

# **HIV**

# **TESTING**

# **POLICIES &**

# **GUIDELINES**



**World Health Organization**

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# HIV TESTING POLICIES & GUIDELINES



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## INTRODUCTION

The Acquired Immune Deficiency Syndrome (AIDS) was first recognized in the United States in 1981. The etiological agent, Human Immunodeficiency Virus (HIV), was isolated in 1984 and a laboratory test for HIV became commercially available the following year. This enabled health care workers to diagnose HIV infection, individuals to know whether or not they were HIV infected, and most importantly, medical science to understand HIV/AIDS better. The availability of these tests has also led to misconceptions regarding the role of HIV testing. These misconceptions were particularly witnessed worldwide during the early stages of the epidemic, and not unexpectedly are presently being noted in a number of countries in Asia. Many individuals, particularly health care workers, seem to believe that the spread of HIV can be controlled by identifying people with HIV infection, and testing of hospital patients or groups of people practising high risk behaviour are often advocated. This paper discusses some issues related to the use and appropriateness of HIV testing in the overall context of national AIDS control programmes.

## PURPOSE OF HIV TESTING

Compared to any other type of disease, the issues related to the diagnosis of HIV infection are far more complex. AIDS is invariably fatal and infection is lifelong. No drugs are available to cure AIDS or to render an HIV-infected person non-infectious. Since HIV is spread mainly through sexual contact, individuals known to be infected with HIV are unfortunately often stigmatized and discriminated against. Such a situation results from the lack of proper understanding regarding the mode of transmission, particularly the fact that HIV infection cannot be transmitted by casual social contact or through the respiratory route. Unlike other diseases, identification of people with HIV infection or AIDS, therefore, is neither rational nor appropriate.

HIV testing is recommended by the World Health Organization (WHO) only for selected purposes<sup>1</sup>. These include (1) screening of blood including blood products, and organs and tissues for transplantation, (2) epidemiological surveillance, particularly HIV sentinel surveillance using unlinked anonymous HIV testing methodology where all personal details of the person being tested are removed from the blood samples so that the results of HIV testing cannot be linked with the identity of the person - the specific purposes of testing in these situations are to ensure blood safety or to conduct



epidemiological surveillance respectively; (3) diagnosis of symptomatic infection among those clinically suspected of having AIDS, and finally (4) early diagnosis of HIV infection among asymptomatic persons who would like to know their HIV status. In the latter two situations HIV testing is carried out with informed consent and with strict maintenance of confidentiality. No situation other than the four listed above warrant HIV testing, and there is no place in national AIDS prevention and control programmes for testing without informed consent. Experience shows that any kind of HIV testing without the full and informed consent of the person concerned is counter-productive as well as wasteful of resources.

## **PUBLIC HEALTH RATIONALE AGAINST MANDATORY TESTING**

Public health rationale should always be kept in mind when testing of any population group including foreigners, refugees, hospital patients or individuals engaged in high risk behaviour is contemplated. The 45th World Health Assembly, to which all countries were signatory, noted that "there is no public health rationale for any measures that limit the rights of the individual, notably measures establishing mandatory screening"<sup>20</sup>. Studies and public health experience have also shown that HIV testing carried out on a voluntary basis and with appropriate counselling is more likely to promote behaviour change than mandatory testing<sup>21</sup>. Furthermore, mandatory testing measures can be counter-productive because they tend to drive those at high risk of HIV infection "underground", as a result of which such persons do not have access to education and counselling programmes. Such initiatives not only damage the credibility of the health services, but also create a false sense of security among the general public that all HIV-infected persons are known and that there is no need to take necessary precautions. From the cost point of view, testing is an expensive business, not only to National AIDS Programmes, because of the high cost of HIV kits but also to individuals from the psychological point of view when the results of HIV testing are inconveniently disclosed and confidentiality is not always maintained. Additional details addressing the question "Can mandatory HIV testing stop the AIDS epidemic?" can be found in Annex, page 6.

