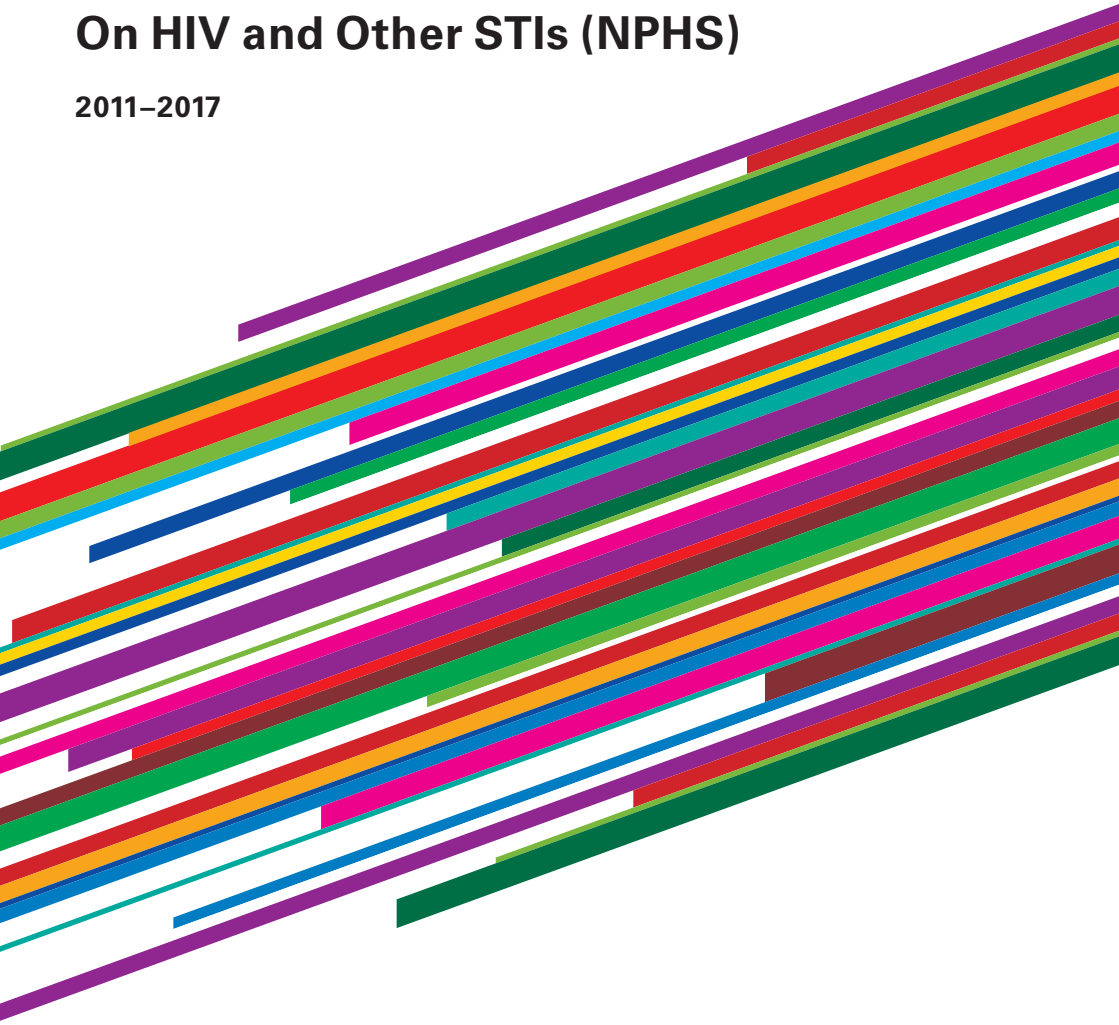
Short Version

National Programme

On HIV and Other STIs (NPHS)

2011–2017



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1 THE CURRENT SITUATION IN SWITZERLAND: HIV AND OTHER SEXUALLY TRANSMITTED INFECTIONS

HIV remains a key public health issue: at least 20'000 people are living with the diagnosis of HIV in Switzerland in 2010, and each year between 600 and 800 people test positive for the pathogen. Effective antiretroviral therapy (ART) is available for those concerned. ART must be taken for the whole of the person's life, is expensive and can have side-effects. Two factors are of decisive importance for successful treatment: early diagnosis so that the person with HIV can start treatment at the correct point in time, and adherence to prescribed medication. The treatment suppresses viral replication to a major extent, preventing the outbreak of AIDS defined illnesses (and hence death). According to the Swiss National AIDS Commission, HIV-positive people who are undergoing successful therapy and have an undetected viral load are, under certain circumstances, no longer infectious (see p. 28, EKAF Statement). Despite the availability of therapies, however, up to 200 new cases of AIDS are diagnosed each year in Switzerland, and between 30 and 50 people die of AIDS. No vaccination against HIV can be expected to become available in the foreseeable future.

Other sexually transmitted infections (STIs) are not that well known amongst the public at large. Epidemiological monitoring of different STIs[1] shows that these are on the increase. A number of pathogens are more widespread in Switzerland than the Western European average. In many cases, infections of this type are asymptomatic, making them difficult to detect.

[1] Notifiable STIs for 2010/11 are: syphilis, gonorrhoea, chlamydia trachomatis, hepatitis B, hepatitis C. Also of relevance to public health (but not currently notifiable) are: human papilloma viruses (HPV), herpes (HSV 1 and 2), lymphogranuloma venerum (LGV). Chapter 8 provides a brief overview of facts worth knowing about STIs.

If untreated, STIs can have serious consequences, including chronic illnesses, cancer, infertility, complications during pregnancy and damage to the foetus or ailments in newborns. STIs can lead to serious individual suffering. They pose a serious threat to public health – because many of the pathogens can be transmitted relatively easily.
Interactions also occur between HIV and other STIs. An existing STI can make a person more receptive to HIV, and an STI can increase the infectivity of HIV-positive individuals and additionally impair the efficiency of the HIV therapy. On the basis of current knowledge, the other STIs are a significant driving force behind the spread of HIV.

