HepHIV 2017
31 JANUARY-2 FEBRUARY·MALTA
HIV and Viral Hepatitis: Challenges of Timely Testing and Care

HIV in Europe

Ten Years After:
"I'am going home"

Working together for optimal
testing and early care

HIV in Europe anno 2007:
a clinician's perspective

- First generation ART had "controlled" prognosis – still lot of ongoing replication and health issues – safety was a real concern, ART should perhaps even start at a CD4 count of 350 cells/µL but had to be continued for life

- Patient intake stable to increasing – many were sick at entry; there were plenty to deal with

- Prevention not really a focus for research - ART as prevention was used for MTCT only.

- The epidemic in the Eastern was still young

HIV in Europe anno 2017:
a clinician's perspective

- ART should be offered to all – irrespective of their CD4 count – looks pretty safe although not perfect – most starting ART are durable suppressed
- Younger colleagues do not believe the stories from way back when
- But occasionally, a very sick new patient enters the clinic
- And the real curious go and check out the situation in the Eastern region – and then they understand

JAMA 2008

Opt-Out Testing for Human Immunodeficiency Virus in the United States
Progress and Challenges

John G. Bartlett, MD

Bernard M. Branson, MD

Kevin Fenton, MD, PhD

Benjamin C. Hauschild, MPH

Veronica Miller, PhD

Kenneth H. Mayer, MD

H UMAN IMMUNODEFICIENCY virus (HIV) infection and AIDS in the United States remain a major public

The Centers for Disease Control and Prevention (CDC) has recommended human immunodeficiency virus (HIV) testing for all persons aged 13 to 64 years in all health care settings. Signed consent would not be required and counseling with referral would be managed as it is for other serious conditions. The goal of the recommendations is to promote earlier entry into care to reduce unnecessary mortality and facilitate prevention by behavioral changes that accompany knowledge of serostatus. Concerns about the change include laws in some states that mandate signed consent and counseling, a perception that counseling is an effective prevention strategy, variability in payment coverage for the test, concerns about the stigma and discrimina-

Started in 2008
2 day meeting in 2009
Published in 2010

Adapted by ECDC same year

Cited close to 200 times
in scientific literature

Late presentation of HIV infection: a consensus definition

A Antinori,[1] T Coenen,[2] D Costagiola,[3] N Dedes,[4] M Ellefson,[5] J Gatell,[6] E Girardi,[1] M Johnson,[12] O Kirk,[5] J Lundgren,[5] A Mocroft,[7] A d'Arminio Monforte,[8] A Phillips,[7] D Raben,[5] JK Rockstroh,[9] C Sabin,[7] A Sönnerborg[10] and F de Wolf[11] for the European Late Presenter Consensus working group*
[1]National Institute for Infectious Diseases "Lazzaro Spallanzani" IRCCS, Rome, Italy, [2]Aids Fonds & Soa Aids Nederland, Amsterdam, the Netherlands, [3]INSERM, Paris, France, [4]European AIDS Treatment Group, Brussels, Belgium, [5]National University Hospital and Univ. of Copenhagen, Copenhagen HIV Programme, Panum Institute, Denmark, [6]Clinical Institute of Medicine & Dermatology, Hospital Clinic, University of Barcelona, Barcelona, Spain, [7]University College London Medical School, Royal Free Campus, London, UK, [8]Department of Medicine, San Paolo Hospital, Milan, Italy, [9]Medizinischen Universitätsklinik, Innere-Rheuma-Tropen Ambulanz, Bonn, Germany, [10]Department of Infectious Diseases, Karolinska Institutet, Stockholm, Sweden, [11]HIV Monitoring Foundation, Amsterdam, the Netherlands and [12]Royal Free Hampstead NHS Trust, London, UK

Objectives
Across Europe, almost a third of individuals infected with HIV do not enter health care until late in the course of their infection. Surveillance to identify the extent to which late presentation occurs remains inadequate across Europe and is further complicated by the lack of a common clinical definition of late presentation. The objective of this article is to present a consensus definition of late presentation of HIV infection.

Methods
Over the past year, two initiatives have moved towards a harmonized definition. In spring 2009, they joined efforts to identify a common definition of what is meant by a 'late-presenting' patient.

Results
Two definitions were agreed upon, as follows. Late presentation: persons presenting for care with a CD4 count below 350 cells/μL or presenting with an AIDS-defining event, regardless of the CD4 cell count. Presentation with advanced HIV disease: persons presenting for care with a CD4 count below 200 cells/μL or presenting with an AIDS-defining event, regardless of the CD4 cell count.

Conclusion
The European Late Presenter Consensus working group believe it would be beneficial if all national health agencies, institutions, and researchers were able to implement this definition (either on its own or alongside their own preferred definition) when reporting surveillance or research data relating to late presentation of HIV infection.

