A XI-a Conferinţă Naţională de Microbiologie şi Epidemiologie
Prioritățile Preşedinţiei României la Consiliul UE pe agenda CNME
08-10 noiembrie 2018

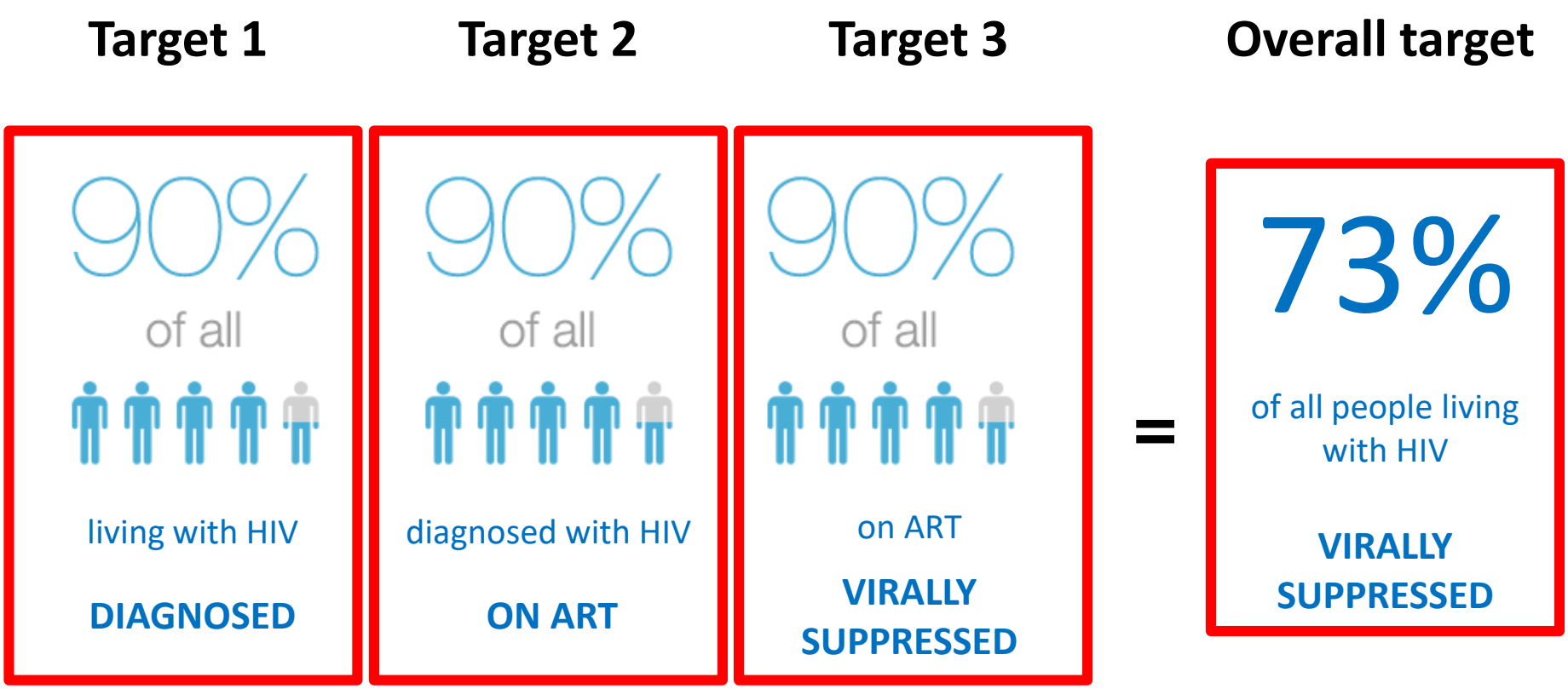
Consideraţii epidemiologice şi corelatia cu cascada îngrijirilor în infecţia HIV în România

Epidemiological considerations and correlation with the cascade of HIV cares in Romania

Mariana Mărdărescu, Adrian Streinu-Cercel
National Institute for Infectious Diseases "Prof. Dr. Matei Bals"
Bucharest Romania

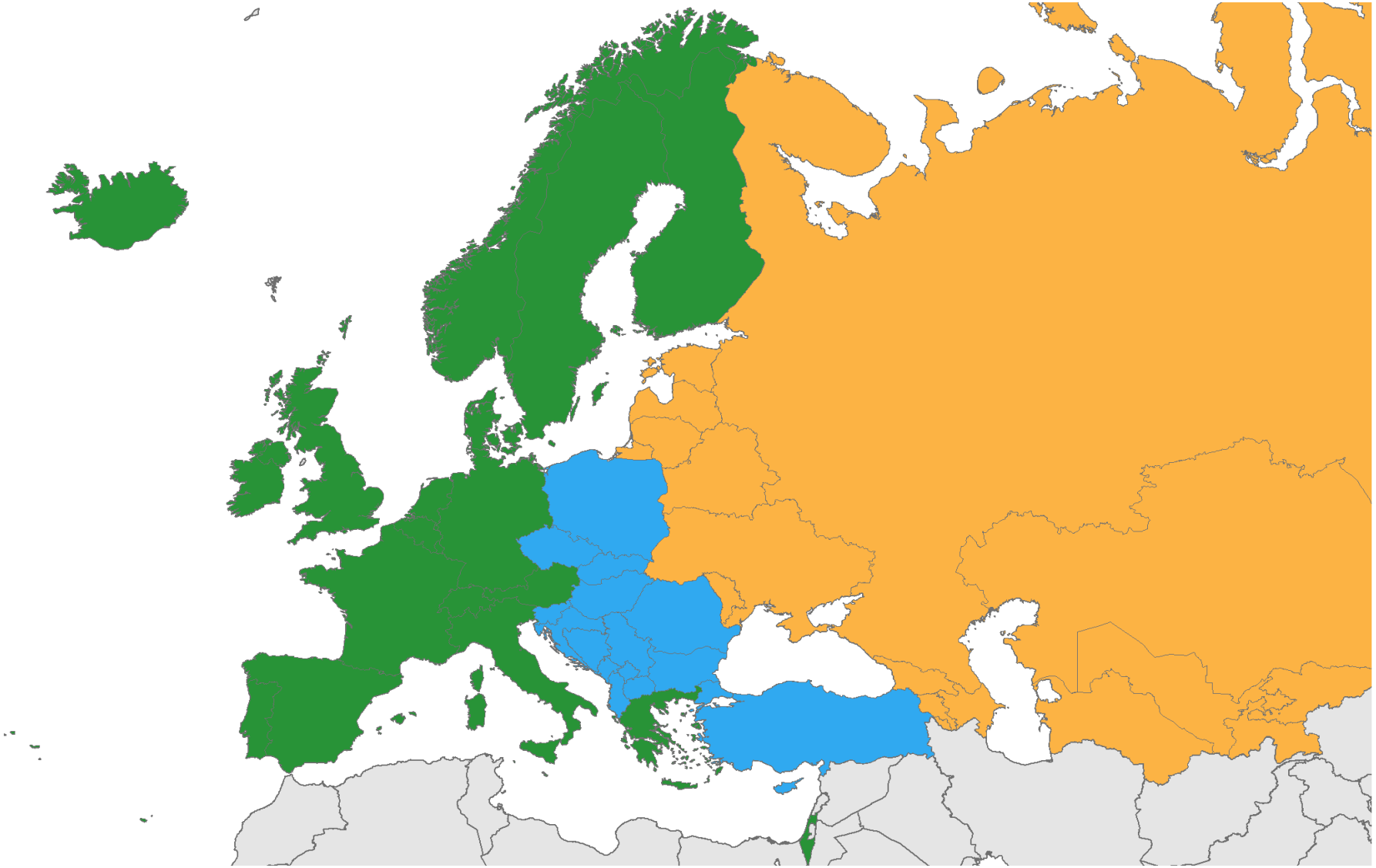
Progress towards achieving the 90-90-90 target