## **HIV TESTING IN HEALTH CARE SETTINGS**

Many health care workers, however, seem to mistakenly believe in programmes of mandatory HIV testing or of testing without consent because of the fear of contracting HIV in the health care setting. Although there is a risk of HIV being transmitted in these



settings, this use is very small. For example, in the United States, more than 250,000 patients have so far been diagnosed as having AIDS, including 4,617 cases among health care workers of which only six (0.07%) were due to occupational transmission<sup>11</sup>. While thousands of needle stick injuries occur every year, only 33 documented HIV infections have so far resulted from occupational injuries in the health care setting. In studies of health care workers who were exposed to HIV through needle stick injuries, the risk has been shown to be less than 0.4%<sup>12</sup>. The risk of HIV transmission following mucous membrane or skin exposure to HIV infected blood, body fluids or tissues is even lower. Based on such data, testing of ambulatory or hospitalized patients for HIV on a routine basis for HIV has not been adopted as a general policy in the United States or other countries with prolonged experience of HIV/AIDS, and is not recommended by WHO. Rather, the application of universal precautions in infection control procedures is recommended as the best way to minimize HIV transmission in the health care setting.

In spite of this, there have been a number of situations where patients attending health facilities have been or are being tested for HIV. For example, many advocates testing in antenatal clinics on the notion that women may want to know whether they are infected in order to make a decision regarding having a baby. It has, however, been seen that such women, after having been provided counselling, are likely to participate in testing voluntarily. Moreover, routine testing of pregnant women may discourage many women from attending antenatal clinics because of the fear of being tested without their knowledge. Experience in other countries shows that relatively few women tend to have an opinion when they are properly informed and counselling is given before testing<sup>13</sup>.

Should patients with STDs be tested for HIV routinely? This issue has been much debated because of the close association between STD and AIDS. The consensus among the international scientific community is that all STD patients should be offered appropriate counselling and STD care without having to consent to mandatory HIV testing. If HIV testing is at all required and/or asked for, this can be provided through voluntary testing with requirements for HIV testing are likely to constitute additional burdens to STD control programmes as the cost of HIV tests would add to the already high costs of STD drugs.

Regarding the testing of blood donors, WHO advocates the concept of screening of donated blood rather than the testing of donors<sup>14</sup>. This in essence means that blood samples are subjected to antibody testing and those found positive are discarded without relating the test to the individual. However, if blood donors are to be tested for HIV and if they are to be notified of the results, they must know in advance that the blood is to be



tested for HIV and they should give their informed consent to testing. This also entails provision of pre- and post-test counselling. There is, however, a danger that if blood banks offer facilities for HIV testing, many people, including those with high risk behaviour, may use these services to determine their HIV status thus compromising/endangering the safety of blood. In summary, the only roles that HIV testing can play in the health care setting are to assist in the diagnosis of HIV infection in patients with clinical signs compatible with AIDS and to offer voluntary testing services to people who wish to know their HIV status. In both the situations, the testing should be voluntary with provision of adequate pre- as well as post-test counselling.

## **VOLUNTARY TESTING AND COUNSELLING**

Voluntary HIV testing always in conjunction with counselling has a place in national AIDS control programmes within the comprehensive range of measures for HIV/AIDS prevention, care and support<sup>(2)</sup>. HIV testing, to be beneficial, should however be entirely voluntary and anonymous, with no possibility of breach of confidentiality. Voluntary HIV testing should be part of a comprehensive counselling programme which provides support services such as condoms and treatment for STDs. It should however be noted that counselling on its own is a valuable intervention even if HIV testing is not available or if the person decides not to be tested.

The current availability in the Asian region of HIV/AIDS counselling, of voluntary HIV testing and of HIV counselling and voluntary testing is limited, with the exception of Thailand. In countries where these services are not yet widely available, their introduction should proceed cautiously in order to ensure that confidentiality or anonymity is guaranteed and that the services are delivered in a manner most likely to result in benefits to the individual and to public health.

In conclusion, HIV testing has an important role to play in national AIDS control programmes. However, it should be carried out in a rational manner and without resort to coercive approaches. Mandatory testing or testing without informed consent is not only counter productive but also wasteful of scarce resources. The spread of HIV cannot be controlled by mandatory testing of hospital patients or high risk groups in the population; such efforts have failed everywhere they have been tried. HIV testing should be carried out only for those purposes which are specific objectives of National AIDS Control Programmes.



