#### VIRUSMYTH HOMEPAGE

# EPIDEMIOLOGICAL EVIDENCE AGAINST HETEROSEXUAL TRANSMISSION OF HIV AND AGAINST PREVENTION-CAMPAIGNS

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Spread of HIV in the general population outside the so-called risk groups is accepted by many scientists, based on the information given by the person after a positive HIV-test or an AIDS-diagnosis. Although we know that information given about ones sexual life and preference or ones (illegal) drug use is by no means reliable nor can it be proven. It is therefore necessary to analyse screening programs with a high number of persons. They should give some reliable information on the transmission of HIV as it is spreading for more than 15 years by now.

Results of the following studies are presented:

- 1. Anonymous unlinked testing of blood from the umbilical cord
- 2. Blood donors in Germany
- 3. Military conscripts in Austria
- 4. Prostitutes in Europe
- 5. Thailand (STD's and HIV)
- 6. Back-calculation of HIV-incidence in Germany
- 7. Condoms sold in Germany

# ad 1. anonymous unlinked testing of blood from the umbilical cord

In order to assess the risk for women in the general population, we can rely on the anonymous, unlinked testing of blood from the umbilical cord. The results provide information on the presence of HIV-antibodies in the mother.

Since 1993, this survey has been carried out in almost all women giving birth in Berlin, the German city with the most AIDS cases per capita, the highest number of i.v. drug adicts and many people from Africa. If transmission of HIV would take place, originating from the so-called risk groups and going into the general population than one would expect an increase over the years and a high prevalence after more than 15 years of spread. The same survey is being performed in Lower Saxony and Bavaria. The population in these regions are thought to be of lower risk, based on the prevalence of AIDS-cases and people with HIV-anitbodies. In Berlin 0,57 per 1.000 women were HIV-positive, compared to 0,14 in Lower Saxony and 0,16 in Bavaria. The prevalence remained stable over the years not even increasing in Berlin.

The Robert Koch Institute in Berlin, which is responsible for the evaluation of the German figures, has come to the following conclusion: "The results - HIV prevalence significantly under one per thousand among women giving birth - confirm the assumption of a low

distribution of HIV in the general heterosexual population so far... The observed low prevalence might be an overestimation of the true prevalence due to the fact that a high percentage of the HIV-positive women in this study (60%) come from a Pattern II country."

Robert Koch Institut, Berlin, Bericht zur epidemiologischen Situation in der Bundesrepublik Deutschland.

Robert Koch Institut, Berlin, Bericht zur epidemiologischen Situation in der Bundesrepublik Deutschland. 31.12.1997

Dathe O. et al, Ist Anonymes Unverknüpftes Testen auf Anti-HIV an Gebärenden zur Prävalenzbestimmung sinnvoll?, 6. Deutscher AIDS-Kongreß, 1996; P 112

## ad 2. blood donors

"Blood donors are representative for the sexual active population.... Analysing this group can therefore give reliable information on the spread of sexually transmissible diseases in the general population after excluding recognisable members of the risk groups." If HIV would spread in the general population this would result in an increasing percentage of HIV-positive blood donors without any risk behaviour in their history. It would also result in a high number of HIV-positive donors after more than 15 years of spread of HIV.

There are about 3 million blood donations per year in Germany. The results however show a decline from 9,8 HIV-positive donations per 100.000 in 1985 to 1,4 in 1988 and a constant rate since than, around 0,9-2,4. Leading to the following conclusion: "The data of this study confirm the results of other studies showing a low transmission of HIV outside the well known risk groups."

One would need to ad: An effect of the prevention campaigns can not be observed as the described decline took place before they started.

All qotations from: AIDS-Zentrum im Bundesgesundheitsamt, Bericht zur eppidemiologischen Situation in der BRD zum 31.12.1995, Berlin

## ad 3. military conscripts in Austria

When it comes to the assessment of young people, we can rely on the analysis of HIV tests for conscripts in the Austrian army. Austria is the only Western country with an obligatory military service and a screening for HIV of its conscripts. The results have a high validity as about three quaters of the male age-class of 19-21 years is screened in this programm every year since 1985.