Keywords: definition, diagnosis, Europe, HIV, late presentation

Changes over time in late presentation and CD4 count at HIV-diagnosis : COHERE 2010-2014
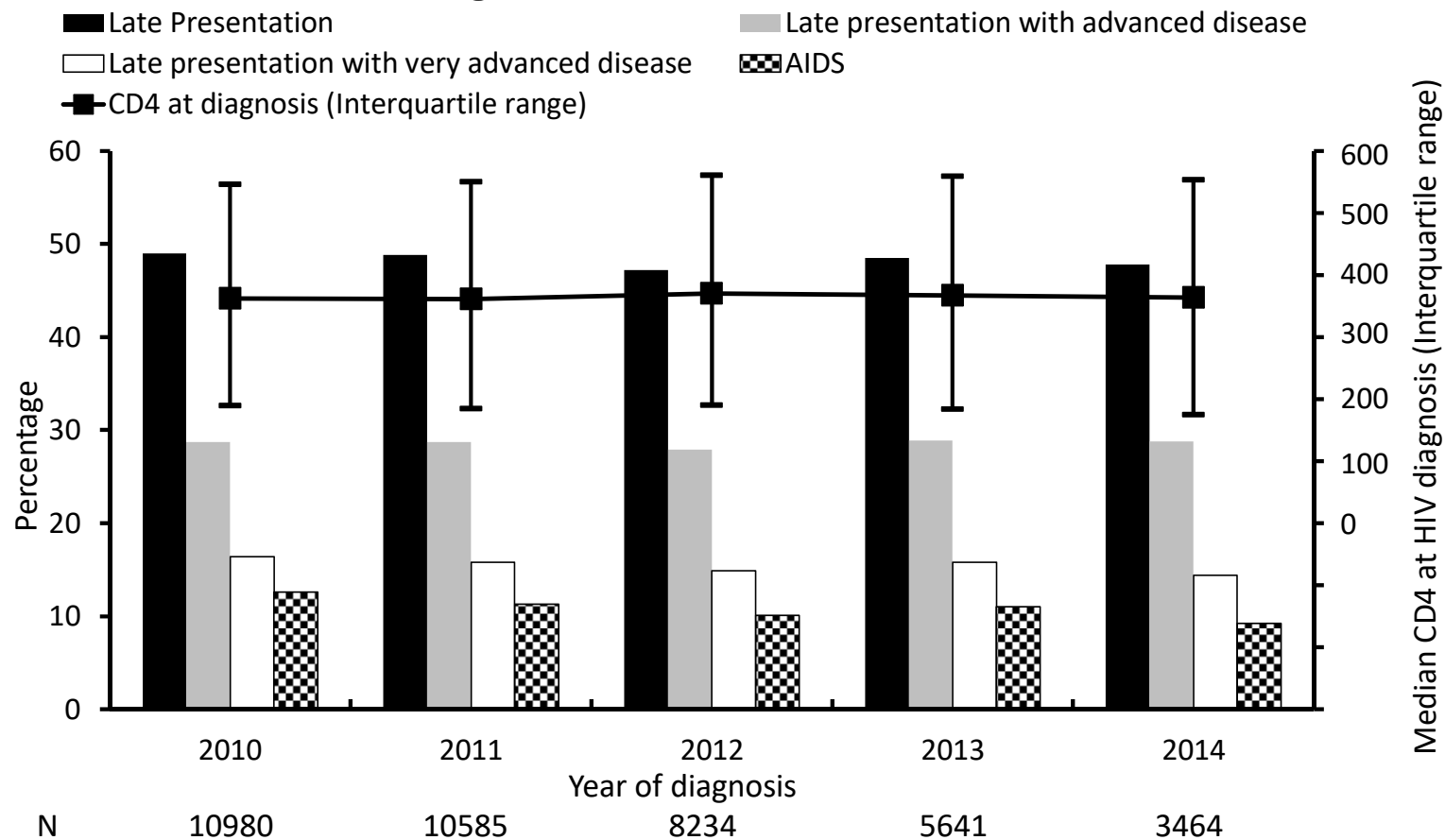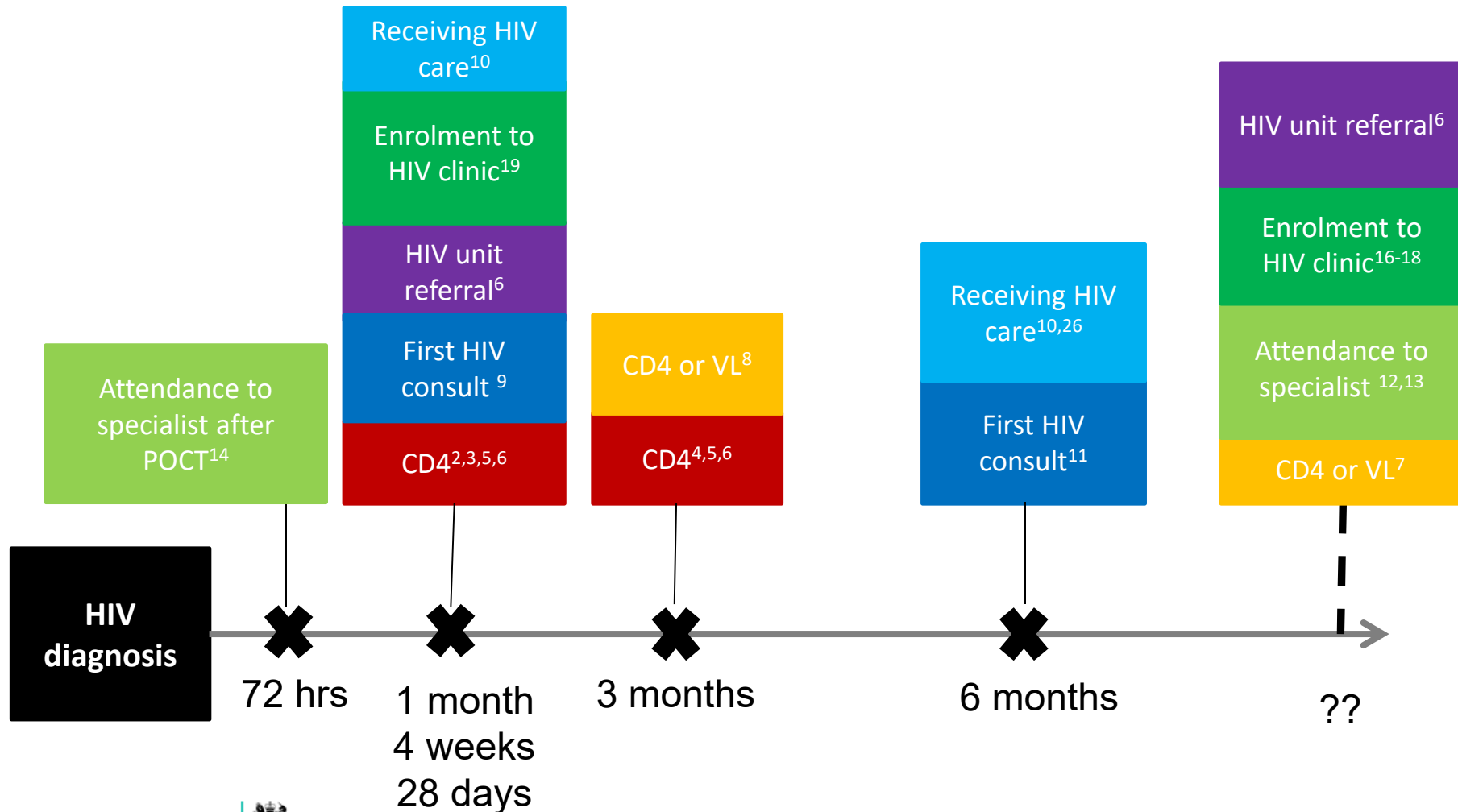