## References

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## Annex

### Can mandatory HIV testing stop the AIDS epidemic?

Forcing someone to undergo medical testing of any kind is an invasion of privacy and a violation of human rights. This is a fundamental reason why UNAIDS and its member countries have taken a strong position against forced testing for HIV. But what about protecting the health of the public? The following Questions & Answers explain why compulsory HIV testing, far from protecting the public health, can actually endanger it. They have been contributed as the first of an occasional series by Suzanne Cheney, GPA's communications scientist, who encourages readers to suggest topics for exploration in future issues of Global AIDS news.

- Q. Some people say that the reason AIDS continues to spread is that we aren't aggressive enough about finding out who is infected with the human immunodeficiency virus (HIV). Shouldn't we be testing everyone for HIV - if necessary, against their will?
- A. If a person tests positive for HIV, it means that he or she has HIV infection and, scientists believe, will ultimately develop AIDS - a fatal disease for which there is at present no cure. But this can take 10 or even 15 years, and some people would prefer to live those healthy years without knowing their diagnosis. In addition, people with HIV infection or AIDS can suffer exclusion, discrimination and even persecution. So testing for HIV is a very serious matter.

People who are counselled about the personal and social implications of taking an HIV test can of course decide to be tested voluntarily. But forcing someone to undergo HIV testing is a highly coercive, intrusive measure.

- Q. But why worry only about the infected people? Surely compulsory testing is justified in the case of a fatal epidemic disease?
- A. There are a number of reasons why compulsory testing for HIV makes no sense. To begin with, testing someone for HIV just gives you a diagnosis, and a diagnosis alone never stopped an epidemic. Testing only helps if there are ways of breaking



the chain of transmission. For example, when you test donated blood prior to transfusion and discard the infected blood, you are helping to prevent the spread of the virus. The testing of blood for transfusion, and of tissues or organs for transplantation, is the only area where testing needs to be compulsory.

**Q. Testing has helped contain other infectious diseases. Why not AIDS?**

- A.** Because HIV is different. There is no drug available that can cure the infection or make the person uninfected – that is, incapable of transmitting the virus to another person. And once a person is infected with HIV, it's for life. A person who tests positive for syphilis can be cured with a short course of antibiotics. A person diagnosed with tuberculosis can be made uninfected with antibiotics. When someone tests positive for meningitis, the individuals in close contact with him or her can be treated and/or vaccinated. *With HIV, there is no medical way to "test and treat" or "test and vaccinate" so as to break the chain of transmission.*

**Q. Yes, but people with HIV are nevertheless a danger to others. They could be isolated.**

- A.** They don't need to be, because HIV infection is not "contagious" in the usual sense. Unlike tuberculosis, it doesn't spread through coughing. Unlike typhoid, it can't be transmitted through food or water. You can't catch HIV from swimming with an infected person, or sharing an office or home, or drinking from the same cup. So locking up infected people is not justified or practical. It's not even necessary to isolate HIV-infected people when they're hospitalized.

We all have a responsibility to look after ourselves. And the fact that HIV spreads mainly through sexual intercourse means that uninfected people are not defenseless against the virus. They have ways of protecting themselves from HIV without locking up the infected individuals. They can abstain from sex, stay faithful to an uninfected partner, engage in sex without penetration, or else use a condom every time for sexual intercourse.



- Q. Still, if we could screen the whole population through compulsory testing and then isolate the infected people for life, it might stop the epidemic.
- A. Mass HIV testing sounds straightforward. In practice, it's extremely costly, logistically unwieldy, incapable of identifying everyone who is infected, and fraught with problems that could be avoided by offering voluntary tests and guaranteeing the confidentiality of the test results.

Logistically, it's impossible to take blood samples from everyone, test them, and give everyone their results on the same day. So, even if the authorities managed to trace all infected people (clearly, many won't turn up voluntarily to find out their test results) and isolate them, this wouldn't prevent sexual contact between the uninfected and those who have yet to be tested.

