‘Detention or prevention?’

A report on the impact of the use of criminal law
on public health and the position of people living with HIV

Report

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**Executive Committee on
Aids Policy & Criminal Law**

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1 Introduction

On a number of occasions in recent years, the Dutch Public Prosecution Service has decided to institute criminal proceedings against people with HIV on the grounds that they had unprotected sex and had failed to inform their partners that they were infected with HIV.

In none of these cases was the virus actually transferred to the sexual partner in question. The defendants were initially charged with 'attempted homicide', and later, following the rulings given by the Supreme Court in 2003, with 'attempted grievous bodily harm'.[1] A number of trials have now concluded with the defendants being convicted and given relatively severe sentences.

These judgments have caused a fair amount of panic, not only among people living with HIV, but also among all sorts of organisations that take a professional interest in HIV and Aids problems. Such prosecutions, and the resultant convictions, can have a major detrimental impact on public health (and Aids policy) in general, and on the position of people living with HIV in particular.

Since the beginning of 2002, the Dutch HIV Association has sought to draw the attention of relevant parties to its concerns about the prosecution of people living with HIV. In October 2002, the Dutch HIV Association and the Aids Fund organised a legal forum entitled 'Criminal convictions of people displaying forms of behaviour entailing a HIV risk'. The aim of this forum was to clarify the potential legal impact of the judgments given to date. Among those taking part in this forum were a number of criminal lawyers. In mid-2003, the Aids Fund, the Dutch HIV Association, the Dutch Foundation for STD Control, the Schorer Foundation and the Dutch Association of Aids Physicians wrote to the Ministry of Justice expressing their concerns about the prosecutions brought by the Public Prosecution Service and the subsequent convictions.[2]

Executive committee on 'Aids Policy & Criminal Law'

The Aids Fund, the Dutch HIV Association, the Dutch Foundation for STD Control, the Schorer Foundation and the Dutch Association of Aids Physicians recognise the importance of the issue of individual responsibility with regard to sexual relations. At the same time, they believe that the question of whether people living with HIV have other or more specific responsibilities with regard to sexual relations than people who are not aware of their HIV status can and should not be answered simply from a criminal law perspective, and definitely not on the basis of a small number of individual cases.

This is an issue that needs to be considered from a range of different

[1] Article 302, Dutch Criminal Code.

[2] Letter of 16 June 2003, ref. 20031018/MVO/BRF.

perspectives. Having been asked to play a pivotal role in relation to Aids policy, the Aids Fund therefore formed a special executive committee on 'Aids Policy & Criminal Law' in the spring of 2003. This committee was given the task of analysing the problem and formulating a proposal for an official standpoint. It was asked to take the following factors into account in any event:

- people's responsibilities for their sexual relations with other people, irrespective of whether or not they are aware of their HIV status;
- the application of criminal law to situations involving unprotected sexual relations;
- the relationship between criminal law and the assumptions and principles underlying Aids policy;
- the potential impact of the application of criminal law on the legal and social position of people living with HIV and on Aids policy;
- policy action that is either desirable or necessary.

The Aids Fund believes that undertaking this type of analysis of all the facts and arguments involved in the current debate can help both to shed light on this issue and its potential adverse effects, and to prevent people from taking an over-simplified view of the matter.

Membership of committee and working methods

The executive committee on 'Aids Policy & Criminal Law' was made up of a number of experts who sat on the committee in their personal capacities. See Annexe 1 for a list of members.

The executive committee on 'Aids Policy & Criminal Law' began its work in May 2003. Five meetings were held to analyse and debate the various aspects of this issue. A draft report was prepared early in 2004, and this was discussed and amended (where necessary) at two meetings. In February 2004, the executive committee presented its final report, entitled 'Detention or prevention?' to the Governing Board of the Aids Fund-Dutch Foundation for STD Control.[3]

Format of report

Chapter 2 outlines the current public health policy on HIV and Aids. Chapter 3 discusses people's individual responsibility with regard to sexual relations. Chapter 4 describes the aims of criminal law and explains how – as is clear from case law – the criminal law is currently used. Chapter 5 goes on to analyse the potential adverse effects on public health, as compared with the potential benefits to be gained from criminalisation. The committee concludes by drawing various conclusions and making a number of recommendations in Chapter 6.

[3] The Aids Fund and the Dutch Foundation for STD Control merged on 1 January 2004.

2 Public health policy; controlling infectious diseases

The Dutch policy on Aids and sexually transmitted diseases (STDs) is based on the assumption that, where two individuals enter into sexual relations with each other, they are both responsible for taking whatever measures may be needed to protect their own health and prevent any undesirable effects (such as pregnancy or infection with HIV or other STDs). It is this assumption, illustrated by the phrase 'it takes two to tango', that has also formed the basis for the successful education campaigns conducted over the past 20 years.[4]

The current legislation in the Netherlands is based on the same assumption. Since 1928, the detection and prevention of infectious diseases has been regulated by the Control of Infectious Diseases and Investigation of Causes of Disease Act. In 1999, this Act was superseded by the 'new' Infectious Diseases Act.[5] The main reason for replacing the old Act was the need to protect human rights. Public opinion on this issue had changed considerably in recent decades, and had been given a legal basis both in the Dutch Constitution and in international treaties.[6]

The basic principle underlying the new Infectious Diseases Act is that coercive measures are justified only if there is an imminent threat to other people's lives or health, if this threat can be countervailed only by a custodial sentence, and if the sanction in question is effective, is the least intrusive form of action and is not disproportionate.

The extent to which a person is capable of protecting himself or herself is an important consideration in this respect. In theory, this principle also applied to the situation under the old law. After all, when new infectious diseases were discovered in the 1980s, Lassa fever, Ebola virus disease and legionnaire's disease were all brought under the scope of the law, whilst HIV was not. The point is that it is relatively simple to gain effective protection from HIV infection, viz. by using a condom. This principle has been tightened in the new Infectious Diseases Act, which authorises the government to take coercive measures only if there is an imminent threat of a disease causing serious damage to public health, and if there is no other effective means of averting this threat.[7] It was on the strength of this principle that various STDs that had previously been covered by the old Act (e.g. gonorrhoea and syphilis) were removed from

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[4] The Ministry of Health, Welfare and Sport carries the prime responsibility for the policy on Aids and STDs. A number of national organisations perform certain supporting and advisory tasks. Responsibility for the implementation of policy is vested primarily in regional and local authorities, however, whose duties are enshrined in acts such as the Public Health (Preventive Measures) Act.

[5] The Rules on the prevention of risks emanating from infectious diseases (under the Infectious Diseases Act) took effect on 1 April 1999 (Bulletin of Acts and Decrees 1999; 43).

[6] Explanatory Memorandum; Dutch House of Representatives 25336, no. 3. The European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR) is particularly relevant here, notably articles 5 (enshrining the right to liberty and security), 6 (the right to a fair trial) and 8 (the right to privacy).

[7] See footnote 6 above.

the scope of the new Act. The new Act has, however, recently been extended to cover diseases such as SARS and Creutzfeldt-Jakob disease, against which there is no protection.[8]

A legal scheme for averting the risks posed by infectious diseases does not necessarily need to cover all infectious diseases. A large number of infectious diseases are relatively harmless, for a start. Equally, the measures contained in the law may not be appropriate for certain diseases, or may be socially unacceptable. Such diseases include, apart from STDs, leprosy, mumps, scabies and tetanus, which were all covered by the old Act, but which are no longer subject to a disclosure requirement under the new Infectious Diseases Act.

In other words, whether or not the law becomes involved depends on the degree to which people are capable of protecting themselves from an infectious disease. Adequate protection is available against infectious diseases such as HIV and other STDs, which means there is no need for legal protection and that members of the public have their own responsibility for protecting themselves. This does assume, however, that the public are properly informed about the potential risks and that they have an opportunity to protect themselves against these risks. In other words, whilst the government creates the necessary conditions for promoting health and preventing disease, it is the citizens themselves who bear the ultimate responsibility in this respect.

As regards HIV and other STDs, the government has taken steps during the past 20 years to inform citizens, both through general education campaigns and by means of specially targeted information campaigns (i.e. promoting safer sex) about the transmission risks attaching to HIV and other STDs, and about simple means of preventing infection, i.e. by using a condom. In accordance with the principles underlying government policy, the campaigns have stressed each individual's responsibility for protecting himself or herself against infection. This policy continues to hold.

In the situation as outlined above, the government has little or no reason to interfere in the social and sexual relations between individuals as long as it has succeeded in creating the right conditions, i.e. providing sufficient information about the risks and giving individuals sufficient opportunities to protect themselves. The only exceptions are cases in which an individual is not capable of protecting himself or herself, for example where there is a clear imbalance of power and/or where force is used.

It is worth pointing out that, since the early 1980s, virtually all experts have been opposed to the adoption of a more repressive policy on HIV and Aids. For various reasons, measures such as the use of early detection, the isolation of people infected with HIV and all those with

[8] Regulation declaring the Infectious Diseases Act to be applicable to SARS, 1 April 2003 and Bulletin of Acts and Decrees 2002, 265; Bulletin of Acts and Decrees 2002, 436.

whom they have had sexual relations until such time as the infection has been successfully treated (including by coercion) have all been dropped as being impractical. The most important reasons for this were:[9]

- The 'window period' and the long incubation period. It could take many moths before someone who was infected starting producing antibodies, and many years before he or she actually displayed any symptoms of the disease. This ruled out the possibility of using any form of early detection.
- The 'hounding effect': the less attractive the prospects for those at risk, the more likely there would be a drastic decline in the number of people coming forward for testing. People who were at severe risk would be forced underground, where they would be out of the reach of care-providers, and would thus pose a huge threat to public health.
- The creation of a false sense of security: people infected with HIV would assume that all those infected with HIV would withdraw from public life (and hence not have sexual relations with people who were not infected), and would therefore continue to have unprotected sex, including with people who had not been tested but who were infected.
- The duration of the infection because of the lack of adequate treatment. Even now, 20 years later, and despite the treatments now available, there is still no prospect of the HIV virus being completely removed from the human body, which means there is always a risk of the virus being transmitted.

Partly because of the emergence of increasingly effective therapies such as the Highly Active Anti-Retroviral Therapy (HAART), the passive testing policy of the 1980s has been transformed in recent years into an active testing policy. This is because successful treatment means an improved quality of life, longer life expectancy and a more or less consistently lower level of infectiousness. The current policy of active testing is one of the tools used by the government for halting the renewed rise in the incidence of STDs and HIV in the Netherlands, as it has an immediate effect in limiting the further spread of HIV and other STDs. Every HIV infection that is detected and treated at an early stage is estimated to prevent between 10 and 20 further infections in the longer term.[10]

The Ministry of Health, Welfare and Sport recently reaffirmed the government's standpoint on public health, which hinges on the responsibility borne by individual members of the public for protecting themselves against HIV and other STDs. Writing to the Minister of Justice on behalf of the Minister of Health, Welfare and Sport, the Director-General of Health said that:

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[9] Kollen E.; *Nadert het einde van 'It takes two to tango'?*; Een eenzame verantwoordelijkheid voor veilige seks, HIVnieuws 74, January-February 2002.

[10] Garnett G.P., Bartley L.M., Cameron D.W. & Anderson R.M: Both a 'magic bullet' and good aim are required to link public health interests and health care needs in HIV infection, Nature Medicine, Vol. 6 , Number 3, March 2000.

