CHAPTER 10

KNOWLEDGE OF HIV/AIDS TRANSMISSION AND PREVENTION

Until recently, countries in Eastern Europe, the Caucasus, and Central Asia had not experienced the epidemic levels of HIV/AIDS found in other parts of the world. This situation is now changing dramatically. In 1998 there were an estimated 420,000 people infected with HIV in the region; by the end of 2001 this number had increased to one million. Between 1998 and 2001, the number of newly registered cases increased five-fold (UNICEF Press Release, 2002). Now it appears that HIV infection rates in Eastern Europe are rising faster than anywhere else in the world.

HIV infections in many countries of this region have been mainly confined to intravenous drug users (IDUs), and the main transmission route of the virus was sharing contaminated needles. In fact, most of the quarter of a million adults who became infected in 2001 were men who were injecting drugs. However, the types of people being infected by HIV and main transmission routes are quickly changing. Young people account for most new infections. The rising proportion of women (who are less likely to be intravenous drug users) infected with the virus suggests that the number of HIV infections spread by sexual contact is increasing. The increased infection rates of HIV among new subgroups is fueled by the growth of drug injections, increased sexual activity among young people, and the growing number of commercial sex workers (CSWs). From these subgroups, HIV is very likely to move into the general population. A UNICEF report warns that "HIV/AIDS is the greatest threat to [their] health as it moves -virtually unchecked- into the mainstream population in a number of countries." (UNICEF, 2002) (Kaiser Network, 2001).

Currently Ukraine has the highest HIV prevalence in the region, with 1% of adults affected; moreover, all parts of the country have been affected (Kaiser Network, 2001). Most regions in Russia have been affected, and the Central Asian countries are experiencing their first outbreaks. It is estimated that in three or four years, a country such as Russia could have a generalized HIV/AIDS epidemic (www.avert.org). As the disease continues to spread to unaffected parts of the region and becomes less confined to specific groups such as IDUs and CSWs, it is important to examine the population's knowledge of the disease, how it is transmitted, what they can do to prevent it, and their self-perceived risk of infection.

This chapter will explore these issues using data available from the Eastern European countries of the Czech Republic, Moldova, Romania, three areas of Russia, and Ukraine; Caucasus countries of Armenia, Azerbaijan, and Georgia; and Central Asian countries of Kazakhstan and Turkmenistan.

10.1 Knowledge of HIV/AIDS

Respondents were asked if they had ever heard of a number of specific sexually transmitted infections (STIs) and of HIV/AIDS (Table 10.1.1). Knowledge of STIs was calculated by having heard of at least one STI, not including HIV/AIDS. Knowledge of HIV/AIDS was calculated separately. Awareness of other STIs ranged from almost all women in Moldova (99%) to slightly more than half of all women (58%) in Armenia. The STIs most commonly cited were gonorrhea, syphilis, and trichomoniasis. Respondents demonstrate greater knowledge about HIV/AIDS than about other STIs. Knowledge of other STIs in Armenia is comparatively low (as mentioned earlier), yet 94% of all women in Armenia have heard of HIV/AIDS. With the exception of Turkmenistan, knowledge of other STIs is greater in urban areas, which suggests an increased need to promote awareness in rural areas. This urban/rural discrepancy is most pronounced in the Caucasus countries of Armenia and Azerbaijan. In all countries, with the exception of Turkmenistan, knowledge of HIV/AIDS is higher than knowledge of all other STIs. This is probably due to concentrated and, perhaps, more recent efforts to promote HIV/AIDS awareness compared to other STIs. However given the scientific evidence that some STIs increase risks of HIV/AIDS transmission, it is important to incorporate STI awareness into HIV/AIDS education initiatives (Renton, et al 1998). Since many countries of the former Soviet Union have experienced epidemics of STIs, particularly syphilis, which has increased 45–165 times during 1990–1998, education about STIs in general is urgently needed (Riedner G et al., 2000).

A similar analysis for men, using data available for Romania, Armenia, and Kazakhstan, is illustrated in Table 10.1.2. HIV/AIDS knowledge is greater than knowledge of at least one STI in all countries, however Armenia has a more pronounced difference in knowledge of STI and HIV/AIDS (85% versus 97%) which would also suggest the need to promote STI awareness with HIV/AIDS awareness among men. Urban men demonstrate a higher level of HIV/AIDS knowledge than do rural men, but the differences are not statistically significant.