Fast Track Targets by 2020



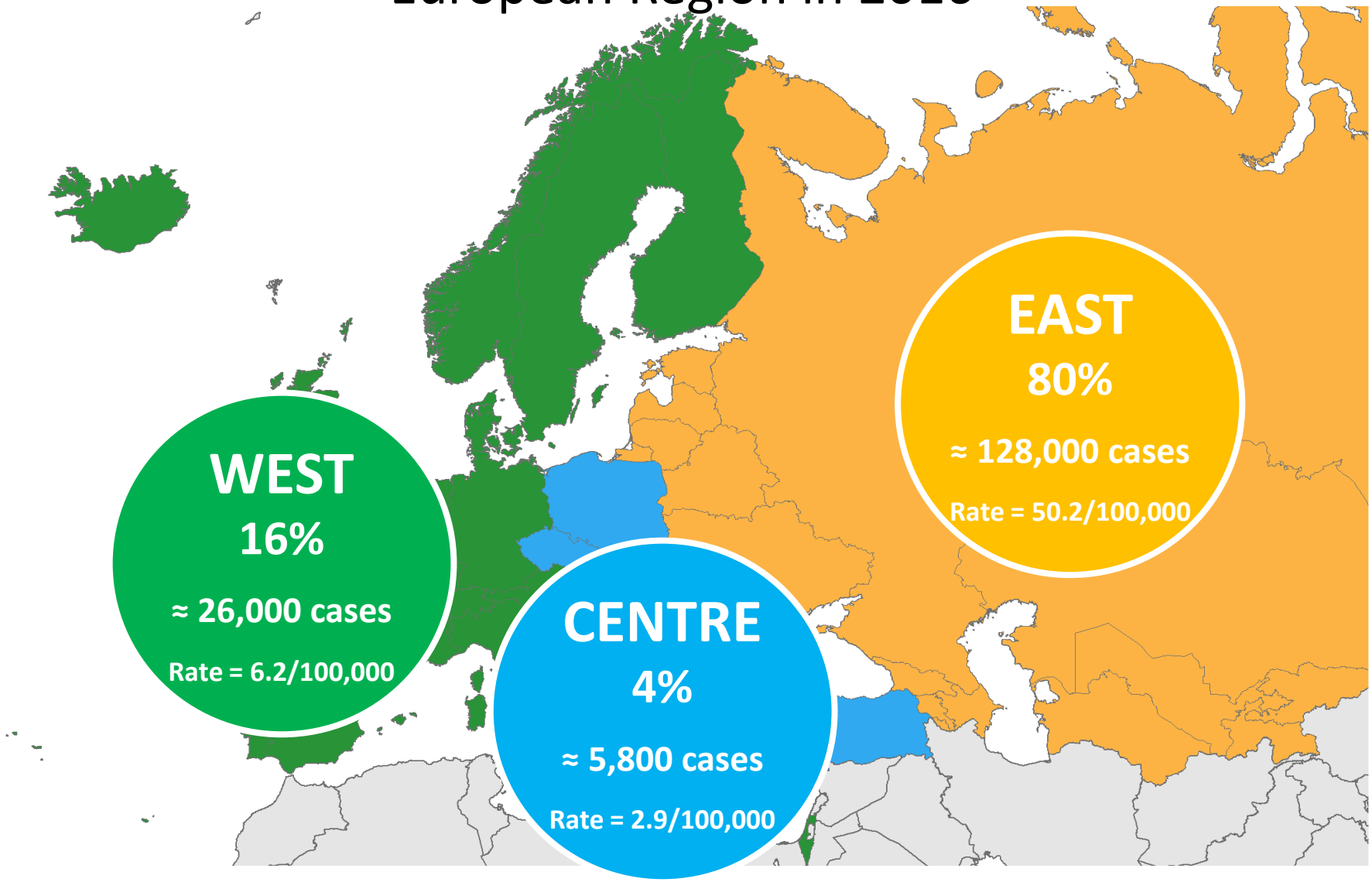
Source: ECDC/WHO (2017). Continuum of HIV care. Monitoring implementation of the Dublin Declaration on Partnership to Fight HIV/AIDS in Central and Eastern Europe: 20147 Progress. Report.

How WHO categorises the region into West, Centre and East



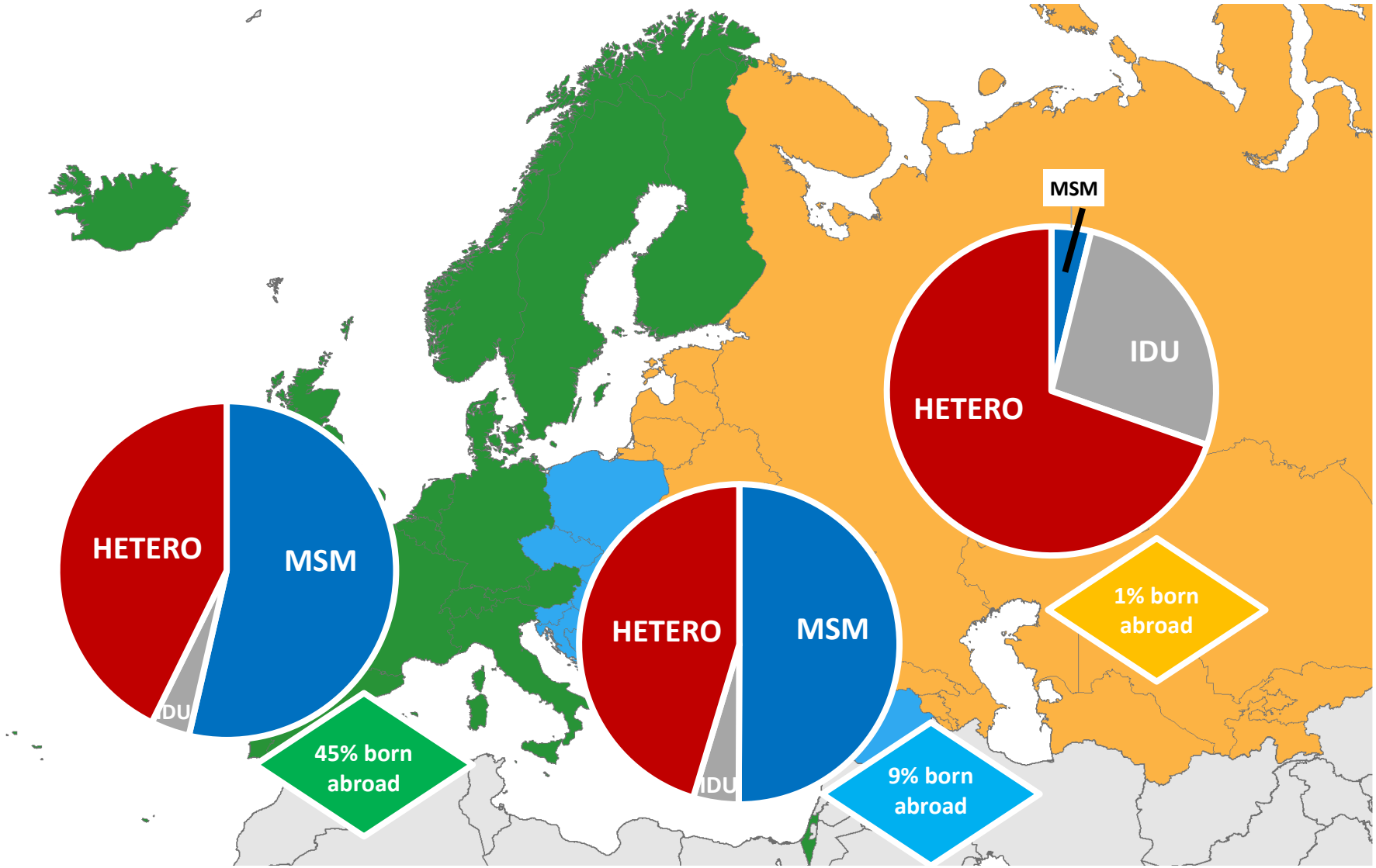
Source: ECDC/WHO (2017). HIV/AIDS Surveillance in Europe 2017– 2016 data

>160 000 persons were diagnosed with HIV in the WHO European Region in 2016



Source: ECDC/WHO (2017). HIV/AIDS Surveillance in Europe 2017– 2016 data

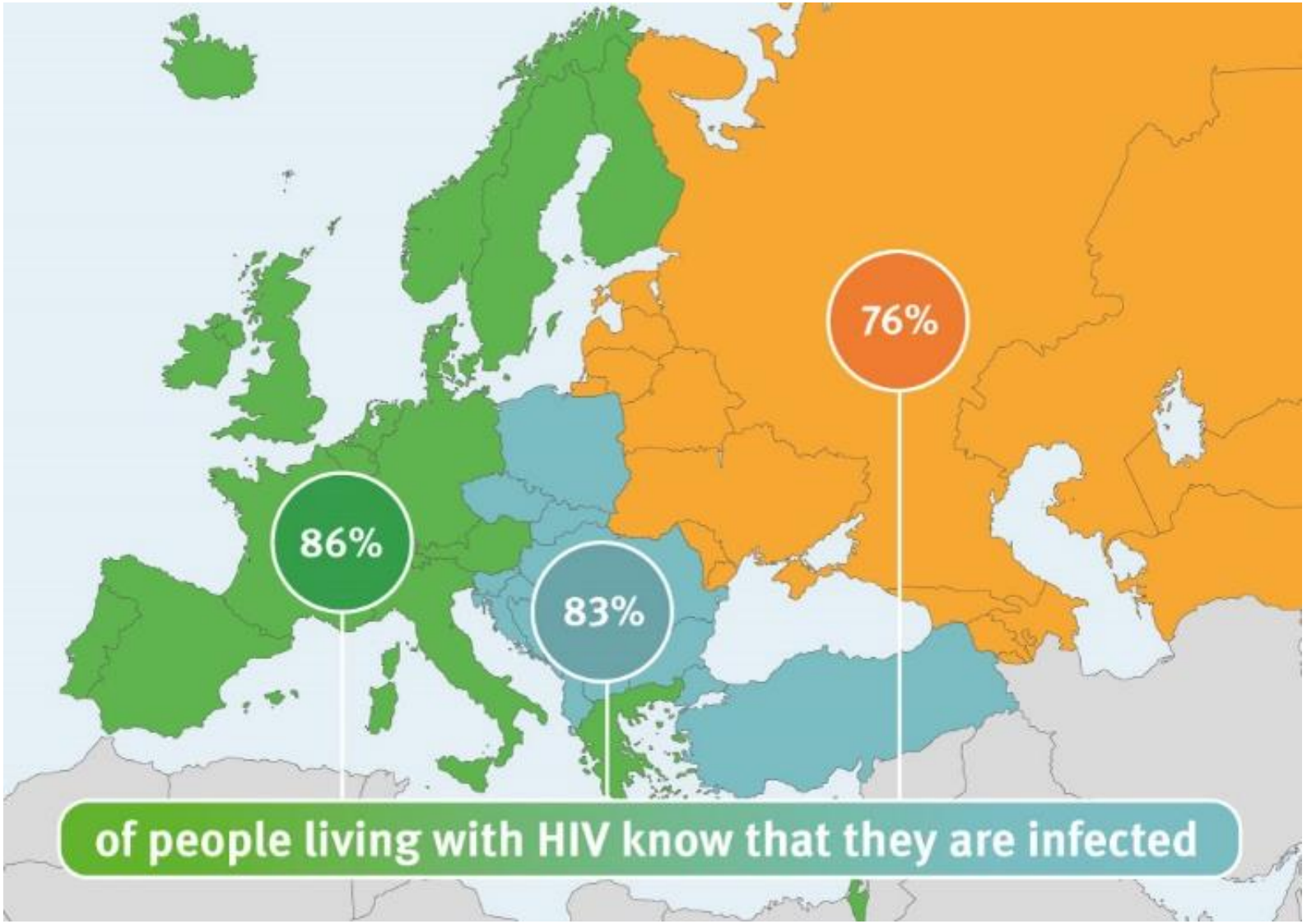
Transmission risk pattern differs by sub-region



