

# The evolution of HIV/AIDS infection in Romania 31 December 2014

The data is collected from the HIV/AIDS confirmation charts, sent by the nine Regional Centers for Evaluation and Monitoring of HIV/AIDS Data and further processed and elaborated by Compartment for Monitoring and Evaluation of HIV/AIDS data in Romania, in National Institute for Infectious Diseases "Prof. Dr. Matei Bals"

## **UNAIDS** Objectives

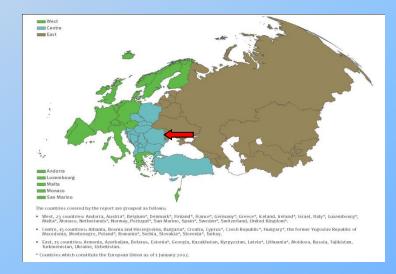
## By 2020:

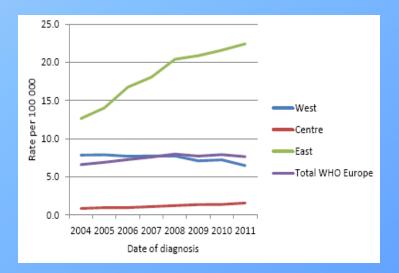
90% of all people living with HIV will know their HIV status.

90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy
90% of all people receiving antiretroviral therapy will have viral suppression....

#### Romania 1985-2014

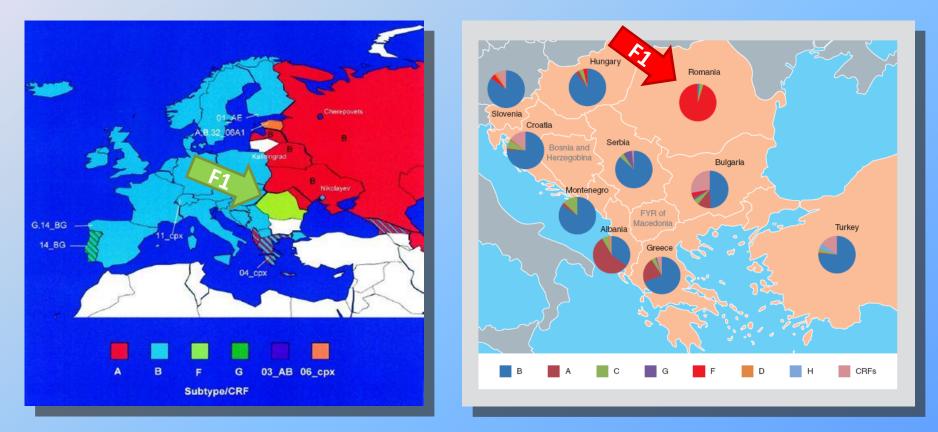
- 31 December 2014: 12.886 PLWHA (19.261 cumulative total, since 1985).
- High rate of HIV incidence in children who were infected in the 1980s in Romania
  - The maximum number of these patients recorded at the beginning of the 1990s';
     >90%: sub-type F1.
- During the same period, HIV incidence rate among the adult population was low, with a slight subsequent increase due to unprotected heterosexual contact, the main route of transmission for the last decade.
- Currently, Romania has a large number of survivors in the 20-29 age group, who belong to the 1987-1990 cohort (>6000).
- A large number of PLWHA who receive specific ARV therapy in relation to the total number of infected persons (>8000 December 31, 2014 out of 10.261 in active surveillance at1 December 2014).





## HIV subtype: F predominance, unique in Europe

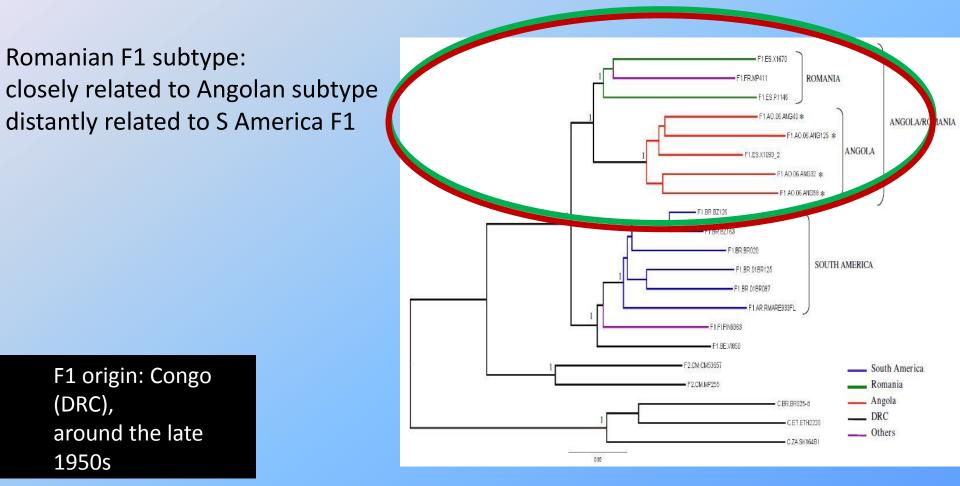
## "1987-1990 cohort" children: homogenous F1 subtype of HIV



Thomson and Najera, JID, 2007; Stanojevic et al. AIDS Rev 2011; <u>www.cnlas.ro</u>

## Phylogenetic analysis of HIV-1 subtype F1 isolates

## F= <1% HIV infections worldwide: Africa & South America



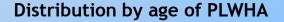
#### Guimaraes & al Retrovirology 2009

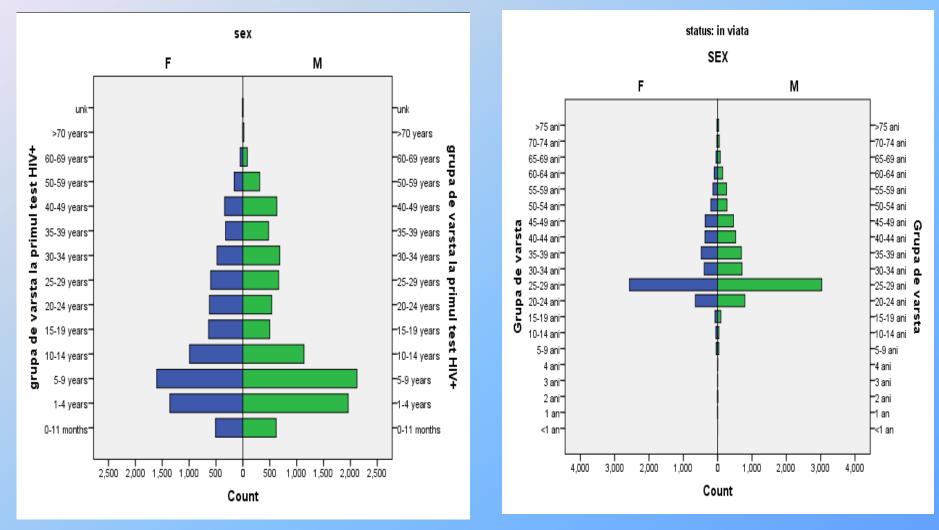
#### Ministry of Health National Institute for Infectious Diseases "Prof. Dr. Matei Bals" Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania General Data at 31 December 2014

TOTAL HIV/AIDS (CUMULATIVE1985-2014) OF WHICH:	20.146
HIV/AIDS cases in children (0-14 years at date of diagnosis )	9.969
HIV/AIDS cases in adults (> 14 years at date of diagnosis)	10.177
Total no. of AIDS deaths (1985-2014)	6.619
Out of records HIV/AIDS children + adults	641
Number of patients living with HIV/AIDS	12.886
Total AIDS (Cumulative 1985-2014)	13.886
AIDS cases in children (0-14 years at date of diagnosis)	8.114
AIDS cases in adults (> 14 years at date of diagnosis)	5.772
Total HIV (Cumulative 1992-2014)	6.260
HIV cases in children (0-14 years at date of diagnosis)	1.855
HIV cases in adults (> 14 years at date of diagnosis)	4.405
New HIV/AIDS cases, diagnosed in 2014	755
New HIV cases	442
New AIDS cases	313
HIV/AIDS related deaths, confirmed by medical charts in 2014	222

## **Distribution of ages**

Age at date of diagnosis/notification Cumulative total 1985-2014



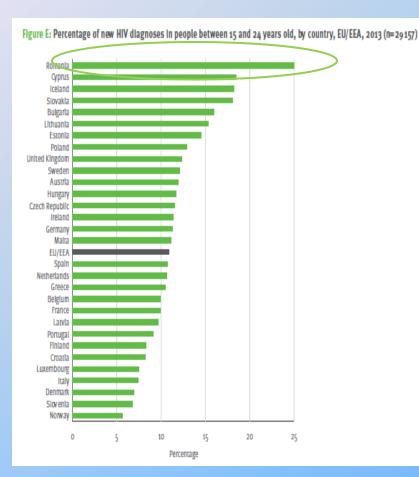


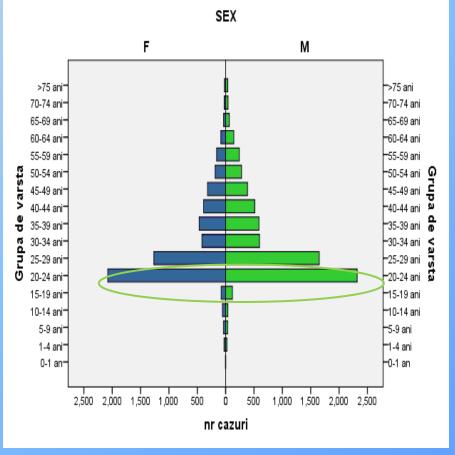
Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI "Prof.Dr.M.Balş"

## Epidemiology/trends in Romania 2013 WHO European Region

## Percentage of new diagnosis in the 19-24 age group, by countries, EU/EEA 2013

#### Age distribution of PLWH from the Romanian cohort 2013







Source: ECDC: Surveillance Report. HIV/AIDS surveillance in Europe.

## Epidemiology/trends in Romania 2014 **WHO European Region**

#### Percentage of new diagnosis in the 19-24 age group, by countries, EU/EEA 2013

Roman Cyprus

Iceland Slovakia Bulgaria

Lithuania Estonia

Poland

Sweden

Austria

Hungary Czech Republic

Ireland

Malta

EU/EEA

Spain

Greece

Belgium

France

Latvia

Portuga

Finland

Croatla

Italy

0

Denmark

Slovenia Norway

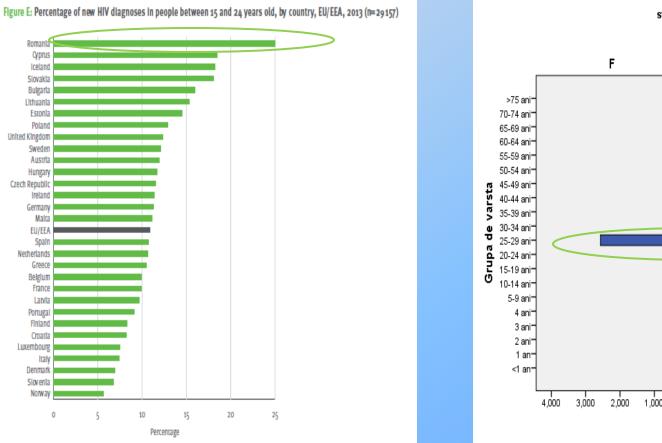
Luxembourg

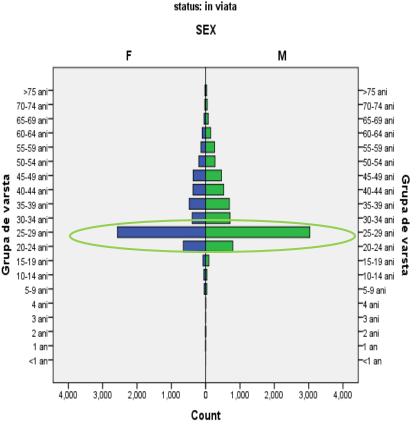
Netherlands

Germany

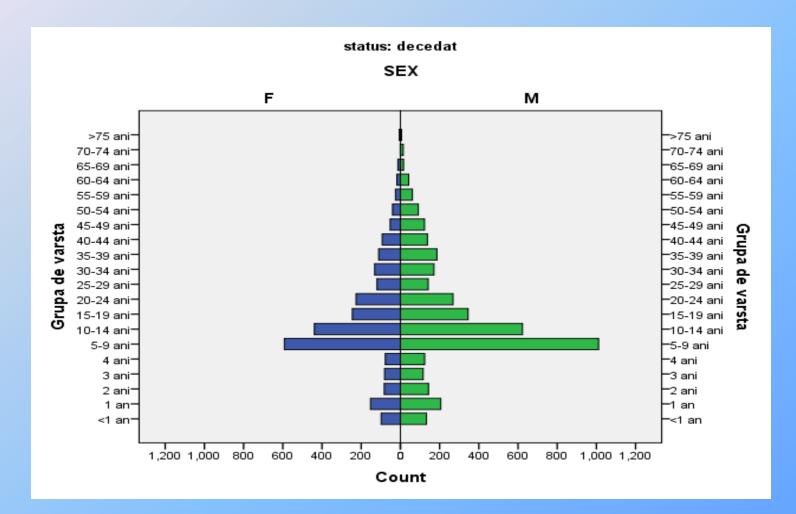
United Kingdom

#### Age distribution of PLWH from the Romanian cohort 2014

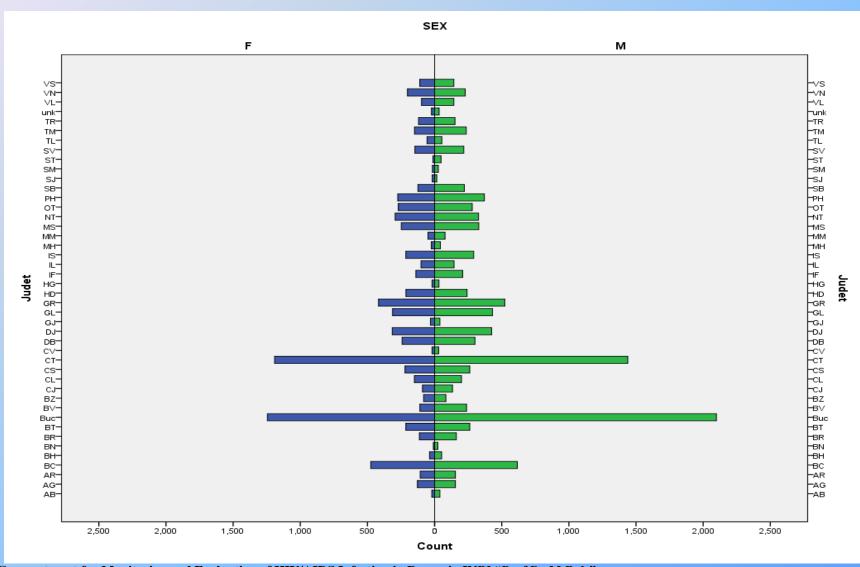




# Age distribution (age at the time of death) of deceased patients (cumulative total)

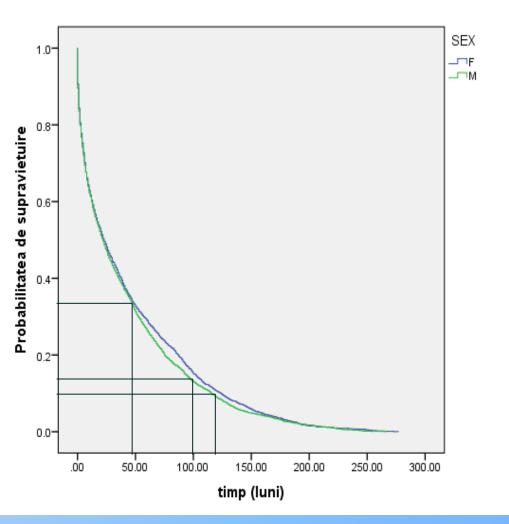


## Distribution of HV/AIDS patients (in life + deceased) by counties



Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI "Prof.Dr.M.Balş"

