



## 15<sup>th</sup> International Aids Conference – Bangkok 2004

Track C04      **Learning serostatus: making HIV testing accessible**  
Abstract      **TuOrC1197, Tuesday 13 July, 2004 at 17:00**  
Poster        **WePeC6099, Wednesday 14 July, 2004 at 14:00**  
Authors      **William Koevoets & Stan Van Loon**

### ***Rapid HIV testing in a one-hour procedure motivates MSM in the Netherlands to take the test.***

#### ***Background***

Several studies have shown that by 2000, 58% of MSM in the Netherlands had never been tested for HIV and that by 2002, 1/3 of the MSM with HIV in Amsterdam actually knew their HIV status. Although the prevalence among MSM in the Netherlands is comparable to that in other western urban areas, MSM in the Netherlands are less likely to test after a history of unsafe sex. One of the known reasons for this is the one-week waiting period after the test. The HIV Association Netherlands (HVN) has criticized regular health institutions for not innovating their testing methods in order to motivate people to get tested. With GSK sponsoring and 25 medical professionals as volunteers, a one-hour HIV-testing procedure was developed and is operational in Amsterdam. Named Checkpoint, it is open every Friday evening.

#### ***Methods***

Checkpoint includes pre- and post-test counselling and the use of the reliable Abbott

Determine HIV-1/2 test. A positive result is confirmed using an Elisa and Western Blot. Checkpoint wanted to prove that a one-hour procedure would motivate MSM at high risk to take an HIV test. As a control, we used statistics from the Amsterdam Health Department, where a one-week wait after an HIV test is standard.

#### ***Results***

Minimal PR was necessary for Checkpoint to be fully booked every week. 1455 tests were taken in 18 months. MSM and straight people came in equal proportions. The majority of the visitors (67%) chose Checkpoint because of its rapidity. The average prevalence (2.8%) and the prevalence among MSM (5.2%) were higher than those in the control group (respectively 1.1% and 3.8%). There were no false positives. Detailed profiles of the high (MSM) and low prevalence groups have been obtained.

#### ***Conclusion***

This procedure is persuasive for those at risk who refrain from or postpone HIV testing. This method can be applied without a laboratory infrastructure in outreach settings to reach high-risk groups. Good pre- and post-test skills are required.

**This abstract is about Checkpoint, a one-hour HIV-testing facility run by the HIV Vereniging Nederland (or HIV Association Netherlands) in Amsterdam and sponsored by GlaxoSmithKline. The HIV Association is the patients' association for people who are living with HIV in the Netherlands.**

**We will explain you about our reasons for starting with this one-hour procedure but also about the procedure itself. Furthermore we will describe the profile of the people who came to Checkpoint for an HIV test in 2002 and 2003. We will give more detailed descriptions of the MSM (men who have sex with men) that were tested for HIV and of those who tested positive. The research we conducted was descriptive. Wherever possible, we have compared our data with that from the Municipal Health Services' STD Clinic another HIV-testing facility in Amsterdam.**

The abstract can be downloaded from our website [www.hivnet.org](http://www.hivnet.org).

Now that HAART is available, we cannot advise anyone strongly enough to get tested for HIV if they have ever run a risk of being infected with HIV. In 2004 it is a missed chance if you only find out that you have been infected with HIV when the first symptoms of AIDS appear. The anti-retroviral drugs will certainly do their work, but you won't have time to get used to the idea of having HIV: you will have to begin treatment immediately. And you run the risk of being medically disadvantaged: the treatment might be less effective, there may be more side-effects, and the first symptoms can cause lasting damage.

So what exactly is the situation in the Netherlands in terms of HIV testing?

## 1. The situation in the Netherlands

As of 2003, just 54% of MSM<sup>1</sup> in the Netherlands had ever been tested for HIV. This was fortunately an improvement compared to 2000, when this was only 42%. Still, the Netherlands clearly scores lower in comparison with other Western urban areas such as urban Australia, for example, with 87%.