True, the HIV test is not part of the call-up in Austria. However, practically all of the 40,000 annual conscripts out of a population of eight millions, are regularly tested for HIV, and this goes back to 1985. The basis for this is an agreement between the army, which is seeking a cost-effective method of determining the blood group of its soldiers, and the Red Cross, which exceptionally is prepared to determine the blood group of non-donors at no cost if it is guaranteed that the majority of conscripts take part in the blood-donor scheme. In order to ensure the motivation of the conscripts for this scheme, they are allowed to leave for the weekend on the Friday once they have donated blood. Non-donors, however, including occasionally those who are refused on medical grounds, have to wait until Saturday evening for their weekend leave, and usually no longer have any chance of

travelling home by public transport.

This procedure, which has been rejected in other European countries as being involuntary, has thus far ensured the almost total testing of Austrian conscripts. As a result, there is now data on the frequency of HIV infection in three quarters of all males aged 19 to 21 for the last twelve years.

Actually, it turns out as an average of 2.3 positive results per year. Almost all cases, 25 of the total of 27, came from the Vienna blood bank, which also covers Lower Austria and Burgenland. (Vienna is the only big city in Austria.) In Carinthia, since 1985 there has been a total of two HIV-positive blood donors from army barracks. Since the survey began, in 1985, there has not been one single HIV-positive blood donor from army barracks in the other provinces, Upper Austria, Styria, Tyrol and Vorarlberg. Assuming a participation of about 95% of conscripts in the blood-donor scheme, this results in a rate of six positive HIV tests per 100,000 blood donors. (For all male first-time donors in Germany in 1993, the rate was 11.6).

The studies published by the German and the French Ministry of Defence also show a similar result. The data there, however, are not so reliable, because conscripts' participation in the blood-donor scheme was significantly lower because it was voluntary. The spread of HIV among young males outside those involved in the recognised classical risk behaviour cannot be observed on the basis of available data. Nor has there been a change in time demonstrating any spread or effect of the prevention campaigns.

## ad 4 prostitutes in Europe

Prostitutes are at special risk when it comes to STDs. Consequently one would expect a high prevalence of HIV-positive results in this population. Interestingly a study among prostitutes in Europe found an HIV-prevalence of 5,3%. But most of the positive results came from prostitutes admitting i.v. drug consumption (prevalence of 32% compared to 1,5% among the non-drug consuming prostitutes). This is confirmed by the routine screening among the 800 prostitutes in Vienna (1,5 Mio Inhabitants.) Since 1985 a total of three of them was found to be HIV-positive.

Again this is incompatible with a STD spreading among the heterosexual population nor can any effect of the prevention campaigns be demonstrated.

Kunz, Virusepidemiologische Information, 1987-97, Wien European Working Group on HIV Infection in Female Prostitutes: HIV infection in European female sex workers: epidemiological link with use of petroleum-based lubricants, AIDS, 1993; Mar; 7(3): 4.1-8

## ad 5 Thailand (STD's and HIV no correlation)

It is widely believed that HIV spreads mainly by heterosexual means. It is also widely believed that the high prevalence of STDs facilitates the transmission of HIV. It is therefore interesting to analyse some data from a country with a well documented high prevalence of STDs like Thailand:

- Prevalence of HIV among STD patients The prevalence of STDs has been very high since decades. Nevertheless the HIV-epidemic is said to have started only around 1990, many years after its introduction into Thailand and 10 years later than in the US. It is difficult to understand why HIV should have started to spread heterosexually only when STD rates where on a sharp decline.

- Geographical distribution of STDs and HIV/AIDS

The highest prevalence of STDs is generally found in great cities. This is also true in Thailand, with Bangkok on the lead compared to other regions in the country. Nevertheless there is no correlation to the HIV-prevalence and the number of AIDS-cases. Both of them are highest in the North also known as part of the Golden Triangle and one of the biggest opium producer in the world. But STD prevalence is second lowest in this region. And even if one looks into more detail at the provinces of the North Region one is confronted by the fact that there is absolutely no correlation between STDs and AIDS. With Payo Province having the highest STD-prevalence and the lowest number of cumulative AIDS-cases in the North or on the other hand Lamphun Province with the highest number of cumulative AIDS cases and a STD-prevalence below average.