## Rate of survival 2013 - Kaplan-Meier



- 33% of persons who deceased, survived, on average >50 months;
- 15% of persons who deceased survived, on average around 100 month;
- 10% of persons who deceased survived, on average,  $\geq$  100 months.
- Limitations: we excluded the periods with no treatment, ART schemes, duration of treatment.
- Average period of survival= 45,6 months (C.I.95% 44,3-46,9)
  - Median period of survival for men=44,3 months (C.I.95% 42,6-46)
  - Median period of survival for women=47,6 months (C.I.95% 45,4-49,8)

# New HIV/AIDS Cases

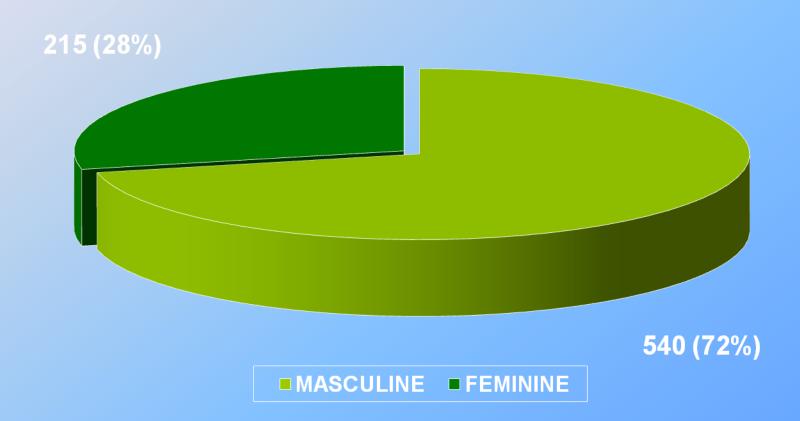
## **1 JANUARY – 31 DECEMBER 2014**

#### **Distribution of new HIV/AIDS cases by counties 2014**

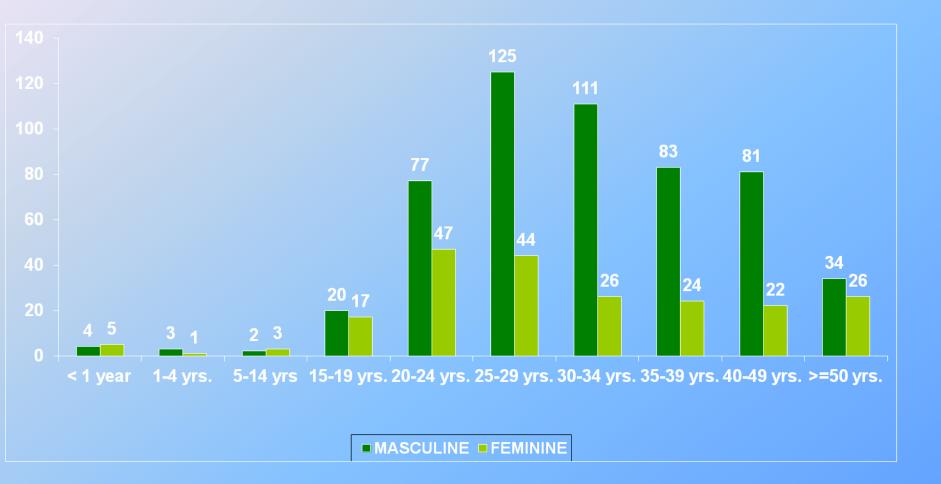




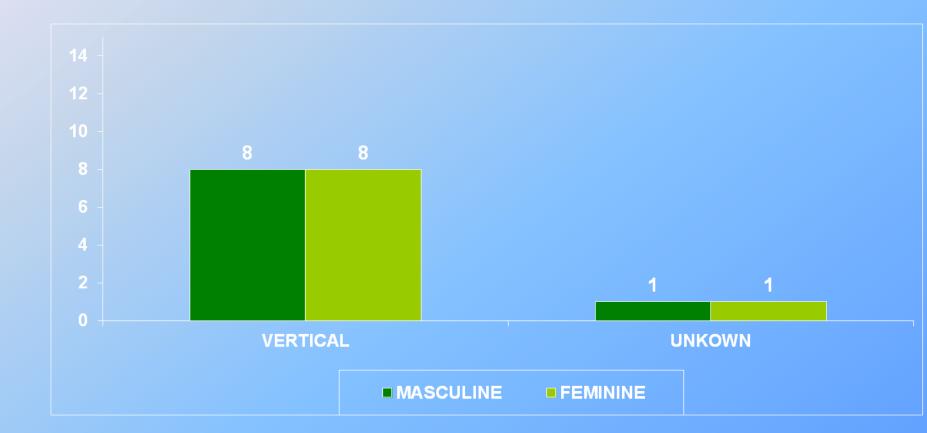
#### **Distribution of new HIV/AIDS cases by sex, 2014**



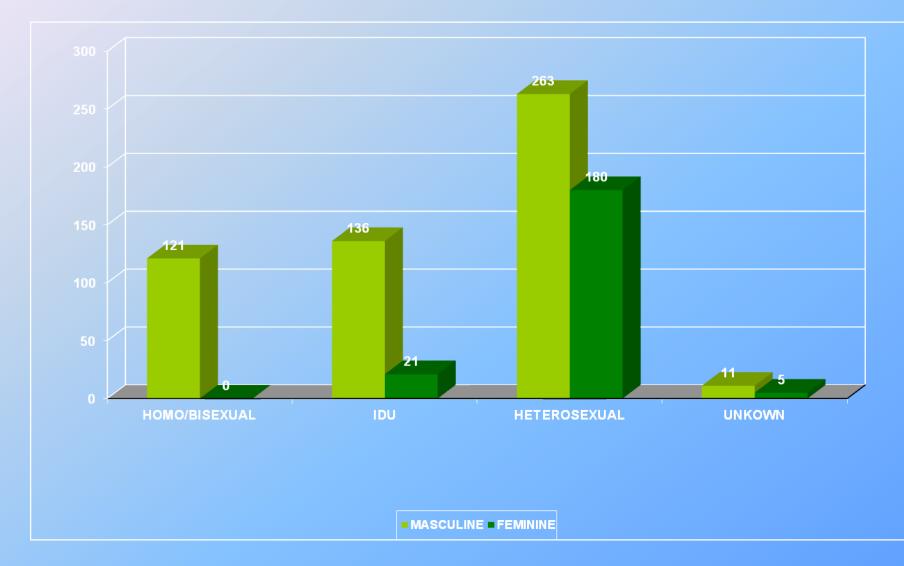
#### Distribution of new HIV/AIDS cases by age group and sex 2014



## Distribution of new HIV/AIDS cases by route of transmission in children, 2014



## Distribution of new HIV/AIDS cases by probable routes of transmission in adults



#### Tendencies in routes of transmission Romania 2007-2014

Route of transmission	2007	2008	2009	2010	2010 2011 2012		2013	2014
Vertical	8 (2%)	7 (1%)	20 (4%)	25 (5%)	21 (3%)	21 (2,6%)	21 (2,64%)	16 (2%)
мѕм	14 (3%)	40 (8%)	44 (9%)	60 (11%)	95 (13%)	89 (10,8%)	88 (11,04%)	113 (15%)
IDU (injecting drug use)	4 (1%)	3 (1%)	7 (1,4%)	14 (3%)	131 (18%)	252 (30,6%)	233 (29,23%)	157 (21%)
MSM/IDU				1 (<0,5%)	5 (1%)	6 (1%)	5 (0,63%)	8 (1%)
Heterosexual	352 (79%)	397 (76%)	383 (77%)	399 (75%)	440 (61%)	414 (50%)	435 (54,58%)	443 (58,6%)
Unkown	67 (15%)	71 (14%)	43(8,6%)	32 (6%)	28 (4%)	39 (5%)	15 (1,88%)	18 (2,4%)
Total	445	522	497	531	720	821	797	755

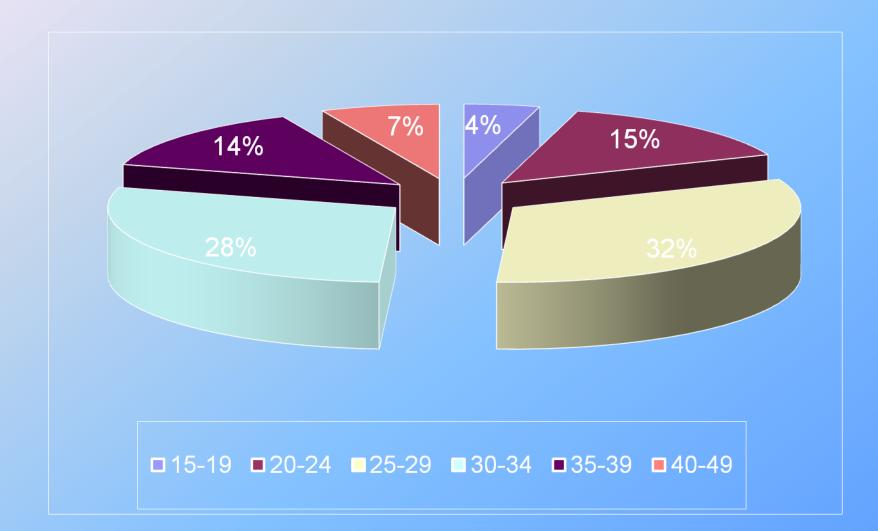
## Tendencies in the routes of transmission Romania 2007-2014



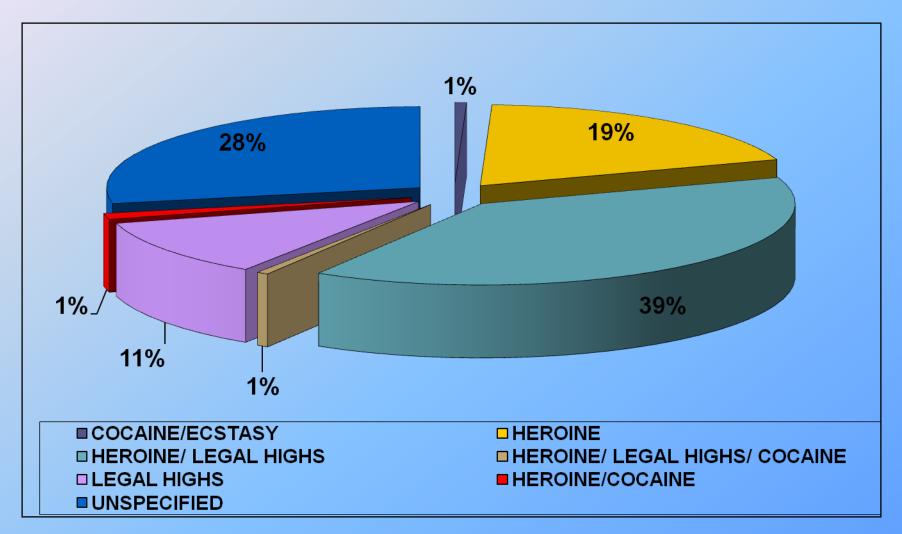
#### New HIV/AIDS cases (January-December 2014) through i.v. drug use, by age groups

Age group	Masculine	Feminine	Total
15-19	6	1	7
20-24	19	5	24
25-29	49	4	53
30-34	39	8	47
35-39	20	3	23
40-49	11		11
Total	144	21	165

### New cases of HIV/AIDS infection through i.v. drug use, by age groups, recorded in 2014



#### Drugs used by HIV patients, diagnosed in 2014



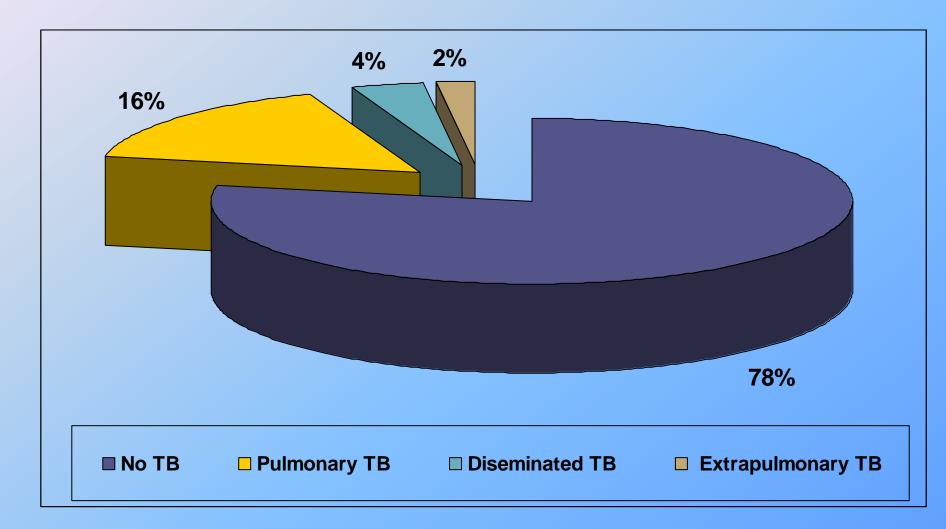
#### New HIV/AIDS cases (January-December 2014) through i.v. drug use, by counties

