accessible in Switzerland in a non-discriminatory manner and that the political and legal frameworks are also available. International guidance documentation such as *The right to sexual and reproductive health* (Recht auf sexuelle und reproduktive Gesundheit) or the *Political declaration on HIV/AIDS* (Politische Deklaration zu HIV/AIDS*)* (2016), as well as national foundations such as the *Epidemics Act* or the *National Programme on HIV and Other Sexually Transmitted Infections (NPHS) 2011–17/21*, aim to rigorously combat HIV/AIDS over the coming years and ultimately put an end to the HIV/AIDS epidemic.
This roadmap shows the FCSH's **vision** for a new HIV/AIDS programme: "Stopping transmissions of HIV/AIDS in people living in Switzerland." The FCSH also suggests **four overarching operational goals**:

- Accountability: All stakeholders – state actors on all federal levels, non-profit organisations, for-profit organisations – fulfil their lawful duties to make all core services and tools along the comprehensive HIV elimination processes accessible to all people living in Switzerland on a non-discriminatory basis. Service provision is respectful of human rights and medical ethics and does not lead to the stigmatisation of people with, at risk of or vulnerable to HIV.
- Access
    - *Key access:* Key populations most likely to be exposed to or to transmit HIV and those particularly vulnerable to HIV and AIDS, such as MSM, people using oral chemoprophylaxis (PrEP), migrant populations from high-prevalence countries, people who inject drugs, sex workers, transgender people, refugees and populations in closed settings, are provided priority services and tools that are tailored to their particular risks, vulnerabilities and needs.

    - *Integrated access:* Persons at risk of or vulnerable to HIV and AIDS are identified by sexual health and other health services and through community and outreach activities and are given access to core services and tools.
    - *Universal access:* All people living in Switzerland have unrestricted access to all core services and tools without risk of incurring financial hardship.
- Sustainability: Elimination processes are sustainable because they build on the participation of key populations, scientific evidence, innovation and broad political support.
- Surveillance response: Based on a reverse-engineering approach, a surveillance system monitors success or failure along the whole continuum of prevention and care and informs all stakeholders on the elimination progress and on the impact of measures, with a focus on accountability, access and uptake. Analysis and interpretation of data shed light on the social contexts and constructs of the success or failure of prevention efforts. The surveillance response approach allows for the translation of findings into timely action for measures to interrupt transmission.

Based on epidemiological data and most recent models of the Swiss HIV Cohort Study (SHCS), the FCSH suggests a programme aiming for a 30% annual reduction in new cases of HIV and AIDS, which would render elimination by 2030 feasible.

The FCSH is considering, among other things, the following **key challenges** with regard to that end:

1. Accelerating the administrative response to HIV/AIDS: Elimination requires acceleration along the whole continuum of elimination processes (cf. figure 2). It is crucial that the administrative processes for making such innovations as PrEP available and accessible also be accelerated. The respective entities in charge, e.g. swissmedic and the FOPH, need to collaborate closely and transparently, with timely and successful communication, to ensure better public health outcomes. Competencies and processes should be organised in such a way that innovations can be efficiently and rapidly evaluated for their cost-effectiveness and approved for lawful use. This is an essential part of a state's responsibility to protect its citizens from potentially deadly disease. Such reform will be beneficial not only for the response to HIV/AIDS and STIs but for all public health programmes aimed at rapid response.
2. Strengthening and better coordination of the HIV testing strategy: Switzerland does not have a comprehensive and coordinated strategy and network for HIV testing. Reaching the goal of HIV elimination will require extensive efforts to fill gaps in HIV testing. Clear and simple guidelines such as a recommendation for every member of the public to be tested for HIV at least once in their lifetime are needed in order to help people in the general population and in key populations, healthcare professionals and stakeholders in communities to know whom, when and where to test for HIV. All known barriers to HIV testing need to be systematically tackled in key populations and subgroups. This will require close collaboration with these groups. The potential of rapid tests and self-tests ("home tests") needs to be fully exploited to better reach underserved, neglected persons/population groups. Efforts towards elimination will build on a comprehensive analysis of the current HIV testing strategy, while paying heed to the recommendations of the FCSH's testing working group.
3. Population dynamics as a challenge in all populations: One of the most important challenges that any public health programme faces in times of global mobility is that of population dynamics. Whether nationals of a given state or non-nationals, all populations show increasing migratory dynamics due to economic (e.g. mobility of workforces, migration due to economic incentives), political (e.g. refugees) or socioeconomic and cultural (e.g. tourists) incentives. Any disease control programme must therefore vigorously seek ways to constantly account for and adapt to these dynamics. Therefore, an effective surveillance system must be capable of mapping and

interpreting population dynamics in all population groups and of deriving recommendations for disease prevention and control.

Further, the FCSH has identified **specific challenges with regard to key populations** most likely to be exposed to or to transmit HIV and those particularly vulnerable to HIV and AIDS. The challenges identified essentially relate to access to services and tools along the elimination processes.
Finally, in terms of tackling STIs other than HIV, the FCSH observes that the currently unprecedented decrease in new HIV infections in Switzerland is paralleled by an increase in all other STIs largely due to increased testing among the same key populations as for HIV. Consequently, all concentrated **endeavours to eliminate HIV/AIDS as proposed in this roadmap will also have a major and dynamizing spin-off effect on the successful control and eventual elimination of other STIs in Switzerland.**

Introduction

The current National Programme on HIV and Other Sexually Transmitted Infections 2011–2017/21 (NPHS) expires at the end of 2021. The Federal Council is to decide on a new programme in 2021.

In 2016, in the *Political declaration on HIV and AIDS: On the fast track to accelerating the fight against HIV and to ending the AIDS epidemic by 2030*,[1] the United Nations proclaimed an end to the AIDS epidemic by 2030. Switzerland is committed to that goal,[2] which was previously laid down in the Sustainable Development Goals (SDGs).[3] The UNAIDS 2016–2021 Strategy[4] and the WHO Health Sector Strategy on HIV 2016–2021[5] further specified the vision to stop HIV transmissions by 2030. And the WHO formulated its vision of eliminating other STIs by 2030 in its 2016–2021 Health Sector Strategy on STIs.[6]

Against this backdrop, the Federal Commission on Sexual Health (FCSH) has developed this "Roadmap for eliminating HIV/AIDS in Switzerland". In this document, the phrase "eliminating HIV/AIDS in Switzerland" will be referred to as follows (working definition):

"Stopping HIV transmissions and AIDS cases among people living in Switzerland as a result of deliberate and ongoing efforts and measures as well as effective surveillance to prevent reintroduction."

There are strong arguments in favour of concretely moving towards ending the HIV/AIDS epidemic. Never before has the availability of services and tools against HIV and AIDS been as extensive and differentiated. Subject to unlimited access and full uptake, the epidemic could indeed be stopped. This would be beneficial for thousands of individuals but also for society at large. Every year some 400 people are diagnosed with HIV in Switzerland. They will be in need of therapy with harmful side effects for the rest of their lives. Lifelong treatment costs amount to CHF 1 million per person, based on therapy (ART) costs of CHF 20,000 per year and an average life expectancy of 50 years at the time of diagnosis. Stopping HIV/AIDS could save some CHF 8 million per year, thus saving some CHF 400 million in direct therapy and treatment costs over the next 50 years.[7]

Based on its mandate, the FCSH recommends to the Federal Council that the future national programme on HIV and STI target the vision of "eliminating HIV/AIDS in Switzerland".

[1] United Nations General Assembly. New York 8 June 2016. *Political Declaration on HIV and AIDS: On the Fast Track to Accelerating the Fight against HIV and to Ending the AIDS Epidemic by 2030*. A/RES/70/266 (http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/70/266).

[2] Cf. press release of 8 June 2016 by the Federal Council: *International community aims to rid the world of AIDS by 2030* (https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-62087.html).

[3] Cf.: United Nations. *Sustainable Development Goals. Goal 3: Ensure healthy lives and promote well-being for all at all ages.* One of the Goal 3 targets states, "By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases" (https://www.un.org/sustainabledevelopment/health/).

[4] UNAIDS (2016). *UNAIDS | 2016–2021 Strategy. On the fast-track to end AIDS* (http://www.unaids.org/sites/default/files/media_asset/20151027_UNAIDS_PCB37_15_18_EN_rev1.pdf).

[5] WHO (2016). *Global Health Sector Strategy on HIV 2016–2021. Towards ending AIDS* (http://apps.who.int/iris/bitstream/10665/246178/1/WHO-HIV-2016.05-eng.pdf).

[6] WHO (2016). *Draft global health sector strategies. Sexually transmitted infections, 2016–2021*. A69/33, 16 May 2016 (http://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_33-en.pdf?ua=1).

[7] Rough calculations based on estimated mean life expectancy of 50 years in people with HIV and on the following study: Leon-Reyes, S. et al. (2018). *Cost estimates for human immunodeficiency virus (HIV) care and patient characteristics for health resource use from linkage of claims data with the Swiss HIV cohort study*. In: Clinical Infectious Diseases, ciy564 (https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciy564/5055332). Also, the following press release of the SHCS provided an estimate for treatment costs: Universitätsspital Zürich (25 May 2018). Press release. *Schweizer HIV-Präventionspolitik bei intravenös drogenkonsumierenden Menschen ist ein Erfolgsmodell* (http://www.usz.ch/news/medienmitteilungen/Seiten/180524-hiv-praeventionspolitik.aspx).

1. Working definition for "eliminating HIV/AIDS in Switzerland"

In 1988, in the document *The principles of disease elimination and eradication*[8], the World Health Organization (WHO) distinguished various concepts of disease control:

1. "*Control:* The reduction of disease incidence, prevalence, morbidity or mortality to a locally acceptable level as a result of deliberate efforts; continued intervention measures are required to maintain the reduction. Example diarrhoeal diseases.
2. **"*Elimination of disease***: Reduction to zero of the incidence of a specified disease in a defined geographical area as a result of deliberate efforts; continued intervention measures are required. Example: neonatal tetanus.
3. **"*Elimination of infections***: Reduction to zero of the incidence of infection caused by a specific agent in a defined geographical area as a result of deliberate efforts; continued measures to prevent reestablishment of transmission are required. Example: measles. poliomyelitis.
4. "*Eradication*: Permanent reduction to zero of the worldwide incidence of infection caused by a specific agent as a result of deliberate efforts; intervention measures are no longer needed. Example: smallpox.
5. "*Extinction*: The specific infectious agent no longer exists in nature or in the laboratory. Example: none."

Based on these concepts, the phrase "eliminating HIV/AIDS in Switzerland" as used in this document will be defined as follows (working definition):

> "Stopping HIV transmissions and AIDS cases among people living in Switzerland as a result of deliberate and ongoing efforts and measures as well as effective surveillance to prevent reintroduction."

Taking into account the fact that the HIV/AIDS epidemic in Switzerland is concentrated disproportionately on non-nationals, this definition allows for early detection and treatment of people newly immigrating to Switzerland. This may eliminate the risk of ongoing transmission in and by these populations once they have settled in Switzerland, regardless of their legal status.

