

L'AGORA' PENITENZIARIA 2019  
XX Congresso Nazionale SIMSPE-ONLUS

# **IL CARCERE È TERRITORIO**

**Milano 2 Ottobre 2019**

## **L'infezione da HIV nel giovane**

*Giordano Madeddu – Università di Sassari*

## Financial disclosure

Prof. Madeddu has received consultancy and/or speakers' fees from Abbott, Bristol Myers Squibb, Gilead Sciences, Janssen, Merck Sharp & Dohme and ViiV, Pfizer and Angelini

# IL CARCERE È TERRITORIO

L'infezione da  
HIV nel  
giovane

*Current*



# **HIV/AIDS Surveillance 2018**

## **2017 data**

**European Centre for Disease Prevention and Control**  
**WHO Regional Office for Europe**

# European Union/ European Economic Area (EU/EEA)

# New HIV diagnoses in the EU/EEA 2017



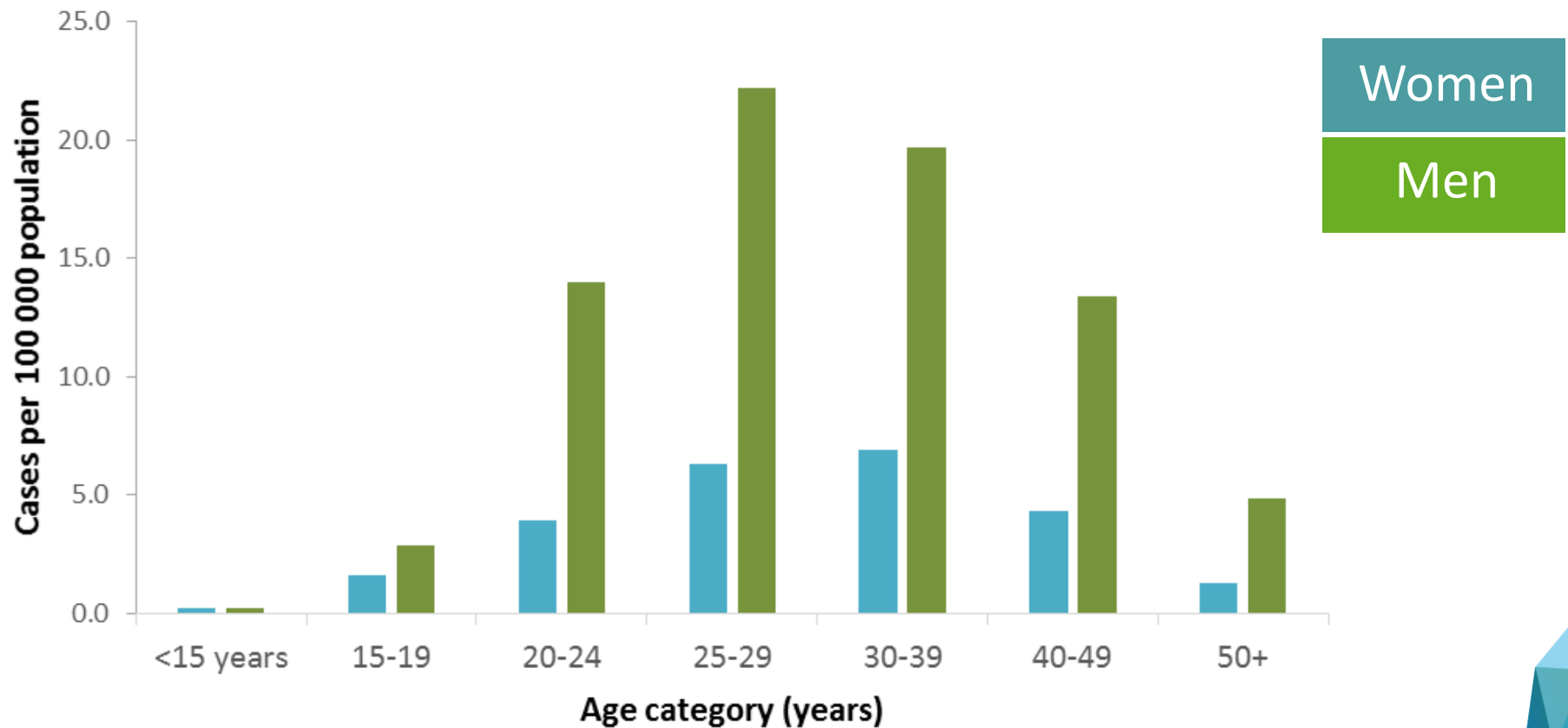
Reporting countries/number of countries*	30/31
Number of HIV diagnoses	25 353
Rate per 100 000 population (adjusted for reporting delay)	6.2
Male-to-female ratio	3.1
Percentage of new diagnoses CD4<350 cells/mm <sup>3</sup>	49%

## Transmission mode (%)

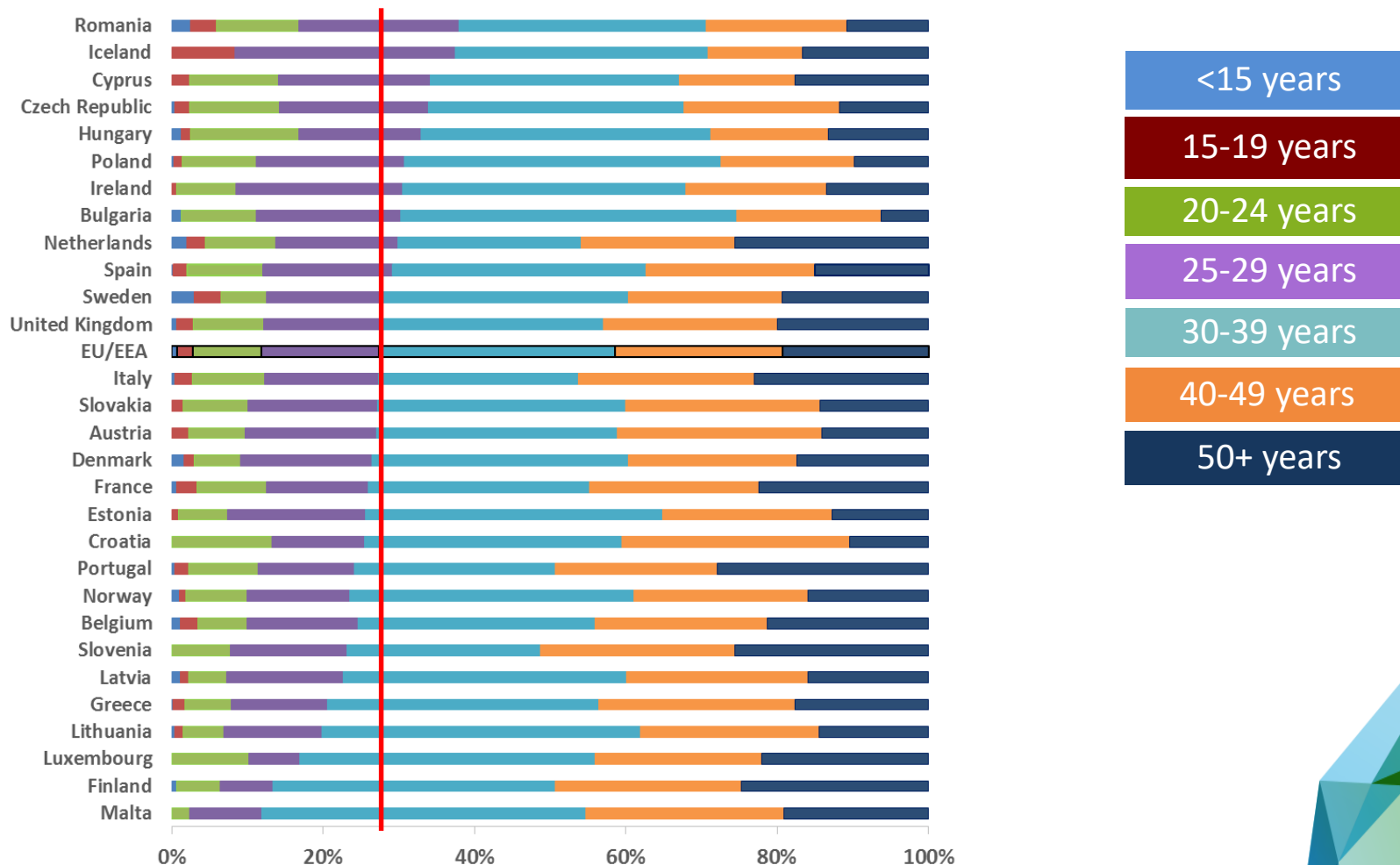
Sex between men	38
Heterosexual transmission (men)	17
Heterosexual transmission (women)	16
Injecting drug use	4
Vertical transmission	<1
Unknown	24

