Unmet needs, quarto '90 e Piano Nazionale AIDS

Massimo Galli

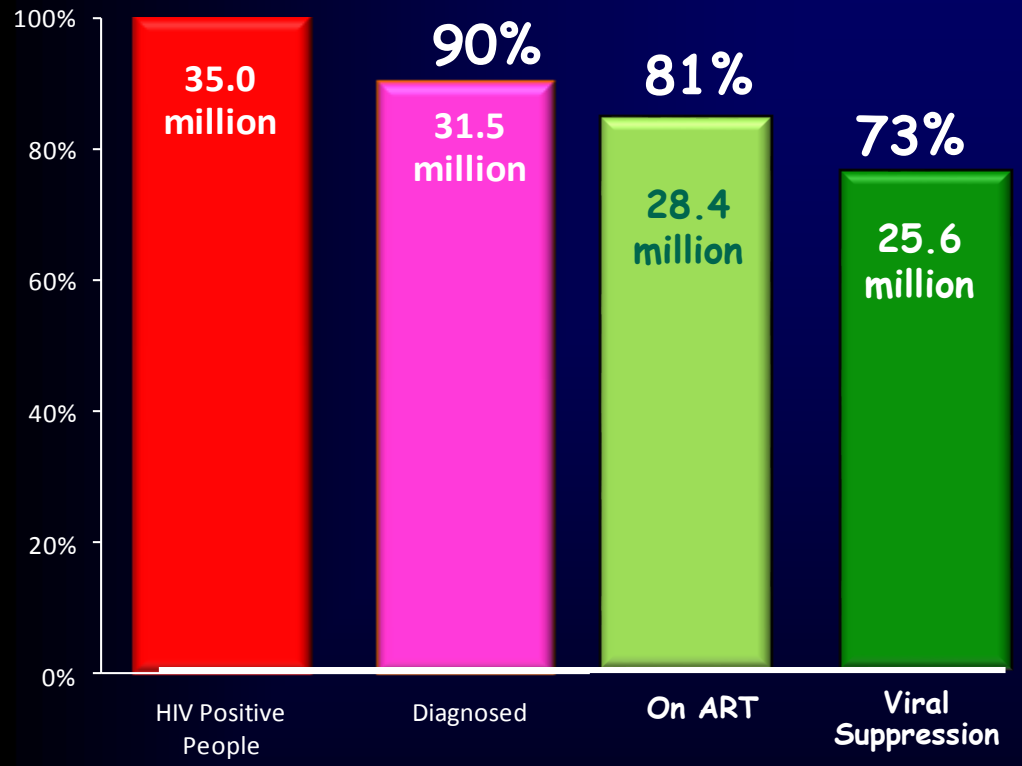
Clinica delle Malattie Infettive, DIBIC L.Sacco,
Università di Milano

PNAIDS: Obiettivi generali

- Il Piano Nazionale AIDS 2017-2019 mira a conseguire gli obiettivi definiti come priorità da parte delle agenzie internazionali (ECDC, UNAIDS, OMS), rendendoli praticabili in Italia.
- Sono pertanto punti qualificanti del Piano la lotta contro lo stigma, l'impiego di strategie di prevenzione dirette alle modifiche dei comportamenti e all'utilizzo di strumenti di prevenzione quali TasP e Prep, l'*empowerment* e coinvolgimento attivo delle Associazioni di volontariato e delle popolazioni chiave

UNAIDS 90-90-90 Treatment Targets

HIV Treatment Targets for 2020 with Global 2013 Estimates



Treatment Target Goals by 2020

- 90% of HIV+ people diagnosed
- 90% of those diagnosed on ART
- 90% of those on ART with undetectable HIV RNA

- No country or region analysed so far met the UNAIDS 90-90-90 coverage target of 73% of HIV positive people achieving undetectable HIV RNA

Global HIV treatment cascades from 12 countries/regions: Switzerland, Australia, UK, Denmark, Netherlands, France, Brazil, Canada (BC), USA, Sub-Saharan Africa, Georgia, Estonia, Russia

Levi J, et al. IAS 2015. Vancouver, Canada. Oral # MOAD0102

ORIGINAL RESEARCH

Journal of Virus Eradication 2018; **4**: 80–90

The impact of HIV prevalence, conflict, corruption, and GDP/capita on treatment cascades: data from 137 countries

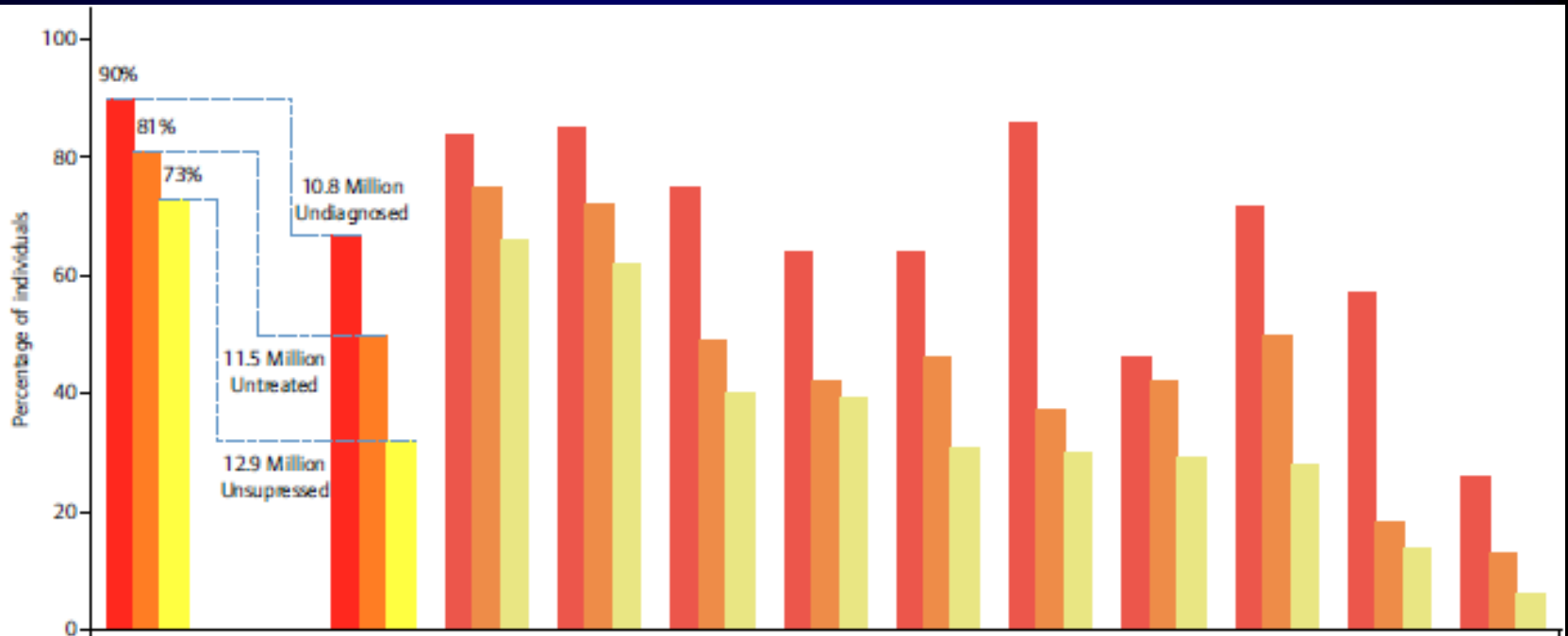
Jacob Levi[1]*, Anton Pozniak[2], Katherine Heath[3] and Andrew Hill[2],

[1] Imperial College London, UK
[2] Chelsea and Westminster NHS Foundation Trust, London, UK
[3] Oxford University, UK

- Regions with the lowest ART coverage were South-east Asia and Pacific (36%), Eastern Europe and CentralAsia (17%), and Middle East and North Africa (13%).
- Lower HIV prevalence was associated with poorer cascade results.
- Countries with higher GDP/capita achieved higher ART coverage (P<0.001).
- Furthermore, countries with lower levels of peace and higher corruption had lower ART coverage (P<0.001).