County	Masculine	Feminine	Total
Bacău	1		1
Braşov	2		2
București	116	21	137
Buzau	1		1
Caraş-Severin	1		1
Constanța	1		1
Dâmboviţa	4		4
Galați	1		1
Giurgiu	3		3
llfov	11		11
Neamţ	1		1
Prahova	1		1
Timiş	1		1
Total	144	21	165

### HBV, HCV, STDs in new HIV/AIDS cases through i.v. drug use (165 cases)

Tested for	Positive	%
AgHBs	3/165	1,82%
VHC	136/165	82,42%
AgHBs + VHC	14/165	8,48%
STDs	40/165	24,24%

### HIV/TB Co-infection in HIV/IDUs, diagnosed in 2014



#### I.V. drug users diagnosed HIV+ in 2014, previously tested before the current HIV positive test

Year of previous testing	No.of patients
2014	1
2013	5
2012	8
2011	3
2010	3
2009	2
2007	1
2003	1
Total	24

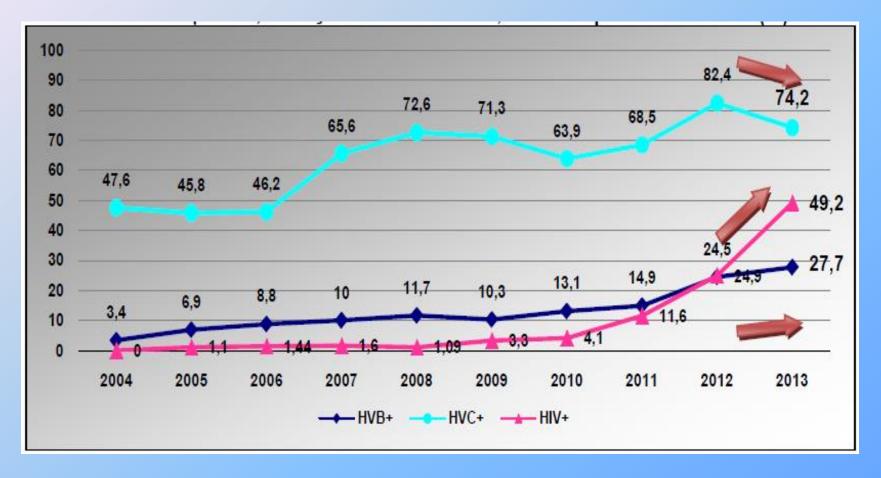
#### New HIV/AIDS cases registered in the National Data Base: 2009-2014

VS.

New HIV/AIDS cases in IDUs registered in the National Data Base: 2009-2014

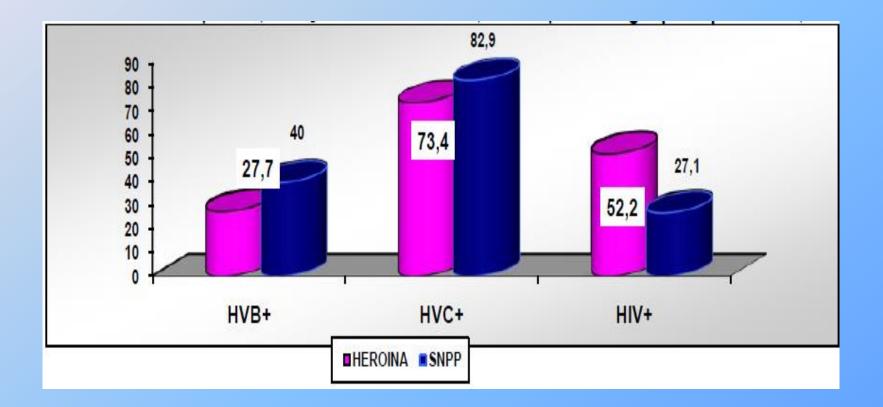
	2009		2010		2011		2012		2013		2014	
CRITERION	TOTAL of which	IDU	TOTAL of which	CDI								
Number of HIV cases	233	5	275	4	408	102	509	178	531	156	442	83
Number of AIDS cases	272	3	263	11	330	45	350	91	369	107	313	82
Total number of HIV/AIDS cases	505	8	538	15	738	147	859	269	900	263	755	165

# HBV, HCV and HIV prevalence in IDUs, comparative data 2004-2013



Source: National Agency against Drugs- national Report on drugs - 2014

## HBV, HCV and HIV prevalence among IDUs, by the drug consumed- 2013



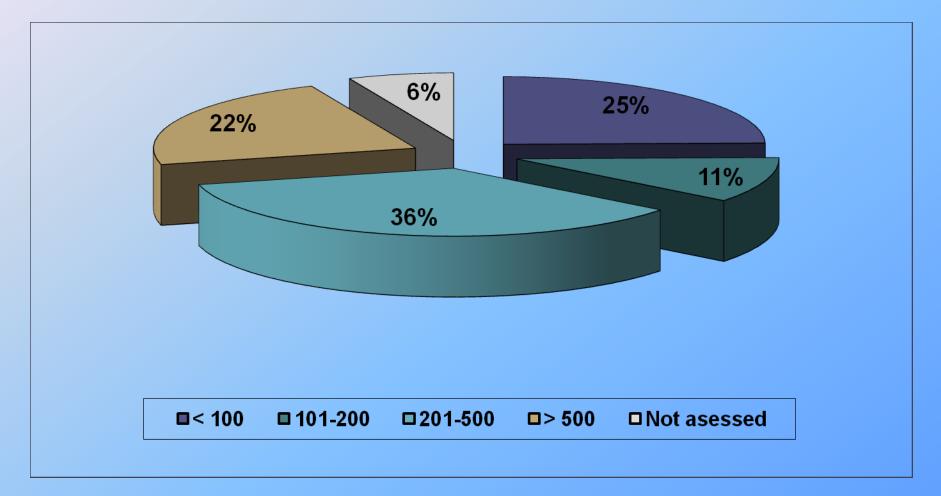
Source: National Agency against Drugs- national Report on drugs - 2014

## HIV testing in IDUs performed by the Public Health Directions 2007-2014

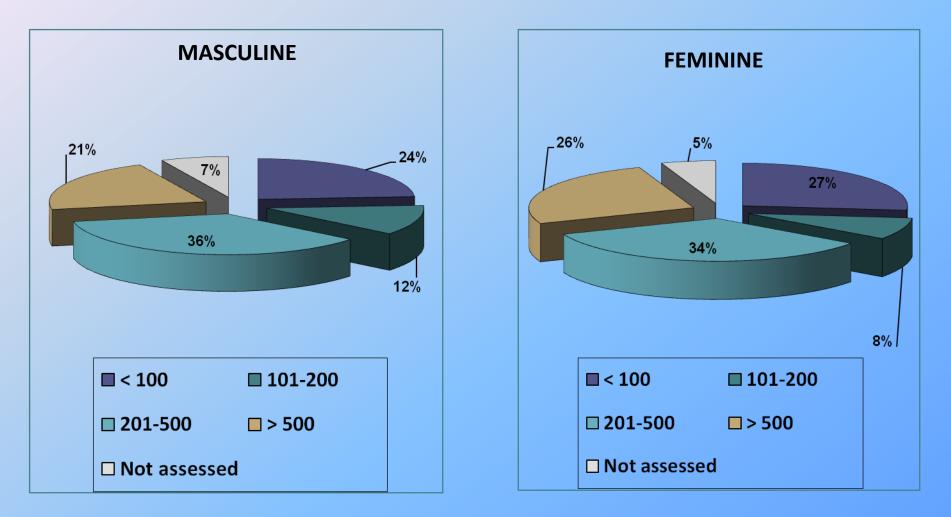
Year	NEGATIVE TEST RESULTS	POZITIVE TESTS RESULTS	TOTAL	% POZITIVE TESTS
2007	620	6	626	0.95%
2008	380	3	383	0.78%
2009	277	6	283	2.12%
2010	96	1	97	1.03%
2011	46	3	49	6.12%
2012	255	19	274	6.93%
2013	106	22	128	20.75%
2014	343	39	382	10,2%

#### CD4 values in new HIV/AIDS cases in adults- 2014

Total no. of new cases: 737



CD4 values in new cases diagnosed in adults- 2014

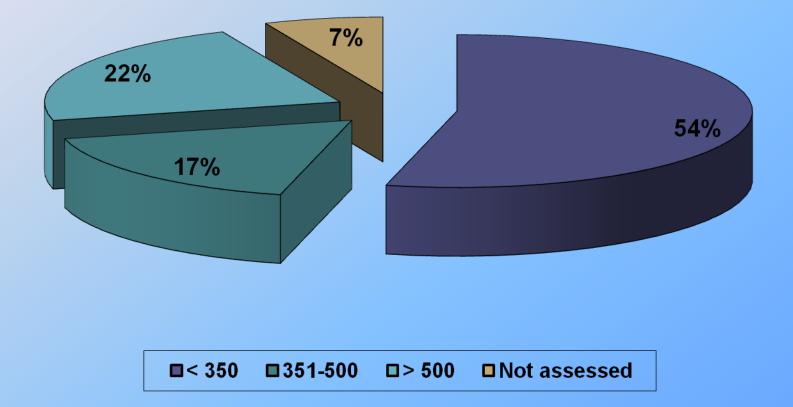


Total no. of cases 531

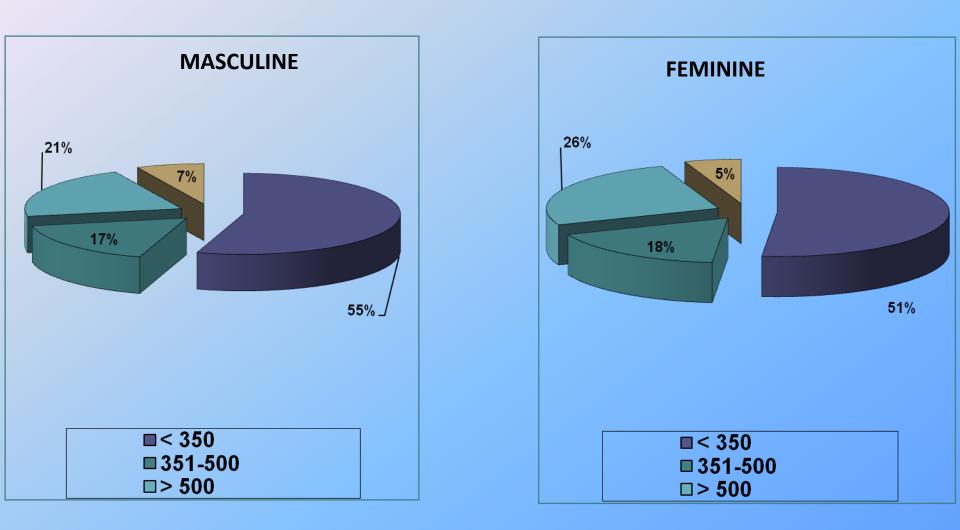
Total no. of cases : 206

CD4 values in new HIV/AIDS cases at adults- 2014

Total no. of cases : 737



#### CD4 values in new HIV/AIDS cases at adults- 2014



#### **Total cases: 550**

#### Total cases: 226

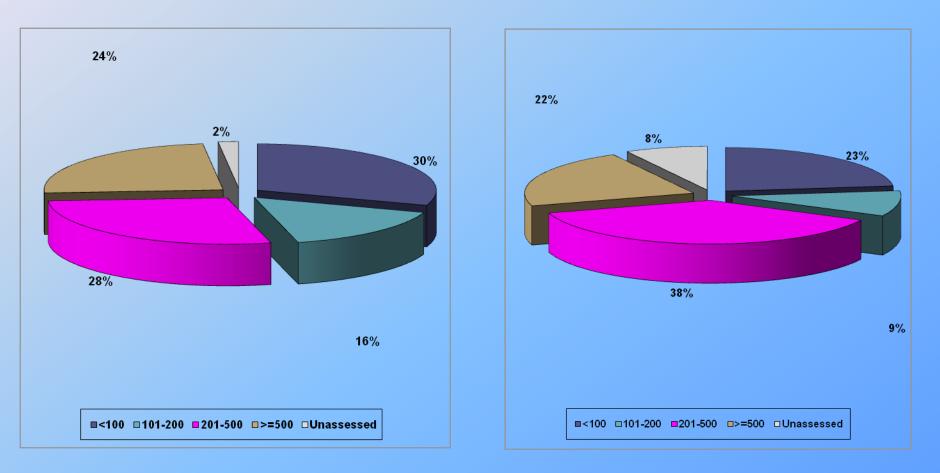
### **CD4 values in i.v. drug users**

VS.



