



ROME, November 25-26, 2014

AUDITORIUM, MINISTRY OF HEALTH



EACS European
AIDS Clinical Society

MEETING



STANDARD of CARE for **HIV**
and **COINFECTIONS** in **EUROPE**



Chairs: A. Antinori, A. d'Arminio Monforte, C. Mussini

Epidemiology of HIV infection in Europe

Kholoud Porter

MRC Clinical Trials Unit at University
College London

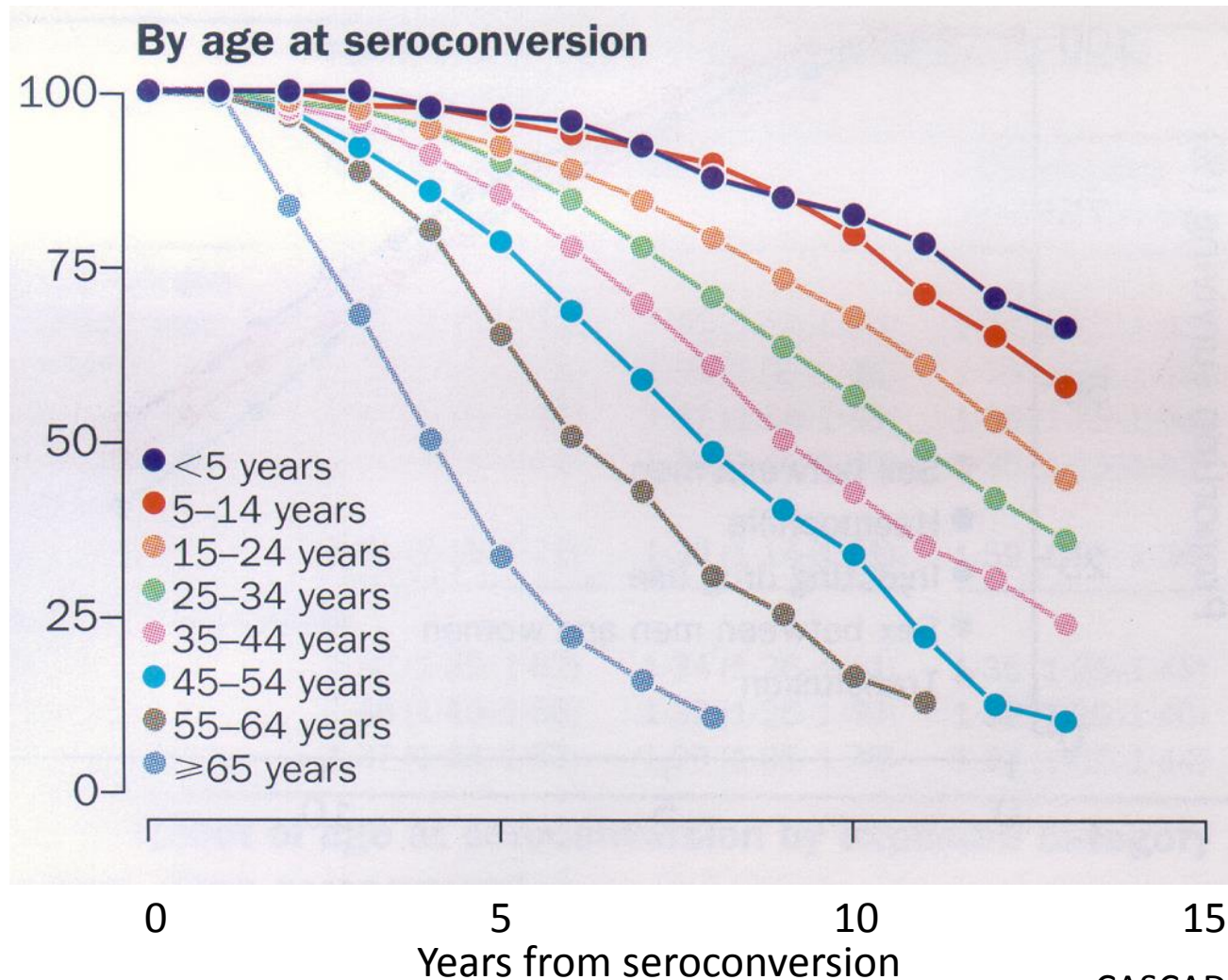


Natural course- no intervention

- Steady loss of CD4+ cells ($\sim 50-80$ / year)
- Initial surge in viraemia, VL sets, steadily rising thereafter (0.1 log/ year)
- Men have higher VL and lower CD4 than women with same HIV infection duration
- MSM have consistently higher VL
- Median survival 10-12 years- dependent on age (and little else)