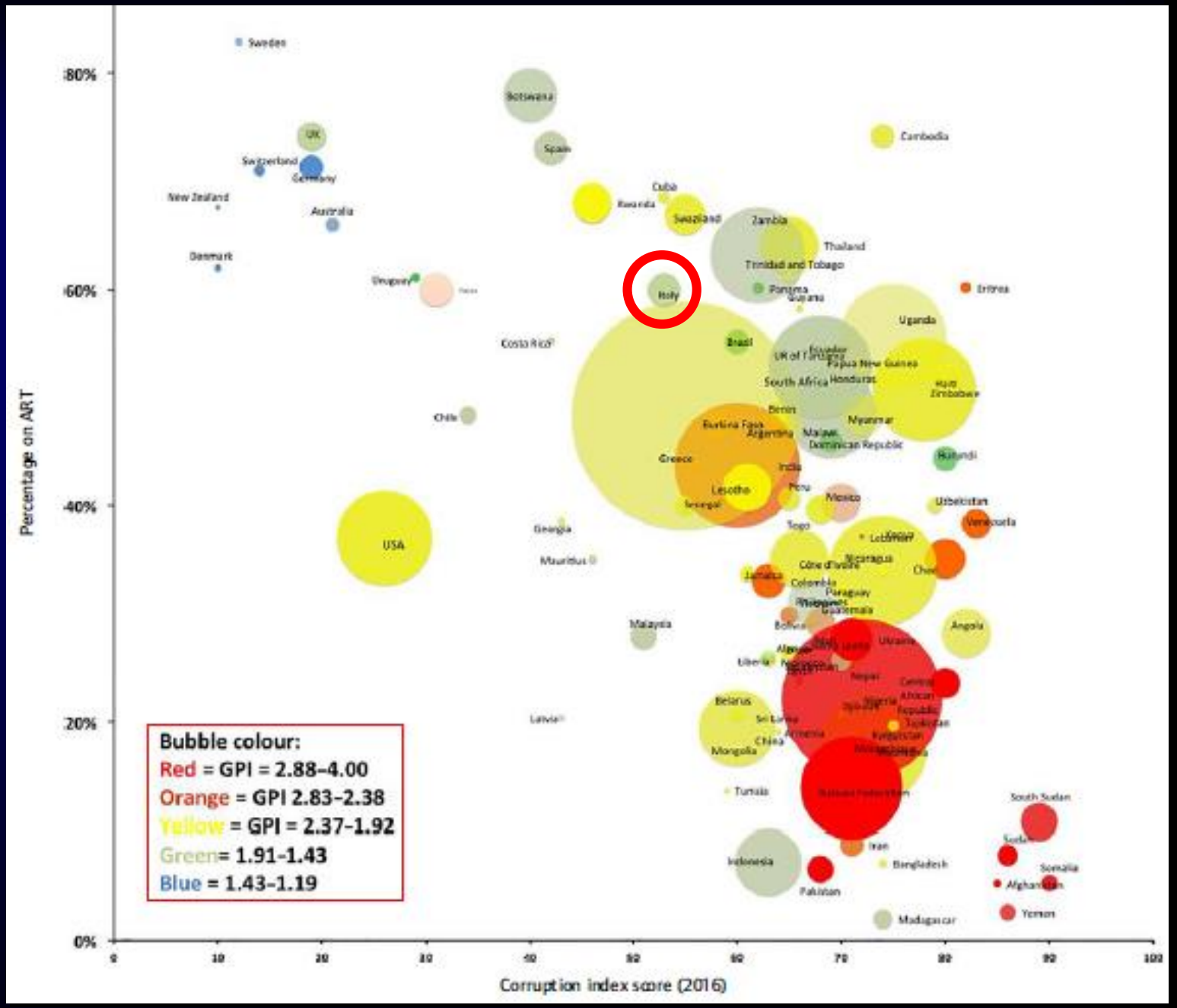
prevalence, higher corruption and conflict levels.

Global and regional data: estimated regional cascades weighted by epidemic size and ranked by diagnosis



	Country/region												
	UNAIDS targets	Global disparity (2016)	Global average (2016)	Western Europe	Oceania	South America	South-east Asia and Pacific	Central America	USA	Sub Saharan Africa	Caribbean	Eastern Europe and Central Asia	Middle East and North Africa
Diagnosed (%)	90		67	84	85	75	64	64	86	46	72	57	26
Percentage **on ART**	81		50	75	72	49	42	46	37	42	50	18	13
Percentage **virally suppressed**	73		32	66	62	40	39	31	30	29	28	14	6
Prevalence			0.7–0.9	0.2–0.4	0.01	0.4–0.6	0.1–0.3	0.4–0.6	0.3	1.8–7.6	0.4–0.6	0.8–0.9	<0.1–0.2
Incidence			0.154	0.017	0.05	0.034	0.02	0.058	0.03	0.362	0.058	0.044	0.041
Global Peace Index			2.101	1.524	1.568	2.102	2.026	2.102	2.154	2.162	2.102	1.982	2.671
Sample size, *n*			36,900,000	687,720	30,695	1,301,200	4,696,578	327,825	1,201,100	25,532,002	286,338	1,758,146	654,340

Comparison of estimated total number of people living with HIV on ART and Corruption Index, weighted by epidemic size and shaded according to Global Peace Index (GPI)