R

Patients with different routes of HIV transmission

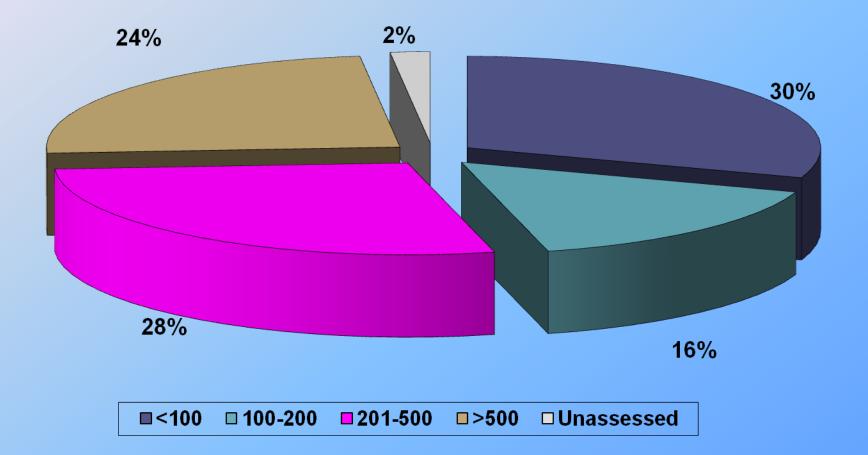


Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI "Prof.Dr.M.Balş"

IDU

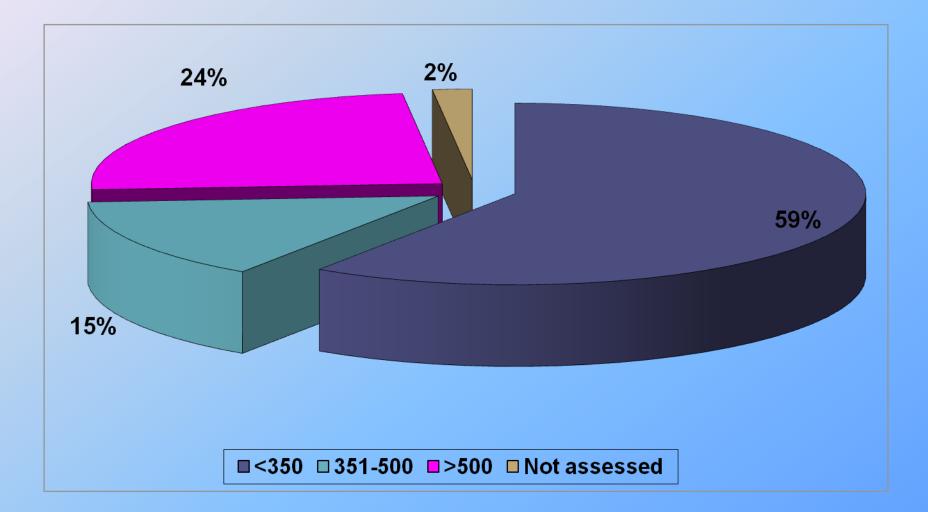


### CD4 values in IDUs detected with HIV/AIDS in 2014

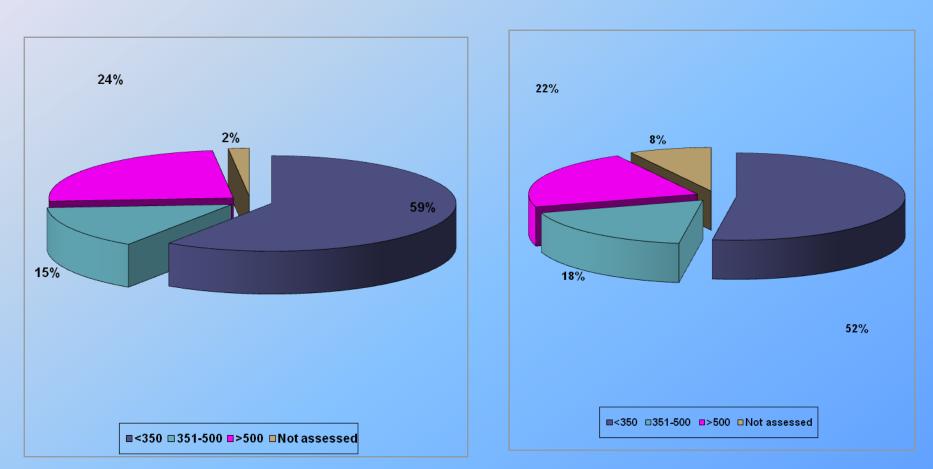




### CD4 values in IDUs detected with HIV/AIDS in 2014



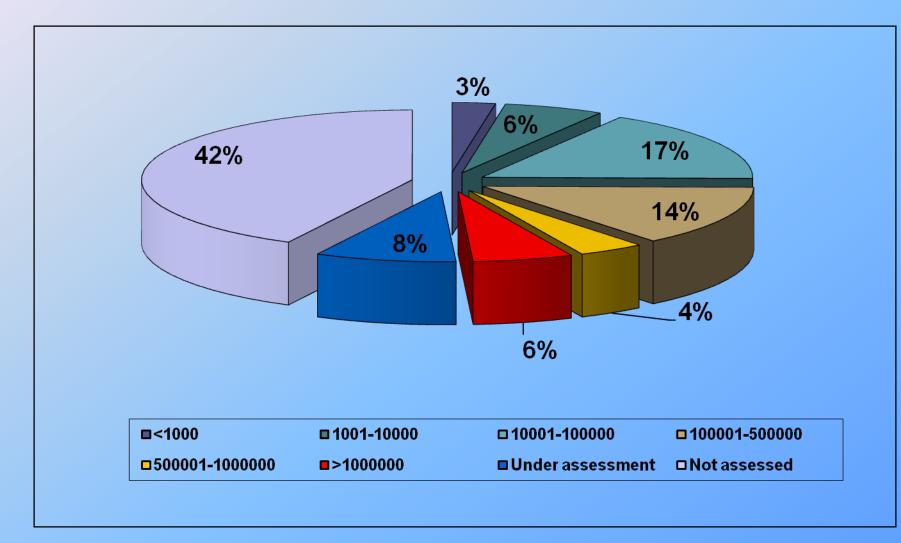
# CD4 values in IDUs vs. patients who acquired HIV though different ways, detected with HIV/AIDS in 2014



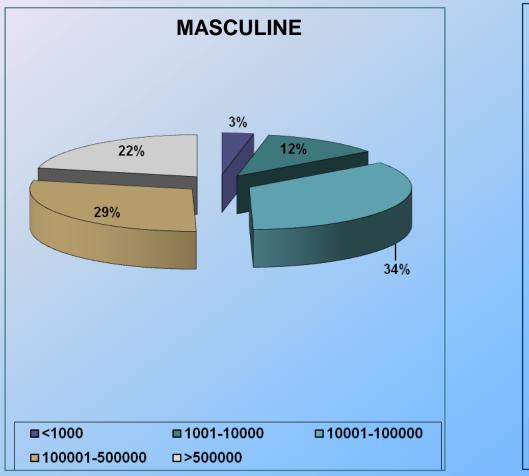
#### IDUs

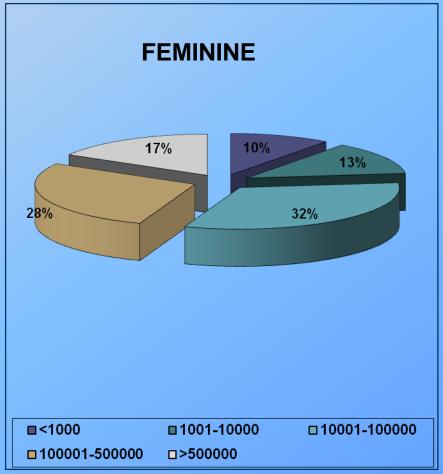
Pts. with other ways of transmission

## Viral load values in new cases diagnosed in 2014 Total no.of cases in adults: 737



Viral load values in new cases in adults, detected in 2014





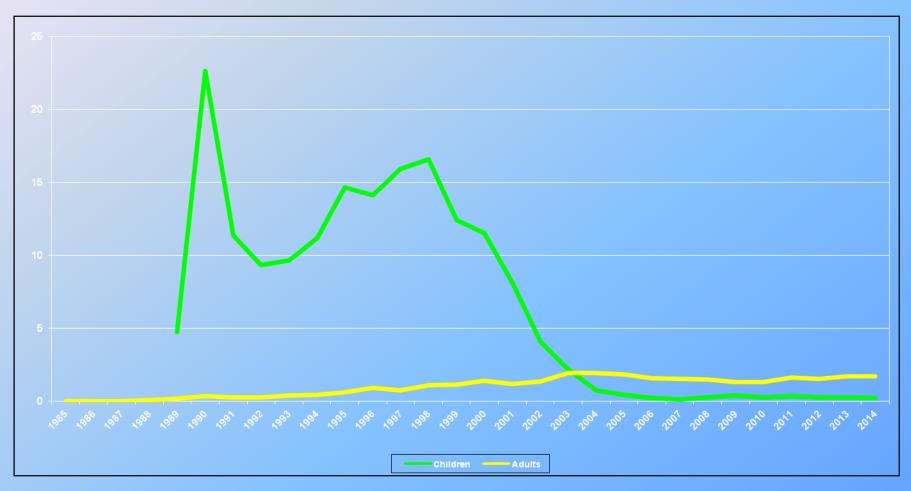
#### Total no. of cases assessed: 254

#### Total no. of cases assessed : 108

# Evolution of HIV/AIDS in Romania

1985-2014

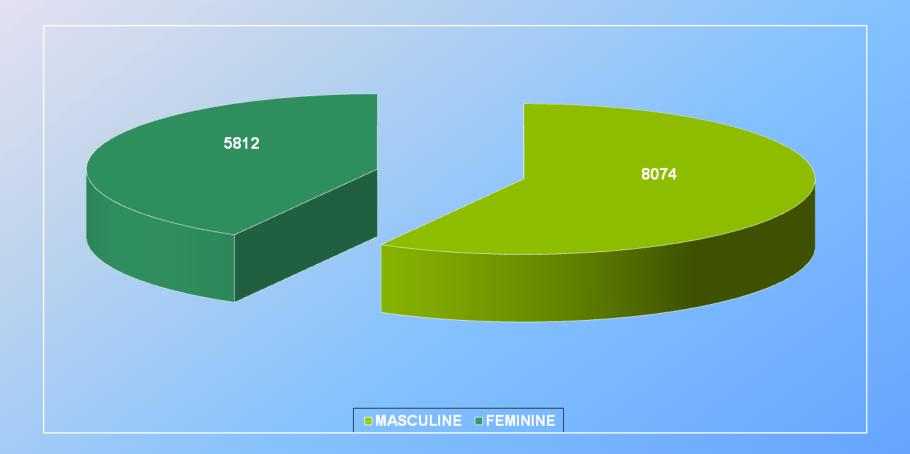
# AIDS incidence in adults and children between 1985-2014 (100.000)



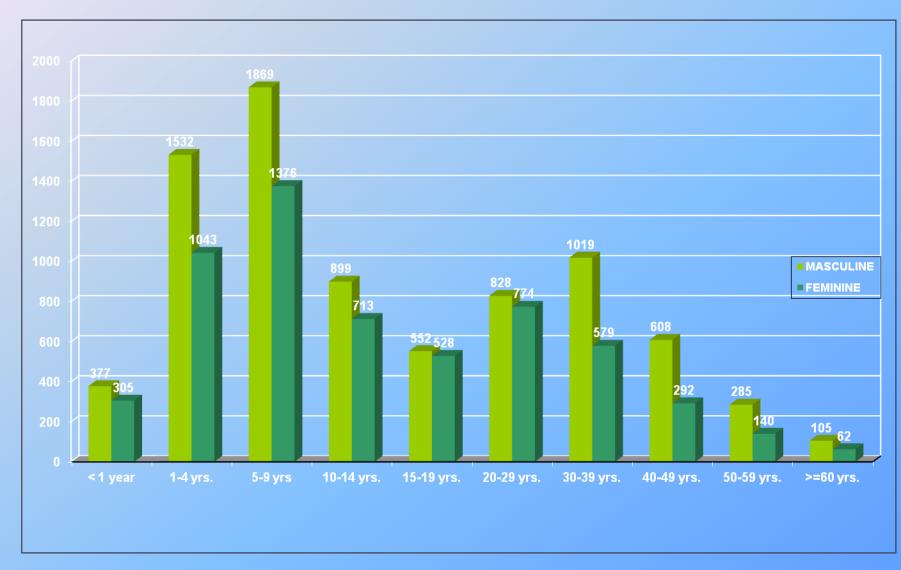
Children 2014: 0,22/100.000 Adults 2014: 1,73/100.000



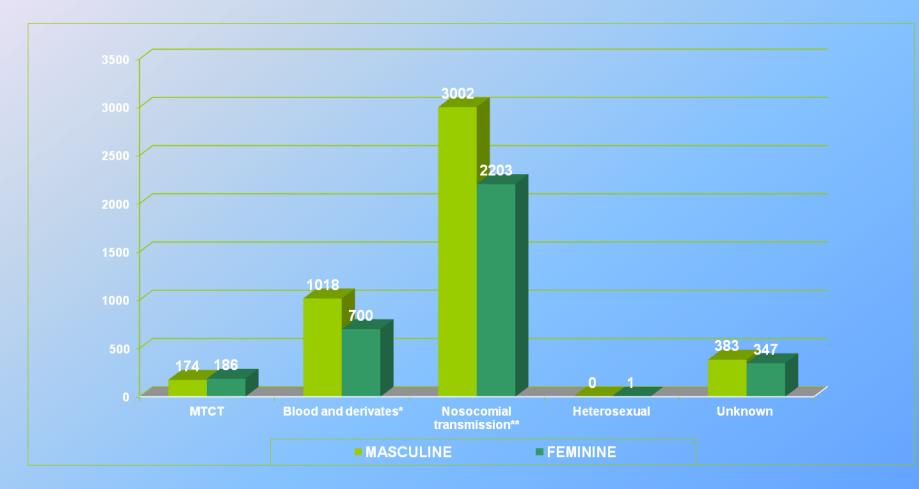
### Sex distribution o AIDS cases at 31 December 2014 (cumulative total 1984-2014)



# Age group and sex distribution (at the date of diagnosis) at 31 December 2014 (cumulative total 1985-2014)



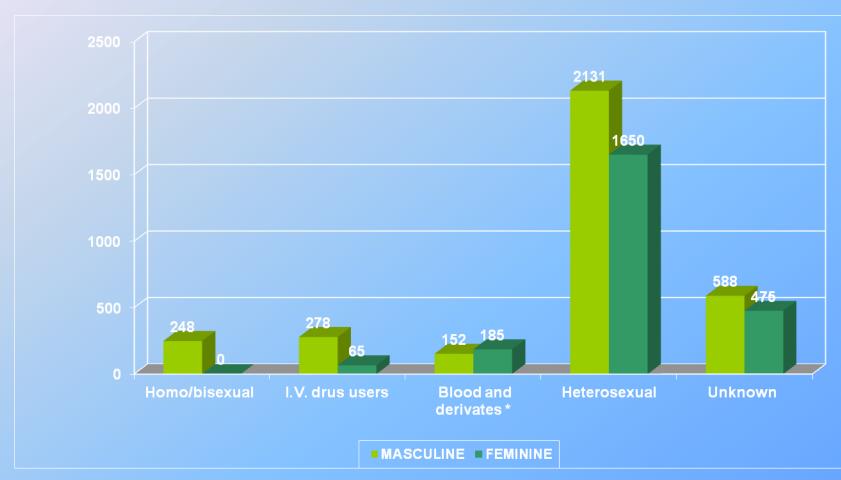
Probable way of transmission in children with AIDS (0-14 years at the date of diagnosis) at 31 December 2014 (cumulative total 1989-2014)



\*Persons who received blood transfusions in the late 1980s and early 1990s.