Women who had heard of HIV/AIDS were asked whether they believed that a person could be infected with the HIV virus and be asymptomatic (or not show any clinical symptoms of disease). The knowledge that HIV/AIDS can be asymptomatic is an indication of women's knowledge of HIV/AIDS rather than simple awareness of the disease.

Table 10.1.1
Percent of Women Aware of STIs and HIV/AIDS
and Percent Who Know that HIV Infections Can be Asymptomatic, by Residence
Among Women of Reproductive Age*
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Have Heard of STIs† (%)	Have Heard of HIV/AIDS (%)	Know HIV Can be Asymptomatic‡ (%)	No. of Cases
Eastern Europe				
Czech Rep., 1993				
Urban	§	100	74	3,025
Rural	§	100	66	1,472
Total	§	100	72	4,497
Moldova, 1997				
Urban	100	100	85	2,828
Rural	98	99	72	2,584
Total	99	99	79	5,412
Romania, 1999				
Urban	99	100	72	3,914
Rural	91	99	57	2,974
Total	96	100	66	6,888
Russia, 1999‖	100	§	59	6,004
Ukraine, 1999	§	§	67	7,128
Urban	§	§	70	5,544
Rural	§	§	61	1,584
Total	100	§	59	6,004
Caucasus				
Armenia, 2000				
Urban	67	97	59	3,942
Rural	45	91	50	2,488
Total	58	94	56	6,430
Azerbaijan, 2001				
Urban	76	85	26	3,832
Rural	54	61	13	3,836
Total	66	74	21	7,668
Georgia, 1999				
Urban	95	99	62	4,759
Rural	82	87	39	3,039
Total	89	93	52	7,798
Central Asia				
Kazakhstan, 1999				
Urban	90	99	73	2,668
Rural	74	96	62	2,132
Total	82	98	68	4,800
Turkmenistan, 2000				
Urban	85	80	58	3,691
Rural	87	67	43	4,228
Total	86	73	50	7,919

* Considered to be 15–44 years in RHS and 15–49 years in DHS surveys.
† Have heard of at least one STI, other than HIV/AIDS.
‡ This was asked only of women who had heard of HIV/AIDS, but all women are included in the denominator.
§ Question was not asked.
‖ Data for Russia pertain to three primarily urban areas as described in Chapter 2.

10.1.2
Percent of Women Aware of STIs and HIV/AIDS and Percent Who Know that HIV Infections Can be Asymptomatic, by Residence Among Men of Reproductive Age*
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Have Heard of STIs† (%)	Have Heard of HIV/AIDS (%)	Know HIV Can be Asymptomatic‡ (%)	No. of Cases
Eastern Europe				
Romania, 1999				
Urban	99	100	76	1,342
Rural	97	99	65	1,092
Total	98	100	72	2,434
Caucasus				
Armenia, 2000				
Urban	91	99	66	1,024
Rural	75	94	46	695
Total	85	97	58	1,719
Central Asia				
Kazakhstan, 1999				
Urban	95	100	71	787
Rural	92	98	61	635
Total	93	99	67	1,422

* Considered to be 15–49 years in RHS and 15–59 years in DHS surveys.
† Have heard of at least one STI, other than HIV/AIDS.
‡ This was asked only of men who had heard of HIV/AIDS, but all men are included in the denominator.

Women who do not know that a healthy-looking person may be infected with HIV are less likely to recognize their risk of infection from apparently healthy sexual partners. The proportion of women with this knowledge was calculated for all women, not only those who had heard of HIV/AIDS. As shown in Table 10.1.1, almost 80% of all women in Moldova know that a person can be asymptomatic and have HIV. In other countries in the region, between 50% and 67% of women knew this, except in Azerbaijan, where only 21% did. With the exception of Ukraine and Armenia, there are wide gaps between urban and rural women in the knowledge that HIV can be asymptomatic.

Men also demonstrate less knowledge that a person can be infected with HIV and look healthy than they do of HIV in general, in the countries with available data. This knowledge among men is also characterized by urban and rural differentials.