[8] Dowdle, W.R. (1998). *The principles of disease elimination and eradication.* In: Bulletin of the World Health Organization, 1998, 76 (Suppl 2) 22-25 (https://pdfs.semanticscholar.org/385b/d784ede9ce4b77e6df0acd301fc52c88dd4b.pdf). The emphasis of "elimination of disease" and "elimination of infections" has been added by the author and is not part of the quote.

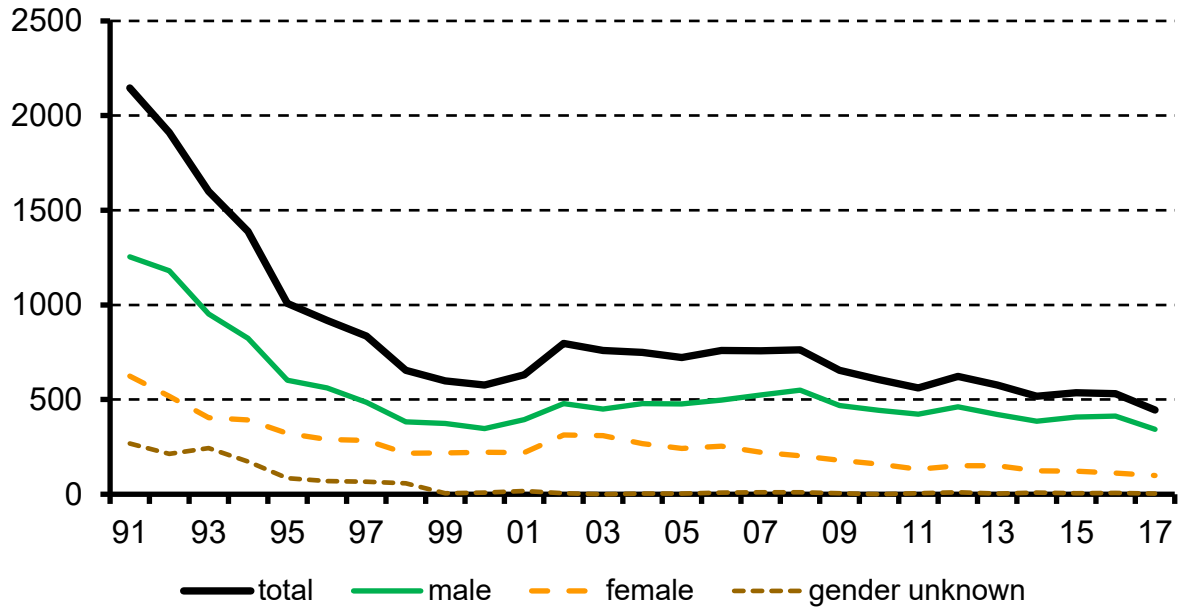
2. The epidemiological baseline

2.1 The HIV/AIDS epidemic in Switzerland[9]

Switzerland is a country with a concentrated epidemic. It particularly affects men who have sex with men as well as primarily heterosexual women from abroad.
In order to understand the following overview, it is important to note that, in the case of the epidemiological analyses published by the FOPH, all persons of foreign (i.e. non-Swiss) nationality are considered to be “migrants” or “foreigners”.

There were 445 new HIV diagnoses in Switzerland in 2017. This constitutes a historic low and a decrease of 16% compared to the previous year. The downward trend observed since 2008 has continued more strongly.

HIV lab reports in Switzerland according to gender and test year, 1991–2017

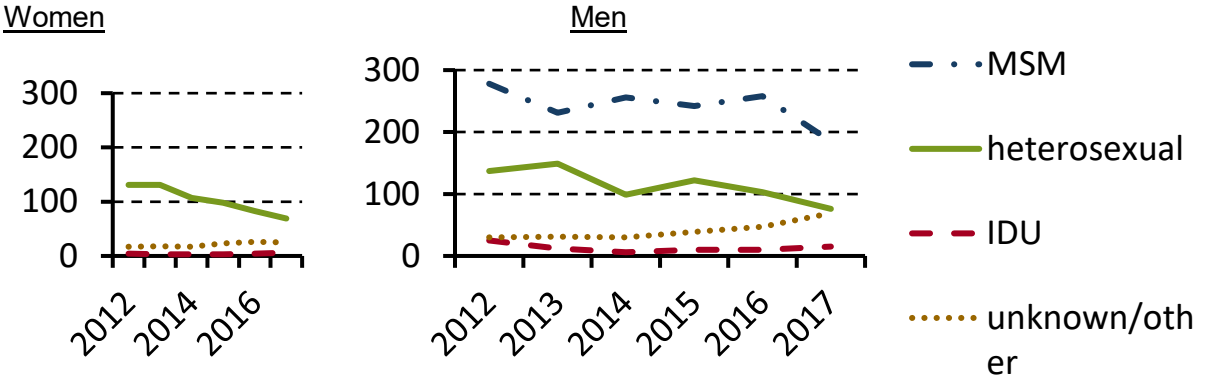


Almost 80% of those affected were men, some 54% of which (61% in 2016) were **men who have sex with men (MSM)**. The MSM share of all new diagnoses is declining and amounted to approximately 42%. Roughly half of MSM became infected through casual partners.

In the case of **women,** the past few years have shown a clearly decreasing trend in the number of diagnoses. Most women contracted the infection from their regular partners. In the FCSH’s view, this might be an indication that HIV-positive men with an immigration background are detected too late by the test-and-treat system.

[9] Federal Office of Public Health (2018). *HIV, Syphilis, Gonorrhoe und Chlamydiose in der Schweiz im Jahr 2017: eine epidemiologische Übersicht.* FOPH Bulletin 47/2018 (19 November 2018) (https://www.bag.admin.ch/hiv-sti-statistiken#accordion_1849326253154262508253 7).

HIV cases in Switzerland among women and men, according to transmission route and year of diagnosis, 2012–2017*



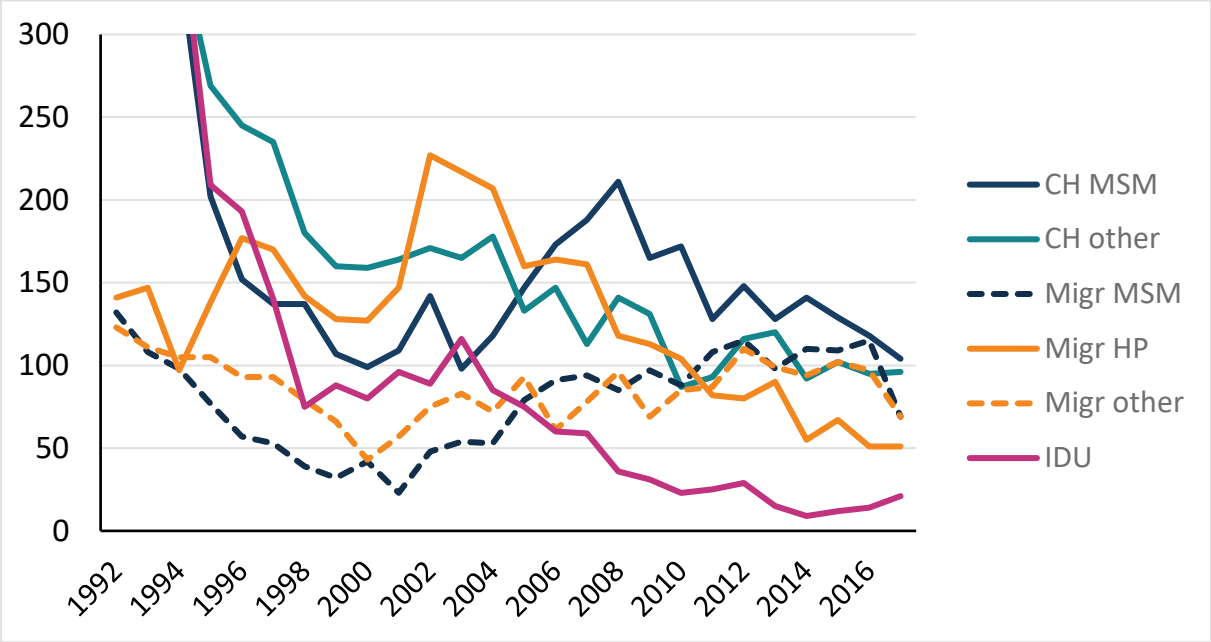
* IDU "injecting drug users" is used here as a synonym of PWID "people who inject drugs".

The **incidence** dropped from 6.4 (2016) to 6 per 100,000 inhabitants. It was three times higher in men than in women. The highest figures were found in the **Greater Zurich** and the **Lake Geneva regions**, which include large urban centres. The figures in rural regions were significantly lower.

Almost half of all new diagnoses (insofar as nationality was known) affected **foreigners** (48%). According to an unpublished FOPH analysis of nationality data in medical reports (*author's note: nationalities classified according to the list of states and territories of the Federal Statistical Office*), out of all foreigner reports in the years 2013–2018 (as at 14/12/2018), 38% involved European countries including Russia and Turkey; 4% involved Asian countries; 25.5% other non-European countries; and 32.5% involved African countries and high-prevalence countries[10] (cf. also footnotes 11, 14). Among MSM, the share of foreigners was approx. 40%, with a downward trend. 24% of all MSM affected came from European countries other than Switzerland. Among the women affected, 66% were foreigners. Among women, the share of persons from high-prevalence countries was about one-third.

[10] Countries with an HIV prevalence of over 1% are deemed to be high-prevalence countries or countries with a generalised epidemic. Wikipedia regularly publishes country lists which are based on the CIA World Factbook (cf. Wikipedia. *List of countries by HIV/AIDS adult prevalence rate* [https://en.wikipedia.org/wiki/List_of_countries_by_HIV/AIDS_adult_prevalence_rate]; cf. CIA. *The World Factbook* [https://www.cia.gov/library/publications/the-world-factbook/rankorder/2155rank.html]). Based on the aforementioned FOPH analysis and current regulations on entry and residence, we may reasonably assume that the foreigners diagnosed with HIV include among them numerous persons who have applied for asylum as well as numerous persons who are not legal residents. This should particularly apply to people from Africa. A report on behalf of the State Secretariat for Migration (SEM) on Sans Papiers states: "A majority of African and Asian undocumented persons are likely to be submerged asylum seekers". Cf. Morlok, M et al. (2015). *Sans-Papiers in der Schweiz 2015. Schlussbericht zuhanden des Staatssekretariats für Migration (SEM)* (https://www.sem.admin.ch/dam/data/sem/internationales/illegale-migration/sans_papiers/ber-sanspapiers-2015-d.pdf).