\*\* Persons with repeated admissions and/or multiple parenteral treatments in the late 1980s and early 1990s

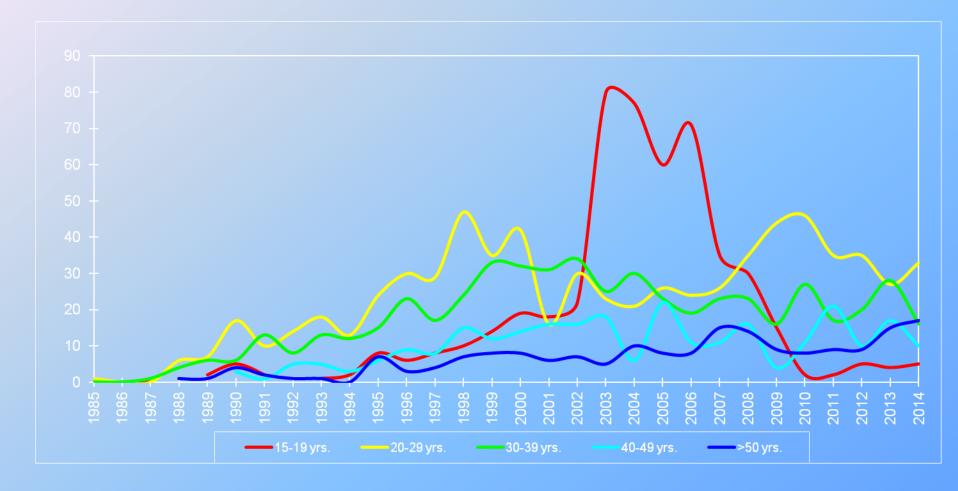
Probable way of transmission in adults with AIDS (>14 years at the date of diagnosis) at 31 December 2014 (cumulative total 1985-2014)



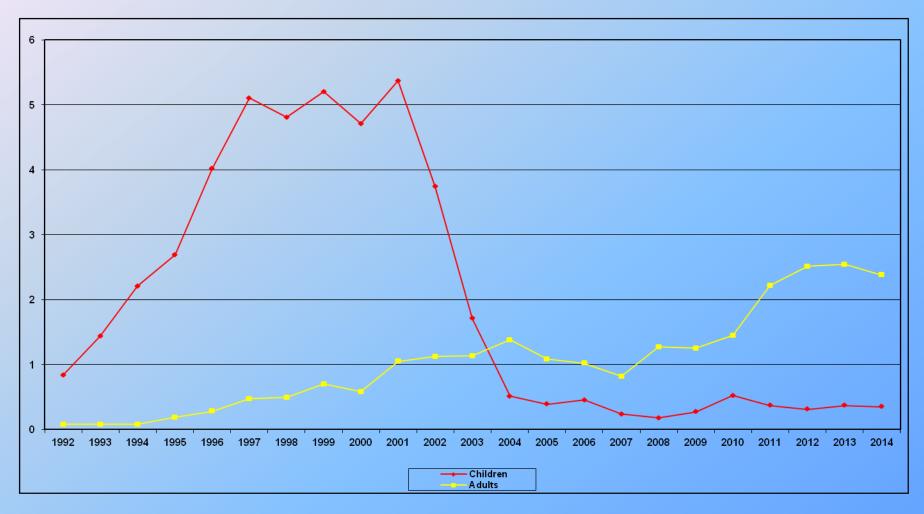
\* Persons who received blood transfusions in the late 1980s and early 1990s



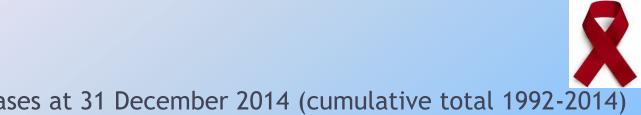
## Distribution of AIDS cases in women, by age group and year of diagnosis, between 1985-2014



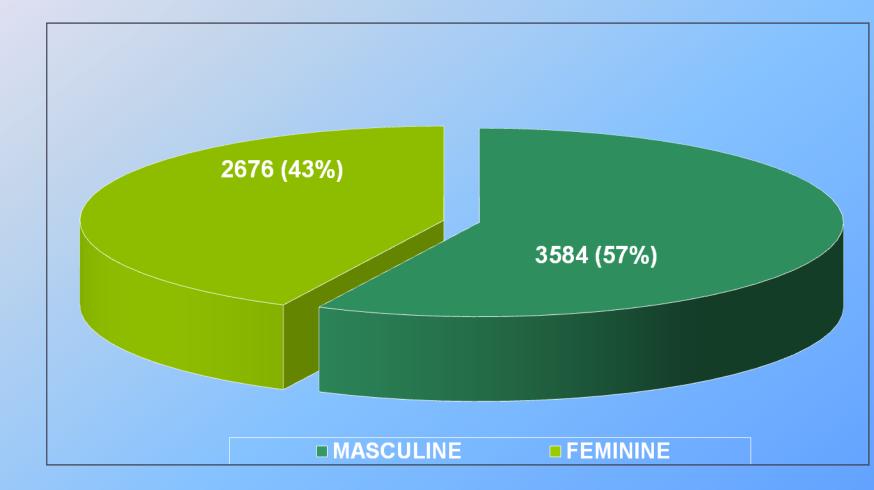
# HIV incidence rate in adults and children between 1985-2014 (100.000)



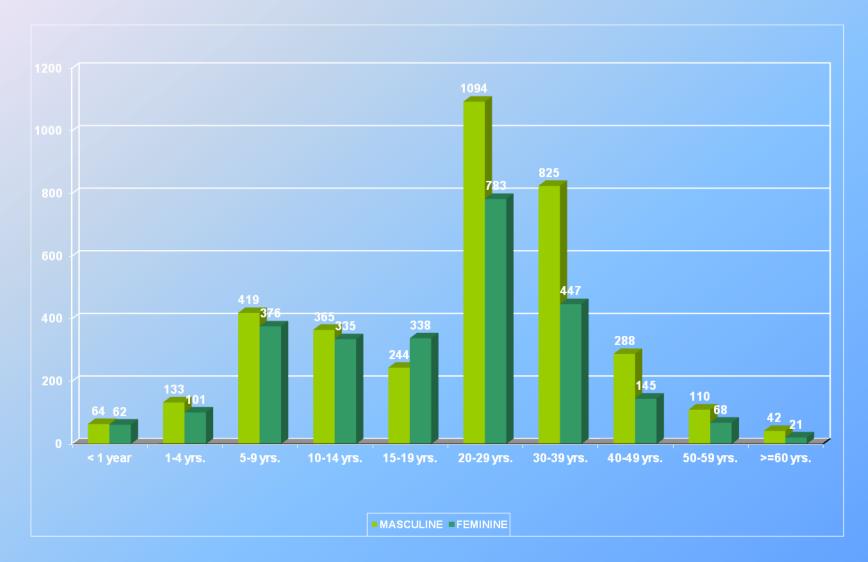
#### Children 2014: 0,35/100.000 Adults 2014: 2,38/100.000



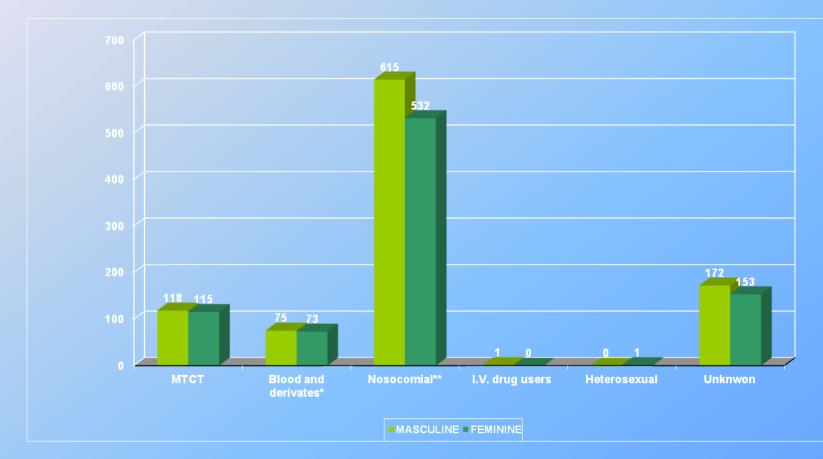
Sex distribution of HIV cases at 31 December 2014 (cumulative total 1992-2014)



Age and sex distribution (at the date of diagnosis) of HIV infection cases at 31 December 2014 (cumulative total 1992-2014)

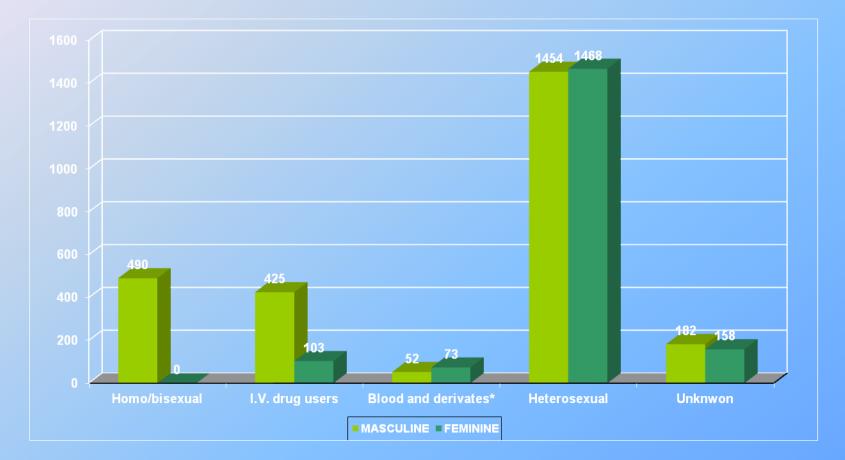


Probable way of transmission in children with HIV infection (0-14 years at the date of diagnosis) at 31 December 2014 (cumulative total 1992-2014)



\*Persons who received blood transfusions in the late 1980s and early 1990s \*\* Persons with repeated admissions and/or multiple parenteral treatments in the late 1980s and early 1990s

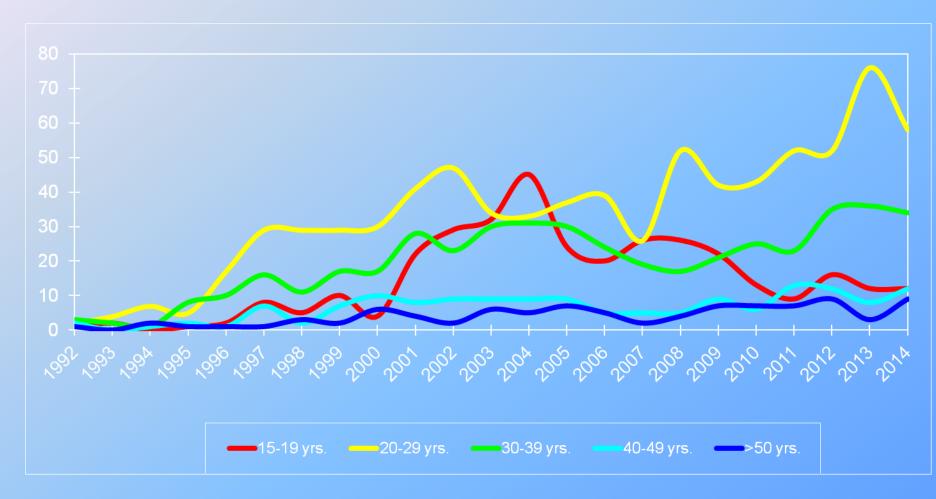
Probable way of transmission in adults with HIV infection (> 14 years at the date of diagnosis) at 31 December 2014 (cumulative total 1992-2014)



\*Persons who received blood transfusions in the late 1980s and early 1990s



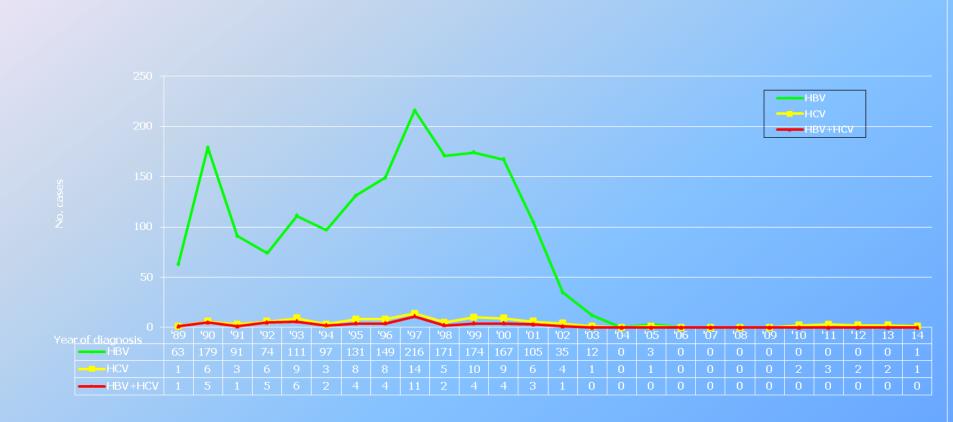
# Distribution of HIV infection in women by years of diagnosis and age group (1992-2014)



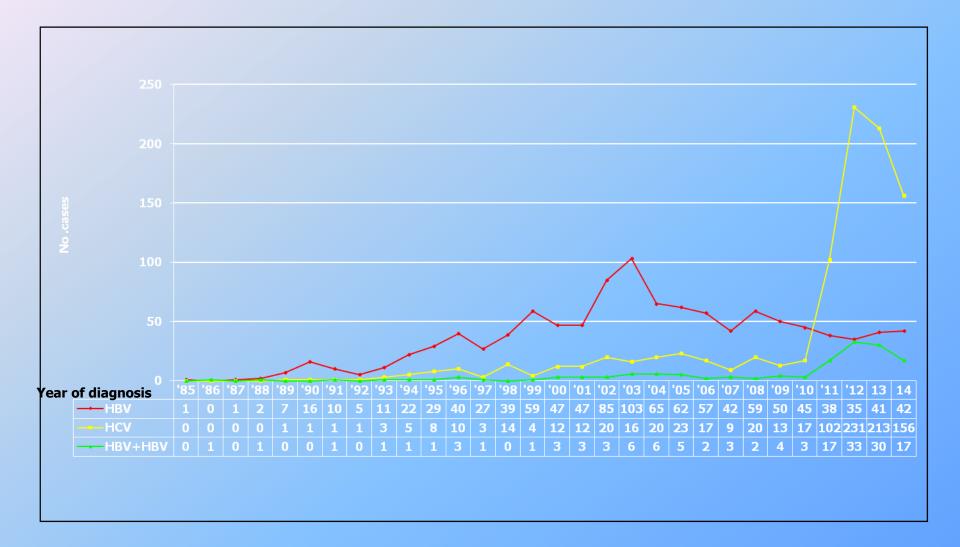
Distribution of HIV/AIDS cases in PLWHA by age groups and current age at 31 December 2014 (cumulative total 1985- 2014)