1.1 TRANSMISSION ROUTES

People most frequently become infected with HIV during sexual intercourse. Orogenital contacts constitute a risk if sperm or menstruation blood enters the mouth. Oral intercourse without ejaculation or on menstruation-free days is considered as safer sex. But the risk of infecting oneself with HIV in a situation that counts as safer sex is considerably increased if one of the persons involved also suffers from another STI.

STIs are frequently transmitted even more readily than HIV: bacterial STIs are generally more infectious, and condoms do not cover all the infected parts. Mucous membrane contact is generally sufficient to pass on the infection. Bacterial STIs such as gonorrhoea or chlamydia are curable and, in the case of syphilis, antibiotic therapy at the start of the illness can also lead to complete cure. The situation is more difficult with viral illnesses, such as hepatitis C, where it is sometimes only possible to treat the symptoms.

Injecting drug users appear to protect themselves well. Thanks to successful harm reduction programmes (easy access to clean injection material, consumption rooms and substitution

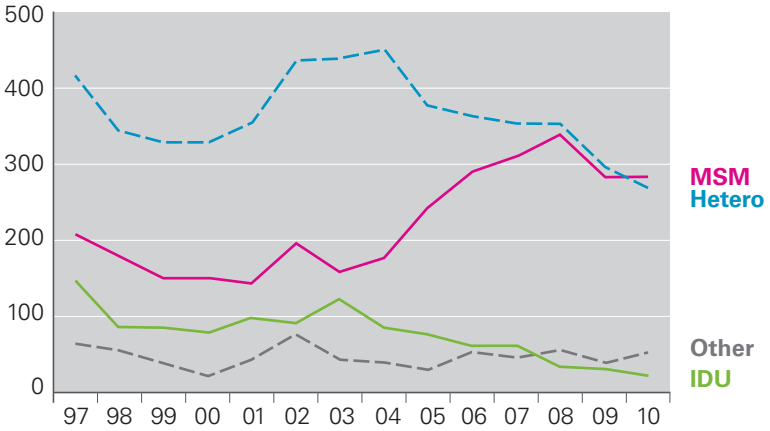
programmes), shared use of syringes is becoming less frequent. Over the past few years, only a small number of HIV infections have been newly diagnosed in this group. More efforts are required against hepatitis C: there is still a relatively high number of new infections each year.

HIV transmission from mother to child during pregnancy and birth is rare in Switzerland. For some years now, no further newborns have been diagnosed with HIV in cases where the mother's infection was known. The recommendation to have an HIV test performed during pregnancy is accepted by a large number of women.

1.2 GROUPS PARTICULARLY AFFECTED BY HIV

Compared with other Western European countries, Switzerland (2010) comes in third place after Great Britain and Portugal in respect of the number of newly notified HIV infections. Switzerland has a concentrated HIV epidemic; in a number of population groups the percentage of people with HIV is more than 5 %, such as amongst men who have sex with men (MSM), amongst male and female migrants from countries with a generalised epidemic and amongst injecting drug users (IDU). Sex workers of both genders and prison inmates are also at risk. Thanks to successful prevention over the past 25 years, it has proved possible to avoid a generalised epidemic amongst the population as a whole. The prevalence (i.e. the number of infected individuals in the population under observation) is below 1 %.

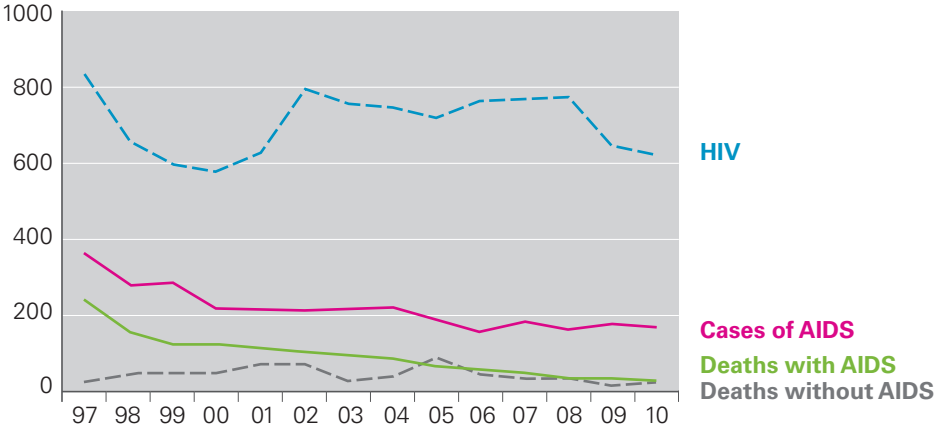
Annual HIV diagnoses by transmission route



Trends

In 2002, the number of positive HIV tests rose by 25 % after having been in decline since 1992. Those affected were primarily men with homosexual contacts (MSM) and people who had become infected via the heterosexual route (42 % of whom were migrants from high-prevalence countries). Up to 2008, the overall number remained relatively stable. This, however, concealed a pronounced rise amongst MSM, which was offset by the reduction in the other groups. In 2009, the number of positive HIV tests amongst MSM fell for the first time again, stabilising at just below 280 cases.

Annual HIV diagnoses, cases of AIDS and deaths



Trends

Amongst those with an HIV infection, the number of new AIDS diagnoses and deaths due to AIDS underwent a pronounced reduction as of 1995 through the use of highly active antiretroviral therapies. There is still a slight downwards trend in the numbers. The mortality of HIV-positive individuals due to other causes of death, however, did not fall. Each year, the number of new HIV diagnoses is above the number of deaths amongst people infected with HIV. This means that there is a slow, but steady increase in the number of persons living with HIV and hence in the demand for care and therapy.

1.3 COSTS OF HIV

The cost of drugs for antiretroviral therapy against HIV amounted to more than 200 million Swiss francs in 2008 (25'000 Swiss francs per person per year), and the cost is rising by more than 10 % each year. The lifetime cost of treatment for a person with HIV can thus be up to one million Swiss francs. Treating the subsequent consequences of STIs such as syphilis, gonorrhoea or chlamydia can similarly occasion high costs in some cases.