Again whatever might be the cause of HIV-positive tests in Thailand it can not be heterosexually transmitted like the other STDs.

Chitwarakorn A. et al, Sexually Transmitted Diseases in Asia and the Pacific, 1998, Ministry of Public Health, AIDS Division, HIV/AIDS Situation in Thailand October 31, 1998 Office of Communicable Disease Control Region 10, Chiang Mai, Thailand

ad 6 Back-calculation of the HIV-incidence in Germany

The most reliable figure we have in Europe, is the AIDS incidence. Even if one has to take into consideration the extension of the definition of AIDS at several occasions, leading to an (artificial) increase in the number of AIDS-patients. The number of new AIDS-cases in Germany grew from 1985 until it peaked in 1993, when the latest modification of the AIDS-definition was introduced. It declined since than.

The AIDS-incidence has been the starting point for the European Institute of Monitoring HIV/AIDS, to calculate the HIV-incidence. This back-calculation was based on the assumption of a transmission of HIV leading to AIDS after an incubation period of 10 years in average.

The result shows a steep increase of new HIV-infections from 1979 to a peak in 1983 at around 7.000, followed by a sharp decline until 1987. The number of new HIV-infections per year is said to be stable at around 2.000 since than.

It is remarkable that the so-called HIV-epidemic appears to be self-limited at a very low level. The decrease of the HIV-incidence from 1983 to 1987 happened long before any intervention (prevention-campaigns) started and is incompatible with an infectious disease in the general population.

Robert Koch Institut, Berlin, Bericht zur epidemiologischen Situation in der Bundesrepublik Deutschland. 31.12.1997

Dietz K., Seydel J., Back-Projection of German AIDS data using information on dates of tests, Stat-med , 1991; 13: 1991-2008

Downs A et al, Reconstruction and prediction of the HIV/AIDS epidemic among adults in the European Union and in the low prevalence countries of central and eastern Europe, AIDS, 1997; 11: 649-62

ad 7 condoms sold in Germany

Condom promotion campaigns are part of the so-called prevention campaigns. Analysing the number of condoms sold in Germany can give some information as to the success of changing the sexual behaviour of a population.

The number of condoms sold per capita was two condoms in 1980. Fifteen years later it has been 2,3 after numerous campaigns. Apparently most people in Germany don't like condoms and cannot be convinced to use them. A similar situation occurred in Austria, where the number of condoms did not move even during the last campaign in 1994. This has been one of the arguments to stop these campaigns.

We know from Family Planning Programs that it is possible to change the contraceptive behaviour to a small extend. But this needs a message that is not only credible but also applicable. Whereas messages of the condom campaigns in the HIV-area did not correspond with the experiences of the people and proved to be wrong anyway (the epidemic did not happen). But more important the request of using a condom in all circumstances outside a mutually faithful relation, were perceived as being unrealisable and incompatible with a spontaneous sexual life.

It is noteworthy that there has been no HIV-epidemic in Germany although condom use remained very low.

The population in some countries might behave more rational in their sexual life than Germans and might use more condoms. Whether this would have an effect on the HIV-prevalence remains to seen.

Mitteilung der Deutschen Latex Forschung, Düsseldorf Mitteilung des Statistischen Bundesamtes Wiesbaden

### Conclusion:

Heterosexual spread of HIV in the general population cannot be observed when reliable data exist as in the case of Germany. The prevention campaigns have therefore been a waste of money and energy. Furthermore they did not lead to a substantial increase of condom use, but had a negative impact on the credibility of the institutions involved. (The danger, HIV concerns everybody, and the predictions were wrong.)

Countries with a limited budget might set priorities in a different way and invest i.e. in prevention of unwanted pregnancies, avoiding unsafe injections, reducing infectious diseases etc.

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