10.2 Knowledge of HIV/AIDS Transmission

Respondents were asked whether they agree or disagree with specific statements on how HIV/AIDS is transmitted. Some of the statements were true, while others represented misconceptions about means of transmission. Table 10.2.1 shows the percentage of women who do not know the listed proven means of HIV transmission. If a woman responded "no" or "do not know" to a statement, her response was categorized as lack of knowledge. Lack of knowledge was calculated for all women, not only those who have heard of HIV/AIDS. Therefore, it is not surprising that lack of knowledge of proven transmission routes was highest in Azerbaijan, where levels of knowledge of HIV are lower, and lowest in Moldova and Romania, and that there are similar urban-rural differentials in knowledge as in the first table.

Table 10.2.1
Percent of Women Who Do Not Know About Selected Means of HIV Transmission, by Residence
Among Women of Reproductive Age*
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Means of Transmission (%)							No. of Cases
	Homosexual Intercourse	Non-Sterile Needles	Blood Transfusions	Heterosexual Intercourse	MTCT† In Utero	MTCT† Delivery	MTCT† Breast-feeding	
Eastern Europe								
Czech Rep., 1993								
Urban	3	2	11	5	‡	‡	‡	3,025
Rural	7	3	11	9	‡	‡	‡	1,472
Total	4	2	11	6	‡	‡	‡	4,497
Moldova, 1997								
Urban	4	2	1	1	‡	‡	‡	2,828
Rural	13	4	5	2	‡	‡	‡	2,584
Total	8	3	3	1	‡	‡	‡	5,412
Romania, 1999								
Urban	18	2	4	2	7	‡	‡	3,914
Rural	41	9	13	6	13	‡	‡	2,974
Total	27	5	7	3	9	‡	‡	6,888
Caucasus								
Armenia, 2000								
Urban	§	§	§	§	24	31	38	3,942
Rural	§	§	§	§	34	41	41	2,488
Total	§	§	§	§	28	35	39	6,430
Azerbaijan, 2001								
Urban	45	24	33	30	32§	‖	41	3,832
Rural	74	52	63	60	56§	‖	58	3,836
Total	58	37	46	44	43§	‖	48	7,668
Georgia, 1999								
Urban	7	6	7	3	11§	‖	27	4,759
Rural	25	24	26	18	29§	‖	36	3,039
Total	15	14	15	10	19§	‖	31	7,798
Central Asia								
Kazakhstan, 1999								
Urban	§	§	§	§	17	24	45	2,668
Rural	§	§	§	§	23	29	43	2,132
Total	§	§	§	§	20	26	44	4,800
Turkmenistan, 2000								
Urban	§	§	§	§	68	64	62	3,691
Rural	§	§	§	§	55	52	53	4,228
Total	§	§	§	§	61	58	57	7,919

* Considered to be 15–44 years in RHS and 15–49 years in DHS surveys.
† Mother-to-child-transmission.
‡ Question was not asked.
§ In Georgia and Azerbaijan, "MTCT In Utero" refers to pregnancy and delivery.
‖ Included in MTCT in Utero.

Women in Azerbaijan were the least informed about HIV transmission through homosexual intercourse (58% had no knowledge), compared to other transmission routes. Transmission through homosexual intercourse was also the least known route in Moldova and Romania. In fact, in these countries many women in rural areas did not know the meaning of the word "homosexual" or could not conceptualize that men could have sex with other men. Among all mother-to-child transmission (MTCT) routes, transmission from mother to baby by breastfeeding was the least known route in Azerbaijan, Armenia, and Georgia (48%, 39% and 31% respectively). Perhaps because of the more widely-known HIV prevalence among intravenous drug users in the Eastern European region, HIV transmission via non-sterile needles was commonly known, compared to other routes, across all countries except Azerbaijan. Transmission by heterosexual intercourse was also well known, except in Azerbaijan. This suggests that health education must increase efforts to improve knowledge of the various ways HIV/AIDS is transmitted.