1.4 OUTLAY ON THE PREVENTION OF HIV AND OTHER SEXUALLY TRANSMITTED INFECTIONS

Prevention is also of key importance from the cost perspective. Implementing the current strategy requires approximately the same level of financial resources as implementing the last HIV/AIDS programme. Expenditure of some 9 million Swiss francs annually (including human resources costs) will be covered by the Confederation. These resources are to be deployed somewhat differently than for the last programme. Prevention efforts targeting key populations particularly affected by HIV and STI will be increased at the expense of measures for the population as a whole. This shift in directing resources and intensifying efforts for populations where HIV and the other STIs occur more frequently – including amongst MSM, IDU and migrants from countries with a generalised epidemic – is in line with the recommendation of international experts. But it is not just belonging to a target group that plays a role here – other factors need to be included too, such as the fact that more than 98 % of the MSM and more than 80 % of the heterosexuals become infected with HIV in towns and cities, thus making it more of a rather urban phenomenon.

2 THE NATIONAL HIV AND STIS PROGRAMME (NPHS)

The present strategy for HIV and STIs builds on 25 years' HIV prevention work and is continuing this taking the current situation in consideration. For the first time, other STIs are being included alongside HIV. In addition to the interaction between HIV and other STIs that has already been described, this step primarily makes sense because of the synergies created by adopting a joint approach to tackle HIV and other STIs together. STI prevention can essentially be taken forward on the same basis and within the same structures as the already-established HIV prevention. In addition, the prevention messages are, by and large, the same or similar to those for HIV. A number of European countries, including Great Britain, France, Sweden and Norway, have already developed strategies for the combined combating of HIV and other STIs.

In the same way as the programmes to date, the NPHS is based on a learning strategy: the HIV and STI work is conducted in cooperation with, and with the involvement of, those concerned. Effective prevention – especially in such a sensitive area as sexuality – can only be successful if a relationship of mutual trust exists between the government, the service providers and the key populations concerned.

The programme is based on the following principles:

1. Prevention through protective measures (safer sex).
2. Vaccination (where vaccinations are available and recommended, HPV, forms of hepatitis).
3. Early detection (including individual counselling for clarification of the risk).
4. Correct treatment, at the right time.

The familiar safer-sex rules remain in force but are supplemented as follows:

1. Always use condoms (or femidoms) for penetrative intercourse.
2. No sperm in the mouth, no sperm to be swallowed, no menstruation blood in the mouth, no menstruation blood to be swallowed.

Added to this comes one further rule, on account of the inclusion of the STIs:

3. Consult immediately a doctor in the event of itching, a discharge, discomfort or pain in the genital area.

2.1 PARTICIPATIVE DEVELOPMENT OF THE PROGRAMME

The present strategy was compiled in four phases over 2009/2010:

- Concept phase: procurement of the evidence base (up to the 3rd quarter of 2009)
- Development phase: processing the evidence base and formulating the aims (up to the 1st quarter of 2010)
- Consolidation phase: consultation of stakeholders (up to the end of the 1st quarter 2010).
- Approval phase: consultation with public authorities, decision by the Federal Council (by the end of 2010)

The Federal Office of Public Health has held a total of six events where stakeholders discussed and worked out the underlying basis for the strategy in working groups. In addition to this, several other consultations were held. Due to this broad-based process, the NPHS is a programme supported both by those concerned and by the experts.

Also included in the consultations was the expert body, AIDS Strategy and Action Plan (ASAP), which is deployed by UNAIDS and the World Bank. This body examines newly compiled strategies for addressing HIV, as a quality control. Regarding the NPHS, ASAP specifies that this is a well-articulated and

comprehensive strategy based on a well-founded analysis of the epidemic. The reviewers were particularly impressed by the model of the different intervention axes (see Chapter 4), which can also be adopted for other settings. They additionally stress the importance of age-appropriate sexual education at school and focused preventive measures for migrants of both sexes.

3 VISION AND MAIN GOALS OF THE NPHS

The programme vision:

> The conditions in Switzerland are such that people can fully live undisturbed, low-risk sexuality in consent and with mutual respect. The National HIV and Other STIs Programme 2011–2017 makes a decisive contribution to this by empowering inhabitants to exercise their sexual rights and maintain or improve their sexual health.

This vision is to be achieved through four main goals:

1st Main goal

People living in Switzerland are informed, educated and capable of exercising their rights in relation to sexuality.
Sexuality is a key part of each individual's personality and a positive aspect of life – it should be based on consent and mutual respect.
The main goal is based on Swiss law: respect for human dignity (Art. 7 of the Federal Constitution), no one may be discriminated against on grounds of their identity or sexual orientation (equality before the law and ban on discrimination, Art. 8 of the Federal Constitution), the right to personal liberty, including sexual self-determination (Art. 10, Para. 2 of the Federal Constitution) and the protection of the private sphere (Art. 13 of the Federal Constitution) plus the protection of children and young people (Art. 11 of the Federal Constitution). These rights are guaranteed in the Federal Constitution. Knowledge of these rights is necessary to ensure that people are in a position to take care of their health and to make use of the services offered if they need them. The principles of the Ottawa Charter play a decisive role regarding HIV and other STIs and avoiding unwanted pregnancies, all people should have equal access to (sexual) health care, including prevention, counselling, diagnosis and therapy.

2nd Main goal *A reduction in the risk of transmission of HIV and other sexually transmitted infections.*
People will be encouraged to continue protecting themselves in risk situations, applying the rules of safer sex. Specific situational and behavioural prevention measures, vaccination programmes and effective testing and treatment will ensure that people with an increased risk of exposure, in particular, will be able to better protect themselves against HIV and long-term health impairment through other STIs. In this way, it will be possible to check the further spread of HIV to the best possible extent and also prevent the spread of STIs.

3rd Main goal *HIV and other STIs will be detected at an early stage and treated correctly.*
Anyone who has exposed her/himself to a real risk (unprotected contact with a person from a population group which has a high HIV/STI prevalence) should seek advice without delay and, if necessary, have the corresponding tests performed. People with symptoms of HIV and STI, or undefined complaints in the genital area, should go for a medical examination immediately. Infected persons will receive optimum treatment and care. The number of cases of HIV and STI diagnosed late or remaining undiagnosed and the associated consequences will be reduced. Early diagnosis and correct treatment of infections will reduce their spread and contribute to prevention.