And even if these logistic obstacles could somehow be eliminated, no mandatory testing programme can expect to identify all HIV-infected people. Individuals who think they might be infected can go to extremes to avoid testing and follow-up, given the serious consequences of a positive HIV test – especially when there is a threat of isolation.

Not all HIV-infected people will be identified even if they are tested. Most commercially available HIV tests work by detecting not the virus itself but antibodies to the virus which the person's immune system produces following infection with HIV. But it takes up to 12 weeks, or sometimes more, for these HIV antibodies to be produced and become detectable in a blood sample. This is the "window period" during which the infected person continues to test negative.

*At best, an HIV test result is a "snapshot" of someone's infection status today: it's no guarantee that he or she won't become infected tomorrow, or next week or month – and how often can people be tested?*

In any case, periodic testing of the entire population is prohibitively expensive in terms of staff time, transport of blood samples, and so on. (The actual HIV test kits account for only a fraction of the total costs). In many developing countries, testing the whole population just once would cost more than the government is able to spend on all health care in a year.



**Q.** Surely some countries have attempted to test everyone?

**A.** No. The financial and logistic impossibility of testing the whole population periodically has been recognized even by the few countries that have devoted most of their AIDS budget to testing. And most of these now realize that instead of mandatory testing – which failed to stop the epidemic – they should use their resources for preventive measures of proven effectiveness, such as informing the general public about HIV transmission, making condoms cheap and accessible, providing school-based education for young people, and ensuring blood safety.

**Q.** Even if you can't identify and trace all infected people, you could at least isolate the ones you find.

**A.** Apart from being a serious violation of human rights, lifetime isolation would be an unnecessary economic burden on the individuals' families and on society. In many places in Africa, and increasingly in Asia, 10% or more of all young adults are infected. Isolation means forfeiting their economic productivity during the decade or so of good health that these young adults can expect. It means depriving their families of breadwinners and care-givers. And it means keeping thousands or even millions of ill individuals fed, clothed and looked after for years on end – at government expense.

**Q.** I am still concerned about all the healthy people walking around with HIV who don't even know they have the virus. Granted that isolation makes no sense and that there is no medical way of curing them or making them uninfected. Compulsory testing would at least force them to find out their diagnosis and take precautions against transmitting the virus to others.

**A.** In other words, won't people who learn they are HIV-infected through compulsory testing simply avoid unsafe sex from then on? To begin with, not even voluntary counselling and testing achieves a uniformly "preventive" effect. When testing is purely voluntary, and people are presumably well motivated to protect themselves and their loved ones, the evidence shows that some infected people manage to change their sexual behaviour, others do not.\*

\* (For example, helpful behaviour change (increased condom use) has been seen in couples who seek voluntary testing together and find out that just one of them is HIV-infected).



is compulsory testing likely to be more effective than this in achieving behaviour change? On the contrary. First of all, someone who is forced to find out he or she is infected may have less interest in protecting others – or even in self-protection (safer sex protects both partners). But the main point is that a permanent, lifelong change in sexual behaviour isn't achieved automatically or quickly. The consistent use of condoms, for example, takes continuing motivation, will power, personal commitment. It takes the availability of inexpensive and readily accessible condoms. And for someone in a long-term relationship, it takes the full cooperation of the other partner. The bottom line is that HIV prevention rests on the individual's willingness to avoid unsafe behaviour. Will power and motivation can't be coerced. You don't gain people's voluntary cooperation by forcing them to be tested.

- Q. True, but even if the infected person doesn't voluntarily adopt safer behaviour, at least other people can be warned...
- A. Who? Medical test results are supposed to remain confidential. Imagine how suspicious we would be of doctors if they turned into law enforcement officers! Would stop seeking medical help for a whole range of problems if we thought our diagnoses would be handed out.

This doesn't mean that voluntary contact tracing is useless, though with HIV it's far less useful than for syphilis or gonorrhoea, where the sexual contact can be tested, treated and cured. But it's obvious that people infected with HIV will be less likely to volunteer information about their sex partners if they suspect that those individuals in turn may be forced into testing. Once again, making the test mandatory instead of voluntary makes it less rather than more effective.

