35 de ani de supraveghere a infecției HIV în România

35 years of HIV surveillance in Romania

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"Prof. Dr. Matei Bals"

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Agenda

1. From linkage to care to linkage to prevention. UNAIDS objectives
2. Romania 1990. Where did we leave from?
3. After 35 years
4. International estimates vs. national data
5. HIV testing in Romania
6. Cascade of cares Romania 2021. Definition of the continuum of care
7. Resource optimization to maximize the HIV response in Romania
8. Current standards of care that should be adapted to the current 2021-2022

Cascade of care and potential challenges to long-term health

LTTS=Long Term Treatment Success

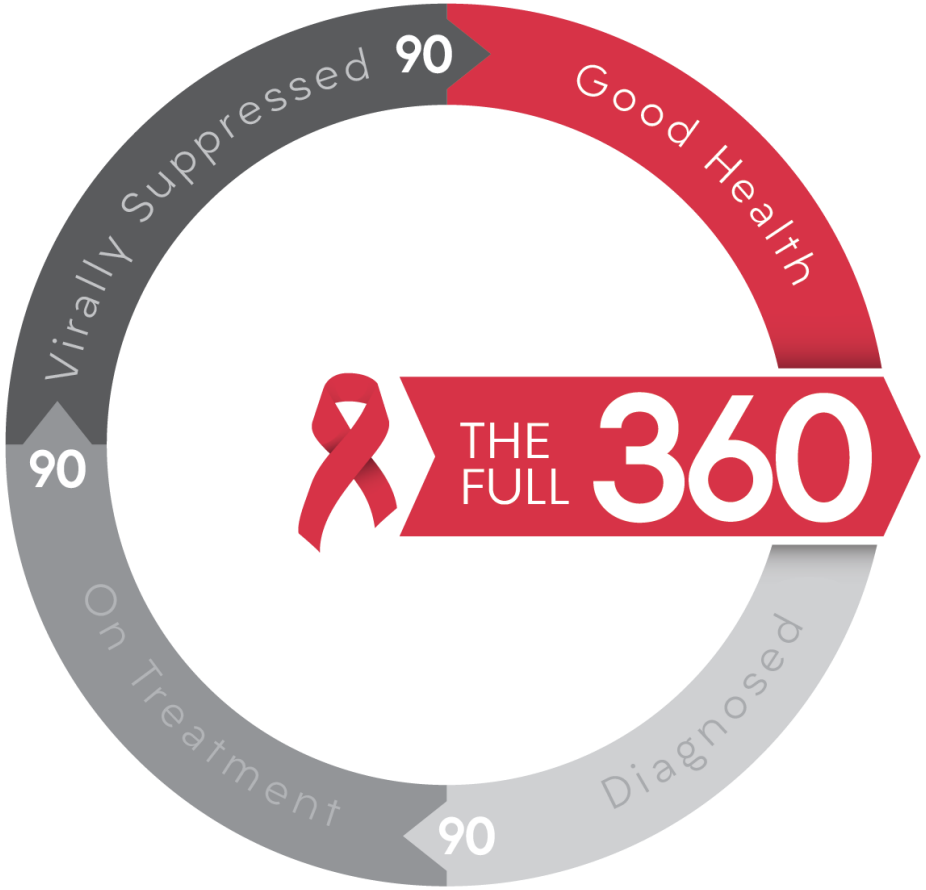

PREVENTION
COMES
FIRST

HIV/AIDS

How can we make HIV management a book of “Good Clinical Practice”?

The Full 360 is an expanded vision of the UNAIDS 90-90-90 targets, which now includes a target for lifelong good health in PLWH[1,2]

- **First 90: patients know their HIV status**
  - 90% diagnosed
- **Second 90: initiation of sustained ART**
  - 90% on treatment
- **Third 90: viral suppression on ART**
  - 90% virally suppressed
- **Fourth 90: lifelong quality of life**
  - 90% with good health



ART: antiretroviral therapy; PLWH: people living with HIV; UNAIDS, Joint United Nations Programme on HIV/AIDS.

1. UNAIDS. 2017. Available at: www.unaids.org/sites/default/files/media_asset/90-90-90_en.pdf (Accessed: June 2021). 2. Lazarus J, *et al*. *BMC Med* 2016; 14:94.

UNAIDS Message for World AIDS Day 2021

CONFRONTING INEQUALITIES

Source: https://trello.com/1/cards/618959a16cd4fc15f45cee16/attachments/618959f6113f3814f976d955/download/WAD_postcard_2.jpg

World AIDS Day Message- 2021

Source: https://trello.com/1/cards/618959a16cd4fc15f45cee16/attachments/618959f6113f3814f976d955/download/WAD_postcard_2.jpg

UNAIDS Facts Sheet
World AIDS Day 2021

Global HIV statistics

28.2 million people were accessing antiretroviral therapy as of 30 June 2021.

37.7 million [30.2 million–45.1 million] people globally were living with HIV in 2020.

1.5 million [1.0 million–2.0 million] people became newly infected with HIV in 2020.

680 000 [480 000–1.0 million] people died from AIDS-related illnesses in 2020.

79.3 million [55.9 million–110 million] people have become infected with HIV since the start of the epidemic.

36.3 million [27.2 million–47.8 million] people have died from AIDS-related illnesses since the start of the epidemic.

Source: https://www.unaids.org/sites/default/files/media_asset/UNAIDS_FactSheet_en.pdf

New HIV and AIDS cases in WHO European Region 2020

Table A: Characteristics of new HIV and AIDS diagnoses reported in the WHO European Region, the EU/EEA, and West, Centre and East of the WHO European Region, 2020

	WHO European Region	West	Centre	East	EU/EEA
Reporting countries/number of countries[a]	46/53	20/23	13/15	13/15	29/30
Number of new HIV diagnoses	104765	15782	4427	84556	14971
Rate of HIV diagnoses per 100 000 population[b]	11.8	3.7	2.3	32.6	3.7
Percentage age 15–24 years	5.4%	9.5%	15.0%	4.2%	9.9%
Percentage age 50+ years	14.4%	22.9%	13.8%	12.9%	20.9%
Male-to-female ratio	1.9	3.0	5.3	1.6	3.2
Transmission mode					
Sex between men	9.4%	39.2%	28.0%	2.9%	38.8%
Heterosexual transmission (men)	29.7%	14.5%	19.2%	33.1%	14.1%
Heterosexual transmission (women)	27.9%	16.9%	8.1%	31.0%	15.5%
Injecting drug use	22.4%	3.3%	2.2%	27.0%	3.8%
Mother-to-child transmission	0.4%	0.6%	0.6%	0.4%	0.6%
Unknown	10.0%	25.0%	41.9%	5.6%	26.9%
AIDS and Late HIV Diagnosis					
Percentage new HIV diagnoses CD_4 <350 cells/mm^3	36.1%	51.1%	45.6%	34.4%	51.0%
Number of new AIDS diagnoses[c]	7721	1549	467	5705	1760
Rate of AIDS diagnoses per 100 000 population	1.2	0.5	0.2	5.0	0.5

a No data received from Andorra, Bosnia and Herzegovina, Monaco, North Macedonia, Turkmenistan and Uzbekistan. Data from Portugal not published at country request.

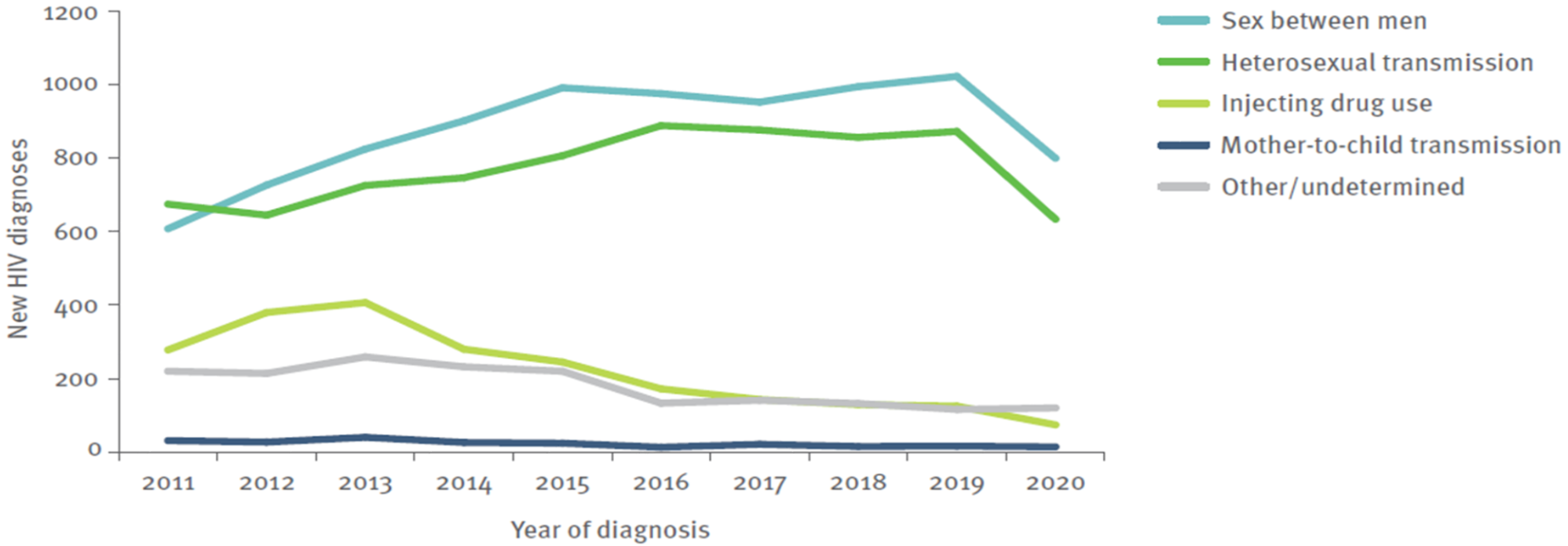
b EU/EEA rates are adjusted for reporting delay; the corresponding estimated number of new diagnoses adjusted for reporting delay is 16 917.

c No data received from Andorra, Bosnia and Herzegovina, Germany, Monaco, North Macedonia, Russian Federation, Sweden, Turkmenistan and Uzbekistan. Data from Portugal not published at country request.

Source: https://www.ecdc.europa.eu/sites/default/files/documents/2021-Annual_HIV_Report_0.pdf

New HIV diagnoses and transmission modes in Central Europe 2020

Figure 2.16: New HIV diagnoses, by transmission mode and year of diagnosis, Centre, 2011–2020



Data from Bosnia and Herzegovina, North Macedonia,Poland and Turkey excluded due to incomplete reporting on transmission mode during the period.

Source: https://www.ecdc.europa.eu/sites/default/files/documents/2021-Annual_HIV_Report_0.pdf

Romania 1990.
Where did we leave from?

A State of SHOCK

Recollections of Romania

By Darrell L. Paster

Since 1969, Darrell L. Paster has been concerned with health issues involving poor people. He helped set up the Appalachian Health Project which established and ran seven health care clinics in remote areas from Tennessee to West Virginia. After that, Paster worked for a labor union, organizing hospital and public service workers in Tennessee, Mississippi and Alabama. He went to law school in 1972, and for 12 years was in criminal law, first with the Civil Division of the New York City Legal Aid Society and then with the Federal Defender Services of Legal Aid. He is currently working for the Criminal Division, Legal Aid Society, in New York City.

The following are recollections of his recent visit to Romania.

I had heard about the problem of pediatric AIDS in Romania from a friend, Carolyn Burr, a nurse who works with a pediatric AIDS program. The National Pediatric AIDS Resource Center gave me more information about the situation and introduced me to the American Romanian Humanitarian Society, a group dedicated to improving relationships between the U.S. and Romania. They have taken on the problem of children with AIDS in Romania as their first project. After meeting with them, I made calls to groups like the World Health Organization (WHO) and the Centers for Disease Control.

The group I traveled to Romania with found it impossible to find a conduit to dispense aid in Romania. Nor did we know exactly what to expect. We had also heard wildly different reports on the extent of the AIDS problem in Romania. Rumors were that a half to two-thirds of the children in the orphanages, and what are called the dysentrophic centers, had HIV infection. (Romanians describe dysentrophy as what we call failure to thrive. Dysentrophic centers are homes for underdeveloped infants.)

Speaking with WHO, we were advised that people in Romania were also trying to determine the extent of the problem. It was finally decided that the best way to find out what was going on was to go and see for ourselves.

We set four objectives. The first was to determine the breadth of the problem in terms of how many people — especially children — were ill and what stage of the disease they were in. We also wanted to investigate the organizations that provide aid.

Health care in Romania is a governmental function, provided by the Ministry of Health and its various arms, and the Romanians we were working with were extremely skeptical of working with them. There is also rampant corruption in Romania — not that Romanians are any more dishonest or criminal than any other people — but their currency has been so debased and their economic system so totally destroyed that it's simply a matter of survival to participate in the second economy, the black market.

The third objective was to see if there were connections that we could draw between Romanian and American institutions. Because of my friendship with people at Children's Hospital in New Jersey, I was aware that medical people had developed extremely innovative ways for dealing with children with AIDS. In Romania we found that over 90 percent of the children diagnosed with AIDS were in the hospital, or in an orphanage or dysentrophic center. In New Jersey, 10 percent of the children were hospitalized and 90 percent were at home.

Finally, we thought that to the extent that we could, we would seek to publicize the problem in order to try to obtain help for those who were suffering from the disease.

My first visit to a hospital left me in a state of shock. We went to Victor Babes Hospital, which is one of two hospitals for contagious diseases in Bucharest. There was a wall about eight feet high around the compound. The hospital is made up of numerous buildings and a wooded area, and the wall is topped with barbed wire. The second and third floor windows have chain links over them.