4th Main goal *The HIV and STI work will have a sustained effect, as it builds on the participation of the target groups, is based on scientific evidence and is supported by the population.*
The quality of the system of prevention, counselling, diagnosis and therapy will be continually further developed. This will be done in cooperation with people who are affected and the groups targeted by the interventions.
The instruments that are to be used (surveillance, monitoring, evaluation and research) will ensure that the available resources will be deployed on a sustainable basis.

Switzerland will be guided by international best-practice models and will itself contribute to further developing these.

4 THREE AXES OF INTERVENTION FOR THE HIV AND STI WORK

The main goals set out the direction to be taken by the HIV and STI work. In order to structure this work, the NPHS groups all the interventions and measures into three different intervention axes, with the interventions and measures in an individual axis addressing specific target groups. This approach is based on considerations regarding prevalence[2] and vulnerability[3]. The target group for axis 1 is the population as a whole. This axis constitutes the underlying basis for the prevention work, with the other axes building up on it: axis 2 is geared to people who engage in risky behaviour in an environment with a high prevalence. Axis 3 is aimed at individuals infected with HIV or STI and their partners. The axis model is thus configured on a cumulative basis – anyone belonging to the target group for axis 2 or 3 will also be reached by the measures for axis 1.

Intervention axis 1

is aimed at all those living in Switzerland. It is aimed particularly at:

- Sexually active young women and men
- Migrants from countries without a generalised HIV epidemic
- Clients of sex workers
- People travelling to endemic areas

Everyone living in Switzerland should be aware of the fact that HIV and STIs constitute a problem and they should protect themselves in the event of risk contacts. They should practice safer-sex rules in exceptional situations, such as when

[2] Prevalence states how many persons within a given group (population) of a defined size have become infected with a particular pathogen or are ill with a particular disease.

[3] Vulnerability (Latin "vulnus", wound) is used in various different specialist areas. In medicine, for instance, it denotes the susceptibility of contracting a specific illness.

Intervention axis 1 Total Swiss population
Intervention axis 2 People with a higher risk of exposure
Intervention axis 3 Infected individuals and their partners

travelling or engaging in unforeseen sexual experiences. They should know to maintain their sexual integrity and health – specific educational work is required amongst migrants, for example, in this respect.

Intervention axis 2

2

is aimed at sexually active people with an increased risk of exposure, i.e. members of population groups with a high prevalence or a high vulnerability:

- Men who have sex with men (MSM)
- Migrants from countries with a generalised epidemic
- Injecting drug users (IDU)
- Sex workers
- Prison inmates

The aim for this axis is that people who are in an environment with a high prevalence should remain free from HIV and other STIs. This requires measures especially tailored to the target groups in question.

The assignment of individual population groups (target groups) to axis 2 is based on the current situation analysis. If the situation changes, the Swiss National AIDS Commission (EKAF) will propose appropriate alignments to the Confederation.

Intervention axis 3

is aimed at people with HIV and/or an STI plus their (non-infected) sexual partners.
People with HIV will receive timely therapy, in the correct way and in a stable manner, so that their viral load falls below the detection limit and they are no longer infectious during sexual contacts. People with an STI will receive therapy as rapidly as possible and – where feasible – will be cured. The most important challenge is that of keeping the (sexual) partners free from infection. This is why the voluntary information of partners is of major importance.

5 GOALS BY INTERVENTION AXES, MEASURES AND ACTORS

5.1 INTERVENTION AXIS 1

1

The LOVE LIFE campaign raised the population's awareness of the problems of HIV and STI and repeatedly reminds them of the safer sex rules. The campaign will be further developed by the Confederation and the NGO partners "Aids-Hilfe Schweiz" (AHS) and the Swiss Foundation for Sexual Reproductive Health (PLANeS). The Campaign intends to enable people to protect themselves when having sexual contacts and to know where they can obtain further information if needed. The internet tool "Check Your Love Life" (www.check-your-lovelife.ch) is one instrument developed to let people find out in a straightforward way if counselling and testing would be worthwhile and, if so, where these are available.

The cantons make sure that they have at least one young people's/sexual/pregnancy and/or family counselling unit approved by the canton. People who would like personal counselling will find adresses of canton-approved centres (young people's/sexual/pregnancy and/or family counselling units) at www.isis-info.ch. The umbrella associations of PLANeS and AHS coordinate the counselling units and are responsible for the initial and further training of the units with support from the Confederation.

In addition, endeavours are underway, in cooperation with the cantons, to integrate age-appropriate sexual health education in the school curricula. This similarly involves making sure that teachers learn the appropriate pedagogical techniques in their initial and continuing training to provide high-quality sexual health education.

5.2 INTERVENTION AXIS 2

In addition to the information available to the population as a whole, intervention axis 2 is aimed at groups and individuals who have a higher risk of infection for two reasons – either because there is a high prevalence in their environment (MSM, IDUs, migrants with a generalised epidemic in their country of origin, prison inmates) or because they are vulnerable because of their work (sex workers). It is important for these groups to be aware of their higher risk and to know that they are at greater risk of infecting themselves with HIV or a different STI than the population as a whole.

The measures for the target groups of intervention axis 2 are to be intensified. This is based on the idea that prevention should be intensified where the infections actually occur. It also means that the most benefit can be gained from investments at these points. Situational and behavioural preventive measures in the actual environment of the target groups will further reduce the risk of infection.

Specific counselling and test facilities are available for the individual target groups. Anyone who has been at risk for an infection can easily obtain appropriate counselling. Counselling is a key instrument for prevention: it ought to motivate those who have not been infected to protect themselves in future and remain infection-free. If a test result is positive, the appropriate support and treatment will be initiated.

5.2.1 Men who have sex with men

Two groups of men are targeted: self-identifying homosexual/gay men and men having sex with men without identifying themselves as homosexual/gay.
Men who identify themselves as homosexual are reached primarily in the "gay scene", and via the gay media. Visible prevention is required in these channels (magazines, internet). The operators and organisers of facilities where sexual encounters are possible are required to observe the minimum standard of prevention.