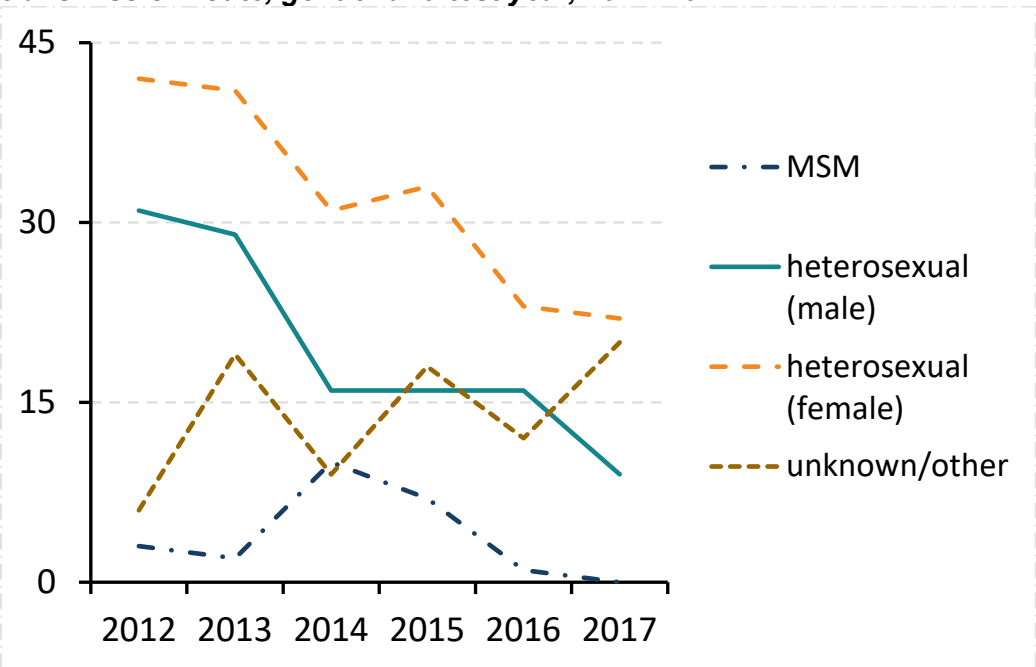
HIV diagnoses in Switzerland according to transmission group and test year, 1992–2017*



* IDU "injecting drug users" is used here as a synonym of PWID "people who inject drugs".

Transmissions related to **IV drug use** played only a minor role in the overall picture of recent years.

HIV diagnoses in Switzerland in persons from high-prevalence countries, according to transmission route, gender and test year, 2012–2017



In the majority of heterosexual Swiss men and women, **the site of transmission** was Switzerland, whereas in the case of heterosexual foreigners, it tended to be abroad (home country). In MSM, the pattern is similar but less pronounced.

According to an international comparative study, it is safe to assume that almost half of all foreigners with an HIV diagnosis were infected after immigrating to Switzerland.[11]

In MSM, the share of **new infections** (infections acquired within the past year) made up just over half of all new infections. In less than one fifth (18%) of all women with a heterosexual transmission route and in almost half (48%) of all men with a heterosexual transmission route, infections were recent. For years, the share of recent infections has been higher in MSM than in heterosexuals, probably due to the more frequent testing among this group.

Acute infections (**primary infections**; high viral load and likelihood of transmission in the first weeks after infection) were found in a quarter of all new diagnoses in MSM (about one third the previous year), whereas in heterosexuals (both sexes) it was only in one sixth.

The share of both recent infections and acute infections indicates that MSM are **diagnosed** earlier, probably because they get tested more frequently.
In one third of cases, the reasons for testing were related to symptoms, of those 38% involved symptoms of a primary infection. Testing that was initiated as a result of risk exposure or for other reasons, however, did not usually involve a primary infection. Primary infection symptoms were thus a major reason for testing, especially in MSM. This corresponds to "provider-initiated counselling and testing" (PICT) recommendations. In 2017, **late diagnoses** applied to 14% of MSM (20% in 2016) and 22% of heterosexuals (25% in 2016).

The number of new **AIDS cases** has been decreasing for years. For the year 2017, 104 cases were reported, 50 of which had already been reported previously. There are always reporting delays of up to 50% in AIDS reporting by doctors. In actual fact, 54 newly diagnosed cases were, therefore, reported in 2017. Of the 88% of new cases where the transmission route was known, 43% of infections occurred via the heterosexual transmission route, 42% via MSM and 15% via PWID (people who inject drugs). Here, the share of heterosexuals was higher than with HIV. This was the case in 2016 as well, where the FOPH reasoned as follows: "The higher share of heterosexual transmission in AIDS cases can probably be explained by the fact that AIDS in Switzerland is diagnosed primarily in persons who did not start an effective treatment against HIV in time, which is more likely to be the case in persons from countries with a high HIV prevalence than among Swiss men and women. PWID were also overrepresented among AIDS cases compared to HIV cases. This is an indication that treatment in this group has for years been discontinued more frequently than among persons with heterosexual transmission routes or MSM."[12]

In its conclusion on the epidemiological situation in 2017, the FOPH writes:

> "The significant decrease in new HIV diagnoses is a sign of the effectiveness of the Swiss prevention policy in recent years: increased testing, particularly in high-exposure groups, early start of treatment and consistently high-quality support of patients. […] This is now also reflected in the lowered figures. Prescribing PrEP for persons with a high risk of exposure can contribute further towards approaching the national goal of eliminating HIV."

[11] Alvarez-del Arco, D. et al. *High levels of postmigration HIV acquisition within nine European countries*. In: AIDS 2017, Vol. 31 No. 14: 1979–1988 (https://boris.unibe.ch/101709/8/00002030-201709100-00010.pdf). The definition of the term "migrant" used in this study does not correspond to the one used by the FOPH in its epidemiological publications on HIV/AIDS and other STIs. Whereas in the latter case, all persons without a Swiss passport are considered "migrants" or "foreigners", the sample of the Alvarez-del Arco et al. study is described as follows: "Participants were over 18 years old, diagnosed with HIV in the preceding 5 years (to minimize recall bias), living outside their country of birth and residing in one of the following nine countries for at least 6 months: Belgium, Germany, Greece, Italy, The Netherlands, Portugal, Spain, Switzerland and the United Kingdom. [...] In Switzerland, migrants from neighbouring Austria, France, Germany and Italy were excluded." Alvarez-del Arco et al. refer indirectly to the need for a clear definition of the term "migrant": "The most important [limitation of the study] stems from the lack of a clear sampling frame for the HIV-positive migrant population within the nine EU/EEA participating countries." Regarding the problem of defining the term "migrant", cf. also footnote 14.
[12] Federal Office of Public Health (2017). *HIV und Aids in der Schweiz im Jahr 2016.* FOPH Bulletin 43/17 (23 October 2017) (HIV und Aids in der Schweiz im Jahr 2016).

From the point of view of the FCSH, there is a need for clarification on three points related to the epidemiological development; all underscore the necessity and importance of effective surveillance response approaches (cf. chapters 4, 6.1., 6.1.1. [Main Goal 4]):

These three urgent issues and prerequisites are:

1. Better understand the importance and impact of **PrEP**. In future, the impact of PrEP on case numbers must be systematically documented, analysed and interpreted. A model of the Swiss HIV Cohort Study (SHCS) has shown that between 2012 and 2015, over one fifth of all new infections could have been prevented if 50% of all MSM who do not consistently use condoms had used PrEP.[13]
2. Better understand the dynamics and transmission developments among **migrant/displaced populations**. The assumption that the aforementioned statement by the FOPH (more testing of particularly exposed groups, early start of treatment and consistently high-quality support of those affected) can also serve to explain the decrease in the number of cases among the migration population is just as inadmissible without further investigation as is the assumption that the decrease among the migration population is due to a negative net migration rate for these groups. Further investigation into both access to care and population dynamics is urgently needed here. In this context, the various legal statuses of persons with an immigration background (including naturalisation) as well as their belonging to the so-called first or second generation must be taken into account. A conceptual framework which takes account of international and national norms is needed for a nuanced capture of the migration population.[14] (Cf. also chapter 6.1.4.)
3. Reduce the share of new diagnoses where the transmission route is unknown. Clearly, in the 2017 the share of new diagnoses where the transmission route is unknown amounted to over one fifth of all new diagnoses.

2.2 The HIV Cascade of Care (CoC)

HIV CoC is a concept that measures and visualises a health system's quality in terms of diagnosis, treatment and treatment outcomes of people infected with HIV. It represents the phases of a process that every HIV-infected person undergoes, whereby there are 3 stages of health system activity: non-diagnosed, diagnosed – stage 1; in treatment – stage 2; successfully treated, i.e. the virus is no longer detectable – stage 3. The CoC target is to ensure that each stage reaches 90% of the previous stage or the first phase, which is the reason we refer to them as the 90-90-90 targets of the HIV cascade. Switzerland has high-quality data on stages 1–3, thanks to the long-standing reporting requirement for HIV and AIDS as well as the Swiss HIV Cohort. Estimating how many HIV-infected persons in Switzerland have not yet been diagnosed, on the other hand, is a challenge which must be tackled using models and will only provide an estimate.

The FOPH estimates that at the end of 2017, around 16,600 HIV-positive persons were living in Switzerland. Of these, an estimated 15,000 (90%) were diagnosed, 14,400 (96%) were undergoing HIV treatment, and in 13,800 cases (96%) virus replication was successfully suppressed.
This means that Switzerland has reached the 90-90-90 targets of the WHO's Cascade of Care. Recent models have shown that these targets had been reached as early as 2012.

[13] Kusejko, K. et al. (2018). *Quantifying the drivers of HIV transmission and prevention in men who have sex with men: a population model-based analysis in Switzerland.* In: HIV Medicine (2018), 19, 688–697 (https://onlinelibrary.wiley.com/doi/pdf/10.1111/hiv.12660).

[14] The FOPH, for example, has given corresponding consideration to fundamentals as part of its research into equal health opportunities, cf.: Federal Office of Public Health (2016). *Schlüsselmerkmale zur Erfassung des Migrationshintergrundes in schweizerischen Gesundheitsdatenerhebungen* (Schlüsselmerkmale Migrationshintergrund). Generally, it has to be considered that migration/displacement is a multidimensional, dynamic and therefore complex phenomenon. Each analytical endeavor has therefore to define its priorities and aspects of migration/displacement relevant for the question under study.

According to initial estimates, with less than 10% of non-diagnosed HIV-infected persons, Switzerland reached all three 90-90-90 targets as early as 2012.

2.3 Elements of behavioural surveillance15

In addition to biological surveillance, Switzerland also conducts surveillance of protection and risk behaviour. Within this framework, the Institute of Social and Preventive Medicine of the University of Lausanne (IUMSP) authored several reports on relevant topics and target groups, including national surveys among MSM (Gaysurvey, 2012 and 2014), immigrants from sub-Saharan countries (ANSWER study, 2014), sex workers (SWAN study, 2016) and PWID in low-threshold drop-in centres (*consommateurs de drogue fréquentant les structures à bas seuil*, SBS study, 2011). In addition, IUMSP carried out a secondary analysis of the data on sexual behaviour from the Swiss Health Survey (SGB, 2012), as well as monitoring the distribution of syringes to PWID in various settings (low-threshold drop-in centres and as part of the HeGeBe heroin distribution programmes). Data on the sale of condoms in Switzerland were analysed as well, and the IUMSP has also participated in studies at other institutions, such as the evaluation of the "Break the Chains" prevention campaign among MSM (2015)[16], or a market study to estimate the sale of condoms in Switzerland. Further studies included one on syringe exchange services for incarcerated PWID (2016) and on HIV and STI risks among trans persons (2016).