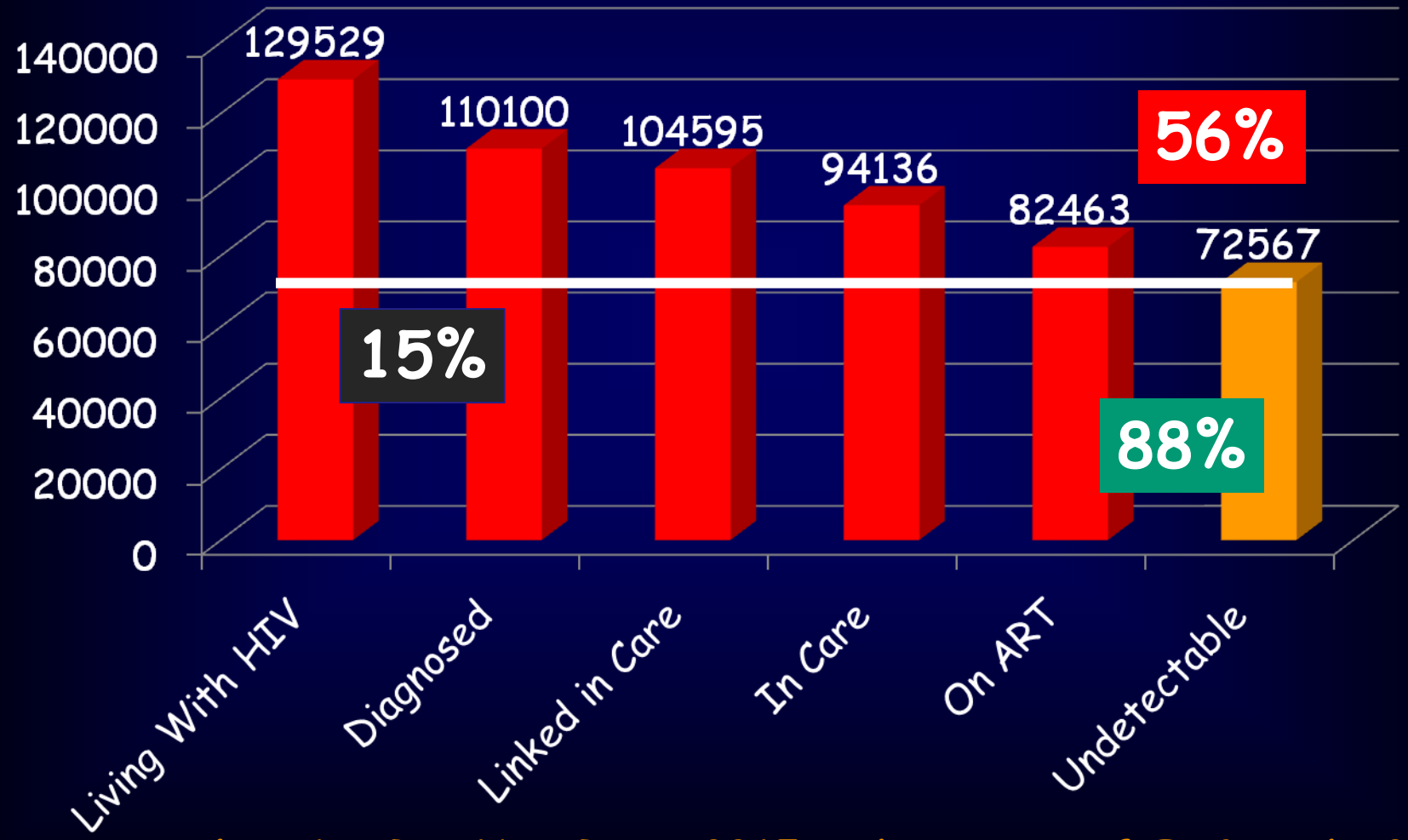
Levi et al. Journal of Virus Eradication 2018; 4: 80–90

HIV treatment cascades in European and high-income countries

%	France	Netherlands	USA	UK	Australia	British Columbia	Denmark	Georgia	Italy
Number living with HIV*	149,9	25	1148,2	98,4	33	11,7	6,5	4,9	129,5
diagnosed	81	-	82	-	75	71	85	52	85
linked to care	>74	73	66	79	-	67	81	44	81
on ART	>60	59	33	67	35	51	62	26	64
Undetect. VL	52	53	25	58	32	35	59	20	56

