

**Epidemiological and clinical features of HIV
infection in the Clinic for Infectious
Diseases - Clinical Centre of the University
in Sarajevo**

Vesna Hadžiosmanović

Clinical Centre of the University in Sarajevo

HIV/AIDS in Bosnia and Herzegovina

- Bosnia and Herzegovina is a country considered to have low prevalence of HIV infection, estimated to less than 0,015%;
- The first reported case of HIV infection occurred in 1986, since when 162 HIV-infected individuals have been reported, among them 105 AIDS cases;
- Heterosexual contact was the most frequent mode of transmission (54,2%), then MSM (21,2%), and finally IDU (15,9%);
- In regard to gender, of the overall number of 162 cases, men comprised 81,9%, and women 19,1%;
- One case of vertical transmission was identified in B&H;
- The overall number of PLWHA is increasing, not rapidly, but the increase is visible.

Epidemiological characteristics of patients admitted and treated in the Clinic for Infectious Diseases - (CCUS)

- In the past 13 years, in the Clinic for Infectious diseases of the Clinical Centre of the University in Sarajevo (CCUS), an average number of 4 newly HIV-infected individuals are identified (9 new cases were reported during 2005);
- In our hospital, HIV/AIDS cases are mainly identified among at-risk populations, with the prominence of heterosexual sub-population;
- Among HIV-infected persons, there are no adolescent cases associated with a heterosexual intercourse (all infected individuals were older than 19);
- No cases associated with received blood transfusion or blood products were reported. HIV testing of donors' blood and blood products is mandatory in B&H, while the other measures are implemented in order to prevent and control taking blood donation samples from individuals at increased risk for acquiring HIV infection.

Epidemiological characteristics of patients admitted and treated in the CCUS

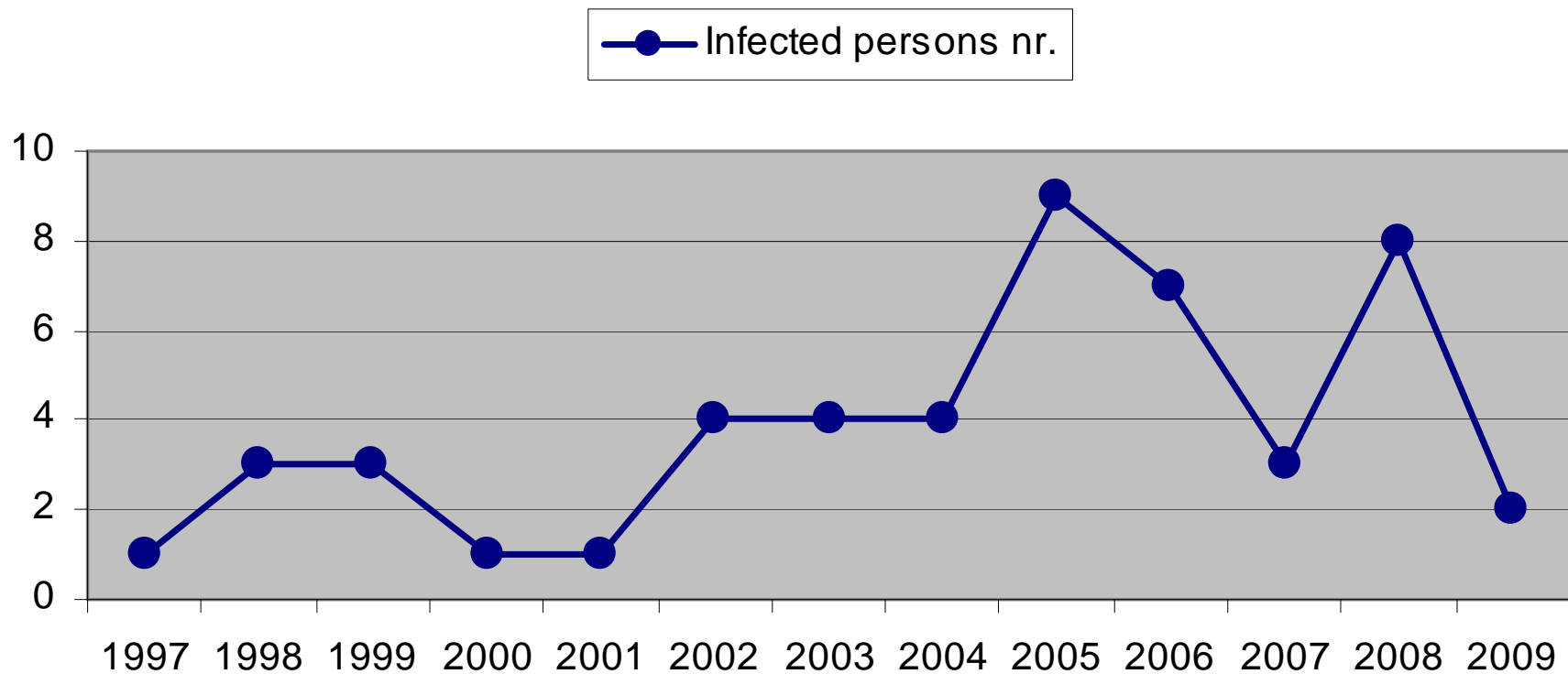
- From 1997 through 2009, in the Clinic for Infectious Diseases of the CCUS, we registered 50 HIV-infected individuals, of whom 34 cases of AIDS-defining illnesses;
- In the same period, 13 patients died;
- Epidemiological situation is still depending on exposure to HIV outside the country, since 90% of the patients have acquired HIV infection abroad.