Table 10.2.2 shows the percentage of women who have misconceptions about HIV/AIDS transmission. Across all countries in which questions were asked, the most widespread misconception was that HIV is contracted by donating blood. The relatively high knowledge that HIV/AIDS is transmitted by non-sterile needles may erroneously lead people to believe that the routine use of needles in blood donation poses a risk of HIV infection. The lack of trust in the healthcare system in many Eastern European countries compounds the issue. For these reasons, efforts should be made to provide accurate information and address misconceptions about HIV transmission and improve trust in the healthcare system. The belief that mosquitoes are vectors for HIV follows as the most commonly held misconception in half the countries. Moldova has particularly high rates of misconceptions about how HIV is spread, with over 40% of surveyed women believing in 5 of the 6 incorrect routes, even in urban areas.

10.3 Knowledge of HIV/AIDS Prevention

Surveys in Moldova, Romania, Azerbaijan, and Georgia used a two-part question to ascertain women's knowledge of HIV/AIDS prevention. Respondents were asked "What can a person do to reduce HIV infection?" Responses of individuals who spontaneously mentioned a prevention method were categorized as "spontaneous-yes". Respondents were then probed about specific prevention methods that they did not spontaneously mention. These responses were categorized as "probed-yes". The responses to this question are illustrated in Table 10.3.1.

In Moldova, use of condoms (48%), monogamy (60%) and limiting the number of sexual partners (48%) were spontaneously mentioned as prevention methods. However, after probing, another 84% and 76% of Moldovan women, respectively, said that asking a partner to get tested and using sterile needles are prevention methods. Fifty-two percent of women in Romania spontaneously mentioned condom use, while less than one-quarter of women spontaneously mentioned the remainder of prevention methods. In Azerbaijan, where a quarter of women have never even heard of HIV/AIDS, "monogamy" was the most commonly spontaneously mentioned prevention method, but was mentioned by only 14%. However, over 50% mentioned three other methods when probed. In Georgia, the most commonly spontaneously mentioned means of prevention were "monogamy" and "use condoms" (26% and

Table 10.2.2
Percent of Women with Selected Misconceptions about HIV/AIDS Transmission, by Residence
Among Women of Reproductive Age*
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Misconceptions about Transmission (%)						No. of cases
	Shaking Hands	Sharing Objects	Using Public Restrooms	Kissing	Mosquito Bites	Donating Blood	
Eastern Europe							
Czech Rep., 1993							
Urban	3	20	15	29	19	44	3,025
Rural	3	24	14	25	19	50	1,472
Total	3	21	14	28	19	46	4,497
Moldova, 1997							
Urban	14	41	36	46	47	97	2,828
Rural	22	50	48	54	54	94	2,584
Total	18	45	42	50	50	95	5,412
Romania, 1999							
Urban	5	19	26	25	32	78	3,914
Rural	12	32	37	35	34	74	2,974
Total	7	24	30	29	33	76	6,888
Caucasus							
Armenia, 2000							
Urban	†	20	†	†	32	†	3,942
Rural	†	20	†	†	24	†	2,488
Total	†	20	†	†	29	†	6,430
Azerbaijan, 2001							
Urban	20	44	33	47	41	†	3,832
Rural	19	37	24	35	32	†	3,836
Total	20	41	29	42	37	†	7,668
Georgia, 1999							
Urban	6	35	24	33	47	75	4,759
Rural	12	43	29	37	42	60	3,039
Total	9	39	26	34	45	68	7,798
Central Asia							
Kazakhstan, 1999							
Urban	†	30	†	†	23	†	2,668
Rural	†	33	†	†	24	†	2,132
Total	†	32	†	†	23	†	4,800
Turkmenistan, 2000							
Urban	†	26	†	†	25	†	3,691
Rural	†	25	†	†	20	†	4,228
Total	†	25	†	†	22	†	7,919

* Considered to be 15–44 years in RHS and 15–49 years in DHS surveys.
† Question was not asked.