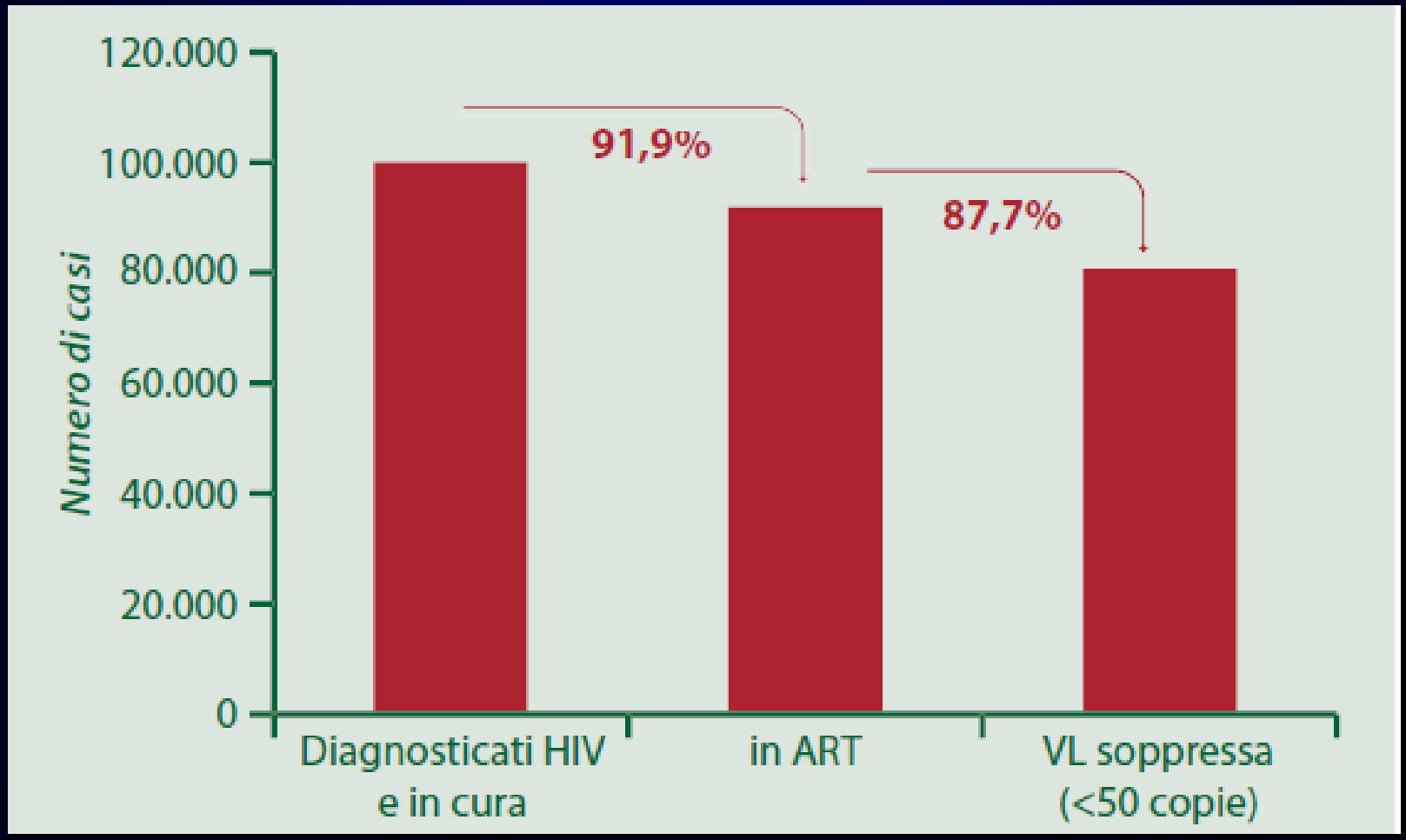
*thousands

HIV in Italy, 2012. A tentative description



Camoni et al. AIDS Res Hum Retr. 2015 and courtesy of E. Girardi, 2015

HIV care cascade in 12 Infectious Diseases Clinics, Italy 2014



Camoni ICAR 2016

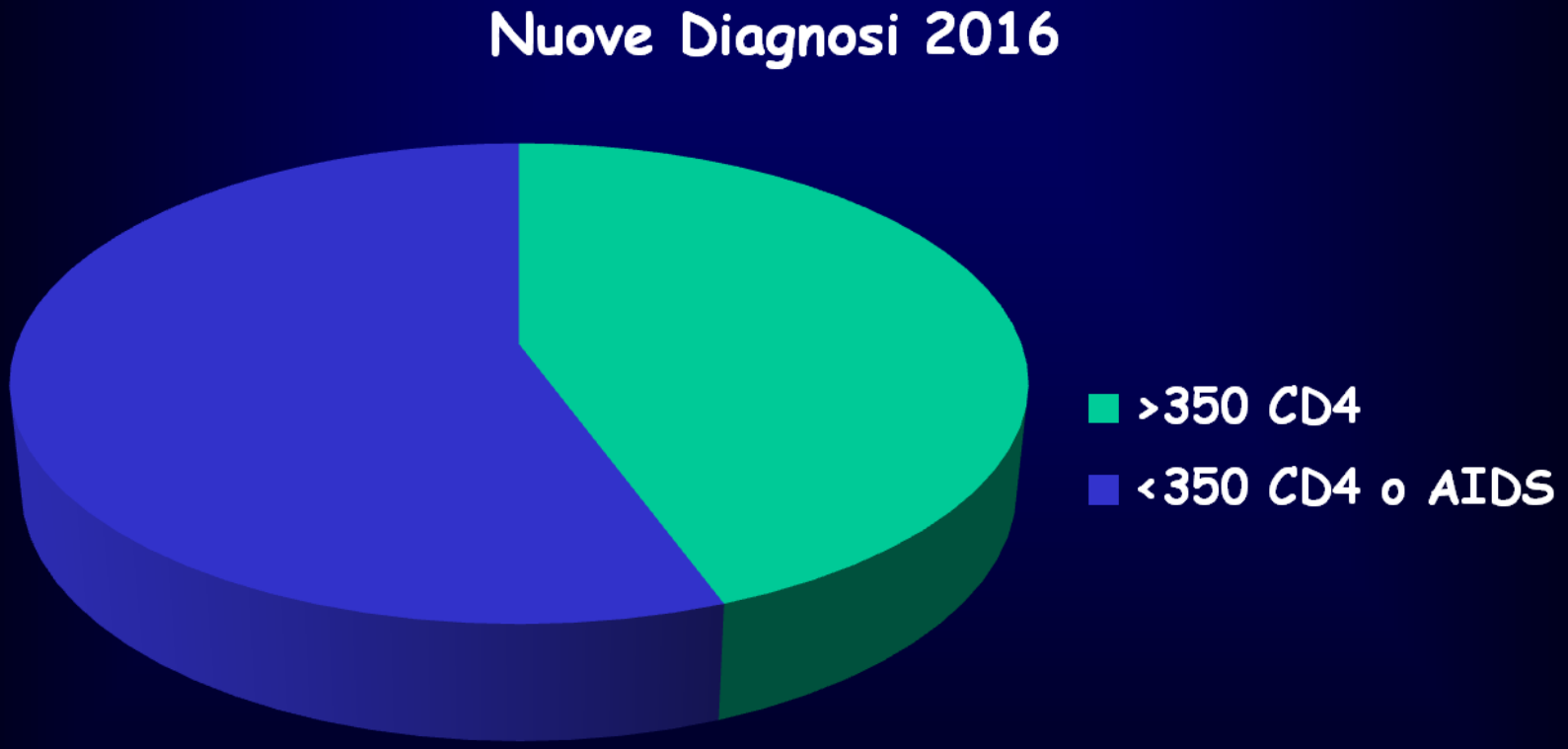
How many people are living with undiagnosed HIV infection? An estimate for Italy, based on surveillance data

Alessia Mammone[a], Patrizio Pezzotti[b], Vincenza Regine[b], Laura Camoni[b], Vincenzo Puro[a], Giuseppe Ippolito[a], Barbara Suligoi[b] and Enrico Girardi[a]

- The undiagnosed HIV population in 2012 was 13 729 (95% CI: 12 152–15 592), 15 102 (13 366–17 151) and 16 475 (14 581–18 710), assuming no under-reporting/ascertainment, 10 and 20% of under-reporting/ascertainment, respectively.
- The percentage of undiagnosed cases was higher among HIV people aged below 25 years (25–28%), MSM (16–19%) and people born abroad (16–19%), whereas it was small among injection drug users (3%).

AIDS 2016, 30:1131–1136

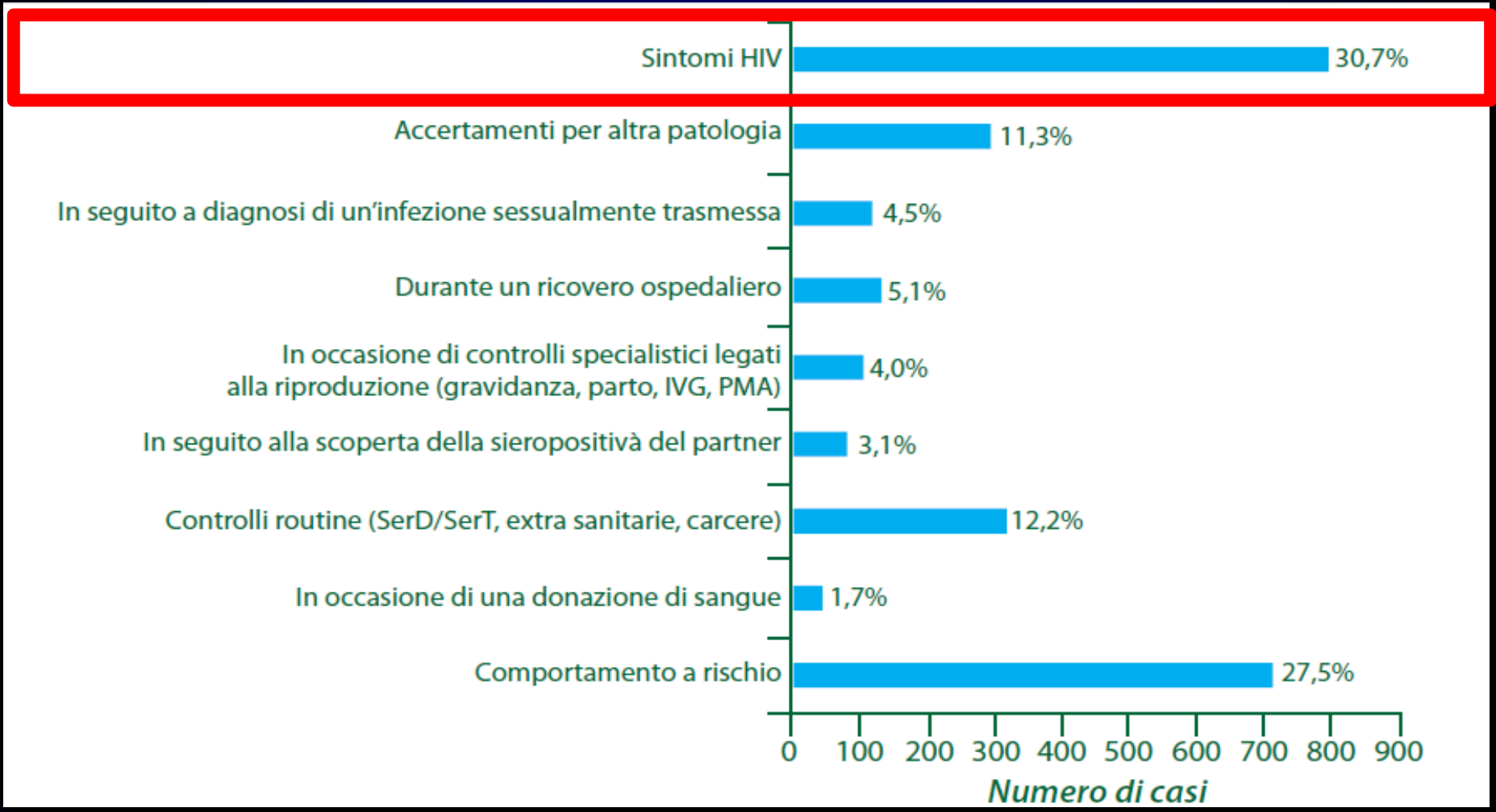
Prevalenza delle diagnosi tardive in Italia