Suppose an infected man refuses to use condoms or tell his wife about the infection. What will happen if the health care provider doesn't keep the diagnosis confidential but goes ahead and informs her? The wife might decide to leave the relationship, assuming she is economically able to do so. But while that might help her (if she is still uninfected), there are two reasons why it might endanger the public health. First, her rejected husband may well find new sex partners – and the epidemic will continue to spread. Or, if she is infected but doesn't know it, she might infect her new partners. Secondly, there is ample evidence that in places where test results aren't kept strictly confidential, people simply avoid HIV testing and continue to behave as though they were not infected. Helpful behaviour change that might have occurred as a result of voluntary counseling and testing is thus forfeited.

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**Q. In some places, couples have to get tested for syphilis before marrying. Why not for HIV?**

**A.** Even with syphilis, a curable disease, experience from around the world shows that mandatory premarital screening has little or no impact on the public health. For HIV, mandatory testing makes even less sense. First, fear of a compulsory test will dissuade many couples from marrying where such a requirement exists – a disadvantage that voluntary test doesn't entail. Second, why pick the time of marriage? People often begin their sexual experimentation well before that. (Indeed, if premarital sex were rare, testing before marriage would turn up virtually no positive HIV results.) And, most important, sex with other partners can and does take place after marriage. For the many people whose main risk of HIV is their partner's extramarital activity, a negative premarital test offers no protection – just an illusion of safety.

**Q. But HIV can be transmitted from an infected woman to her fetus or newborn. Wouldn't it be helpful at least to insist on testing all pregnant women?**

**A.** Once a woman is pregnant the fetus may well be infected already, although there is no way to know this. At this stage the only possibilities for prevention are abortion, a decision not to breast-feed (although in many settings bottle-feeding may be more risky for the baby), or perhaps treatment with an antiviral drug around the time of delivery (this is still experimental). All these are major decision which cannot be forced on any woman but which she must take, if at all, voluntarily. Therefore, voluntary counseling and testing is what should be offered. Forced testing may also dissuade pregnant women from seeking medical care.

In any case, the best time for prevention is prior to pregnancy. Married or unmarried, people need to be aware of all the implications of HIV infection before they decide whether to have children.

**Q. Some employers test job applicants before hiring them. Does that make sense?**

**A.** No. It won't protect the general public. And it won't protect the firm's employees because HIV infection is not "contagious" and doesn't spread at the workplace. The emphasis in any form should be on preventing infections among the existing



workforce, which is always far larger than the number of new staff recruited each year. Some employers provide their workers with AIDS education, encouragement for condom use, and care for sexually transmitted diseases (STDs) such as syphilis and chancroid, which if left untreated greatly increase a person's susceptibility to HIV infection. They report a decrease in STD rates among their employees, which is good news on two counts. It means employees are less likely to get HIV and, for companies that offer or reimburse STD care, it means a decrease in company expenditure.

- Q. I can see why forcing ordinary people to be tested is useless. What about restricting compulsory testing to high-risk groups?
- A. At first sight this seems more practical than compulsory testing of the general population testing of the general population, but in fact it's got even more problems. To begin with, many such groups are hard to define, and even harder to locate. For example, men who have unprotected sex with prostitutes are clearly at high risk – but how do you identify them? And where do you draw the line? At those who seek out a sex worker twice a year? Or those who do so every payday? And what about their wives – are they a high-risk group to be tested? In many places, after all, most women with HIV have been infected by their one partner – their husband.
- Q. One well-defined group, at least, is drug users who inject their drugs. Isn't it true that they are at high risk of acquiring HIV?
- A. Yes. If they don't use new or freshly sterilized equipment every time they inject, they can easily become infected – and pass the virus on to their sex partners. So the most urgent need is to teach them to clean their equipment carefully each time, never share it with anyone, or exchange their used syringes for sterile ones – and to encourage them to use condoms for sex. (Over the longer term, they need encouragement to switch from drug injecting to safer forms of drug use, or no drug use at all). These so-called "harm reduction" measures are clearly vital for the public health as well as for the users themselves.