There was a guard at the gate, and they had to open a steel gate for your car to get in. There was absolutely no one walking around the grounds. I've

PHOTOS: DARRELL L. PASTER

EUROPEAN CENTRE FOR THE EPIDEMIOLOGICAL MONITORING OF AIDS
CENTRE EUROPEEN POUR LA SURVEILLANCE EPIDEMIOLOGIQUE DU SIDA
INSTITUT DE MEDECINE ET D'EPIDEMIOLOGIE AFRICAINES
(FONDATION LEON MBA)
WHO-EC COLLABORATING CENTRE ON AIDS
CENTRE COLLABORATEUR OMS-CE SUR LE SIDA

AIDS SURVEILLANCE IN EUROPE
SURVEILLANCE DU SIDA EN EUROPE

QUARTERLY REPORT N° 27 - RAPPORT TRIMESTRIEL N° 27
30th September 1990 - 30 Septembre 1990

The following 32 countries take part in the surveillance of AIDS in Europe by reporting their data to the Centre:

Les 32 pays suivants participent à la surveillance du SIDA en Europe en rapportant au Centre les données de leurs pays:

ALBANIA	ALBANIE	Institute of Medicine and Epidemiology, Tirana
AUSTRIA	AUTRICHE	Federal Ministry of Health and Environmental Protection, Vienna
BELGIUM	BELGIQUE	Conseil Supérieur pour la Coordination de la Lutte contre le SIDA, Institut d'Hygiène et d'Epidémiologie, Brussels
BULGARIA	BULGARIE	Ministry of Public Health and Social Welfare, Sofia
CZECHOSLOVAKIA	TCHECOSLOVAQUIE	Institute of Hygiene and Epidemiology, Prague
DENMARK	DANEMARK	Statens Serum Institute, Copenhagen
FINLAND	FINLANDE	National Board of Health, Helsinki
FRANCE	FRANCE	Direction Générale de la Santé, Paris
GERMAN D.R.	R.D. ALLEMANDE	Ministerium für Gesundheitswesen, Berlin
GERMANY, F.R.	R.F. ALLEMAGNE	AIDS Zentrum im Bundesgesundheitsamt, Berlin
GREECE	GRECE	Ministry of Health, Athens
HUNGARY	HONGRIE	National Institute of Hygiene, Budapest
ICELAND	ISLANDE	General Direction of Public Health, Reykjavik
IRELAND	IRLANDE	Department of Health, Dublin
ISRAEL	ISRAEL	Ministry of Health, Jerusalem
ITALY	ITALIE	Ministry of Health, Rome
LUXEMBURG	LUXEMBOURG	Ministère de la Santé, Luxemburg
MALTA	MALTE	Departement of Health, Valletta
MONACO	MONACO	Direction de l'Action Sanitaire et Sociale, Monaco
NETHERLANDS	PAYS-BAS	Staatstoezicht op de Volksgezondheid, Rijswijk
NORWAY	NORVEGE	National Institute of Public Health, Oslo
POLAND	POLOGNE	National Institute of Hygiene, Warsaw
PORTUGAL	PORTUGAL	Instituto Nacional de Saude, Lisbon
ROMANIA	ROUMANIE	Ministère de la Santé, Bucharest
SAN MARINO	SAINT MARIN	San Marino State Hospital, San Marino
SPAIN	ESPAGNE	Instituto de Salud "Carlos III", Madrid
SWEDEN	SUEDE	National Bacteriological Laboratory, Stockholm
SWITZERLAND	SUISSE	Office Fédéral de la Santé Publique, Liebefeld
TURKEY	TURQUIE	Ministry of Health and Social Assistance, Ankara
UNITED KINGDOM	ROYAUME UNI	Communicable Disease Surveillance Centre, London
USSR	URSS	Ministry of Health of the USSR, Moscow
YUGOSLAVIA	YOUGOSLAVIE	Federal Institute of Public Health, Belgrade

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The AIDS cases recorded in this report fulfil the CDC case definition published in the Morbidity and Mortality Weekly Report in September 1982 (MMWR, Sept.24, 1982, 31, 507-514) and revised in June 1985 (MMWR, June 28, 1985, 34, 373-375; WHO: Wkly. Epidem. Rec. 1986; 61: 69-72) and in August 1987 (MMWR, August 14, 1987, 36/N°1S; WHO: Wkly. Epidem. Rec. 1988; 63: 1-7). One source per country, recognized by the respective national health authorities, provides the information. The national data are noted on standard tables, and each source is responsible for the quality of the data provided.

I - UPDATE TO 30th SEPTEMBER 1990

By 30th September 1990, a total of 41,549 AIDS cases had been reported to the WHO Collaborating Centre on AIDS by 32 countries (Table 1).

Data concerning AIDS cases reported in France between 1st April and 30th September 1990 are not available. Linear extrapolation based on previous trends suggests that around 1,900 cases should have been reported in France during this period. Following the end of strike action by the public health officers, data will be available in December 1990.

This report includes data reported by the German Democratic Republic to 30th September 1990. In future reports, the AIDS surveillance data from the former German Democratic Republic will be included in data reported by the Federal Republic of Germany.

Since September 1989, an increase of 58.3% (11,727 new cases, French data excluded) is noted. Between June and September 1990, the greatest increases in the number of reported cases were noted in the following countries:

Country	Newly reported cases	No. per week
Italy	875	67 - 68
Spain	837	64 - 65
United Kingdom	365	28 - 29
Germany, F.R.	344	26 - 27
Romania	258	19 - 20
Switzerland	143	11
Netherlands	130	10
Denmark	45	3 - 4
Sweden	44	3 - 4
Belgium	39	3
Greece	28	2 - 3
Portugal	26	2
Austria	24	1 - 2

Cumulated AIDS cases per million population have been calculated for each country using 1989 population estimates (Institut National d'Etudes Demographiques [INED], Paris). The highest cumulative incidence rates per million population were

Incidența cazurilor HIV/SIDA în Europa, 30 septembrie 1990

Tara	Cazuri noi raportate	Cazuri noi / săptămână
Italia	875	67-68
Spania	837	64-65
Anglia	365	28-29
RFG	344	26-27
România	258	19-20
Elveția	143	11
Olanda	130	10
Danemarca	45	3-4
Suedia	44	3-4
Belgia	39	3
Grecia	28	2-3
Portugalia	26	2
Austria	24	1-2

Sursa: Quarterly Report no.27. 30 September 1990. European Centre for the Epidemiological Monitoring of AIDS

Table 1. CUMULATIVE AIDS CASES AND ESTIMATED CUMULATIVE INCIDENCE RATES PER MILLION POPULATION, REPORTED BY 30th SEPTEMBER 1990, 32 EUROPEAN COUNTRIES

Tableau 1. CAS DE SIDA CUMULES ET ESTIMATIONS DES TAUX D'INCIDENCE CUMULES PAR MILLION D'HABITANTS, DECLARES AU 30 SEPTEMBRE 1990, 32 PAYS EUROPEENS

	COUNTRY	PAYS	Sept. Sept. 1989	Dec. Déc. 1989	March Mars 1990	June Juin 1990	Sept. Sept. 1990	Rate per million* Taux par million*
	Albania	Albanie	0	0	0	0	0	0.0
	Austria	Autriche	325	369	415	450	474	62.1
	Belgium	Belgique	563	596	651	725	764	76.9
	Bulgaria	Bulgarie	6	7	7	7	7	0.8
	Czechoslovakia	Tchécoslovaquie	18	19	23	23	24	1.5
	Denmark	Danemark	470	518	573	618	663	129.2
	Finland	Finlande	49	56	58	62	71	14.3
**	France	France	8025	8883	9718	9718	9718	173.0
	German Dem.Rep.	Allemande, Rép.Dém.	17	19	19	22	25	1.5
	Germany, Fed.Rep.	Allemagne, Rép.Féd.	3872	4306	4653	4922	5266	84.7
	Greece	Grèce	249	277	295	347	375	37.4
	Hungary	Hongrie	28	32	34	37	42	4.0
#	Iceland	Islande	13	13	13	14	14	56.0
	Ireland	Irlande	108	124	142	152	161	45.9
	Israel	Israel	92	101	109	116	125	27.2
	Italy	Italie	4663	5307	6068	6701	7576	131.7
	Luxemburg	Luxembourg	20	24	26	27	30	79.6
	Malta	Malte	14	14	14	14	15	42.9
	Monaco	Monaco	0	2	2	2	4	142.9
	Netherlands	Pays Bas	983	1074	1189	1313	1443	97.2
	Norway	Norvège	129	145	153	160	176	41.6
	Poland	Pologne	22	28	35	39	43	1.1
	Portugal	Portugal	306	348	410	455	481	46.6
	Romania	Roumanie	10	69	69	741	999	43.1
#	San Marino	Saint Marin	1	1	1	1	1	43.5
	Spain	Espagne	3965	4633	5295	6210	7047	181.2
	Sweden	Suède	346	380	406	443	487	57.3
	Switzerland	Suisse	1046	1159	1255	1354	1497	225.1
	Turkey	Turquie	28	28	31	34	36	0.6
	United Kingdom	Royaume Uni	2649	2830	3157	3433	3798	66.3
#	USSR	URSS	18	26	26	40	40	0.1
	Yugoslavia	Yougoslavie	94	109	120	134	147	6.2
	TOTAL		28129	31497	34967	38314	41549	

* Source of population data: Population & Sociétés, INED, Paris, 1990, No. 250
Source de données démographiques: Population & Sociétés, INED, Paris, 1990, Nb. 250

** March 1990 data - données mars 1990

\# June 1990 data - données juin 1990

- New approach of patients
- They emphasized: the child's primary care (nursing, nutrition, socializing, play) vs. our staff that stressed the importance of the medical care first and foremost
- Educators came along providing children education programmes at the level of kindergartens and day care.
- The number of HIV positive patients (children) kept growing in all the country.
- Family cases were detected- mother, father, children
- The lack of adequate treatment for HIV enabled fake treatments and physicians that promised *the cure.*
- Desperate parents appealed to their services, contrary to the real physicians' advice.
- Opportunistic infections- Kaposi Syndrome, Moluscum Contagiosum, Oral thrush led to different and new problems
- December 1995 the "new ward" was inaugurated, representing, at that time, the most modern building in the hospital.
- Our ward became "Paediatric Clinical Ward 8"

1990 - 2001

1995

- *To treat or not to treat?*

We started to treat despite the lack of evidence

Immediate results - very good due to 100% adherence

2001

- Universal access to ART (Romanian cohort& other PLWHA), no matter the CD4 count or viral load which was announced at *The General Assembly Special Session on HIV/AIDS on June 25-27, 23 June 2001*

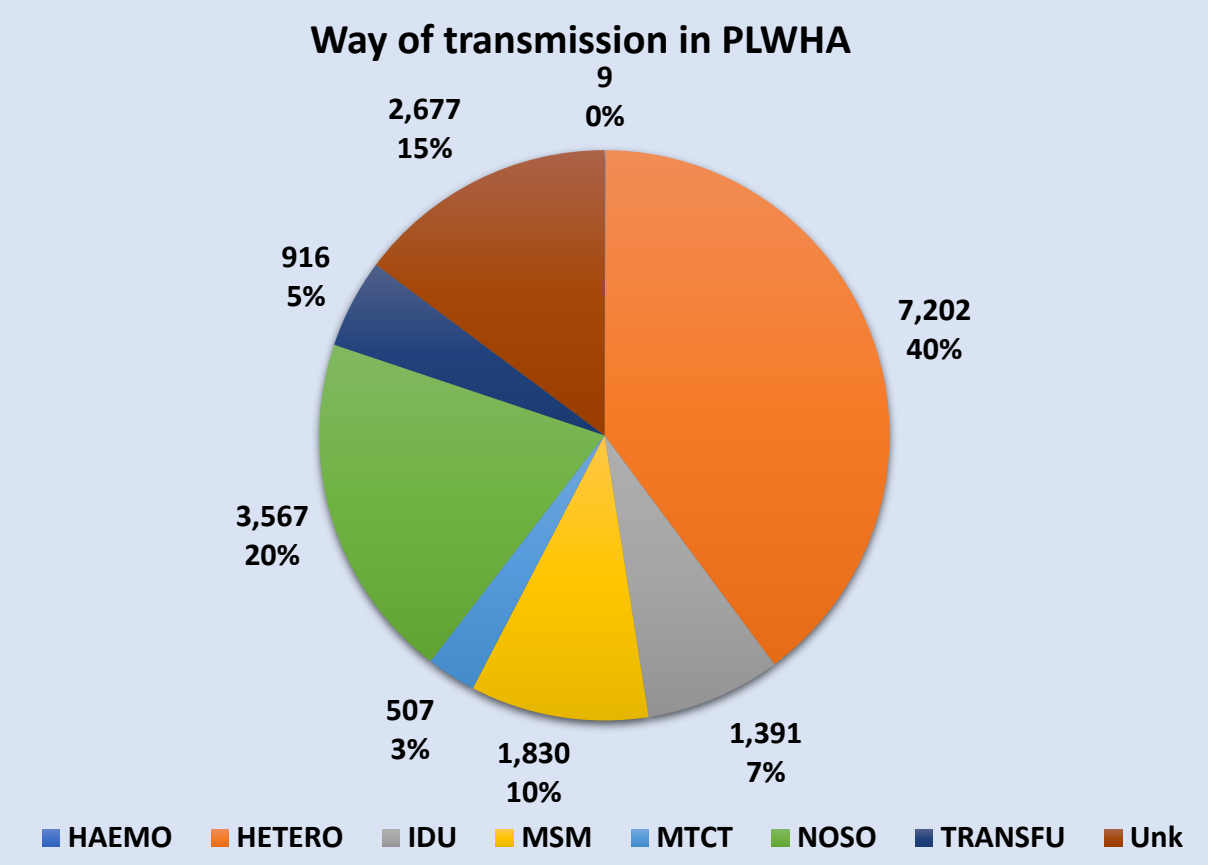
- In the same context, the rate of survival of the former children infected between 1988 and 1990, who are currently adults with their own families, continues to maintain high even now, 30 years after their HIV diagnosis.

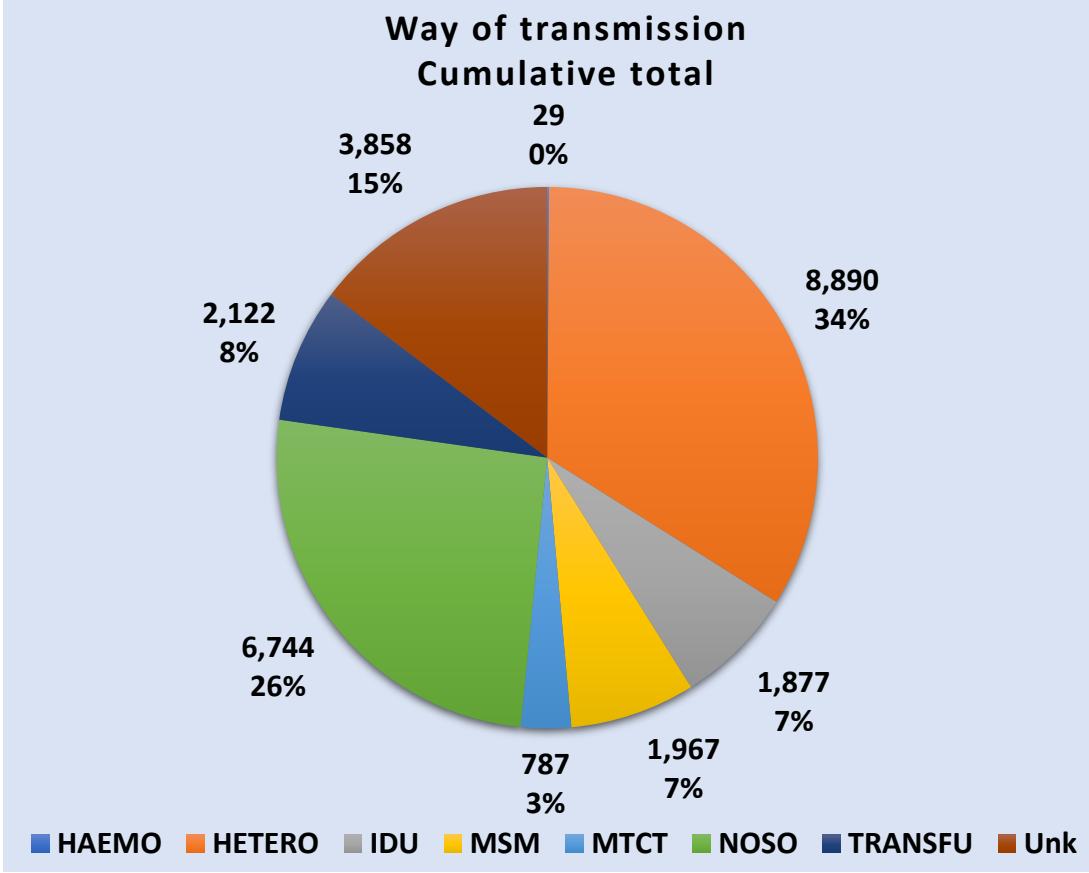
- In what concerns pregnant women infected with HIV, the national mother-to-child transmission programme, initiated in 1999, managed to reduce the rate of perinatal HIV transmission to 0%.