Reported HIV/AIDS cases in the Clinical Centre (CCUS)

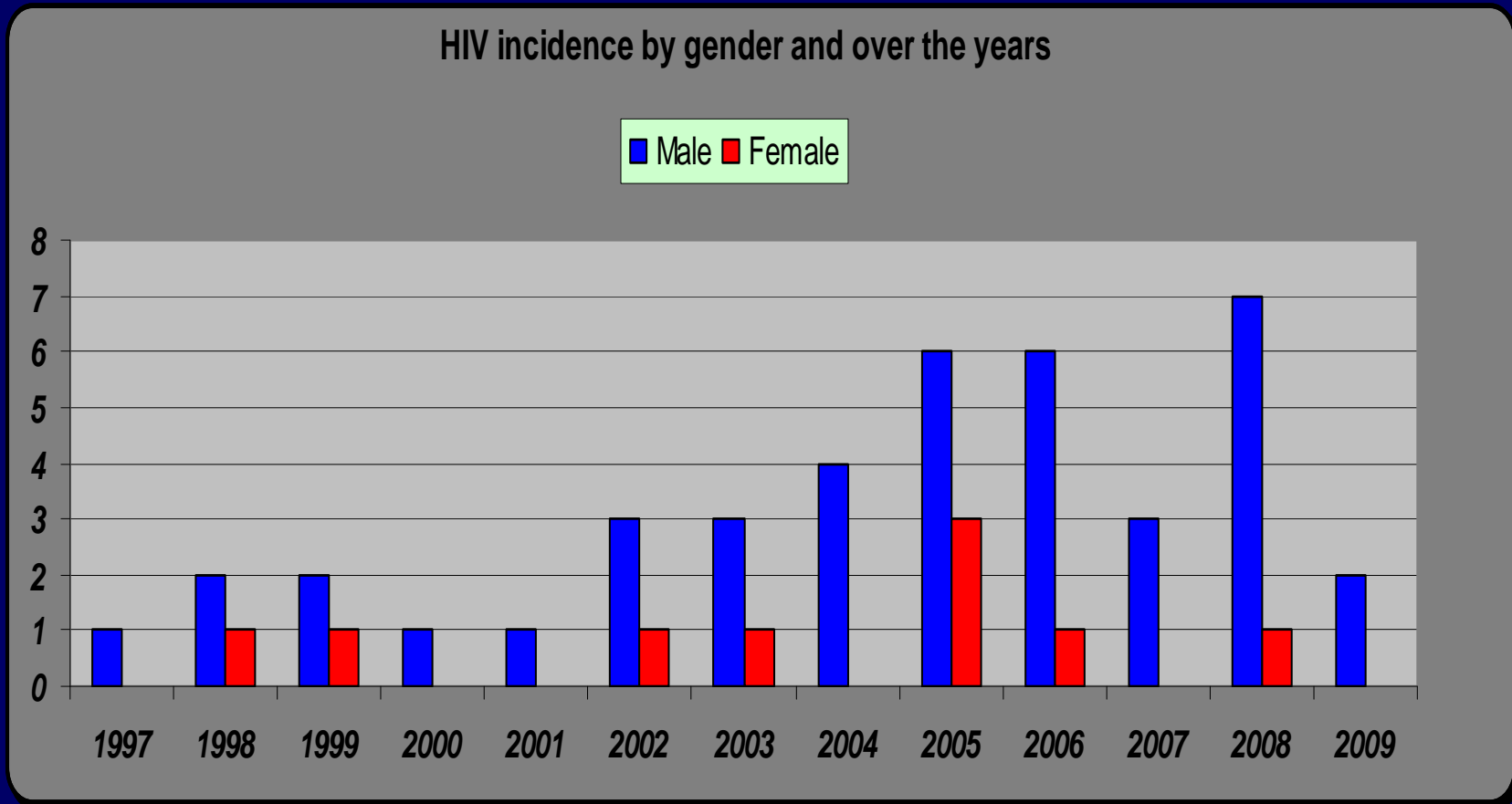
Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Nr. of HIV infected persons	1	3	3	1	1	4	4	4	9	7	3	8	2