\* Due to technical issues no 2017 data were received from Germany

# Age- and gender-specific rates of HIV diagnoses per 100 000 population, EU/EEA, 2017



# Percentage of new HIV diagnoses, by country and age group, EU/EEA, 2017

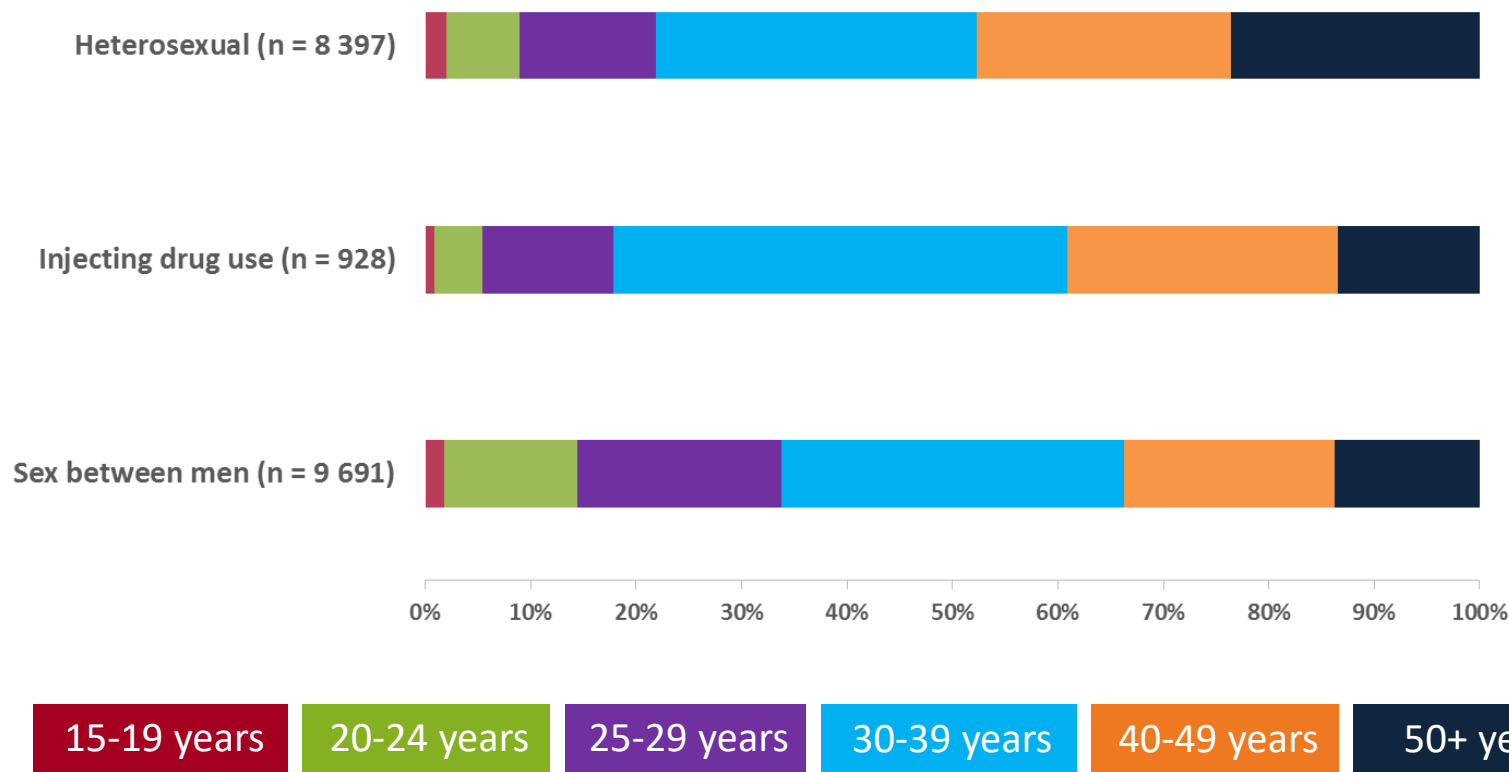


Note: Germany did not report data for 2017, 0 cases were reported by Liechtenstein

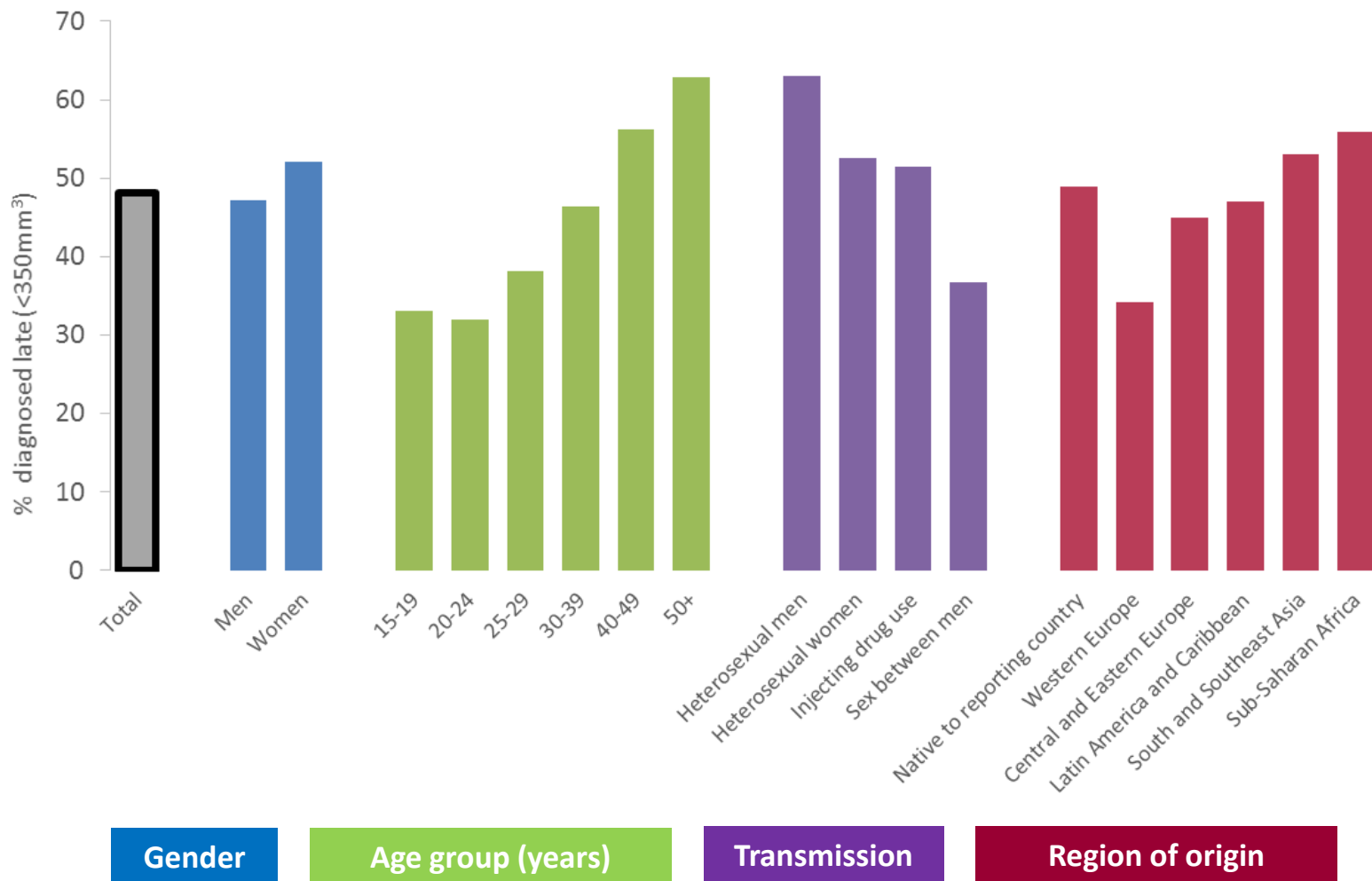
Source: ECDC/WHO (2018). HIV/AIDS Surveillance in Europe 2018– 2017 data