Source: 40 y e a r s o f H I V e x p e r i e n c e i n R o m a n i a, Mariana Mărdărescu MD PhD, National Institute for Infectious Diseases “Prof. Dr.Matei Balş”, Bucharest, Romania, https://www.cnlas.ro/com_jce/date-statistice.html

After 35 years...

Evolution of HIV epidemic in Romania
1985-2021





The data is transmitted yearly to ECDC/Tessy

Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI “Prof.Dr.M.Balş”, Dec 2021

HIV epidemic in Romania
1985-2021

Type of epidemic: Long terms survivors' cohort (early 1990s): 42,1% from the overall PLWHA
New wave: young heterosexual adults, MSMs, IDUs, MTCT <2%
HIV incidence: 1,7/100.000
Cumulative HIV/AIDS cases 1989-2021: 26171
PLWHA registered in the national HIV/AIDS data base: 17000 YPLWHA: 25-34 age group: **7985** (registered in the National Data Base) 47%

PLWHA UNAIDS estimates 2021: 14.000-18.000
In active surveillance: 13769 (81% from the overall PLWHA)
Patients under treatment: 13352 (99% from those in active surveillance)
Pts. V.L.* <200 copies from pts. under treatment: 62% (from the those under treatment)

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

Traits of new HIV cases diagnosed in Romania in 2021

Gender	Age: Young age	Heterosexuals	MSM	IVDU	CD4 count
Male- 76% (559 new cases)	16%: 15-24 yrs	58% from the overall new cases	31% from the overall new cases	8% from the overall new cases HIV/HCV: 64%, HIV/TB: 14%, HIV/STIs: 14%	Male: 58%<350 cell/mmc
Female- 24% (559 new cases)	31,7%: 25-35 yrs				Female: 56% <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

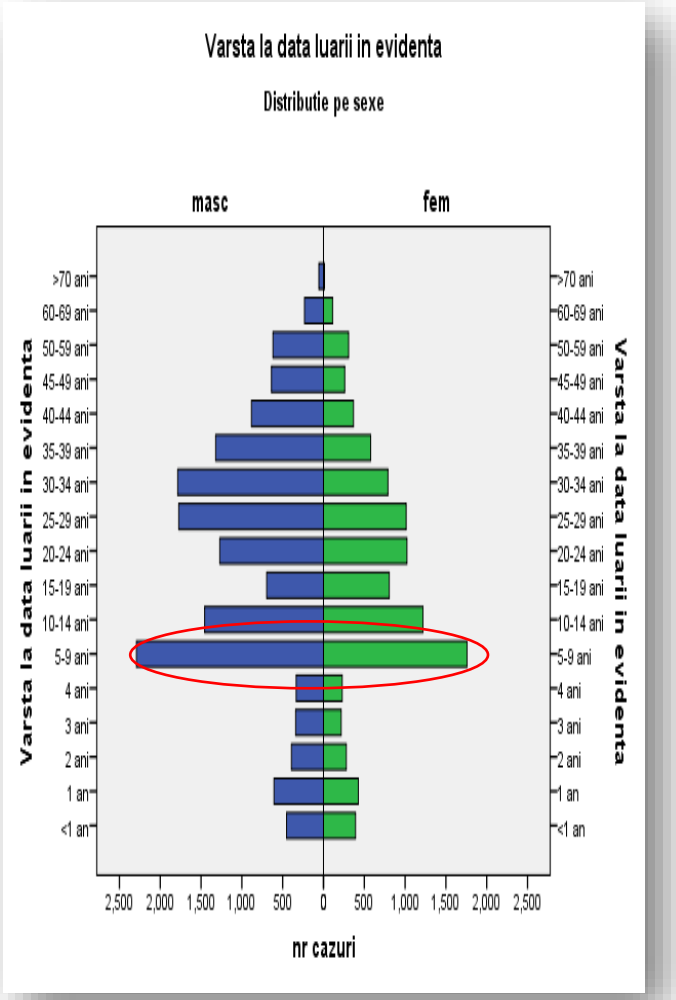
	Prevalence	Annual Incidence	Comments
HIV[1]	0.07%	0.002%	725 new cases per year on average during 2007-2021: • 2007-2010 (538 cases/year) • 2011-2017 (850 cases/year) • 2018-2021: (678 cases/year)
HBV	5.6%[2]	0.001%[3]	National vaccination: 21-fold decrease in incidence vs. 1995
HCV	1.9%[4]	0.0003%[3]	-
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]	64% of IDUs in 2021

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

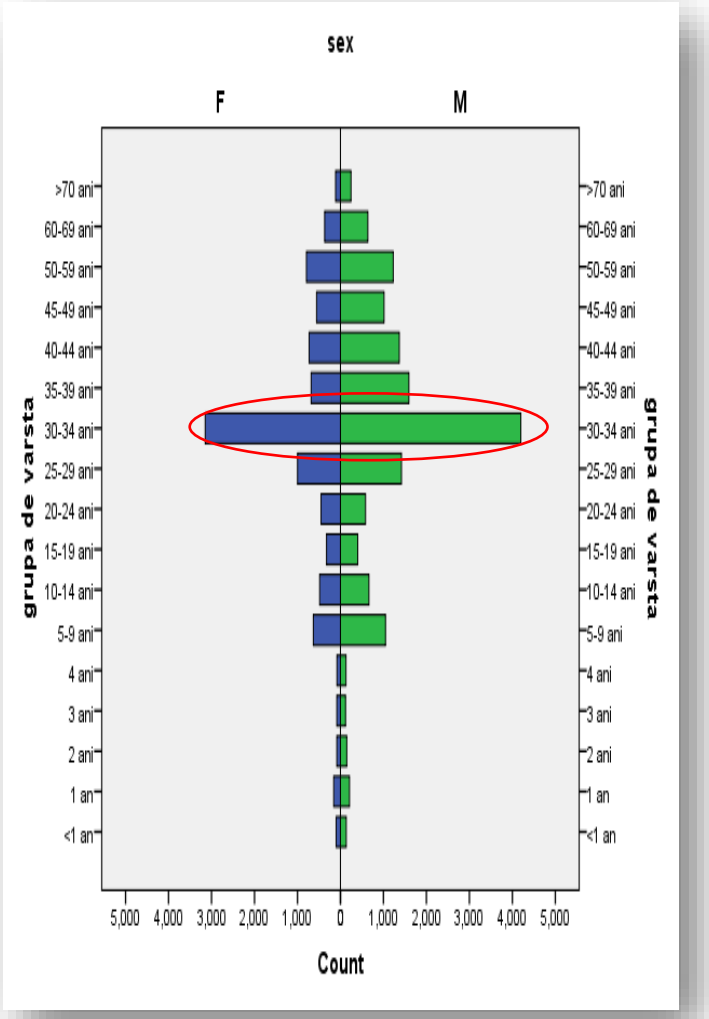
[1]Calculated based on: www.cnlas.ro. Data current through 30 Jun 2017; [2]Constantinescu I, et al, Hepat Mon. 2014;14(10): e22072; [3]Romanian National Institute for Public Health 2015. http://www.cnscbt.ro/index.php/rapoarte-anuale/; [4]RO 19.02 project; [5]Juganariu G et al, Rev Med Chir Soc Med Nat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

Distribution of ages

Age at date of diagnosis/notification
Cumulative total 1985-2021

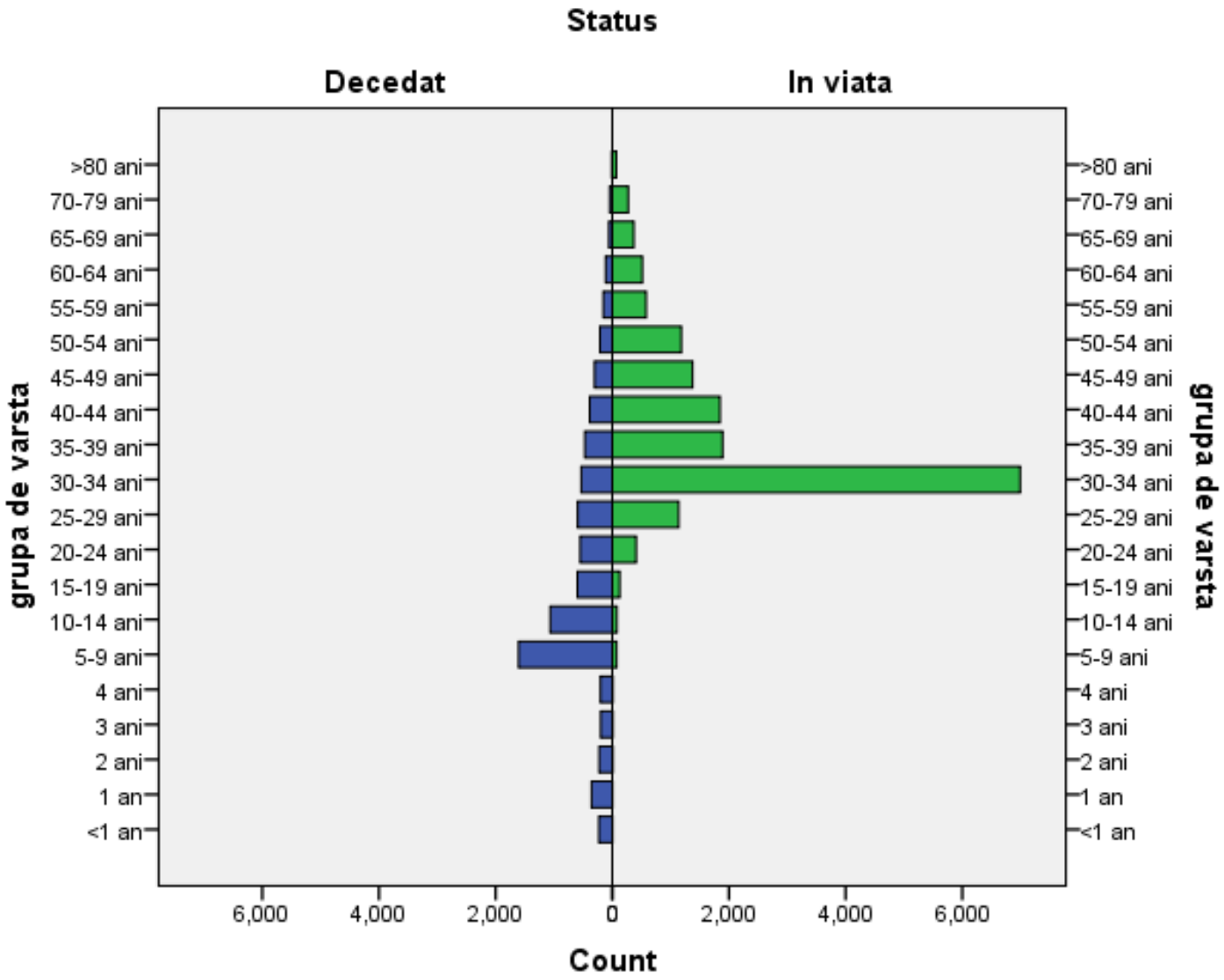


Distribution by age of PLWHA



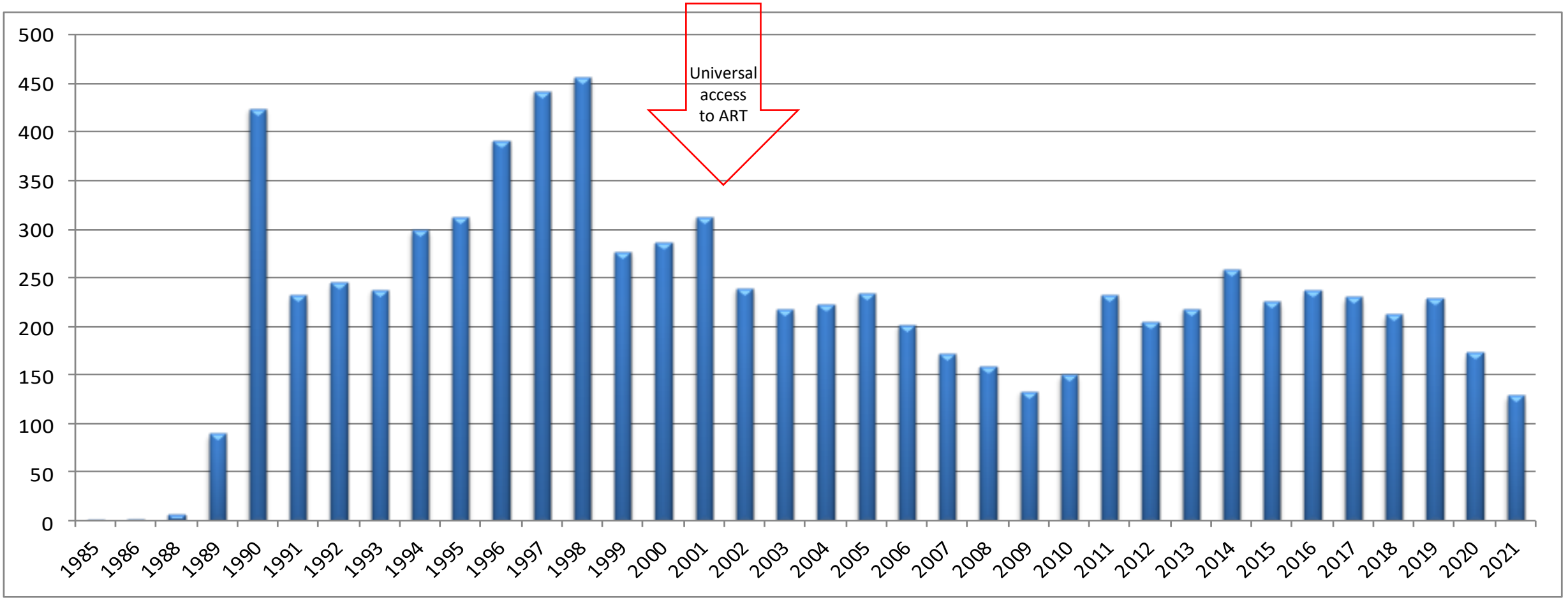
Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI “Prof.Dr.M.Balş”, Dec 2021