"…anyone who is aware that he or she is seropositive has a responsibility to do their utmost to prevent the disease from spreading any further. This is an important principle underlying our current policy of active testing. At the same time, it by no means absolves sexual partners from their own responsibility for protecting themselves. It is precisely on this principle that the whole prevention policy is based: 'Safer sex, or no sex at all.' As the Director-General of Health, I intend to adhere to this principle in the years to come…"

The Director-General added that:

"… the number of STDs, including HIV infections, is again on the increase in the Netherlands. One effective preventive measure involves ensuring that those at risk have themselves tested as soon as possible. Early treatment of HIV leads to reduced infectiousness. The government also assumes that those who know they have HIV accept their responsibility and take the necessary action themselves to prevent the transmission of the disease. In other words, an awareness of your own HIV status is a key element in the prevention of STDs …" [11] [12]

It is generally accepted that one of the main consequences of the policy pursued to date is the creation of a climate in Dutch society in which people can talk relatively openly about life with HIV/Aids or the risks of a HIV infection. The policy has also helped to avoid drastic forms of (permanent) stigmatisation and discrimination. This openness is also of great importance for the implementation of the government's HIV prevention policy in the future, as it will help to ensure that high-risk groups, such as homosexual men, intravenous drug users and immigrants, remain well within the reach of prevention workers. Moreover, openness also has a positive impact on the opportunities for providing an adequate standard of care and on the social position and individual welfare of people living with HIV/Aids.

[11] Letter of 17 September 2003 from the Ministry of Health, Welfare and Sport to the Ministry of Justice (ref. POG/ZP 2.410.917).
[12] See Annexe 2 for recent figures on the number of people living with HIV/Aids in the Netherlands.

3 Responsibilities in sexual relations

The question of whether people living with HIV have different or more specific responsibilities in their sexual relations than people who are not aware of their HIV status can and may not be answered from a criminal law perspective alone. Before examining the role that is or could be performed by criminal law in relation to this issue, the committee wishes first to define the precise nature of a person's individual moral responsibility for their sexual relations.

3.1 Responsibility versus duty

Not only are there various ways of defining responsibility, or responsible behaviour, it is also important to bear in mind that any form of sexual relation inevitably involves at least two people, and hence two responsibilities. The committee believes that the present issue can best be considered from an *ethical* viewpoint, and regards the question of individual responsibility as being primarily a moral issue in this case.[13] In other words, how are people supposed to behave towards each other? What type of conduct is considered correct, and what type of conduct is considered incorrect? And, more specifically, how should you behave in your sexual relations?

In order to focus the debate and create as much clarity as possible, the committee decided to use the term 'duties' instead of 'responsibilities'. In doing so, the committee asked itself the following questions:

1. In the light of the prevailing risks of infection with HIV and other STDs, do people have a moral duty to engage in safer sex?
2. What does this entail for those who know they have an STD or are HIV-positive?
3. Should people who know they have an STD or are HIV-positive inform their sexual partners before having sexual relations with them?

3.2 Ethical standards

There are various grounds or principles that could serve as a basis for answering the above questions. For example, there is the *utilitarian* principle of 'usefulness and the common good'. All citizens have a general duty to further other people's well-being; this includes preventing HIV and other infectious diseases.

Because of the background in which the debate is taking place, the committee has decided to try and answer these questions from a *deontological* perspective, which implies that everyone has a duty to

[13] The term 'ethics' is defined here as 'a set of customs, standards and practices that are observed by a given group of people'.

ensure that no one suffers as a result of his or her actions. People should not expose each other to risks they would normally regard as being unacceptable. Society cannot operate successfully without this type of principle.

But what type of action could be regarded as being harmful to other people? When does a situation arise in which a person is exposing other people to risks they might well regard as being unacceptable? What is the other person's duty or responsibility? These are not easy questions to answer. For clarity's sake, the committee has identified a range of possible ethical standards relating to the prevention of HIV infection. The next step is to decide which standard, in the light of the wide variety of arguments in circulation, would appear to be most reasonable in the current circumstances. In the light of the current debate, the committee has formulated the following possible ethical standards:

1. All people should engage in safer sex so as not to harm other people.
2. People who know they are at risk of being HIV-positive should engage in safer sex so as not to harm other people.
3. People who know they are HIV-positive should engage in safer sex so as not to harm other people.
4. People who know they are HIV-positive should inform their sexual partners accordingly.

These are various proposals for a *minimum* standard for the type of conduct sexual partners may expect from each other. In order to compare these ethical standards with each other and to make judgements about their relative reasonableness (and the duty that may result from them), the various arguments should be viewed in their context. The committee wishes to stress that it has restricted itself to those situations in which both persons have consented to the sexual contact. In cases in which, for example, the two partners are not equal or where one partner is acting under coercion, the basic principle that no one should suffer has already been betrayed.

3.3 Context

If the general standards outlined above imply the existence of certain duties that people have *towards each other*, individuals are also free to relieve each other from these duties. This is why the context is so important in answering the question of whether someone has a moral duty to comply with a general standard. In the current debate, this context is all about the way in which those involved *assess and accept risks*. After all, the basic principle is that people should not expose each other to risks they would normally regard as being unacceptable. In some cases, the assessment will be that there is no risk. For example, in a long-lasting relationship in which both partners assume that they only have sex with each other, each partner will more or less automatically relieve the other partner from the duty of engaging in safer sex. In other

cases, there may be risks, but these are accepted. Sometimes acceptance is more or less implicit, but it may also be explicit, for example when sexual partners inform each other about the potential risks and they both give their consent. Finally, there may also be a setting in which everyone may reasonably be expected to know there is a risk that is consciously accepted by both partners, for example during regulated sex parties.[14] In all examples of situations in which a risk is assessed and/or accepted, the assumption is that sexual partners do not mislead each other about the potential risks. After all, if people deceive each other about the risks, for example by denying they are HIV-infected when they know they are, it is no longer possible to talk realistically about risk assessment and acceptance.

3.4 Committee's findings

When people enter into sexual relations, they have certain obligations to each other from which they may relieve each other. But which of the general standards formulated in section 3.2 is the most fitting?

In a context of casual sexual contact between two adults, the committee believes that there are good reasons for accepting both the third and the second standards as basic ethical standards. In the light of our current knowledge of HIV and the way the virus is spread, the committee feels that both those who know they are at risk of being HIV-positive and those who know they are HIV-positive should engage in safer sex, in order to prevent the virus from being transmitted and hence to prevent others from suffering as a result. Although HIV is not transmitted every time people practise unprotected sex (depending on factors such as the stage of infection and the effectiveness of treatment), and whilst it is not the case that everyone who is infected with HIV dies as a result, it also remains true that no means has been found to date of completely removing the virus from the human body. Because the necessary medical treatment is physically and mentally demanding, partly because of the various side effects, whilst there is also a risk of the virus being or becoming resistant to therapy and/or to any new agents that are found to combat the virus, the committee believes there is an extra duty of care involved here and for this reason rejects the third standard as being inadequate on its own. This is because a person's awareness of his or her own HIV status is not essential for the existence of a moral duty. The committee believes that disregarding a risk of HIV infection is also unfair to the sexual partner in question.

There is, however, a second reason why the committee believes the third standard cannot be accepted on its own. This is because acceptance of the third standard on its own would mean that the moral responsibility for preventing HIV infection would rest solely on those who *know* that they are already infected themselves. The committee feels that this would be

[14] Known as 'bareback' parties.

unfair, partly because of the arguments already given in the previous paragraph.

At the same time, it is possible to imagine a number of situations in which, despite what has already been said, it may nonetheless be unfair to regard someone as morally blameworthy because he or she has failed to perform his or her duty of engaging in safer sex. This may be the case, for example, if he or she practises unprotected sex, but is insufficiently aware of the situation and its consequences (for example, on account of a psychosis). It is also possible to conceive of situations in which someone who is HIV-positive is in a subordinate position relative to his or her sexual partner. This may apply, for example, to a prostitute whose client is only prepared to have unprotected sex.

The committee believes that, in a normal setting, the first and fourth standards are less suited as general ethical standards. For various reasons, the committee feels that they are overly strict. Obviously, whilst it is and remains desirable for anyone who has unprotected sex to be aware of the consequences, the committee feels that the current state of the epidemic is such that safer sex is a personal responsibility and – provided there is no risk involved – need not be regarded as a duty.

The committee also feels that the fourth standard is excessively stringent as a general ethical standard. Although it is true that people who know they are HIV-positive should engage in safer sex, the committee does not believe that they have a duty to disclose their status to everyone with whom they have, or intend to have, sexual relations. A person's HIV status is highly personal and confidential information. It is not information that needs to be shared with everyone, especially if the person in question has casual sex with a number of different partners. Moreover, as long as the person living with HIV engages in safer sex, there is no need for him or her to inform his or her partners in order to protect them. The committee explicitly assumes, however, that the person in question does not *mislead* his or her sexual partners about his or her HIV status or risk of HIV infection. If he or she does, it is no longer possible to talk realistically about risk assessment and acceptance, as we have already said, which means that the sexual partners cannot relieve each other of their obligations.

What is safer sex?
At the heart of the second and third standards is the principle that people who have been exposed to a risk of HIV infection or who are actually HIV-positive *should engage in safer sex* so as not to harm other people. This is a duty that people have to each other, and they may take a joint decision to relieve each other from that duty. But what exactly is 'safer sex'? Based, *inter alia*, on the case law to date, the committee believes that there are certain ambiguities and gaps of knowledge surrounding the definition.

The only form of sexual contact that is guaranteed 100% safe is abstinence, i.e. refraining from intercourse. All other ways of not harming

a sexual partner may, in principle, may described as forms of risk acceptance. The same applies to the use of a condom. In theory, it offers protection from HIV and, when used consistently, results in an 80% risk reduction as compared with unprotected sex. Nonetheless, condoms are capable of tearing or slipping off the penis, although the risk of this actually happening is low (i.e. 1.6-3.6%) and, even when it does happen, the risk is still not as high as with unprotected sex.[15]

In other words, whilst condoms are a highly important form of protection, they do not afford complete protection and do not always work. Partly as a result of public information campaigns, society tends to regard sex performed with a condom as being the same thing as 'safer sex'. Which is not to say that sex performed without a condom is automatically unsafe (and hence high-risk) sex. Where HIV infection is concerned, some people even claim that the risk of infection associated with oral sex performed without a condom is so low (or even non-existent) that it would be wrong to describe it as 'unsafe sex'.

At the population level, there are indications that the infectiousness of people living with HIV declines in accordance with the decline in their viral load as treatment kicks in.16 Some people claim that, where a person has an undetectable viral load and no other STDs, the risk of transmitting the HIV virus is actually low, although there have also been case studies in which, despite HAART, the HIV virus – either resistant or otherwise – has been transmitted.[17]

It is not possible to conduct an exhaustive discussion of all possible transmission risks at this point. It is, however, important to bear in mind that situations may occur in which, depending on the sexual technique used, the risk of transmission of the HIV virus is so negligible that even a person who is HIV-positive can engage in safer sex without using a condom. To prevent any misunderstandings, the committee wishes to stress that the above is not in any way intended to detract from the tremendous importance of protected sex (i.e. sex with a condom). However, if we are concerned with a moral assessment of individual responsibility (and, ultimately, with its criminalisation), it is not sufficient to assume that there is an inextricable link between safer sex and the use of a condom.