Estimated HIV survival 1979-96

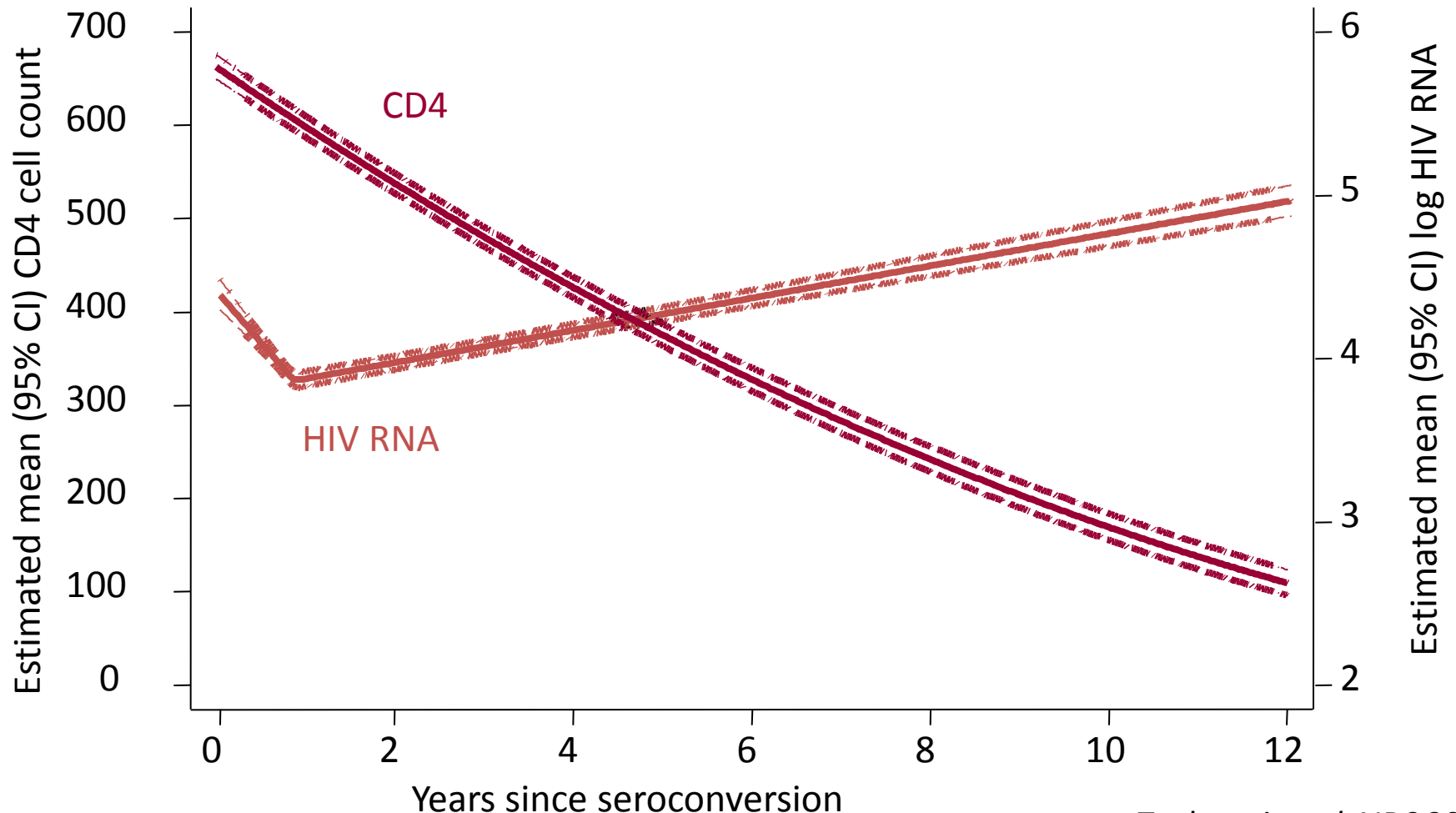
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CASCADE *Lancet* 2000