# New HIV diagnoses, by transmission mode and age group, EU/EEA, 2017

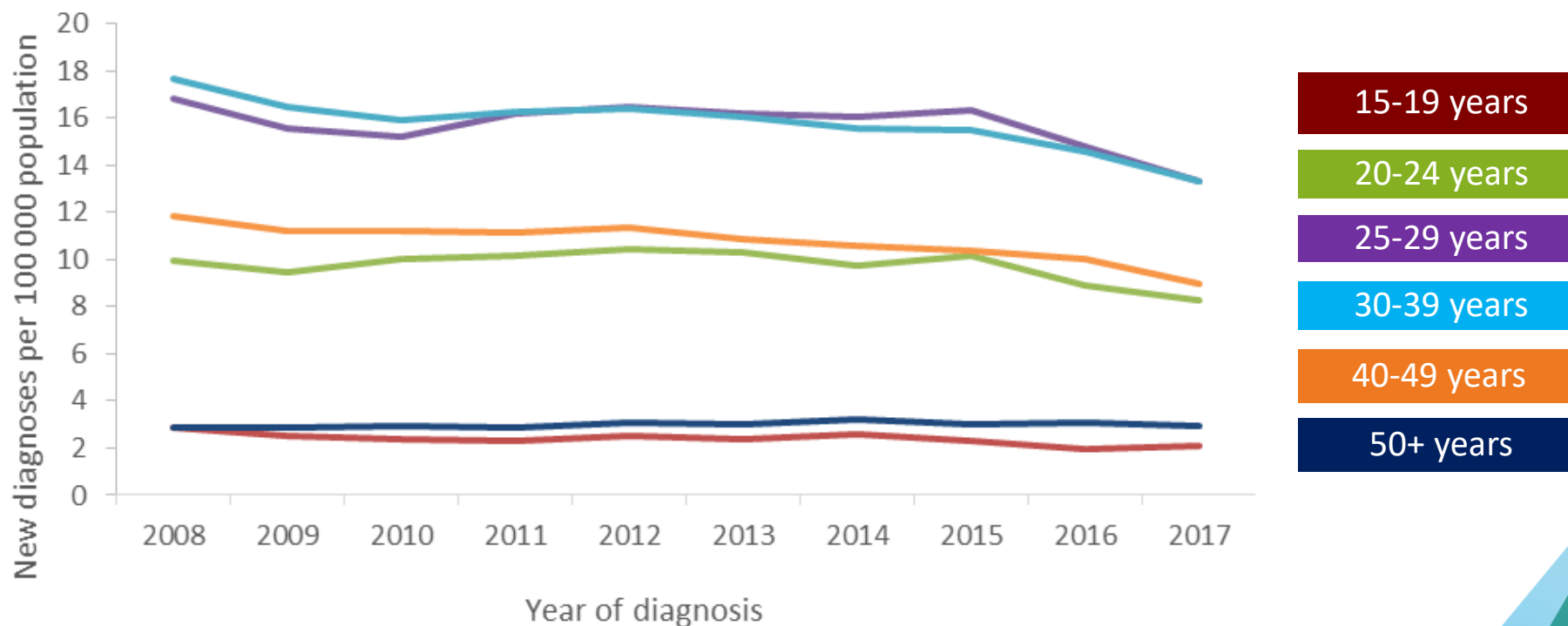


# Proportion of persons diagnosed late\* with HIV by demographic, EU/EEA, 2017

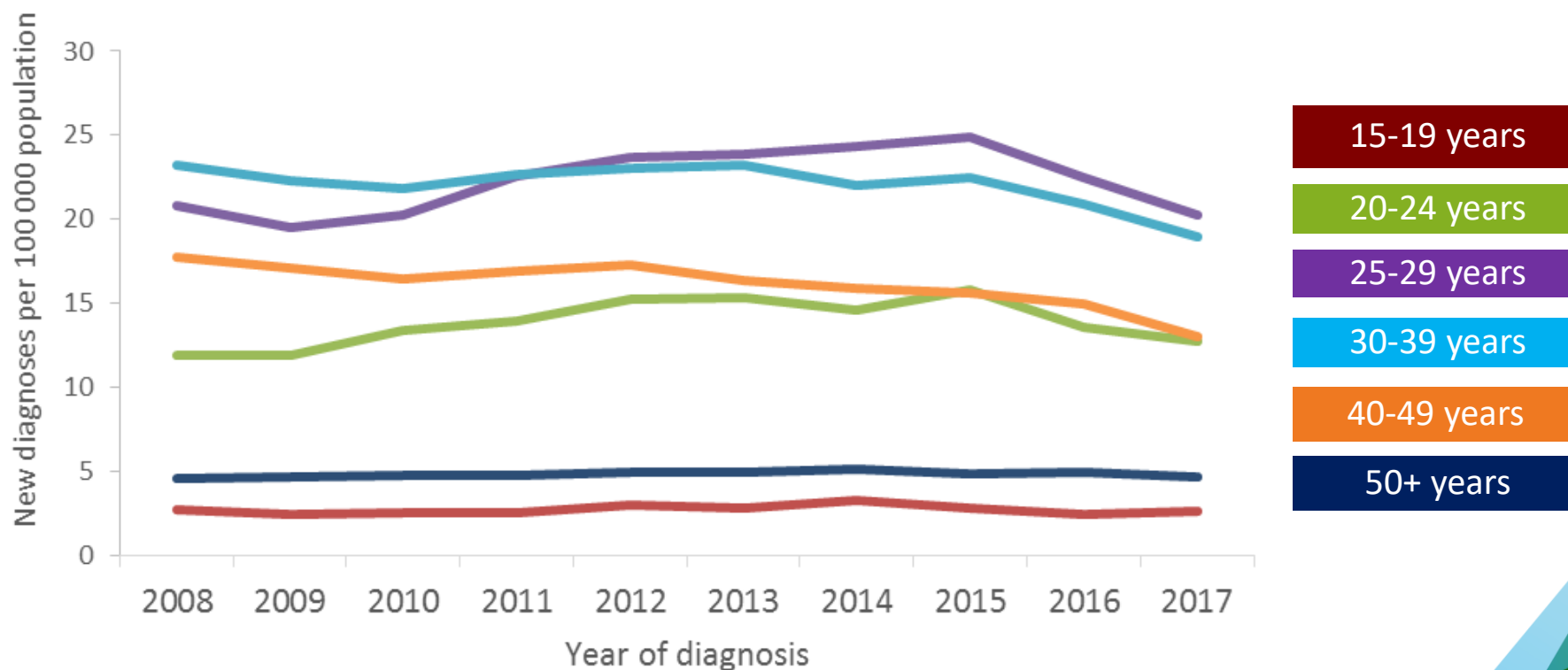


\*Diagnosed late=CD4<350 cells/mm<sup>3</sup> at diagnosis

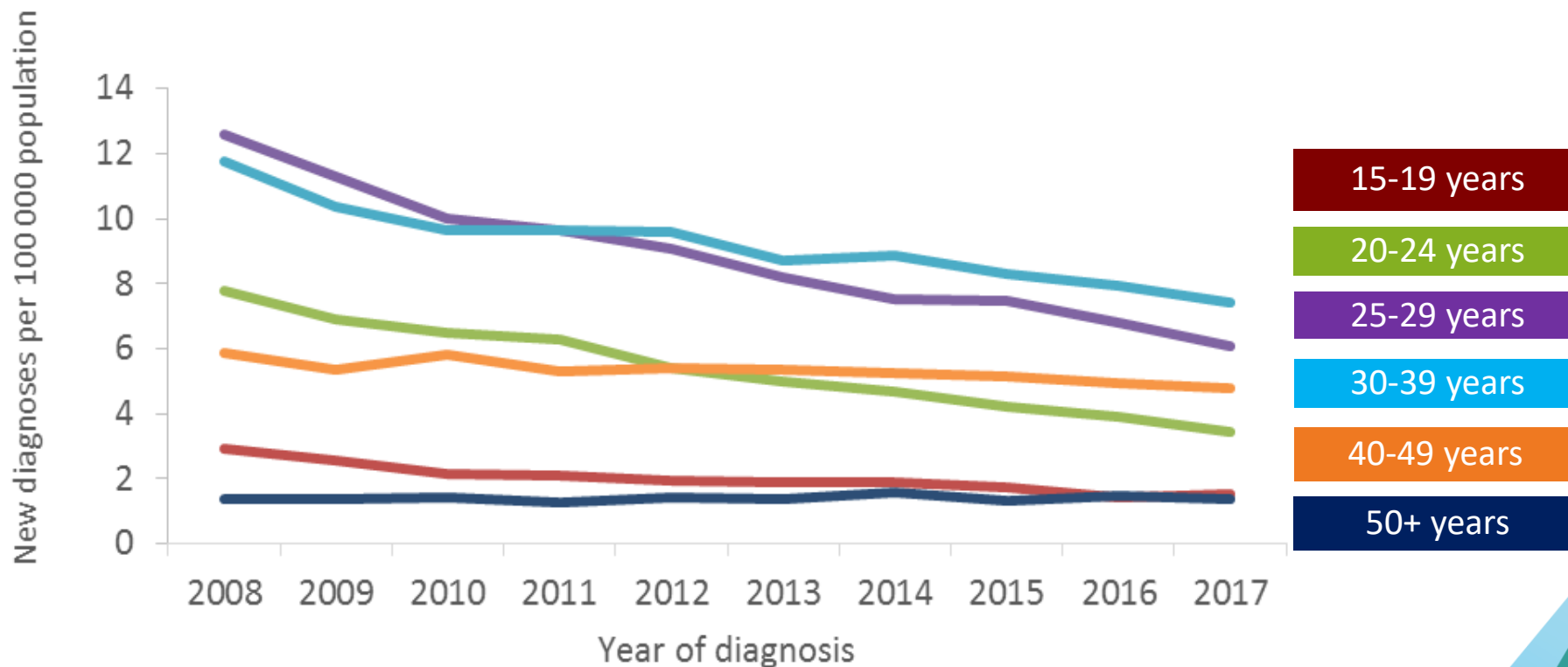
# New HIV diagnoses, by age group, EU-EEA, 2008-2017



# New HIV diagnoses in men, by age group, EU-EEA, 2008-2017



# New HIV diagnoses in women, by age group, EU-EEA, 2008-2017



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Istituto Superiore di Sanità  
*Centro Operativo AIDS*



## Sorveglianza HIV/AIDS 2018

*Aggiornamento delle nuove diagnosi di  
infezione da HIV e dei casi di AIDS in Italia  
al 31 dicembre 2017*