The principal available findings were summarised in a 2016 synthesis report of the IUMSP (cf. page 71), providing a simplified version of the available information and the level of vigilance recommended for the main indicators of HIV–STI behavioural surveillance (cf. overview on next page):

6. **General population**: The studies that were considered reveal relatively little. They indicate room for improvement in terms of test rates and condom use.
7. **MSM**: The studies that were considered indicate test rates that ranged from mediocre to good. They indicate a high level of knowledge regarding transmission routes and access to testing services as well as good access to the corresponding protection information. They indicate what is to some extent a worryingly inconsistent use of condoms in sexual contacts with casual partners as well as a lack of knowledge about PrEP options. The FCSH maintains, however, that the data evaluated by the IUMSP Lausanne date back to 2016 or the years before and that the situation has improved considerably since then.
8. **People from sub-Saharan countries** (high-prevalence countries): The studies that were considered indicate worrying rates of experiences of sexual violence. They indicate that access to protection information should be greatly improved, as should the level of knowledge regarding transmission routes and access to testing services. They reveal major gaps in the evidence.

With regard to the dynamics in all populations (cf. chapter 6.1.4.), it will in future be essential to differentiate according to migration status and (in order to record the time dimension) migration history in all target groups (key populations, cf. footnote 36) and to find ways to operationalize the different patterns of mobility within populations, including for persons without an immigration background.

[15] Lociciro, S. et al. (2016). *Système de surveillance du VIH et des IST de deuxième génération en Suisse: Rapport de synthèse 2012–2016* (https://www.iumsp.ch/fr/rds/278).

[16] Frey, K. et al. (2015). *Measurement of the effectiveness of Break the Chains 2015* (https://www.bag.admin.ch/dam/bag/de/dokumente/mt/p-und-p/msm/measurement-effectiveness-btc.pdf.download.pdf/measurement-effectiveness-btc.pdf).

Tableau 23 Vue simplifiée des informations disponibles et du niveau de vigilance préconisé pour les principaux indicateurs de la surveillance comportementale VIH/IST

	Population générale	HSH	Migrant-e-s ASS	TS	UD
Connaissances sur la transmission du VIH et lieux de dépistage					
Accès aux messages de prévention VIH/IST					
Connaissance sur les symptômes de la primo-infection par le VIH					
Connaissance sur la PEP					
Connaissances sur la PrEP					
Niveau d'information par rapport aux autres IST					
Rapport sexuels sous la contrainte durant la vie					
Risques liés à l'injection de drogue par voie iv					
Non utilisation du préservatif lors du dernier rapport sexuel avec un partenaire occasionnel (chez TS = un client) et ≥ 2 partenaires sexuels dans les 12 derniers mois					
Réalisation d'un test VIH durant la vie					
Réalisation d'un test VIH durant les 12 derniers mois					
Taux de personnes se déclarant VIH+ qui rapportent être sous traitement antirétroviral					
Réalisation d'un test pour une IST autre que le VIH dans les 12 derniers mois					
Taux de personnes se déclarant VHC+ qui rapportent être ou avoir été sous traitement anti-VHC					

Code couleurs : Vert = situation favorable confirmée (le suivi de l'indicateur peut être espacé) ; Rayé vert/orange = situation plutôt favorable ou en voie de le devenir ; Orange = situation intermédiaire avec une marge de progrès importante ; Rayé orange/rouge = situation intermédiaire en voie de devenir préoccupante ; Rouge = situation préoccupante ; Blanc = pas de donnée récente ou absence de donnée.

3. Core services and tools for elimination are available

The HIV/AIDS epidemic in Switzerland could be stopped with the following available core services and tools:

Elements of the treatment chain	**Core services and tools**
Prevention messages	1. For a holistic **school sex education**, which, among other things, helps prevent HIV and STIs, there are evidence-based concepts[17] that are broadly recognised in Switzerland.[18] 2. The **LOVE LIFE campaign,** in addition to the simple protection message "*vaginal and anal sex with a condom*", provides the population with **individual, risk-based protection information** online**.**
Means of prevention	3. Besides **condoms** as a means to prevent infection**,** there are now also 4. medications for **chemical infection prophylaxis (PrEP)**, which offer at least the same level of protection as condoms and reliably prevent infection even if the sex partner has an acute HIV infection.
Harm reduction	5. Low-threshold **harm-reduction** services (syringe exchange as well as drug substitution services and heroin-assisted treatment) for PWID have been available for years.
Testing[19]	6. **HIV Tests** 6.1. **Self-tests** can rule out an HIV infection after 12 weeks. 6.2. Fourth-generation **rapid tests** can rule out a possible HIV infection after as little as 6 weeks. 6.3. Fourth-generation **lab tests** can confirm an actual infection after two weeks at the earliest, and exclude a possible HIV infection after six weeks.
Emergency prophylaxis	7. In the event of an emergency, when persons attend a doctor's practice immediately after a risk situation, **post-exposure prophylaxis (PEP)** is available. If initiated in time, PEP can prevent an HIV infection.
Treatment and care	8. Persons diagnosed with HIV generally have rapid access to **antiretroviral therapy (ART)**. It is very likely to prevent the persons affected from developing AIDS. Subject to good adherence, this treatment can permanently suppress the viral load in their blood so that they cannot infect others.

[17] WHO-Regionalbüro für Europa und BZgA (2011). *Standards für die Sexualaufklärung in Europa. Rahmenkonzept für politische Entscheidungsträger, Bildungseinrichtungen, Gesundheitsbehörden, Expertinnen und Experten*. Bundeszentrale für gesundheitliche Aufklärung (BZgA). Cologne, (https://publikationen.sexualaufklaerung.de/cgi-sub/fetch.php?id=734).

[18] The Federal Council, 21 February 2018: *Prüfung der Grundlagen zur Sexualaufklärung. Bericht des Bundesrates in Erfüllung des Postulates 14.4115 Regazzi vom 10. Dezember 2014*, S. 2 (https://www.bag.admin.ch/dam/bag/de/dokumente/mt/p-und-p/diverses/pruefung-der-grundlagen-zur-sexualaufklaerung.pdf.download.pdf/pruefung-der-grundlagen-zur-sexualaufklaerung.pdf).

[19] For a detailed analysis of HIV screening options in Switzerland, cf. Bize R., Vu F., Dubois-Arber F. et al. *Analyse des stratégies, de l'offre, et des lacunes en matière de dépistage du VIH et des autres IST en Suisse. Rapport du groupe de travail 5 "Testing" de la Commission fédérale pour la santé sexuelle*. Bern, 2018.

4. A narrative and visualisation of "elimination"

For a programme/strategy of HIV elimination, Horn et al. (2016)[20] offer both a narrative and a visual depiction, which may serve as a starting point for the FCSH and the FOPH and its partners in the process aiming to yield the next national HIV and STI-Programme 2022–2030.

A narrative of HIV/AIDS elimination
Horn et al. present the following narrative of HIV/AIDS elimination which, in the FCSH's view, requires everyone be given unimpeded access to services:

> "Every new HIV infection is preventable and every HIV-related death is avoidable. […] [M]issed HIV prevention and treatment opportunities must be regarded as public health emergencies, and efforts to quickly fill gaps in service provision for all people living with and vulnerable to HIV infection must be prioritized."

A depiction of HIV/AIDS elimination
Integrating the HIV prevention continuum and the HIV treatment continuum, Horn et al. have developed a conceptual model labelled "*Comprehensive HIV prevention process*" that was adapted for the Swiss context.

Figure 1
Framework for comprehensive HIV prevention processes

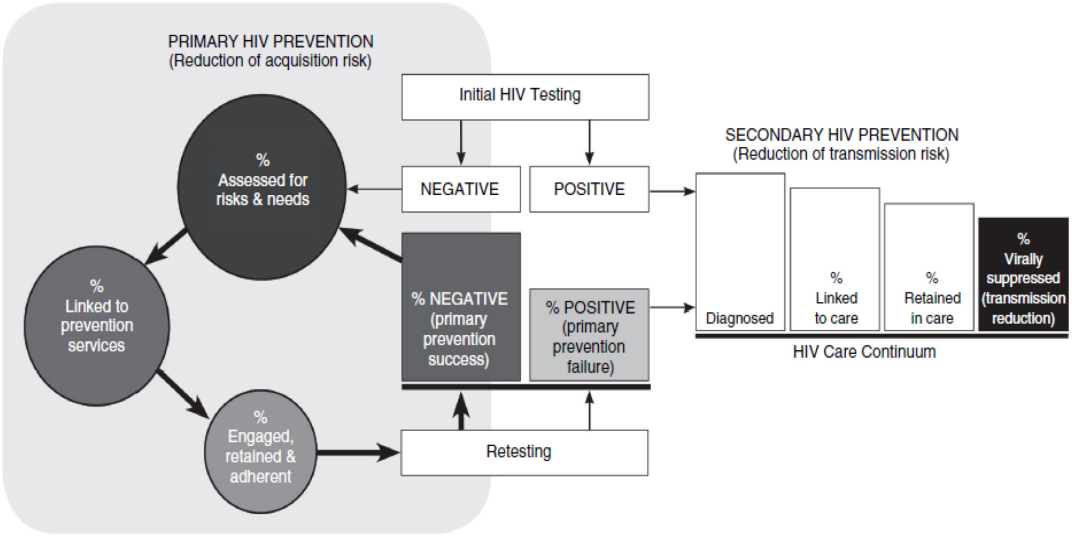


Figure 1. Comprehensive HIV prevention processes. Conceptual framework illustrating the interplay between processes to halt both the acquisition and transmission of HIV. The primary HIV prevention cycle, left, begins with HIV testing. Risk and needs assessments, linkage to services, engagement in risk-reduction prevention interventions and HIV testing are repeated for as long as an individual remains at risk for HIV acquisition.

According to Horn et al., this conceptual framework provides a "standardized roadmap for moving aggressively forward in reaching national HIV incidence and care targets". It is designed to address "individualized primary HIV prevention needs to achieve population-level reductions in HIV acquisition risk and to illustrate the critical link between a comprehensive

[20] Horn, T. et al. (2016). *Towards an integrated primary and secondary HIV prevention continuum for the United States: a cyclical process model.* Journal of the International AIDS Society 2016, 19:21263 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5116064/pdf/JIAS-19-21263.pdf).

primary prevention process and the care continuum to further improve health outcomes and minimize transmission risk among those who are infected with HIV". The model depicts primary prevention as a cyclical process, "recognizing that the primary goal of remaining HIV negative, confirmed by repeat testing, is not a static process but rather a dynamic one, dependent on population, network and individual fluctuations in biomedical and supportive care needs over time". The FCSH wishes to add that the social needs of clients need to be catered to as well. The Commission also emphasizes that testing is not necessarily the sole point of entry to prevention. Rather, other prevention services and tools should empower individuals to manage their risks.

