# Gender Differences – HIV Infection with Particular Reference to the Situation among Ukrainian Women

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Received: February 5, 2007. Accepted: March 26, 2007. **SUMMARY** The Ukraine is one of the European countries with the fastest growing number of cases of HIV. In the European Centre for the Epidemiological Monitoring of AIDS (EuroHIV) year-end report 2005, the number of newly diagnosed HIV infections in the Ukraine was the second highest in the WHO European Region. Women are increasingly contributing to the spread of HIV/AIDS. HIV infection by sexual contact is the most common way of HIV transmission among women. Reported HIV/AIDS cases from the official epidemiological register of the Ukrainian Centre for AIDS Prevention between 1995 and 2005, alongside data from seroepidemiological monitoring since 2002 were analysed. During 1987, 6 individuals (5 women) were registered with HIV. In 1995, the reported number of HIV infections increased to 1,490 (554 women), a 34-fold increase in comparison with 1994. In the newly infected HIV cases, the proportion of women rose from 37.2% in 1995 to 41.6% in 2005. There has also been a considerable increase in mother-to-child transmission of HIV since 1995. Between 1987 and 1994, the proportion of children among the newly HIV infected people was 2.2%. In 2005, it was 18.2%. In 2005, 13,770 new cases (8,044 men and 5,726 women) were registered, corresponding to about 28 cases per 100,000 population. HIV posed no significant problem in the Ukraine before 1995. Since 1995, there has been a considerable increase in the number of registered cases, especially among women. The significant increase in HIV infection among newborn children shows that women are contributing ever more to the propagation of HIV/AIDS too. Unless effective preventive measures are taken, and unless there is more investment in development projects, an HIV/AIDS epidemic may become a threat not only in the Ukraine, but also in neighboring European countries. The promotion of gender equality as well as investment in the education of girls and women should be improved to effectively prevent AIDS.

**KEY WORDS:** HIV-infection, women of child-bearing age, women's health, the Ukraine

### INTRODUCTION

Geographically, the Ukraine is an Eastern European country and after Russia the biggest country in Europe, but it is not part of the EU. In the past,

the Ukraine was part of the Soviet Union. According to the State Statistics Committee of Ukraine, the total actual population of the Ukraine is about

47 million, men accounting for 21 million 574 thousand and women for 25 million 174 thousand (1).

Until 1995, the World Health Organization counted Ukraine among those countries which represented a low risk with regard to the spread of human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS). In the 2005 year-end report of the European Centre for the Epidemiological Monitoring of AIDS (EuroHIV), the number of newly diagnosed HIV infections in the Ukraine ranked second in the WHO European Region after the Russian Federation (2). According to the Ukrainian Health Ministry, about 88,900 HIV-infected people were officially registered from the beginning of the epidemic to the end of 2005. On account of the high number of unreported cases, the actual number of infections is presumably much higher. It has been forecast that in 2010 more than 1.4 million Ukrainian citizens would be infected with HIV and more than 95.000 people would have died from AIDS (3).

This study gives an overview of the HIV/AIDS surveillance in the Ukraine and describes the propagation of the epidemic with particular reference to the situation among women, and then looks at the AIDS illness itself and the most important ways of transmission, from 1995 to 2005.

# **MATERIAL AND METHODS**

Since 1987, the number of HIV infections has been recorded by the Ukrainian Health Ministry. HIV tests are offered free of charge. Positive test results are checked first through a further ELISA test and in special cases, e.g., inconsistent results, an additional Western Blot test is carried out. The results are sent with name and date of birth to the appropriate local center for AIDS prevention, and afterwards to the central registration office, the Ukrainian Center for AIDS Prevention in Kiev.

Official surveillance data only provides information about people who have been tested and diagnosed with HIV or AIDS, and not those who remain untested and thus undiagnosed. A large number of people in the Ukraine are unaware that they are infected with HIV. Recent epidemiological research using sentinel surveillance indicates that the prevalence of HIV among those at the highest risk in the population is significantly higher in specific cities in the Ukraine than indicated by the official system of routine epidemiological surveillance, underscoring the importance of the need to extend sentinel surveillance as a key tool in monitoring the spread of HIV in the Ukraine (4).

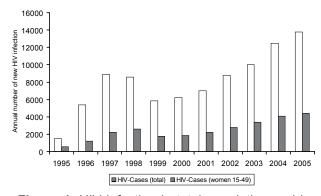
HIV-positive tested people are first registered by seroepidemiological monitoring. The official database of the Ukrainian Health Ministry only records the HIV-positive tested people who undergo an additional clinical investigation. This investigation includes a confirmation test, and further medical treatment is discussed and social-psychological assistance is offered. The following description of the propagation of HIV/AIDS in the Ukraine makes reference to the register data which were made available by the Ukrainian Center for AIDS Prevention, unless otherwise stated.