Table 10.3.1
Percent of Women Who Mentioned Possible Means of Preventing HIV/AIDS Transmission Spontaneously and After Probing, Among Women Aged 15-44
(Percent Distribution)
Eastern Europe and Eurasia: A Comparative Report

Means of Prevention	Mentioned		Did Not Mention	Never Heard of HIV	Total
	Spontaneously	Probed			
Eastern Europe					
Moldova, 1997					
Use condoms	48	45	5	1	100
Avoid Injections	8	68	23	1	100
Monogamy	60	38	2	1	100
Ask Partner to be Tested	6	84	9	1	100
Limit Number of Sexual Partners	48	51	1	1	100
Sterilize Needles	22	76	1	1	100
Romania, 1999					
Use condoms	52	38	9	1	100
Avoid Injections	3	61	36	1	100
Monogamy	20	67	13	1	100
Ask Partner to be Tested	5	80	15	1	100
Limit Number of Sexual Partners	24	70	5	1	100
Sterilize Needles	22	71	6	1	100
Caucasus					
Azerbaijan, 2001					
Use condoms	8	32	34	26	100
Avoid Injections	2	36	36	26	100
Monogamy	14	53	7	26	100
Ask Partner to be Tested	2	57	15	26	100
Limit Number of Sexual Partners	6	58	9	26	100
Sterilize Needles	9	57	8	26	100
Georgia, 1999					
Use condoms	23	53	18	7	100
Avoid Injections	7	76	10	7	100
Monogamy	26	63	5	7	100
Ask Partner to be Tested	4	76	13	7	100
Limit Number of Sexual Partners	21	67	5	7	100
Sterilize Needles	3	75	16	7	100

23% respectively). After probing, another 53% and 63% mentioned these methods. In the countries surveyed, the failure to mention "avoid injections," even after probing, ranged from 10% to 36%. Since knowledge of HIV/AIDS transmission by using non-sterile needles is relatively high, it is possible that women did not perceive risk of infection from all needle injections.

Table 10.3.2 compares only spontaneously mentioned prevention methods by residence in seven countries In addition to the countries in Table 10.3.1 this table includes Armenia, Kazakhstan, and Turkmenistan based on spontaneous responses to a question on ways to prevent HIV/AIDS. In Moldova, Romania, Armenia, Azerbaijan, and Georgia, knowledge of the use of condoms as a prevention method has the largest difference between urban and rural areas. This can be attributed to differences in gender norms and marital status in urban and rural areas and hence, the likelihood of sexually experienced women in these two areas using condoms with their sexual

Table 10.3.2
Percent of Women Who Spontaneously Mentioned Possible Means of Preventing HIV/AIDS Transmission, by Residence Among Women of Reproductive Age*
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Means of Preventing Transmission (%)						No. of cases
	Avoiding Casual Sex Partners	Being Monogamous	Using a Condom	Avoiding Injections	Avoiding Sex with Prostitutes	Avoiding Bisexual Relations	
Eastern Europe							
Moldova, 1997							
Urban	49	58	59	8	22	3	2,828
Rural	47	61	37	7	23	2	2,584
Total	48	60	48	8	23	2	5,412
Romania, 1999							
Urban	26	20	62	3	8	2	3,914
Rural	22	19	36	3	6	1	2,974
Total	24	20	52	3	7	1	6,888
Caucasus							
Armenia, 2000							
Urban	8†	27	37	5	6	1‡	3,942
Rural	6†	16	12	2	4	§‡	2,488
Total	7†	23	27	3	5	1‡	6,430
Azerbaijan, 2001							
Urban	9	18	13	2	13	2	3,832
Rural	3	9	2	1	6	§	3,836
Total	6	14	8	2	10	1	7,668
Georgia, 1999							
Urban	24	27	31	9	23	3	4,759
Rural	17	23	13	5	20	2	3,039
Total	21	26	23	7	22	3	7,798
Central Asia							
Kazakhstan, 1999							
Urban	15†	52	43	18	5	3‡	2,668
Rural	9†	44	27	11	3	1‡	2,132
Total	12†	48	36	15	4	2‡	4,800
Turkmenistan, 2000							
Urban	11†	26	25	13	27	1‡	3,691
Rural	7†	18	8	7	18	§‡	4,228
Total	9†	22	16	10	22	1‡	7,919

* Considered to be 15–44 years in RHS and 15–49 years in DHS surveys.
† In Armenia, Kazakhstan and Turkmenistan "avoiding casual sexual partners" is equated with "limiting number of sexual partners."
‡ In Armenia, Kazakhstan and Turkmenistan "avoiding bisexual relations" is equated with "avoiding sex with homosexuals."
§ Less than 0.5%.

partners. For all other prevention methods, urban and rural women in Eastern European countries demonstrate similar patterns. However, women in the Caucasus vary substantially by residence on several prevention methods. This suggests again the need for concentrated efforts to improve HIV/AIDS education in the rural areas of these countries.