From ethical standards to the criminal law?
The fact that an ethical standard is accepted, and even regarded as a moral duty, does not necessarily mean that it should be enshrined in criminal law. Other conditions need to be satisfied before it is justified to

[15] Weller S, Davis K., Condom effectiveness in reducing heterosexual HIV transmission, Cochrane Database Syst Rev. 2001; (3): CD003255. Workshop summary: Scientific evidence on condom effectiveness for sexually transmitted disease (STD) prevention, National Institute of Allergy and Infectious Diseases, National Institutes of Health, July 20, 2001.
[16] See Annexe 3: Background document on the risk of transmission, Aids Fonds Scientific Advisory Board, 2004.
[17] Hecht FM, Grant RM, Petropoulus CJ et al. Sexual transmission of an HIV-1 variant resistant to multiple reverse transcriptase and protease inhibitors. NEJM;1998;339(5): 307-311.

invoke the criminal law. There are plenty of examples of conduct that many people would condemn as being morally reprehensible, such as a failure to keep promises, obscene conduct, adultery, behaviour that could harm other people (such as a failure to clear away a fresh fall of snow from the pavement in front of your house) or coughing without holding your hand in front of your mouth (and hence increasing the risk of transmitting viruses such as flu, SARS, etc.). Whether such conduct would also constitute a criminal offence is, the committee believes, a completely separate issue. The committee takes the view that any decision to prosecute a person who has displayed a form of morally reprehensible behaviour should always be proportionate to the nature of the behaviour, and should always serve a useful purpose. This is a point to which we shall be returning in Chapter 5.

4 The application of criminal law

On a number of occasions in recent years, the Dutch Public Prosecution Service has decided to prosecute people living with HIV on the grounds of engaging in unprotected sex without mentioning their HIV status. In none of the cases was the virus actually transmitted. Until the middle of 2003, the charge was usually 'attempted homicide'. The Public Prosecution Service assumed that, by engaging in unprotected sex, the defendant had accepted a significant risk that his partner would die. It was assumed to be commonly known that infection could be transmitted by unprotected sex, and that there was a 'significant' risk of the partner actually contracting HIV. This chapter examines the purpose of criminal law and explains how (as developments in case law suggest) criminal law is currently applied.

4.1 Functions of criminal law

Criminal law makes clear which actions or forms of conduct performed by citizens are liable to punishment, and what sort of punishment may be imposed on offenders. The main provisions are found in the Criminal Code. The Public Prosecution Service is responsible for the prosecutions policy. The Public Prosecution Service is the only body that is entitled to prosecute someone who is suspected of having committed an indictable offence. The Public Prosecution Service is not obliged to prosecute and bring to court all indictable offences that are brought to its attention (either by a member of the public reporting it to the police or by the police themselves). This is known as the 'principle of expediency', i.e. it is up to the public prosecutor to decide whether to prosecute or not. The Public Prosecution Service may decide that there are good reasons (i.e. it is expedient) for not prosecuting in a particular instance, or for offering a person suspected of committing an indictable offence an out-of-court settlement instead of bringing the case to court. In certain cases, the Public Prosecution Service draws up guidelines in order to put the principle of expediency into practice, and to pursue a prosecution policy based on this principle.

Various theories about the purposes and the justification of criminal law and punishment have been put forward over the centuries. Basically, these may be divided into two categories: *absolute* and *relative* theories. *Absolute* theories regard punishment having its own inherent purpose. In this particular context, the word 'absolute' means 'divorced from any object'. The punishment has no other purpose beyond 'being' a punishment. In other words, the punishment has a purpose of its own in counteracting the crime. The only way of expressing the ignoble nature of the crime is by retribution, i.e. by making the offender pay for his or her

crime.[18] The *relative* theories, on the other hand, do not recognise punishment as something that has a purpose of its own. Instead, they only attach value to punishment in that it can be used to pursue and achieve other ends: the protection of society, the prevention of crime in general and recidivism in particular.

Most of the viewpoints commonly held today are based on *relative* theories. Because criminal law can have a profound impact on individuals' lives, it should be used – by the government – only as a last resort, i.e. as society's ultimate weapon when all other channels have failed. In other words, criminal law should be invoked only if the government does not have any less drastic remedies at its disposal for influencing or preventing undesirable conduct.

It is generally assumed that criminal law has, or can have, the following functions:

- *Upholding the rule of law*
  One of the government's duties is to uphold the rule of law and prevent people from taking the law into their own hands. Upholding the rule of law also implies that the government should protect the lives, bodily integrity and personal privacy of its citizens as much as possible, and prosecute any threats to the above, such as murder, manslaughter and assault.

- *Setting ethical standards*
  By classifying certain types of conduct as criminal (i.e. punishable), the government makes clear that such conduct is socially unacceptable. Generally speaking, this works only if the public are aware of these rules and standards and if they believe in the importance of upholding them.

- *Deterrence*
  This means preventing potential offenders from committing crimes. Criminalising certain forms of conduct acts as a deterrent.

- *Specific prevention*
  This means preventing someone who has been convicted of a particular offence of reoffending, i.e. preventing recidivism. The term 'specific prevention' is also taken to include rehabilitation and reintegration.

- *Public security*
  In contrast with specific prevention, public security is not about the effect that is achieved after the sentence has been imposed. Rather, it

[18] J.M. van Bemmelen; Ons strafrecht, Het materiële strafrecht, algemeen deel, 6th impression, 1979, pp. 24-33.

is about the effect during the enforcement of the sentence. In other words, the public are safe as long as the offender is behind bars.

- *Correction*
  This is a form of prevention which is in fact aimed not so much at preventing crime or habitual relapses into crime (i.e. recidivism), but at stopping offences that are already in the process of being committed. For example, someone who breaks the speed limit every day despite having too much alcohol in his blood, but who has never been caught by the police is an actual rather than a potential offender (who may be deterred by deterrence). If the government announces daily speed checks and breath-testing on the roads, there is a possibility that such offenders may cease engaging in criminal behaviour.

- *Retribution*
  There are two types of retribution: metaphysical and empirical. Metaphysical retribution is based on the principle that committing a crime disrupts a certain notional (religious) order or relationship, and that punishment is the only way by which this order can be restored. There is no connection here with the salvation of the offender's soul. Empirical retribution, on the other hand, involves satisfying or calming the sense of unease and the desire for revenge felt by the victim of a crime and/or other members of the general public. Acknowledging a person's status as a victim forms part of this.

4.2 Criminal recklessness

In order for a person to be convicted of homicide, attempted homicide, assault or attempted assault, there needs to be some form of criminal intent ('malice aforethought'). If there is no criminal intent, the person may be convicted at most of slaughter. This is an important distinction, particularly as regards the nature of the punishment that may subsequently be imposed. In past criminal cases involving people living with HIV, the main legal issue has therefore been whether the defendant intended to kill another person, i.e. whether there was any criminal intent.

Both the case law and the literature regard *criminal intent* as being present when a person does something knowingly and wilfully. The law recognises three levels of criminal intent:

- Wilfulness: you wish to achieve the effect in question. This is the purest form of criminal intent. If someone wishes to kill someone else and then shoots the person in question, he may be said to have acted wilfully.
- Awareness of necessity and certainty: although you do not necessarily wish to achieve the effect, you know that it is bound to happen.

- Recklessness: the offender knowingly and wilfully accepts a significant risk that his act will have a certain effect, although this is not his main purpose in performing the act. In other words, although there is a high risk that your action will have a certain effect, you take that risk in your stride.

In all cases in which people have been prosecuted for having unprotected sex, they have been charged with recklessness.

4.3 Developments in case law

In the summer of 2003, the Supreme Court passed judgment on two appeals. These judgments currently form the basis for the application of criminal law in cases of unprotected sexual relations. The two cases are known as the 'Leeuwarden case' (judgment given on 25 March 2003) and the 'Hague case' (judgment given on 24 June 2003).

The 'Leeuwarden case', stage 1

In the 'Leeuwarden case', a man with HIV had unprotected sex with two rent boys. The Supreme Court rejected the line followed until then (i.e. by the Public Prosecution Service, the lower courts and the courts of appeal) that the defendant could more or less automatically be assumed to having acted with criminal recklessness. The Supreme Court ruled that this could be the case only if the act was actually aimed at achieving a certain effect, in this case death. The defendant must knowingly and wilfully have exposed himself to a significant risk that the result would indeed be achieved. In the Supreme Court's words:

> "…The answer to the question of whether the action creates a significant risk of a certain effect occurring depends on the circumstances of the case, in which important factors are the nature of the conduct and the circumstances in which it is exhibited. There is no reason to link the meaning of the term 'significant risk' to the nature of the effect. In all cases, there must be a risk that may be considered as being significant on the basis of general rules of experience.''

The Supreme Court went on to conclude that, partly in view of the incubation period and the absence of any guarantee that the current anti-HIV treatments can permanently prevent Aids from resulting, the mere existence of a risk of HIV infection is not sufficient in order to assume there is a significant risk that the victim might contract Aids and die as a result. And even if it was proven that the defendant's conduct had created a significant risk of the victim dying, this would still not be sufficient proof that the defendant had acted recklessly. The mere fact that the defendant knew he was infected with the HIV virus and had stated he was aware that unprotected sexual relations involved certain risks, but had nonetheless engaged in the proven sexual relations, does not automatically imply that the defendant wilfully accepted the above significant risk. After all, he may have been grossly negligent.

In summary, a defendant may be said to have exposed himself or herself knowingly and wilfully to the significant risk of a given effect occurring (i.e. to have acted with criminal recklessness) if:

- he or she is aware of the existence of a significant risk that the effect will indeed occur; and
- he or she consciously accepted this risk in performing the act in question (i.e. took the risk in his or her stride); and
- he or she nonetheless performed the act that is in dispute.

In other words, it does not automatically follow from the mere fact that the defendant knows or may be assumed to know of the existence of a significant risk that he consciously accepted this significant risk of the effect occurring. If a person knows there is a significant risk of a given effect occurring and if, in the court's opinion, the person assumed that the effect would not be produced, he may be said to have acted in a grossly negligent manner, but not to have wilfully accepted the risk of achieving that particular effect. This means that the presence of criminal intent or recklessness must be proven in each individual case.

In this particular case, the Supreme Court also took into account the fact that, in principle, infecting another person with the HIV virus is tantamount to the occasioning of grievous bodily harm. This means that, if the Court is asked to decide whether a person has committed, or attempted to commit, assault occasioning grievous bodily harm, it needs to ascertain whether this was the defendant's intent or whether he acted recklessly in wilfully accepting a risk of this nature.

The 'Leeuwarden case', stage 2
On 30 June 2003, the Court of Appeal in Arnhem reached a decision on the 'Leeuwarden case', which the Supreme Court had referred back to it in March 2003. The defendant was convicted of attempted assault occasioning grievous bodily harm. The Court of Appeal found that the defendant had knowingly and wilfully exposed himself to a significant risk that the victim would be caused grievous bodily harm, viz. an irreversible HIV infection, as a result of the defendant's proven actions. The defendant consciously accepted the significant risk and took it in his stride; the Court of Appeal noted that the significance of the risk was not a purely statistical matter. The Court of Appeal concluded that the defendant knew beyond any doubt whatsoever that he had been carrying the HIV virus for some time, that he himself had become infected as a result of a one-off contact, that he had not informed his sexual partner, who was relatively young, and that he had had protected sex in other situations. The defendant could have protected his partner, even without telling him about his infection, by either suggesting the use of condoms or by using them. Finally, there were no special reasons why the defendant had not suggested the use of condoms.

As far as the sentence is concerned, the Court of Appeal in Arnhem also took account of the fact that the victim had been forced to spend a long period in a state of suspense before finding out that he was HIV-negative, and that this must have placed a severe emotional strain on him. Finally, the Court of Appeal concluded that the defendant's behaviour was also totally unacceptable from a social viewpoint, as deliberate concealment only reinforces feelings of unrest and insecurity. The defendant again appealed to the Supreme Court against this judgment. The Supreme Court has still to hear this appeal.