Distribution of death cases vs. PLWHA



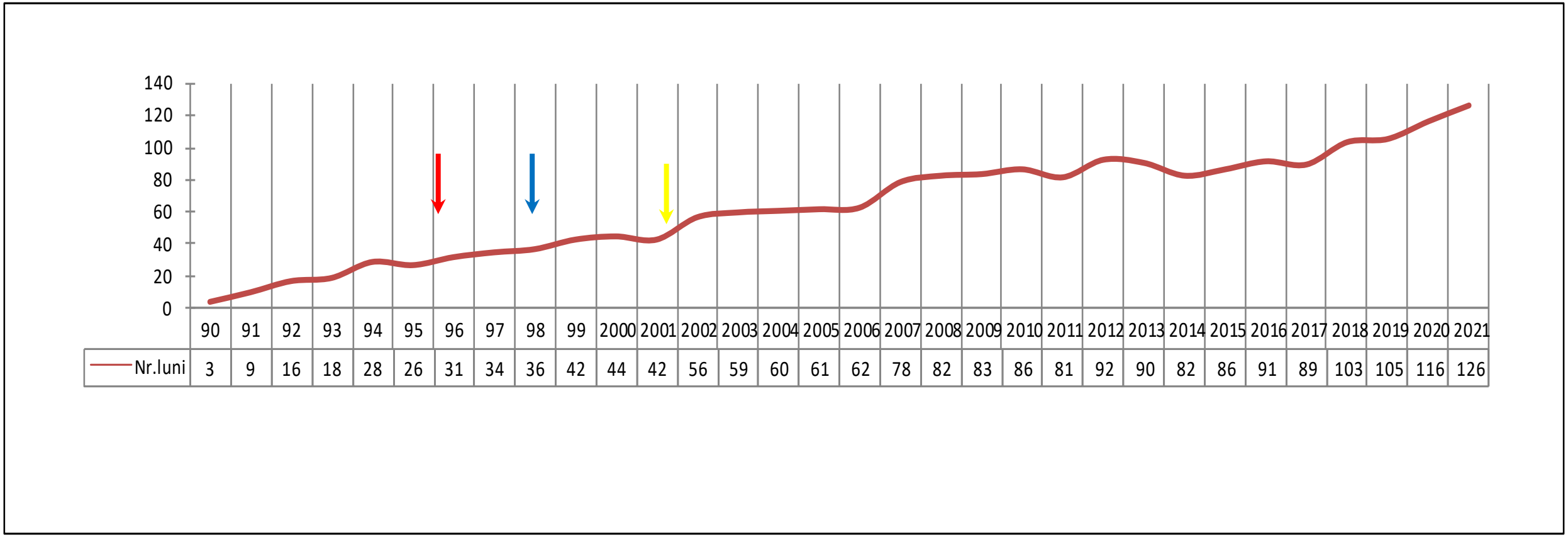
Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI “Prof.Dr.M.Balş”, Dec 2021

Deaths by year
1985-2021



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

Mean rate of survival (measured in months) in AIDS patients, between 1990-2021



	90	91	92	93	94	95	96	97	98	99	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Nr.luni	3	9	16	18	28	26	31	34	36	42	44	42	56	59	60	61	62	78	82	83	86	81	92	90	82	86	91	89	103	105	116	126

Introduction of ART double therapy

Introduction of ART triple therapy

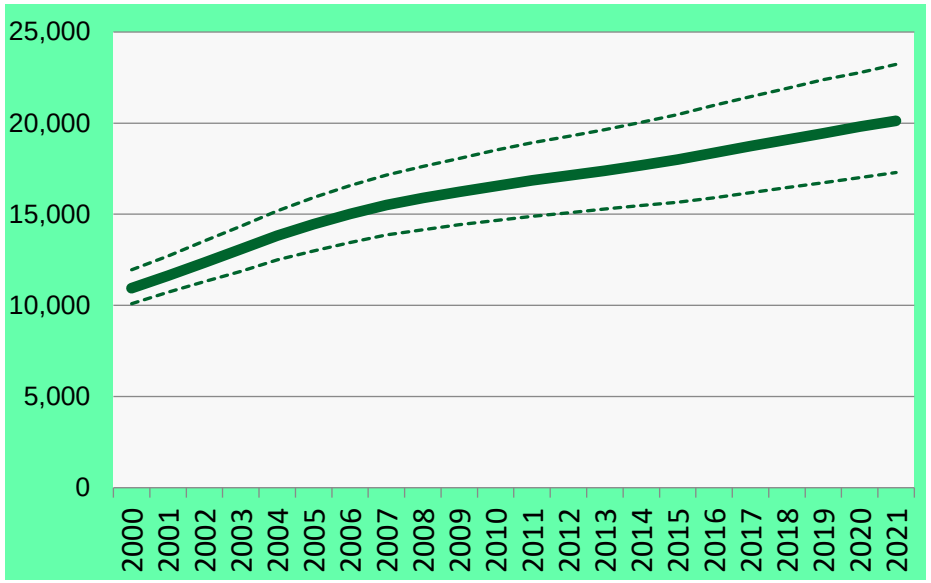
Universal access to ART
ART as prevention

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

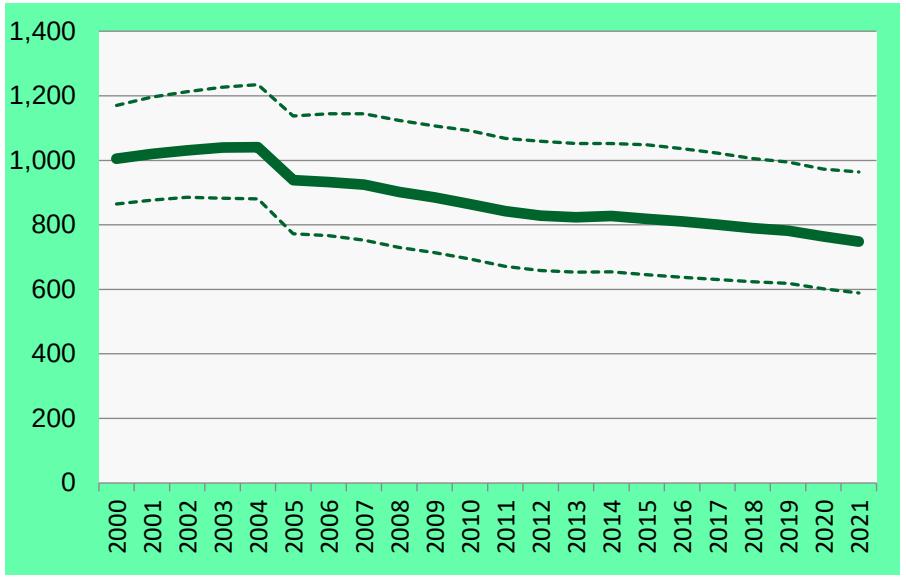
International vs. national estimates

HIV Estimates for Romania 2021
UNAIDS

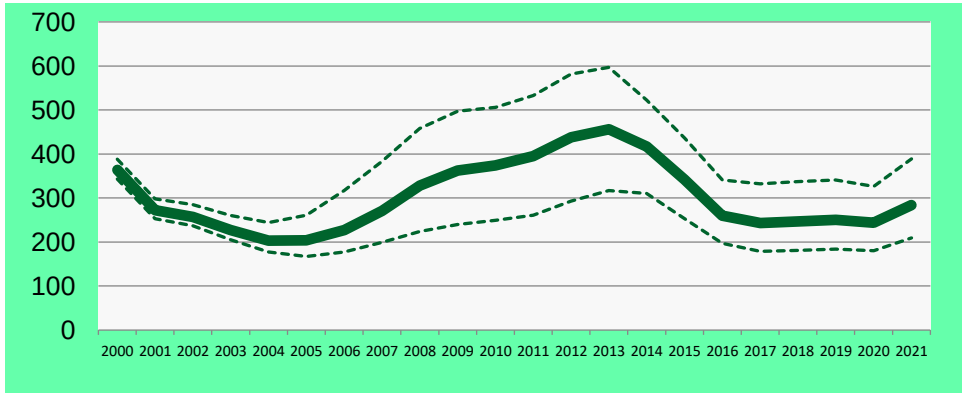
Number of people living with HIV



New HIV Infections

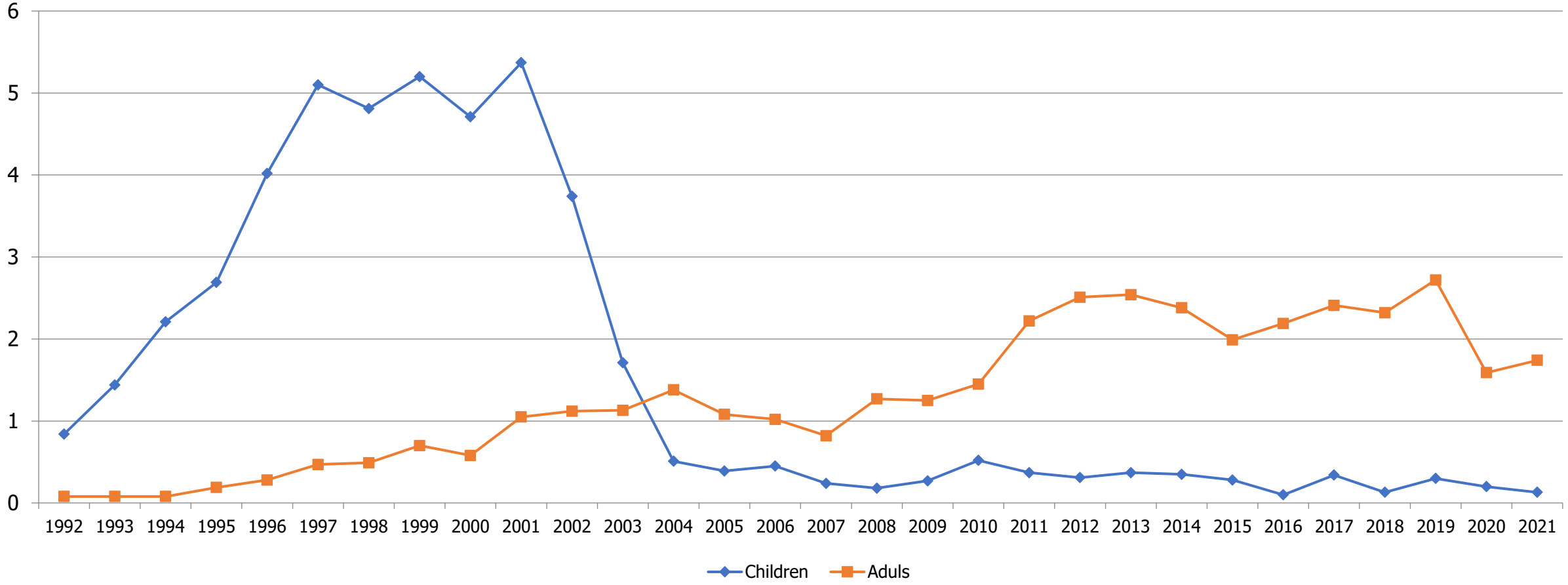


AIDS Deaths



Source: UNAIDS Estimates for Romania, 2021 (draft)

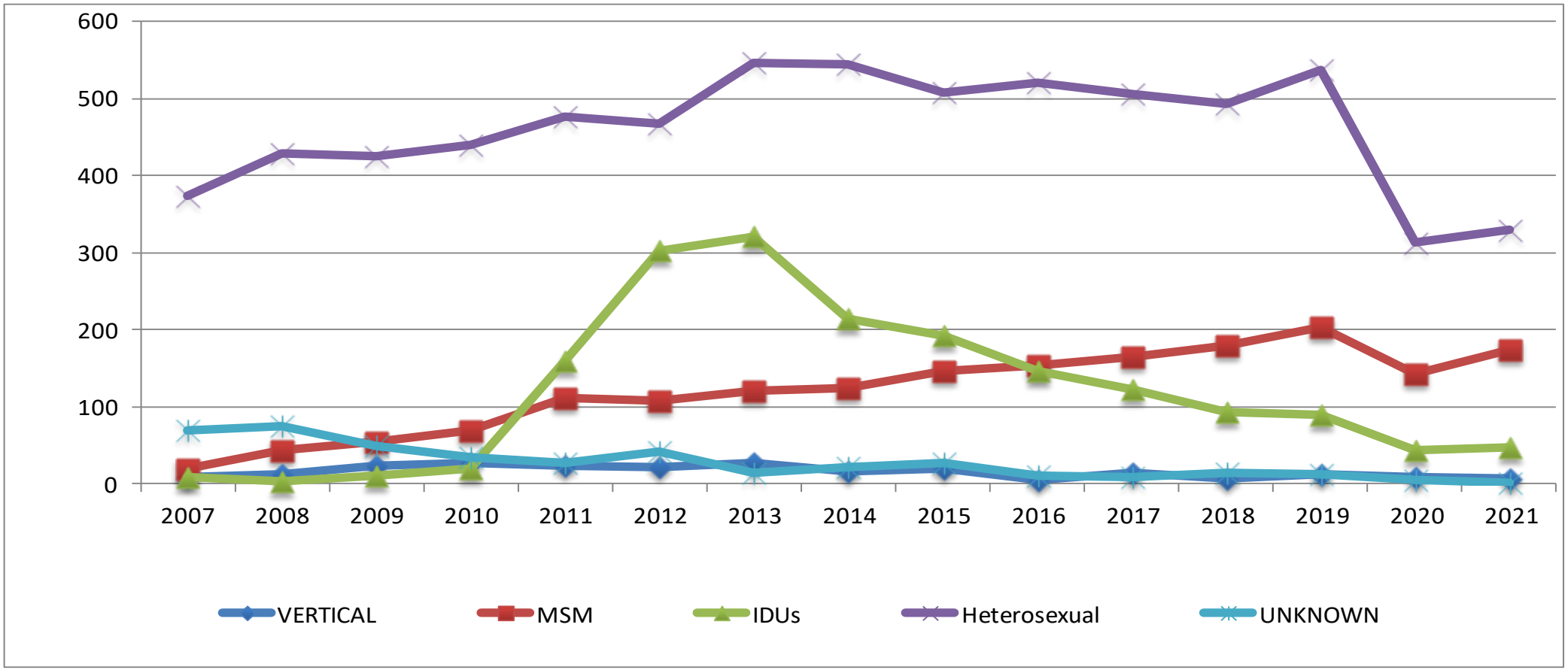
HIV incidence in children and adults
1992-2021



Children 2021: 0,13/100.000
Adults 2021: 1,74/100.000

Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI “Prof.Dr.M.Balş”, Dec 2021

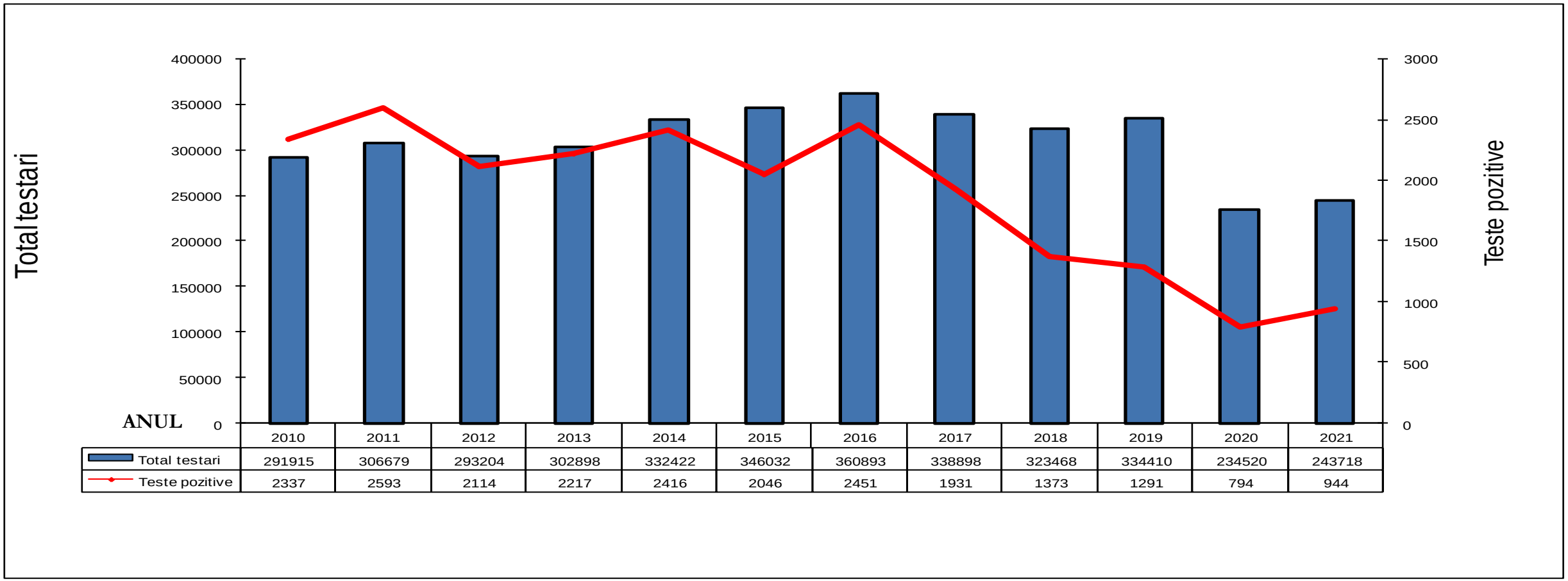
New HIV diagnoses and transmission mode 2007-2021



Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI "Prof.Dr.M.Balş", Dec 2021

Testing in Romania

HIV testing 2010-2021



ANUL	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total testari	291915	306679	293204	302898	332422	346032	360893	338898	323468	334410	234520	243718
Teste pozitive	2337	2593	2114	2217	2416	2046	2451	1931	1373	1291	794	944

*Data obtained from the Public Health Departments.