The Netherlands' deviant HIV-testing pattern can be explained in part as a result of its reservations about testing until the introduction of HAART — and even for a considerable time afterwards. It was clear to the HIV Association that something had to be done. The advice people are given about testing needs to change radically and new methods have to be found to motivate MSM to get tested for HIV. The figure for Amsterdam that you see here should make this clear. In 2003, 15% of MSM who visited the Municipal Health Services' STD Clinic turned out to be HIV positive, but only 1/3 of them were actually aware of their own HIV positive status<sup>2</sup>.

<sup>1</sup> Monitoring Survey 2003, H.J. Hospers, T.T. Dörfner and W. Zuilhof, Schorerstichting 2003

<sup>2</sup> Transversal Survey, Municipal Health Services' STD Clinic, GG&GD 2003

Therefore, new active testing campaigns have to be set up, and new easily accessible procedures need to be developed: we have some catching up to do.

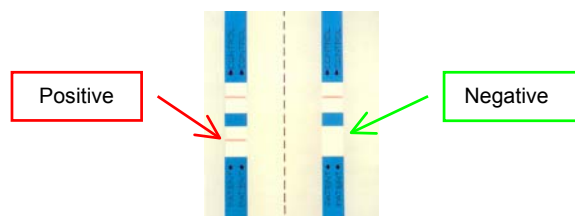
We suspect that the long wait before you get the result — and that is at least a week at every testing location in the Netherlands — is one of the reasons why people either do not get tested or keep putting it off.

We were also familiar with the existence of the rapid HIV tests that are being used in Africa and the United States and that have been extensively tested for reliability. So we decided to develop a one-hour procedure for a rapid HIV test.

## 2. Determine™

We started looking for a user-friendly and low cost test<sup>3</sup> with a high degree of reliability, and we ultimately chose for the Determine™ test developed by Abbott Laboratories. This test has a sensitivity of 100% and a specificity of 99.7%. This means that there is still a small chance of getting a false positive result. To overcome this problem, we decided that with a positive result, we would always do a confirmation test, according to the Western Blot method and with a Detuned Elisa. That way, we will also satisfy the golden standard of two different testing methods, which enables us to determine a positive status with certainty. Another reason we chose for this test is because the Determine™ tests for HIV 1 as well as 2, since both strains of HIV are present in the Netherlands. Moreover, this test is very user friendly, which means the chance of mistakes being made is nil.

Here you see a Determine test. One drop of capillary blood, obtained from a finger prick, is placed at the end of the strip. A drop of chase buffer is added, and after 15 minutes you can read the result on the strip: positive or negative.



This test forms the core of the one-hour procedure, but how is Checkpoint organised?

<sup>3</sup> For a complete overview of rapid tests see Aids Review 2000: #2 'Rapid Tests for HIV Antibody' by Bernard M. Branson

### 3. Checkpoint

Checkpoint is only open on Friday evenings. Throughout the working week, clients can make an appointment through the HIV Association's Service Point. MSM have priority in getting appointments. A limited number of places are available for walk-ins. A maximum of 25 clients can be seen each evening.

Every client is registered anonymously and we record various types of information. The client has to pay € 15 (= \$ 18.50).

We might point out here that the entire Checkpoint initiative is coordinated and carried out by idealistically motivated volunteers who want to contribute to the fight against AIDS. The whole team consists of 27 volunteers (8 physicians, 11 nurses and 8 Checkpoint or para medically trained). At least 7 volunteers are working every Friday.

What exactly is the procedure that lasts no more than one hour?

### 4. The procedure

To begin with, a host creates a file and explains the entire procedure to the client. In the waiting room, his colleague talks with clients about sexuality and safe sex. It should come as no surprise that some of our clients are very nervous.

A healthcare worker (physician or nurse) then conducts an extensive pre-test consultation that covers every aspect of the HIV test. For example, they discuss the client's reasons for wanting to have the test done, whether he is more or less prepared for a bad result, whether the client might still be in the so-called window phase of 3 months since his most recent unsafe contact, and they also make sure the client isn't under the influence of anything. This pre-test consultation concludes with the client's signing of the informed-consent form. A drop of blood is taken and placed immediately on the test strip. The client then returns to the waiting room and is called back after 15 minutes.