Late presentation: diagnosed with HIV with a CD4 count below $350/mm^3$ or an AIDS defining event regardless of the CD4 count, in the 6 months following HIV diagnosis. Late presentation with advanced disease: diagnosed with HIV with a CD4 count below $200/mm^3$ or an AIDS defining event, regardless of CD4 cell count, in the 6 months following HIV diagnosis. Late presentation with very advanced disease: diagnosed with HIV with a CD4 count below $50/mm^3$ or an AIDS defining event, regardless of CD4 cell count, in the 6 months following HIV diagnosis

Update from COHERE study: Mocroft *et al* Eurosurveillance 2015

"presentation" = entering comprehensive care (CD4 count proxy but ART initiation optimal)
(Antinori et al. LP consensu definition. HIV Med 2011)

OptTEST, WP4 - Definitions of linkage to care in the literature

Receiving HIV care[10]

Enrolment to HIV clinic[19]

HIV unit referral[6]

First HIV consult[9]

CD4[2,3,5,6]

Attendance to specialist after POCT[14]

CD4 or VL[8]

CD4[4,5,6]

Receiving HIV care[10,26]

First HIV consult[11]

HIV unit referral[6]

Enrolment to HIV clinic[16-18]

Attendance to specialist[12,13]

CD4 or VL[7]

HIV diagnosis

72 hrs

1 month
4 weeks
28 days

3 months

6 months

??

Public Health England

Delpech et al

HIV in hiding: methods and data requirements for the estimation of the number of people living with undiagnosed HIV

Working Group on Estimation of HIV Prevalence in Europe*

Many people who are HIV positive are unaware of their infection status. Estimation of the number of people with undiagnosed HIV within a country or region is vital for understanding future need for treatment and for motivating testing programs. We review the available estimation approaches which are in current use. They can be broadly classified into those based on prevalence surveys and those based on reported HIV and AIDS cases. Estimation based on prevalence data requires data from regular prevalence surveys in different population groups together with estimates of the size of these groups. The recommended minimal case reporting data needed to estimate the number of patients with undiagnosed HIV are HIV diagnoses, including CD4 count at diagnosis and whether there has been an AIDS diagnosis in the 3 months before or after HIV diagnosis, and data on deaths in people with HIV. We would encourage all countries to implement several methods that will help develop our understanding of strengths and weaknesses of the various methods.