	SEX		TOTAL	
Age group	MASCULINE	FEMININE	TUTAL	
< 1 year	3	2	5	
1-4 yrs.	29	24	53	
5-9 yrs.	34	40	74	
10-12 yrs.	22	34	56	
13-14 yrs.	8	12	20	
15-19 yrs.	105	82	187	
20-24 yrs.	691	555	1246	
25-29 yrs.	3181	2666	5847	
30-34 yrs.	720	387	1107	
35-39 yrs.	685	465	1150	
40-49 yrs.	992	742	1734	
50-59 yrs.	535	342	877	
≥60 yrs.	323	207	530	
TOTAL	7328	5558	12886	

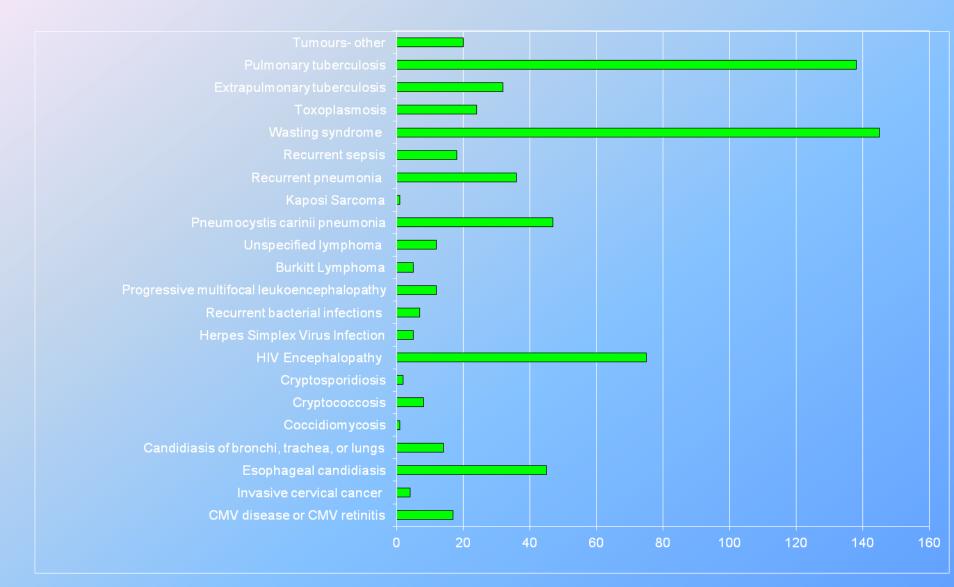
#### HBV, HCV and HBV+HCV infection in seropositive children during 1989-2014



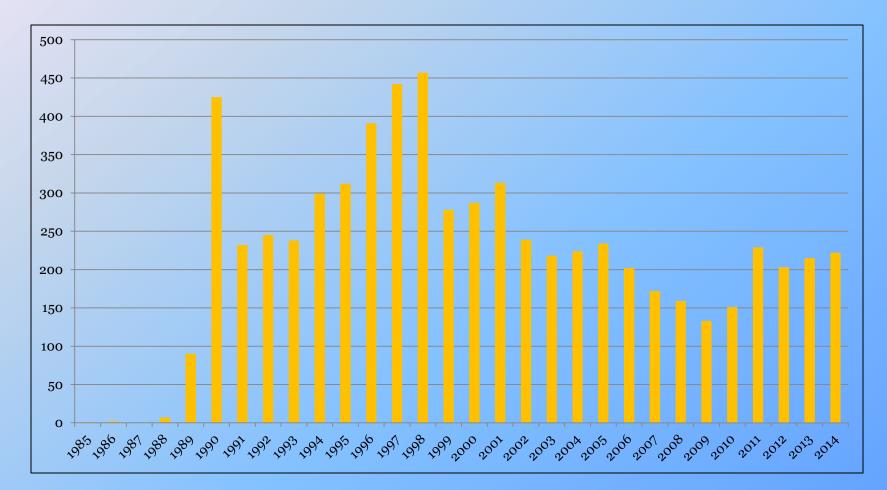
#### HBV, HCV and HBV+HCV infection in seropositive adults during 1985-2014



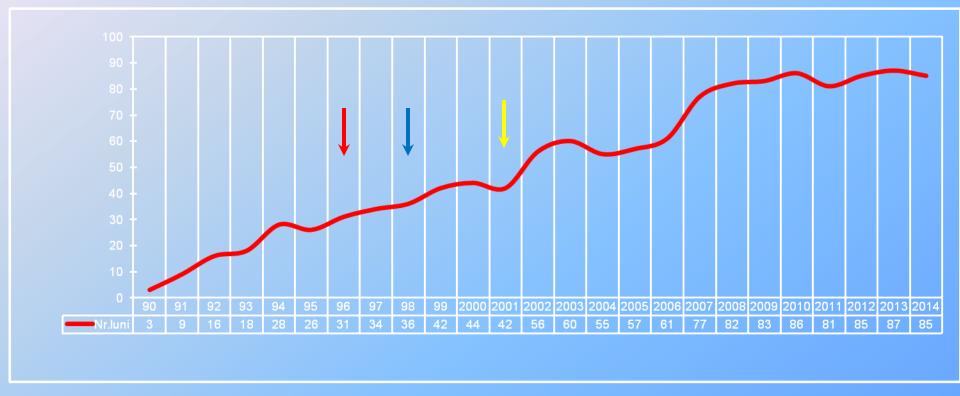
## AIDS defining illnesses in 2014

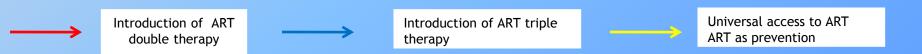


# Deaths by year 1985-2014



# Mean rate of survival (measured in months) in AIDS patients, between 1990-2014



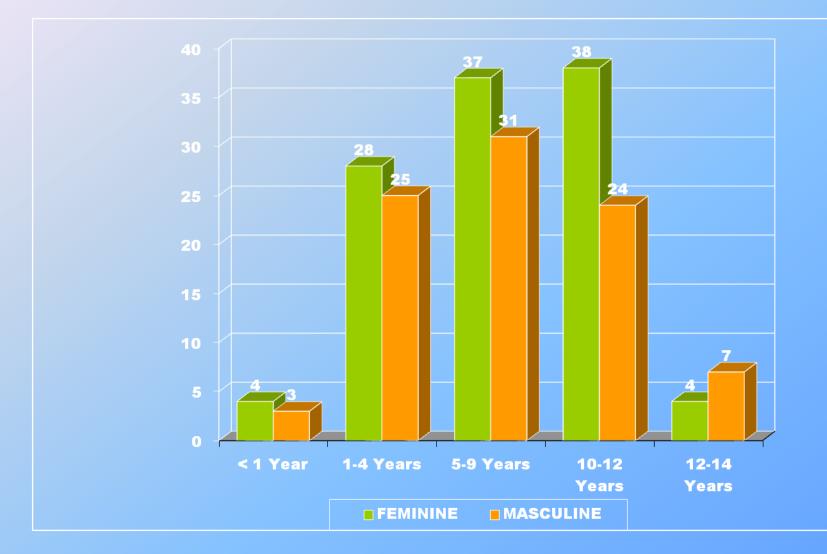


# Mother to child transmission of HIV in Romania

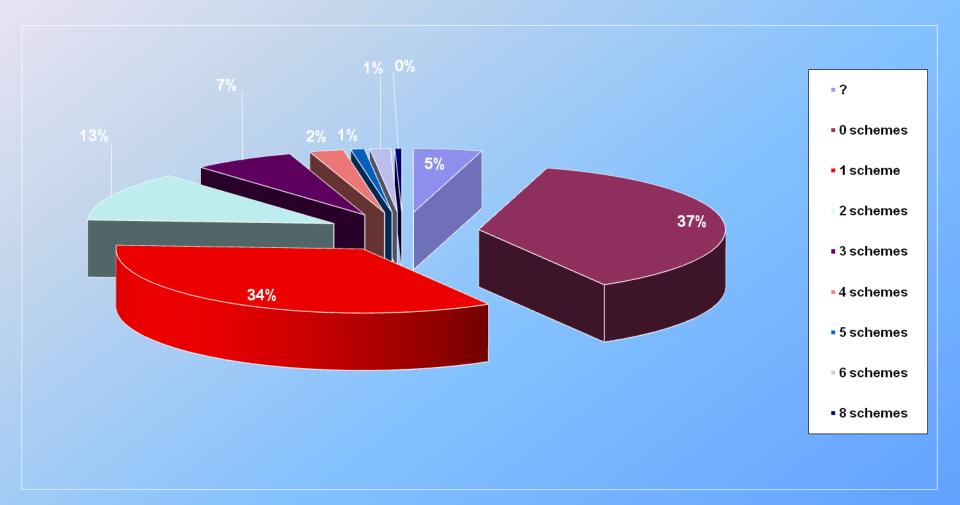
# HIV/AIDS Infection in children with mother to child transmission



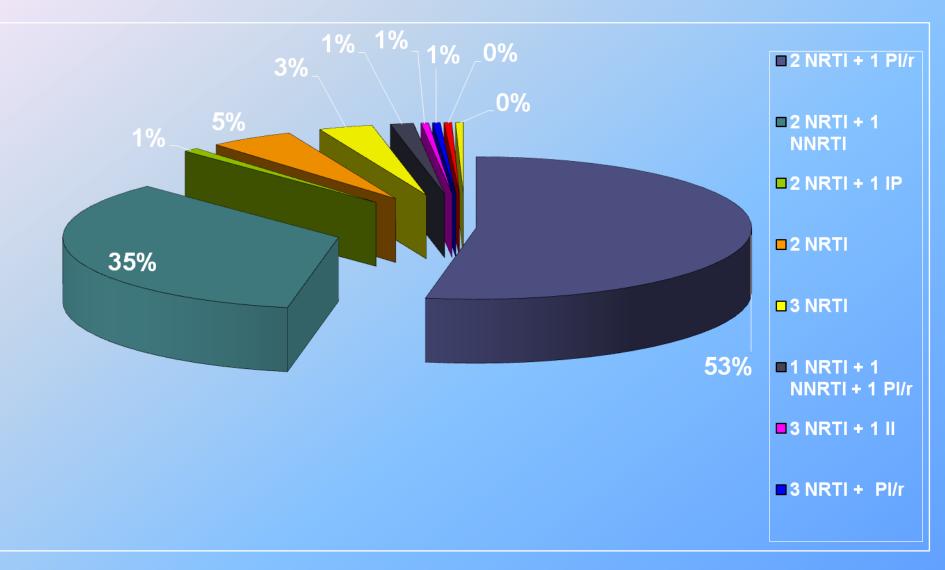
# Age group distribution of HIV/AIDS infection cases acquired through vertical transmission by age group



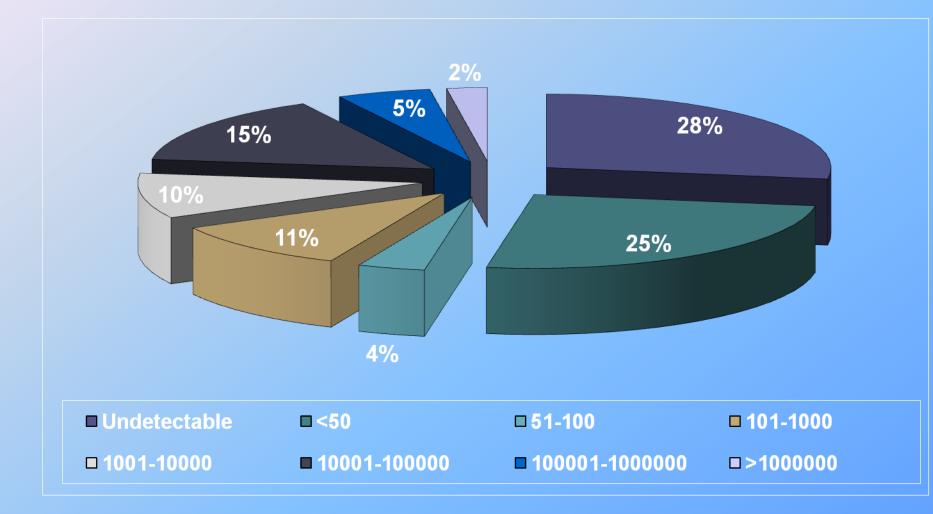
## Children (0-14 years): number of schemes prior to the actual one 31 December 2014



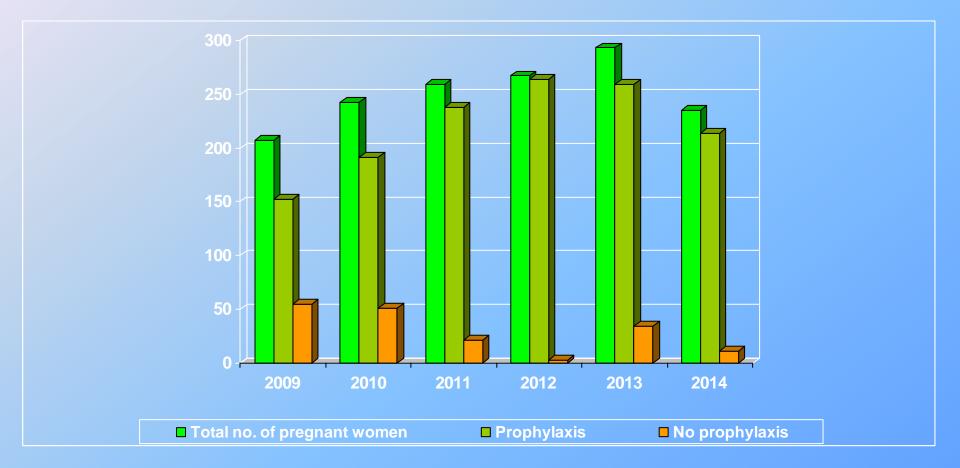
# ART schemes in children 31 December 2014



# Viral load values in children under antiretroviral treatment



## Prophylaxis of mother to child transmission in pregnant women 2009-2014



Prophylaxis of mother to child transmission in children born to HIV positive mothers 2009-2014

Year	No. of born children	No. of prophylaxis
2009	204	192
2010	222	204
2011	196	183
2012	203	196
2013	239	230
2014	215	211