CD4 and HIV RNA evolution

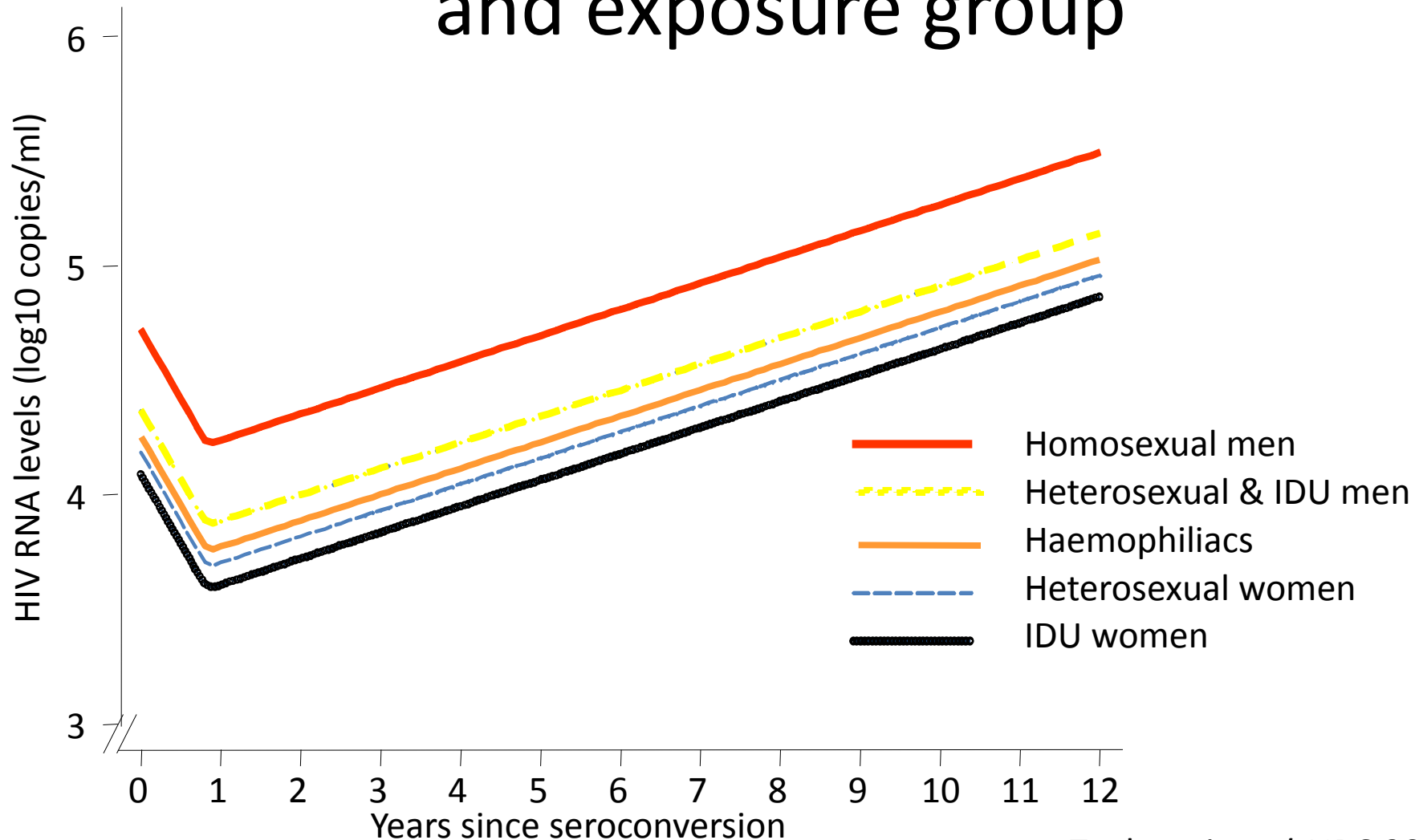


Touloumi *et al* AIDS 2004



Mean HIV-RNA trajectories by sex and exposure group

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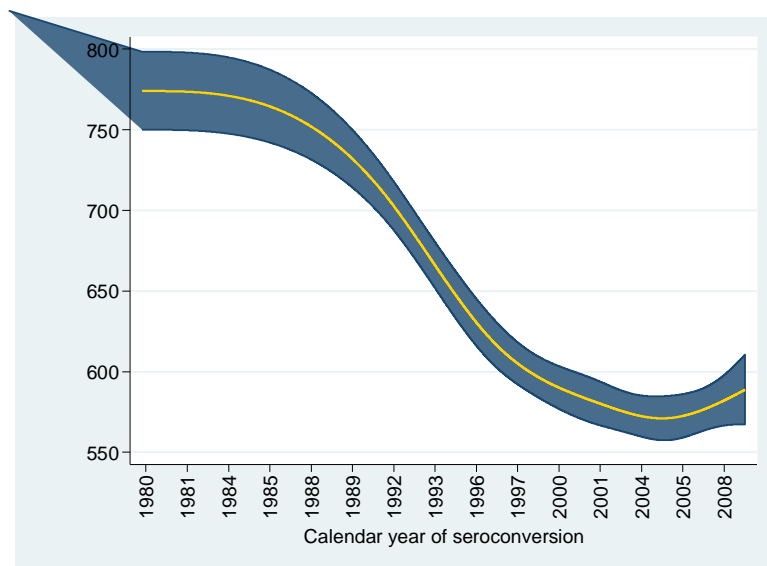
Touloumi *et al* AIDS 2004