Source: ECDC/WHO (2017). HIV/AIDS Surveillance in Europe 2017– 2016 data

Progress toward achieving the 1st 90:

Sub-regional variation: West, Centre, East



Source: ECDC. Dublin Declaration monitoring 2018; validated unpublished data.

Continuum of care: definitions

- The continuum of care is a conceptual framework that enables countries to monitor the effectiveness of key areas of HIV response.

- The sequential nature of the stages in the continuum can clearly indicate where countries need to focus their efforts and which programmes and activities require improvement.

- The continuum of HIV care is also a useful framework for assessing progress against the UNAIDS 90-90-90 targets for 2020: 90% of all PLHIV know their status; 90% of those diagnosed are receiving ART; 90% of all those on ART are virally suppressed.

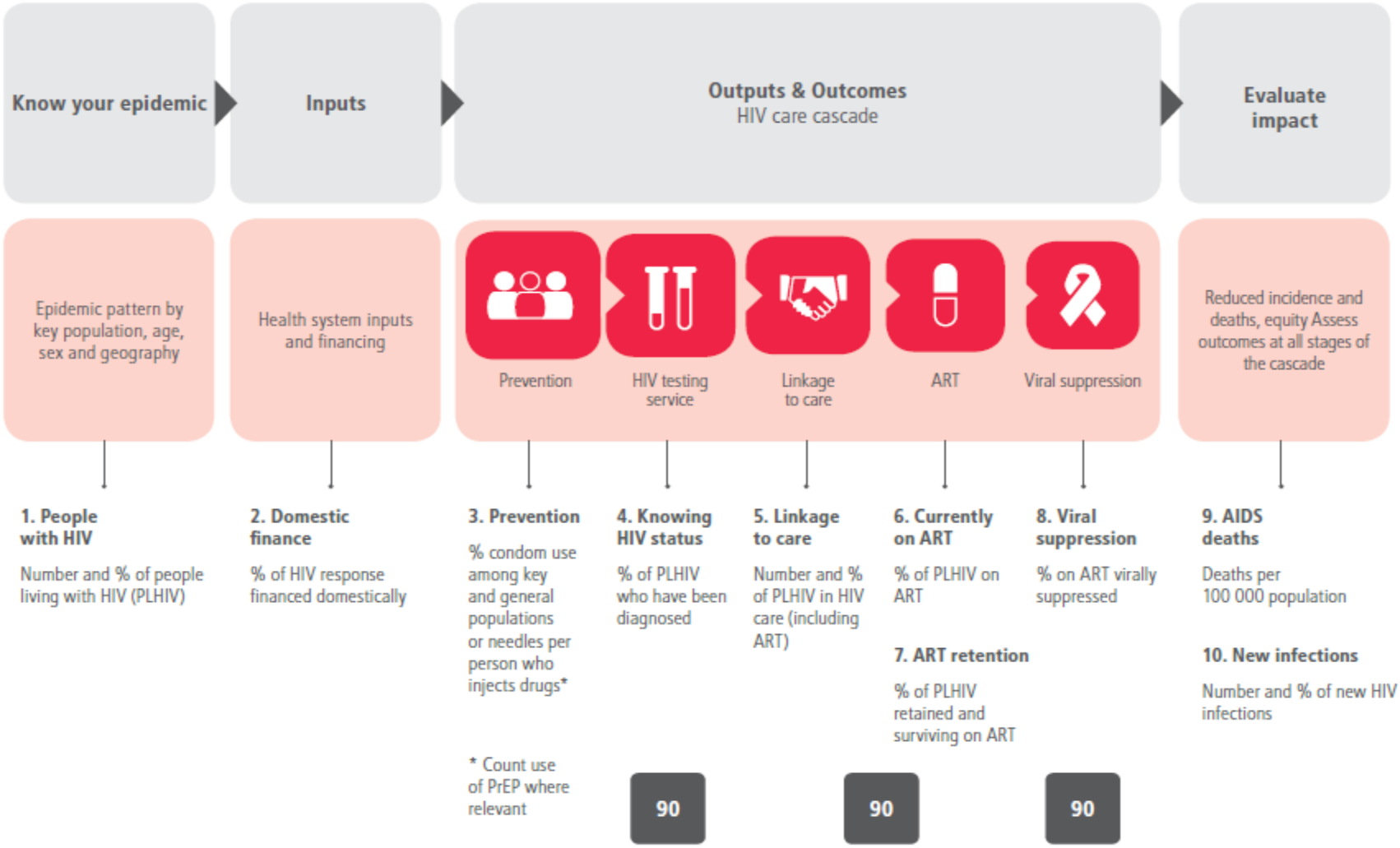
Source: Continuum of care. Monitoring implementation of the Dublin Declaration on Partnership to fight HIV/AIDS in Europe and Central Asia. 2017 Progress Report., p.1

Proposed definition for each of the four stages in the continuum

Stage 1: Total estimated number of people living with HIV in the country The total estimated number should be based on an empirical modelling approach, using the ECDC HIV Modelling Tool[1], Spectrum or any other empirical estimate. The estimate should include diagnosed and undiagnosed people.
Stage 2: Number/percentage of above (estimated number of people living with HIV in the country) ever diagnosed The number should include all new HIV or AIDS diagnoses. It should also include those people who are in care and those who have not been linked to cared.
Stage 3: Number/percentage of above (estimated number of people living with HIV in the country, ever diagnosed) who ever initiated antiretroviral treatment The number should include all who ever initiated ART, regardless of treatment regimen or treatment interruptions/discontinuation.
Stage 4: Number/percentage of above (estimated number of people living with HIV in the country, ever diagnosed, ever initiated antiretroviral treatment) who had VL ≤200 copies/ml at last visit (virally suppressed) The number should include all who ever initiated ART, regardless of regimen or treatment interruptions/discontinuation.

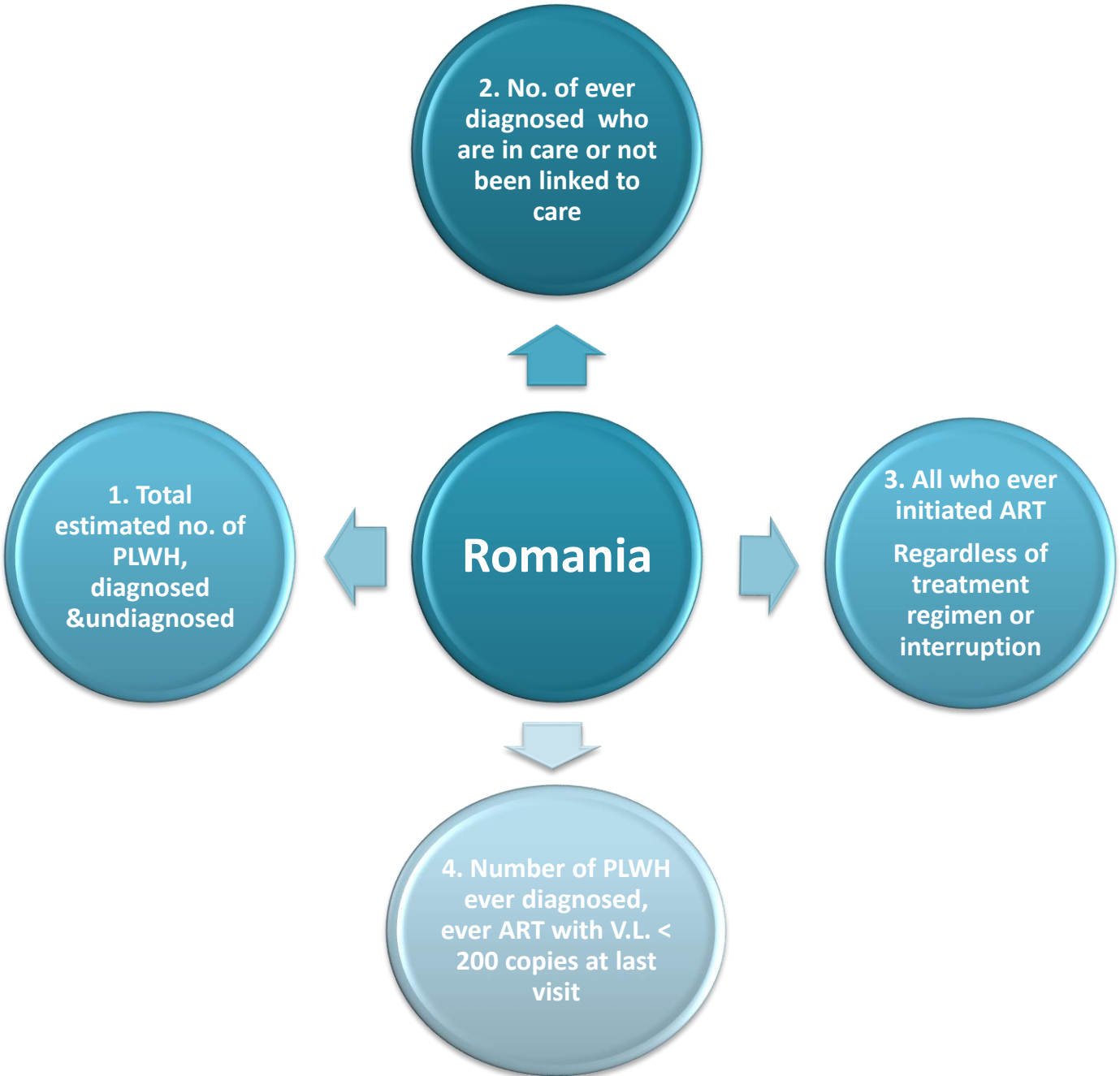
[1] http://ecdc.europa.eu/en/healthtopics/aids/Pages/hiv-modelling-tool.aspx