Surveillance response – a key to elimination

When aiming at elimination, a shift from standard M&E towards surveillance response approaches becomes essential. Surveillance response means installing the systems that capture the minimal essential information (including behavioural) in space and time in order to swiftly launch the appropriate public health and individual responses. Thus, surveillance will become an intervention and ensure our path to elimination.

In addition, with regard to surveillance, Horn et al. note that "in contrast to the relatively straightforward data elements used to assess outcomes along the HIV care continuum, the metrics required to populate a primary HIV prevention continuum involving different systems of service delivery, interventions and outcome measures are incredibly complex and often without adequate or complete population-based data sources". Horn et al. offer two possible approaches to address gaps in the data required for programmatic planning and implementation.

- Validate existing data sources

A "large-scale effort to identify and validate data sources for mid-cycle elements of the HIV prevention continuum, such as rates of health insurance coverage, linkage to service providers and utilization of evidence-based interventions".

- A "reverse engineering" approach

Leveraging extant, robust HIV surveillance data among individuals who tested positive for HIV, with the assumption that each new infection represents a missed opportunity for primary HIV prevention. "In the setting of expanded prevention options available to those vulnerable to HIV infection, there is a need for renewed and strategic use of HIV surveillance data on new diagnoses to systematically understand prevention gaps and missed prevention opportunities, with rapid translation to 'reverse engineer' primary HIV prevention continuum element priorities. (…). Treating each new infection as an [sic] sentinel health event is necessary to understand exactly where gaps in the primary HIV prevention continuum are occurring, especially as PrEP and PEP implementation is ramping up in many jurisdictions. Examples of probable gaps include the following: lack of knowledge regarding the symptoms of, and high transmission risk during, acute HIV infection; lack of awareness or availability of PrEP, PEP, SEP or other interventions; poor retention in or adherence to prevention services; and structural barriers to affordable health insurance, adequate medical care, […] or other supportive services. A fundamental assumption in the reverse engineering approach is that people vulnerable to HIV infection will have similar characteristics and risk factors to those who were recently diagnosed, such that extrapolation of data between populations is valid."

The FOPH (Marianne Jossen) has completed Horn et al.'s "comprehensive HIV prevention processes" by adding to it the crucial social, economic, cultural, psychological and bio-epidemiological determinants of HIV prevention. Also integrated are the core services and tools (cf. chapter 3). This depiction may serve as an illustration of *"comprehensive HIV elimination processes"* (cf. figure 2, next page).

The FCSH strongly recommends situating the extended conceptual framework of elimination as shown in figure 2 within the broader context of sexual health. The narrative would be completed as follows:

A narrative of HIV/AIDS elimination in the context of sexual health

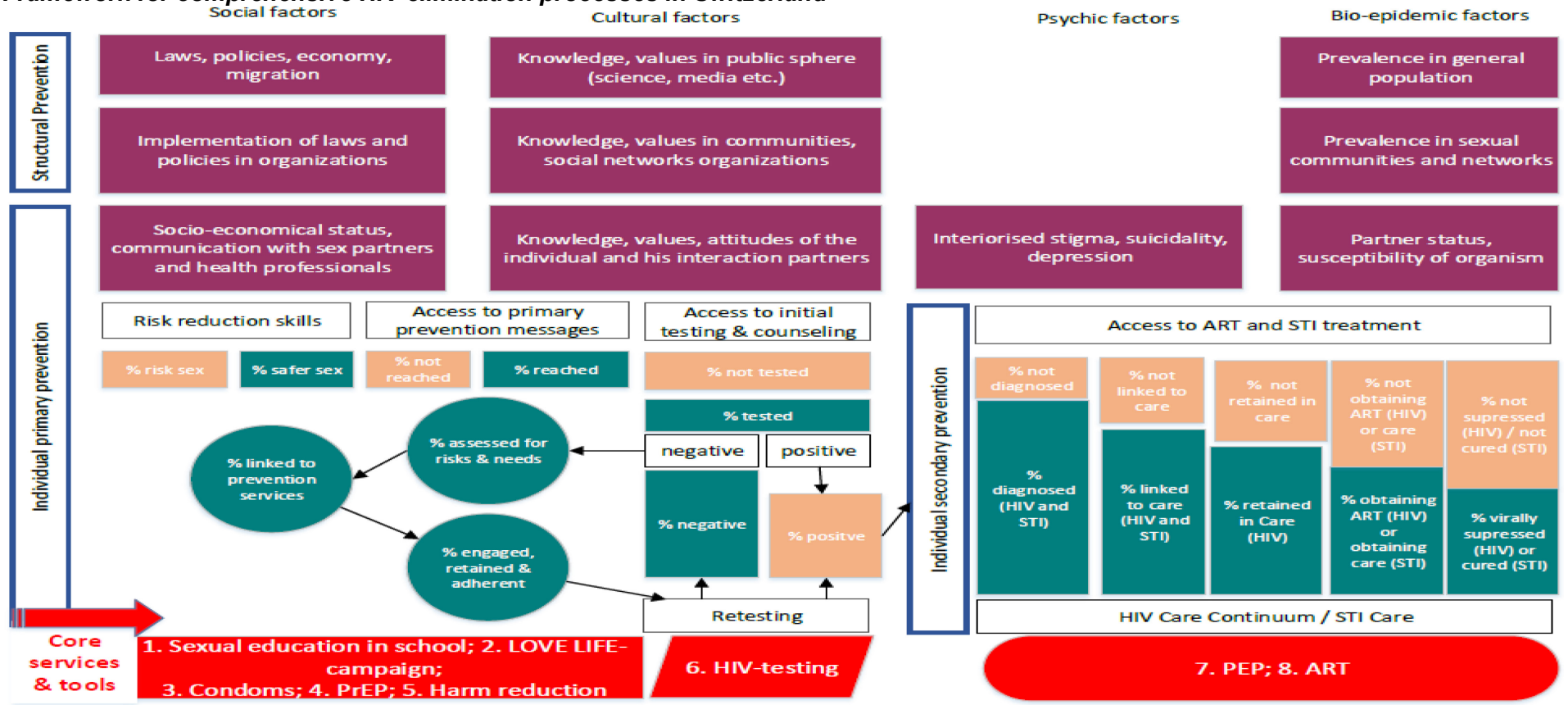
"Every new HIV infection is preventable and every HIV-related death is avoidable. […] [M]issed HIV prevention and treatment opportunities must be regarded as public health emergencies, and efforts to quickly fill gaps in service provision for all people living with and vulnerable to HIV infection must be prioritized.[21] *Programmes to eliminate HIV and other STIs should be embedded in a broader context of sexual health. This will not only improve the integration of disease control services in health-promoting settings and thus improve the former's acceptability and accessibility, it will also promote people's rights and empower them to make healthy choices and prevent further stigmatisation of key populations*."[22]

[21] Horn, T. et al.

[22] For the role of sexual health in more effective prevention programmes, cf.: Douglas Jr., J.M., Fenton, K.A. (2013). *Understanding sexual health and its role in more effective prevention programs.* Public Health Reports / 2013 Supplement / Vol. 128 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3562741/pdf/phr128s10001.pdf).

Figure 2

Framework for comprehensive HIV elimination processes in Switzerland



Legend:

5. Favourable conditions for a strategy of elimination

The necessary services and instruments for eliminating HIV/AIDS are basically available (cf. chapter 3) and can be made accessible (cf. chapter 6.1.3). Furthermore, the political and statutory framework conditions are currently favourable for considering HIV/AIDS elimination and an end to the HIV/AIDS epidemic in Switzerland. At international and national levels, there are important guidance documents on developing and implementing an elimination strategy. They document the objective not only of ending the HIV/AIDS epidemic but also of non-discrimination and non-stigmatisation.

5.1 International guidance documents

In 2016, in the *Political declaration on HIV and AIDS: On the fast track to accelerating the fight against HIV and to ending the AIDS epidemic by 2030*,[23] the United Nations proclaimed an end to the AIDS epidemic by 2030. Switzerland is committed to that vision,[24] which was previously laid down in the Sustainable Development Goals (SDGs)[25]. The UNAIDS 2016–2021 Strategy[26] and the WHO Health Sector Strategy on HIV 2016–2021[27] further specified the vision to stop HIV transmissions by 2030. And the WHO formulated its vision of eliminating other STIs by 2030 in its 2016–2021 Health Sector Strategy on STIs.[28] All mentioned documents commit to the goal of eliminating stigma and discrimination in relation to HIV and AIDS as a condition of ending the epidemic.

5.2 The right to health

With regard to eliminating HIV/AIDS, the right to health stipulated in Article 12 of the *International Covenant on Economic, Social and Cultural Rights (Covenant I)*[29] in the year 2000 constitutes an important basis for legitimacy. According to the Committee on Economic, Social and Cultural Rights, the prevention, treatment and control of HIV/AIDS is one of its key elements, i.e. it is one of the state's minimum obligations under this covenant law[30]:

Art. 12
(1) The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.
(2) The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for:
[…]
c) The prevention, treatment and control of epidemic, endemic, occupational and other diseases

[23] United Nations General Assembly. New York, 8 June 2016. *Political declaration on HIV and AIDS: On the fast track to accelerating the fight against HIV and to ending the AIDS epidemic by 2030*. A/RES/70/266 (http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/70/266).

[24] Cf. press release of 8 June 2016 by the Federal Council: *International community aims to rid the world of AIDS by 2030* (https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-62087.html).

[25] Cf.: Footnote 3.

[26] UNAIDS (2016). *UNAIDS | 2016–2021 Strategy. On the fast-track to end AIDS* (http://www.unaids.org/sites/default/files/media_asset/20151027_UNAIDS_PCB37_15_18_EN_rev1.pdf).

[27] WHO (2016). *Global Health Sector Strategy on HIV 2016–2021. Towards ending AIDS* (http://apps.who.int/iris/bitstream/10665/246178/1/WHO-HIV-2016.05-eng.pdf).

[28] WHO (2016).*Global Health Sector Strategy on sexually transmitted infections 2016–2021. Towards ending STIs*. (http://apps.who.int/iris/bitstream/handle/10665/246296/WHO-RHR-16.09-eng.pdf;jsessionid=3D6DBA90AC43483CE3EBBBEBF399A0AD?sequence=1).

[29] *International Covenant on Economic, Social and Cultural Rights*. Completed in New York on 16 December 1966. Approved by the Federal Assembly on 13 December 1991. Swiss instrument of accession deposited on 18 June 1992. Entered into force for Switzerland on 18 September 1992. (0.103.1) (https://www.admin.ch/opc/de/classified-compilation/19660259/index.html).

[30] Committee on Economic, Social and Cultural Rights, 11 August 2000 (contained in document E/C.12/2000/4). *CESCR General Comment No. 14: The right to the highest attainable standard of health (Art. 12)* (http://www.refworld.org/pdfid/4538838d0.pdf).