- Nel 2016, il 36,9% delle 3451 nuove diagnosi di infezione da HIV e stato diagnosticato con CD4<200 cell/µL e il 55,6% con CD4<350 cell/µL.

COA ISS 2017

Motivo di esecuzione del test delle nuove diagnosi di infezione da HIV



COA ISS

Camoni *et al. BMC Public Health* 2013, **13**:281
http://www.biomedcentral.com/1471-2458/13/281

BMC Public Health

RESEARCH ARTICLE Open Access

Late presenters among persons with a new HIV diagnosis in Italy, 2010–2011

Laura Camoni*, Mariangela Raimondo, Vincenza Regine, Maria Cristina Salfa, Barbara Suligoi and the regional representatives of the HIV Surveillance System

Factors significantly associated with being LP were:

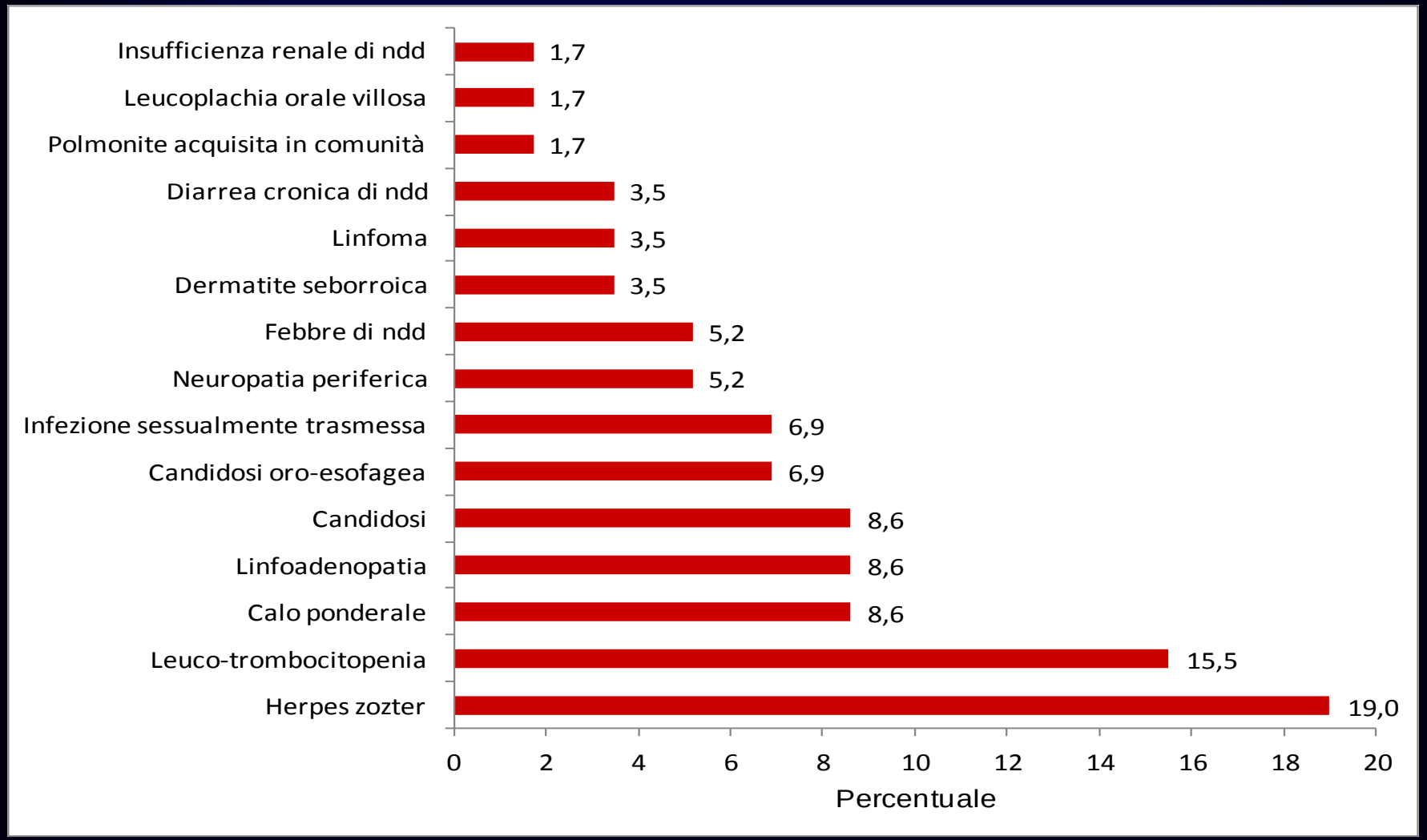
- age older than 50 years (OR = 4.6 [95% CI 3.8-5.6]);
- having been diagnosed in Southern Italy (Southern vs Northern Italy OR = 1.5 [95% CI 1.3-1.7])
- having been diagnosed in Central Italy (Central vs Northern Italy OR = 1.3 [95% CI 1.1-1.6]);
- being HET (HET vs MSM, OR = 1.7 [95% CI 1.5-2.0]),
- being non-national (Non-national vs Italian, OR 1.7 (95% CI 1.5-2.0);
- being IDU (IDU vs MSM, OR = 1.6 [95% CI 1.2-2.1]).