HIV incidence over the years, from 1997 through 2009

HIV incidence through years



HIV incidence by gender and over the years



HIV/AIDS patients by gender and age categories

AGE distribution	MALE	FEMALE	TOTAL	%
0 do 9	1	0	1	2
10 do 19	1	0	1	2
20 do 24	4	2	6	12
25 do 29	6	1	7	14
30 do 34	8	1	9	18
35 do 39	6	0	6	12
40 do 44	7	2	9	18
45 do 49	3	3	6	12
50 do 54	2	0	2	4
55 do 59	1	0	1	2
60 do 64	2	0	2	4
CUMULATIVE	41	9	50	100%

HIV/AIDS cases by Transmission Category

Transmission mode	Nr. of infected persons	%
Heterosexuals	27	54
MSM	14	28
IDU	5	10
SW	3	6
Vertical transmission	1	2
Cumulative - total	50	100%

- Heterosexual contact was the dominating mode of transmission;
- One case of perinatal/vertical transmission was identified;
- Out of overall number of 50 patients, 45 individuals have acquired HIV infection abroad, while remaining 5 cases are probably of local origin.

HIV/AIDS patients by gender

GENDER	Nr.	%
Male	41	82%
Female	9	18%
Cumulative Total	50	100%

GENDER	AIDS		HIV+	
	Nr.	%	Nr.	%
Male	26	76,50%	15	93,75%
Female	8	23,50%	1	6,25%
Cumulative Total	34	100%	16	100%

- Ratio between male and female HIV/AIDS patients indicates that men were affected more frequently, just like in other countries;
- Majority of HIV/AIDS affected patients belonged to the economically/working-aged segment of population;
- Median age of the patients was 36 years (range from 19 to 63);
- Perinatal transmission – one case reported.

Deaths of persons with HIV/AIDS

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Nr. of deaths	1	1	1	1	0	4	0	1	2	1	1	0	0

- Thirteen deaths of our patients were associated with AIDS-defining illnesses;
- Eight deaths of the patients were reported from 1997 through 2003;
- Since 2003, HAART became widely available in B&H.