5.3 The right to sexual and reproductive health

In May 2016, the Committee on Economic, Social and Cultural Rights declared the *right to sexual and reproductive health* to be an integral element of the right to health.[31] This further reinforced the foundation for legitimising the vision of "eliminating HIV/AIDS" and "ending the HIV/AIDS epidemic". According to the Committee (cf. paragraph 49), the key elements, i.e. the state's minimum obligations under the right to sexual and reproductive health shall include:

(a) To repeal or eliminate laws, policies and practices that criminalize, obstruct or undermine access by individuals or a particular group to sexual and reproductive health facilities, services, goods and information;

(c) To guarantee universal and equitable access to affordable, acceptable and quality sexual and reproductive health services, goods and facilities, in particular for women and disadvantaged and marginalized groups;

(f) To ensure all individuals and groups have access to comprehensive education and information on sexual and reproductive health that are non-discriminatory, non-biased, [and] evidence-based […];

(g) To provide medicines, equipment and technologies essential to sexual and reproductive health, including based on the WHO Model List of Essential Medicines;

[…].

According to the Committee, the latter include drugs for pre-exposure prophylaxis against HIV: "13. […] Essential medicines should also be available, including a wide range of contraceptive methods, such as condoms […] and medicines, including generic medicines, for the prevention and treatment of sexually transmitted infections and HIV." The *WHO Model List of Essential Medicines*[32] lists PrEP under title 6.4.2 Antiretrovirals: "Based on current evidence and experience of use, medicines in the following three classes of antiretrovirals are included as essential medicines for treatment and prevention of HIV (prevention of mother-to-child transmission, pre-exposure prophylaxsis [sic] (where indicated) and post-exposure prophylaxis)."

[31] Committee on Economic, Social and Cultural Rights, 2 May 2016. *General comment No. 22 (2016) on the right to sexual and reproductive health (article 12 of the International Covenant on Economic, Social and Cultural Rights)* (http://digitallibrary.un.org/record/832961/files/E_C.12_GC_22-EN.pdf?version=1).

[32] *WHO model list of essential medicines. 20th list (March 2017) (Amended August 2017)* (http://www.who.int/medicines/publications/essentialmedicines/20th_EML2017_FINAL_amendedAug2017.pdf?ua=1).

5.4 The Epidemics Act[33]

The new *Federal Act of 28 September 2012 on Combating Communicable Human Diseases (Epidemics Act, EpidA)* has been in force since 1 January 2016. It enables early detection, monitoring, prevention and control. The most significant change in this context is that the new Epidemics Act has explicitly and permanently given the Confederation competence to set national targets and strategies in the area of combating communicable diseases. This includes in particular vaccinations, treatment-associated infections and resistance to pathogens as well as HIV and other sexually transmitted infections. This new competence strengthens the Confederation's leadership role and options in these areas. Regarding HIV/AIDS, the Act determines as follows:

> ***Art. 5*** *National programmes*
> *1 The Federal Office of Public Health (FOPH), with the involvement of the cantons, prepares topic-specific national programmes for the detection, monitoring, prevention and control of communicable diseases, particularly in the areas of: […]*
> *c. HIV and other sexually transmitted pathogens.*
> *2 As part of their respective responsibilities, the Confederation and the cantons shall ensure implementation of the national programmes.*

5.5 National Programme on HIV and Other Sexually Transmitted Infections 2011–17/21[34]

In September 2017, the Federal Council decided to extend the *National Programme on HIV and Other Sexually Transmitted Infections 2011–2017* by four years, from 2018 until 2021. The press release[35] issued by the Federal Council regarding this decision reads, "Since the programme was launched in 2011, the number of newly diagnosed HIV cases has levelled off at around 500 per year. […] By extending the programme, Switzerland is in line with the WHO and other international stakeholders which aim to rigorously combat HIV and STI infections in the next 10 to 15 years. Every single infection that can be prevented will reduce not only individual suffering but also high economic costs. […] Even though much has proved effective, new findings are to be reviewed continually starting in 2018 and, where appropriate and useful, integrated into the programme."

[33] Federal Act on Combating Communicable Human Diseases (Epidemics Act, EpidA; SR 818.101) (https://www.admin.ch/opc/de/classified-compilation/20071012/201701010000/818.101.pdf).
[34] Federal Office of Public Health (2010). *National Programme on HIV and Other Sexually Transmitted Infections 2011–2017/21* (NPHS_D; NPHS Engl; NPHD F).
[35] Federal Council (Pub.) Press release of 6 September 2017. *National Programme on HIV and Other Sexually Transmitted Infections extended* https://www.admin.ch/gov/de/start/dokumentation/medienmitteilungen.msg-id-67985.html).

6. Draft outline of a strategy for eliminating HIV/AIDS in Switzerland by 2030

The following outline of a *technical strategy for eliminating HIV/AIDS in Switzerland by 2030* has been drafted with reference to the WHO's *Global Health Sector Strategy on HIV 2016–2021. Towards ending AIDS* (cf. footnote 5).

6.1 Technical strategy for eliminating HIV/AIDS in Switzerland by 2030

<table>
<tr><td colspan="4">Public health context: sexual health</td></tr>
<tr><td colspan="4">Strategic principles
— Human rights, including sexual and reproductive rights, medical ethics
— Public health approach
— Universal access and health coverage
— Health equity
— The continuum of services</td></tr>
<tr><td colspan="4">Strategic pillars</td></tr>
<tr><td>Pillar 1
Essential response package</td><td>Pillar 2
Delivering for equity</td><td>Pillar 3
Financing for sustainability</td><td>Pillar 4
Innovation</td></tr>
<tr><td>Define the essential package of services and tools on the "comprehensive HIV elimination processes" (cf. figure 2) that must be included in an affordable national health package.</td><td>Identify the best methods and approaches for delivering the continuum of HIV services to various (key) populations and in diverse settings and locations, in order to achieve equity and maximum impact.</td><td>Identify sustainable models for financing HIV responses in order for people to be able to access the services they need without incurring financial hardship.</td><td>Identify areas where there are major gaps in knowledge and technologies.

Identify major legal and policy hurdles that need to be removed.</td></tr>
<tr><td colspan="4">Strategic foundation: Surveillance – Response – the "who", "where" and "when"
— Transform HIV surveillance into a core intervention.
— Information for focused and timely action.</td></tr>
</table>

6.1.1 Vision and goals

Vision	**Elimination**	Stopping transmissions of HIV/AIDS in people living in Switzerland.
Main goal 1:	**Accountability**	All stakeholders – state actors on all federal levels, non-profit organisations, for-profit organisations – fulfil their lawful duties to make all core services and tools along the *comprehensive HIV elimination processes* accessible to all people living in Switzerland on a non-discriminatory basis. Service provision is respectful of human rights and medical ethics and does not lead to the stigmatisation of people with, at risk of or vulnerable to HIV.
Main goal 2:	**Access**	
2.1.	*Key access*	Key populations[36] most likely to be exposed to or to transmit HIV and those particularly vulnerable[37] to HIV and AIDS, such as MSM, people using oral chemoprophylaxis (PrEP), migrant populations from high-prevalence countries, PWID, sex workers, transgender people, refugees and populations in closed settings, are provided priority services and tools that are tailored to their particular risks, vulnerabilities and needs.[38] Priority is given to services in geographical centres of the epidemic, and capacities of geographical centres are strengthened.[39] The feasibility and cost-effectiveness of free services for individuals belonging to key populations and living in economically difficult situations should be evaluated, and a set of social indicators for eligibility should be developed (types of status such as “asylum seeker”, “prisoner”, “adolescent before legal maturity”, “*undocumented immigrant* (irregular migration)”.

[36] World Health Organization (WHO) Regional Office for Europe (2016). *Action plan for the health sector response to HIV in the WHO European Region* (p. 2, footnote 1). “[…] key populations […] are defined as those groups of people most likely to be exposed to or to transmit HIV and whose engagement is critical to a successful response. In the WHO European Region, key populations include people living with HIV, PWID, MSM, transgender people, sex workers, prisoners and migrants. The sexual partners of people in these groups are also considered key populations.” (http://www.euro.who.int/__data/assets/pdf_file/0007/357478/HIV-action-plan-en.pdf?ua=1).

[37] Bronfman, M.N et al. (2002). AIDS 2002, 16 (suppl 3): p. 43. *Mobile populations and HIV/AIDS in Central America and Mexico: research for action*. “Whereas risk indicates probability and evokes a reference to individual conduct, vulnerability is an indicator of social inequity and demands responses at social and political levels […]” (https://pdfs.semanticscholar.org/f610/c8a6392870d13c7667e1df279ed73995733b.pdf).

[38] World Health Organization (WHO) (2016). *Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations. 2016 update*. (http://apps.who.int/iris/bitstream/handle/10665/246200/9789241511124-eng.pdf?sequence=1).

[39] E.g. by Swiss cities playing an active role in the “*Fast-Track Cities*” network of the International Association of Providers of AIDS Care (IAPAC) and UNAIDS (http://www.fast-trackcities.org/).

2.2.	*Integrated access*	Persons at risk of or vulnerable to HIV and AIDS are identified by sexual health and other health services and through community and outreach activities and are given access to core services and tools along the *comprehensive HIV elimination processes*. This requires, among other things, the development of a comprehensive strategy for improving access to HIV testing in key populations and the general population.[40]
2.3.	*Universal access*	All people living in Switzerland have unrestricted access to all core services and tools along the *comprehensive HIV elimination processes* without risk of incurring financial hardship.
Main goal 3:	**Sustainability**	Elimination processes are sustainable because they build on the participation of key populations, scientific evidence, innovation and broad political support.
Main goal 4:	**Surveillance response**[41]	Based on a reverse-engineering approach, a surveillance system monitors success or failure along the whole continuum of prevention and care and informs all stakeholders on the elimination progress and on the impact of measures, with a focus on accountability, access and uptake. Analysis and interpretation of data shed light on the social contexts and constructs of the success or failure of prevention efforts. The surveillance response approach allows for the translation of findings into timely action for measures to interrupt transmission. Surveillance therefore becomes itself an intervention.

6.1.2 Targets and milestones

In view of the latest epidemiological developments and the future potential of interventions such as PrEP, the FCSH proposes the following development of new cases of HIV and AIDS, based on the assumption of a steady annual reduction of 30% (based on 2017 figures and in light of a recent model study by the SHCS – cf. footnote 13). Such a development requires that all core services and tools along the continuum of elimination processes (cf. figure 2 and chapter 3) be made universally and deliberately accessible, with consistent and ongoing provision and use of the necessary resources:

[40] Cf.: Bize, R., Vu, F., Dubois-Arber, F. et al., footnote 19.

[41] World Health Organization (WHO). *Public health surveillance.* "Public health surveillance is the continuous, systematic collection, analysis and interpretation of health-related data needed for the planning, implementation, and evaluation of public health practice. Such surveillance can: serve as an early warning system for impeding public health emergencies; document the impact of an intervention, or track progress towards specified goals; and monitor and clarify the epidemiology of health problems, to allow priorities to be set and to inform public health policy and strategies" (http://www.who.int/topics/public_health_surveillance/en/); World Health Organization (WHO). *Surveillance*. "Surveillance is systematic ongoing collection, collation, analysis and interpretation of data and the dissemination of information to those who need to know in order that action may be taken" (https://www.who.int/tobacco/surveillance/about_surveillance/en/).