ECDC HIV Modelling Tool

C. Total number of HIV-infected

year	N_Alive	N_Alive_Diag_M	N_Und
2003	1,406.81	840.55	566.25
2004	1,476.27	927.50	548.76
2005	1,526.97	1,002.04	524.94
2006	1,571.24	1,075.03	496.21
2007	1,608.88	1,162.23	446.65
2008	1,646.14	1,245.45	400.69
2009	1,670.60	1,311.31	359.29
2010	1,691.40	1,368.61	322.79
2011	1,711.76	1,421.24	290.52
2012	1,728.95	1,467.97	260.98
2013	1,745.30	1,513.28	232.02
2014	1,743.21	1,542.25	200.95
2015	1,749.11	1,584.43	164.68
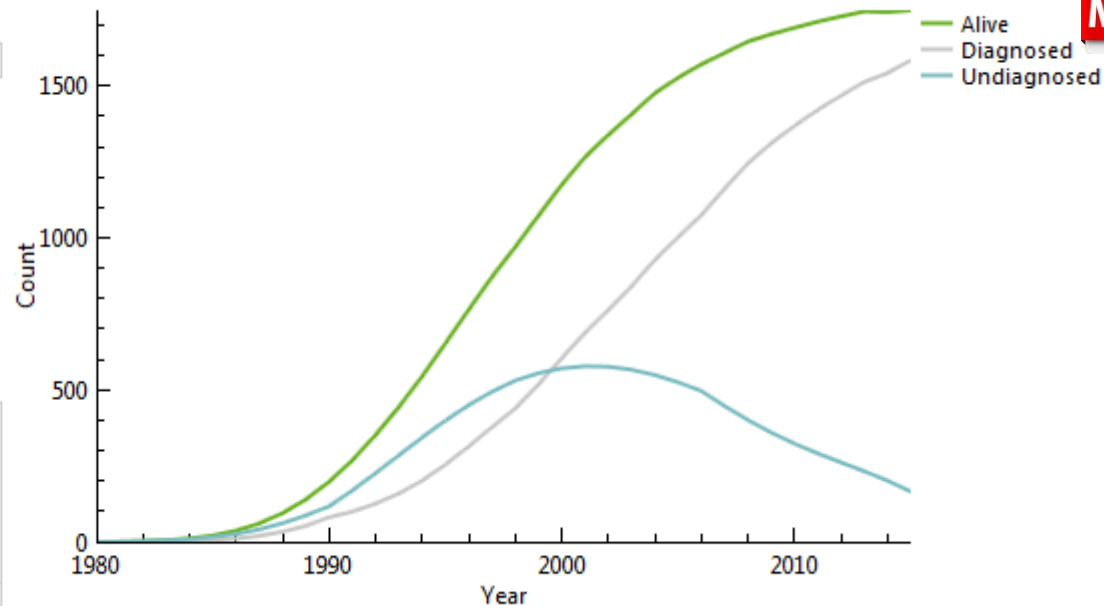
Uses routinely available case surveillance data to estimate:
- **HIV Incidence**
- **HIV Prevalence**
- **Median time from infection to diagnosis**