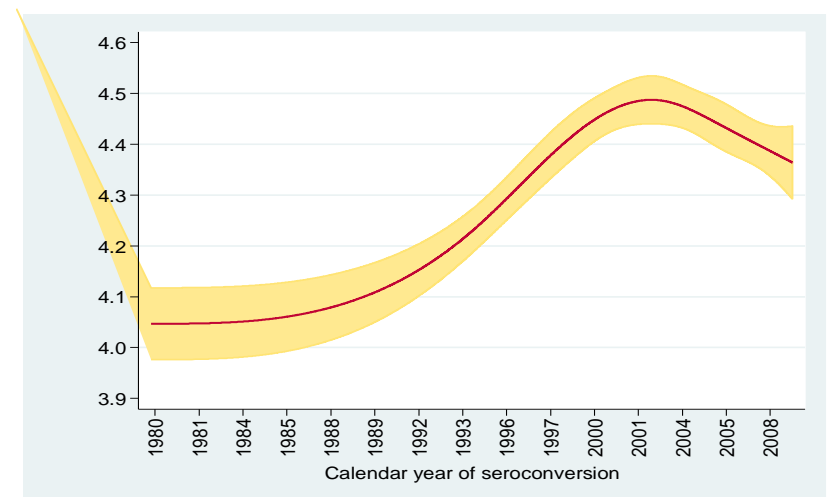
Changes in HIV virulence?