Fattori di rischio di diagnosi tardiva d'infezione da HIV

	Analisi univariata			Analisi multivariata		
	OR	95% CI	p-value	AOR	95% CI	p-value
Femmine	1			1		
Maschi	1.50	0.74-3.04	0.261	3.062	1.29-7.29	*0.011*
<40 anni	1			1		
40-60 anni	3.08	1.77-5.38	*< 0.001*	2.66	1.46-4.86	*0.001*
>60 anni	7.24	2.04-25.70	*0.002*	6.39	1.72-23.74	*0.006*
Europei	1			1		
Sud Americani	1.53	0.63-3.72	0.344	1.443	0.52-4.03	0.484
Africani	0.48	0.08-2.94	0.429	0.636	0.08-4.74	0.659
Asiatici	0.96	0.43-2.14	0.925	1.486	0.64-3.46	0.358
MSM	1			1		
Eterosessuale	2.45	1.44-4.17	*0.001*	2.97	1.49-5.88	*0.002*
Non noto/altro	4.82	1.31-17.7	*0.018*	5.23	1.24-22.10	*0.024*

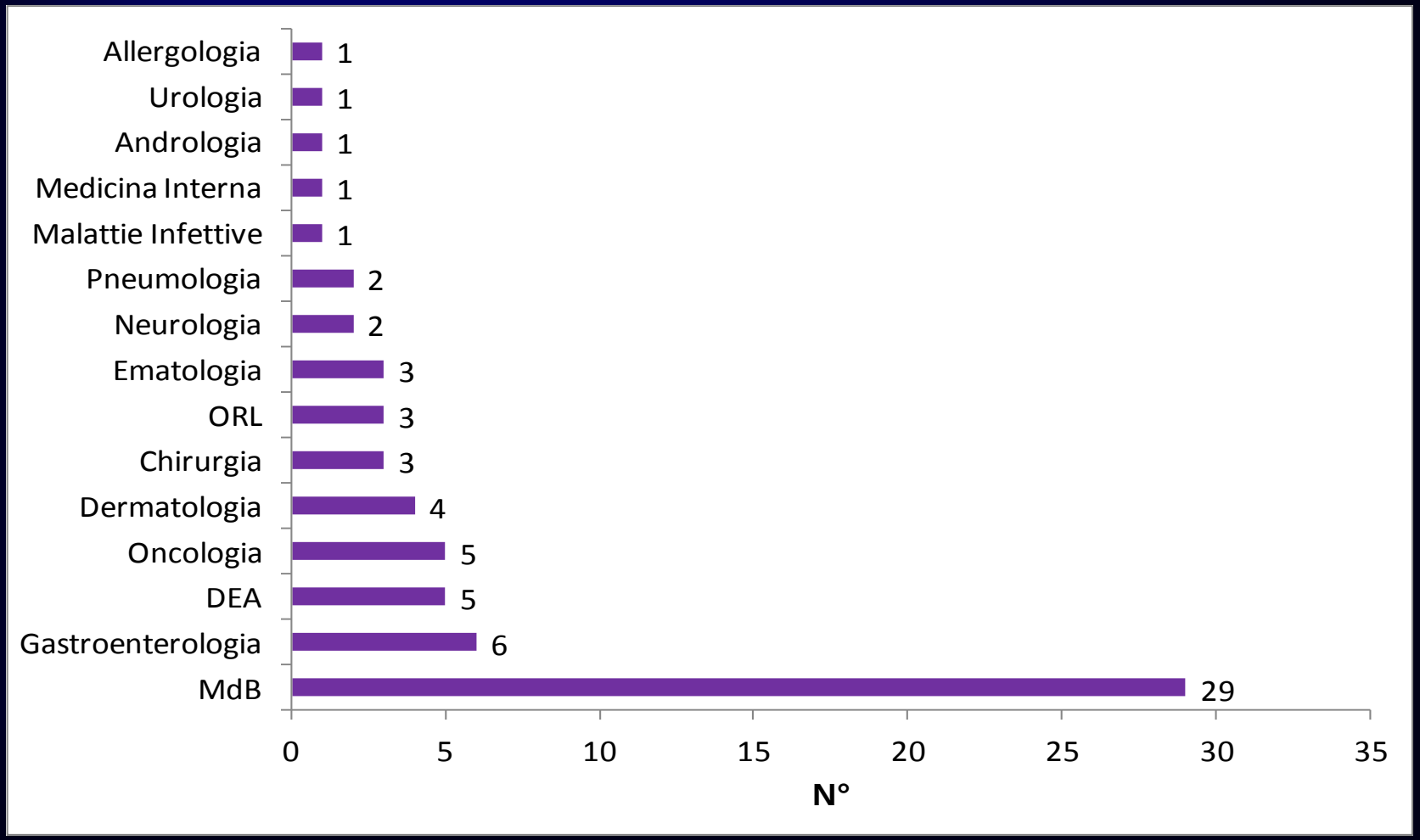
Ridolfo et al. 2017

Patologie indicatrici la cui diagnosi NON è stata prontamente seguita dal test HIV (58 patologie in 39 pazienti)



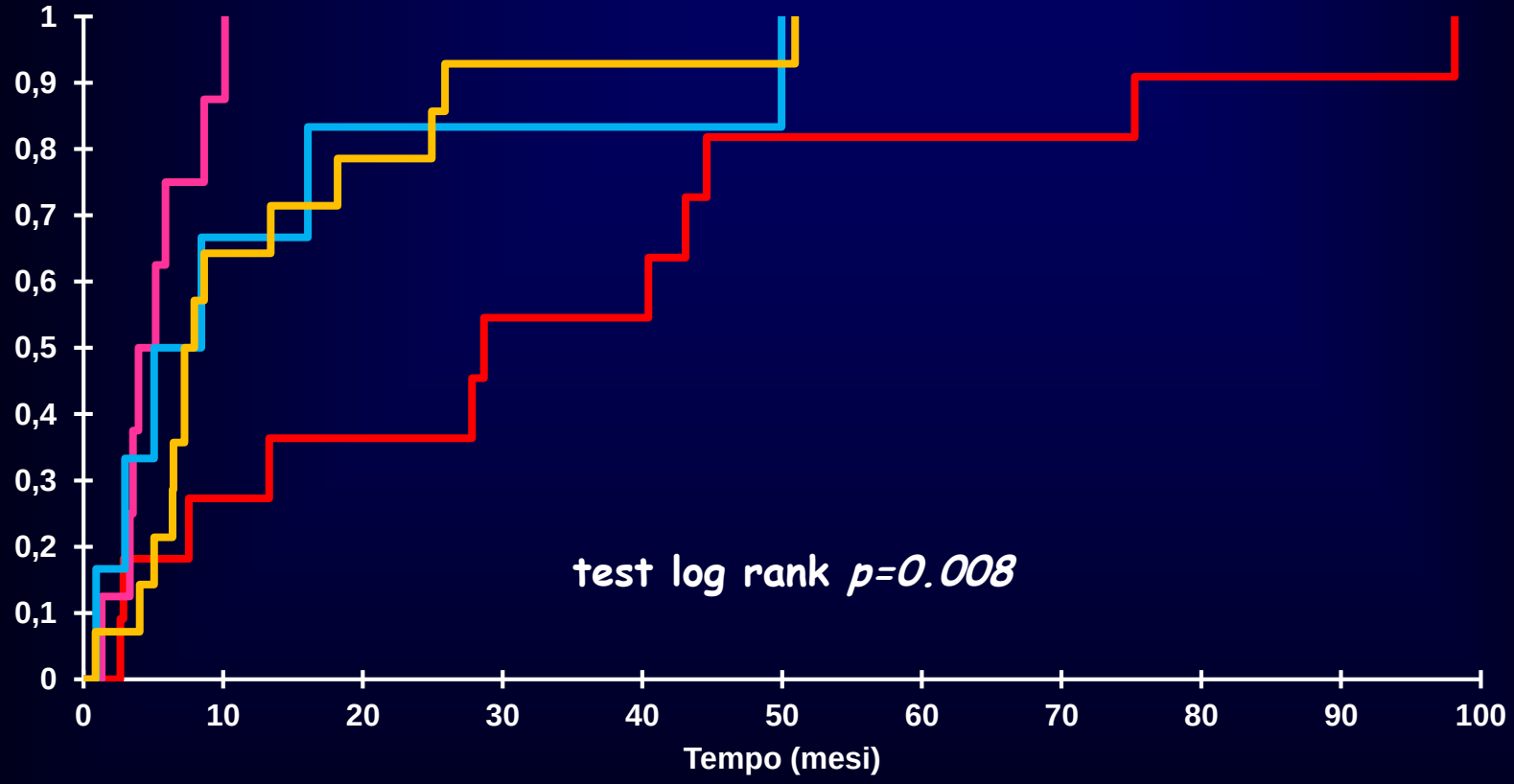
Ridolfo et al. 2017

Contesti clinici in cui è stata posta diagnosi di patologia indicatrice di HIV ma NON è stato proposto il test