Free download and manual at:
http://ecdc.europa.eu/en/healthtopics/aids/pages/hiv-modelling-tool.aspx
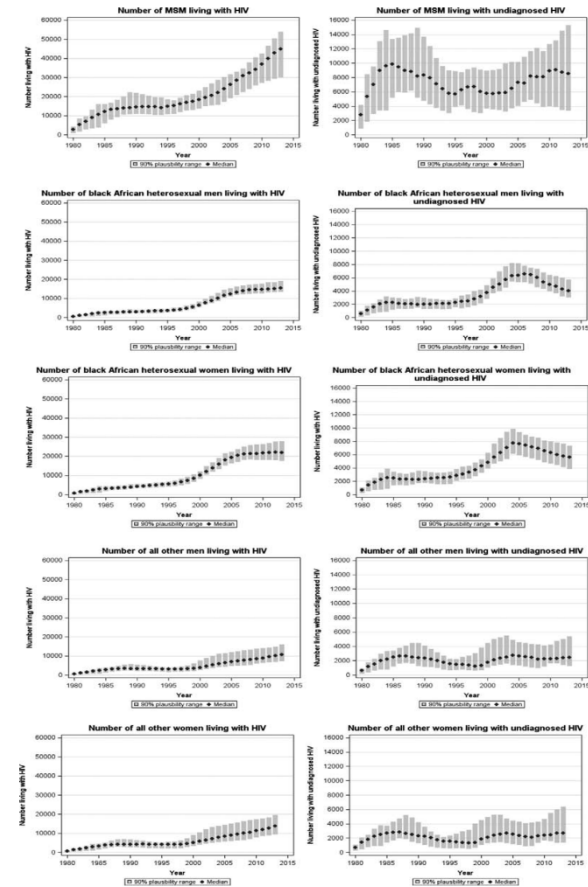
An epidemiological modelling study to estimate the composition of HIV-positive populations including migrants from endemic settings
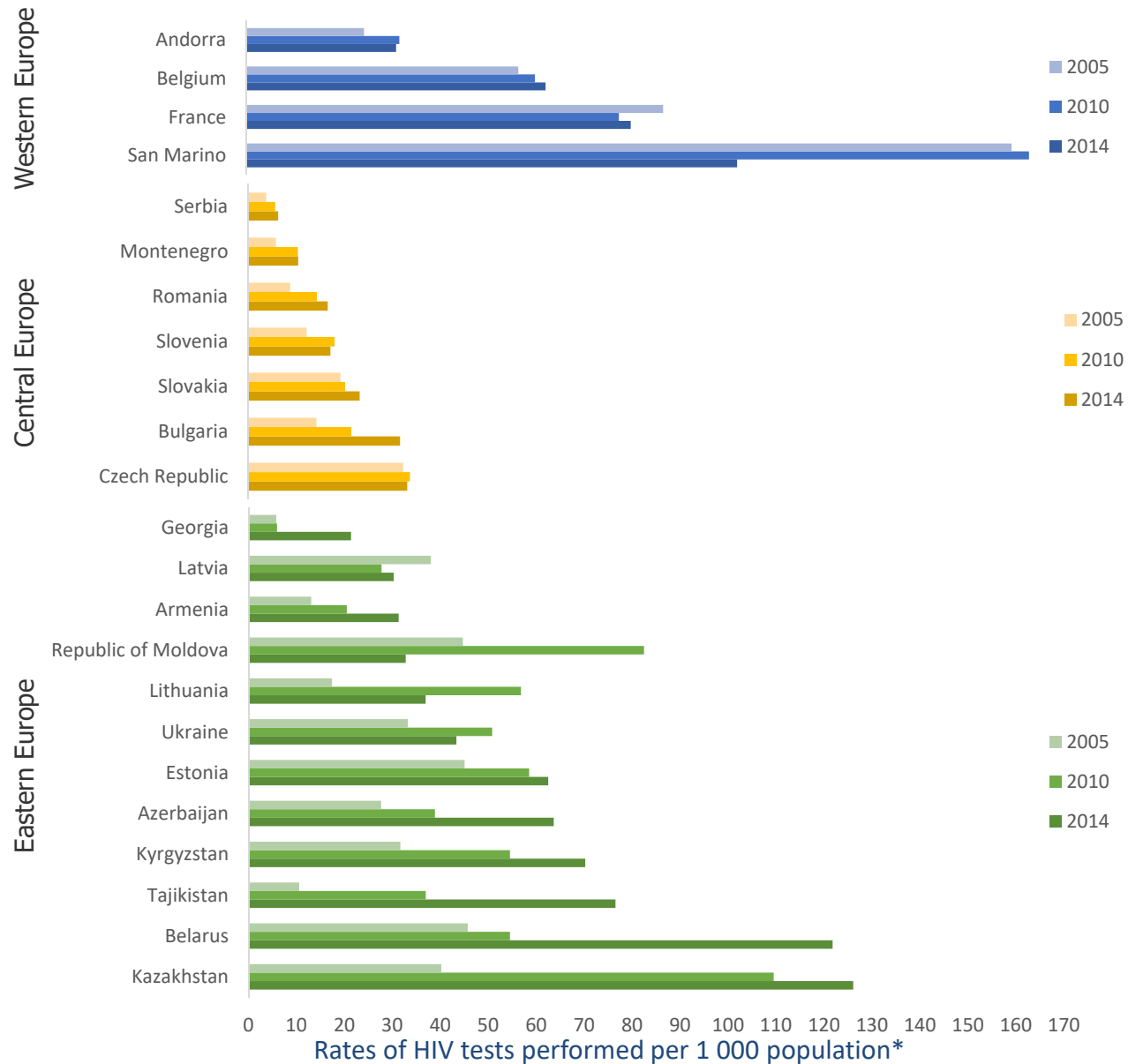
Fumiyo Nakagawa, on behalf of the Writing Group on HIV Epidemiologic Estimates in Countries With Migrant Populations From High Prevalence Areas*
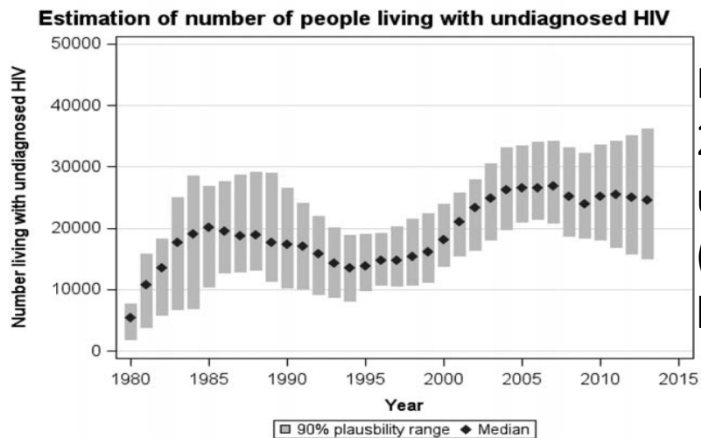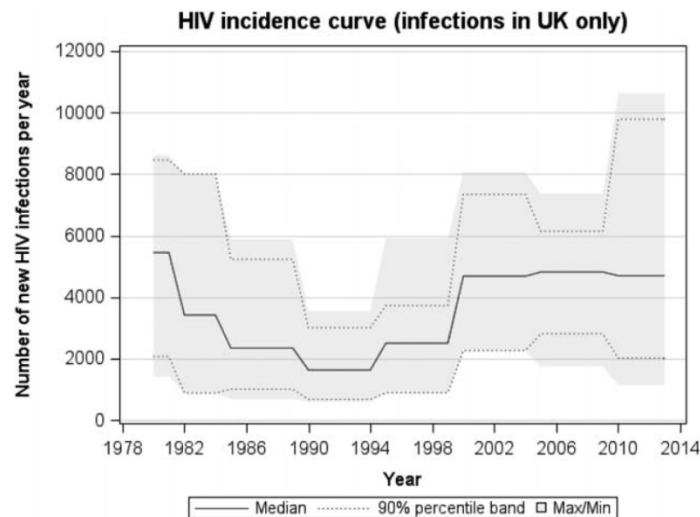
In 2013:
23% of all infected undiagnosed
(32% of undiag. had CD4 < 350)