The "gay scene" is concentrated on a number of city areas, primarily in Zurich, Geneva and Lausanne.
Further meeting points are to be found in Basel, Bern, Lucerne, St. Gallen and Ticino.
These focal areas and cities offer counselling and testing with low-threshold access, based on the "checkpoint" model (anonymous, gay-friendly units).
Since homosexuals are not spread evenly over the whole of Switzerland, the Confederation provides support for those cantons with extensive "gay scenes".

Men who have sex with men but do not identify themselves as homosexual are more difficult to reach. Therefore outreach prevention work at the sex meeting points will be intensified, and prevention and information work will be carried out in a very visible way on the dating platforms. As these men are difficult to reach, sex between men also needs to be explicitly visible in axis 1 and thus always constitutes part of the LOVE LIFE campaign aimed at the general population.

5.2.2 Migrants from countries with a generalised epidemic (prevalence in the general population in excess of 1%)

Migration brings also people to Switzerland from countries in which there is a generalised HIV epidemic (prevalence in the general population in excess of 1 %). These migrants are not, however, representative of the population in their country of origin and hence the infection rate is not necessarily identical with that in their home countries; it is nonetheless considerably higher than for the Swiss population. Members of this population must be aware of the risks they are exposed to.

Switzerland cannot directly influence whether people infect themselves in their country of origin or not. Any further spread within Switzerland must, however, be decreased.
To inform migrants on a systematic basis, it is necessary to provide factual information in the appropriate languages at key locations, such as at the offices where migrants have to go to register. People in this population can be motivated to organise themselves and to run their own prevention work.
Prevention work can be done by training mediators to deliver

information and awareness-raising work at formal and informal meeting points. The Confederation and the cantons support projects of this type in relation to the number of migrant groups. These groups are not distributed evenly throughout Switzerland – for language reasons in particular – but are found especially in Western Switzerland and the big cities in the German-speaking part of the country.

5.2.3 Injecting drug users (IDU)

Intravenous drug use is rarely seen in public, and there is only a risk of infection if injection equipment is shared. Despite this, a serious problem exists for people who are previous or current injecting drug users: the prevalence of HIV is estimated at some 30 %, and hepatitis B and C constitute major problems. Hepatitis C can only be treated inefficiently.
The effectiveness of the four-pillar drug policy and, in particular, of harm reduction has been proven beyond doubt in scientific terms. In view of the still high prevalence among IDUs, it is absolutely vital to continue with harm reduction. The cantons are thus called upon to maintain their current harm reduction structures and programmes.
IDUs not only infect themselves when using drugs – sexual transmission also plays a role here (unprotected sex under the influence of drugs). The experts caring for IDUs should also be made aware of this problem.

5.2.4 Sex workers

So far, no increased prevalence has been detected amongst sex workers. However, the frequency of their sexual contacts alone means that those belonging to this population are at particular risk of becoming infected with HIV or another STI. It is likely that a number of sex workers from countries with a high prevalence of HIV were already infected when they arrived in Switzerland. In general, sex workers in economic difficulties or with a precarious residence status are particularly at risk of not using protective measures and of giving in to the pressure of their clients for unprotected sex.

It is thus essential for sex workers to be made aware of their particular risk situation: information on preventive measures is required, as is easy access to counselling and testing for HIV and other STIs. For pleasure establishments and brothel-like operations, there should be provisions at cantonal or commune level (in laws or ordinances governing prostitution, for example) requiring operators to fulfil the basic prevention requirements (condoms and lubricants must be freely available, as must information on HIV and STIs, and prevention workers must be able to visit and advise those working there).

5.2.5 Prison inmates

International and national studies show that the prevalence of infectious diseases in the penal system is higher than in the population at large. The government is responsible for the health of inmates on the basis of its duty of care. The principle of equity requires the same basic health provision in prisons as outside them. It is in society's interests for people in the penal system to remain infection-free, as most inmates return to freedom again after completing their sentences.

The cantons are responsible for the prisons and hence also for the basic and further training of their prison staff. They should improve preventive efforts and access to counselling, testing and treatment for inmates.

The "Infectious diseases in prisons" (BIG) project has been running since 2008 to this end, and also has the aim of implementing the principle of equity and obtaining a better database. The Federal Office of Public Health, the Federal Office of Justice and the Conference of Cantonal Justice and Police Directors are involved in this project.

5.3 INTERVENTION AXIS 3

Intervention axis 3 is aimed at those with HIV and/or an STI plus their (sexual) partners. Contrary to the situation for intervention axes 1 and 2, it is individuals and no longer entire groups of the population who are addressed here.
In the case of people with HIV, medical support is guaranteed as of the time the diagnosis is made, and the course of the HIV infection is subject to regular assessments. On the one hand, these follow-up checks are intended to establish the correct point in time for the start of treatment and, on the other hand, it is important for these contacts to be used for prevention purposes. Awareness-raising and motivational efforts are necessary for those concerned in order to ensure that they do not pass on the virus – and their (sexual) partners should be included, if possible.
People with an STI receive the correct therapy immediately after the diagnosis, with their (sexual) partners being involved wherever possible so as to prevent repeated mutual re-infection. As a general rule, the (sexual) partners of those suffering from HIV or STIs should be included in the therapy.

Efforts are underway for a cultural change so that the voluntary information of partners becomes a routine over the next few years, as people appreciate the need for this. Infected people will be encouraged to inform their permanent partner and also casual (sexual) partners of a positive test result. They will receive support from the medical and counselling system to achieve this. New concepts and the latest communication technologies in this area are being tried out for both HIV and STIs.

Several conditions need to be fulfilled for antiretroviral therapy (ART) to be successful: it must be started at the correct point in time, as medically indicated, and be followed in the correct combination on a permanent basis. This will generally permit the viral load to be reduced to below the detection limit. The benefit of successful therapy for the individual concerned

is an improved quality of life and a greater life expectancy. Successful therapy is also of benefit for society as a whole, given that, according to the Swiss National AIDS Commission, people on successful ART are no longer infectious. There is thus an additional interest for society in ensuring correctly conducted HIV therapies.