Whether the result is negative or positive, the client is shown the strip — the concrete evidence of the result!

In the event of a negative result, attention is given during the post-test consultation to any questions the person might have and to prevention.

In the event of a positive result, the emphasis is on communicating the bad-news with great care. The client is given time to express his emotions and to ask questions. A plan is drawn up with the client for the coming week. Venous blood is drawn for the confirmation test, which is done at an external laboratory. Finally, the client makes an appointment to come get the results of the confirmation test a week later.

The second post-test consultation (a week later) is usually less emotional, has a more informative character and is more adjusted to the clients' personal situation. Among other things, we also explain more clearly what the HIV Association has to offer, and we strongly recommend that the person contacts a treatment centre for monitoring.

During every consultation, we record some 70 pieces of information in a data base for each person. This enables us to draw up a profile of the people who come to Checkpoint for an HIV test.

We started Checkpoint in June 2002, and by the end of December 2003, we had done 1455 tests. Our data is based on this number. Up to July 2004, we have done 2000 tests in total.

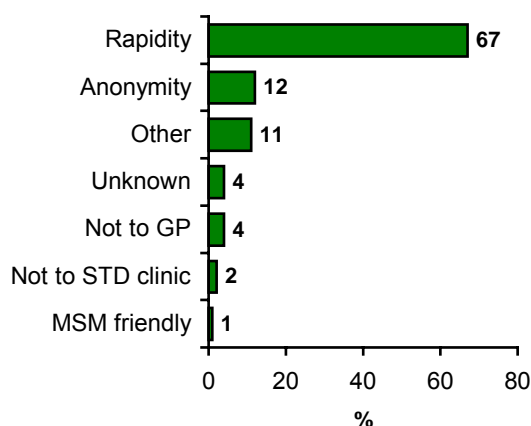
For this abstract, we have taken data from 1455 tests that were done on 1333 different individuals. Where possible we compared our data to the ones of the Municipal Health Services' STD Clinic.

One of the goals is to describe the profile of the typical person who is attracted by this one-hour method for an HIV test.

### 5. Why does one choose for Checkpoint?

First of all, why does one come to Checkpoint for an HIV-test rather than going to his general practitioner or the Municipal Health Services' STD Clinic?

The reason 'other' is mainly: the location in the centre of Amsterdam, the convenient opening hours on Friday evenings or the fact that a friend works at Checkpoint.



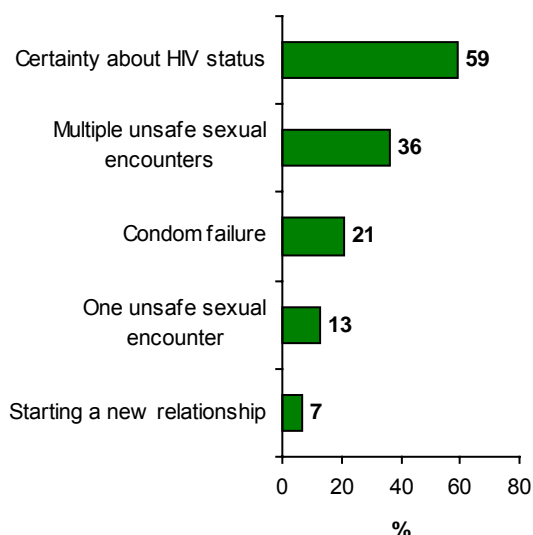
Graph 1 Why to Checkpoint (N=1455)

### 6. Motivation for the test?

We asked clients for the specific reasons why they came for the test. Clients could give several options and the healthcare worker classified the answers.

'Certainty about HIV status' was given as a reason mainly by clients who were tested for the first time. They had usually had unsafe sex in earlier days with someone in a low-risk group. The chance that they are positive is very low (< 1%), but to be sure they have to do a test.