The 'Hague case'
On 24 June 2003, the Supreme Court passed judgment in a second case, in which a man had had unprotected sex with two women despite knowing that he was infected with the HIV virus. The Supreme Court reached a comparable conclusion in this case, ruling that the evidence as produced did not prove a criminal intent to kill, which meant that the charge was not sufficiently proven. The Supreme Court did state, however, that the evidence could be taken to prove that the defendant, as a result of his proven actions, had created a significant risk that the above persons would be infected with the HIV virus and hence be occasioned grievous bodily harm, although the evidence did not prove that, even if a HIV infection had arisen, the defendant's behaviour had created a significant risk of the persons in question dying. Other than in the Leeuwarden case, the Supreme Court merely touched upon the matter of the 'significant risk', referring in its judgment to the Leeuwarden case. The Supreme Court quashed the ruling previously given in the same case by the Court of Appeal in The Hague and referred the case for consideration to the Court of Appeal in Amsterdam. The latter court will have to decide, inter alia, whether there is sufficient evidence to prove a charge of attempted assault occasioning grievous bodily harm. The Amsterdam Court of Appeal had not passed judgment yet at the time this report was completed.

4.4 Committee's standpoint

The emphasis in the Supreme Court's judgments is on proving that the defendant actually accepted a significant risk. The Supreme Court has sought to avoid giving a statistically detailed answer to the question of when a risk may be said to be 'significant'. This is probably because the Supreme Court does not wish to be drawn into a protracted debate on the theory of probability, involving all kinds of contributions from statisticians. Against this background, the committee has sought to address the question of when there may be said to be sufficient evidence to prove that 'a defendant has consciously accepted the risk' of causing grievous bodily harm (i.e. a HIV infection) to his sexual partner. In the current situation, the following general conclusions may be drawn from the judgment given by the Court of Appeal in Arnhem in June 2003.[19]

[19] Judgment given by the Court of Appeal in Arnhem on 30 June 2003 (case no. AH8890).

The current prosecution policy suggests that a suspect should be able to avoid prosecution on the grounds of attempted assault occasioning grievous bodily harm if he or she:

- does not know that he or she is HIV-positive;[20]

or

- informs his or her sexual partner of his or her positive HIV status; or
- his or her sexual partner may be assumed to be aware of his or her HIV status or, as the case may be, of the increased risk of HIV infection;[21]

or

- practises safer sex; or
- forcefully insists on practising safer sex, thus displaying his or her intention of protecting both himself or herself and his or her sexual partner.

Partly in the lights of the comments already made in Chapter 3, inter alia about safer sex, the committee wishes to make the following points. The committee does not believe that the absence of safety in a sexual contact that is intended to be safe automatically implies the conscious acceptance of a risk of grievous bodily harm. Using a condom is one way of practising safer sex. It is a means by which the sexual partners make clear to each other that 'they do not wish to harm each other'. If a condom unexpectedly tears or slips off the penis, the committee does not believe this is tantamount to 'consciously accepting a risk of occasioning grievous bodily harm'.

A second point is related to the chance of the risk of grievous bodily harm actually materialising in practice. At a population level, there are indications that the infectiousness of people living with HIV tends to decline as their viral load decreases thanks to effective treatment.22 Some commentators claim that, in a situation in which someone has an undetectable viral load and no other STDs, there is actually a low risk of the HIV virus being transmitted. However, situations have also been described in which, notwithstanding HAART, the virus (whether a resistant strain or not) has been transmitted.[23]

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[20] Although it is unclear whether a criminal court would also regard unprotected sex practised by someone who has been exposed to a risk of HIV infection as being socially unacceptable, it is virtually impossible to prove that a defendant could and should have been aware of his own risk of HIV infection.

[21] There are certain situations (such as bareback parties) in which sexual partners may be assumed to accept a risk.

[22] See Annexe 3: Background document on the risk of transmission, Aids Fonds Scientific Advisory Board, 2004.

[23] See also footnote 17.

The committee believes that someone who practises unprotected sex in this situation cannot be said to consciously accept a significant risk of occasioning grievous bodily harm.

5 Impact of the application of criminal law

The prosecution policy pursued by the Public Prosecution Service and the resultant convictions have sown considerable panic, both among people living with HIV and their representative organisations and among care-providers and policy-makers working in the field of public health. Although criminal law undeniably plays an important role in Dutch society, it is unclear what the relationship is between the prosecution of people living with HIV and Dutch public health policy. This chapter analyses the consequences of the application of criminal law for public health policy, and contrasts them with the potential gains.

5.1 Impact on public health policy

Impact on prevention
The institution of criminal proceedings against people living with HIV who have had unprotected sex without informing their sexual partners of their HIV status may make those who have not been tested and have an increased risk of infection more reluctant to find out about their own HIV status. Similarly, people who know that they are HIV-positive may be much less willing to share this knowledge with others. Based partly on the experiences gained during the earlier stage of the HIV-Aids epidemic, this may well be a realistic possibility. Such reluctance is highly inconsistent with the 'active testing policy' the government is currently seeking to pursue in relation to Aids. This policy hinges on the practice of encouraging people who have been exposed to a genuine level of risk to have themselves tested. It is one of the ways of putting a halt to the renewed rise in the incidence of STDs and HIV in the Netherlands, as it has an immediate impact in preventing the further spread of HIV and other STDs. Every HIV infection that is detected and treated at an early stage is estimated to prevent between 10 and 20 new infections in the long term. In other words, if people become reluctant to have themselves tested, this may prove detrimental to the health of individual citizens as well as make it more difficult to prevent new HIV infections.[24]

If people unexpectedly find themselves practising unsafe sex, for example because the force of love proves overwhelming, because they had drunk excessive amounts of alcohol or because a condom had torn, they have for the past few years had the possibility of using Post-Exposure Prophylaxis (PEP). This is an intensive form of treatment lasting one month, that is specially designed for people who have very recently been exposed to a genuine risk of a HIV infection. PEP considerably reduces the risk of HIV infection actually occurring in practice. However, there needs to be a certain degree openness for people to know about PEP and to be able to use it. In all probability, the risk of criminal prosecution will hamper openness and discourage people living with HIV from admitting to their HIV status if they unexpectedly find themselves

[24] Garnett G.P., Bartley L.M., Cameron D.W. & Anderson R.M. Both a 'magic bullet' and good aim are required to link public health interests and health care needs in HIV infection, Nature Medicine 2000; 6: no. 3: 261-262.

practising unsafe sex. The consequence is that sexual partners may unnecessarily become infected with HIV.

At the same time, if a person knows he or she is HIV-positive, this knowledge may encourage them to practise safe forms of conduct. Research shows that, if HIV-positive people are aware of their own HIV status, they are more likely to engage in safer sex than before, when they were unaware of it.[25]

As a further point, invoking criminal law may create a false sense of security. This is because people living with HIV are assumed, also by the law, to bear a specific responsibility. There is every chance that people without HIV will wrongly expect people living with HIV always to take their own responsibility, because of the threat of prosecution and the way in which this may create a moral standard. The result is to turn safer sex into an individual rather than a joint responsibility, thus raising the risk of new infections.

Moreover, the threat of criminal prosecution also means that people living with HIV will be less inclined to speak openly in the media, in schools, etc. about their illness, their lives and the choices they need to make. As a result, such 'hands-on experts' will either withdraw from or make a much lesser contribution to educating the public about HIV and Aids. This is bound to make HIV prevention more difficult.

Impact on care
As we have already mentioned, the prosecution of people living with HIV who have practised unprotected sex without mentioning their HIV status is at odds with the government's policy of active testing. This has an adverse impact on the treatment and care of people living with HIV. It is estimated that only half the people in the Netherlands with HIV are aware of their own HIV status. At the same time, people cannot make proper choices about whether or not to start with a treatment if they are not aware of their own HIV status. Generally speaking, the sooner someone with HIV starts to be monitored, the greater the chance that a start can be made with the best therapy at the right time. Successful treatment leads to a better quality of life, longer life expectancy and, in most cases, to a lower level of infectiousness.

Impact on society
Criminal trials of people living with HIV often attract a great deal of attention in the media, some of which may distort the facts of the case. The result is not merely the dissemination of misinformation about HIV and the risks pertaining to HIV and other STDs, but an increased likelihood of people living with HIV and members of target groups that are most at risk of HIV infection being stigmatised and discriminated

[25] Weinhardt, L.S., Carey, M. P., Johnson, B. T., & Bickham, N.L. Effects of HIV counseling and testing on sexual risk behavior: Meta-analysis of published research, 1985-1997. American Journal of Public Health 1999: 89: 1397-1405.

against. The experience gained in anti-Aids campaigns both in the Netherlands and around the world demonstrates beyond any shadow of doubt that the most effective way of preventing infectious diseases is by ensuring that civil rights are protected as well as possible and by creating a social climate that is as open as possible. It is not just the Dutch Infectious Diseases Act that is based on this premise. UNAIDS, which is part of the United Nations, is also clear in its view that stigmatisation and discrimination are counterproductive in the struggle to overcome the HIV epidemic:

> "…Criminalising HIV transmission/exposure might be presented by some as 'getting tough' in the fight against AIDS. But in reality, such measures are likely to do little overall to stem the spread of HIV. Aside from the risk of infringing human rights, such approaches may also be of detriment, on a macro level, to public health, by diverting resources and attention away from policies and initiatives such as: HIV/AIDS education; access to the means of protecting against infection; access to testing, treatment and support services; and remedies for the root causes of vulnerability to HIV infection (e.g. poverty, violence, discrimination and substance use)…"[26]

HIV is not the only serious disease that is transmitted by means of sexual contact. Other STDs are also incurable (herpes) or may cause serious physical injuries, such as cancer of the liver (hepatitis B) or permanent infertility (chlamydia). It is not clear why, on the strength of the current case law, the Public Prosecution Service should continue only to prosecute people living with HIV who have had unprotected sex. The social ramifications of widening the current prosecution policy are extremely far-reaching, however. It might lead not simply to a decline in the degree of openness with which the possibilities of prevention are discussed, but also to the criminalisation of casual sex and, ultimately, to the overburdening of the judicial system.

Impact on people living with HIV[27]
People infected with HIV encounter the following problems on a daily basis:

- the difficulty of talking openly about their own HIV status with their friends and relations;
- lack of understanding among colleagues at work;
- the risk of becoming stigmatised and/or isolated;
- the fear and uncertainty triggered by a HIV infection;
- 'obligations' regarding the use of medication;
- regular side effects caused by medication, such as fatigue, nausea, violent mood swings, etc.

Although research shows that, in terms of sexual contacts, people living with HIV take their responsibilities just as seriously, or just as lightly, as

[26] UNAIDS, 'Criminal Law, Public Health and HIV Transmission', June 2002; p. 17.

[27] Some of the effects as described on people living with HIV would in turn have an impact on public health.

HIV-negative people and people who are unaware of their HIV status,[28] they would now be exposed to the added risk of prosecution on the grounds of their having practised unprotected sex.