Table 10.3.3 illustrates the percentage of men who spontaneously mentioned means of preventing HIV/AIDS transmission for the three countries with data for males of reproductive age. Among men, use of condoms is the most commonly mentioned means of preventing HIV/AIDS, although knowledge never exceeded 69%.

Table 10.3.4 shows the percentage of women who did not know any effective means of preventing HIV/AIDS after probing, by residence. This was calculated as women who said "no" or "don't know" after probing, or had never heard of HIV/AIDS. In several countries, avoiding injections was not well known as a means of prevention. Most methods, including abstinence, were not well known in Azerbaijan. In Georgia, using a condom was the least known method of prevention. Again, lack of knowledge was greater in rural areas than urban areas in most countries.

Table 10.3.3
Percent of Women Who Spontaneously Mentioned Possible Means of Preventing HIV/AIDS Transmission , by Residence
Among Men of Reproductive Age*
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Means of Preventing Transmission (%)						No. of cases
	Avoiding Casual Sex Partners	Being Monogamous	Using a Condom	Avoiding Injections	Avoiding Sex with Prostitutes	Avoiding Bisexual Relations	
Eastern Europe							
Romania, 1999							
Urban	22	19	71	6	17	2	1,342
Rural	21	16	51	4	14	2	1,092
Total	22	18	63	5	16	2	2,434
Caucasus							
Armenia, 2000							
Urban	16†	29	60	3	35	2‡	1,024
Rural	8†	22	42	2	24	1‡	695
Total	13†	26	53	2	31	2‡	1,719
Central Asia							
Kazakhstan, 1999							
Urban	14†	43	76	26	26	3‡	790
Rural	15†	46	61	29	30	1‡	650
Total	15†	44	69	27	28	3‡	1,440

* Considered to be 15–49 years in RHS and 15–59 years in DHS surveys.
† In Armenia and Kazakhstan "avoiding casual sexual partners" is equated with "limiting number of sexual partners."
‡ In Armenia and Kazakhstan, "avoiding bisexual relations" is equated with "avoiding sex with homosexuals."
§ Less than 0.5%.

Table 10.3.4
Percent of Women Who Lack Knowledge of Possible Means of Preventing HIV/AIDS Transmission After Probing*, by Residence
Among Women of Reproductive Age†
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Possible Means of Preventing HIV/AIDS Transmission (%)								No. of cases
	Avoiding Casual Sex Partners	Being Monogamous	Using a Condom	Avoiding Injections	Avoiding Sex with Prostitutes	Avoiding Bisexual Relations	Total abstinence	Avoid sex with partner with other partners	
Eastern Europe									
Moldova, 1997									
Urban	1	3	3	23	2	7	‡	‡	2,828
Rural	2	3	10	26	2	15	‡	‡	2,584
Total	2	3	6	25	2	11	‡	‡	5,412
Romania, 1999									
Urban	4	14	5	38	5	12	‡	‡	3,914
Rural	9	13	18	35	11	25	‡	‡	2,974
Total	6	14	10	37	7	17	‡	‡	6,888
Caucasus									
Azerbaijan, 2001									
Urban	22	21	47	54	20	43	58	20	3,832
Rural	51	48	75	72	48	72	74	49	3,836
Total	35	33	60	62	32	56	65	34	7,668
Georgia, 1999									
Urban	5	5	14	10	5	13	‡	‡	4,759
Rural	21	20	37	26	20	35	‡	‡	3,039
Total	12	12	24	17	12	23	‡	‡	7,798

* Numerator includes those who responded “no” and “do not know” and those who have never heard of HIV/AIDS.
† Considered to be 15–44 years in RHS and 15–49 years in DHS surveys.
‡ Question was not asked.

10.4 Self-Perceived Risk of HIV/AIDS

Respondents were asked about their perceived risk of contracting HIV/AIDS. This was calculated for all women whether they have heard of HIV/AIDS or not, and the results are presented in Table 10.4.1. The majority of respondents in the Czech Republic believe they have no risk of contracting HIV/AIDS (83%). This proportion is followed by 66% in Moldova, 61% in Azerbaijan, 60% in Georgia, and 57% in Romania. However, it is noteworthy that the Czech survey was conducted in 1993, which was earlier than other surveys conducted in the late 1990s. Among women who perceive themselves to have high, some, or low risk, urban women have higher perceived risk than rural women in each category in most countries.