Milestone	Duration (years)	HIV cases	AIDS cases	Annual reduction in %
2017	0	445	104	30
2018	1	312	73	30
2019	2	218	51	30
2020	3	153	36	30
2021	4	107	25	30
2022	5	75	17	30
2023	6	52	12	30
2024	7	37	9	30
2025	8	26	6	30
2026	9	18	4	30
2027	10	13	3	30
2028	11	9	2	30
2029	12	6	1	30
2030	13	4	1	30

Other important targets and milestones besides continuous reduction of cases should include:

(a) By 2020: No advanced HIV disease (i.e. no AIDS cases) at the time of HIV diagnosis. Rationale: Ending late presenters in care. HIV diagnosis is considered late if AIDS symptoms are detected simultaneously with or within three months after HIV diagnosis.[42]
(b) By 2020: No hospitalisation for advanced HIV disease in patients known as having been HIV positive for more than 6 months. Rationale: No patients returning late to care.
(c) By 2020: No discontinuation of treatment in PWID.[43] Rationale: No further transmissions and no further AIDS cases.
(d) By 2020: No AIDS-related deaths.

6.1.3 Important challenges to achieving main goals

The Federal Commission for Sexual Health discussed some of the major challenges to eliminating HIV/AIDS over the course of 2018. The following provides an overview of the Commission's views with respect to achieving the strategic main goals.

	Main goal	**Challenges identified by the FCSH**
	Elimination	• FOPH and cantons to develop and adopt a national strategy for eliminating HIV and AIDS. • FOPH, in collaboration with NGOs and cantons, to develop a comprehensive strategy for improving access to HIV testing in key populations and the general population.[44] • Elimination of mother-to-child transmission.
1	**Accountability**	• Under FOPH lead, a narrative on "HIV elimination" and a key response package should be developed together and in

[42] Cf. footnote 12.
[43] Cf. footnote 12.
[44] For a complete overview of gaps and opportunities in HIV testing in Switzerland, cf. Bize, R., Vu, F., Dubois-Arber, F. et al., footnote 19.

		consensus with cantons, which are responsible for access, as well as with AHS, Sexual Health Switzerland, SHCS and other relevant organisations. • Cantons (e.g. cantonal health directorates; offices of cantonal physicians) should take responsibility for access, e.g. measures to overcome language barriers, culturally sensitive services, abolition of blacklists of people who do not pay their premiums. • Confederation should take responsibility for access, e.g. extend compulsory health insurance to all people in prisons, exempt preventive tests for HIV and other STIs from the deductible of the compulsory health insurance, systematically offer HIV testing to all asylum seekers in federal accommodations.
2	**Access**	• Provide low-threshold access, also decentralized access, to all facilities, goods and services, including to generic drugs, along the continuum of HIV care / along the HIV Cascade of Care for key populations, including MSM, migrants from high-prevalence countries and people in situations of vulnerability, such as prisoners, asylum seekers, sex workers, transgender people. • Avoid discrimination and (auto-) stigmatisation in certain interventions (e.g. routine testing offerings for asylum seekers) by including key populations in the design and implementation of measures. • Focus on "transmitters". • Focus on partners of people on PrEP. • Focus on key geographical areas of ongoing transmissions (e.g. "Fast-Track Cities", cf. footnote 39). • Offer free services to individuals belonging to key populations according to a set of clearly defined social indicators with types of status such as "asylum seeker", "prisoner", "adolescent before legal maturity", "*undocumented immigrant* (irregular migration)". • All people in Switzerland, especially people belonging to key populations, should have access to the services they need without incurring financial hardship.
3	**Sustainability**	• An investment case is to elaborate on the expected financial and strategic impacts of elimination versus the status quo of disease control, the goal being a prognosis on the cost-effectiveness of an HIV/AIDS elimination strategy in Switzerland. • Develop population–service–cost models that provide insight into universal access and health coverage in Switzerland, e.g. based on the WHO model of the three dimensions of universal health coverage[45] providing answers to the questions 1) Population: Who is covered? 2) Services: Which services are covered? 3) Direct costs: What proportion of costs is covered?

[45] World Health Organization (WHO). *Universal coverage – three dimensions* (http://www.who.int/health_financing/strategy/dimensions/en/).

4	**Surveillance response**	• Data regarding behaviour should be systematically collected as “Events” (“Ereignisse”) in line with Art. 3 lit. b of the Epidemics Act (SR 818.101) and with reference to Art. 14 of the Epidemics Act. This is crucial in a behaviour-driven epidemic where prevention directly addresses behaviour. Such data allow for behavioural surveillance as an indispensable element of surveillance.[46] • The surveillance system’s aim in the context of elimination cannot be to inform National Programme stakeholders retrospectively about the previous year’s epidemiology. • The aim should rather be to detect all new HIV infections, whether symptomatic or not; to investigate each individual case of infection, differentiating imported cases from those acquired in Switzerland; and to ensure that each detected case is promptly treated in order to prevent secondary infections. This requires strict discipline in mandatory reporting, which needs to be greatly improved. • Surveillance of HIV/AIDS should be upgraded to a core intervention in the national programme. Data should be captured on an ongoing basis, thereby making it possible to optimise responses, assess disease trends and respond to outbreaks. • Surveillance should make use of standardised indicators guided by WHO/UNAIDS/ECDC. • Surveillance should focus on minimal essential data in space and time and contain at least the following indicators: — HIV cascade. Rationale: Effective treatment interrupts ongoing transmissions. — Time between infection and treatment; motivation for testing; sexual (risk) behaviour (why was risk taken? Why was there no effective risk-reduction strategy?). Rationale: Most new infections occur when people are infected but not yet in treatment. • Surveillance response should be adapted to different key populations, and minimal essential indicators/data in space and time should be defined or modified accordingly. Rationale: Capture key populations in time. • Gather evidence on the partners of people on PrEP, because they are most likely at high risk of being infected. • Gather evidence on the question “Why did you get tested?” among those newly infected with HIV.

[46] The FOPH’s BerDa tool serves as an example of good practice in behavioural surveillance (cf.: https://www.bag.admin.ch/bag/en/home/strategie-und-politik/nationale-gesundheitsstrategien/nationales-programm-hiv-und-andere-sexuell-uebertragbare-infektionen/freiwillige-beratung-und-testung.html).

6.1.4 Important challenges

Accelerating the administrative response to HIV/AIDS
Elimination requires acceleration along the whole continuum of elimination processes (cf. figure 2). It is crucial that the administrative processes for making such innovations as PrEP available and accessible also be accelerated. The respective entities in charge, e.g. swissmedic and the FOPH, need to collaborate closely and transparently, with timely and successful communication, to ensure better public health outcomes. Competencies and processes should be organised in such a way that innovations can be efficiently and rapidly evaluated for their cost-effectiveness and approved for lawful use. This is an essential part of a state's responsibility to protect its citizens from potentially deadly disease. Such reform will be beneficial not only for the response to HIV/AIDS and STIs but for all public health programmes aimed at rapid response.

Strengthening and better coordination of the HIV testing strategy
Switzerland does not have a comprehensive and coordinated strategy and network for HIV testing. Reaching the goal of HIV elimination will require extensive efforts to fill gaps in HIV testing. Clear and simple guidelines such as a recommendation for every member of the public to be tested for HIV at least once in their lifetime[47] are needed in order to help people in the general population and in key populations, healthcare professionals and stakeholders in communities to know whom, when and where to test for HIV. All known barriers to HIV testing need to be systematically tackled in key populations and subgroups. This will require close collaboration with these groups. The potential of rapid tests and self-tests needs to be fully exploited to better reach underserved groups. Efforts towards elimination will build on a comprehensive analysis of the current HIV testing strategy, while paying heed to the recommendations of the FCSH's testing working group.[48]

Population dynamics as a challenge in all populations
One of the most important challenges that any public health programme faces in times of global mobility is that of population dynamics. Whether nationals of a given state or non-nationals, all populations show increasing migratory dynamics due to economic (e.g. mobility of workforces and students; migration due to economic incentives), political (e.g. asylum seekers, refugees) or socioeconomic and cultural (e.g. tourists) incentives. Any disease control programme must therefore vigorously seek ways to constantly account for and adapt to these dynamics. Therefore, an effective surveillance system must be capable of mapping and interpreting population dynamics in all population groups and of deriving recommendations for disease prevention and control (cf. also footnotes 10, 11 and 14).

[47] Cf., e.g.: Haute autorité de santé (HAS). R*éévaluation de la stratégie de dépistage de l'infection à VIH en France. Synthèse, conclusions et recommandations*. (March 2017) (https://www.has-sante.fr/portail/upload/docs/application/pdf/2017-03/dir2/reevaluation_de_la_strategie_depistage_vih_-_synthese_conclusions_reco.pdf).
[48] Cf. Bize, R., Vu, F., Dubois-Arber, F. et al., footnote 19.

Challenges concerning all key populations

The FCSH has identified several important challenges relevant to all key populations.

Challenge	Rationale
For all populations identified as key populations, the size of the population is to be accounted for on a regular basis.	To estimate prevalence and incidence in key populations and to account for their demographic dynamics. This is also necessary for the concept of “key populations” to keep its inherent dynamic. Wat’s a key population today may not be a key population in future, and the burden of disease in key populations may change over time.
For all populations identified as key populations, the HIV Cascade of Care (CoC) should be modelled on a regular basis.	To measure and visualise the quality of the healthcare system in terms of the diagnosis, treatment and outcomes of treating key populations with HIV, and to have an impression of the total number of people infected in key populations and the total number of infected persons from key populations who are unaware of their infection.
For all populations identified as key populations, official testing guidelines with evidence-based and differentiated algorithms should be adopted.	Clear guidelines are a necessary condition for exempting the cost of testing from the deductible of the compulsory health insurance.
For all populations identified as key populations, the costs of testing should be exempted from the deductible of the compulsory health insurance.	Lowering the cost of testing is an important element of providing better access to testing as a key service on the continuum of elimination processes.
For all individuals from populations identified as key populations who have no health insurance (either because of non-eligibility or due to other reasons), free HIV and STI testing should be offered.	Lowering the cost of testing is an important element of providing better access to testing as a key service on the continuum of elimination processes.

Challenges concerning specific key populations

The FCSH has also identified various challenges specific to particular key populations.

		Challenges to main goals			
Key population	**Core services and tools concerned*** (cf. chapter 3)	**1. Accountability**	**2. Access**	**3. Sustainability**	**4. Surveillance response**
MSM	4[49]	– Swissmedic, FOPH and pharma to make PrEP available at low cost as an approved drug for prevention in a medically supervised setting. – Aiming for health insurance coverage.	Communicate actively to MSM the advantages of medically supervised PrEP.	– Ensure all PrEP users are under close medical supervision by, inter alia, resourcing checkpoints and other points of care in line with the growing numbers of people on PrEP for whom a medical visit every 3 months is recommended. – Ensure PreP implementation in well-designed public health	Measure volume/success/failure of targeted services.