*Notiziario ISS vol. 31, n. 9, settembre 2018, Suppl.1*

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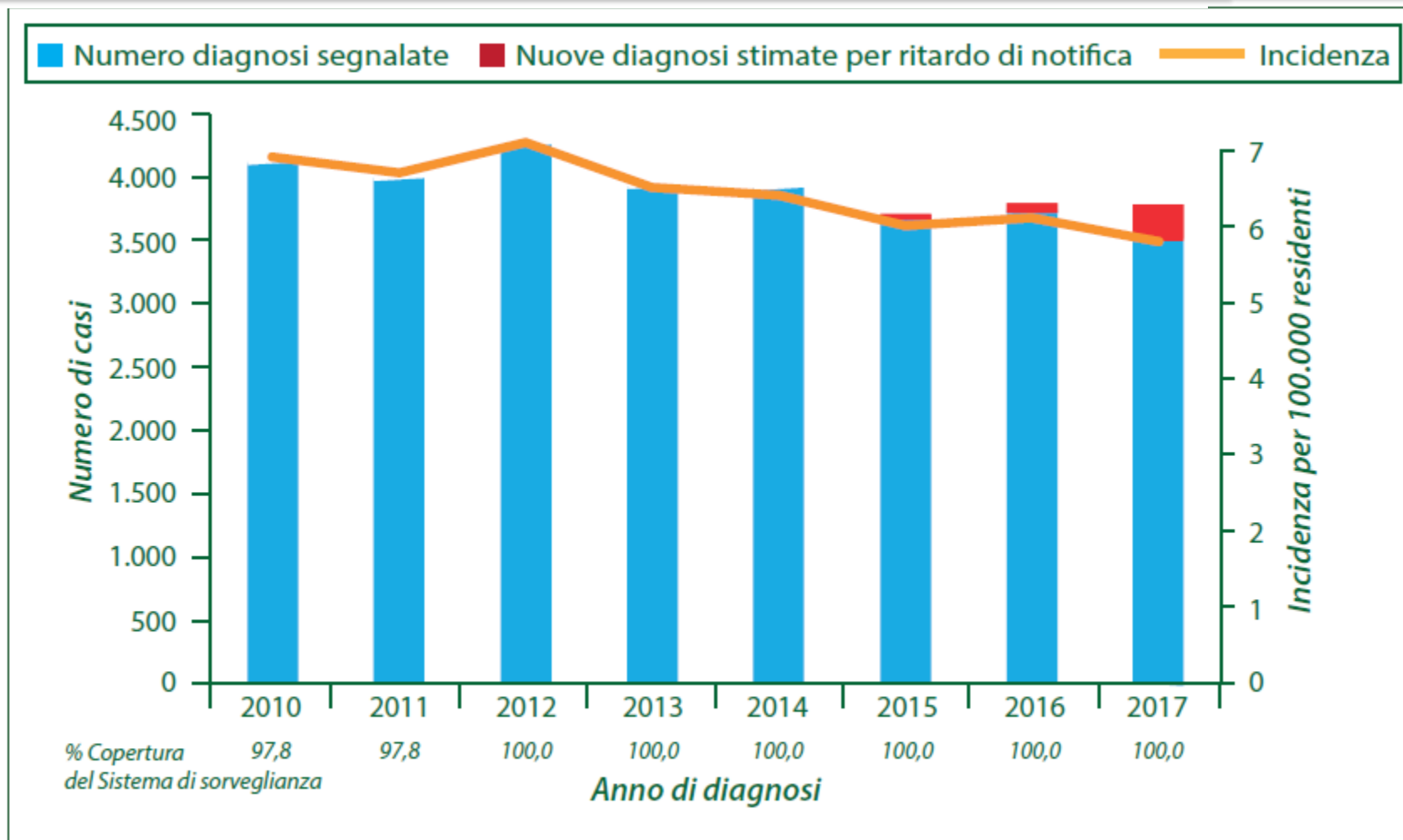


Figura 1 - Numero di nuove diagnosi di infezione da HIV e incidenza per anno di diagnosi (2010-2017)

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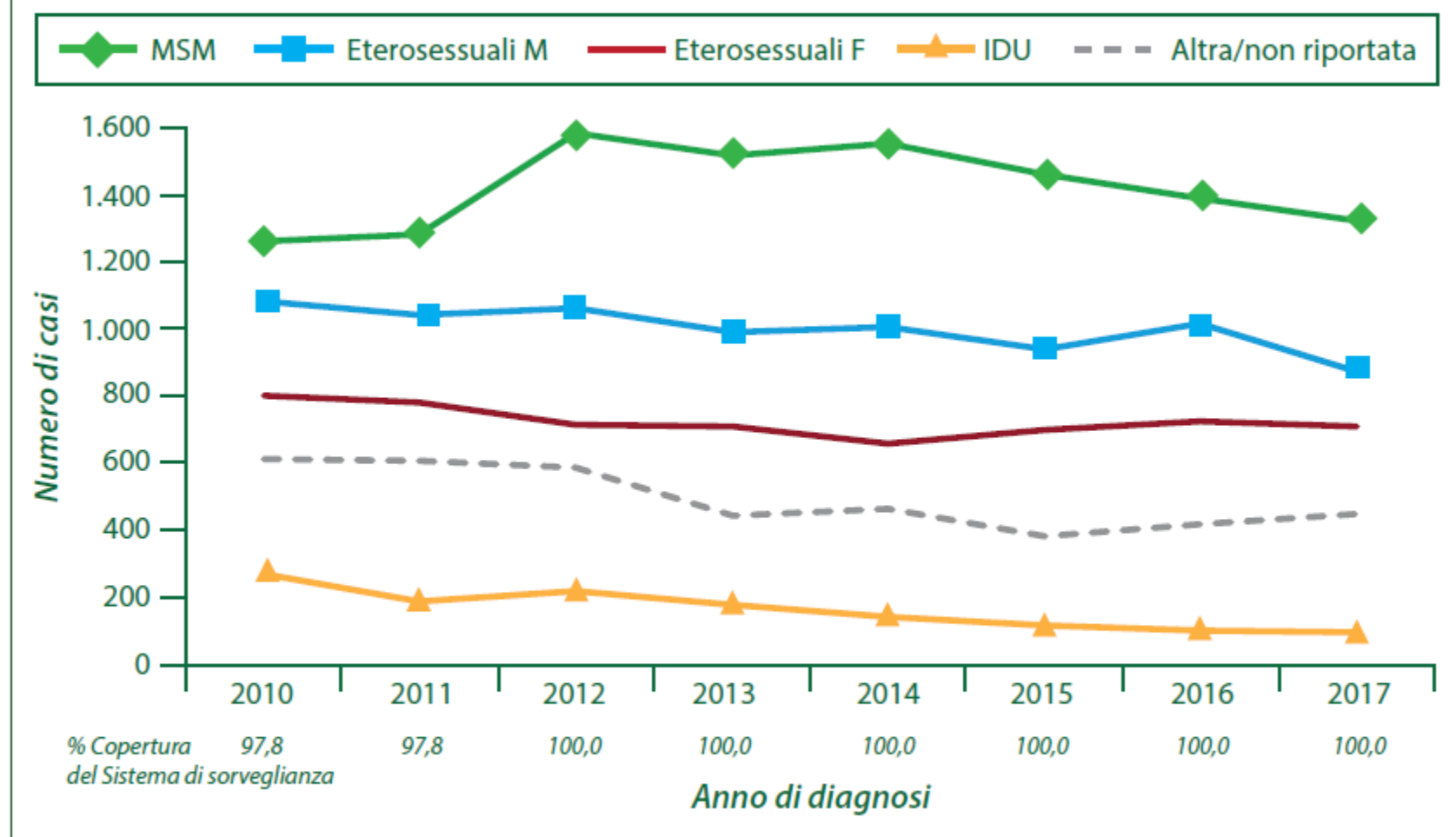


Figura 6 - Numero delle nuove diagnosi di infezione da HIV per modalità di trasmissione e anno di diagnosi (2010-2017)



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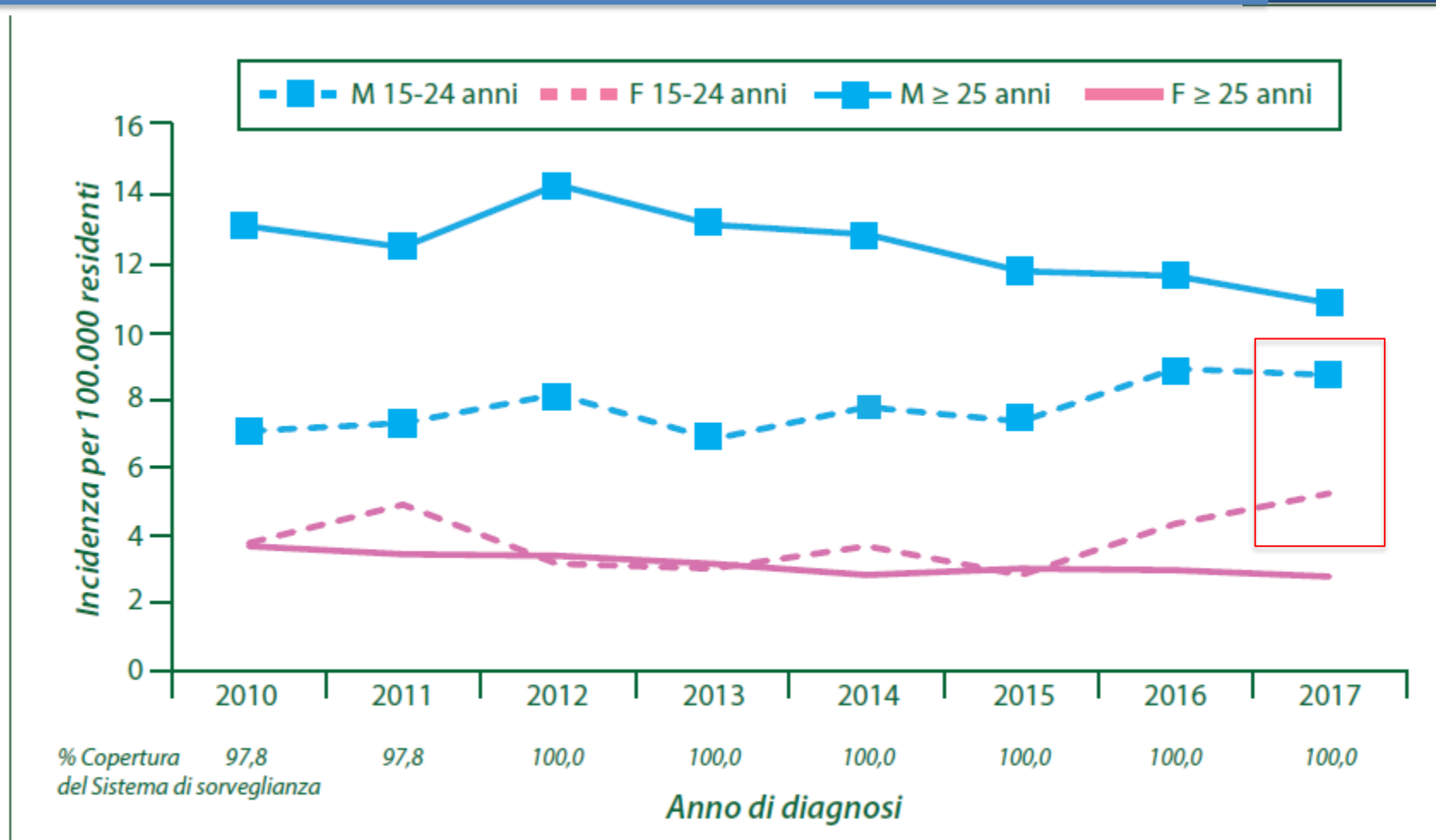