The issue of safer sex is a topic of extensive debate among people who are HIV-positive. Such people adopt various strategies, both implicit and explicit, for preventing the transmission of HIV (i.e. reducing the degree of harm caused, sero-selection, low viral load) or try to make clear arrangements with their partners (i.e. openness when dating, sex parties with rules). The threat of prosecution may result in:

- People living with HIV no longer making an effort to talk to a potential sexual partner about their HIV status, despite often wishing to do so.
- Their having fewer or no opportunities for taking any remedial action if their strategy does not work (such as PEP or discussing how to prevent unsafe behaviour in the future). This may result in unnecessary HIV infections.
- People living with HIV who do not manage to practise safer sex on all occasions declining to talk about their sex lives with Aids workers, researchers, doctors, friends and other infected people. Not only may this result in social isolation, it is not conducive to HIV prevention as there is a risk that people living with HIV will go 'underground' and hence cut off their links with those who are capable of helping them in their attempts to pursue a normal sex life and/or form normal relationships.
- People living with HIV finding themselves at greater risk of stigmatisation. This is because, in addition to the disease itself, sexuality is also associated with punishment and unilateral responsibility (i.e. moral pressure), which is not conducive to sexual health. It is generally accepted that sexual health is a precondition for controlling an epidemic.
- People living with HIV postponing the moment at which they tell new partners about their HIV status. This means that any joint responsibility is also postponed to a later stage, that there is a greater risk of the relationship breaking down once the partner has been informed, and of the relationship breaking down in the wake of a risk incident.

Impact on Aids professionals, volunteers and friends and relations
The risk of prosecution may compromise the work of various types of professionals working in the fields of Aids and STDs. People will probably be less forthcoming with information on their sexuality and HIV status, thus reducing the opportunities for professional support, counselling and contact with fellow patients. All of this will have a direct impact on the effectiveness of preventive activities.

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[28] Kesteren N. van, Hospers H. J., Kok G., & Empelen P van; Qualitative insights in sexuality and sexual risk behavior among HIV-positive men who have sex with men. Submitted for publication.

Wolitski R.J., Bailey C.J., O'Leary A., Gomez C.A., Parsons J.T. (2003); Self-perceived responsibility of HIV-seropositive men who have sex with men for preventing HIV transmission. AIDS and Behavior, 7: 363-372.

Health-care professionals may, if called upon during a trial to give evidence about the HIV status or the alleged unsafe behaviour in sexual relationships of a patient or client of theirs, exercise their right to refuse to give evidence as they have a professional duty of secrecy towards their patients.[29] This does not apply merely to information relating to the treatment and care of a patient. Health-care professionals also have a professional duty to maintain secrecy about other matters that come to their attention, where disclosure of such information would represent a betrayal of their patient's confidence. This duty of secrecy does not, however, apply to voluntary workers and other people who interact with the patient, such as those chairing discussion groups. The fact that such people could be compelled to disclose personal information about their clients during legal proceedings could undermine the services they provide.

Some people have expressed concern that the work of various professionals and voluntary workers could also be hampered by the fact that, if such people are aware that someone with HIV has been involved in an unprotected sexual contact, they could be considered to be under an obligation to report the matter to the police under article 160 of the Code of Criminal Procedure. The committee wishes to stress that this is not the case in the present circumstances. Assault and attempted assault are not included in the indictable offences listed in this article.[30]

5.2 Relation between criminal law and public health policy

In other words, the use of criminal law may have major adverse effects on public health policy and on people living with HIV. The committee has been given to understand, by people who are HIV-positive and their representative organisations, that such effects are already evident, particularly in the form of an increasing reluctance among people living with HIV to talk openly about their own infection. The committee believes that such effects should be justified by the benefits gained from the use of criminal law. But is this the case? As we have already pointed out, criminal law has a number of functions. Are these functions achieved by prosecuting people living with HIV?

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[29] The professional duty of secrecy towards patients is enshrined in various statutes, including:
- the Medical Treatment Contracts Act; article 457 of Book 7 of the Civil Code;
- article 272 of the Criminal Code;
- article 88 of the Individual Health Care Professions Act.

[30] Under article 160 of the Code of Criminal Procedure, any person who is aware of one of the indictable offences listed in articles 92-110 of the Criminal Code, in Title VII of the second book of the Code in so far such offences constitute a threat to life, or in articles 287-294 and 296 of the Code, of manstealing or rape, is obliged to report the matter without delay to a police officer. Under the third paragraph of article 160, this also applies anyone who knows that someone is being held prisoner in a place that is not lawfully designated for this purpose. The offences listed in articles 92-110 are offences against the security of the State, such as an attempt on the life of the king, the use of violence against the government, etc. Title VII concerns offences that form a threat to the security of people and property, such as arson, deliberate infection with radioactive radiation, destruction of an aircraft, etc. Articles 287-294 concern offences involving human life, such as murder and assisting someone to commit suicide. Article 296 concerns an abortion performed by a person other than a physician in a hospital or a specially designated clinic.

- *Upholding the rule of law*
  Prosecuting people living with HIV who have had unprotected sex without mentioning their HIV status prevents people from taking the law into their own hands (see also the second Utrecht case, Annexe 4). What is not clear, however – apart from in exceptional circumstances in which the sexual contact was also *undesired* – is whether there is actually much risk of people taking the law into their own hands. To date, there has been broad public support for the principle that 'it takes two to tango'; moreover, this support has been particularly strong among people living with HIV. In addition, it is extremely unclear whether the prosecution of people living with HIV may be regarded in general terms as affording adequate protection for the lives, bodily integrity and personal privacy of the general public. Sexuality is pre-eminently a matter of personal privacy and, in the light of the impact as described above, strategies for offering support to people living with HIV who wish to practise safer sex and discuss their problems openly are a more effective means of protecting public health.

- *Setting ethical standards*
  Whilst it is certainly true that the prosecution of people who have engaged in unprotected sex without mentioning their HIV status may be regarded as setting or clarifying a standard of conduct, the committee believes that this would be tantamount to setting the wrong standard. This is because, as the committee argued in Chapter 3, the existence of a moral duty does not necessarily depend on whether a person knows about his or her own HIV status. The committee believes that it is also wrong – in any event from a moral viewpoint – vis-à-vis a sexual partner to disregard a risk of HIV infection. In the current practice, the Public Prosecution Service only prosecutes people who are aware of their HIV status. This means that the full responsibility for preventing infection rests with those who already *know* they have a HIV infection. The committee feels this is wrong and inconsistent with the principle of mutual consent ('it takes two to tango') underlying the government's policy on public health.

- *Deterrence*
  It is unclear whether the criminalisation of unsafe sex actually works as a powerful deterrent in practice. Unsafe sex is often practised in the heat of the moment (e.g. when two people are overwhelmed by mutual love and attraction and/or when they are under the influence of alcohol, or just highly sexually aroused), at a time when those concerned are unlikely to stop and wonder whether they might not be committing a criminal offence. The interests of public health are better served by decriminalising unsafe sexual conduct than by criminalising it.

  A counterargument here might be that it is inconsistent to assume that the threat of prosecution has little or no effect on a person's inclination to practise safer sex, whilst it does affect (as the committee has argued) his or her willingness to have himself or herself tested.

The committee does not accept the charge of inconsistency, however. Engaging in sex is a totally different type of activity than deciding to have oneself tested, undergoing the test and picking up the results. In many cases, people engage in unsafe sex without being concerned about the potential effects. This is especially true if those concerned believe their own infectiousness is low, for example because they have a low viral load, or because they assume – either wrongly or rightly – that they do not belong to a high-risk group.

- *Specific prevention*
  Attempts to prevent relapses and rehabilitation are likely to be ineffective for the same reasons. The committee would expect measures in the field of public health, such as counselling, sexual health education, etc., to be more effective.

- *Public security*
  It is not the case that prison inmates do not have any sexual contacts. In fact, the risk of a prisoner having unsafe sex – even against his or her will – is very high. In the US, for example, there have been plenty of cases of men who have become infected with HIV during a period of detention in prison. Whilst prison conditions in the Netherlands are not the same as in the US, the situation does raise a number of specific questions about the HIV problem, particularly in the light of the recent decision to allow two prisoners to be housed in the same cell.

- *Retribution*
  It goes without saying that the criminal law is an ideal way of making offenders pay for their crimes. The issue is whether this is either necessary or desirable in these particular cases. The desire to seek retribution again opens the door to prejudice, stigmatisation and discrimination. People living with HIV are (all too) often regarded as being themselves to blame for the illness they have contracted (witness claims such as 'Aids is your own fault' or 'Aids is the wrath of God'). Moreover, whilst a sexual partner may not perhaps have had a moral duty, he or she at least had a responsibility of his or her own to consider the possibility of safer sex (cf. 'It takes two to tango').

5.3 Committee's standpoint

The committee was interested in discovering why the Public Prosecution Service decided only relatively recently, rather than much earlier when the HIV epidemic first started, to prosecute people living with HIV. After all, the approach based on mutual consent has always worked well and has been one of the contributing factors in keeping the Aids problem under control in the Netherlands. The committee notes that the improved treatment facilities have allowed people living with HIV to lead relatively normal lives. And a 'normal' life also implies sexual relations. The treatment facilities currently available, coupled with the absence of an epidemic and a proactive testing policy, may have created an impression that it is possible to completely rule out the risk of contracting HIV. This

desire to exclude risks is consistent with recent Western thinking on individual responsibility, liability and criminal law. Recent years have also seen (renewed) interest in ethical standards (including the taking of a tougher line on socially undesirable behaviour). The combination of these factors may have prompted the Public Prosecution Service to change its prosecution policy. There would appear to be a trend towards abandoning the principle of shared responsibility, and moving instead towards an approach based on individual responsibility and risk. Criminal law generally plays a more important role in the latter approach.

The committee has strong objections to this type of approach, on account of the predominantly adverse impact it would have on public health and on the position of people living with HIV. Although every court case has its own peculiarities and there are undoubtedly situations in which it would be appropriate to prosecute someone with HIV, the committee concludes, after weighing up all the arguments, that, from a social standpoint, bringing criminal action against people living with HIV who have engaged in unprotected sex without mentioning their HIV status has far more disadvantages than advantages. From a moral standpoint, the committee continues to hold the view that people who know they are or may be HIV-positive should practise safer sex so as not to harm other people. The adverse social effects of further criminalisation – both those that are already apparent and those that are likely to become apparent in the future – are so serious, however, that the committee rejects the current prosecution policy. The application of criminal law has far-reaching adverse effects on public health policy and will lead to criminal law being used more widely than as the last resort available to the government. The government has a clear role to play only if people are incapable of protecting themselves against an HIV infection. Examples of such situations are the protection of unborn children by means of the blanket HIV screening of pregnant women,[31] situations in which HIV is used as a 'weapon', and in sexual contacts involving, for example, coercion, power imbalances or deceit. In other cases, the committee feels that the use of criminal law is not just wrong, but also (and above all) counterproductive.

[31] Screening is due to start in 2004.

6 Conclusions and recommendations

This chapter contains a number of general conclusions based on the contents of the previous chapters, followed by a number of recommendations.

6.1 Conclusions

The assumptions and principles underlying the government's Aids policy

Dutch policy on Aids and STDs is based on an assumption that, where two individuals engage in sexual relations, it is up to each of them to take such action as may be necessary in order to protect their own health and prevent their sexual contact from having any undesirable consequences. It is also on this assumption – characterised by the saying 'it takes two to tango' – that the Infectious Diseases Act is based. The degree of legal intervention depends largely on the degree to which people are capable of protecting themselves against infectious diseases. Given that adequate protection is available against infectious diseases such as HIV and other STDs, there is no need for the law to intervene and citizens have a responsibility of their own for protecting themselves. This does assume, however, both that citizens are properly informed about any risks and also that they are capable of protecting themselves against such risks. The government is obliged to create the necessary conditions to this end (i.e. public information, health education, etc.). Partly as a result of various criminal proceedings, this principle would appear to have lost either some or all of its validity, as a situation gradually comes about in which people living with HIV who engage in sexual contacts are regarded as having a specific (i.e. legal) responsibility of their own.