Global indicators for the monitoring and evaluation of the health sector response to HIV

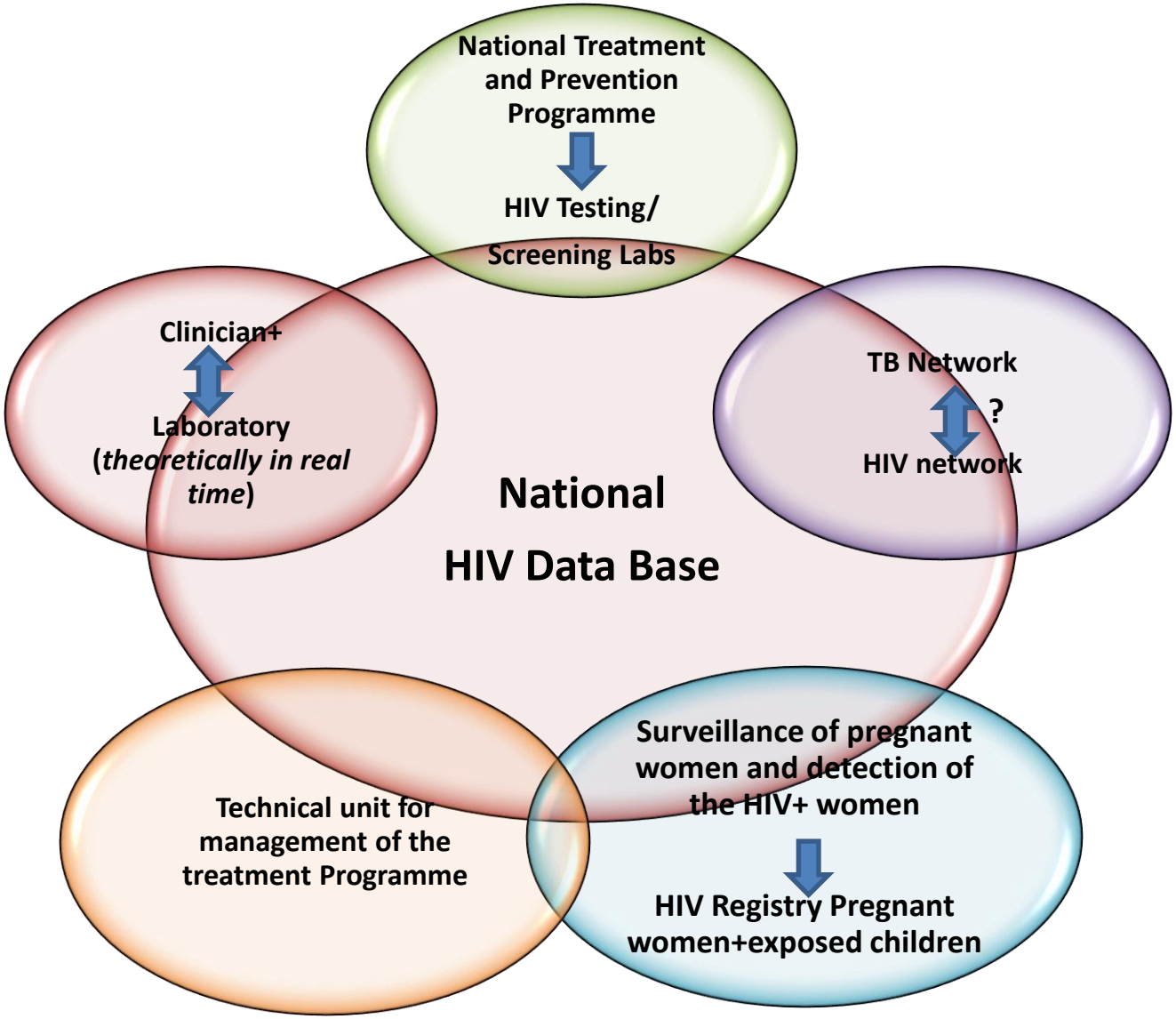


Source: Consolidated strategic information guidelines for HIV in the health sector. P32
http://apps.who.int/iris/bitstream/10665/164716/1/9789241508759_eng.pdf?ua=1&ua=1

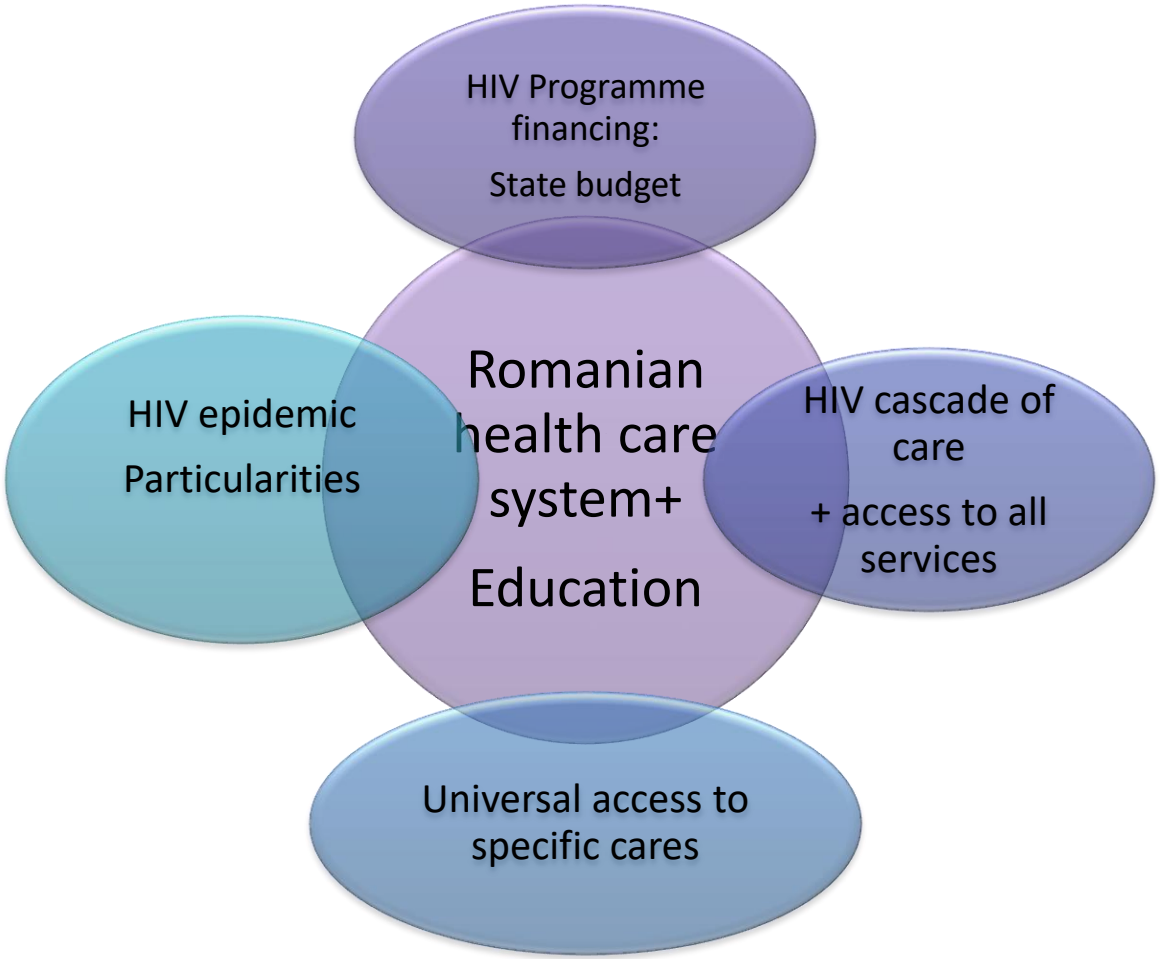
International requests...