In surveys in Romania, Azerbaijan, and Georgia, women who responded that they felt they were either at high risk, some risk, or low risk of HIV infection were asked their reasons why they were at risk (Table 10.4.2). A large of proportion of responses related to the utilization of health services. In Romania, Azerbaijan, and Georgia, the utilization of health services, which includes medical/surgical or dental treatment, was most women's reason for their HIV risk (69%, 47%

Table 10.4.1
Self-Perceived Risk of Contracting HIV/AIDS by Residence
Among Women of Reproductive Age†
(Percent Distribution)
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Self-Perceived Risk of Contracting HIV/AIDS (%)							No. of Cases
	High Risk	Some Risk	Low Risk	No Risk	Do Not Know	Have Not Heard of HIV/AIDS	Total	
Eastern Europe								
Czech Rep., 1993								
Urban	4	†	6	83	8	‡	100	3,025
Rural	2	†	4	85	9	‡	100	1,472
Total	3	†	5	83	8	‡	100	4,497
Moldova, 1997								
Urban	6	†	30	59	5	1	100	2,828
Rural	5	†	15	74	5	1	100	2,584
Total	5	†	23	66	5	1	100	5,412
Romania, 1999								
Urban	4	9	28	55	5	‡	100	3,914
Rural	6	6	17	61	10	1	100	2,974
Total	4	8	24	57	7	1	100	6,888
Caucasus								
Azerbaijan, 2001								
Urban	1	2	5	73	6	15	100	3,832
Rural	0	1	2	46	12	39	100	3,836
Total	0	1	4	61	8	26	100	7,668
Georgia, 1999								
Urban	1	4	33	58	3	2	100	4,759
Rural	1	2	18	62	5	13	100	3,039
Total	1	3	26	60	4	7	100	7,798

* Considered to be 15–44 years in RHS and 15–49 years in DHS surveys.
† Question was not asked.
‡ Less than 0.5%.

and 88%, respectively). In Romania and Azerbaijan, another 14% and 21% of women, respectively, did not trust their partner's sexual behaviors and felt that posed a risk of HIV infection. However, less than 5% of women in all the countries presented felt that they were at risk of infection due to unsafe sexual practices (5% in Romania, 1% in Azerbaijan and less than 1% in Georgia). Of the substantial proportion of women in Azerbaijan who stated other reasons (23%), about half of respondents were afraid of contracting HIV by receiving manicures or pedicures (data not shown), which suggests a persistent belief that HIV is transmitted by the use of shared, sharp objects. The remainder of women who stated other reasons were afraid of contracting HIV by breathing it in the air or by poor hygiene.

Women who believed they had no risk of HIV infection were asked why they were not at any risk (Table 10.4.3). Fifty-three percent of women in Romania believe they have no risk because they have "one partner who is also faithful." In Azerbaijan and Georgia, the most common reason women felt they were not at risk is that they have "a trustworthy partner" (40% and 46%). Belief that the risk of HIV can be eliminated by using condoms ranges from 2% in Romania to less than 1% in Azerbaijan and Georgia. The two responses, "trustworthy partner" and "only one faithful partner," suggest that women are relying on their partner's behaviors to protect them from HIV and this should be addressed in HIV/AIDS education to both married and unmarried women.

Table 10.4.2
Opinions about the Risk Factors of Contracting HIV/AIDS by Residence Among Women of Reproductive Age* Who Have Heard of HIV/AIDS and Believed That They Had a Risk of Contracting HIV/AIDS
(Percent Distribution)
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Factor Believed to Be Source of Risk (%)						Total	No of Cases
	Utilization of Health Services	Distrust in Partner	Blood Transfusions	Unsafe Sex†	Other	Do Not know		
Eastern Europe								
Romania, 1999								
Urban	72	12	3	5	4	4	100	1,590
Rural	61	17	2	4	7	9	100	880
Total	69	13	3	5	5	5	100	2,470
Caucasus								
Azerbaijan, 2001								
Urban	51	19	1	2	24	4	100	240
Rural	38	28	3	0	23	9	100	120
Total	47	21	2	1	23	6	100	360
Georgia, 1999								
Urban	89	3	3	‡	4	1	100	1,737
Rural	87	5	5	1	1	2	100	627
Total	88	4	3	‡	3	1	100	2,364

* Considered to be 15–44 years in RHS and 15–49 years in DHS surveys.
† Includes "many sexual partners", "trade sex for money" and "unprotected intercourse with partner."
‡ Less than 0.5%.