The responsibility borne by people who may or may not be aware of their HIV status for their sexual relations with other people

In the light of the current state of knowledge of HIV and the way in which the virus is spread, the committee takes the view that, in the context of casual sexual contact between two adults, both people who know that they have been exposed to a risk of being HIV-positive and people who know they are HIV-positive should practise safer sex, so as to prevent the virus from being transmitted and other people from being harmed. Whilst it is not the case that everyone who is infected with HIV dies as a result, scientists have still not managed to find a way of permanently removing the virus from the human body. Because the necessary medical treatment is draining in both physical and emotional terms, partly because of the side effects, and because there is also a risk of the virus being or becoming resistant to the therapy and/or to new drugs that are found to combat the virus, the committee expects both people who know that they have been exposed to a risk of being HIV-positive and people who know they are HIV-positive to exercise extreme caution in this respect. The committee does not believe that such people necessarily

need to be aware of their own HIV status. Disregarding a risk of HIV infection is also morally indefensible vis-à-vis a sexual partner.

The committee believes that the definition of the term 'safer sex' is clouded in ambiguity and that not enough is known about it, including by lawyers. The only form of sexual contact that is guaranteed 100% safe is abstinence, i.e. refraining from engaging in sexual intercourse. In principle, all other ways of protecting a sexual partner from harm may be described as forms of risk acceptance. This also applies to the use of a condom. In addition to condoms, people also use other techniques for engaging in safer sex.

The committee also feels that it is and remains desirable for everyone who engages in unprotected sex to carefully consider the consequences (i.e. 'safer sex or no sex at all', to use the motto of a government information campaign). At the same time, the committee also believes that, given the current state of the epidemic, engaging in safer sex is a matter of personal responsibility and need not be regarded as a moral duty in those cases in which there is no risk. Finally, the committee feels that, whilst people who know they are or might be HIV-positive should practise safer sex, they do not need to inform all their sexual partners of their HIV status. A person's HIV status is highly personal, confidential information. It is not information that is readily shared with the outside world, particularly in a situation involving casual sexual relations with different partners. Moreover, as long as the person living with HIV engages in safer sex, this knowledge is not required in order to protect his or her sexual partner. The committee does assume, however, that the partners do not mislead each other about the potential risks. Where a person misinforms another person about his or her HIV status, the committee regards such behaviour as morally unacceptable.

The use of criminal law

A number of cases have been brought to trial in recent years involving people living with HIV who have had unprotected sex. In a number of cases, these have culminated in convictions. In the summer of 2003, the Supreme Court delivered judgments on two cases that for the time being serve as guidelines for the application of criminal law in this matter. Under these rulings, a person living with HIV cannot be convicted for homicide or attempted homicide on the grounds that he or she had unprotected sex without mentioning his or her HIV status. Such a person may be convicted for grievous bodily harm or an intent to cause grievous bodily harm, however, if it is proved that he or she knowingly and wilfully exposed himself or herself to a significant risk that such harm would result (i.e. acted with criminal recklessness). This is deemed to be the case if:

- there is a significant risk that the conduct in question will cause the effect in question;

- the person in question knew about the risk and consciously accepted it in exhibiting the conduct in question (i.e. he or she took the risk in his or her stride);
- he or she nonetheless performed the act in dispute (i.e. the question of will).

Based on the case law as it currently stands, the committee takes this to mean that, barring exceptional circumstances, a person can evade conviction for assault occasioning grievous bodily harm, or attempted assault occasioning grievous bodily harm, only if he or she:

- does not actually know whether he or she is HIV-positive; or
- informs his sexual partner about his or her positive HIV status, or if his or her sexual partner may be assumed to be aware of his or her HIV status or of the increased risk of HIV infection; or
- engages in safer sex; or forcefully insists that safer sex be practised, indicating his or her intention of protecting both himself or herself and his or her sexual partner.

The following remarks should be made in this connection. The committee does not believe that a failure to practise safer sex as intended (e.g. if the condom tears) is not tantamount to conscious acceptance of a significant risk that the sexual partner will be caused grievous bodily harm. The same applies to someone who believes he or she is incapable of harming his or her sexual partner because his or her infectiousness is very low (i.e. he or she has no STDs or has an undetectable viral load).

The (potential) impact of the use of criminal law on Aids policy and the position of people living with HIV

Criminalisation has a dramatic impact on public health, Aids policy and people living with HIV. Criminalisation has effects on prevention, treatment and care, both for society at large and for people living with HIV in particular. The ultimate effect may be that more people are unnecessarily infected with HIV and that more people are either not treated or not adequately treated, thus reducing their life expectancy in general terms.

Although every court case has its own peculiarities and there are undoubtedly situations in which it would be appropriate to prosecute someone with HIV, the committee concludes that, from a social standpoint, bringing criminal action against people living with HIV who have engaged in unprotected sex without mentioning their HIV status has far more disadvantages than advantages. Despite the fact that the committee regards safer sex for people living with HIV and people who have been exposed to a risk of HIV as a moral duty, it believes that it is not generally desirable to prosecute people living with HIV who have had unprotected sex without mentioning their HIV status. This is irrespective of whether or not the unprotected sexual contact in question has actually led to a HIV infection. Generally speaking, the advantages of prosecution do not outweigh the disadvantages for public health and the position of

people living with HIV. The committee regards a decision to prosecute such people as being generally disproportionate and counterproductive. A need for judicial intervention by the government arises only where people are incapable of protecting themselves against a HIV infection. Examples of this are situations in which HIV is used as a 'weapon' and sexual contacts involving coercion, power imbalances or deceit. The committee believes that the use of criminal law is appropriate in such cases.

At the same time, it is difficult to see why cases of HIV infection and unsafe sex should be prosecuted, whereas cases involving a risk of infection with other STDs with potentially dramatic consequences (such as infertility in the case of chlamydia) are not. It goes without saying that the committee is not asking for prosecution to be extended to these cases. Such a decision would only increase the risks and objections raised by the committee.

6.2 Recommendations

In the light of the above, the committee wishes to make the following recommendations:

For the Ministry of Justice

- **Guideline for the Board of Procurators General**
  The Public Prosecution Service should formulate a guideline for the prosecution of people living with HIV and other STDs who engage in unprotected sex without mentioning their infection or illness. This guideline should define the Service's prosecution policy. In the interests of public health, the guideline should be based on the principle of 'not prosecuting, unless…'. Prosecution is appropriate only in situations involving an unequal relation between adults (e.g. rape, other cases of coercion, certain situations involving minors, and deceit), on the strict proviso that there was a genuine risk of infection. A guideline formulated along these lines would offer people living with HIV a form of legal security they do not enjoy at present. Because of the complexity of matters such as the rapid changes in medical science, it is important that the Public Prosecution Service should take advice in this connection from the Ministry of Health, Welfare and Sport, as well as from organisations working in the field of HIV and Aids.

For the Ministry of Health, Welfare and Sport

- *Consultation with the Ministry of Justice*
  The Ministry of Health, Welfare and Sport should enter into consultations with the Ministry of Justice with a view to highlighting the adverse impact on public health caused by the present prosecution policy. The committee believes that policy-making bodies and

executive agencies working in the field of HIV and Aids should be involved in these consultations.

- *Counselling and support*
  The Ministry of Health, Welfare and Sport should pursue a policy aimed at improving the facilities for providing counselling and support to people living with HIV, helping the latter to engage in safer sex, and promoting their sexual health. The organisations which are active in this field should be given the facilities they need in order to put this policy into practice.

- *Public information and prevention*
  It is important for the Ministry of Health, Welfare and Sport to continue to impress upon the relevant organisations the fact that they have a responsibility of their own to make clear in their information campaigns that people have a personal responsibility for protecting themselves against HIV and other STDs. This will prevent the public from falling into a false sense of security.

For organisations working in the field

- *Prevention*
  In order to raise the effectiveness of prevention, organisations working in the field should devote more attention, time and money to:

- The sexual health of people who are HIV-positive. HIV severely disrupts the sex lives of people who are HIV-positive. This is a major problem to which little attention is given.
- Customised prevention, tailored to the needs of different social groups.
- Support by HIV consultants, treatment workers and health visitors employed by municipal health services for people living with HIV, with regard to sexuality and safer sex.
- Encouraging people who are HIV-positive to inform their sexual partners about their HIV status, and talking openly about this as an issue.
- The treatment and prevention of other STDs (the prevention of STDs is part of HIV prevention, and vice versa). It is important that the facilities required for treatment and prevention should be extended and improved, and that people should continue to be offered anonymous STD/HIV testing free of charge.

- *Public information*
  Organisations working in the field should pay more attention in their public information activities to:

- the possibilities of PEP;
- each person's moral responsibility in their sexual relations;
- the potential legal consequences of engaging in unprotected sex without mentioning HIV infection or the risk of contracting HIV.

Annexe 1

MEMBERS OF EXECUTIVE COMMITTEE ON AIDS POLICY & CRIMINAL LAW

Chair

Dr J. Legemaate	Legal advisor and coordinator of health law policy, Royal Dutch Medical Association

Members

Dr L.J. De Boer	General practitioner, Spechtenkamp Health Centre
Prof. Y. Buruma	Professor of Criminal Law and the Law of Criminal Procedure, Nijmegen Catholic University, Faculty of Law
A.J.J. Coenen	Director, Dutch Foundation for STD Control (until 1 January 2004)
Prof. S.A. Danner	Professor of General Internal Medicine, Free University of Amsterdam, member of Dutch Association of Aids Physicians
J. Doosje MPH	VISI project official, Dutch Association of Municipal Health Services (from 1 December 2003)
B. Nuradini	Nurse, Rotterdam and District Health Service
M.A. van Oostrom	Manager, Policy and Programme Division, Aids Fund (known as 'Aids Fonds ~ Dutch Foundation for STD Control' since 1 January 2004)
F.H.J. Strijthagen	Director, Schorer Foundation
Dr H.P. Uniken Venema	Assistant Director, Dutch Association of Municipal Health Services (until 1 December 2003)
Dr M.F. Verweij	Specialist in ethics, University of Utrecht, Institute of Ethics
R. Witlox	Director, Dutch HIV Association
S. Zacharias	Expert nominated by Dutch HIV Association

Observers

B. Blommerde	Policy officer for infectious diseases, Ministry of Health, Welfare and Sport
A.J.J. Coenen	Member of Executive Board of Aids Fonds ~ Dutch Foundation for STD Control (since 1 January 2004)

Official secretary

R.W.M. de Graaf	De Graaf Strategie - en Beleidsadvies BV

The chair and other members sat on the committee in their personal capacities.

Annexe 2

HIV AND AIDS IN THE NETHERLANDS[32]

Total HIV infections

- Period: 1998- 1 August 2003
- Cumulative number of people registered as having a HIV infection: 8,496
- Total estimated number of people with a HIV infection: 16,000-22,000[33]
- Homosexual and bisexual men are the largest single category (51%)
- The proportion of injecting drug users is low (5%)
- 27% of people with a HIV infection are heterosexual
- 14% of those with a HIV infection fall in the 'unknown and others' category
- The proportion of people with a HIV infection who are of non-Dutch origin is gradually increasing, from 3% in 1985 to 38% in 2002
- 26% of people with a HIV infection were born in a region where HIV is endemic
- 35% of male heterosexuals living with an HIV infection and 41% of female heterosexuals living with an HIV infection originate from sub-Saharan Africa
- The majority of cases of HIV infection are registered in the western region of the Netherlands (75%)

HIV infections diagnosed in 2002

- Number of cases of HIV infection diagnosed in 2002: 735
- Homosexual and bisexual men are the largest single category (46%)
- The proportion of injecting drug users is low (0.7%)
- 38% of those diagnosed with a HIV infection in 2002 were heterosexual
- 12% of those diagnosed with a HIV infection in 2002 fall in the 'unknown and others' category
- 40% of those diagnosed with a HIV infection in 2002 were born in a region where HIV is endemic
- The majority of cases of HIV infection were registered in the western region of the Netherlands (67%)

HIV infections among children

- Period: 1995- 2003

[32] Position as at 1 August 2003, Source: National Institute of Public Health and the Environment

[33] Monitoring of human immunodeficiency virus type 1 (HIV-1) infection in the Netherlands. Report 2003. 1 December 2003. HIV Monitoring Foundation, Amsterdam, The Netherlands (SHM).