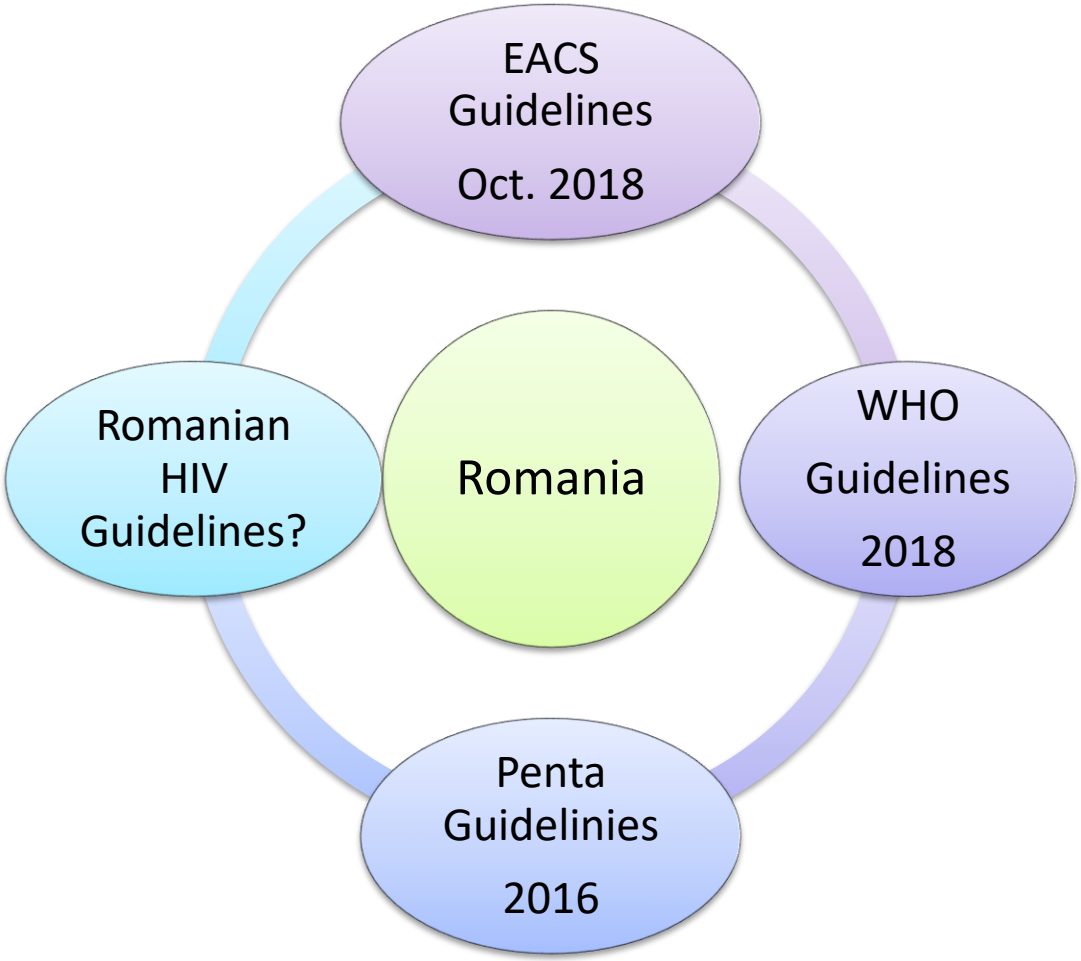
Challenges in Romania
Surveillance



Adapting the Romanian HIV programme to the HIV epidemic



HIV Guidelines and the cascade of care a Central-Eastern European country



Cascade of cares in Europe and Central Asia

Figure 2. A four-stage continuum of HIV care monitoring framework with targets for Europe and Central Asia

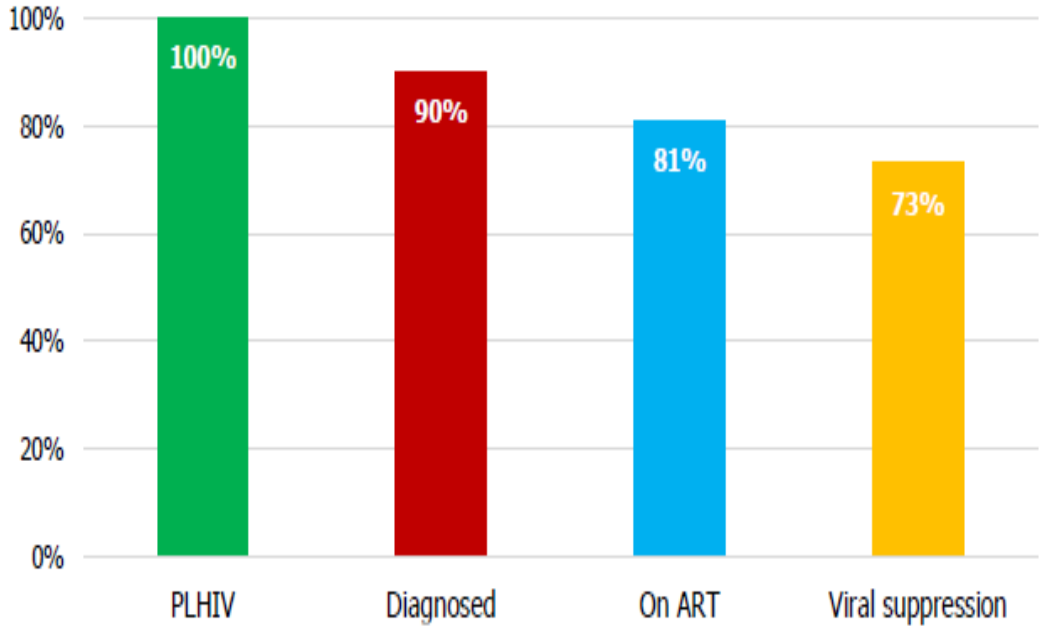
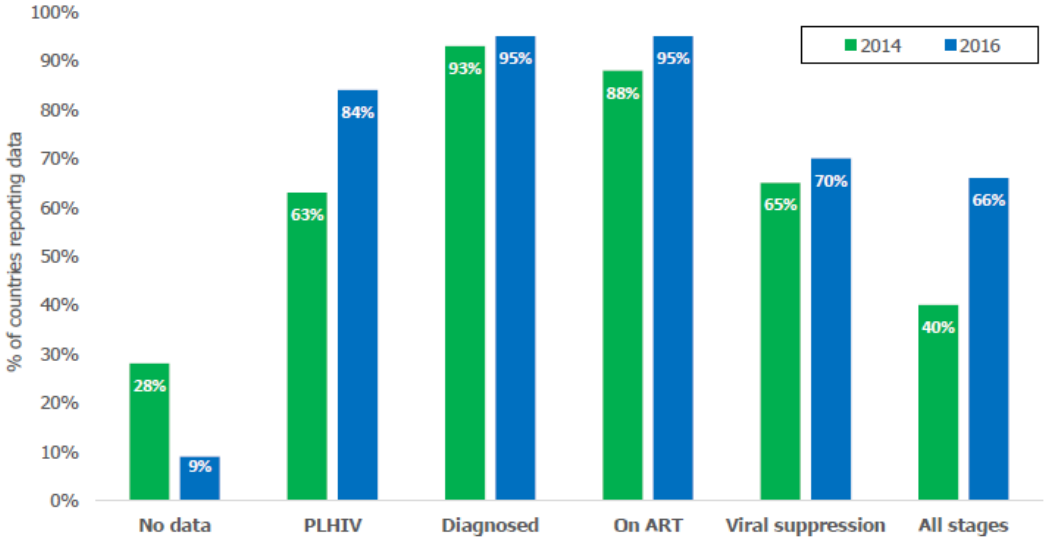


Figure 3. Data availability for the continuum of HIV care by stage and year in reporting countries of Europe and Central Asia, 2014 (n= 40) and 2016 (n=44)



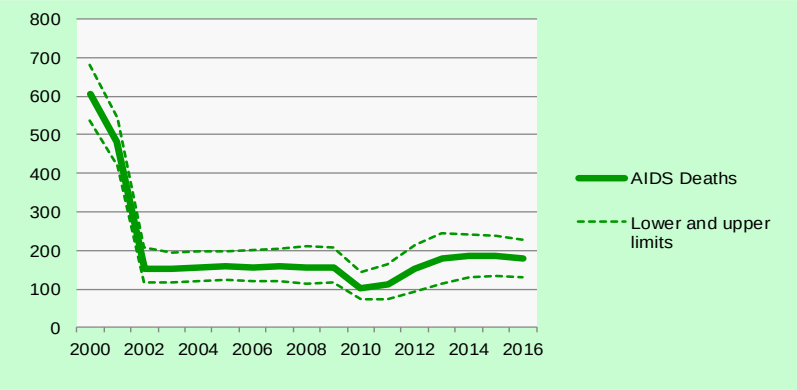
Source: SPECIAL REPORT Continuum of HIV care Monitoring implementation of the Dublin Declaration on Partnership to Fight HIV/AIDS in Europe and Central Asia: 2017 progress report