Ridolfo et al. 2017

Ritardo nell'esecuzione del test HIV in presenza di specifica patologia indicatrice



Ridolfo et al. 2017

Popolazioni chiave

- MSM
- Immigrati
- Sex workers
- Utilizzatori di droghe d'abuso
- Partner di persone con HIV/AIDS.

Prevalence rates of people living with undiagnosed HIV and with low CD4 cell count by HIV exposure group and region, Italy, 2014

- The estimated annual number undiagnosed HIV infections with low CD4 count was on average 6,028 (95% CI 4,954–8,043) from 2012–2014.

- Nationally the prevalence rate per 100,000 was:
  -280.4 (95% CI: 173.3–450.2) in MSM,
  -8.3 (95% CI: 4.9–13.6) in heterosexual men,
  -3.0 (95% CI: 1.4–5.6) in women

Regine et al. Euro Surveill. 2018;23(15):pii=17-00240.

Marcus et al. BMC Infectious Diseases (2017) 17:730
DOI 10.1186/s12879-017-2814-x

BMC Infectious Diseases

RESEARCH ARTICLE Open Access

HIV serostatus knowledge and serostatus disclosure with the most recent anal intercourse partner in a European MSM sample recruited in 13 cities: results from the Sialon-II study

- Thirty-five percent (n = 1450) of the study participants reported mutual serostatus disclosure with their most recent AI partner or disclosed having HIV to their partner. Most of these disclosures occurred between steady partners (74%, n = 1077).
- In addition to the type of partner and HIV diagnosis status, other factors positively associated with HIV serostatus disclosure in the multilevel multivariate logistic regression model were recent testing, no condom use, andoutness regarding sexual orientation.

Anti-LGBT and Anti-immigrant Structural Stigma: An Intersectional Analysis of Sexual Minority Men's HIV Risk When Migrating to or Within Europe.

- The 2010 European MSM Internet Survey (n = 23,371 migrants) was administered across 38 European countries.
- Structural stigma toward sexual minorities (in sending and receiving countries) and toward immigrants (in receiving countries) was associated with a lack of HIV-prevention knowledge, service coverage, and precautionary behaviors among MSM migrants.
- Linguistic status and time since migrating moderated some associations between structural stigma and lack of HIV prevention.

Pachankis JE, et al. J Acquir Immune Defic Syndr. 2017; 76: 356-66.

High levels of postmigration HIV acquisition within nine European countries

Debora Alvarez-del Arco[a,b,c], Ibidun Fakoya[d], Christos Thomadakis[e], Nikos Pantazis[e], Giota Touloumi[e], Anne-Francoise Gennotte[f], Freke Zuure[g,h], Henrique Barros[i], Cornelia Staehelin[j], Siri Göpel[k], Christoph Boesecke[l], Tullio Prestileo[m], Alain Volny-Anne[n], Fiona Burns[d,*], Julia del Amo[a,b,c,*], on behalf of the Advancing Migrant Access to Health Services in Europe (aMASE) study team

- Postmigration HIV acquisition was 63% (95% CI: 57–67%); 72% among MSM, 58 and 51% in heterosexual men and women, respectively.
- Postmigration HIV acquisition was 71% for Latin America and Caribbean migrants and 45% for people from sub-Saharan Africa.
- Factors associated with postmigration HIV acquisition among heterosexual women and MSM were age at migration, length of stay in host country and HIV diagnosis year and among heterosexual men, length of stay in host country and HIV diagnosis year.

AIDS 2017; 31: 1979-88

Prevalence of HIV in transgender women, 2000–11

	n	HIV prevalence in transgender women (95% CI)	Odds ratio (95% CI)	HIV prevalence in reproductive-age adults	HIV prevalence in reproductive-age males	Proportion of total HIV infections in men	Income level
Argentina[11–14]	931	33·5% (28·3–38·8)	92·4 (80·6–105·8)	0·54%	0·73%	67·3%	M
Brazil[15–17]	638	33·1% (26·7–39·4)	85·3 (72·3–100·6)	0·58%	0·68%	59·2%	M
El Salvador[18]	67	19·4% (0·0–40·9)	23·2 (12·7–42·5)	1·03%	1·42%	65·6%	M
Peru[19]	450	28·9% (21·1–36·7)	84·7 (69·1–103·9)	0·48%	0·73%	75·3%	M
Uruguay[20,21]	260	18·8% (7·9–29·8)	38·3 (28·1–52·3)	0·60%	0·82%	67·7%	M
Australia[22]	133	4·5% (0·0–21·1)	24·9 (11·0–56·5)	0·19%	0·26%	69·0%	H
India[23,24]	135	43·7% (31·0–56·4)	208·0 (148·0–292·3)	0·37%	0·44%	61·7%	M
Indonesia[25–27]	1384	26·1% (21·6–30·6)	180·3 (159·9–203·3)	0·20%	0·32%	70·7%	M
Pakistan[28–31]	2643	2·2% (0·0–6·0)	21·9 (16·9–28·4)	0·10%	0·14%	70·5%	M
Thailand[32,33]	614	12·5% (5·1–19·9)	9·9 (7·8–12·6)	1·43%	1·71%	59·6%	M
Vietnam[34]	75	6·7% (0·0–28·5)	15·6 (6·2–28·8)	0·45%	0·72%	70·0%	M
Italy[35,36]	826	24·5% (18·5–30·4)	65·8 (56·1–77·1)	0·49%	0·65%	65·7%	H
Netherlands[37]	69	18·8% (0·0–40·1)	81·8 (44·7–149·5)	0·28%	0·39%	68·6%	H
Spain[38,39]	136	18·4% (3·2–33·6)	40·9 (26·5–63·1)	0·55%	0·81%	75·4%	H
USA[40–48]	2705	21·7% (18·4–25·1)	34·2 (31·2–37·5)	0·81%	1·18%	74·2%	H
Pooled estimate*	11 066	19·1% (17·4–20·7)	48·8 (31·2–76·3)	0·44%	0·58%	..	..

*Degrees of freedom=14, heterogeneity χ^2=914·7, I^2=98·5%, test of odds ratio=1, z=16·21, p=0·0001. Income level: M=middle-income; H=high-income.