Figura 2 - Incidenza delle nuove diagnosi di infezione da HIV per genere, età e anno di diagnosi (2010-2017)

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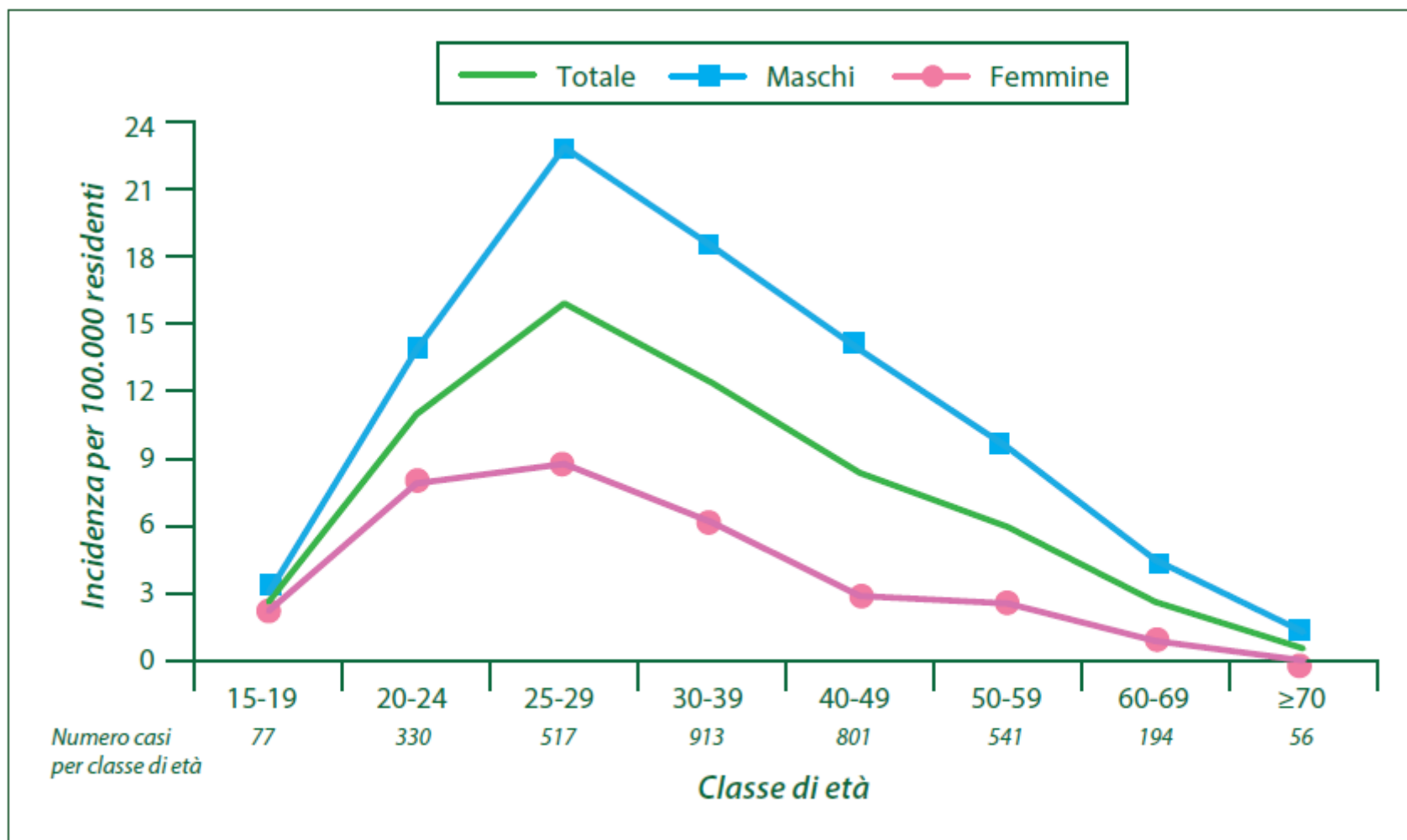


Figura 5 - Incidenza delle nuove diagnosi di infezione da HIV per classe di età e genere (2017)

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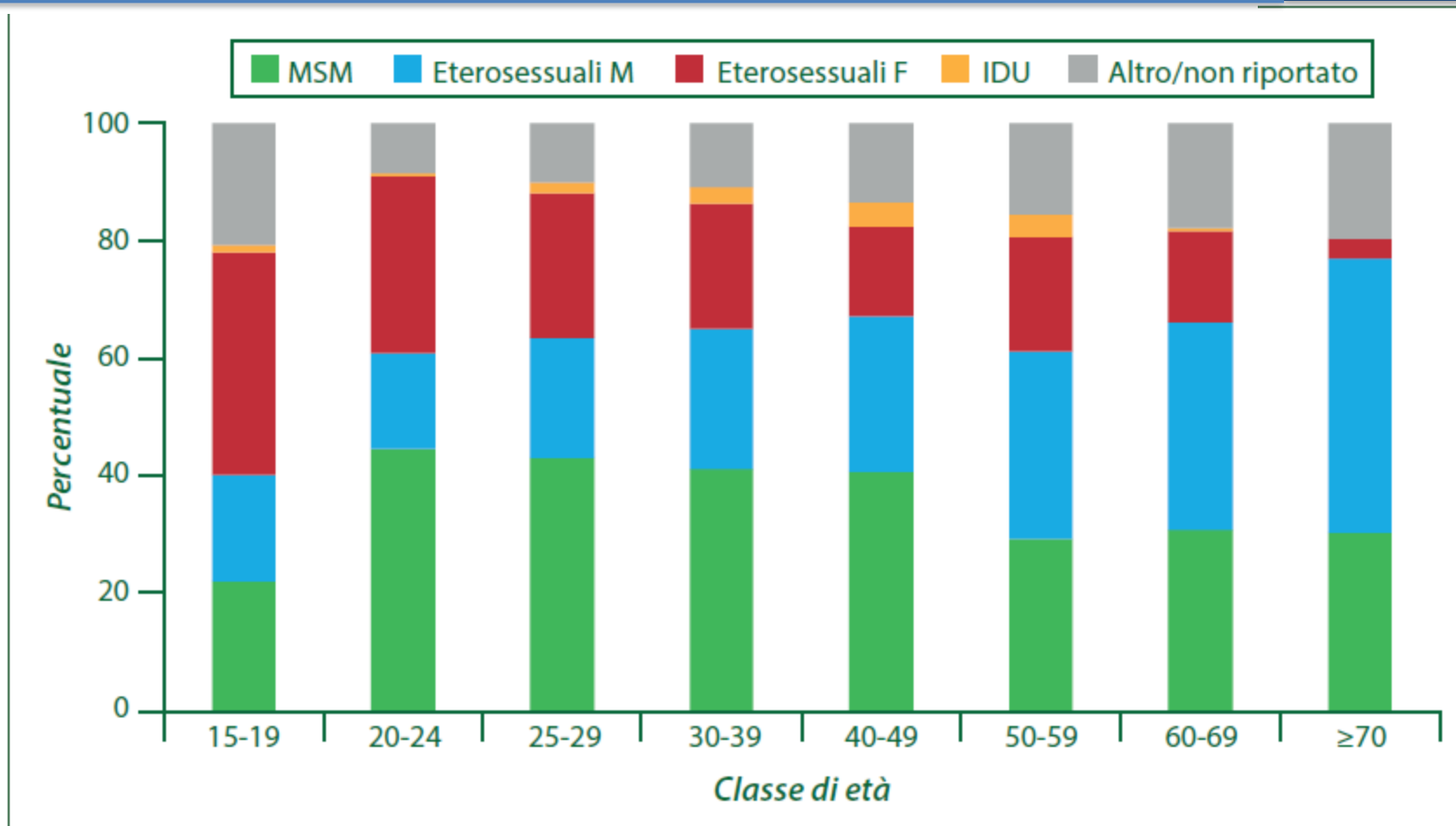


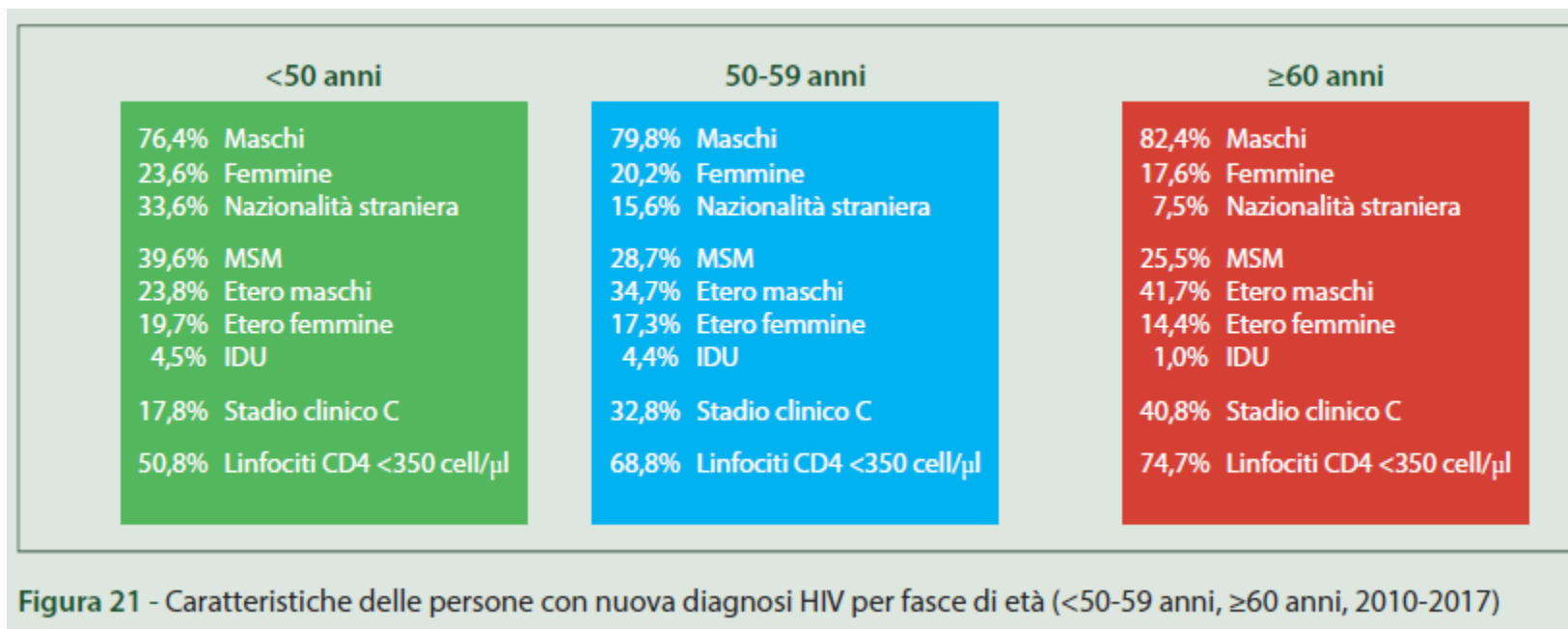
Figura 4 - Proporzione delle nuove diagnosi di infezione da HIV per classe di età e modalità di trasmissione (2017)