The biggest hurdle for harm-reduction programmes is that drug users live on the margins of society. Almost everywhere, drug use is secretive or frankly illegal, and users are mistrustful of authorities. In many places, health workers have to persuade the local police not to arrest drug users who come in for education, new syringes,



bleach or condoms. Any threat of mandatory HIV testing would scare them away even more, doom the harm-reduction programmes to failure, and endanger the public health.

**Q. Shouldn't we at least insist that sex workers be HIV-negative?**

- A.** This is yet another idea that sounds fine in theory but works poorly in practice. Compulsory testing is as counterproductive for prostitutes as it is for drug users. Authorities need to work with prostitutes, not against them. They need to strengthen their ability to demand condom use by clients. (This is the standard harm-reduction measure for commercial sex work.) If prostitutes are harassed or driven away by the threat of mandatory testing, they will be out of reach of effective harm-reduction programmes.

Prostitutes who can't escape testing and turn out to be HIV-positive may be fired (if they work in a brothel) or lose their registration. But this doesn't protect the public health. Infected individuals will simply move on to another place. Where there is a system of registration, the infected sex workers will join the ranks of unofficial prostitutes, who generally have even less power to negotiate safer sex. Testing doesn't even protect the local clients. No matter how many "condom only" signs are posted, any brothel owner (or government official) who insists on testing sex workers - and lets the clients know that they are HIV-negative - is sending a clear message that if a client doesn't want to use a condom, he'll still be safe. Of course, the client may well be infected himself and infect the prostitute, who will then infect others who decide not to use a condom, and so on. Testing sex workers even as often as every 3 months still means that, because of the "window period", they can have HIV for nearly half a year - and infect many clients - before their infection is diagnosed.

**Q. You may well ask, why test the prostitutes and not their clients?**

- A.** From the standpoint of common decency, it's just as important to safeguard sex workers as sex work clients. From the standpoint of public health, protecting the prostitutes is even more important. Besides, there's something illogical about putting the responsibility for HIV prevention and safe sex on the sex worker. After all, in almost all cases, whether the prostitute is male or female, it's the client who has to wear the condom!



- If condom use by men is the key, why not try to test STD patients systematically for HIV? After all, they're mostly men. And by coming down with a disease like syphilis or chancroid, they have proven that they are engaging in unsafe sex and are at risk of HIV.
- There's no doubt that men (and women) with an STD are a very important "audience" indeed when it comes to HIV prevention. Attendance at a clinic or doctor's office provides the ideal opportunity for educating them about AIDS and condom promotion – just at the time they are confronted with evidence of their vulnerability to all STDs. But people with an STD need encouragement to seek care at the earliest possible sign of disease. Any threat of mandatory testing would frighten them away.

**Q.** So compulsory testing can't even help with people who engage in high-risk behavior?

**A.** No. When it comes to drug injectors, sex workers and STD patients, mandatory HIV testing has nothing to recommend it – and multiple disadvantages as compared with voluntary testing. First, people are hard to track down for compulsory testing, and expensive to trace for follow-up. Then, what do you achieve? When you find infected individuals, you can't isolate them for life or enforce behaviour change. Indeed, voluntary testing is more likely to result in the adoption of safe behaviour.

Not only are the "benefits" of compulsory testing illusory, but the side effects are a positive danger to the public health. The main ones are driving vulnerable people away from harm-reduction and other prevention programmes, and encouraging a false sense of HIV-free security in the general population. Voluntary testing hasn't got these disadvantages. Hence, there's nothing to be gained for the public health, and much to be lost, by making HIV tests compulsory instead of voluntary and confidential.

**Q.** Aren't coercive measures ever necessary?

**A.** Yes. It is occasionally necessary to override peoples' individual rights in the interests of public health. For example, WHO recommended obligatory vaccination against smallpox until it was eradicated, and still endorses the need for mandatory vaccination against yellow fever for people travelling from zones where this disease



is endemic. If one day a medicine is found that can make HIV-infected people non-infectious to others, WHO will re-examine its policy on HIV testing. For the moment, AIDS happens to be a disease for which coercive testing is not only pointless but harmful to the public health.

In the AIDS era, there is no way to sideline the infected people so that everyone else can go on living as before. Today, everyone has a responsibility to avoid unsafe behaviour.