UNAIDS Estimates for Romania
2017

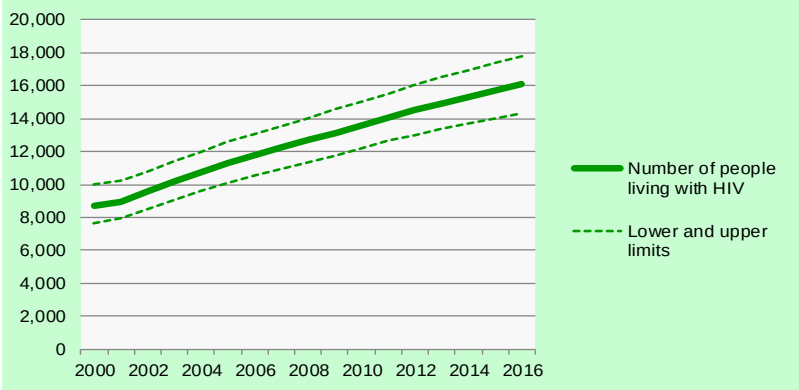
ROMANIA

SELECTED TRENDS

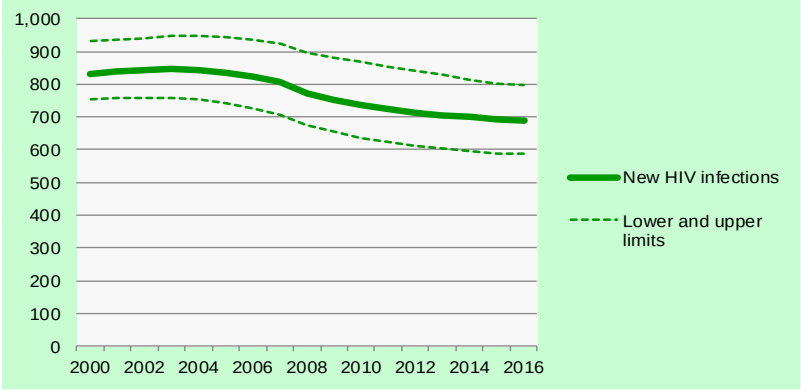
AIDS Deaths



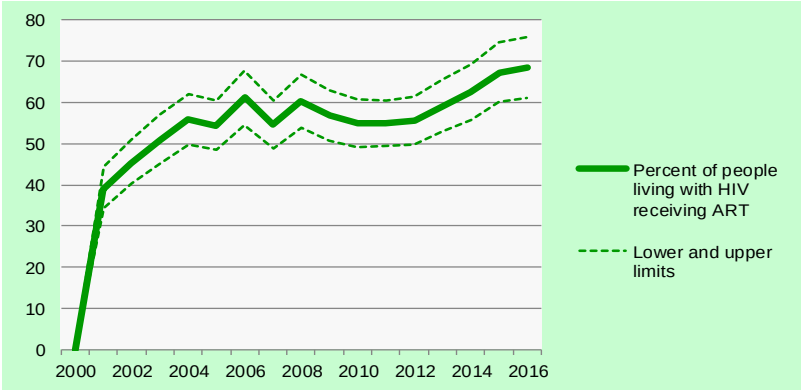
Number of people living with HIV



New HIV Infections



Percent of people living with HIV receiving ART



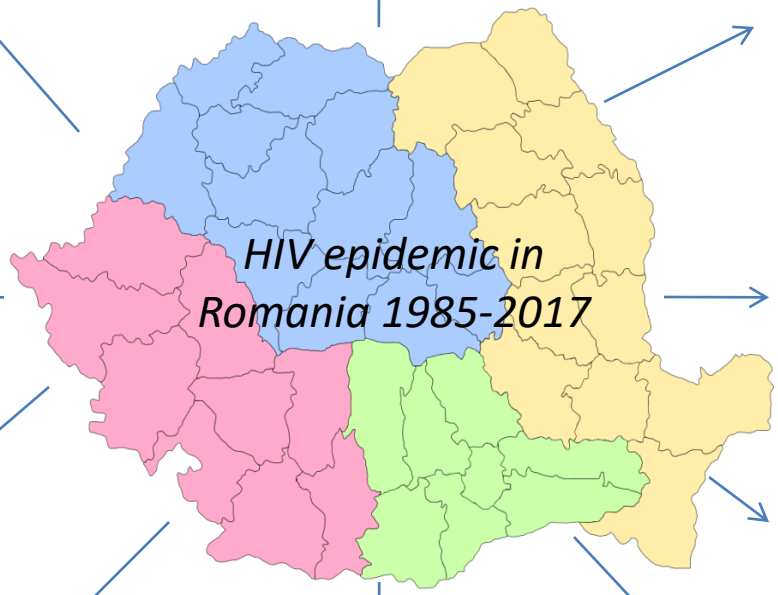
Source: UNAIDS Estimates for Romania 2017

Type of epidemic:

Long terms survivors' cohort (early 1990s): 37% from the overall PLWHA
New wave: young heterosexual adults, MSMs, IDUs, 2% MTCT

Pts. V.L.* <50 copies from pts. under treatment:
68% (from the those under treatment)

HIV incidence: 2/100.000



CD4 count in patients under treatment:
11570 (90% from those in active surveillance)

Cumulative HIV/AIDS cases 1989-2017:
22980

Patients under treatment:
11570 (90% from those in active surveillance)

PLWHA registered in the national HIV/AIDS data base:
15009

PLWHA :20-29 years (registered in the National Data Base 43,5%)

In active surveillance:
12806 (85% from the overall PLWHA)

PLWHA UNAIDS estimates June 2016:
14.000-18.000

Source: Compartment for Monitoring and Evaluation of HIV/AIDS Data in Romania <www.cnlas.ro>

Traits of new HIV cases diagnosed in Romania in 2017

Gender	Age: Young age	Heterosexuals	MSM	IVDU	Viral load	CD4 count
Male- 74%	13%: 15-24 yrs	62% from the overall new cases	19% from the overall new cases	15% from the overall new cases HIV/HCV: 83%, HIV/TB: 20%, HIV/STIs: 11%	35% of new cases (both men&women) : detectable viral load: 10.000-100.000 copies/mL	Male: 59%<350 cell/mmc
Female- 26%	41%: 25-35 yrs					Female: 50% <350 cell/mmc
HIV Subtype Distribution: Co-infected HIV/HBV in the Romanian cohort			Historically: F1 = 95% New cases: F1 = 77%[1], B = 6.3%[2], C and A = 16.7% CRF14_BG = 20.3% in IDU[3] 43.4%			

Source: Compartment for Monitoring and Evaluation of HIV/AIDS Data in Romania <www.cnlas.ro>