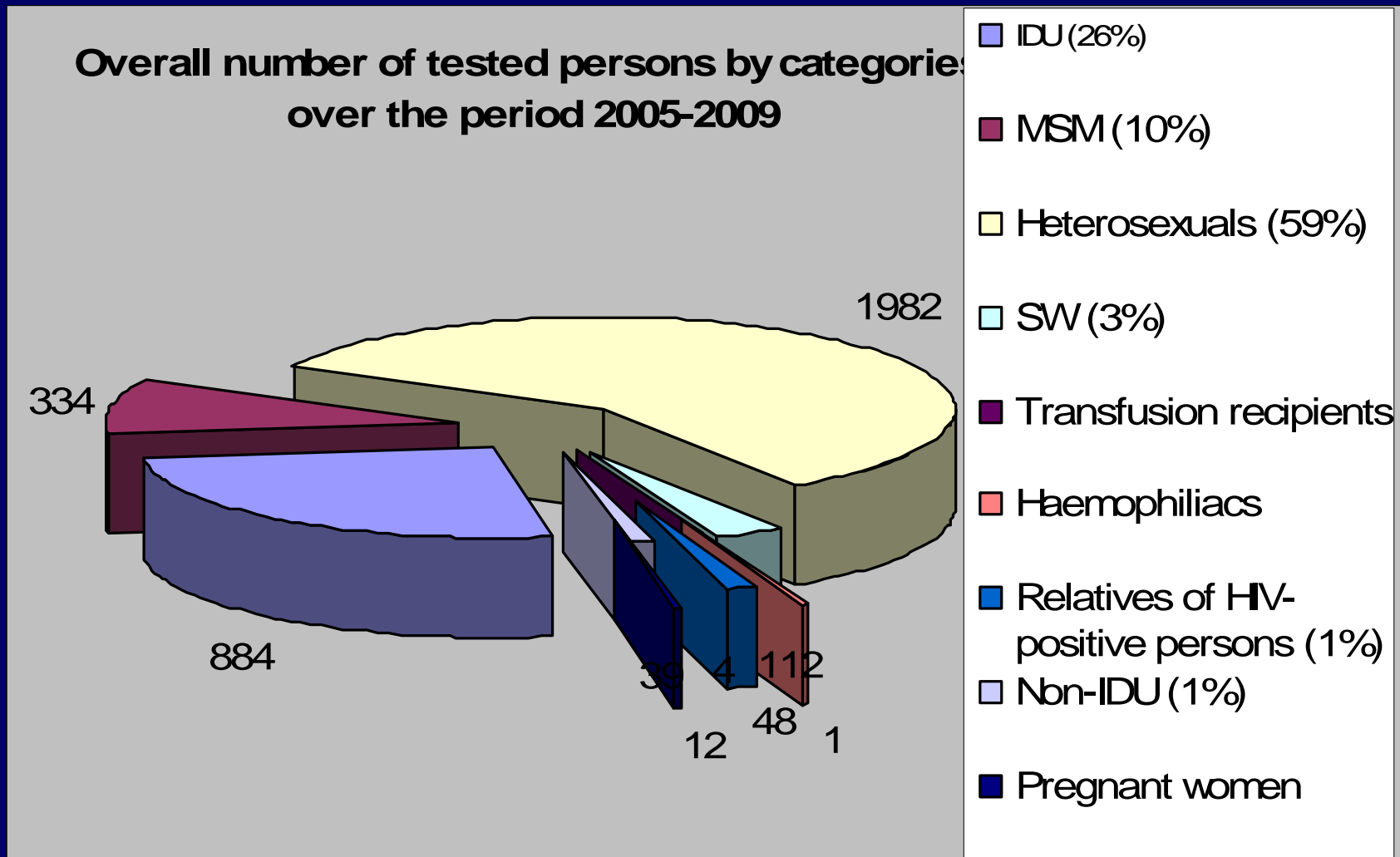
HIV Testing in the VCCT Centre from 2005 through 2009

- In the VCCT Centre of the Clinic for Infectious Diseases – Clinical Centre of the University in Sarajevo (CCUS), we reviewed testing data of 3416 individuals: HIV-infected persons, their partners and relatives, as well as individuals who were using the opportunity to have a free and anonymous HIV testing and counselling;
- Among Voluntary Blood Donors, three HIV-infected individuals reported.

HIV Testing in the VCCT Centre from 2005 through 2009

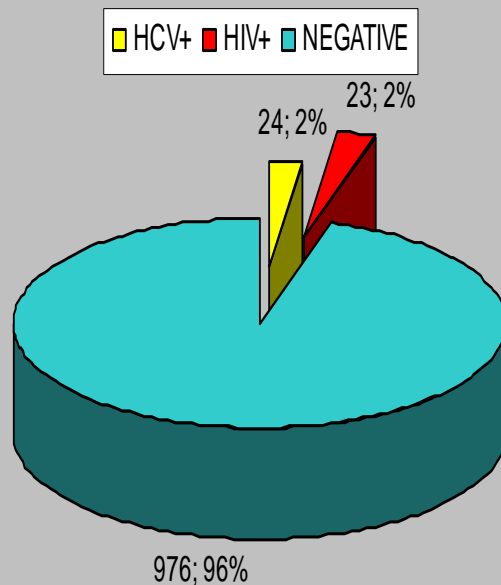
Transmission mode	Number of persons tested through the years					Cumulative 5 years
	2005	2006	2007	2008	2009	
IDU	51	61	102	321	349	884
MSM	15	50	60	158	51	334
Heterosexuals	99	176	285	795	627	1982
SW	2	15	33	55	7	112
Transfusion recipients		1	3			4
Haemophiliacs			1			1
Relatives of HIV- positive persons	11	11	21	3	2	48
Non-IDU	6	6	21		6	39
Pregnant women		1		5	6	12
Cumulative Total	184	321	526	1337	1048	3416