HIV testing 2014

## HIV testing\* in risk groups in 2014

Risk group	Negative tests	Positive tests	TOTAL	%POZITIV
STD	2298	47	2345	2,00
ТВС	11240	106	11346	0,93
Maternity testing	694	12	706	1,70
Pregnant women	132634	183	132817	0,14
Health care staff	8649		8649	0,00
Pts. with hemodialysis	3757		3757	0,00
Pts. with transfusions	212		212	0,00
Prenuptial check-up	7496	10	7506	0,13
I.V. drug users	343	39	382	10,21
Inmates	548	4	552	0,72
Homosexuals	47	5	52	9,62
Commercial sex workers	36	1	37	2,70
HIV Contacts	1021	84	1105	7,60
Sailors	4944		4944	0,00
Drivers	8393	3	8396	0,04
Work abroad> 6 month	243	3	246	1,22
Stay abroad> 6 month	215		215	0,00
Testing by request	123532	1178	124710	0,94
Occasional	23704	741	24445	3,03
TOTAL	330006	2416	332422	0,73

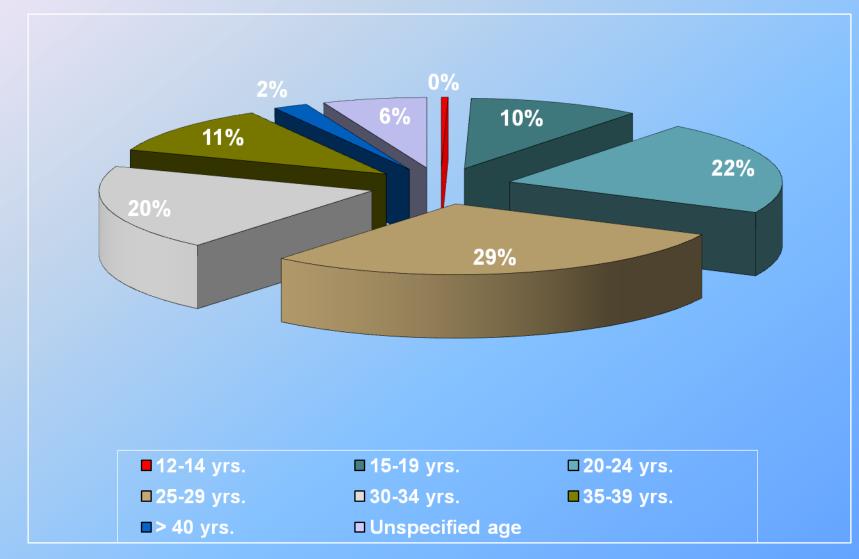
\* The data are sent by County Public Health Authorities

### HIV testing in pregnant women, by age group in 2014

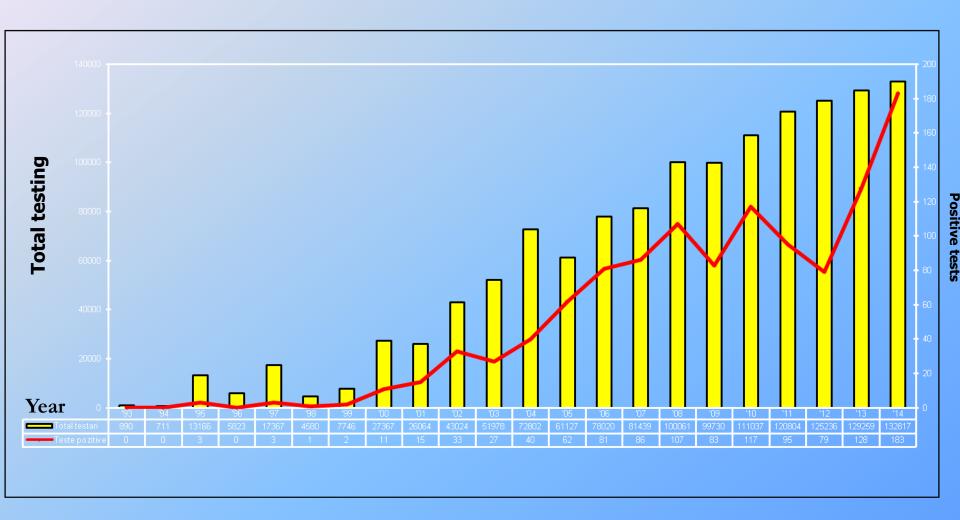
Age group	Negative tests	Positive tests	TOTAL
12-14 yrs.	530		530
15-19 yrs.	13515	16	13531
20-24 yrs.	28567	60	28627
25-29 yrs.	38292	40	38332
30-34 yrs.	25995	30	26025
35-39 yrs.	14836	7	14843
> 40 yrs.	2719	3	2722
Unspecified age	8180	27	8207
TOTAL	132634	183	132817

\* The data are sent by County Public Health Authorities

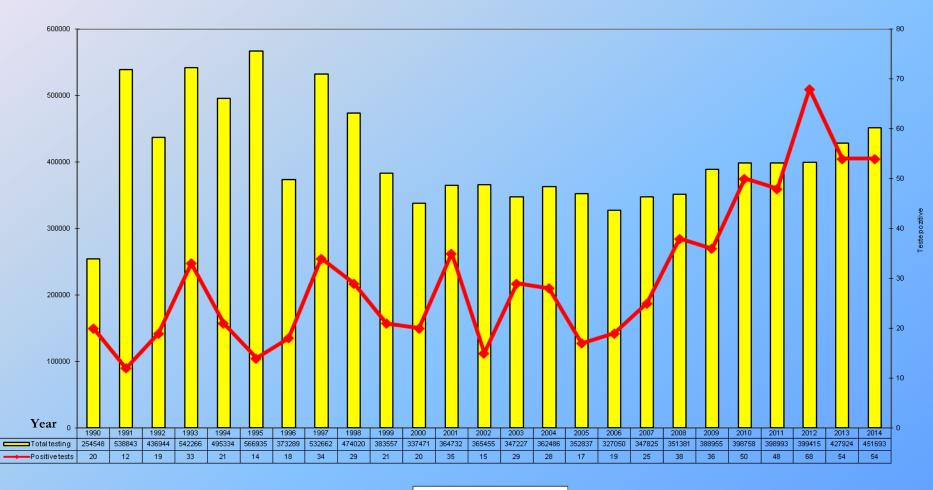
### HIV testing in pregnant women by age group in 2014



### HIV testing in pregnant women



### HIV testing in blood donors

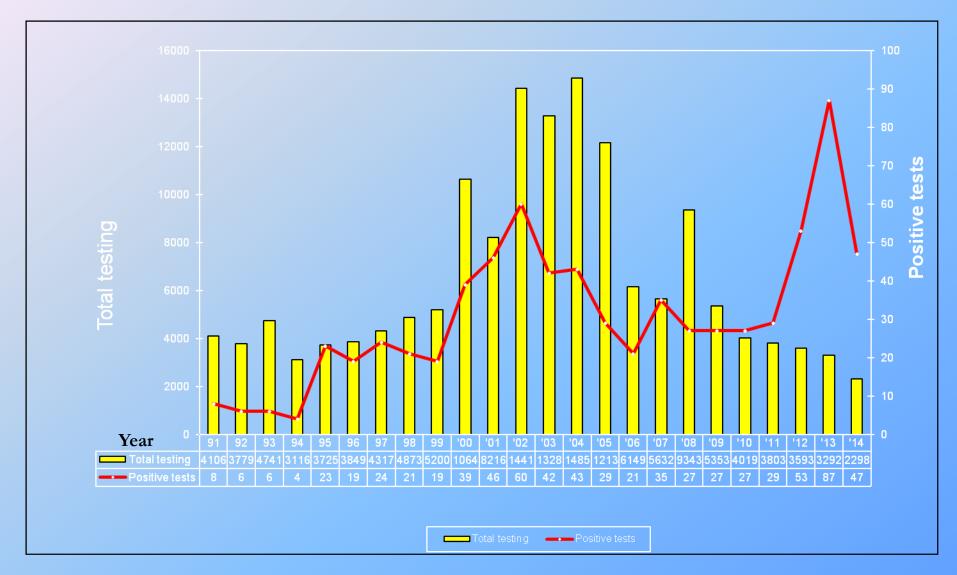


Total testing — Positive tests

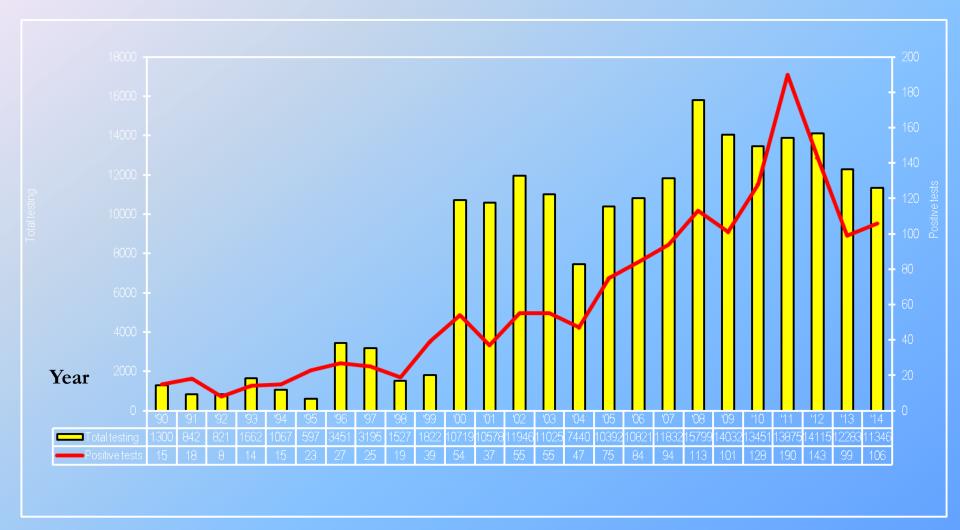
Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI "Prof.Dr.M.Balş"

Total testar

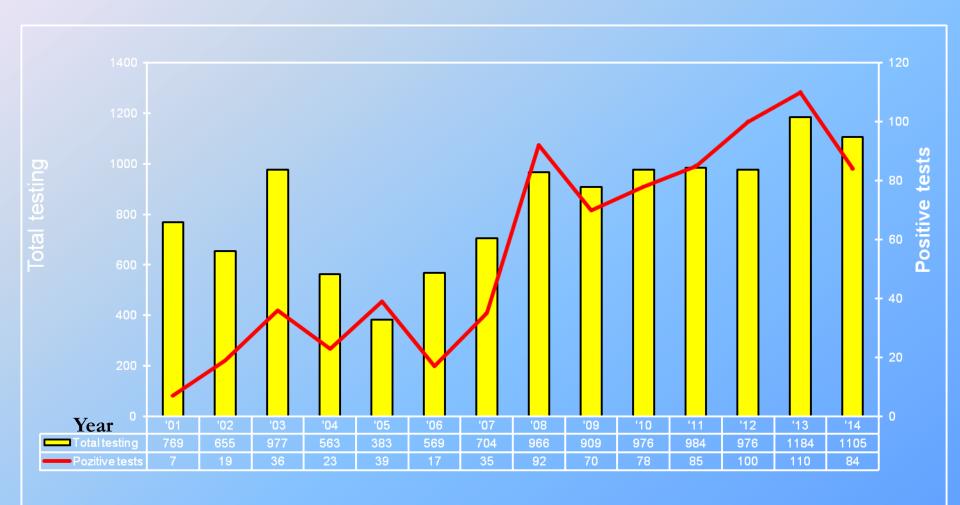
# **STD testing in HIV patients**



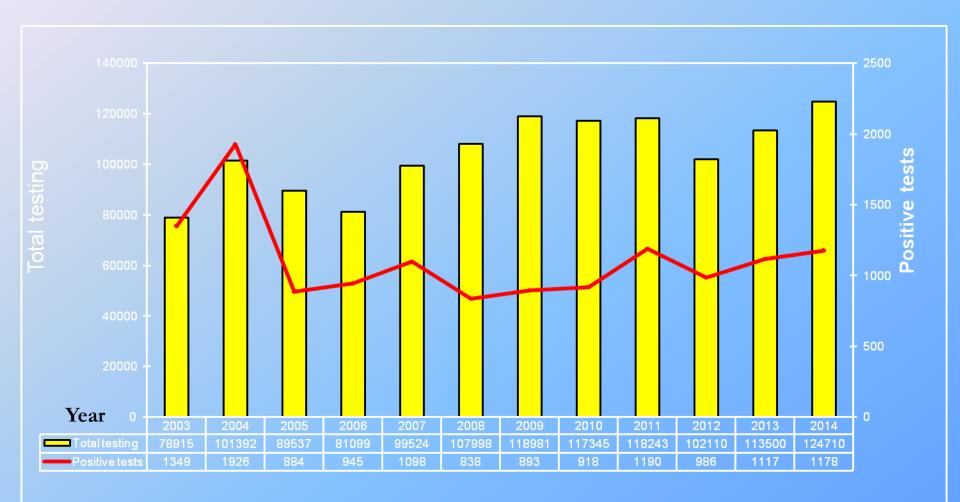
## **HIV testing in TB patients**



# **HIV testing in HIV contacts**



# **HIV testing by request**



# Challenges in 2014...

### Difficulties associated to the management of HIV/AIDS in Romania

- Impact of "therapeutic fatigue" on treatment adherence.
- Advanced stage of disease associated to virologic and immunologic failure.
- Multiple associated diseases that require specific treatment and antiretroviral treatment.
- Management of:
  - ART in TB/HIV co-infection
  - ART in HIV and HBV/HCV co-infection
  - New cases of HIV-IDUs (82% HCV co-infection, 8% HBV-HCV co-infection, 19% STD in 2014

### Difficulties associated to the management of HIV/AIDS in Romania

- Most WLWHA are long term survivors, infected in the late 1980s:
  - Multiple therapeutic schemes, that have an impact on ART resistance.
  - ~50% of couples are serodiscordant (>50% of women are HIV+).
  - In this context, the rate of MTCT has been kept <5% during the last years due to the National Mother to Child Transmission Prevention Programme, initiated in 1998. In 2014, the rate accounted only 2% from the cumulative total of new cases.
  - Furthermore, efforts are being done in order to maintain the MTCT rate at low values.

### Difficulties associated to the management of HIV/AIDS in Romania

 During the last years, the main way of transmission was unprotected heterosexual contact. For 2014: 58,6% of new cases

• The IDU/HIV rate increased from 3% in 2010 at 29,23% in 2013 and 21% in 2014.