We only mention the top 5 reasons here. Other reasons clients wanted to be tested included an intramuscular injection in a foreign country or a sporting accident involving some blood. Only one person mentioned the availability of HAART as a reason to get tested.



Graph 2 Motivation for the test (N=1455)

## 7. General profile of the Checkpoint client

Because we are going to focus on the group of MSM in particular, we have split the figures into those for MSM and those for the remaining group, which consists of heterosexual men, women and one transsexual.

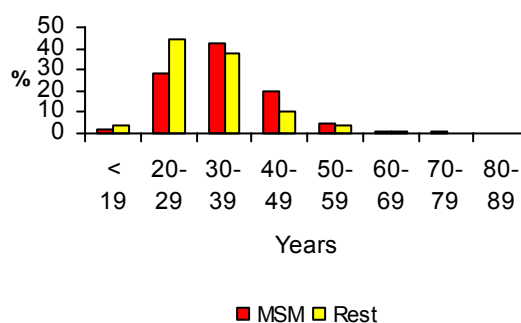
Characteristics	MSM		Remaining group	
	n	%	n	%
<b>Domicile</b>				
Amsterdam	397	65.3	390	53.8
Outside Amsterdam	208	34.2	327	45.1
Unknown	3	0.5	8	1.1
<b>Total</b>	<b>608</b>	<b>100.0</b>	<b>725</b>	<b>100.0</b>
<b>Age group</b>				
≤ 19 years	14	2.3	28	3.9
20-29	172	28.5	318	43.9
30-39	259	42.6	270	37.3
40-49	121	19.9	75	10.3
50-59	30	4.9	27	3.7
60-69	8	1.3	6	0.8
70-79	3	0.5	1	0.1
80-89	1	0.2		
<b>Total</b>	<b>608</b>	<b>100.2</b>	<b>725</b>	<b>100.0</b>
<b>Level of education</b>				
Lower	110	24.4	171	23.6
Middle	79	13.0	141	19.6
Higher	399	65.6	393	54.2
Unknown	20	3.3	20	2.8
<b>Total</b>	<b>608</b>	<b>100.0</b>	<b>725</b>	<b>100.0</b>

Characteristics	MSM		Remaining group	
<b>Ethnic background</b>				
Europe	514	84.5	605	83.5
Asia	27	4.4	37	5.1
Australia	7	1.2	1	0.1
Africa	6	1.0	24	3.3
Americas	48	7.9	48	6.6
Unknown	6	1.0	10	1.4
<b>Total</b>	<b>608</b>	<b>100.0</b>	<b>725</b>	<b>100.0</b>

Table 1 General profile of Checkpoint visitor

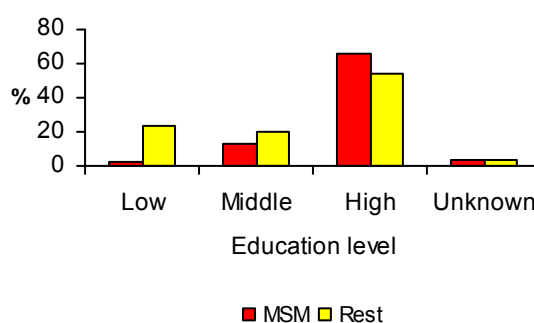
Most of our clients live in or near Amsterdam. Nevertheless, 35% of the clients live in a rural area, and many clients have regularly travelled quite far to visit Checkpoint.

Looking at the clients' age, we see that the majority falls within the age group that can be assumed to be sexually active. The higher MSM incidence from 30 years is because a substantial part of the MSM is switching from the conventional to the rapid testing method. 3% is over 60, and some mentioned that their HIV risk dated from years ago but that they had waited for years until this test method was available in Holland.