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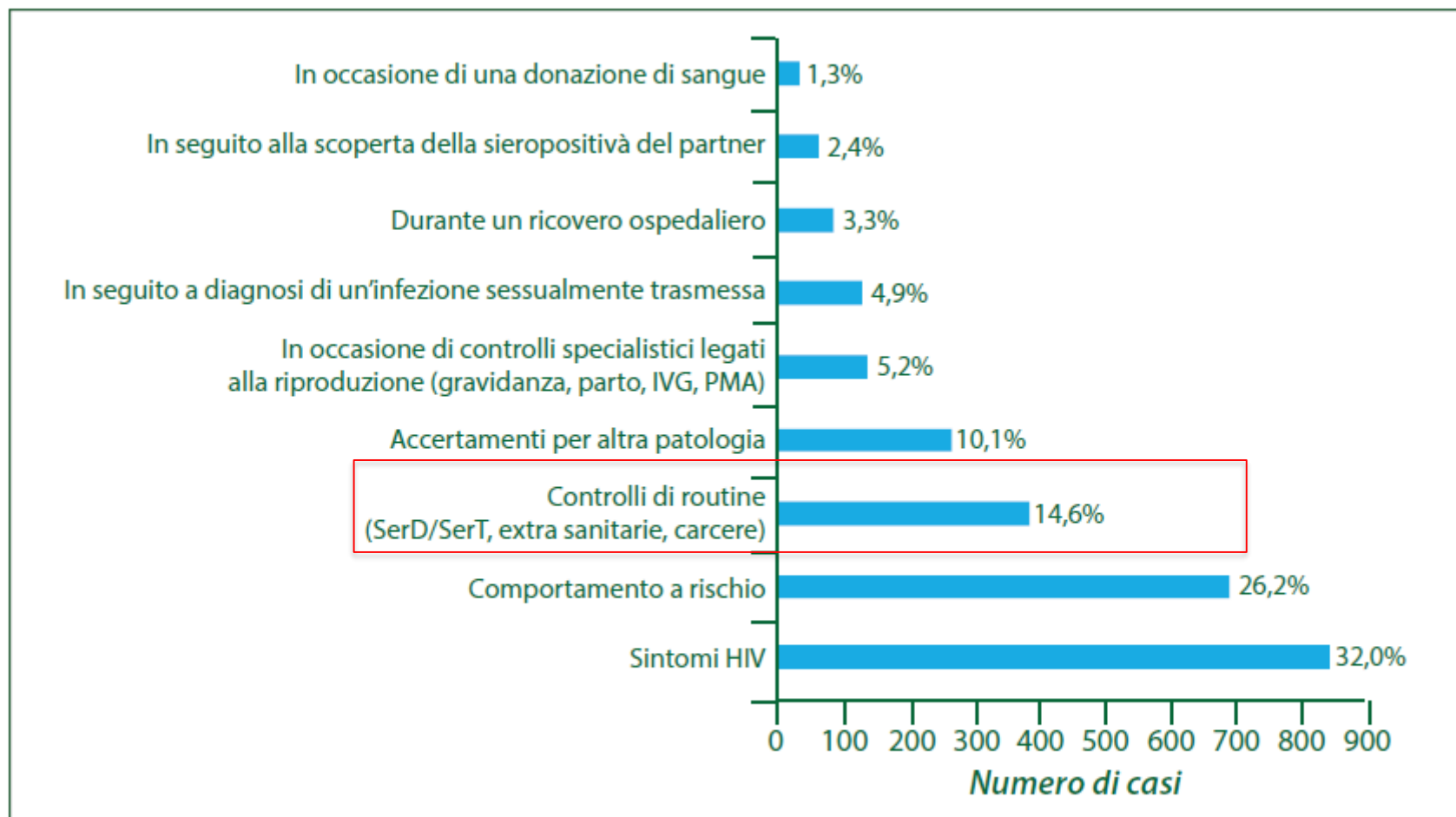
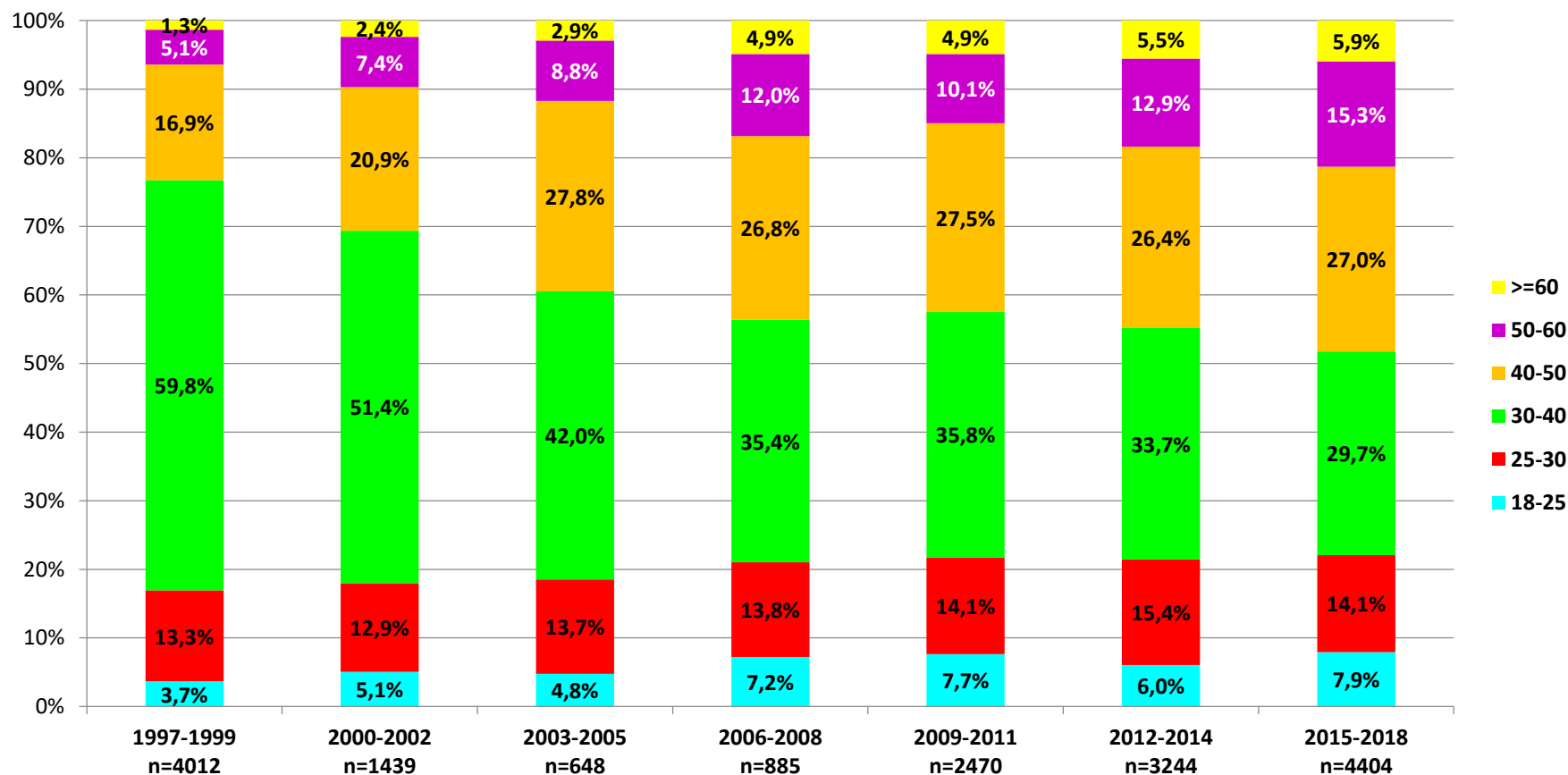