[49] The SwissPrEPared Study and the SwissPrEPared Programme may serve as good models of a surveillance response system for services and tools in key populations aiming at best care for people engaged in PrEP.

				programmes (cf. footnote 49).	
	6, 1–4	Keep investing in checkpoints.	Check possibilities of telemedicine; make accessible to migrant MSM.		Regularly evaluate checkpoints.
	6	Keep investing in testing campaigns such as STARMAN.	Make available for migrant MSM.		
Sex Workers[50]	1, 3	– Confederation to monitor implementation of Art. 27 Epidemienverordnung/Epidemics Ordinance (EpV/EpidO); 818.101.1)). – Campaign for the use of condoms as the norm for clients of sex workers.	Focus on MSM and access to PrEP.		Regularly study the prevalence of condom use in clients of sex workers.
	6	Include consultation on sexual violence and addiction in standards of voluntary HIV counselling and testing for sex workers.			
	7	Include sex workers who have unprotected sex in populations for which PEP can be indicated.			
	All services and tools		Approach sex workers with		Regularly evaluate uptake of prevention

[50] For further details on group characteristics, needs and suggested fields of prevention actions, cf.: Lociciro et al. (2017). *Les comportements face au VIH et autres IST des travailleuses et travailleurs du sexe en Suisse. Enquête SWAN 2016*. Lausanne, Institut universitaire de médecine sociale et préventive (Raisons de santé 276) (https://www.iumsp.ch/Publications/pdf/rds276_fr.pdf).

			more extensive outreach prevention activities to foster knowledge on risks and protection.		messages by sex workers.
Migrant populations	1–4	– FOPH to commit to culturally sensitive campaigning. – Cantons to commit to culturally sensitive sex education. – FOPH to inform on use and benefits of condoms and PrEP. – All stakeholders to make means of prevention affordable.	– Make prevention messages accessible to all migrant populations. – Make all means of prevention accessible to all people according to their risks, vulnerabilities and needs.	– Access depends on culturally and linguistically adapted information and communication. – Access depends on affordability. – Develop outreach activities for prevention and HIV testing.	Regularly evaluate uptake of prevention messages by migrant populations.
Migrant populations from high-prevalence countries	6, 3–4	FOPH and partners to establish checkpoints for migrants to ensure early detection of imported cases of HIV and ongoing transmission among people living in Switzerland.	Culturally sensitive personnel and interpreters for low-threshold access.	– Early access to voluntary HIV counselling and testing for people immigrating to Switzerland in order to prevent ongoing	Regularly evaluate checkpoints.

				transmissions in Switzerland. – Develop outreach activities for prevention and HIV testing.	
Closed settings					
Asylum seekers in asylum centres	6 (as a gateway to all other interventions based on the legal provisions of the Epidemics Ordinance (Art. 31 EpV; 818.101.1)) and Art. 8 of the new FDJP Ordinance on Operating Federal Accommodations and Accommodations at Airports[51])	– State Secretariat for Migration (SEM) and cantons to offer systematic voluntary HIV counselling and testing to all asylum seekers. – Explore the feasibility, usefulness and legitimacy of an opt-out approach. – Confederation to monitor implementation of Art. Art. 31 EpV; 818.101.1.	Free testing.	– Prevent stigma by avoiding any differentiation between offerings to different groups of asylum seekers. – Early access to voluntary HIV testing and	Regularly evaluate prevalence in asylum seekers living in federal and cantonal accommodations. Regularly assess and report on testing uptake among asylum seekers living in federal and cantonal accommodations.

[51] FDJP Ordinance on Operating Federal Accommodations and Accommodations at Airports (https://www.sem.admin.ch/dam/data/sem/aktuell/news/2018/2018-12-07/vo-zentrumsbetrieb-d.pdf). For all relevant documents related to the acceleration of asylum procedures, cf.: https://www.sem.admin.ch/sem/de/home/aktuell/news/2018/2018-12-05.html. In connection with the goal of eliminating HIV/AIDS, it is relevant that many asylum seekers do not leave for their home country or a Dublin state following a Dublin or asylum decision, but rather "depart unchecked" or are recorded under "other departures" in the asylum statistics; in 2017, this affected about 60% of all cases of rejected asylum seekers. Cf. asylum statistics total – status ZEMIS dated 31 October 2018 (https://www.sem.admin.ch/sem/de/home/publiservice/statistik/asylstatistik/uebersichten.html). According to news reports, "more than 60% of refugees" disappear "without a trace" (*Asylum seekers are not prisoners and should not be locked up*). NZZ, 13 June 2018 (https://www.nzz.ch/meinung/ein-asylgesuch-ist-kein-haftgrund-ld.1394173). It is thus possible that many former asylum seekers continue to reside in Switzerland as undocumented immigrants (status: irregular migration, cf. footnote 10); for them, access to the health system is generally more difficult than for asylum seekers. This makes it all the more important that all asylum seekers have an opportunity to know their HIV status and, if necessary, receive the appropriate therapy and treatment. According to FOPH information, of the new diagnoses recorded between 2013 and 2018, 82 were for "Eritrea" and 60 for "Cameroon", both countries which are also overrepresented in asylum statistics. The National Committee for the Prevention of Torture (NKVF) also indirectly supports an active HIV test offer in the Federal centers: "The Commission welcomes the systematic medical screening, but misses an actual medical examination on admission whereby somatic and psychiatric needs are detected and, if necessary, further investigated by a medical professional." Cf. Nationale Kommission zur Verhütung von Folter (1. November 2018). *Bericht an das Staatssekretariat für Migration (SEM) betreffend Überprüfung durch die Nationale Kommission zur Verhütung von Folter in den Zentren des Bundes im Asylbereich 2017-2018, p.* 5 (https://www.nkvf.admin.ch/dam/data/nkvf/Berichte/2018/bundesasylzentren/bericht-bundesasylzentren.pdf). Finally, the UNHCR, UNAIDS and the WHO also jointly recommend that asylum seekers be

				counselling refugees to guarantee access to treatment and care and to prevent further transmission. – Develop outreach activities for prevention and HIV testing.	
Prisoners	6 (as a gateway to all other services and tools based on the legal provisions of the Epidemics Ordinance (Art. 30 EpV; 818.101.1) and guidance on active case finding in prisons by the European Centre for Disease Prevention and Control (ECDC[52]))	– Cantons to offer systematic voluntary HIV counselling and testing to all prisoners. – Confederation to monitor implementation of Art. Art. 30 EpV; 818.101.1.	Free testing.	– Prevent stigma by avoiding any differentiation between offerings to different groups of prisoners. – Early access to voluntary HIV counselling and testing for prisoners to prevent further transmission and ensure care.	Regularly evaluate prevalence in prisoners. Regularly assess and report on testing uptake among prisoners.

offered vuluntary HIV testing and counselling. Cf.: UNHCR/UNAIDS/WHO (2014). *Policy Statement on HIV Testing and Counselling for Refugees and other persons of concern to UNHCR* (https://www.unhcr.org/53a816729.html).

[52] European Centre for Disease Prevention and Control, European Monitoring Centre for Drugs and Drug Addiction (2018). *Public health guidance on active case finding of communicable diseases in prison settings* (https://ecdc.europa.eu/sites/portal/files/documents/Active-case-finding-communicable-diseases-in-prisons.pdf).

PWID	5, 8	Keep existing levels of services.	Free services.	No discontinuation of treatment among PWID.	– Regularly report on prevalence in PWID and on evaluation of 5.

* 1. Sex education at school; 2. Love LIFE campaign; 3. Condoms; 4. PrEP; 5. Mitigation; 6. HIV tests; 7. PEP; 8. ART

6.1.5 Considerations for other STIs

In its *Global Health Sector Strategy on STIs 2016–2021*, the World Health Organization has formulated a vision of eliminating all public health relevant STIs. In Switzerland, we currently observe an unprecedented decrease in new HIV infections which is paralleled by an increase in all other STIs. The increase in cases of syphilis and most probably also in cases of gonorrhoea appears to be driven mainly by an increase in testing, especially among MSM Therefore, all concentrated endeavours to eliminate HIV/AIDS will also have a massive spin-off effect on the successful control and eventual elimination of other STIs of public health relevance. Therefore, consequently, Switzerland may pursue the vision and long-term goal of eliminating not only HIV/AIDS but also other STIs, especially syphilis and gonorrhoea, which are concentrated in the same key population (MSM) as is HIV. Therefore, integrated efforts aimed at key populations can simultaneously provide for the elimination of HIV, syphilis and gonorrhoea. At the level of communication and implementation, the HIV elimination narrative will thus also spearhead the elimination of other STIs. In addition, specific strategic efforts will be needed to tailor services to each STI and each population group.

7. Conclusion

In Switzerland, eliminating HIV/AIDS is achievable. All necessary core services and tools are available and can be made accessible to the various populations according to their risks, vulnerabilities and needs.

The FCSH suggests to the Federal Council that the future national programme on HIV and STIs target the vision of eliminating HIV/AIDS in Switzerland as a spearhead for the elimination of other STIs such as syphilis and gonorrhoea.

Strong political commitment, a clear depiction of elimination, and accountability across all federal levels of government and among non-governmental organisations and for-profit organisations are required. A plausible narrative of elimination should serve as a convincing means of communication across all political levels. Communication should be supported by an investment case accounting for the cost-effectiveness of elimination. Acceleration of the administrative response to HIV/AIDS is essential, e.g. when it comes to the approval of new indications for drugs used for PrEP.

Key to success are populations most likely to be exposed to or to transmit HIV and those particularly vulnerable to HIV and AIDS, such as MSM, people using oral chemoprophylaxis (PrEP), migrant populations from high-prevalence countries, PWID, sex workers, transgender people, refugees and populations in closed settings. Resources must be used to provide these key populations with priority services, which must focus on geographical areas where the epidemic is concentrated. All migrant populations living in Switzerland should be provided the opportunity to know their HIV status as soon as possible after immigration so that all who need it may receive treatment and care and cannot pass on HIV further. All mobile people living in Switzerland and returning from abroad after being exposed to a risk of HIV infection should be given the opportunity to know their HIV status as soon as possible after remigration so that all who need it may receive treatment and care and cannot pass on HIV further.

Reaching the goal of HIV elimination will require extensive efforts to fill gaps in the current HIV testing strategy. Clearer and simpler guidelines are needed to help key populations, healthcare professionals, stakeholders in communities and the general population know whom, when and where to test for HIV. All barriers to HIV testing will have to be systematically tackled in each key population and subgroup. This will require close collaboration with these groups. The potential of rapid tests and self-tests (“home tests”) needs to be fully exploited to better reach underserved groups.

Success or failure will be measured by a surveillance response system with an approach of reverse engineering capable of translating findings into timely action. Further surveillance must be capable of mapping and interpreting population dynamics in all population groups and of deriving recommendations for disease prevention and control.