** HIV testing is performed since the beginning of the 1990s

Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI “Prof.Dr.M.Balş”, Dec 2021

Cascade of cares Romania 2021
Definition of the continuum of care

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.

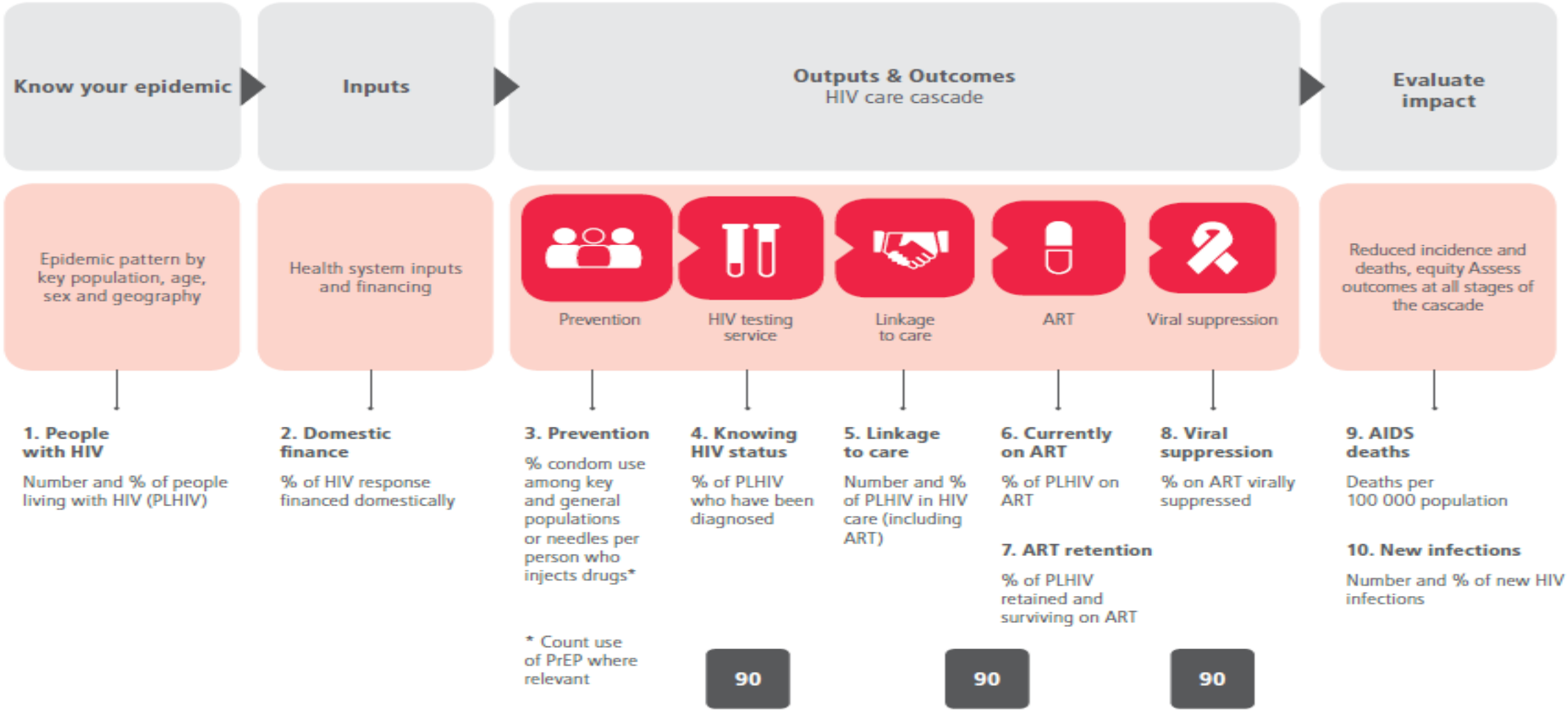
Source: Continuum of care. Monitoring implementation of the Dublin Declaration on Partnership to fight HIV/AIDS in Europe and Central Asia. 2017 Progress Report., p.1

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

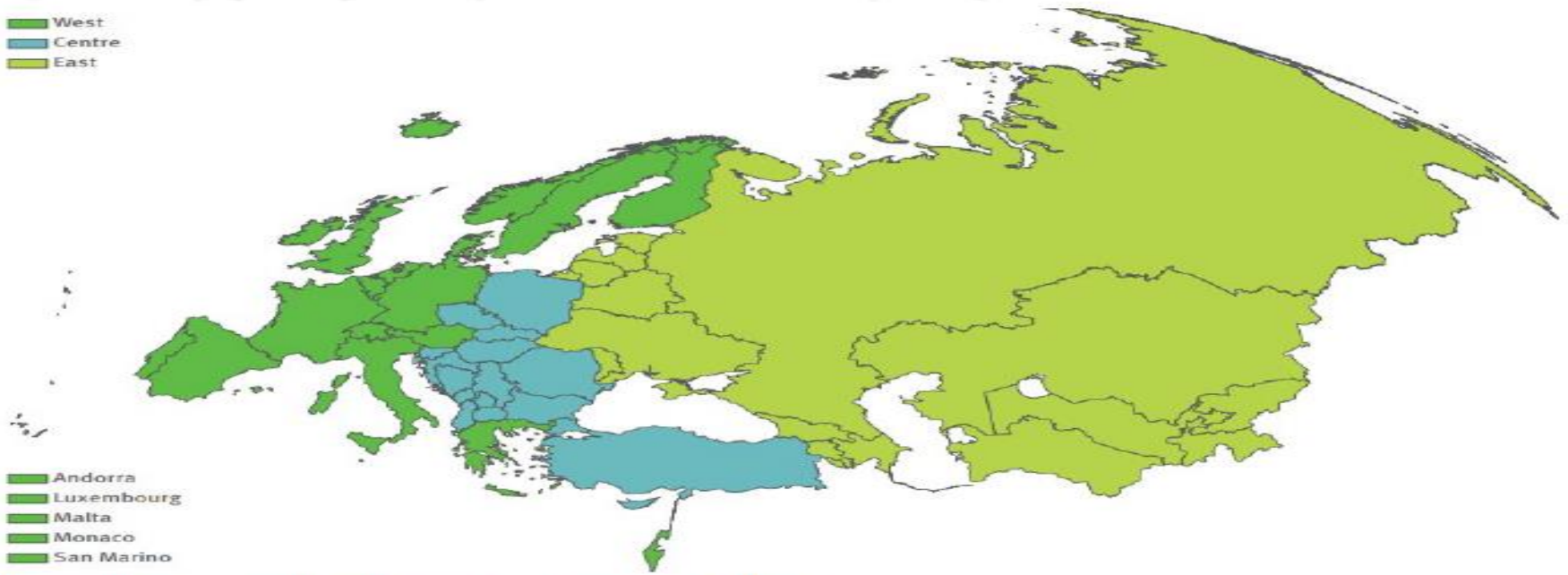
Global indicators for the monitoring and evaluation of the health sector response to HIV



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

Dublin Declaration 2020 Progress Report- Continuum of HIV Care

Figure 3. Geographical/epidemiological division of the WHO European Region



The countries covered by the report are grouped as follows:

West, 24 countries: Andorra, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, Liechtenstein, Malta, Monaco, the Netherlands, Norway, Portugal, San Marino, Spain, Sweden, Switzerland, the United Kingdom.

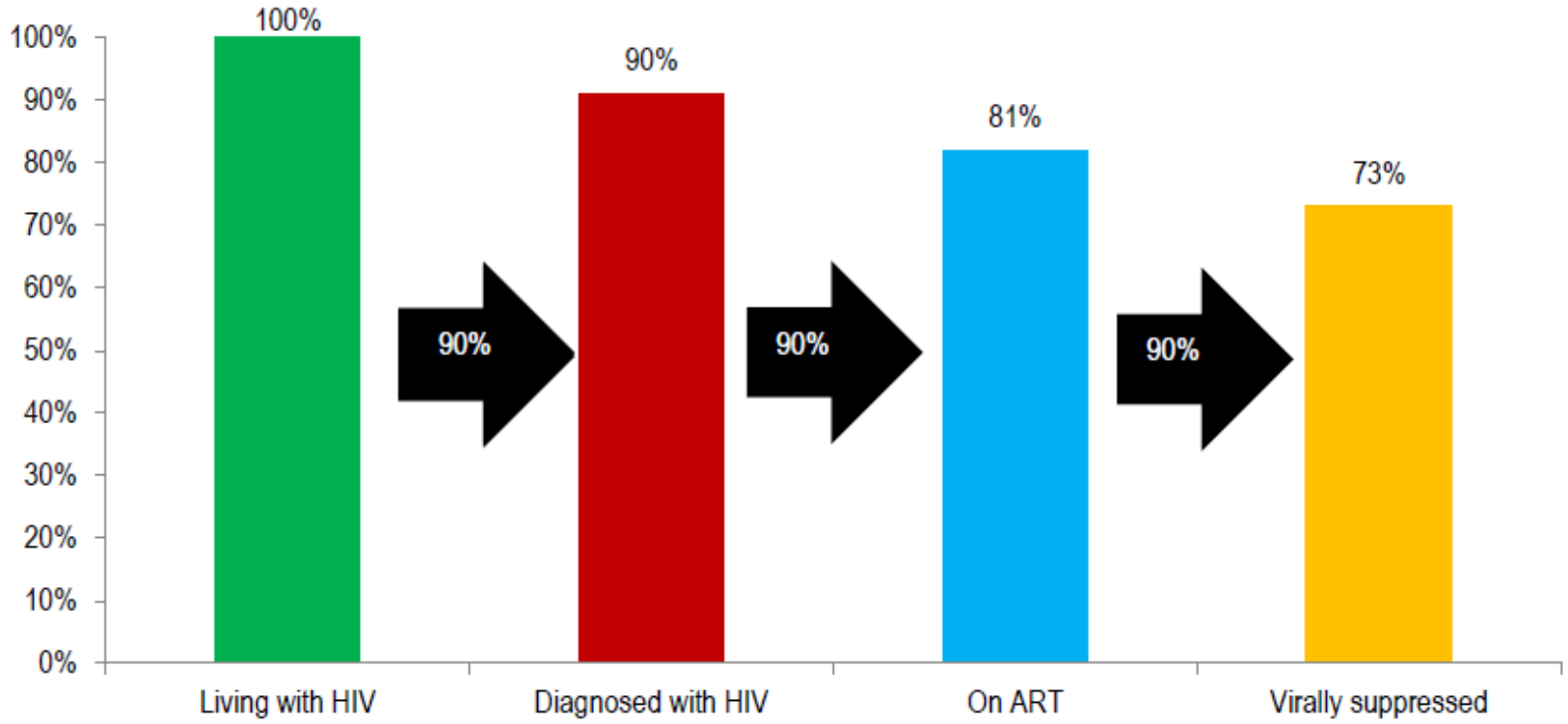
Centre, 16 countries: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Hungary, Kosovo[10], Montenegro, North Macedonia, Poland, Romania, Serbia, Slovakia, Slovenia, Turkey.

East, 15 countries: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.

Source: https://www.ecdc.europa.eu/sites/default/files/documents/hiv-continuum-of-care-dublin-declaration-2021.pdf

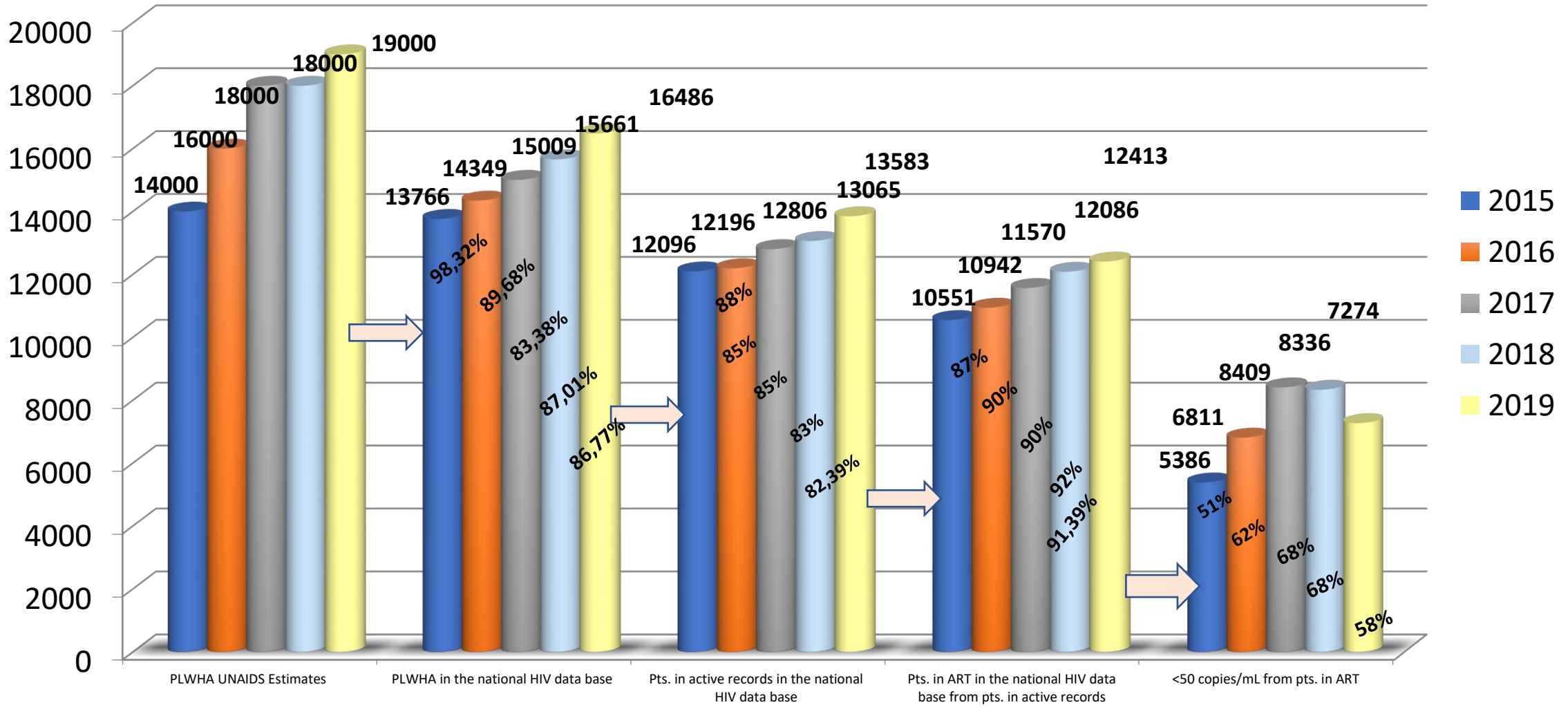
Dublin Declaration 2020 Progress Report- Continuum of HIV Care