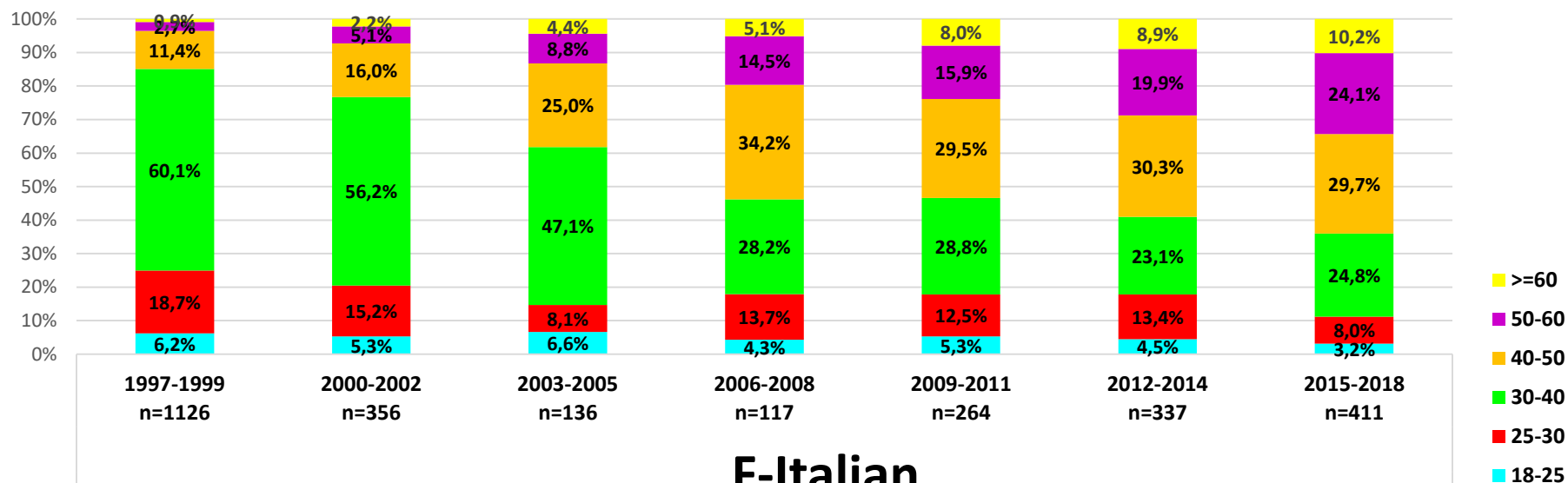
Figura 11 - Motivo di effettuazione del test 2017 (2.653 nuove diagnosi di infezione da HIV che riportano il dato)

## Age strata at enrolment according to calendar period





## Females age strata according to nationality and calendar period of enrolment



F-non italian



## HIV infection indicator disease-based active case finding in a University Hospital: results from the SHOT project

**Table 1. Characteristics of patients with HIV diagnosis**

	Age	Sex	Unit	CD4 (cell/mm <sup>3</sup> )	HIV RNA (cp/ml)	CDC stage	Risk factor
1	28	M	CC	29	150.000	C3	MSM
2	43	M	RD	56	6.480	C3	MSM
3	40	M	RD	14	739.000	C3	DA
4	40	M	RD	308	150.000	C3	MSM
5	42	F	RD	80	194.000	C2	HS
6	29	F	ID	54	2.000.000	C3	HS
7	72	M	IM	163	462.0000	B3	HS
8	66	M	IM	924	756.000	B1	HS
9	56	F	RD	317	139.000	B2	HS
10	73	M	UR	240	73.100	A2	MSM



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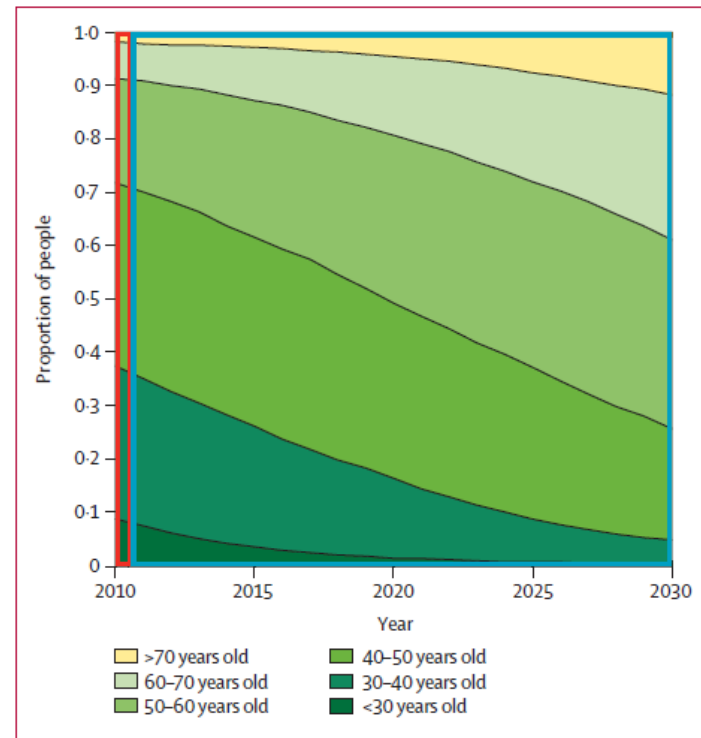
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*Future*

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### Future challenges for clinical care of an ageing population infected with HIV: a modelling study

“The model predicts that the **median age** of patients receiving treatment for HIV **will increase** from **43.9 years in 2010 to 56.6 years in 2030**. The proportion of patients **older than 50 years** is predicted to increase from **28% in 2010 to 73% in 2030**, while the proportion of patients **aged 60 years or older** will increase from **8% to 39%** and the proportion aged **70 years or older** will increase from **8% to 12%.**”



**Figure 2: Projected age distribution of HIV-infected patients**

The red box shows the age distribution of patients on antiretroviral therapy in clinical care in the Netherlands in 2010, which matches the data exactly, and the blue box shows model output from 2011–30.

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GLOBAL HEALTH ACTION  
2019, VOL. 12, 1662685  
<https://doi.org/10.1080/16549716.2019.1662685>



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ORIGINAL ARTICLE

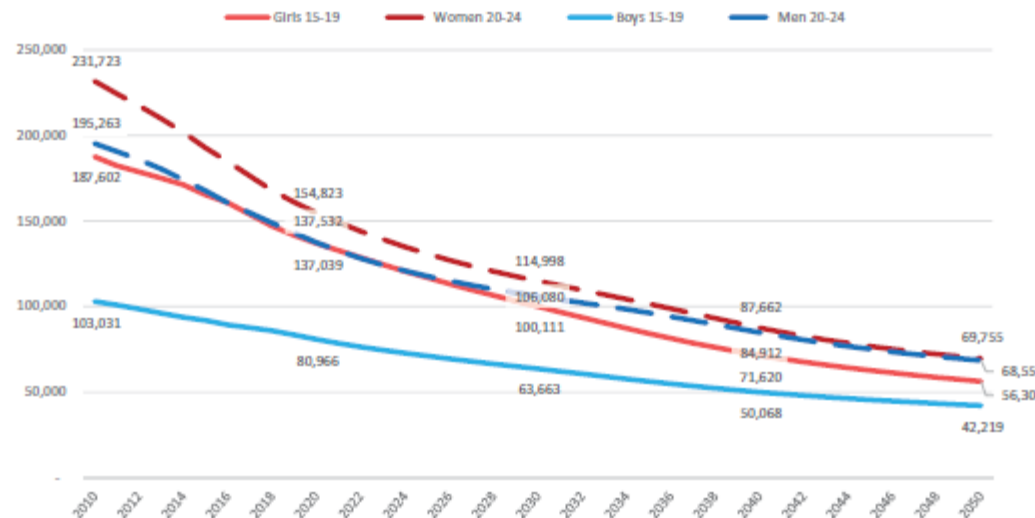
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## Demographic change and HIV epidemic projections to 2050 for adolescents and young people aged 15-24

Aleya Khalifa <sup>a</sup>, John Stover <sup>b</sup>, Mary Mahy <sup>c</sup>, Priscilla Idele<sup>a</sup>, Tyler Porth<sup>a</sup> and Chibwe Lwamba<sup>a</sup>

<sup>a</sup>Division of Data, Research and Policy, United Nations Children's Fund, New York, NY, USA; <sup>b</sup>Center for Modeling, Planning and Policy Analysis, Avenir Health, Avenir Health, Glastonbury, CT, USA; <sup>c</sup>Department of Strategic Information and Evaluation, Joint United Nations Programme for HIV/AIDS, Geneva, Switzerland



**Figure 3.** Number of new HIV infections among adolescent and young people, by sex and five-year age group, 2010–2050, UNAIDS 2018 estimates.

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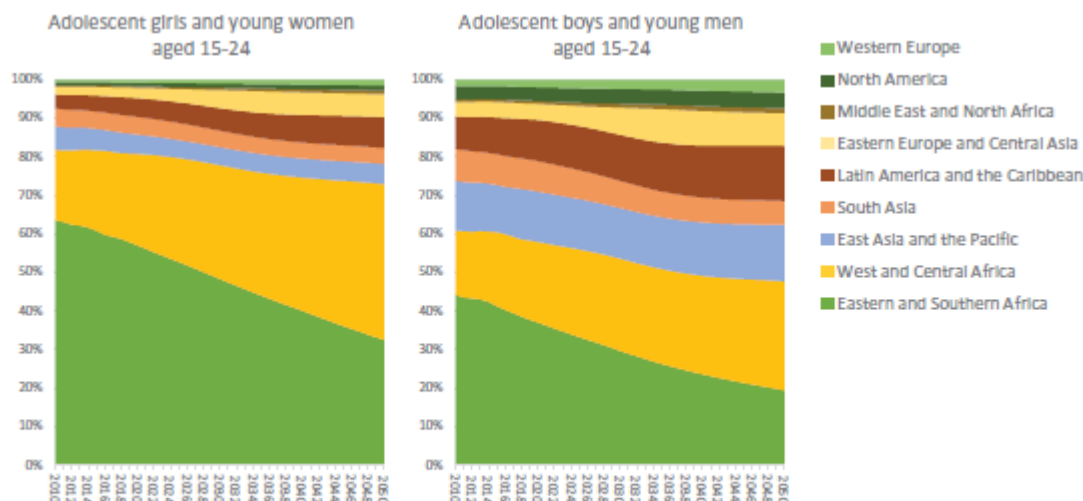
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**Figure 4.** Percent distribution of new HIV infections among adolescents and young people by region, 2010–2050, UNAIDS 2018 estimates.