Overall number of HIV tested persons by risk behaviour categories

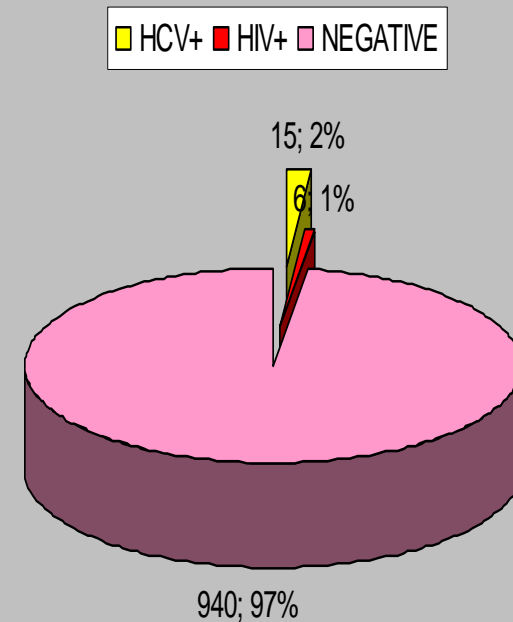


HIV and hepatitis C testing results among heterosexuals

Male



Female



Total tested: 1023

HIV+: 23

HCV+: 24

Total tested: 961

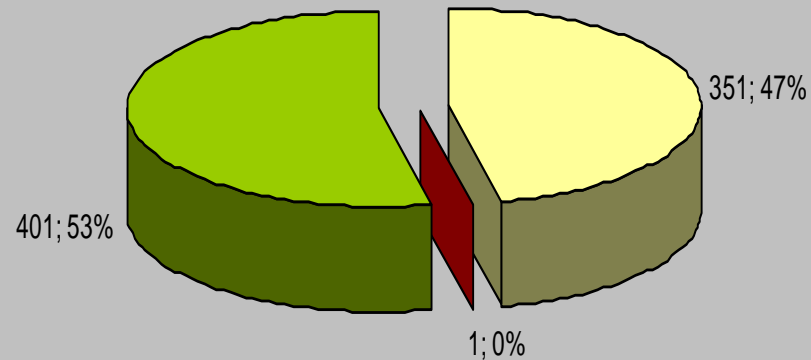
HIV+: 6

HCV+: 15

HIV and hepatitis C testing results among IDU

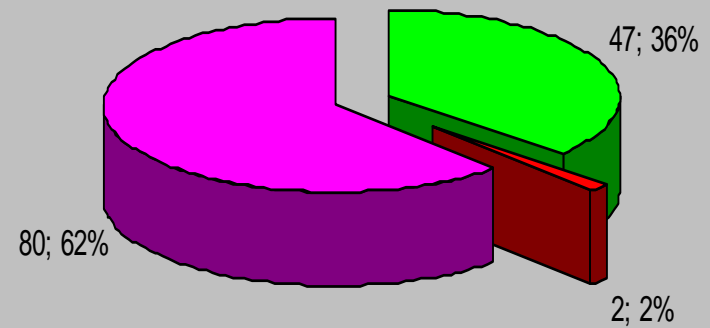
Male

■ HCV+ ■ HIV+ ■ NEGATIVE



Female

■ HCV+ ■ HIV+ ■ NEGATIVE



Total tested: 755

HIV+: 1

HCV+: 351

Total tested: 129

HIV+: 2

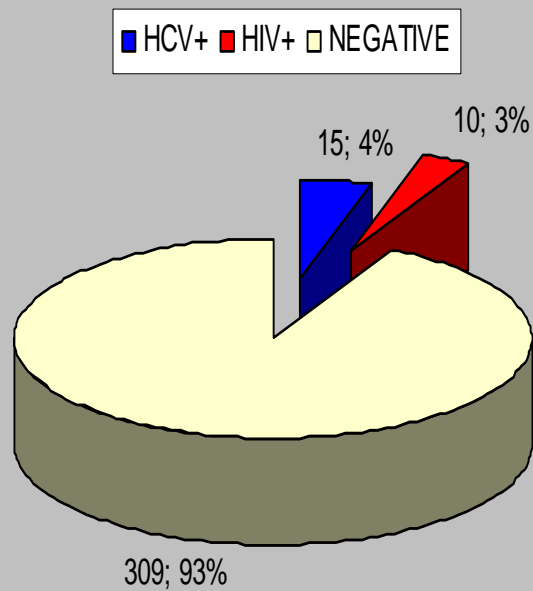
HCV+: 47

Questionnaire results of tested persons among IDU

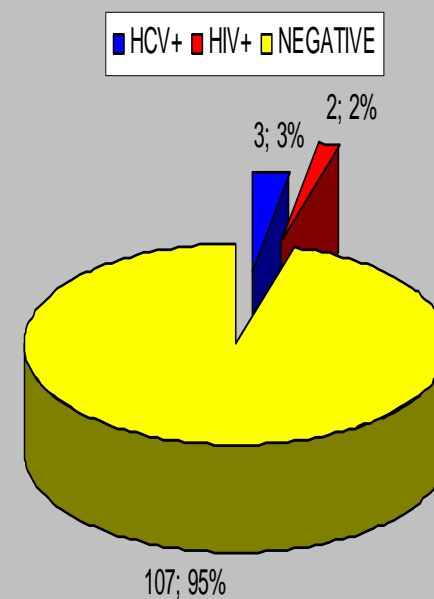
- Median age of IDU respondents was 26 years;
- Men comprised 85,4% of all the tested IDU;
- HCV prevalence was high – 45,02%;
- HIV prevalence was 3,39%;
- 94% of tested persons returned for HIV testing results;
- 39% of tested IDU have had more than one HIV testing;
- 63% respondents have never used condoms with their regular sexual partners;
- 53% respondents have commonly shared needles and syringes with other injection drug users.

HIV and hepatitis C testing results among MSM and SW populations

MSM



SW



Total tested: 334

HIV+: 10

HCV+: 15

Total tested: 112

HIV+: 2

HCV+: 3

Questionnaire results of tested persons among MSM

- Median age of MSM respondents was 29 years;
- HCV prevalence – 4,49% (out of 334 MSM tested);
- HIV prevalence – 2,99% (out of 334 MSM tested);
- 98,5% of tested persons returned for HIV testing results;
- 48% respondents have used condoms;
- 75% respondents have used condoms with their regular sexual partners, while 57% used it with casual partners;
- 67% respondents declare having sexual intercourses with 2 or more male partners in past 6 months.

Questionnaire results of tested persons among SW

- Median age of SW respondents was 28 years (range from 19 to 51 years);
- HCV prevalence – 2,68% (out of 112 SW tested);
- HIV prevalence – 1,78% (out of 112 SW tested);