Table 10.4.3
Opinions about Factors that Protect from the Risk of Contracting HIV/AIDS by Residence Among Women of Reproductive Age* Who Have Heard of HIV/AIDS and Believed They Had No Risk of Contracting HIV/AIDS (Percent Distribution)
Eastern Europe and Eurasia: A Comparative Report

Region and Country	Factor Believed to Protect Against Risk (%)							
	Trustworthy Partner	Sexual Abstinence	Only One Faithful Partner	Use Condoms	Other	Do Not Know	Total	No. of Cases
Eastern Europe								
Romania, 1999								
Urban	17	24	52	2	1	3	100	2,121
Rural	13	27	53	1	1	4	100	1,768
Total	16	25	53	2	1	3	100	3,889
Caucasus								
Azerbaijan, 2001								
Urban	41	38	18	†	†	3	100	2,782
Rural	39	33	23	†	†	4	100	1,876
Total	40	36	20	†	†	3	100	4,658
Georgia, 1999								
Urban	43	42	12	†	1	2	100	2,836
Rural	49	31	15	†	†	5	100	1,938
Total	46	37	13	†	1	3	100	4,776

* Considered to be 15–44 years in RHS and 15–49 years in DHS surveys.
† Less than 0.5%.

Although these countries vary significantly with respect to sexual behaviors, particularly with regard to age of sexual debut and the premarital/marital sexual experience (see chapter 14, Sexual and Contraceptive Behavior of Young Adults), it is still vital that HIV/AIDS education be promoted to all subgroups in all countries of the Eastern European, Caucasus, and Central Asian regions (Svenson, 1998). This is increasingly important as HIV/AIDS spreads beyond the intravenous drug user population to the heterosexual population in these areas.

10.5 Summary of Findings

Eastern Europe and the Former Soviet Union are among the last regions of the world to be challenged by the worldwide HIV/AIDS epidemic. For this chapter, we summarize findings from these unique population-based household surveys dealing with reproductive health that included this topic, including awareness and knowledge of the infection, knowledge of HIV/AIDS transmission and prevention and self-perceived risk of the disease:

- With the exception of Armenia (58%) and Azerbaijan (66%), at least 86% of women of reproductive age have heard of at least one sexually transmitted infection, other than HIV/AIDS. Awareness of AIDS was at least 93% in 6 of the 8 countries with data.

- Only 21% (Azerbaijan) to 79% (Moldova) of women know that HIV/AIDS can be asymptomatic.

- In the three countries with male samples, almost all men say that they have heard of AIDS but, like their female counterparts, knowledge that a person with HIV/AIDS

can be well and not be sick is significantly lower; only 72% in Romania, 58% in Armenia and 67% in Kazakhstan.

- A significant minority, and sometimes a majority, of women lack knowledge of specific means of HIV transmission in 6 of the 8 countries with data, with generally important differences between urban and rural residents. Lack of knowledge is particularly high in Azerbaijan and Turkmenistan.

- The data also reveal that a significant portion of women have misconceptions about HIV/AIDS transmission, especially thinking that they can contract HIV by donating blood.

- About half of women in Moldova and Romania spontaneously mention using a condom as a means of preventing transmission. However, this same percentage is 36% or less in the other five countries with data. From 53% to 69% of men mention using a condom to prevent HIV/AIDS.

- Most women (from 57% to 83%) say they have no risk of getting HIV/AIDS. Most of the women who say they have no risk say they have a trustworthy partner or only one faithful partner (from 59% to 69%).The majority of women who say that they have some risk of contracting HIV/AIDS say that the utilization of health services (the use of non-sterile needles) is their biggest risk.