- Cumulative number of children registered as having a HIV infection: 209
- Most children were infected as a result of transmission of the virus from mother to child (76%)
- The percentage of children of whom either one parent originates or both parents originate from a region where HIV is endemic is gradually increasing

Aids diagnoses and deaths caused by Aids

- Period: 1987- 1 August 2003
- Cumulative number of Aids diagnoses: 6,076[34]
- Cumulative number of deaths caused by Aids (up to 2002): 3,978
- There has been a sharp decline in the number of new Aids diagnoses, and also in the number of Aids-related deaths, since HAART came onto the market in 1996
- The number of Aids diagnoses made per annum has remained constant since 2000
- The number of deaths caused by Aids has continued to show a slight decline since 2000

[34] Aids figures for 2000-2003 were also supplied by the HIV Monitoring Foundation, Amsterdam.

Annexe 3

BACKGROUND DOCUMENT ON THE RISK OF TRANSMISSION (draft of 26 February 2004)

Risk of HIV-1 transmission

1. Heterosexual transmission

The risk of transmitting HIV is pivotal to the epidemiological spread of HIV and Aids [1,2]. The risk of transmission depends largely on factors such as the viral load, which is generally much higher immediately after an untreated infection than later, and the possible combination of an HIV infection with other STDs or infections. A number of studies have been performed which have calculated the risk of HIV transmission without reference to these co-factors. These studies have computed the risk of HIV transmission (from male to female) as being approximately 0.001 (i.e. 1:1,000) per sexual contact. The risk of transmission as computed ranges from 0.7:1,000 to 1.6:1,000 in eight independent studies (see Table 1) [3-10]. Two studies do not give any separate figures for male-to-female and female-to-male transmission [4,5]. It is important to be aware that the figures for the risk of transmission are based on an untreated HIV-positive person with an average viral load and an average number of STDs engaging in unprotected vaginal sex. The studies did not examine the influence exerted by the presence of STDs on the risk of transmission.

The higher the viral load, the higher the risk of transmitting HIV during an unprotected sexual contact. Chakraborty et al. [15] describe a model in which the risk of transmission (male-to-female) is calculated at 0.0003 (i.e. 3:10,000), assuming a viral load of 100 copies/ml in semen. Where the viral load was higher, i.e. 100,000 copies/ml, the risk of transmission rose to 0.01 (1:100).

A study performed by Quinn et al. of transmission among a group of HIV-discordant partners in Uganda [11] relates the incidence of transmission to the viral load in blood, and expresses it as a percentage per 100 person years. The researchers found a transmission incidence of 0% among the 51 couples of whom the HIV-positive couples had a viral load of less than 1,500 copies/ml. Where the viral load was less than 3,500 copies/ml, the transmission incidence was 2.2% per 100 person years. This figure rose to 23% for a viral load greater than 50,000 copies/ml.

It is logical to assume that the viral load in seminal and vaginal fluid has a closer correlation with the risk of transmission than the viral load in the blood. Various studies performed on HIV-discordant couples who were not treated with anti-retroviral combination therapy have reported a correlation between the viral load in the blood and the risk of transmission [6,11]. If combination therapy is successful, the correlation between the viral load in the blood and the viral load in seminal fluid is clearer than in cases in which combination therapy is not used, although there is some degree of interindividual variation. [12-14].

Another study reports that, in the case of an untreated HIV infection, the viral load measured in the blood is not a reliable indicator of the viral load in seminal

fluid. If an HIV-positive person uses combination therapy, the correlation between the viral load in the blood and the viral load in seminal fluid is stronger [16].

Finally, it is worth mentioning that the viral load, measured as HIV-RNA in seminal fluid, becomes undetectable more quickly when combination therapy is used than does HIV-DNA in the immune cells in seminal fluid [17]. In this particular study, the HIV-DNA in the seminal fluid was undetectable after 18 months in all participants, however, whereas the HIV-DNA in the blood remained detectable in all participants. This means that there may still be a risk of transmission even if the viral load in semen (RNA) is undetectable. It is not clear whether HIV is transmitted by free virus (RNA), by infected cells or by both [22].

Other studies describe the female-to-male risk of HIV-1 transmission. Although it is generally assumed that the male-to-female transmission risk is higher than the female-to-male risk, the study performed with discordant couples in Uganda does not in fact confirm this [11]. A study performed in Thailand involving Thai soldiers and prostitutes reports a risk of transmission of 0.056 per act [18]. This high figure is assumed to be related to the start of the epidemic during the study and the fact that those who have recently been infected have a higher risk of infection. A study performed in Kenya even quotes a risk of 0.082 [19], although this figure has not been adjusted to take account of additional factors (such as the presence of other STDs) that are capable of greatly increasing the risk of transmission. Finally, a study performed in Thailand computed a risk of transmission of 0.031 for male soldiers visiting prostitutes [20], based on self-reporting and local HIV-1 prevalence among the prostitutes.

Risk of transmission per act	Range	Country	Reference
Male-to-female			
0.0009	0.0008-0.001	US	[3] Padian et al.
0.0014*	0.00005-0.0023*	US	[4] Peterman et al.
0.0009*	0.0008-0.001*	US	[5] Wiley et al.
0.0016	0.0006-0.0026	Thailand	[6] Tovanabutra et al.
0.0009	0.0005-0.0012	Europe	[7] Downs et al.
0.0007	0.0006-0.0008	Europe	[8] Leynaert et al.
0.0008	0.0006-0.0009	US	[9] Shiboski et al.
0.0009		Uganda	[10] Gray et al.
Female-to-male			
0.0013		Uganda	[10] Gray et al.
0.056		Thailand	[18] Satten et al.
0.082		Kenya	[19] Cameron et al.
0.031	0.025-0.040	Thailand	[20] Mastro et al.

*Combined male-to-female and female-to-male risk of transmission.

Table 1

2. Other transmission risks

A number of good reviews have been published of transmission risks. [21 - 24, 30, 35] Royce et al. [21] calculated the transmission risks as follows:

Infection route	Risk per act
Unprotected anal sex among men	From 1 in 10 to 1 in 1,600
Needle accident	1 in 200
Needle-sharing	1 in 150
Transfusion with infected blood	95 in 100

Table 2

Katz et al. report comparable transmission risks [22]:

Infection route	Risk per act
Unprotected passive anal sex	From 0.008 to 0.032
Needle-sharing	0.0067
Needle accident	0.0032

Table 3

Even with these forms of transmission, it is safe to assume that there is a correlation between the viral load in the bodily fluid in question and the risk of transmission.

2.1 Fellatio

In theory, the person performing fellatio is exposed to a risk of HIV infection, particularly if his or her sexual partner ejaculates in his or her mouth. A study published by Dillon et al. claims that 8% of new HIV infections among homosexual men are caused by oral sex [26]. The findings of this study are, however, refuted by two recent studies that found that fellatio was not associated with any risk whatsoever of HIV infection [27-28]. In the study performed by Romero et al. [27], 135 sero-discordant heterosexual couples were monitored between 1990 and 2000. They were found to have performed a total of 19,000 unprotected oral sex acts (i.e. fellatio and cunnilingus) during this period. 8,965 acts of fellatio were performed without protection, and 3,060 of these involved ejaculation in the mouth. Not a single HIV-negative participant subsequently became HIV-positive.

The paper compiled by Page-Shafer et al [28] reports on research into the risk of transmission caused by fellatio performed by homosexual men who had come for an HIV test. Men who had had an HIV infection for more than six months were excluded from the study by means of a detuned ELISA. This resulted in the selection of 239 homosexual males who said that the only form of sex they had had in the previous six months was receptive oral sex. They all proved to be HIV-negative, despite the fact that 98% of them did not use any condoms, 35% of them said that their partner had ejaculated in their mouth, and 70% of the latter group had subsequently swallowed their partner's semen.

The researchers claim that HIV infection is seldom caused by receptive oral sex, finding a 0% risk of a positive test result caused by receptive oral sex (95% confidence interval (CI) 0 – 1.5%). They quote another study [29] which reports a slightly higher risk per act, although this risk is lower than the risk of HIV infection per act caused by protected passive anal sex (i.e. where infection is the result of condom tear or slippage).

Infection route	Risk per act (95% CI)
Unprotected fellatio	0.04% (0.01% - 0.17%)

Protected passive anal sex	0.18% (0.10% - 0.28%)

Table 4 [29]

We were not able to find any information at NLM Gateway on the study performed by Dillon et al., which suggests that the study is likely to have been of an inferior quality to those performed by Romero and Page-Shafer.

3. Penetration of HIV inhibitors in seminal and vaginal fluid

If an HIV inhibitor does not get into the seminal or vaginal fluid, there is no reason why treatment should result in a substantial reduction in the viral load in the seminal or vaginal fluid. Myron et al. published the following figures on the concentrations of HIV inhibitors in the vaginal and seminal fluid (see Figure 1). [23]

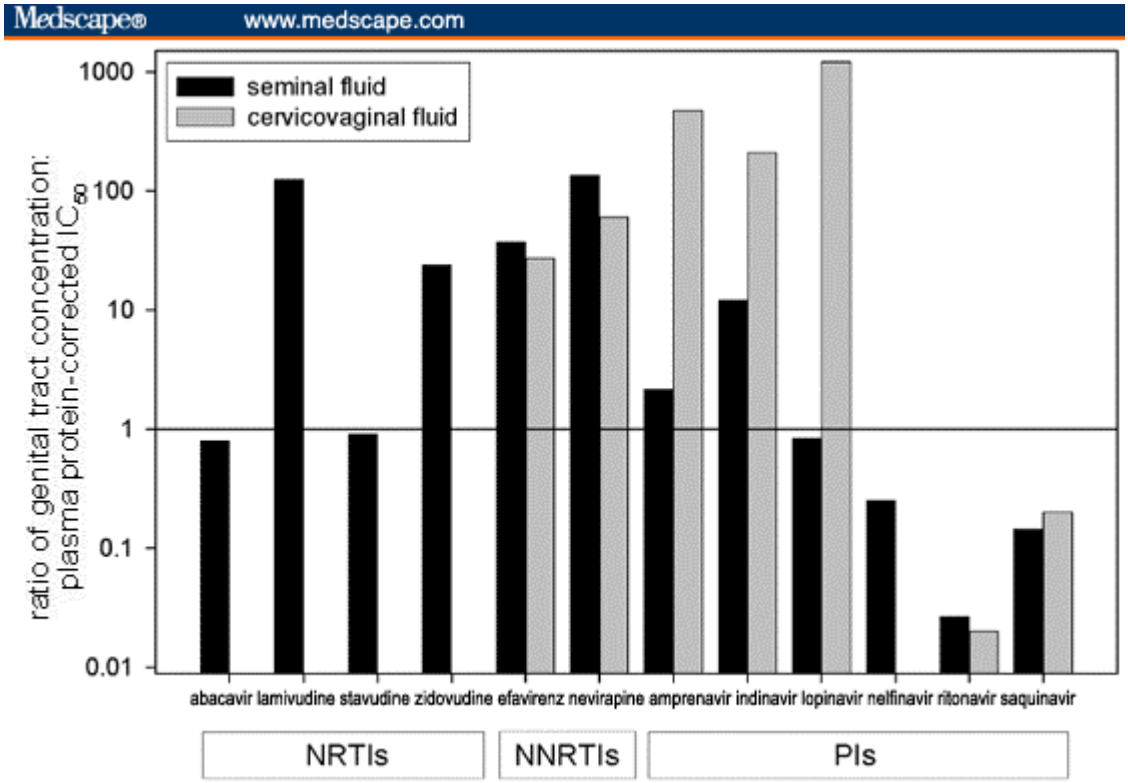

Figure 1

Most HIV inhibitors reach a level in the seminal fluid that is as high as or higher than that in the blood. The exceptions are nelfinavir, ritonavir and saquinavir. The authors point out that, where nucleoside analogues (NRTIs) are concerned, it is not the concentration outside the cell that is important, but the concentration of the triphosphates of the NRTIs in the cell. The authors measured the triphosphate concentration of lamivudine and zidovudine in cells in the blood and in seminal fluid. The zidovudine triphosphate concentration in the seminal cells was 50% of that in the blood cells, whereas the concentration of lamivudine was the same in both compartments.