6 SUPPORT ACTIVITIES PERMIT FULFILMENT OF THE GOALS

The fourth main goal specifies that the HIV and STI work should have a lasting impact, because it is aimed at participation of the target groups, is based on scientific evidence and is supported by the population. To achieve the fourth main goal, the NPHS proscribes so-called support activities in addition to the goals for the three intervention axes. While the goals described above set out the core tasks of the HIV and STI work (awareness-raising, prevention, diagnosis, counselling and therapy), the support activities contribute towards the successful achievement of these aims. They constitute the socio-political and structural framework conditions, which are prerequisites for successful and sustainable HIV and STI work.

- The work should be *evidence-based:* efficient and effective HIV and STI work requires an evidence-based foundation. The new programme includes this as one of its fundamental points, making provision for the development of a model for the third-generation surveillance of HIV and STIs. This extended surveillance improves biological monitoring in the field of STIs and closes gaps in behaviour surveillance. This then combines the findings from HIV and STI monitoring. It also includes the continuous monitoring of the different prevention measures, including a cost-benefit analysis, so that evidence-based policy decisions will be possible in future.
- The work should be performed in a *coordinated* fashion: the NPHS is a joint strategy of the Confederation, cantons and non governmental actors engaged in HIV and STI work. The strategy is implemented on a partnership basis. The inclusion of STI prevention also has to be implemented

in the structures, and hence the VCT centres[4] to date, and the regional HIV centres are evaluated the counselling and testing they offer. To ensure high-quality HIV and STI work, the fulfilment and allocation of the activities and the allocation of the resources are evaluated on a regular basis and, where necessary, dynamically aligned with regard to the following factors: epidemiological development, public-health relevance, quality of the individual prevention measures and cost-benefit analysis.

- HIV and STIs are an *international* challenge: migration movements, and also the high level of mobility due to economic relations, tourism and sex work in countries with an increasing prevalence can influence the national situation. This is why the HIV and STI work must be embedded in an international context. Switzerland is guided by international recommendations, guidelines and the quality standards issued by international specialist organisations (e.g. WHO, UNAIDS and ECDC). Switzerland also assumes a share of the responsibility for addressing HIV/AIDS and STIs at global level, committing itself in technical and financial terms. Switzerland thus regularly participates in the HIV think tank set up by the European Union, for example.
- Different legislation exists which provides a basis forbidding discrimination against people on account of physical disability, for example. A *commitment in the area of discrimination against those affected by HIV and other STIs* and efforts to counter the stigmatisation associated with HIV and STIs are still tasks that need to be performed and constitute a key cross-cutting job for the present strategy. Prevention, diagnosis and treatment efforts for HIV and STI cannot be successful if the people concerned fear exclusion from society or are despised by society as soon as they are recognised as carriers of an infection of this type. Support must be provided in Switzerland for achieving a social

[4] Voluntary Counselling and Testing, see Chapter 7, Test concepts

consensus to the fact that people who live with HIV or an STI, or who are particularly at risk, are members of this society with equal rights and have the same rights and obligations at all levels as people who are not directly affected. Any unjustified discrimination is to be avoided, be it in the insurance sector or in other areas.

7 VALUABLE INFORMATION ON HIV

The natural course of HIV/AIDS

HIV infects cells of the immune system (CD4 cells, so-called helper cells) which normally repel pathogens and eliminate pathogenically altered cells. Any dysfunction of these cells due to an HIV infection can only be compensated to a certain degree. A distinction is drawn between the following phases in an untreated HIV infection:

1. *Acute HIV infection (primary infection):* Several days up to a few weeks after infection it is possible that temporary symptoms such as fever, swelling of the lymph nodes, joint pain and unspecified complaints occur. A good half of those newly infected get those symptoms. Those who do are highly infectious at this stage.
2. *Asymptomatic phase:* The second phase lasts 8–10 years on average. As a rule, no HIV-related clinical afflictions occur during this time, but the virus continues to develop to a greater or lesser extent, with simultaneous destruction of the immune system. This destruction of the immune defences can be measured by the reduction in CD4 cells. Depending on the viral load, the person concerned will still be infectious to a greater or lesser extent.
3. *Starting immunodeficiency:* AIDS (Acquired Immune Deficiency Syndrome) denotes the stage at which the immune system is highly impaired and AIDS-defining, life-threatening illnesses occur, such as opportunistic infections (e.g. pneumocystic pneumonia, cerebral toxoplasmosis), tumour illnesses (e.g. Kaposi's sarcoma, non-Hodgkin's lymphoma), serious general symptoms (e.g. fever of unknown origin, neurological illnesses). With the introduction of antiretroviral therapies, the number of AIDS cases dropped in those countries that had a functioning health system and sufficient access to anti-retroviral drugs.

Post-Exposure Prophylaxis

For those having been involved in a clearly elevated transmission risk[5], health professionals can assess the risk of infection on the basis of the situation described, and may propose PEP at a HIV treatment centre within a maximum period of 72 hours after possible exposure to HIV. This is preventive treatment with drugs, lasting for a period of several weeks, which will probably considerably reduce the risk of transmission but cannot eliminate it altogether. PEP will be all the more successful the sooner treatment is commenced following the risk situation.

Statement of the Swiss National AIDS Commission (EKAF)

On 30 January 2008, the Swiss National AIDS Commission (EKAF), which advises the Federal Council, published the following statement in the "Schweizerische Ärztezeitung" medical journal: "*The Swiss National AIDS Commission (EKAF) considering the query addressed to it by the Swiss Federal Office of Public Health's committee on HIV/AIDS clinics and therapies, and after taking note of the scientific facts and discussing the matter in depth, is of the view that a person infected with HIV, but no other STIs, and undergoing anti-retroviral therapy (ART) with a completely suppressed viraemia is not sexually infectious, i.e. he or she will not pass on HIV through sexual contacts, provided the following conditions are met:*

- *the anti-retroviral therapy is being followed by the person affected with HIV and is verified by the doctor providing the treatment;*
- *the viral load (VL) has been below the detection level for at least six months;*
- *there are no infections with other sexually transmitted pathogens (STIs).*"

HIV test

An HIV infection can only be reliably excluded on the basis of a negative HIV test three months after a risk situation has occurred. This is how long it can take for the human body

[5] This includes engaging in risky sexual practices with a partner from a population group with a considerably elevated prevalance

to form antibodies to the virus after contracting an infection, thus allowing the antibodies to be detected. If the result is "negative", no antibodies have been found in the test, and hence there has been no infection. If the result is "positive", antibodies have been detected and the person has been infected with HIV. A positive test is always verified with a confirmation test on a new blood sample. The confirmation test is based on a different detection method. At the same time, a third test is generally performed to determine the viral load. Following this standard procedure, there is no danger of a false positive result. The standard HIV test employed in Switzerland is a combination test that is able to detect antibodies and/or virus components (p24 antigen) in the blood. Since 2010, this combination test has also been available as a "rapid test" for use during counselling sessions.