AIDS 2017

Rates of HIV tests performed per 1 000 population*
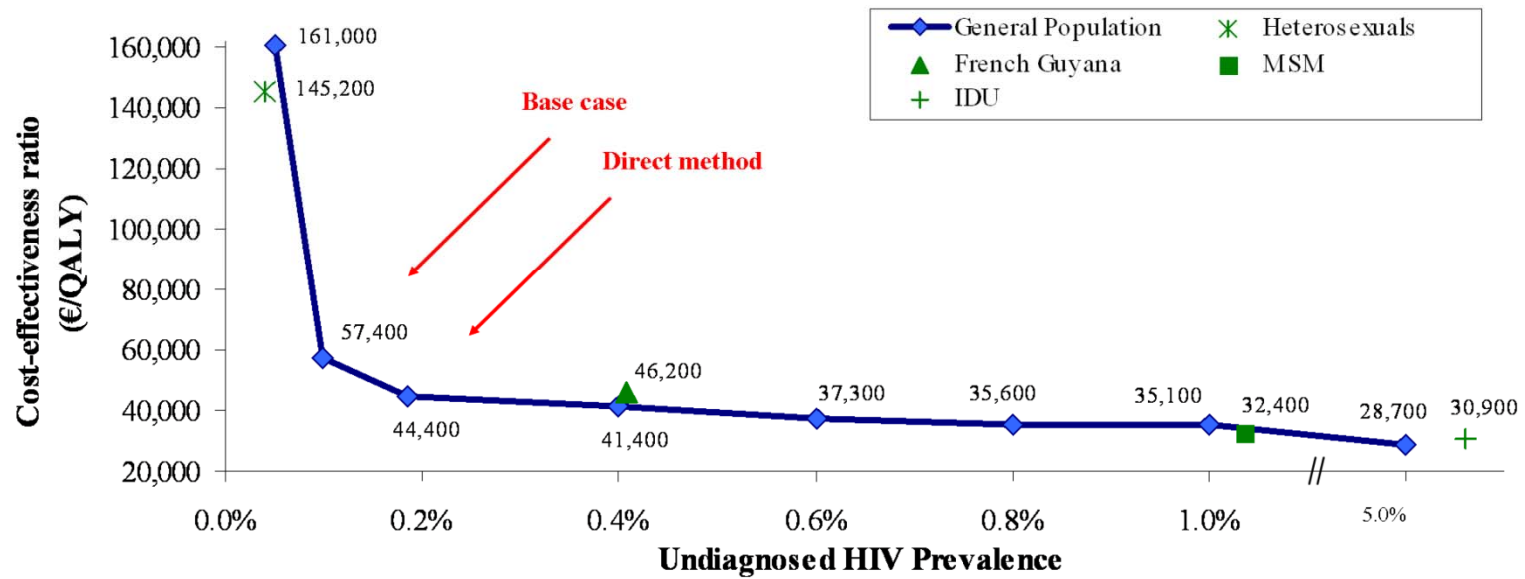## for countries reporting at each of 3 timepoints