The authors did not measure NRTI levels in the vaginal fluid. The HIV inhibitors that were examined were found to have high levels of penetration in the fluid, with the exception of the three protease inhibitors referred to above.

The authors concluded that combination therapy reduces the viral load to a level at which the transmission of HIV may be assumed to cease (although this may also be due to the use of PEP).

4. The effect of STDs

If a person who is HIV-positive also has an STD, this may result in a sharp rise in the viral load in the seminal and vaginal fluid [24, 30, 32, 34]. A study performed in Malawi showed that the viral load in the seminal fluid of HIV-positive patients with urethritis is ten times higher than that of HIV-positive patients who do not have urethritis [25]. The viral load in the seminal and vaginal fluid can be lowered by treating the STDs [24]. The implication is that HIV is transmitted more readily by people who are HIV-positive and also have an STD engaging in unprotected sex, and that adequate treatment of STDs prevents the transmission of HIV. A study performed in Tanzania found that the incidence of HIV could be reduced by 40% by offering effective STD treatment [31].

5. Other factors affecting transmission risks

A number of older studies, discussed inter alia by Baeten et al. [30] and Vernazza et al. [34], found correlations between HIV transmission and primary HIV infection [33], a low CD4 number, a high CD8 number and an Aids diagnosis. These studies were performed at a time when neither HAART nor a technique for measuring the viral load were widely available. All these factors point to a higher viral load, which may explain part of the higher infectiousness.

A number of studies claim that the use of contraceptives, whilst raising a person's susceptibility to HIV infection, does not actually increase his or her infectiousness ([31], see [30] for a summary).

One study reports an increased risk of female-to-male HIV transmission during menstruation. This may be the result of a fluctuation in the viral load in the vaginal fluid during the menstrual cycle. (See [30] for a summary of the studies.)

Whilst male circumcision has been found to reduce male susceptibility to HIV infection, it does not reduce male infectiousness. One study, however, found that circumcised males did not transmit HIV to females if their viral load was lower than 50,000, and also that there was no decline in the transmission rate if the viral load was higher. ([31], see [30] for a summary.)

6. HIV phenotype

Although likely, it has not actually been proved that HIV-1 variants using CCR5 as a coreceptor (i.e. R5 virus or NSI) are more infectious than HIV-1 variants using CXCR4 (X4 virus) as a coreceptor. This is because people with certain mutations on the CCR5 receptor are either less susceptible or entirely unsusceptible to HIV infection, and most people who have recently been infected with HIV carry the R5 virus and do not contract the X4 virus until a later stage in the infection (if at all). The R5 viral load may well be more important than the aggregate HIV load. No research has been carried out yet into this particular area. (See [30, 34] for reviews.)

Important reservations!
These quantitative data relate solely to events affecting relatively large groups of people living with a HIV infection. It is not possible to translate them into the risk of transmission affecting a single person in certain specific circumstances. It is also crucially important to bear in mind that data on the viral load (RNA) in someone's blood do not necessarily paint an accurate picture of the viral load (i.e. RNA or DNA) in that person's seminal or vaginal fluid.

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Annexe 4

RELEVANT CASE LAW[35]

1. The Leeuwarden case

- Judgment given by Leeuwarden District Court on 1 March 2001 (Case no. AB0355).
- Judgment given by Leeuwarden Court of Appeal on 9 August 2001 (Case no. AB3298).
- Judgment given by Supreme Court on 25 March 2003 (Case no. AE9049).
- Judgment given by Arnhem Court of Appeal on 30 June 2003 (Case no. AH8890).

A homosexual man had sex with two underage boys without disclosing his HIV-positive status. The man had been undergoing treatment with combination therapy for some time. This resulted in the first instance in the man being convicted by the District Court in Leeuwarden on the following charges: two counts of rape or acting as an accomplice to rape, and three counts of attempted homicide (i.e. both boys were forced to perform fellatio on him, and one of the boys was forced to penetrate him anally).

In the second instance, the Court of Appeal in Leeuwarden discounted the oral factor, ruling that oral sex did not result in a significant risk of infection. The conviction on the counts of attempted homicide was upheld, as the boy in question had been forced to penetrate the man anally. The convictions for rape were also upheld (indeed, the man had not appealed against them).

In the third instance, the Supreme Court found that the charge of attempted homicide was not admissible, as no lawful evidence had been provided to prove it. The Supreme Court ruled that, in principle, infecting other people living with HIV was tantamount to attempted assault occasioning grievous bodily harm. The Supreme Court also decided that the man had not committed the act with the express intention of transmitting HIV, and hence obviously had not intended to kill his victims. The Supreme Court also found that the lower courts had wrongly decided not to rule out gross negligence, arguing that the accused had evidently not intended to infect his victims, as he had assumed that the sexual techniques he had chosen would not pose any risks. In reaching this conclusion, the Supreme Court did not go one step further and find, as a consequence, that the accused had not intended to cause grievous bodily harm.

Although the Supreme Court quashed the conviction for attempted homicide, it referred the case to the Court of Appeal in Arnhem for fresh consideration. The latter Court was asked to decided whether there was any evidence for a charge of attempted assault occasioning grievous bodily harm.

In the fourth instance, the Court of Appeal in Arnhem decided that the latter charge had indeed been proved, and sentenced the man to 57 months'

[35] Source: Dutch HIV Association

imprisonment instead of 60 months. The Court of Appeal chose not to make use of the arguments cited by the Supreme Court, which it could have used to acquit the defendant.

In the fifth instance, the man again appealed to the Supreme Court, which still needs to hear the appeal.

2. The Hague case

- Judgment given by Hague District Court on 29 June 2001 (Case no. AB2390).
- Judgment given by Hague Court of Appeal on 29 March 2002 (Case no. 22/001480-01).
- Judgment given by the Supreme Court on 24 June 2003 (Case no. AF8058).

A heterosexual man had a number of sexual contacts with two women, for which both the District Court and the Court of Appeal in The Hague convicted him for attempted homicide. He was sentenced to a total of 20 months imprisonment, plus a suspended sentence of 10 months, with an operational period of two years. In addition, he was also ordered to pay compensation to the two women.

The man appealed against the sentence. The Supreme Court followed the line it had previously taken in the Leeuwarden case and set aside the conviction for attempted homicide. The case was referred to the Court of Appeal in Amsterdam for fresh consideration. The latter court still needs to hear the appeal.

3. The Arnhem case

A man was charged with unlawful possession of arms, extortion and attempted homicide. The District Court in Arnhem decided to stay the proceedings pending a judgment on the Leeuwarden case. The case was reheard by the Court of Appeal in Arnhem on the same day that the Leeuwarden case was reheard. No further details are available.

4. First Utrecht case

- Judgment given by Utrecht District Court on 13 June 2001 (Case no. AB2089).

A man was convicted by the District Court in Utrecht for orally raping a little girl and for attempted homicide (he had HIV). The Court of Appeal in Amsterdam ruled that there was insufficient evidence that the accused had been at the scene of the crime on the date and at the time when the crime was committed, and acquitted him.

5. The Assen case

- Judgment given by Assen District Court on 10 April 2002 (Case no. AE1337).

A man from the province of Drenthe who was undergoing combination therapy had unprotected sex with a woman on a number of occasions. The District Court in Arnhem gave him a six months' suspended prison sentence, with an operational period of three years, and also sentenced him to 240 hours of community service.

6. The Maastricht case

- Judgment given by Den Bosch Court of Appeal on 5 July 2002 (Case no. AE6538)

A man with HIV had unprotected sex with his lawful spouse between 1991 and 1995. He did not disclose his HIV status at the time, but his wife reported the matter to the police after they had divorced. The District Court in Maastricht acquitted the man. The man was subsequently convicted on appeal by the Court of Appeal in Den Bosch. The man appealed to the Supreme Court, which has still to hear the case.

7. Second Utrecht case

A homosexual man (who was in his late forties at the time of his arrest) was charged with attempted murder as a result of having unprotected sex with a younger man (who was in his early twenties at the time). The defendant was beaten up by the younger man's parents. He was told by the police that he was not allowed to report the assault as he himself had just been reported for attempted homicide. The man denied having failed to disclose his HIV status, claiming that he and his partner only started engaged in unprotected sex after the partner had become infected with HIV as a result of other contacts, and that the younger man had even told the older man's friends that their HIV strains were different. This was confirmed by witnesses. The trial was suspended pending the results of an HIV strain test. The older man gave permission for this test, the results of which have not yet been officially published.

8. The Deventer case

- Judgment given by Zwolle District Court on 24 November 2003. (This case does not have a case no. as it was not published. The Public Prosecution Service no. is 07.830007-03.)

A young man with HIV had a single sexual contact with a boy he had got to know in an Internet chatroom. The young man was using combination therapy, and had had an undetectable viral load for almost a year. The young man with HIV could not remember much about the incident himself as he had been drunk at the time that sex took place. The boy later claimed to have performed oral sex on the defendant and to have swallowed his semen. Someone else he had talked to in a chatroom had told him that the defendant was HIV-positive: many people in the Deventer area were aware of the defendant's HIV status. The defendant was charged with attempted homicide, and attempted assault occasioning grievous bodily harm. At the time of the trial, the public prosecutor asked for the defendant to be acquitted from the charge of attempted homicide. On the count of attempted assault occasioning grievous bodily harm, the public prosecutor asked for the defendant to be sentenced to 18 months' imprisonment, of which six months should be suspended. The District Court in Zwolle found the defendant guilty, and sentenced him to 120 hours community service.

Both the public prosecutor and the defendant appealed against the sentence. The appeal has yet to be heard.

Annexe 5

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Annexe 6

KEY TO ABBREVIATIONS

Aids	Acquired Immune Deficiency Syndrome
ECHR	European Convention for the Protection of Human Rights and Fundamental Freedoms
HAART	Highly Active Anti-Retroviral Therapy
HIV	Human immunodeficiency virus
HVN	Dutch HIV Association
NVAB	Dutch Association of Aids physicians
PEP	Post-Exposure Prophylaxis
RIVM	National Institute of Public Health and the Environment
STD	Sexually transmitted disease
UNAIDS	Joint United Nations Programme on HIV/Aids
WHO	World Health Organization