Federal Office of Public Health recommendations regarding the HIV rapid combination test

The introduction of the rapid combination test (HIV antigen/antibodies) constitutes a further improvement in HIV counselling and testing. The Federal Office of Public Health thus recommends that specialist doctors' surgeries, VCT centres, anonymous test units and HIV centres make use of this test. People who have been exposed to an HIV transmission risk less than 12 weeks previously can receive immediate counselling and testing. This will always have a preventive impact on future risk behaviour, particularly amongst those who belong to risk groups. In addition, if an indication of a potential infection is obtained rapidly and the person concerned is then given appropriate counselling, this will contribute towards preventing the virus from being further passed on. These advantages justify the generalised use of the new rapid test, despite its slightly higher price.

Primary infection – the opportunity to make an early diagnosis

At least half of all those freshly infected with HIV display the clinical picture of a primary infection in the initial weeks after becoming infected. The symptoms are similar to those of other viral infections: fever and unspecific symptoms. It is important that the treating physician considers the possibility of an HIV infection and spontaneously offers an HIV test.

Test concepts

Provider induced counselling and testing (PICT)
As it has been recorded that, in the case of heterosexuals in particular, the primary infection can be missed on account of there being no reasonable grounds for suspecting an infection, people with a fever and symptoms of a clinical viral infection should always be advised to undergo an HIV test, since the exclusion of an HIV infection on the basis of a risk anamnesis alone might be insufficient.
In addition, all people with illnesses that occur with a high incidence in conjunction with HIV should be tested for HIV (e.g. tuberculosis, venereal disease, lymphomas).
The PICT also engages doctors and other service providers to spontaneously suggest to patients that they undergo HIV counselling and testing, even if there is no corresponding illness or symptoms but where the doctors or other service providers have indications of risk behaviour through the sexual anamnesis. In these cases, counselling should be given even if the test results are negative. A test may normally only be performed with the informed consent of the person concerned. Only in strictly defined exceptional situations (for example with an intubated patient) may a test be performed without a person's consent. This must be documented in writing.

Voluntary counselling and testing (VCT)

The VCT situation is different from that for PICT: it is the person concerned who takes the initiative to have the test performed, and the concept is based on voluntariness and personal responsibility. The majority of tests here are conducted on grounds of a prior risk situation or a new relationship. Under these circumstances, an HIV test without counselling would be a missed opportunity for prevention. This is why a risk anamnesis and counselling about risk-reduction strategies (safer sex) is conducted as standard.

Antiretroviral therapy

Since 1996, combination therapies (antiretroviral therapies = ART) have been available for HIV. The antiviral drugs suppress the replication of the virus in the affected cells, so that the number of free viruses in the blood (viral load) falls while

the number of helper cells increases. These therapies frequently make it possible to considerably slow down the progression of an HIV infection. It is then feasible to delay the outbreak of serious illnesses which are consequences of the HIV infection. These so-called AIDS-defining illnesses are becoming increasingly rare, and fewer people are dying of AIDS. The drugs can, however, also have side effects. The aim of an optimum therapy is to suppress the replication of the virus as much as possible and thus improve the status of the immune system and stabilise it over the long term. A good doctor/patient relationship is essential, as is the willingness of patients to keep themselves informed and to become involved in their own therapy. Support from the patient's social environment is also sometimes essential as the combination therapy requires strict discipline in taking the drugs if they are to be effective – and this throughout the rest of the patient's life.

Combination therapy against HIV which is started at the right point in time, individually tailored and correctly adhered to considerably increase life expectancy. One prerequisite for successful therapy is good medical care. Only specialist doctors can determine the optimal point in time for the start of therapy and the correct combination of drugs.

Side effects

Side effects can occur with all the drugs so far used against HIV. These side effects are generally mild. In a few cases, a drug has to be discontinued because of serious side effects. It is almost always possible to find alternative drug for a combination that the patient can tolerate. The long-term consequences of antiretroviral therapy are currently being researched. So far, however, it is not possible to make any statements on the tolerance of ART over a period of twenty, thirty or even forty years of the drugs being taken on a daily basis.

Adherence (willingness to start treatment and to take medication exactly as prescribed)
The most important factor for a successful therapy is adherence. If a patient is not prepared to adhere, there is no sense in initiating therapy, even if there is a clear indication for it. If drugs are only taken on an irregular basis, the therapy will fail relatively rapidly and HIV might become resistant and the drugs to which the virus has developed resistance can no longer be used, as they will have lost their effectiveness for ever. The spread of resistant virus constitutes a problem for public health. For this reason too, it is in the public interest for therapies to be conducted successfully.

No HIV vaccine in sight
Despite regular sensational announcements that appear in the media, no breakthrough is in sight in the search for a vaccine against the HIV. Research has been, and is still being, repeatedly conducted to produce vaccines. These studies are only at their initial stages, and it is assumed that, of the active ingredients tried out today, only partial protection will be achieved against the HIV infection in the best of cases (achieving a protective effect of between 40 and 60 % would already be a significant success). If a breakthrough were to be achieved in the trials for these vaccines, it would still take at least a decade before an effective one was licensed and obtainable in Switzerland and in other countries. This is because each new drug not only has to go through the development and trial phase but must also pass a large number of tests to ensure its tolerability, reliable application and efficacy. At the present point in time, it is impossible to know when an at least partially effective vaccination can be expected.