*excluding unlinked anonymous testing and testing of blood donations
Source: ECDC/WHO EURO. HIV/AIDS surveillance in Europe 2014. Stockholm: ECDC; 2015

Yasdan Yazdanpanah et al, PLoS One 2010

HIV Indicator Conditions:
Guidance for Implementing HIV Testing in Adults in Health Care Settings

hi**d**es

HIV indicator diseases
across Europe study

Feasibility and Effectiveness of Indicator Condition-Guided Testing for HIV: Results from HIDES I (HIV Indicator Diseases across Europe Study)
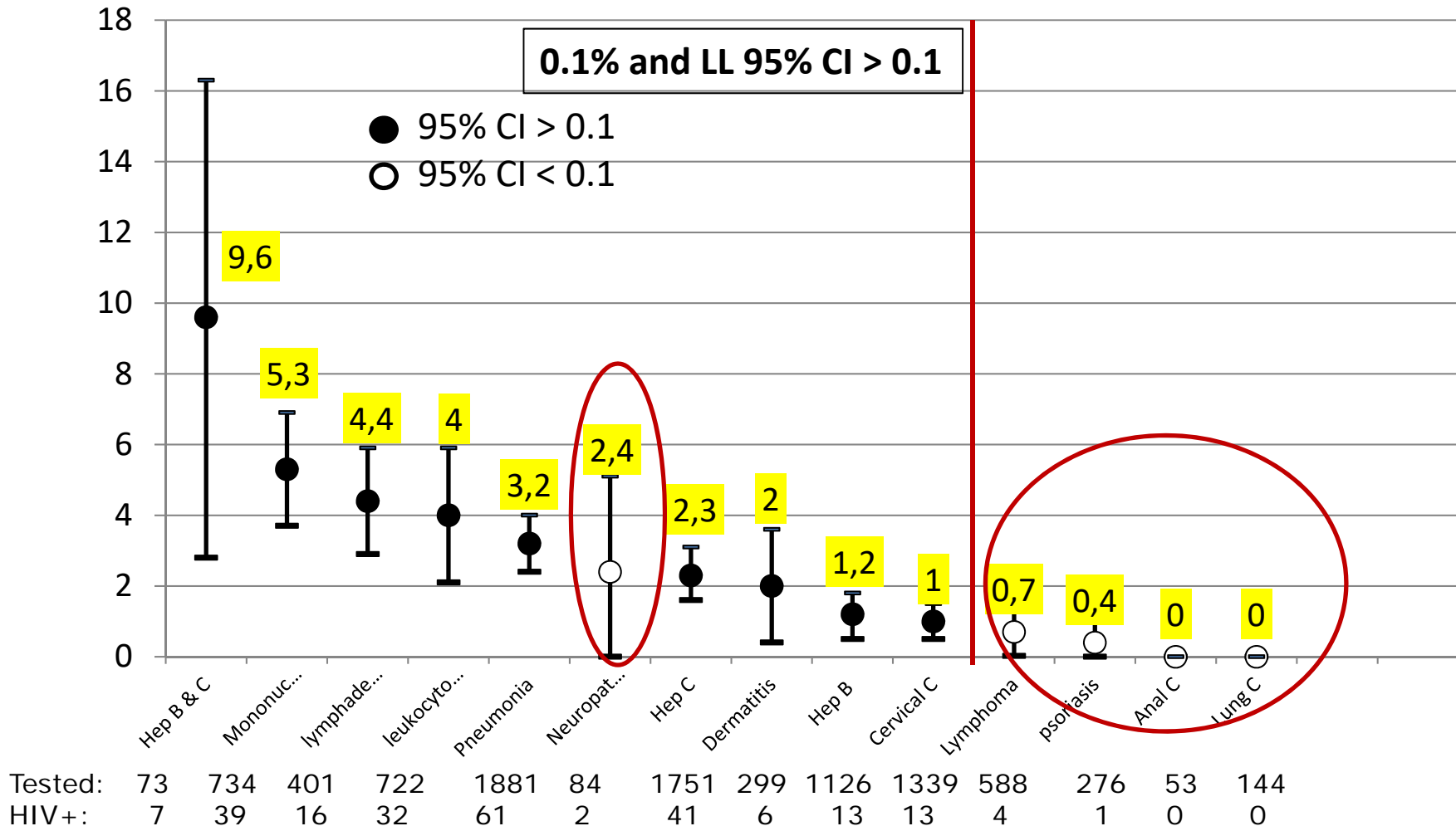
PLoS One 2013

Ann K. Sullivan[1], Dorthe Raben[2*], Joanne Reekie[3], Michael Rayment[1], Amanda Mocroft[3], Stefan Esser[4], Agathe Leon[5], Josip Begovac[6], Kees Brinkman[7], Robert Zangerle[8], Anna Grzeszczuk[9], Anna Vassilenko[10], Vesna Hadziosmanovic[11], Maksym Krasnov[12], Anders Sönnerborg[13], Nathan Clumeck[14], José Gatell[5], Brian Gazzard[1], Antonella d'Arminio Monforte[15], Jürgen Rockstroh[16], Jens D. Lundgren[2,17]