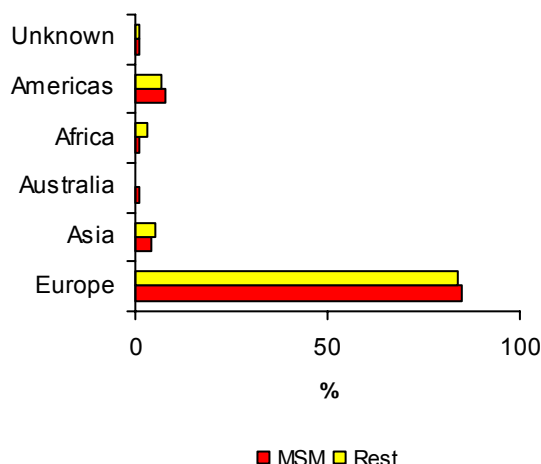
Graph 3 Visitors profile: Age group

66% of the MSM group is highly educated (that is to say: they have a Bachelor's or Master's degree), and this corresponds with the fact that most MSM living in Amsterdam are highly educated.



Graph 4 Education level

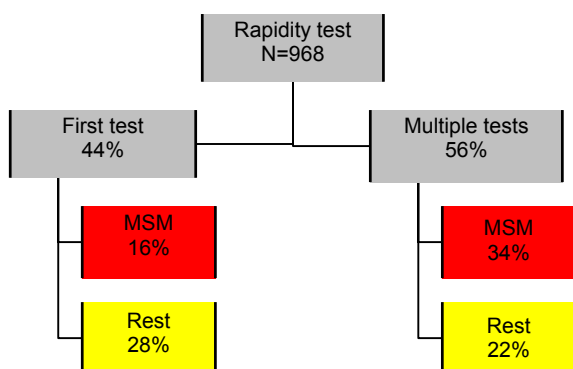
If we look at the ethnic background, we see the figures relating to Asia and the Americas are slightly higher. This can be explained by the fact that Indonesia and some Caribbean countries were once Dutch colonies.



Graph 5 Ethnic background

## 8. Profile of visitors who explicitly say they choose for the rapid result

In this paragraph we take a closer look at the group that told us that the rapid test was the main reason for them to come to us.



Graph 6 Rapidity as main reason for test

For 44%, this was their first test ever. 56% had been tested before, and it was this group that was switching from the regular testing method to the rapid test. The members of this last group had had their previous test an average of 2.8 years ago, with a maximum of 18.7 years and a standard deviation of 2.9 years.

## 9. Closer profile of 1<sup>st</sup> time testers (n=663)

Taking the Checkpoint population as a whole, we see that 45% was being tested for the first time. Only 16% of these were MSM, which is not surprising since testing for HIV is more common in that group. If we look at the figure for MSM in the multiple-test group, we see that 34% was switching from the conventional method to the rapid test.

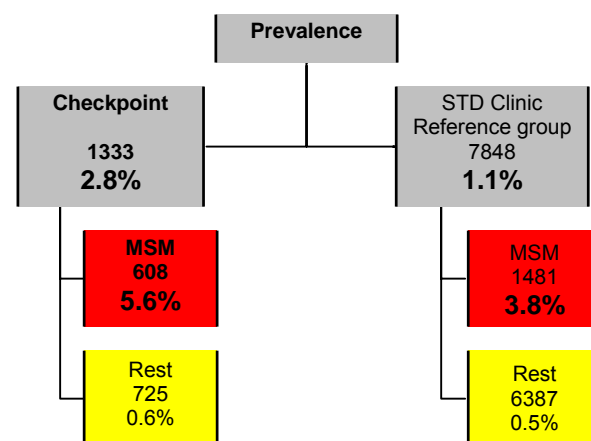
Also in this group, the majority 53% (n=354) was highly educated.

47% (n=312) had found Checkpoint on the Internet. In a fast world, the rapid test fits in well with fast communication. 24% (n=158) had friends who told them about Checkpoint.

In this first test group, 64% (n=423) reported speed as the main motivator, and 15% (n=101) said that the anonymity made it easier for them. Quite a substantial group doubts whether medical staff actually upholds confidentiality and medical secrecy.

## 10. Results

The prevalence among MSM in the Checkpoint group is higher (5.6%) compared to the reference group of the STD Clinic of the Municipal Health Service<sup>4</sup> (3.8%). This difference is nearly significant (p=0.075). In 2003 this STD clinic reported an increase in the prevalence among MSM, which means this difference is decreasing.