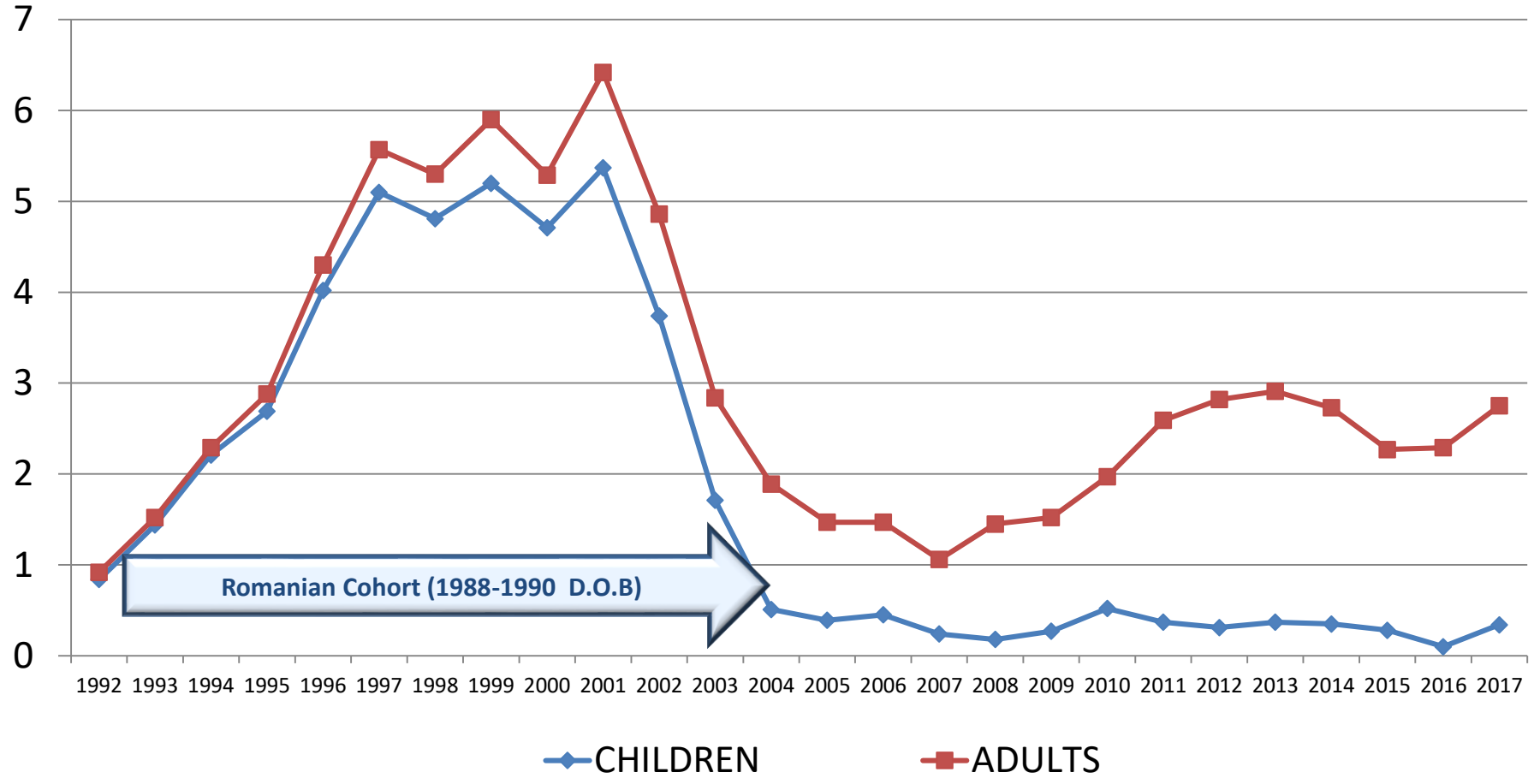
Romania – 20 million people

	Prevalence	Annual Incidence	Comments
HIV[1]	0.07%	0.002%	725 new cases per year on average during 2007-2017: • 2007-2010 (538 cases/year) • 2011-2017 (850 cases/year)
HBV	5.6%[2]	0.001%[3]	National vaccination: 21-fold decrease in incidence vs. 1995
HCV	1.9%[4]	0.0003%[3]	-
Co-infected HIV/HBV	19.9%[5]	0.3%[1]	43.4% in the "Romanian cohort"[6]
Co-infected HIV/HCV	1.8%[6]	0.2%[1]	83% of IDUs in 2017

Source: O. Sandulescu. HIV/Hepatitis co-infection situation in **Romania. 3rd. Central and Eastern European Meeting on Viral hepatitis and Co-infection with HIV.**

[1]Calculated based on: www.cnlas.ro. Data current through 30 Jun 2017; [2]Constantinescu I, et al, Hepat Mon. 2014;14(10): e22072; [3]Romanian National Institute for Public Health 2015. http://www.cnscbt.ro/index.php/rapoarte-anuale/; [4]RO 19.02 project; [5]Juganariu G et al, Rev Med Chir Soc Med Nat Iasi. 2014;118(2):339-45; [6]Ruță SM et al, MedGenMed. 2005; 7(1): 68.

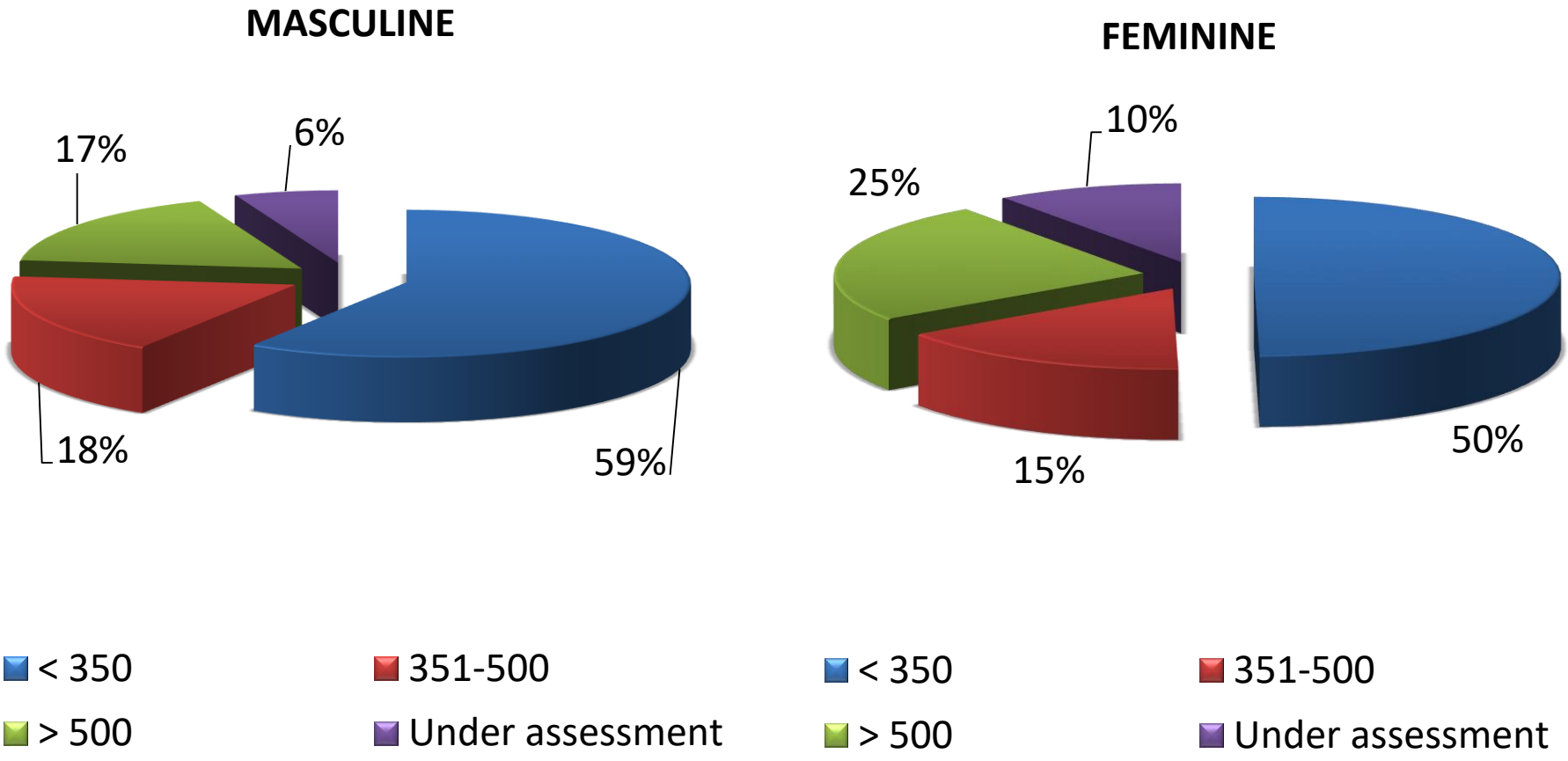
HIV incidence rate in adults and children between 1985-2017 (100.000)



Children 2017: 0.34/100.000
Adults 2017: 2.41/100.000

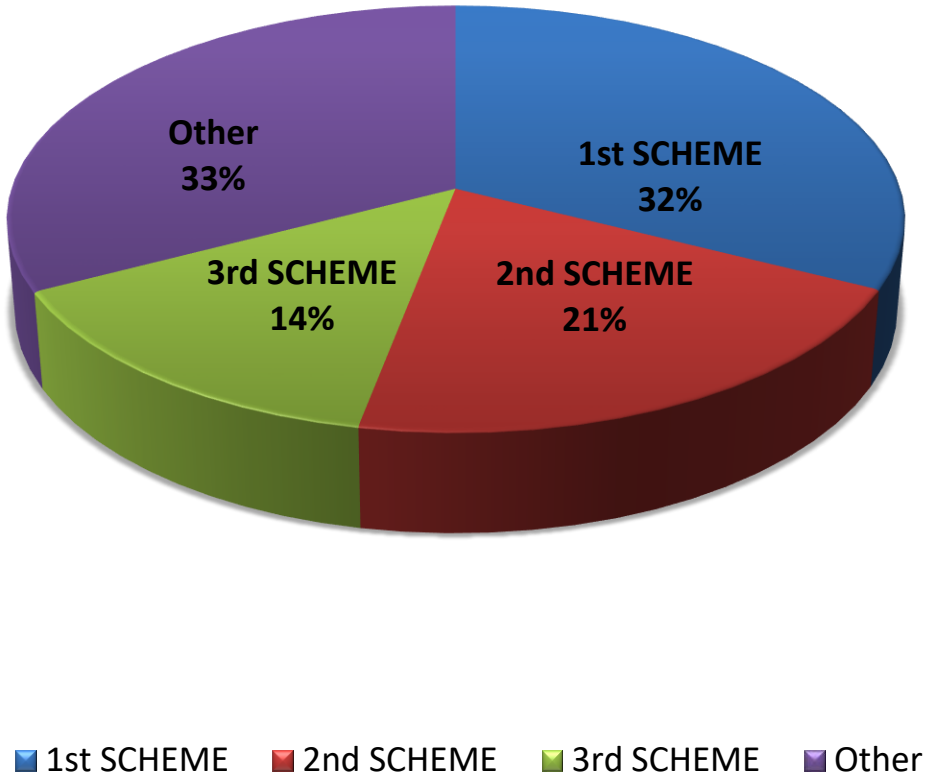
Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI "Prof.Dr.M.Balş"

CD4 values in new HIV/AIDS cases in adults - 2017



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

National programme efforts for PLWHA
Number of previous ART schemes 2017



✓**Since 2001- universal access to ART, (regardless of CD4 count for children)**

✓**Since 2013- treatment introduction regardless of CD4 count (official stand)**

✓**Given Romania's epidemic (the cohort)- >2 and >3 schemes- in long term survivors who were initiated with ARV treatment, as children in 1995.**