Baral et al. Lancet Infect Dis 2013; 13: 214–22

Prevalence of Human Immunodeficiency Virus, Hepatitis B Virus, and Hepatitis C Virus Infections Among Transgender Persons Referred to an Italian Center for Total Sex Reassignment Surgery

Roberto Luzzati, MD, Marta Zatta, MD,*† Nicola Pavan, MD,† Maurizia Serafin, PhD,‡ Cristina Maurel, MD,* Carlo Trombetta, MD,† and Fabio Barbone, MD§*

- **The prevalence of HIV, HBVand HCV infections was 0%, 4.0%, and 8.0% in female-to-male, and 12.1%, 4.6%, and 3.7%**
- **The mutually adjustment prevalence ratios were 1.9 (95% CI, 1.2–3.1) for SRS in 2005–2010 and 3.6 (95% CI, 1.3–9.4) in 2010–2014, as compared with SRS in 2000–2004; and 4.7 (95% CI, 2.4–9.4) for South Americans as compared with others.**

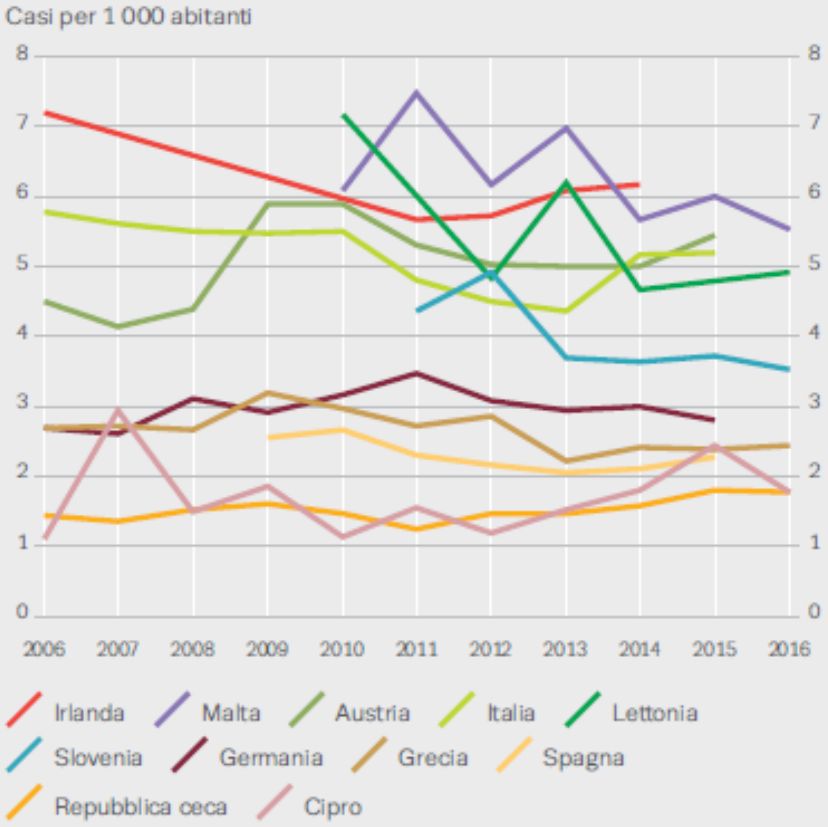
Sexually Transmitted Diseases 2016; 43: 407-11

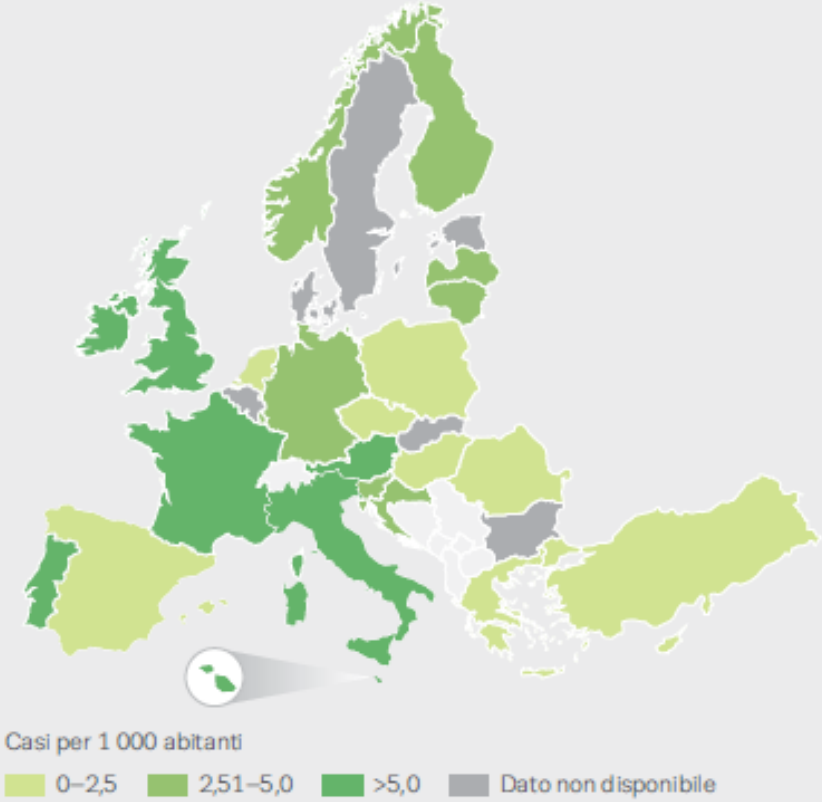
Transmission dynamics among Italians and transgender sex workers increase the complexity of HIV-1 epidemic

- Bidirectional viral fluxes were observed for B subtype from TSWs to Italians (50%) and from Italians to TSWs (12.5%), belonging to all risk categories (27% from TSWs to HEs, 17.5% from TSWs to MSM and from TSWs 12.7% to IDUs).

Lai et al. EACS Milano 2017

Stime nazionali relative al tasso di prevalenza annuale del consumo ad alto rischio di oppiacei: tendenze specifiche e dati più recenti





PNAIDS:
presa in carico, cura e assistenza

- Continuità di cura. Accesso alla terapia antiretrovirale, aderenza e mantenimento in cura.
- Nuove necessità di cura e di assistenza associate all'invecchiamento della popolazione assistita.
- Interventi sulla popolazione con coinfezione HIV/HCV.
- Prevenzione attraverso i vaccini.
- Interventi in merito alla gravidanza.
- Interventi a favore dei minori con infezione da HIV.
- Inquadramento degli interventi integrativi proposti dal Piano Nazionale AIDS nei LEA.

HIV e occupazione

- Accentuazione delle differenze tra una maggioranza di 'occupati ed inseriti' ed una robusta minoranza di 'precari e marginali'.
- Stigma ancora fortemente recepito/ subito, con riflessi importanti sulla vita lavorativa.
- Comorbosità e polifarmacia, uniti all'età che avanza, incidono/incideranno maggiormente sulla vita lavorativa più che la difficoltà dell'assunzione degli ARV. Quaali soluzioni?

Continuità di cura.

Adozione di sistemi di monitoraggio che consentano di essere costantemente a conoscenza:

1) del numero delle persone con HIV/AIDS non ancora in cART e delle ragioni che non hanno consentito di iniziare la terapia;
2) del tasso aderenza alle cure prescritte;
3) del tasso di presenza alle visite di controllo programmate;
4) dei trasferimenti da centro di cura ad altro centro di cura.

Grazie per l'attenzione