Figure 2. Continuum of HIV care as envisaged by the 90-90-90 UNAIDS targets for 2020



Source: https://www.ecdc.europa.eu/sites/default/files/documents/hiv-continuum-of-care-dublin-declaration-2021.pdf

Cascade of HIV cares in Romania
2015-2019

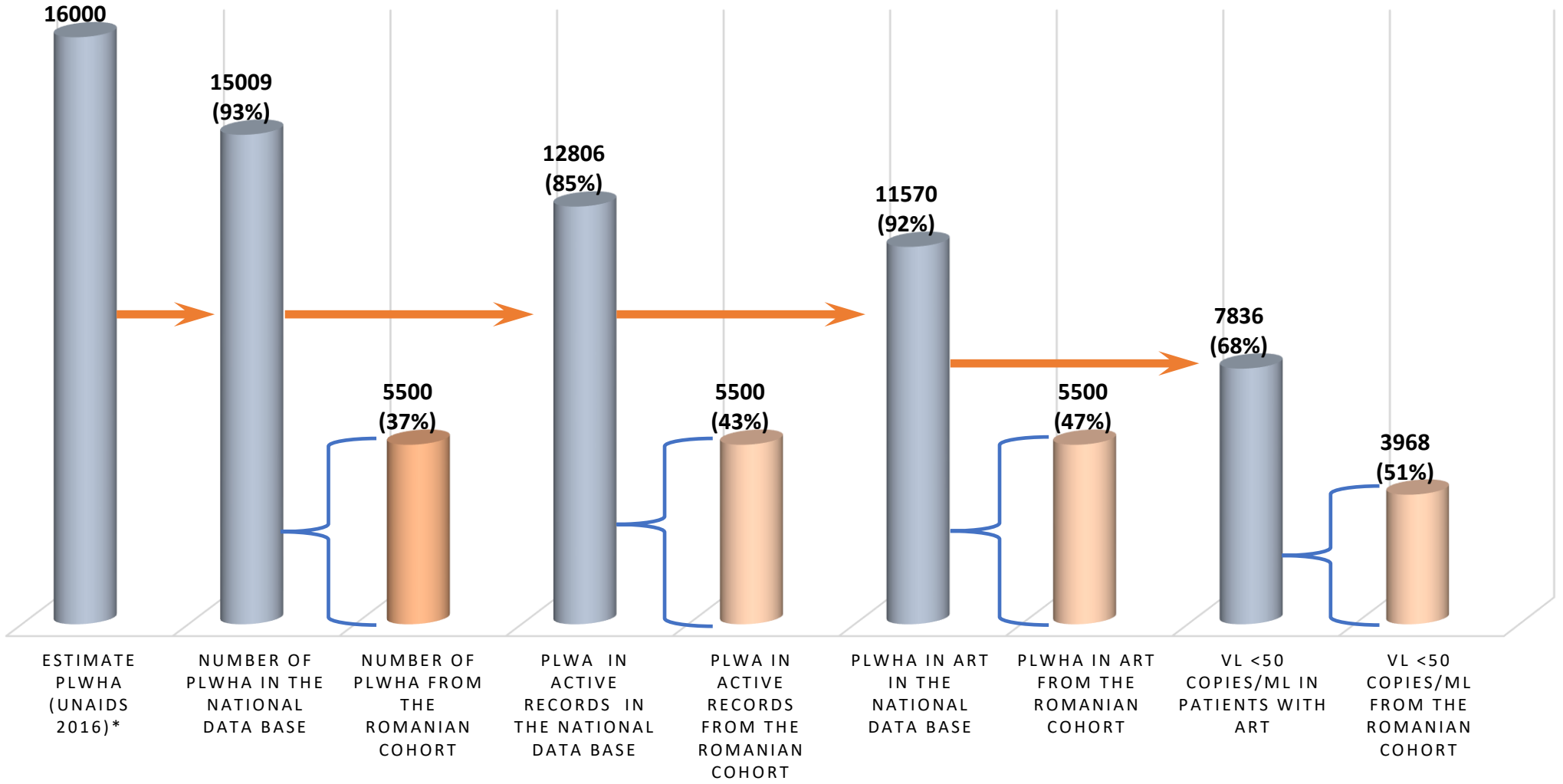


*2017; 2018 V.L. < 200 copies/ml

Source: Compartment for Monitoring and Evaluation of HIV/AIDS Data in Romania

www.cnlas.ro

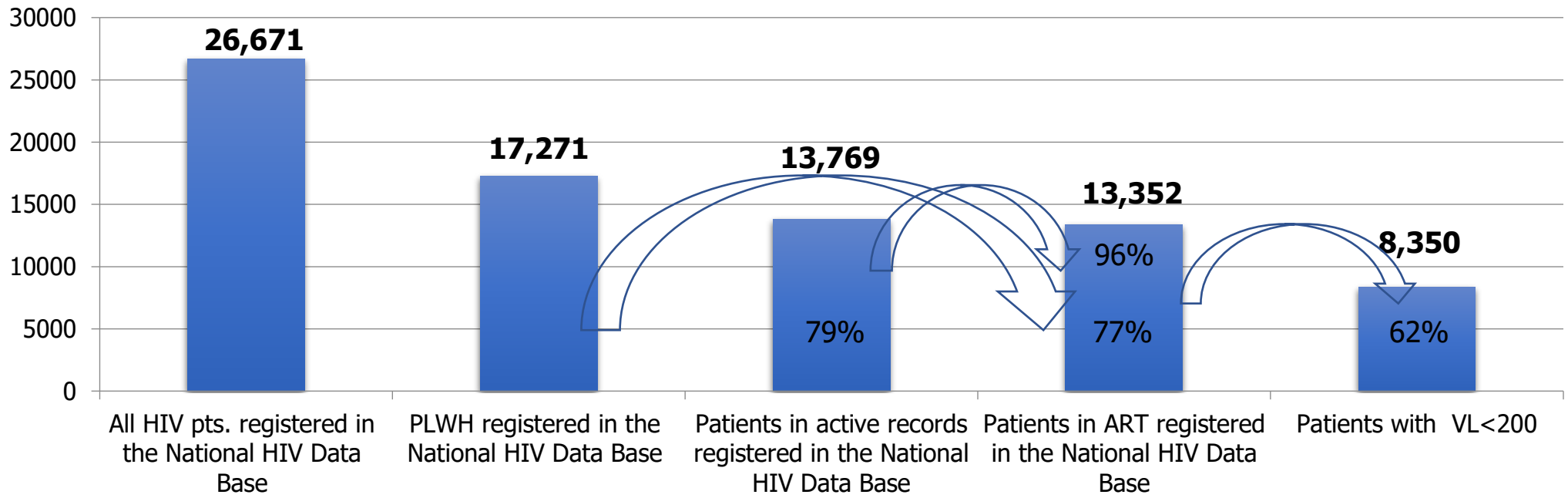
Current HIV treatment cascade in Romania
CASCADE OF CARE – 31 DECEMBER 2017



*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.

90-90-90+90 status 2021



Source: Compartment for Monitoring and Evaluation of HIV/AIDS Infection in Romania INBI "Prof.Dr.M.Balş", Dec 2021

Stigma and discrimination – current situation

From the data released in a national research report, released by the National Union of PLWHA in 2021- *Evaluation of the capacity of PLWHA to understand and use data related to their health*- in 2021, in terms of stigma the respondents (**349**) answered:

- 27% feel they are stigmatized
- Although, important progress has been registered in terms of clinical care, negative behaviors against PLWHA represent barriers against good quality of life and a better general health status
- As a general outline, the problem of stigma has been scarcely studied in Romania, during the last several years

Source: https://unopa.ro/evaluarea-capacitatii-persoanelor-seropozitive-de-a-intelege-si-utiliza-informatii-legate-de-sanatatea-lor/

Resource optimization to maximize the HIV response in Romania

90-90-90 projections for Romania

95-95-95

Key recommendations in priority order for HIV resource optimization include:

- **Scaling up HIV testing and prevention programs targeting people who inject drugs and needle-syringe programs** to invest over 40% more of the overall budget from 2019 to 2030 at the latest reported budget level under optimized allocation. Maintaining increased investment should additional budget become available. Since it was estimated that people who inject drugs transmitted 15% of all new HIV infections in Romania in 2018;

- **Scaling up HIV treatment** at the latest reported budget level under optimized allocation, maintaining increased investment up to 125% optimized budget level;

- **Prioritizing HIV testing and prevention programs targeting female sex workers** at 125% optimized budget level and above;

- **Greatly prioritizing HIV services (mainly for the general population)** at 150% optimized budget level and above; and

- **Prioritizing HIV testing and prevention programs targeting men who have sex with men** at 150% optimized budget level and above.

The Global Fund

UNAIDS

Burnet Institute
Medical Research. Practical Action.

Optima HIV

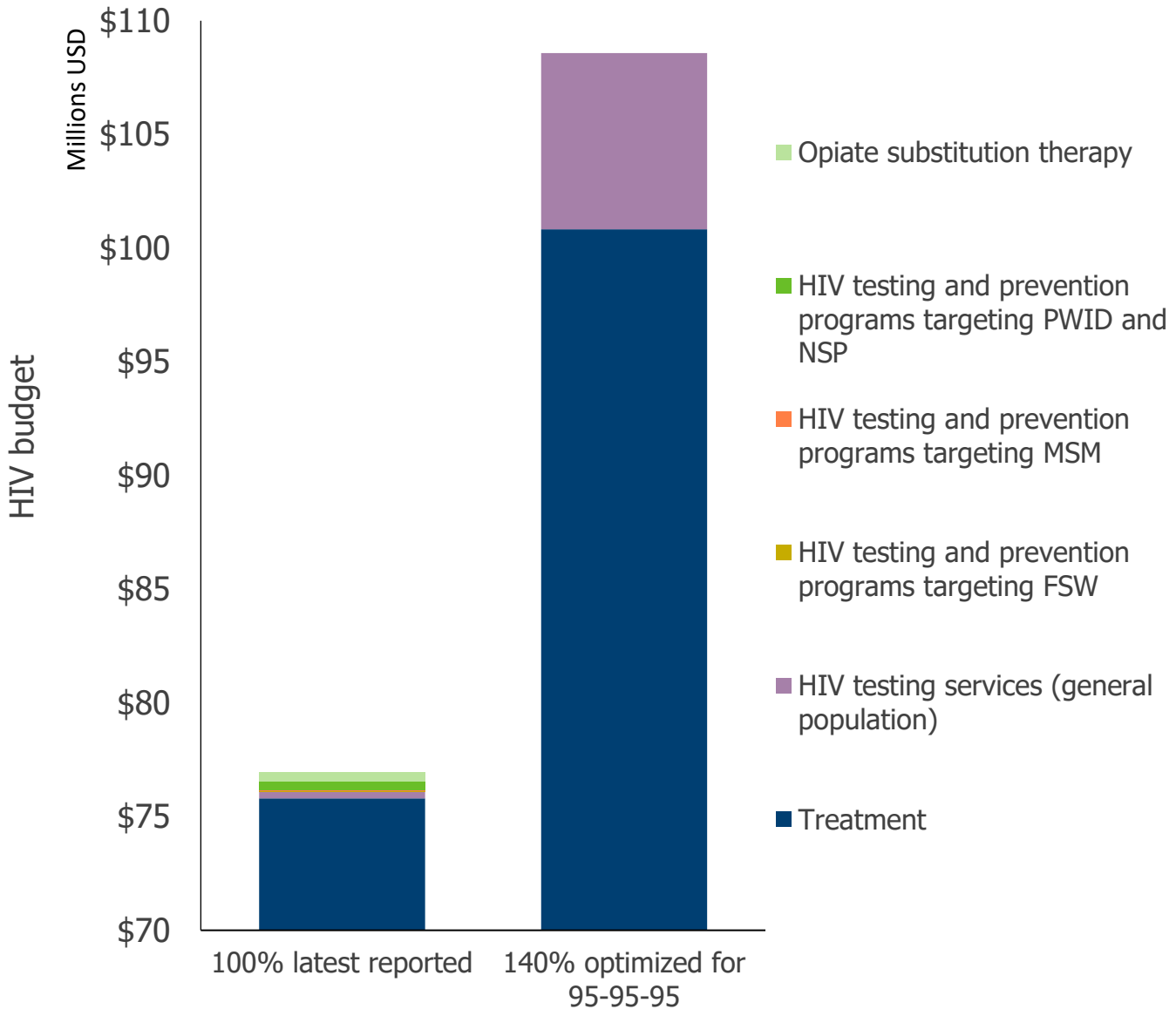
Source: http://optimamodel.com/pubs/Romania_2020.pdf

Identification of needs to reach 95-95-95 goals

95-95-95 targets

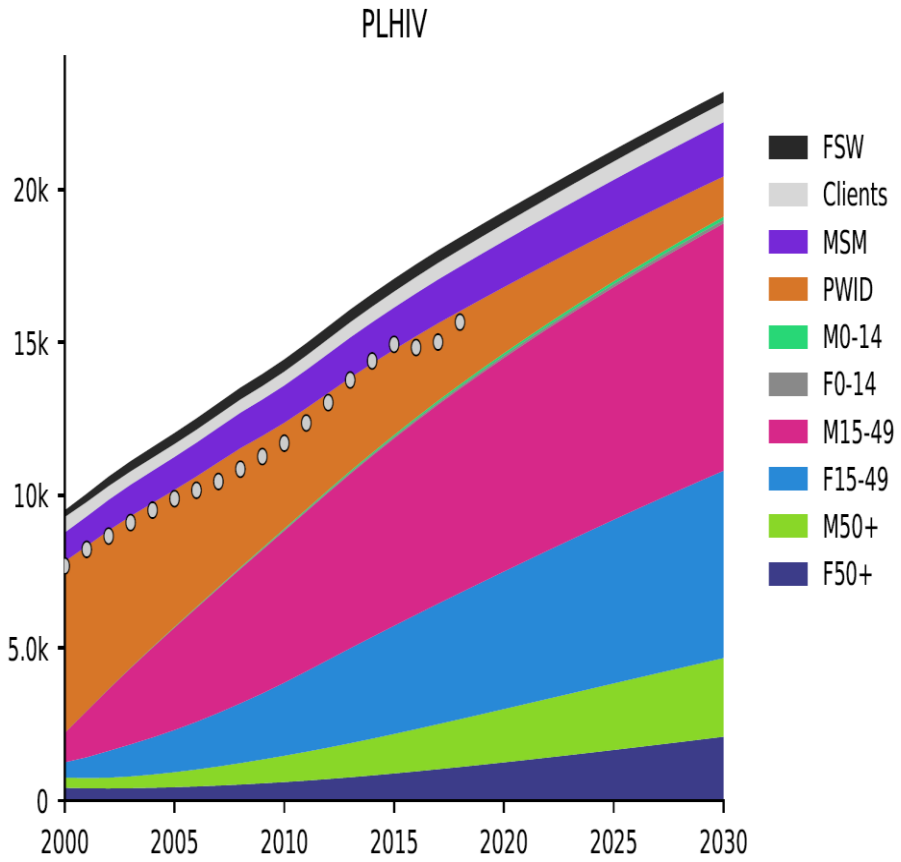
To best achieve 95-95-95 by 2030, it is suggested:

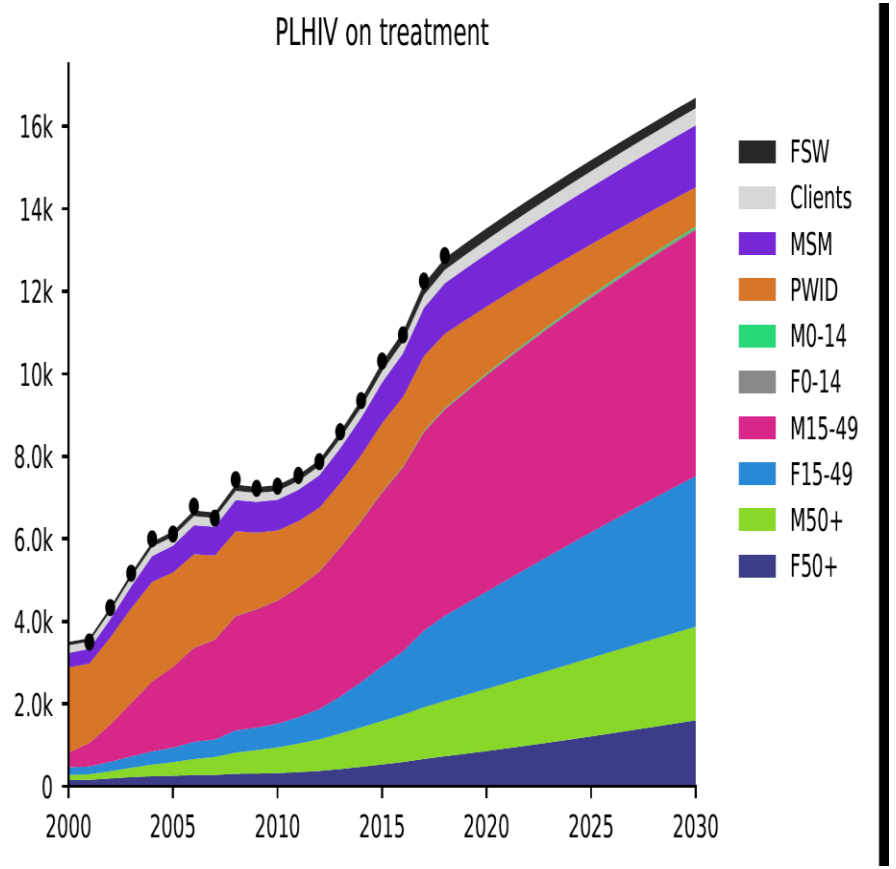
- ***to increase the budget for targeted HIV programs to 140%*** *(2019-2030)*
- *to optimize with* ***prioritized scale-up of treatment and HIV testing*** *services mainly intended for the* ***general population,*** *to increase percent diagnosed and successfully treated towards 95-95-95, since* ***over 80% of new HIV infections*** *in 2018 were estimated to be among the* ***general population including clients of sex workers.***



Source: http://optimamodel.com/pubs/Romania_2020.pdf

Projections until 2030





Source: http://optimamodel.com/pubs/Romania_2020.pdf

Current standards of care that should be adapted to the current 2021-2022

PLWHA

Instrumentes National HIV/AIDS Registry

- **Young people "aged" by treatment**
- **Therapeutic fatigue**
- **New cases of HIV infection: young persons, in their fertile age, late presenters in the medical system**
- **Important increase in HIV cases in MSM**
- **Vulnerable groups**

ART

National registry of patients in ART

National Guideline or adaptation of EACS Guidelines with emphasis on Romano's epidemic

- **Most ARTs- available in Romania. Universal access to ART**
- **Treatment irrespective of CD4 count- since 2001**
- **Suboptimal therapeutic regimen- during the first weeks of life**
- **Toxicity associated to ART**

Source: A. Streinu-Cercel. cnlas.ro: *Specific Challenges of the HIV Epidemic in Romania*. EACS 2013.
M. Mardarescu. Et All. *Risk factors involved in late detection of HIV mother to child transmission - data from the National Registry of HIV pregnant women and perinatally exposed children in Romania.* 2nd Vilnius Summit on Communicable Diseases. Oct 4-7, 2017. 14th Congress of the BADV , October 5-7, 2017. Vilnius, Lithuania.

MTCT

(mother to child transmission)

Instruments:

National Registry of HIV Pregnant Women and of perinatally exposed newborns- 1460 mother and child item s(2013-2020)

Different dynamics- surveillance of HIV perinatally exposed newborns > 2 years

Young mothers, multi- therapeutically experienced

Mothers with unknown HIV status – recommemdation of HIV testing and specifci ART

New approach of the management of HIV perinatally exposed newborns

IDUs (injecting drug consumers)

Building bridges with the psychology and psychiatry networks

New substances with psychoactive properties

New approach of mothers who use drugs and of newborns perinatally exposed to drugs

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

M. Mardarescu. Et All. *Risk factors involved in late detection of HIV mother to child transmission - data from the National Registry of HIV pregnant women and perinatally exposed children in Romania.* 2nd Vilnius Summit on Communicable Diseases. Oct 4-7, 2017. 14th Congress of the BADV , October 5-7, 2017. Vilnius, Lithuania.

Therapeutic fatigue

Approach for the cohort 1988-1990?

Long-term therapy+ multiple therapeutic schemes

Virological failure+ immunological failure

Comorbidities and

Co-infections

Aging

Rapid access to all medical specialities

Correct evaluation and in dynamics of co-infections and comorbidities

Implications- the DDI perspective

Menopause

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

M. Mardarescu. Et All. *Risk factors involved in late detection of HIV mother to child transmission - data from the National Registry of HIV pregnant women and perinatally exposed children in Romania.* 2nd Vilnius Summit on Communicable Diseases. Oct 4-7, 2017. 14th Congress of the BADV , October 5-7, 2017. Vilnius, Lithuania.

Aging with HIV

New approach for adults- from the standpoint of increased life expectancy

New approach
New mechanisms
New meanings
New attitude
New results

Vulnerable groups

Adapting the national efforts to needs of vulnerable groups

Challenges

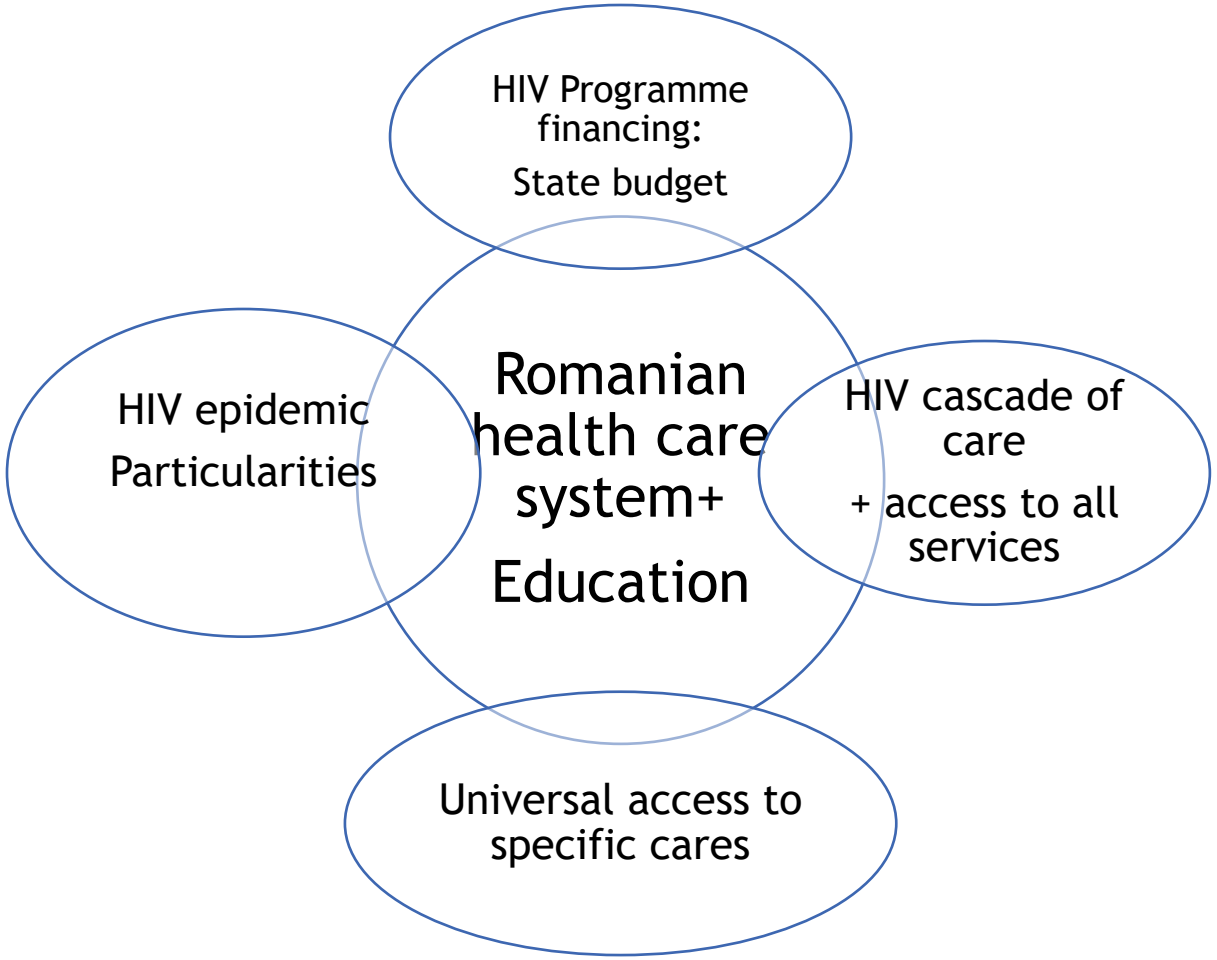
Approach, within an integrated system of HIV

Patients, comprising all medical specialties

Sursa: A. Streinu-Cercel. cnlas.ro: *Specific Challenges of the HIV Epidemic in Romania*. EACS 2013.
M. Mardarescu. Et All. *Risk factors involved in late detection of HIV mother to child transmission - data from the National Registry of HIV pregnant women and perinatally exposed children in Romania.* 2nd Vilnius Summit on Communicable Diseases, Oct 4-7, 2017, 14th Congress of the BADV , October 5-7, 2017, Vilnius, Lithuania.

How can we implement the standards of cares/services in Romania?

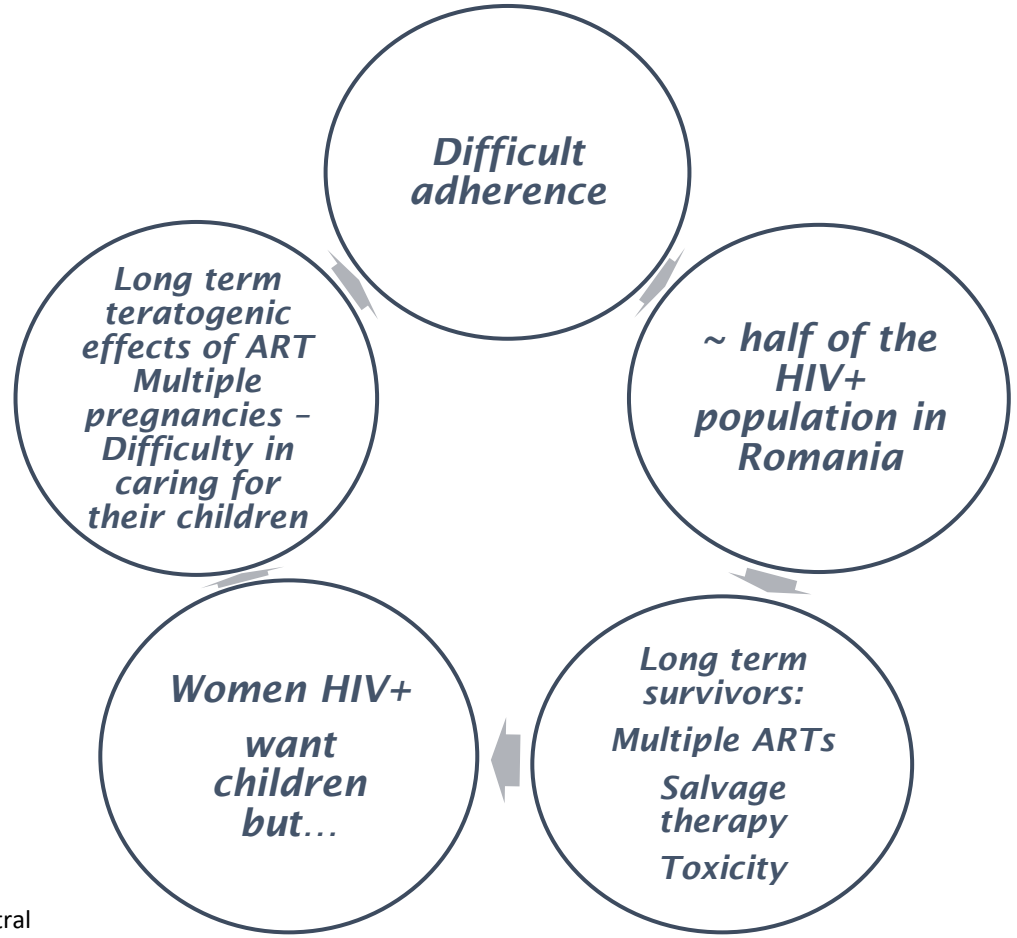
Adapting the National Romanian HIV Strategy to the HIV epidemic



Source: Compartment for Monitoring and Evaluation of HIV/AIDS Data in Romania

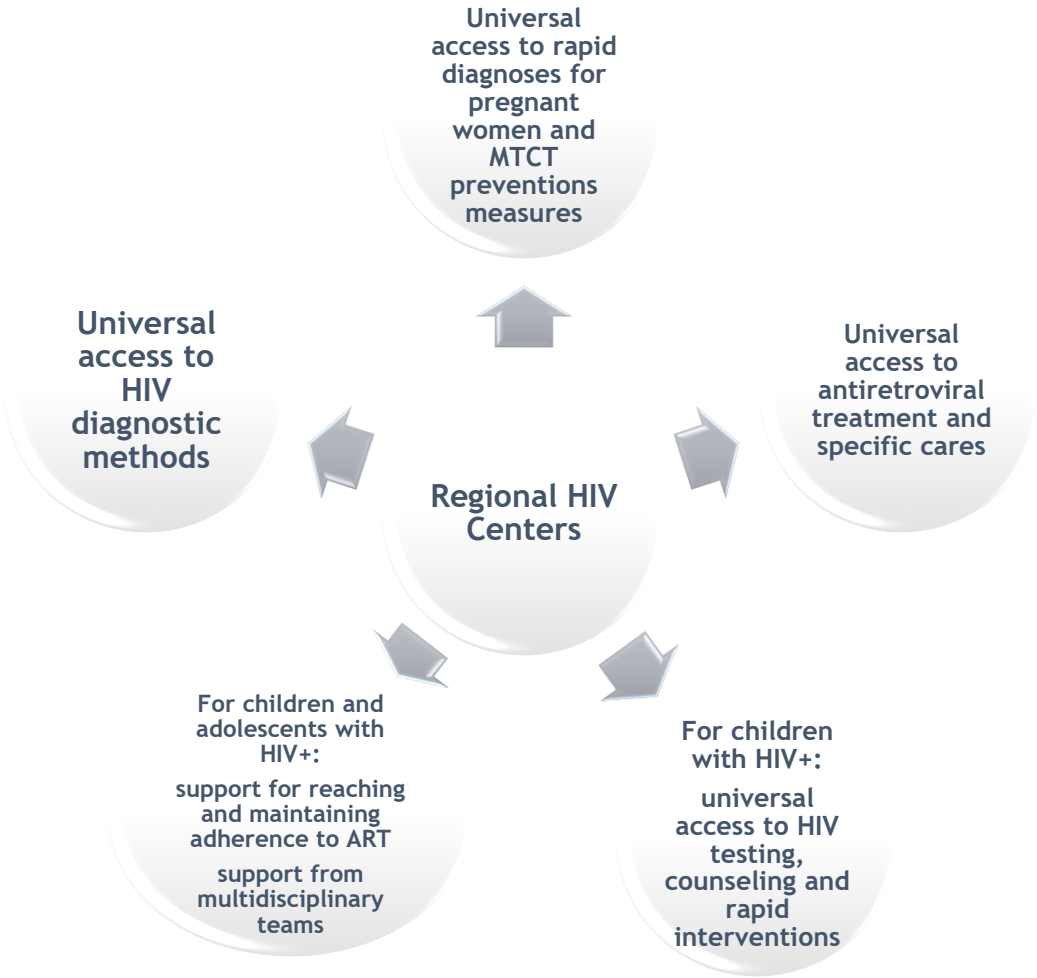
Transition from paediatric to adult care
"1987-1990" Romanian cohort