• The MSM/HIV rate is >10% from the cumulative total of new cases- 15% in 2014.

• The highest number of new diagnosed cases was registered at the 25-29 age group.

• An increase in the number of persons infected with HIV who need specialized medical services has been observed.

# Challenges: 2014-2015

**ART Use** 

### PLWHA

Young by age, old by treatment Therapeutic fatigue New cases of HIV: young persons, in their fertile age, late presenters.

MSMs: dynamic increase in no. of cases.

Aging persons by age and by HIV (aging with HIV).

### MTCT

Young mothers, multi- experienced in ART Mothers with unknown HIV status- should Be tested and treated for HIV. New approach for management of perinatally exposed newborns.

National Registry of the# Perinatally exposed child and HIV infected women Almost all ARVs are registered in Romania Treatment as prevention . Special issues in ART in young women .

# IDUs

New psychoactive drugs New approach for the case management

Source : A. Streinu-Cercel. cnlas.ro: Specific Challenges of the Hiv Epidemic in Romania. EACS 2013.

# "1987-1990 COHORT"

- The biggest cohort in Europe, in the 20-29 age group
- It represents ~half of the HIV positive population in Romania
- Sex ratio 1:1
- F1 Subtype: around 100%
- Long term survivors (~ 6000 survivors)
  - Multiple ART regimens (10-15!)
  - Salvage therapy
  - O ART toxicity
  - **O** "Therapeutic fatigue"
- They have/want children of their own:
  - $\rightarrow$  Problems  $\downarrow$  vertical transmission
  - →ART therapy long term teratogenic effects

## New cases:

- Late presenters: heterosexual persons, F1 subtype
- "Real time" presentations to hospital: MSM&IDUs (HIV primary infections!):
  - MSM: high level of education → voluntary and pro-active testing
  - IDU: socially integrated  $\rightarrow$  tested by the medical staff
- Transmitted resistance: increased level in all groups <10% (4.6%).
- A special issue: children born to mothers who use injecting drugs, that also present HIV+HCV+HBV co-infection!

Source : A. Streinu-Cercel. cnlas.ro: Specific Challenges of the Hiv Epidemic in Romania. EACS 2013.

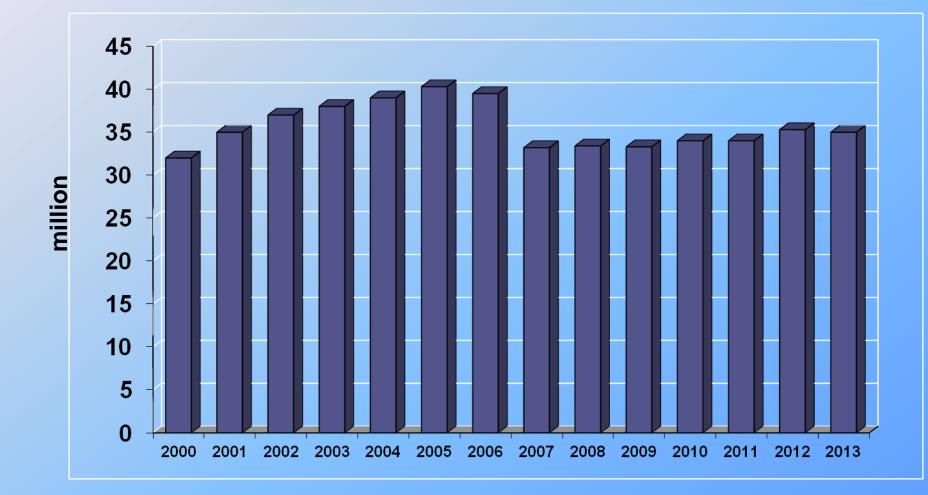
# Global HIV/AIDS infection

2013

# General data in 2013

Number of PLWHA	Total	35 million (33,2 - 37,2 million)
	Adults	31,8 million (30,1 - 33,7 million)
	Women	16,0 million (15,2 - 16,9 million)
	Children < 15 years	3,2 million (2,9 - 3,5 million)
Persons infected with HIV/AIDS in 2013	Total	2,1 million (1,9 - 2,4 million)
	Adults	1,9 million (1,7 - 2,1 million)
	Children < 15 years	240.000 (210.000 - 280.000)
Deaths caused by AIDS in 2013	Total	1,5 million (1,4 - 1,7 million)
	Adults	1,3 million (1,2 - 1,5 million)
	Children< 15 years	190.000 (170.000 -220.000)

### Estimates on the number of PLWHA (2000-2013)



# Global estimates on adults and children in 2013

• PLWH:

35 million (33,2 - 37,2 million)

New cases of HIV infection detected in 2013
 2,1 million (1,9 - 2,4 million)

Deaths caused by AIDS in 2013

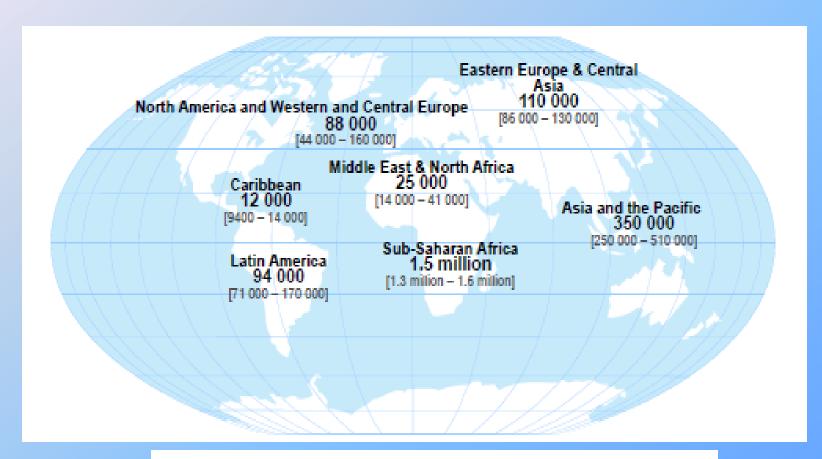
1,5 million (1,4 - 1,7 million)

### Estimates on the number of children and adults living with HIV in 2013



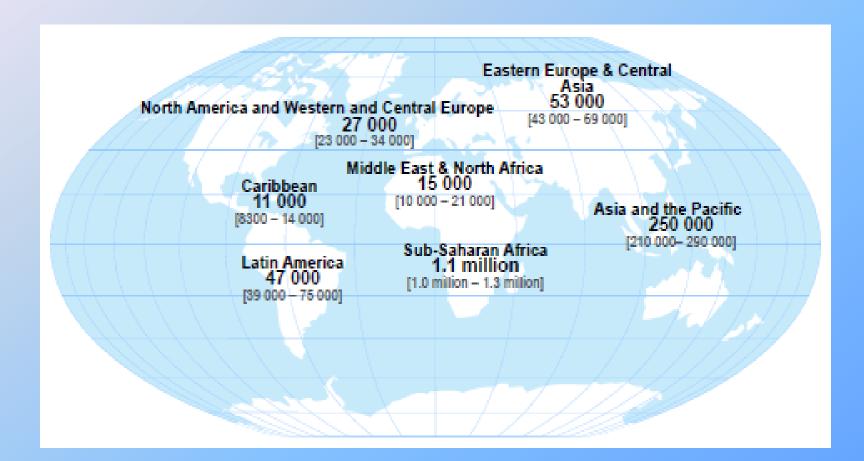
Total: 35.0 million [33.2 million – 37.2 million]

### Estimates on the number of adults and children infected with HIV in 2013



### Total: 2.1 million [1.9 million – 2.4 million]

# Estimates on the number of deaths caused by AIDS (adults and children) in 2013



Total: 1.5 million [1.4 million – 1.7 million]

### Almost 6000 persons newly infected with HIV in 2013

- More than 68% come from Sub-Saharan Africa
- Almost 700 are children below 15
- Almost 5200 are persons over 15 years, of which:
  - Approx. 47% are women
  - Approx. 33% are aged between 15-24 years



### Global estimates on HIV and AIDS at the end of 2013 Children (<15 years)

Children living with HIV

3,2 million (2,9 - 3,5 million)

- Newly infected children with HIV in 2013
- Deaths caused by AIDS în 2013

240.000 (210.000 - 280.000)

190.000 (170.000 -220.000)

### Regional statistical data December 2013

	Adults and children	Adults and children	Adult prevalence	Adult & child
	living with HIV	newly infected with HIV	(15–49) [%]	deaths due to AIDS
Sub-Saharan Africa	24.7 million	1.5 million	4.7%	1.1 million
	[23.5 million – 26.1 million]	[1.3 million – 1.6 million]	[4.4% - 4.9%]	[1.0 million – 1.3 million]
Middle East	230 000	25 000	0.1%	15 000
and North Africa	[160 000 - 330 000]	[14 000 - 41 000]	[<0.1% - 0.2%]	[10 000 - 21 000]
Asia and the Pacific	4.8 million	350 000	0.2%	250 000
	(4.1 million – 5.5 million)	[250 000 - 510 000]	[0.2% - 0.2%]	[210 000 - 290 000]
Latin America	1.6 million	94 000	0.4%	47 000
	[1.4 million – 2.1 million]	[71 000 - 170 000]	[0.4% - 0.6%]	[39 000 - 75 000]
Caribbean	250 000	12 000	1.1%	<b>11 000</b>
	[230 000 - 280 000]	[9400 - 14 000]	[0.9% - 1.2%]	[8300 – 14 000]
Eastern Europe	<b>1.1 million</b>	110 000	0.6%	53 000
and Central Asia	[980 000 – 1.3 million]	[86 000 - 130 000]	[0.6% - 0.8%]	[43 000 - 69 000]
Western and Central Europe	2 300 000	88 000	0.3%	27 000
and North America	[2.0 million - 3.0 million]	[44 000 - 160 000]	[0.3% - 0.5%]	[23 000 - 34 000]
TOTAL	35.0 million	2.1 million	0.8%	1.5 million
	[33.2 million – 37.2 million]	[1.9 million – 2.4 million]	[0.7% - 0.8%]	[1.4 million – 1.7 million]

The ranges around the estimates in this table define the boundaries within which the actual numbers lie, based on the best available information.



# Estimates for WHO European Region (53 countries) - 2013 HIV/AIDS

HIV/AIDS reported cases (cumulative total):

AIDS cases:	437.885
AIDS deaths:	230.370
HIV Infection:	914.813

# Characteristics of HIV infection cases diagnosed in the WHO European Region in 2013, by geographical areas

	WHO European Region	West	Centre	East	EU/EEA countries
Reporting countries/no. of reporting countries	51/53 (51/53)	23/23	15/15	13/15 (14/15)	30/31
Number of HIV infection cases	56 507 (136 235)	26 847	4166	25 494 (105 222)	29 157
Rate per 100.000 population	7,8 (15,7)	6,3	2,2	22,7 (41,2)	5,7
% of cases:					
15-24 age group	10,2%	10,3%	14,4%	9,5%	10,9%
Men/women ration	2.2 (1.7)	3,3	4,9	1,3 (1,4)	3,3%
Way of transmssion					
Heterosexual	46,1% (30,6%)	33,6%	24,8%	62,7% (30,0%)	32%
MSM	23,6% (10,1%)	43,1%	30,1%	2% (0,8%)	42%
I.V. drugs	16,2% (21,3%)	4,1%	5,9%	30,6% (26,3%)	5%
мтст	0,9% (0,6%)	0,7%	1,1%	1,1% (0,6%)	< 1%
Unknown	13% (37,3%)	18,2%	37,9%	3,6% (42,2%)	20%

No data received from Lichtenstein, Turkmenistan or Uzbekistan.

\*Figures including Russia are presented for the WHO Region and East in (brackets)

Source: ECDC/WHO (2014). HIV/AIDS Surveillance in Europe, 2013; data for Russia which were published by the Russian Federal Scientific and Methodological Center for Prevention and Control of AIDS.

### CASE DEFINITIONS OF COMMUNICABLE DISEASES ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) AND HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION

**Clinical Criteria (AIDS)** 

Any person who has any of the clinical conditions as defined in the European AIDS case definition for:

- Adults and adolescents ≥ 15 years
- Children < 15 years of age

Laboratory Criteria (HIV)

- Adults, adolescents and children aged ≥ 18 months
- At least one of the following three:
- Positive result of a HIV screening antibody test or a combined screening test (HIV antibody and HIV p24 antigen) confirmed by a more specific antibody test (e.g. Western blot)
- Positive result of 2 EIA antibody test confirmed by a positive result of a further EIA test
- Positive results on two separate specimens from at least one of the following three:
- Detection of HIV nucleic acid (HIV-RNA, HIV-DNA)
- Demonstration of HIV by HIV p24 antigen test, including neutralisation assay
- Isolation of HIV
- Children aged < 18 months</p>
- Positive results on two separate specimens (excluding cord blood) from at least one of the following three:
- Isolation of HIV
- Detection of HIV nucleic acid (HIV-RNA, HIV-DNA)
- Demonstration of HIV by HIV p24 antigen test, including neutralisation assay in a child ≥ 1 month of age

**Epidemiological Criteria NA** 

**Case Classification** 

- A. Possible case NA
- **B. Probable case NA**
- C. Confirmed case
- HIV infection

Any person meeting the laboratory criteria for HIV infection

- AIDS

Any person meeting the clinical criteria for AIDS and the laboratory criteria for HIV infection

### Definitions

- INCIDENCE = Number of new cases of infection X 100.000 population, registered at 1 July 2013
- PREVALENCE = Number of new and old cases of infection X 100.000 population, registered at 1 July 2013
- CHILD = person entering the 0-14 age group, as CDC definition established(1993-1994)
- ADULT = person ≥ 15 years, as CDC definition established (1993-1994).

# \*Sources and references

 Revised surveillance Case Definition for HIV Infection Among Adults, Adolescents, and Children Aged < 18 Month sand for HIV Infection and AIDS Among Children Aged 18 Months to <13 years--- CDC, United States, 2008

http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5710a1.htm

- Commission Decision of 28/IV/2008 amending Decision 2002/253/Ec laying down case definitions for reporting communicable diseases to the Community network under Decision no 2119/98/EC of the European Parliament and Council
- Who case definitions of HIV for surveillance and Revised clinical staging and immunological Classification of HIVrelated disease in adults and Children (World Health Organization 2007)

http://www.who.int/hiv/pub/guidelines/HIVstaging150307.pdf

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