Graph 7 Prevalence Checkpoint versus Reference group

For the prevalence within the Checkpoint group, we looked at the number of testers and not at the number of tests taken.

It is worth mentioning that Checkpoint has not had a single false positive. All our positive tests have been confirmed by means of a classic Elisa, Western Blot and Detuned Elisa.

## 11. Profile of the seropositive clients

Here are some general characteristics before we go into more specific findings.

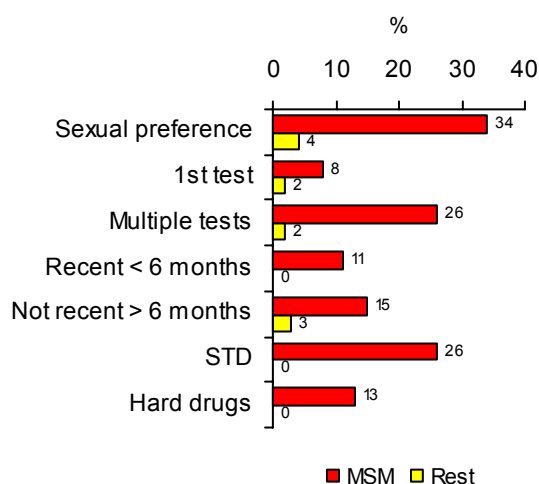
Characteristics Seropositive clients	MSM +		Remaining group +	
	n=34	%	n=4	%
<b>Domicile</b>				
Amsterdam	26	76.4	3	75.0
Outside Amsterdam	8	23.6	1	25.0

<sup>4</sup> Annual Report 2002, Amsterdam Municipal Health Services' STD Clinic



Characteristics	MSM +	Remaining group +		
<b>Age group</b>				
20-29	4	11.7	1	25.0
30-39	14	41.2	3	75.0
40-49	13	38.2		
50-59	2	5.9		
60-69	1	2.9		
<b>Level of education</b>				
Lower	10	29.4	1	25.0
Middle	4	11.7		
Higher	18	52.9	1	25.0
Unknown	2	5.9	2	50.0
<b>Ethnic background</b>				
Europe	26	76.5	1	25.0
Asia	2	5.9	1	25.0
Africa			2	50.0
Americas	6	17.6		
<b>Sexual preference?</b>	34	89.5	4	10.5
<b>Detuned Elisa (n = 29)</b>				
Recently (<6 months)	11	42.0		
Not recently (>6 months)	15	58.0	3	100.0
<b>Test frequency?</b>				
First test	8	23.6	2	50.0
Multiple tests	26	76.4	2	50.0
1 <sup>st</sup> visit to Checkpoint	30	88.2	4	100.0
2 <sup>nd</sup> visit to Checkpoint	4	11.8		
<b>STD in the past?</b>				
Yes	26	76.5		
No	7	20.6	3	75.0
Unknown	1	2.9	1	25.0
<b>Hard drugs within 3 months prior to the test?</b>				
Yes	13	38.2		
No	21	61.8	3	75.0
Unknown			1	25.0
<b>Expected result?</b>				
Positive	11	32.4	2	50.0
Possibly positive	11	32.4	1	25.0
Negative	9	26.5	1	25.0
Unknown	3	8.8		

Table 2 Profile of the seropositive clients



Graph 8 Profile of seropositive clients (n=38)

34 (89%) were MSM, and for 10 clients (26.3%) it was their first test.

In the multiple test group, 60% had their last test more than 12 months before, the average time since the last test was 3.2 years, with a maximum of 11 years and a standard deviation of 3 years.

We did not ask for a Detuned Elisa for the first 9 cases, but in 29 (62%) of all the other cases we diagnosed an infection that was not recent, which means it took place more than 6 months before.

Back to the whole group: for 73.7% it was their first HIV test and for 32% their previous test was between 6 and 12 months earlier.