	Individuals having HIV test (number)	HIV positive (number)	Prevalence (95% CI)	Number of surveys
Total	3588	66	1.84 (1.42–2.34)	39
Indicator condition				
Sexually transmitted infection (STI)	764	31	4.06 (2.78–5.71)	4
Malignant lymphoma (LYM)	344	1	0.29 (0.006–1.61)	5
Cervical or anal dysplasia or cancer (CAN)	542	2	0.37 (0.04–1.32)	4
Herpes zoster (HZV)	207	6	2.89 (1.07–6.21)	5
Hepatitis B or C (HEP)	1099	4	0.36 (0.10–0.93)	6
Ongoing mononucleosis-like illness (MON)	441	17	3.85 (2.26–6.10)	7
Unexplained leukocytopenia/thrombocytopenia (CYT)	94	3	3.19 (0.66–9.04)	4
Seborrheic dermatitis/exanthema (SEB)	97	2	2.06 (0.25–7.24)	4

hides
HIV indicator diseases across Europe study

HIV Prevalence of the indicator conditions

Overall prevalence: 2.5: 95% CI 2.2 -2.8

0.1% and LL 95% CI > 0.1

● 95% CI > 0.1
○ 95% CI < 0.1

	Hep B & C	Mononuc...	lymphade...	leukocyto...	Pneumonia	Neuropat...	Hep C	Dermatitis	Hep B	Cervical C	Lymphoma	psoriasis	Anal C	Lung C
Prevalence	9,6	5,3	4,4	4	3,2	2,4	2,3	2	1,2	1	0,7	0,4	0	0
Tested:	73	734	401	722	1881	84	1751	299	1126	1339	588	276	53	144
HIV+:	7	39	16	32	61	2	41	6	13	13	4	1	0	0

N=9471 (93.4% of original)   Hides2: Sullivan et al

Infectious mononucleose-like illness: prevalent and important indicator for HIV testing

Region	Total N	N HIV+	Prevalence (95% Conf. Limit)	Lower 99% confidence limit for estimated prevalence
Total	1569	85	5.4 (4.3 – 6.5)	3.9
East	994	67	6.7 (5.2 – 8.3)	4.7
West	61	2	3.3 (0 – 7.7)	0
South	84	6	7.1 (1.6 – 12.7)	0
North	430	10	2.3 (0.9 – 3.8)	0.5
North/West/South	575	18	3.1 (1.7 – 4.6)	1.3
West/South	145	8	5.5 (1.8 – 9.2)	0.6

Available online tool to audit/monitor testing (for indicator conditions)

HIDES Audit

Re-assign this record to another Data Access Group? `1000` ▾

✎ Editing existing Audit ID: **1000-A**	
Audit ID:	1000-A
How many patients with: (H)	⦿ A) Tuberculosis ◯ B) Non-Hodgkin's lymphoma ◯ C) Anal cancer ◯ D) Cervical cancer ◯ E) Hepatitis B and C ◯ F) Candida esophagitis
who were not yet known to be HIV positive have you seen in your clinic within (specify dates beneath): (H) * must provide value	12.5
From: (H)	01-01-2010
To: (H)	31-12-2011
How many of these have been offered an HIV test: (H)	115
How many of these have been HIV tested: (H) * must provide value	115
How many were HIV positive: (H)	5

HIV testing routine in pregnancy in Europe

- Testing strategies that offer HIV testing routinely to all pregnant women are comprehensively employed across Europe

Way forward

- Stay humble
- Stay inclusive for all stakeholders
- Listen and learn
- Let science and data guide public health
- Normalise approach
- Use best knowledge across infections
  - Link2care

Counselling: what to do and how to do it ?

Delivery of HIV test results, post-test discussion and referral in health care settings: a review of guidance for European countries

SA Bell,[1] V Delpech,[2] J Casabona,[3] N Tsereteli[4] and J de Wit[1]

HIV pre-test information, discussion or counselling? A review of guidance relevant to the WHO European Region

Stephen A Bell[1], Valerie Delpech[2], Dorthe Raben[3], Jordi Casabona[4], Nino Tsereteli[5] and John de Wit[6]

Conclusions
While largely in agreement, current pan-European and global HTC guidelines have inconsistencies, particularly regarding post-test counselling and referral pathways to specialized services. Our findings highlight the need for an up-to-date review of more current evidence from wider European settings to support the process of expert consultation.

Conclusions: Current HIV testing and counselling guidelines have inconsistencies regarding the extent and type of information that is recommended during pre-test discussions. The lack of new research underscores a need for new evidence from a range of European settings to support the process of expert consultation in guideline development.

European Test Finder

Estimation of HIV treatment cascade for 2013

Nakagawa, AIDS 2017