- 98% of tested persons returned for HIV testing results;
- 75,7% of tested SW regularly use condoms;
- 32,1% of SW respondents used drugs, while 28,8% were injection drug users;
- Comprising all SW tested respondents, in one working week they have an average number of 5 clients.

Conclusions

- In our environment, HIV-infected cases were previously detected in late course of the infection, thus the treatments were introduced in advanced stage of HIV disease;
- Thanks to the commitment of our VCCT Centre, in the recent years, HIV-infected individuals are detected in early course of the infection, which is important because of epidemiological reasons (breaking the transmission chain of the infection), and because affected persons can have benefits of early administration of the ARV and appropriate prophylaxis for opportunistic infections (OI);
- In the period 2005-2009, out of overall number of 29 newly diagnosed cases, 17 were found seropositive in our VCCT Centre.

Recommendations

- It is necessary to remove barriers and obstacles approaching an easy and undisturbed access to testing sites, with minimum risk for stigmatization and discrimination of all clients intending to have HIV testing and counselling;
- Monitoring risk behaviour is crucial for effective planning and evaluation of prevention services targeting MSM, IDU, and SW subpopulations;
- Additional efforts are needed for creation of a multidisciplinary team dedicated to the care of some frequently hard-to-reach populations, such as MSM, IDU, and SW;

Recommendations

- Surveillance of the overall HIV diagnosed cases provides limited insight into current incidence and patterns of transmission. The number of unreported PLWHA in Bosnia and Herzegovina is unknown, nor we have any estimates;
- Thus, without knowledge of the true size and characteristics of the population of PLWHA in Bosnia and Herzegovina, we cannot accurately and consistently monitor HIV epidemic and plan prevention.