The largest cohort in Europe: 29-35 current age group that was taken into medical surveillance during the first years of the 1990s (non-vertical transmission)

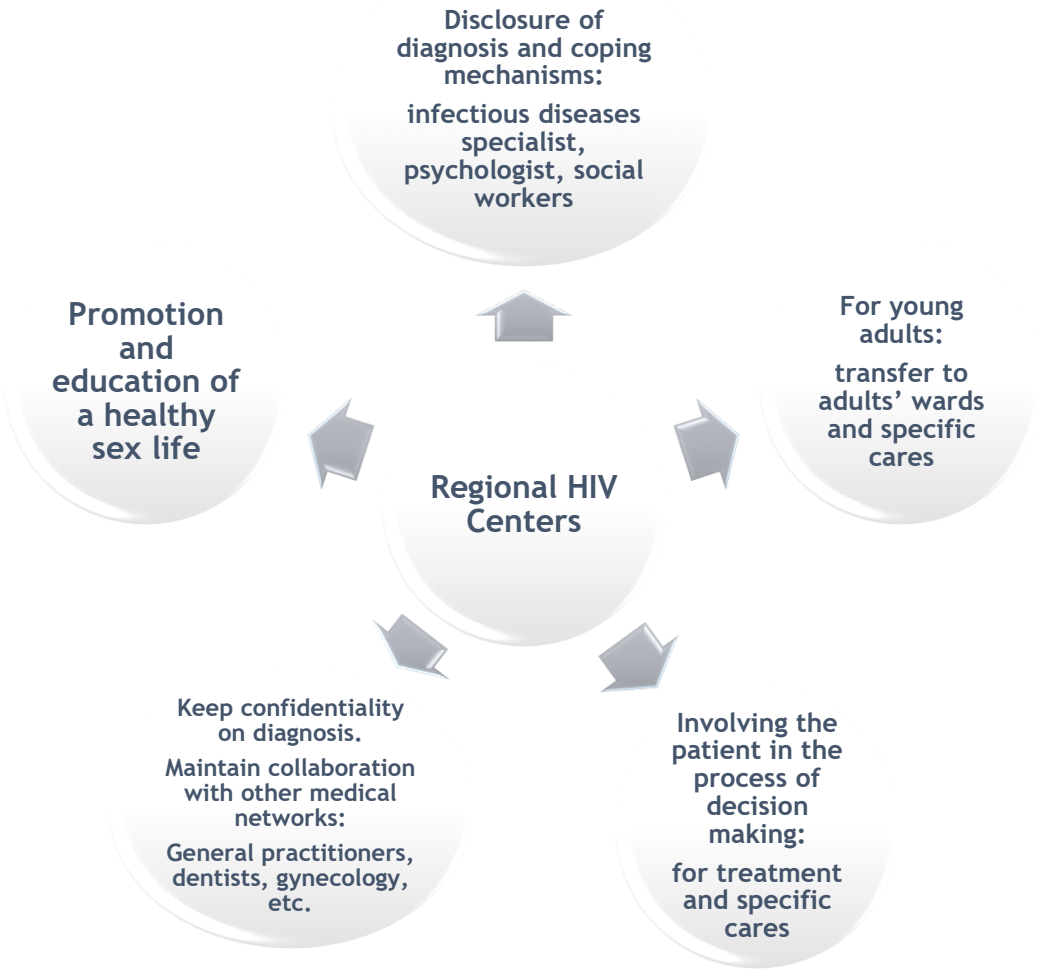


Source: M. Mardarescu. Results of long-term follow-up of children infected with HIV. VI International Eastern Europe and Central ASIA AIDS Conference. April 2018, Moscow.

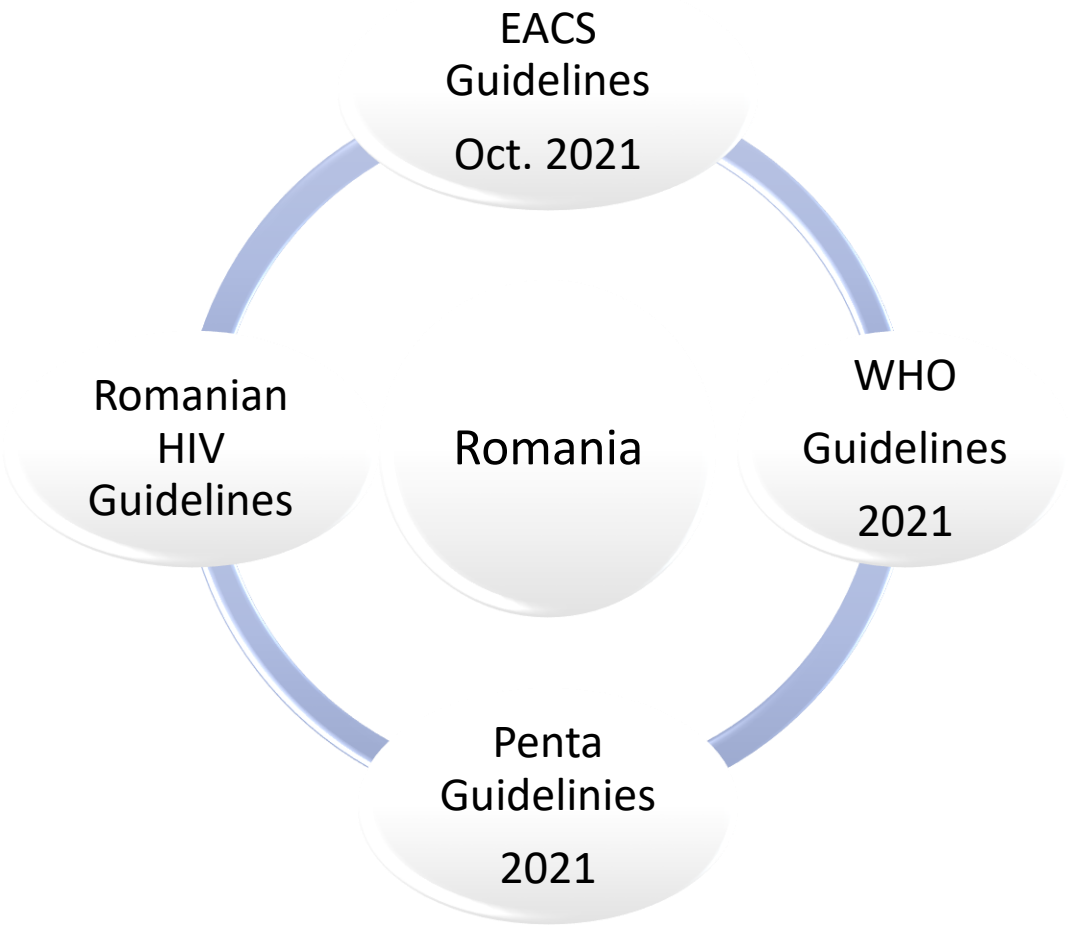
Standards of cares implemented by the Regional HIV Centers



Standards of cares implemented by the Regional HIV Centers

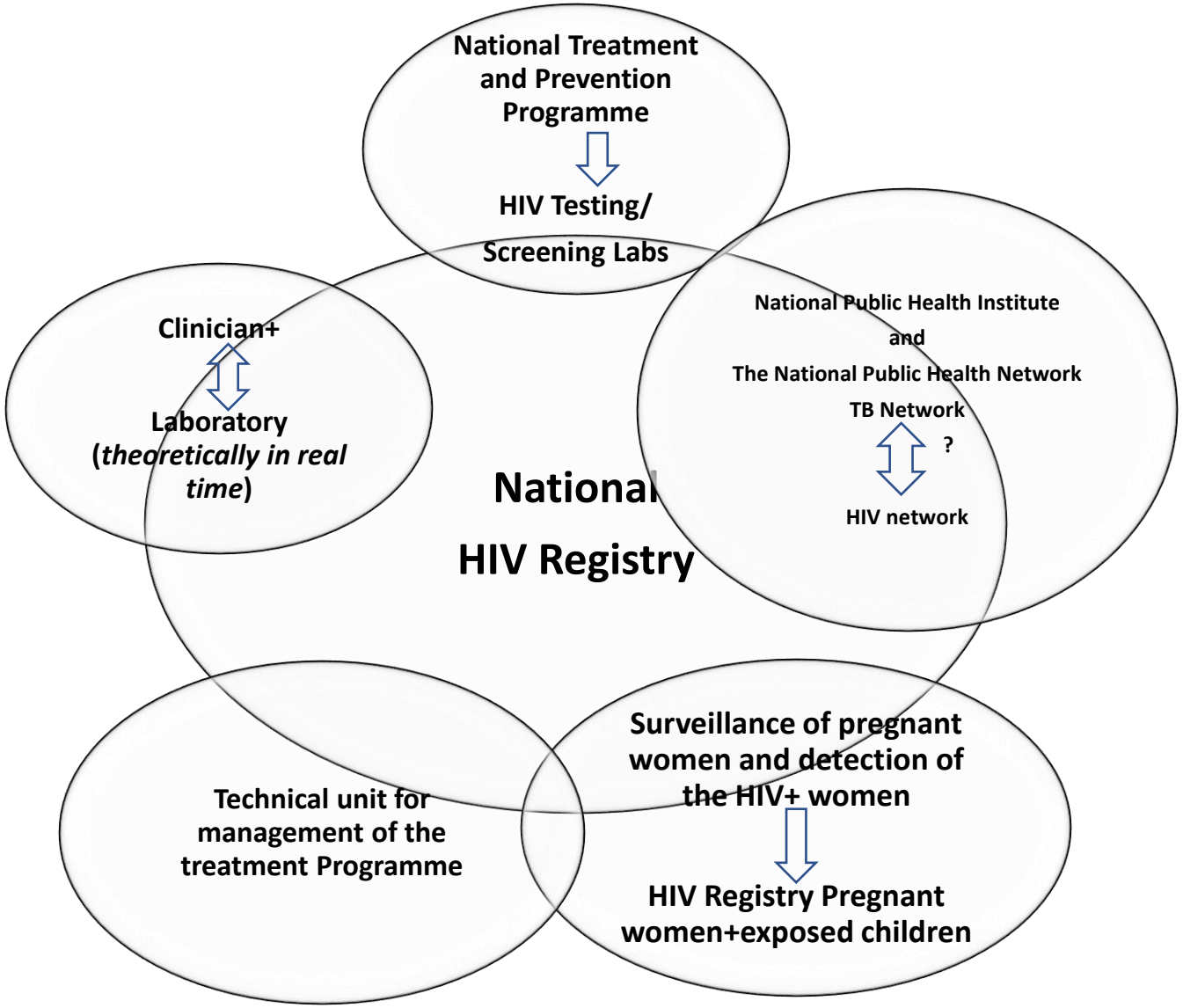


Which HIV Guidelines can be implemented in Romania?



Source: Compartment for Monitoring and Evaluation of HIV/AIDS Data in Romania

Challenges in the Romanian System of HIV Surveillance



Statement at the end of the EACS' Standard of care meeting , Bucharest, January 2019

Proposed healthcare strategy steps at EACS Standard of care Meeting for Central and Eastern Europe 30-31 January 2019

- **Actively promote and implement Early Detection as the foundation for a medically successful treatment and a cost-consciousness approach**

  - ✓ **Testing/Screening campaign**: Randomized screening in general population (rapid tests) combined with at risk population testing

- **Ensure Access, Best-in-Class Treatment, Universality and Equity**

  - ✓ Improve access to treatment
  - ✓ Ensure equitable access and prevent discrimination
  - ✓ Revise Medical Guidelines
  - ✓ Revise the collaboration frame between all stakeholders (GPs, specialists, HA, NGO)
  - ✓ Include Health-Economics in treatment paradigm

Statement at the end of the EACS' Standard of care meeting , Bucharest, January 2019

Proposed healthcare strategy steps

- **Reduction in transmission of the disease through raising awareness**
  - Ensure **public recognition** of chronic viral hepatitis with B, C, HIV viruses as an urgent public health issue by establishing a **National Awareness Program on Viral Hepatitis B, C and HIV transmission routes**
  - Raise awareness of hepatitis B, C and HIV transmission risks and improve knowledge and skills for sustaining preventive practices

- **Make Hepatitis B, C and HIV a 100% preventable disease with the implementation of the National Prevention Plan.**
  - Access the National Registry for viral Hepatitis, HIV, TB, STD… (Surveillance Program)
  - Prevention of Biomedical Transmission (Nosocomial)
  - Prevention of Mother-to-Child Transmission
  - Prevention in PWID
  - Prevention in Service Providers
  - Prevention in tattooing, piercing, and nail care business

A. Streinu-Cercel. *Specific challenges in key population in Romania and in Central and Eastern Europe* . EACS SoC, 30-31 January 2019, Bucharest

Conclusions

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www.cnlas.ro

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6. **A. Streinu-Cercel**. Specific Challenges of the HIV Epidemic in Romania. EACS 2013

7**. O. Sandulescu**. HIV/Hepatitis co-infection situation in Romania. 3rd Central and Eastern European Meeting on Viral Hepatitis and Co-Infection with HIV, 2016.

Warm thanks to our patients and their parents, long distance runners who have worked along with our medical staff, for the past 32 years in view of offering yesterday's children and today's young adults the quality of life they deserve, as any other...

Last but not least…
…warm thanks to all the health-care staff who have stood together in nearly 35 years in providing the best care possible to our patients!
…thanks to all the actors involved in the fight against HIV/AIDS!

Manager INBI Prof. Dr. Matei Balș	Dr. Cătălin Apostolescu
Medical Director	Dr. Adrian Marinescu
Coordinator	Mariana Mărdărescu MD PhD
Statistical data operators:	
PC operators	Marieta Iancu
	Daniela Vițelaru
	Sanda Vintilă
Colaborators	Dr. Ionel Iosif
	Claudiu Șchiopu IT Tessy European Reporting System ECDC
	UATM
	Romanian HIV/AIDS Center