✓**Newly detected cases- preferred regimen: NRTI+INST I**

✓**Treatment regimens (PLWHA in ART):**

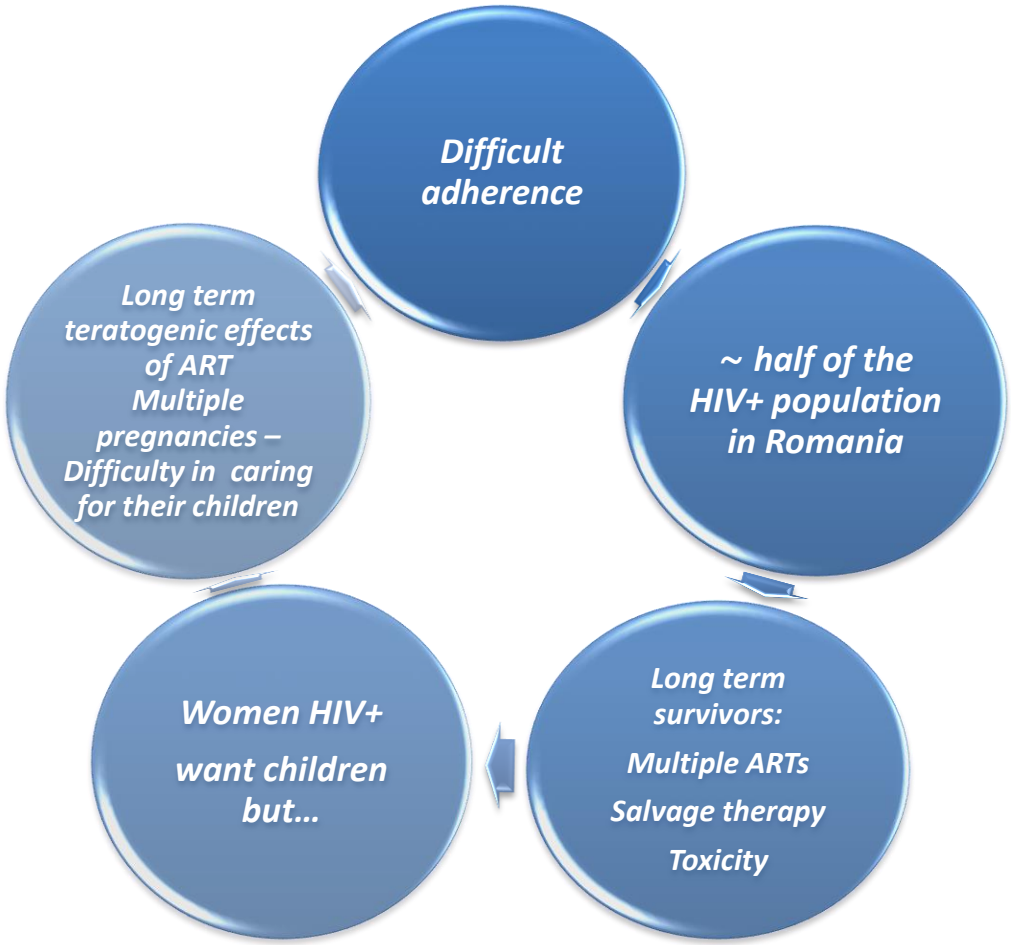
- ✓**59% 2 NRTIs + 1 PI**
- ✓**19% 2 NRTIs + 1 NNRTI**
- ✓**12% II-containing regimens**

✓**In 2017-2018: 4 fixed-dose combinations registered**

Source: M. Mardarescu. *Romania's way to 2nd and 3rd 90s.* ECDC/WHO Joint Meeting. HIV in Europe and Central Asia in the era of the SDGs: Operationalising goals and achieving targets, 23-25 April, 2018 Berlin

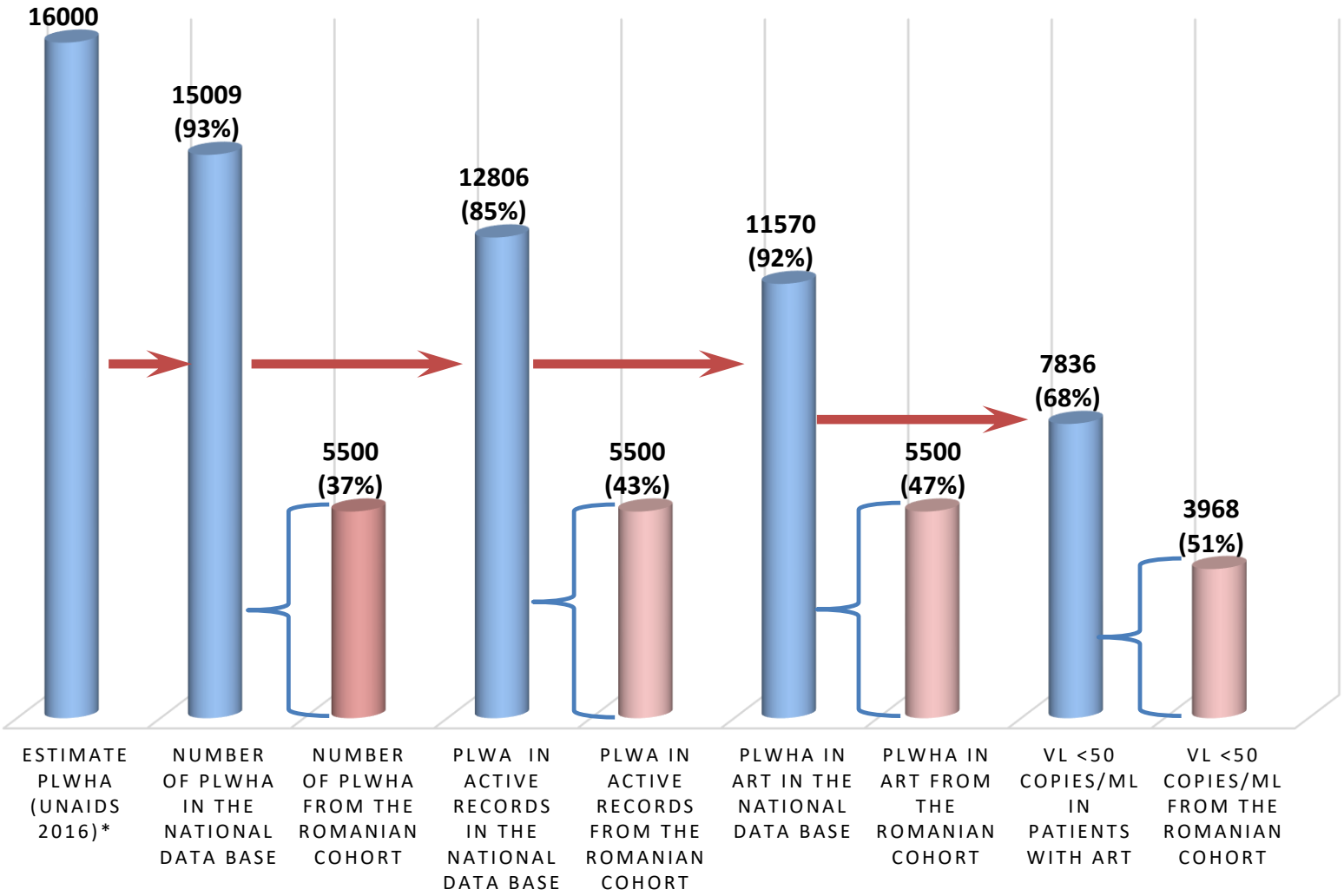
The Romanian Cohort infected between 1988-1990

The largest cohort in Europe- 20-29 age group that was taken into medical surveillance during the first years of the 1990s (non-vertical transmission)



Source: M. Mardarescu. Results of long-term follow-up of children infected with HIV. VI International Eastern Europe and Central ASIA AIDS Conference. April 2018, Moscow.

Current HIV treatment cascade in Romania
CASCADE OF CARE – 31 DECEMBER 2017



***UNAIDS estimates 2016: 16.000-18.000**

Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI "Prof.Dr.M.Balş"/
The National HIV/AIDS Data base
Data currently under assessment.

References

1. SPECIAL REPORT *Continuum of HIV care Monitoring implementation of the Dublin Declaration on Partnership to Fight HIV/AIDS in Europe and Central Asia: 2017 progress report.*

2. HIV/AIDS surveillance in Europe 2017- 2016 data. Surveillance Report
https://ecdc.europa.eu/sites/portal/files/documents/20171127Annual_HIV_Report_over%2BInner.pdf/

3. Compartment for Monitoring and Evaluation of HIV/AIDS Data in Romania
www.cnlas.ro

4. M. Mărdărescu. *Romania's way to 2nd and 3rd 90s. ECDC/WHO Joint Meeting. HIV in Europe and Central Asia in the era of the* SDGs: *Operationalising goals and achieving targets.* 23-25 April, 2018, Berlin.

5. O. Sandulescu. *HIV/Hepatitis co-infection situation in Romania.* 3rd Central and Eastern European Meeting on Viral Hepatitis and Co-Infection with HIV.

National Institute for Infectious Diseases "Prof. Dr. Matei Bals"
Compartment for Monitoring and Evaluation of
HIV/AIDS Data in Romania

Manager:	Prof.Dr. Adrian Streinu-Cercel Manager of INBI "Prof. Dr. Matei Bals"
Coordinator:	Mariana Mărdărescu MD PhD
Coordinator Adults Programme:	Associated Professor Elisabeta Otilia Benea MD PhD
CoordInator Children Programme:	Sorin Petrea MD

Statistical data operators :

PC Operators:	As.med. Marieta Iancu Daniela Viţelaru Sanda Vintilă
Epidemiology:	Ionel Iosif MD
Tessy Report:	IT specialistClaudiu Schiopu