8 VALUABLE INFORMATION ON SEXUALLY TRANSMITTED INFECTIONS

The number of new cases of STIs has risen over the past few years. Cases of chlamydia infections have increased threefold since 2000, and the number of syphilis diagnoses has risen too. Gonorrhoea is stable at a high level.

Chlamydia

Estimates put the percentage of the sexually active population affected by chlamydia at between 3 and 10 %, with 73 % of these being women. Eighty-seven percent of cases occur in the 15–34 age group. Chlamydia is transmitted through oral, vaginal and anal intercourse as well as from mother to child during childbirth. Newborns then suffer conjunctivitis or pneumonia. A chlamydia infection often follows an asymptomatic course and can be cured with antibiotics or can also heal spontaneously. If an infection is not recognised, it can lead to an adhesion of the fallopian tubes, resulting in infertility or in an ectopic pregnancy.

Gonorrhoea

The proportion of men is very high, at 80 %, in the case of gonorrhoea, and the 20–24 age group is particularly affected. The infection can be transmitted by oral, vaginal and anal intercourse, as well as from mother to child during childbirth, leading to suppurative conjunctivitis in the newborn.
In adults, inflammation of the mucous membranes at the penis or in the vagina occurs and, depending on sexual practices, infection also occurs in the mouth or the throat, as well as in the anal region. Gonorrhoea can be healed with antibiotics. Notifications of strains with resistance to antibiotics, to which the bacterium was almost always sensitive up to a few years ago, are, however, causing concern. If untreated, gonorrhoea leads to infections of the prostate and the epididymis and can also cause infertility in both sexes.

Syphilis More than 80 % of those infected with syphilis are men. Syphilis is transmitted through contact with very small lesions in the skin and mucous membranes; these occur primarily in the genito-anal region although also in the oral cavity. The infection can be transmitted from mother to the child during pregnancy and birth and can lead to deformities, blindness and other serious illnesses. The WHO thus recommends syphilis screening for pregnant women. Syphilis can also be transmitted through blood transfusions. The illness can be subdivided into different stages – the initial signs such as patches or ulcers can remain undetected and disappear again, and a skin rash can occur, but there are also longish phases without symptoms in which the illness is nonetheless still progressing. Syphilis can be cured with antibiotics and can have serious consequences if left untreated, such as damage to the heart, brain, bones, skin and other organs. Syphilis can also result in character changes, extending right through to dementia.

Hepatitis B Women are affected by hepatitis B to a greater extent than men, accounting for a share of 71 % but, viewed in overall terms, the number of cases is remaining constant at a low level. The virus is transmitted through contact with bodily fluids (particularly blood and genital secretions), during intercourse, through shared syringes and also through injuries to the skin or mucous membranes. Infected women can infect their children during childbirth. Ninety percent of the infected newborns and 5–10 % of the adults develop chronic hepatitis B, which can lead to cirrhosis or cancer of the liver. Antiretroviral drugs can be used by way of therapy for a chronic infection. Vaccination is recommended for all young people and certain risk groups.

Hepatitis C The share of women contracting hepatitis C is elevated, at 64 %. All in all, 60–80 % of all infections are attributable to intravenous drug use. The pathogen is transmitted first and foremost through blood – through shared use of syringes, during medical or cosmetic interventions (tattooing, piercing)

with insufficiently sterile instruments or through blood in countries where donors' blood is not tested for antibodies. Sexual transmission is also possible. In some of those infected, the infection runs without any symptoms, while others have a fever, suffer from loss of appetite or display other symptoms. Just a few develop jaundice.
In 20–30 % of cases, acute hepatitis C will heal completely while a chronic illness will develop in 70–80 % of patients, with a danger of cirrhosis or cancer of the liver. Hepatitis C cannot be treated effectively. There is no vaccination against Hepatits C.

Herpes (HSV-1 and HSV-2)

Around 20 % of the population suffers from herpes. This virus infection is characterised by the occurrence of burning and itching blisters on any of the body's mucous membranes. The most frequent type, HSV-1, is generally restricted to the mouth and the lips. Type HSV-2 affects the genital region, in particular. The infection remains asymptomatic in around 80 % of those infected with HSV-2.
If a woman becomes infected during the first 12 weeks of pregnancy, it can lead to a miscarriage. In addition, it is possible for the virus to be transmitted to the newborn during childbirth. If this happens, the child can develop a serious illness that can be life-threatening in some cases. Herpes cannot be cured but the symptoms can be alleviated, and the severity and duration of the acute phases can be reduced.

Human papilloma virus (HPV, warts)

Around 15 % of the population is affected by HPV, with estimates of 70–80 % of the sexually active women and men infecting themselves with HPV in the course of their lives. The 16–25 year olds are particularly affected.
Two thirds of the infections run asymptomatically. If symptoms do occur, then these take the form of changes to the skin (warts). The warts develop inside the vagina or in the anus and, at times, can only be detected through a special medical examination. In 70 % of cases, the virus disappears within a year of infection and, in 90 % of cases, within 2 years.

The worst possible consequences are cancer of the cervix or cancer of the rectum or anus. A vaccine is available against a number of HP viral strains that can trigger cancer of the cervix. The illness can also be treated.

Trichomoniasis

Trichomoniasis is the most frequent STI worldwide. It particularly affects young people – both male and female. An infection is manifested through itching, a burning sensation when passing water and a discharge with a sweet, unpleasant smell. In half of the women no symptoms occur, however, and an asymptomatic course is the norm in men.

Lymphogranuloma venereum (LGV)

LGV rarely occurs in the population at large but is being increasingly diagnosed amongst MSM and HIV-positive MSM. The infection frequently follows an asymptomatic course. If symptoms do occur, these will generally be non-specific complaints in the anal and rectal region, possibly with a mucous discharge of loss of blood.
If not treated in time, the infection can cause serious lesions in the anus (scars and cramps), which require surgery. The glands and the testicles also undergo pronounced swelling. The infection can be treated with antibiotics.

Fungal diseases

Fungal diseases are often manifested by itching, pain and a discharge, but can be readily cured.

We would like to extend our thanks to all those stakeholders who have assisted in the compilation of the programme. They have worked in a committed manner, producing valuable results, and, without them, the present programme would not be what it is today. We look forward to the joint implementation of the programme.