#### **RESULTS**

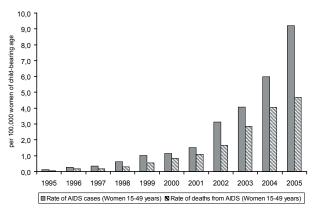
#### **HIV-Infection**

The first HIV infections in the Ukraine were registered in 1987. By the end of 1987, six Ukrainian citizens (including 5 women) were registered as HIV-positive. Until 1994, the number of newlyinfected Ukrainian citizens fluctuated yearly between six and forty people. In 1995, there was an explosive increase in the number of new HIV infections, with a total of 1,490 registered cases. Since then, the number of people tested as HIV-positive has risen rapidly. In 2005, 13,770 new infections were registered (8044 men and 5726 women). The analysis of HIV infection with particular reference to the situation among women of childbearing age from 1995 to 2005 is of particular significance. The term 'child-bearing age' refers to women aged 15 to 49, according to the definition of the WHO. The number of newly registered HIV infections among women rose from 551 in 1995 to 4,428 in 2005 (Fig. 1).

The number of newly registered HIV infections has increased among women of the 20-29 age group from ten in 1995 to sixty per 100,000 of the respective age group. The percentage of new



**Figure 1.** HIV infection in total population and in women of child-bearing age in the Ukraine 1995-2005.



**Figure 2.** Yearly number of AIDS cases and deaths from AIDS in women of child-bearing age in the Ukraine 1995-2005.

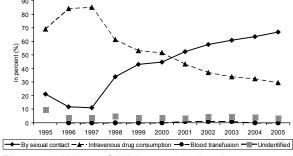
cases of HIV among teenagers and young women (15 to 19 years old) has decreased from 10.2% in 2001 to 6.9% in 2005.

#### **AIDS**

A considerable increase in the number of registered AIDS cases can be seen since 1995. The number of newly registered AIDS cases rose from 45 in 1995 to 4,217 in 2005. There was a comparable increase in the number of registered AIDS deaths too. In 1995, 20 deaths from AIDS were registered, in 2005 there were 2,188 cases. Between 1995 and 2005, there was a considerable increase in the number of AIDS cases and deaths from AIDS in women of child-bearing age too (Fig. 2).

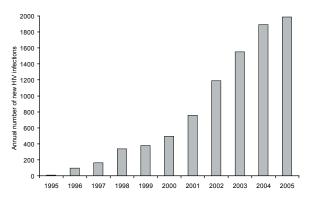
# Ways of transmission

From 1995 on, the most significant way of HIV transmission among women of child-bearing age was by intravenous drug use, followed by heterosexual contact. After 2001, however, this ratio has changed and transmission by heterosexual contact has exceeded the level of transmission by intravenous drug use. In 2005, the most common route of HIV transmission among women was also by heterosexual contact (Fig. 3).



**Figure 3.** Ways of HIV transmission in women of child-bearing age in the Ukraine 1995-2005.

The negative influence of the HIV epidemic on the reproductive potential of the Ukraine can be verified with the help of statistics recording the number of pregnant women infected with HIV: in 1997, 163 pregnant women were infected with HIV, whereas in 2005 their number rose to 1,989 (Fig. 4).



**Figure 4.** HIV infection in pregnant women in the Ukraine 1995-2005.

The proportion of HIV-infected pregnant women in the total number of HIV-infected women of child-bearing age increased yearly from 1.5% in 1995 to 44.9% in 2005. The number of HIV infected children depends decisively on whether the pregnant women observe the legally prescribed precautionary check-ups, and whether in case of an HIV infection, therapeutic measures are introduced on time. While a total of nine children whose mothers were HIV positive were registered with HIV in 1995, there were as many as 2,504 cases in 2005. The rate of this vertical transference was able to be reduced through a prevention program in collaboration with the WHO from 30% to 10% between 2000 and 2002 (5).

#### CONCLUSIONS

HIV posed no significant problem in the Ukraine before 1995. Since 1995, there has been a considerable increase in the number of registered cases, especially among women. The development of an HIV epidemic among women of child-bearing age is more pronounced than in the general population or in the adult male population. The level of HIV infection among women involved in commercial sex is high. Intravenous drug use increases the risk of HIV infection among women involved in commercial sex 4-fold (6).

The reasons for the increasing number of women infected with HIV in the Ukraine are above all that women do not have the same access to work and income as men; and women and girls do not have the knowledge or opportunities to make sure that they are protected, or to demand protection from their sexual partners. Unprotected sexual intercourse is statistically twice as dangerous for women as for men. The female body is biologically more susceptible to the HI virus. The differences between male and female reproductive systems have always been an important consideration in the implementation of antiretroviral therapy, prevention measures, etc. If health services are to meet the needs of both women and men, then gender differences need to be taken seriously in the planning and delivery of HIV/AIDS prevention projects. Socially constructed gender differences are also important in determining whether individuals can fight against HIV to the best of their ability (7). At the 16th International AIDS Conference in Toronto, experts complained about the many political leadership changes in the Ukraine in recent years, which have prevented a recognizable continuity in the battle against HIV (8). Necessary processes and strategies in the battle against HIV can only be carried out when politicians who are capable of real democracy and frankness are in government. There is a shortage of social workers, doctors, knowledge, prophylaxis and medicines. The cost of antiretroviral therapy is unaffordable. There are no funds for preventive measures and access to high-quality health provision has got worse on the whole. Privacy legislation still needs to be developed.

Unless effective preventive measures are taken, and unless there is more investment in development projects, an HIV/AIDS epidemic could become a danger not only in the Ukraine, but also in the neighboring European countries. The promotion of gender equality as well as investment in the education of girls and women should be improved to effectively prevent AIDS.

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