Another noteworthy fact is that 25% took their last HIV test in a gay-specific setting like an STD clinic for gays; for nearly another quarter, their previous test had been done abroad.

26 MSM reported to have had an STD and 13 used hard drugs (mostly XTC or cocaine) in the last 3 months prior to their test.

34% of those tested expected the result to be seropositive and 31% thought they might be positive. For 26%, the positive result came as a complete surprise.

## 12. Does rapid testing motivate MSM to take the test?

Yes, and here are our arguments to substantiate this conclusion:

- 67% of the MSM say that it was precisely the rapidity that made them get tested. The same is also true for 26 of the 38 who tested HIV positive.
- 34% of the MSM switched from the conventional to the one-hour procedure and did not return to their familiar testing facility where they would have to wait a week for the result. We find these 'switchers' both among the MSM (34%) and among the rest (22%).
- The prevalence we find among MSM is higher than that found at the STD clinic of the Municipal Health Services. Based on their figures from 2002, the difference is almost significant ( $p=0.075$ ).

- Our final argument is the sum of all the experiences that we have heard from our clients, but that are not included in the tables. Many people told us that they found waiting for a week for the result to be very difficult. For many people, that was a reason for not taking the test or to keep postponing it. Many wondered why the regular testing sites do not make it easier to test for HIV by offering the rapid formula as well. People find Checkpoint to be customer friendly and helpful when they are faced with the always-difficult decision whether or not to take the HIV test.

### 13. Discussion

Some items for discussion:

- Our analysis is based on data collected previously. This research was not meant to test a hypothesis, with an accompanying research plan.
- Besides the rapid procedure, there may be other reasons why people come to Checkpoint, such as the fact that it is open on Friday evenings and the possibility of being tested anonymously.
- Another aspect involves the chance of false positives when using the rapid test. In the procedure we have designed, this risk has been cancelled out by means of a confirmation test. However, in using the rapid test for large groups with a low prevalence (for example the population at large) there is an increased chance of false positives among those who test HIV positive. Even so, it will always involve just a few exceptions. The benefit, on the other hand, is that everyone receives his or her test result immediately, and that solves the problem of people who get tested for HIV but do not return for their results after a week.
- Since there is now a rapid Western Blot test on the market, we are considering this confirmation test as part of our procedure.
- Using the Checkpoint method, you don't need a laboratory on site. That means you can use it easily in connection with outreach activities, although some of the locations we know so well in connection with outreach work—such as bars, discos, saunas and cruising areas—are not suitable for rapid HIV testing.
- Working with the rapid test requires counsellors who are experienced in communicating bad results. After all, you know the result right away and will have to tell the client immediately.
- Finally: Why should you consider rapid testing? Very simply: because we have a reliable method that will help motivate people to get tested for HIV. Since an HIV-test involves a difficult decision, you should remove any obstacles you can. Moreover, the client wants it. In short: Access for all also applies to rapid testing.

### 14. Thanks to...



We would like to acknowledge all the Checkpoint volunteers and co-workers who have helped set up Checkpoint plus all the clients who gave us their trust and made it possible for us to present this abstract.

### Authors

#### Stan Van Loon (1954)



Born and raised in the north of Belgium, Stan was trained in nursing in The Netherlands. He worked in this function for several firms in different European countries. In 1994 he became a nurse in the Amsterdam prison system. A career switch in 2000 to business economics led to his current position for the Ministry of Justice.

From 1995 until its closure in 2001 he was coordinator of the volunteer staffed Amsterdam Gay STD clinic. He was one of the founders of Checkpoint and is one its coordinators.

#### William Koevoets (1968)



Born and raised in the south of Holland where he was trained in nursing. He worked in this function in several hospitals. In 1999 he became a nurse in the Amsterdam prison system. Since 2003 he is working as a nurse in AIDS care in the Academic Medical Centre (AMC) in Amsterdam.

In 1998 he joined the volunteer staffed Amsterdam Gay STD clinic as a coordinator until its closure in 2001. He was one of the founders of Checkpoint and is one its coordinators.