# The association between incarceration and transactional sex among HIV-positive young MSM in the United States

**Morgan M. Philbin, PhD, MHS**

**Columbia University Mailman School of Public Health**

**July 25, 2018**



Columbia University  
MAILMAN SCHOOL  
OF PUBLIC HEALTH



THE UNIVERSITY of NORTH CAROLINA  
GREENSBORO

# Methods

- Youth provided consent & completed an ACASI survey (audio computer-assisted self-interview)
  - Psychosocial characteristics and medical/behavioral history
- Variables of interest included
  - Incarceration (i.e., ever been in jail/prison)
  - Transactional sex (i.e., ever exchanged sex for money or drugs)
- We used descriptive statistics & multivariate logistic regression to examine the association between incarceration and transactional sex

# Results

- Most YMSM were:
  - 24 years old (78%)
  - racial/ethnic minority (95%)
  - not in school (54%)
  - single (74%)
  - earned <\$12,000/year (60%)
- Nearly half had ever been homeless (41%)
- 42% had been incarcerated
- 28% had engaged in transactional sex

**TABLE 1. Demographic characteristics of 97 HIV-infected YMSM**

Characteristic	Total (%) (N = 97)
<b>Age</b>	
24 or older	76 (78.4)
Less than 24	21 (21.6)
<b>Race/ethnicity</b>	
White/Non-Hispanic	5 (5.2)
Person of color/Hispanic	92 (94.8)
<b>Relationship status</b>	
In a relationship	25 (25.8)
Single/other	72 (74.2)
<b>Education</b>	
Currently in school/graduated	45 (46.4)
Not in school	52 (53.6)
<b>Ever homeless</b>	
Yes	40 (41.2)
No	57 (58.8)
<b>Annual income</b>	
Less than \$12,000 in the past year	58 (59.8)
\$12,000 or more in the past year	33 (34.0)
<b>Insurance status (current)</b>	
Insured	87 (89.7)
Uninsured/don't know	10 (10.3)
<b>Monthly use of cannabis<sup>#</sup></b>	
Yes	54 (55.7)
No	43 (44.3)
<b>Monthly use of other drugs<sup>#†</sup></b>	
Yes	13 (13.4)
No	84 (86.6)
<b>Ever incarcerated<sup>‡</sup></b>	
Yes	41 (42.3)
No	56 (57.7)
<b>Ever engaged in transactional sex</b>	
Yes	27 (27.8)
No	70 (72.2)

# Results Cont.

• In the multivariate model...

- Having ever been incarcerated (aOR=3.20)
- Being 24 years old versus younger (aOR=9.68)
- Having ever been homeless (aOR=3.71)

...were independently associated with having engaged in transactional sex.

TABLE 2. Bivariate and multivariate analyses of factors associated with transactional sex among 97 HIV-infected YMSM

Characteristic	Unadjusted		Adjusted	
	Odds Ratio (95% CI)	<i>p</i> - value	Odds Ratio (95% CI)	<i>p</i> - value
<b>Ever incarcerated<sup>‡</sup></b> (yes vs. no)	5.18 (1.97 – 13.64)	0.001*	3.20 (1.07 – 9.63)	0.038*
<b>Age</b> (24 or older vs. less than 24)	4.66 (1.01 – 21.58)	0.049*	9.68 (1.42 – 65.78)	0.02*
<b>Race/ethnicity</b> (White vs. person of color)	1.79 (0.28 – 11.33)	0.538	1.95 (0.20 – 18.86)	0.566
<b>Ever homeless</b> (yes vs. no)	5.54 (2.10 – 14.64)	0.001*	3.71 (1.18 – 11.65)	0.025*
<b>Education</b> (Not in school vs. in school/graduated)	2.12 (0.84 – 5.35)	0.113	2.92 (0.91 – 9.34)	0.071
<b>Monthly use of cannabis<sup>#</sup></b> (yes vs. no)	3.03 (1.14 – 8.06)	0.027*	2.18 (0.67 – 7.15)	0.198
<b>Monthly use of other drugs<sup>#†</sup></b> (yes vs. no)	2.57 (0.78 – 8.51)	0.122	2.80 (0.61 – 12.87)	0.185

<sup>‡</sup> Ever been put in jail or prison, held overnight after an arrest, or put in juvenile detention

<sup>#</sup> Monthly denotes at least monthly (i.e. monthly, weekly, or daily) use

<sup>†</sup> Other drugs include non tobacco, alcohol, or cannabis (i.e. nonmedical use of cocaine, stimulants, inhalants, sedatives, anxiety medications, sleeping pills, hallucinogens, opioids/pain medication, ADHD medication)

\* Statistically significant at  $p < .05$  level





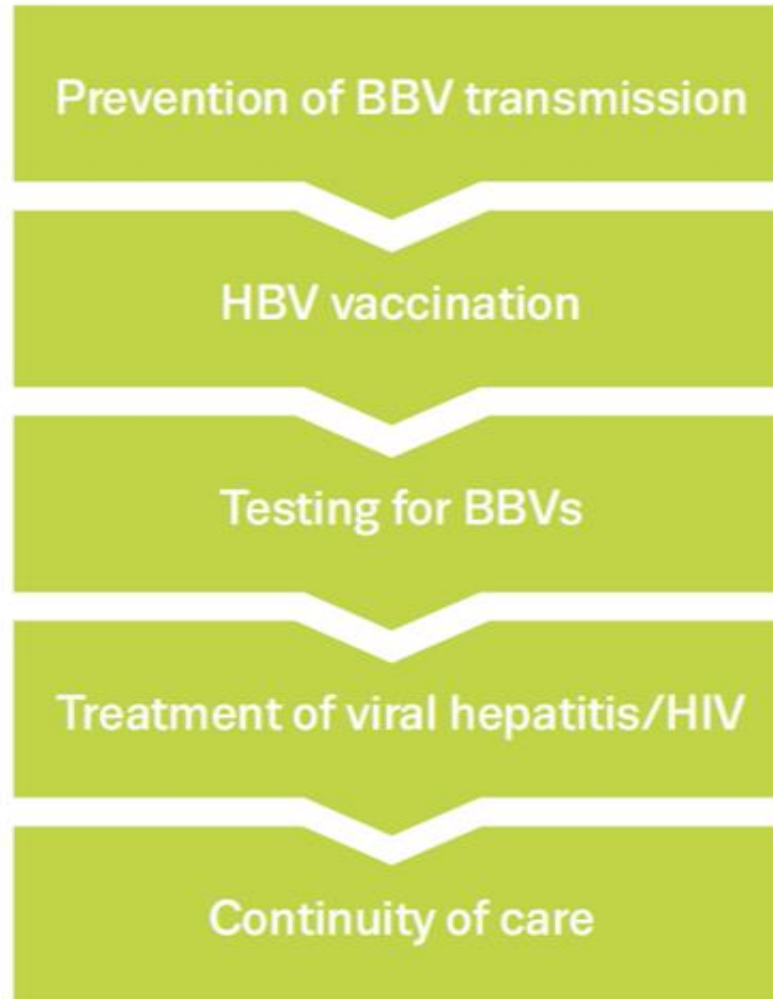
# **European Centre for Disease Prevention and Control & European Monitoring Centre for Drugs and Drug Addiction**

## **Public health guidance on prevention and control of communicable diseases in prison settings**

Dagmar Hedrich, Public Health Unit, EMCDDA –

Harm reduction for people who inject drugs in Europe: findings from the European Joint Action HA-REACT - AIDS2018 Satellite Symposium - 23 July 2018, Amsterdam

# Equivalence of care



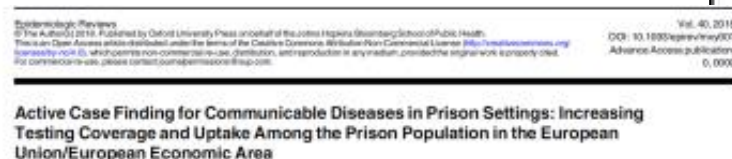
# Prevention

- ❖ Offer a comprehensive package of preventive measures to people in prison that meet the same national standards as those recommended for community settings.
- ✓ Evidence shows that also in prison settings, **condoms and behavioural interventions** promote safer sex.
- ✓ Evidence shows that **opioid substitution treatment** reduces illicit opioid use and risks related to equipment sharing and, when continued on release, provides protection from death caused by overdose.
- ✓ Evidence shows that the **provision of clean drug injection equipment** is possible in prison settings and can successfully contribute to a comprehensive programme to reduce BBV transmission.

# Testing for viral hepatitis and HIV






- ❖ **Actively offer BBV testing to all people in prison upon admission and throughout the time in prison.**
- ✓ Evidence shows that pro-active provision of BBV testing leads to a higher uptake; health promotion and peer education have been shown to increase HIV testing uptake.

See also detailed guidance published in May 2018:



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## Conclusions

-  Although HIV population is aging, young subjects continue to acquire the virus
-  Such trend will continue since HIV diagnosis among younger people are only slightly decreasing at a European level and increasing in Italy in recent years.
-  The highest incidence of HIV infection is present among young patients (25-29 years old). Therefore, active case finding of HIV and other BBV is recommended in prison setting, especially in this age group.
-  Young MSM are a risk for engaging in transactional sex during incarceration and possibly transmit the infection
-  Specific preventive and management strategies are needed in order to reduce HIV acquisition and transmission