Changes in CD4 cell count at SC

Changes in viral load set-point



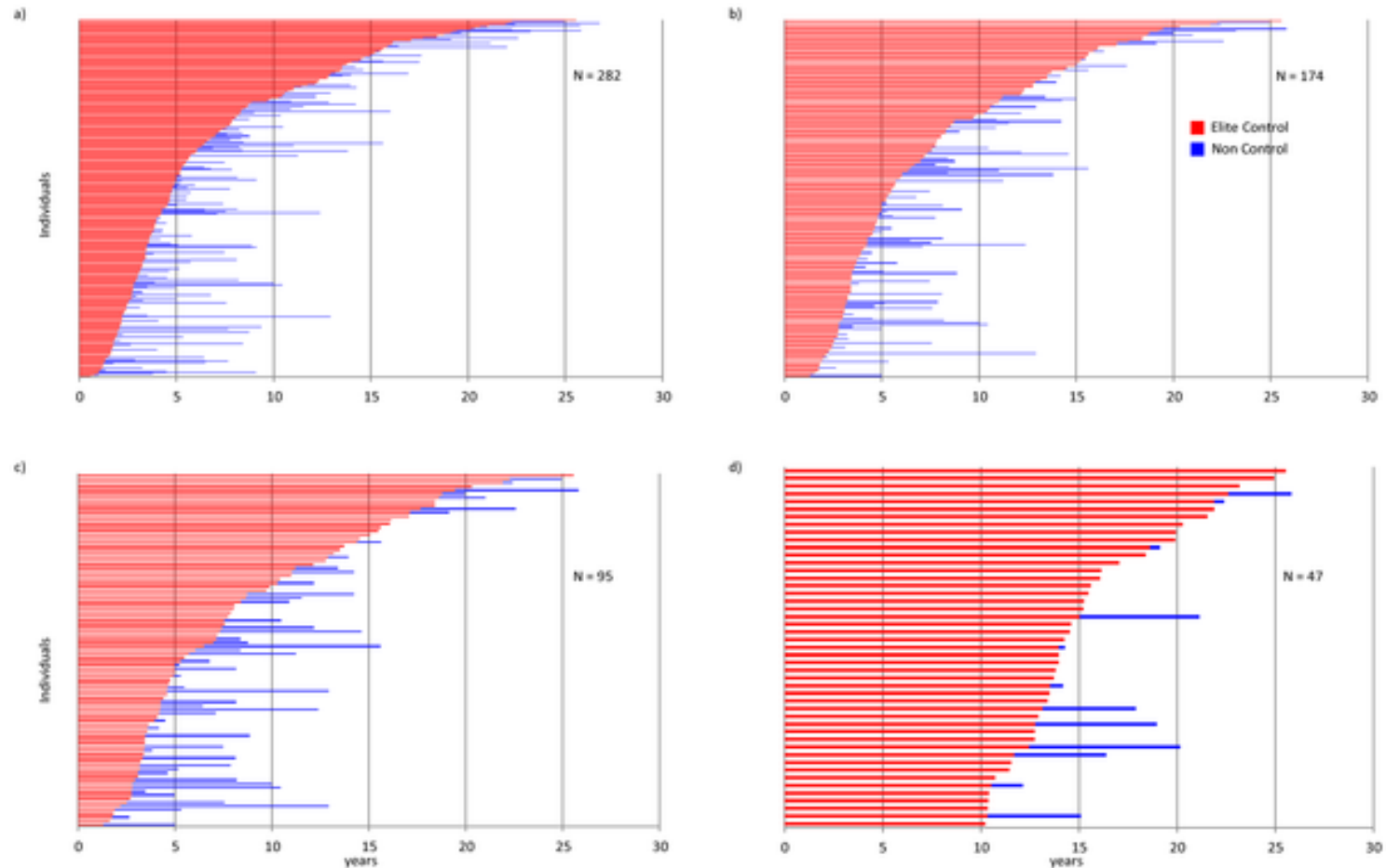
Time to needing ART halved



44% increase in virus transmissibility

Pantazis *et al Lancet HIV* 2014

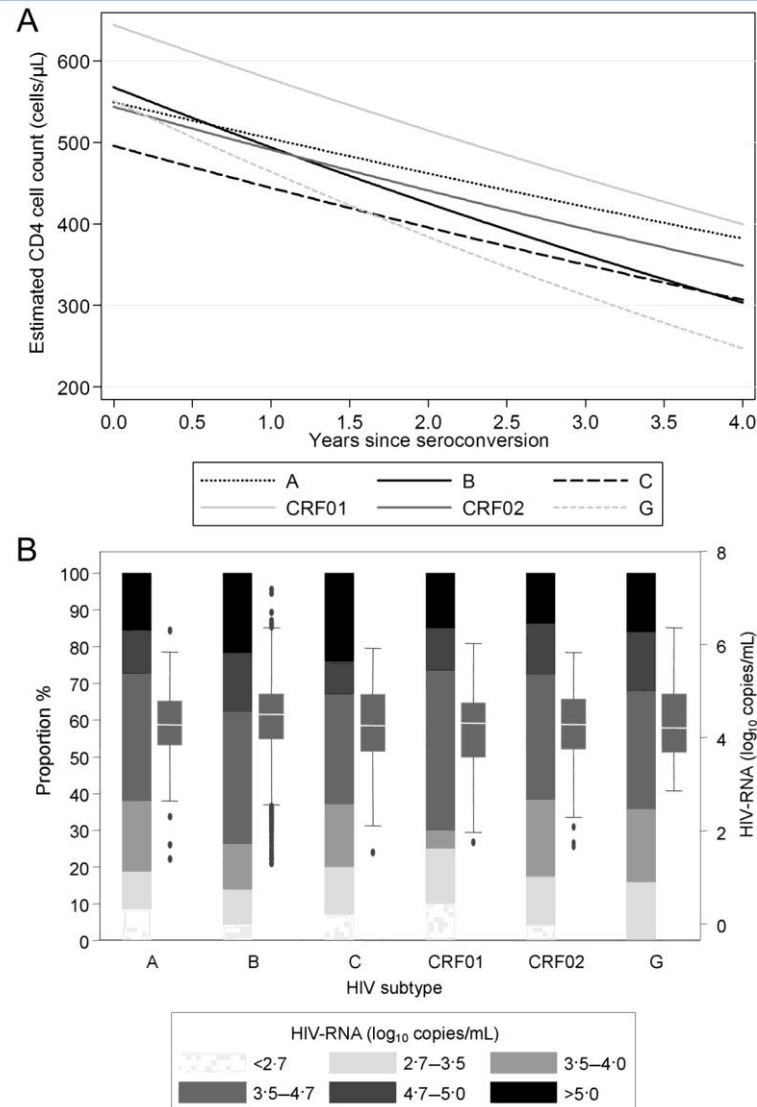
Elite control



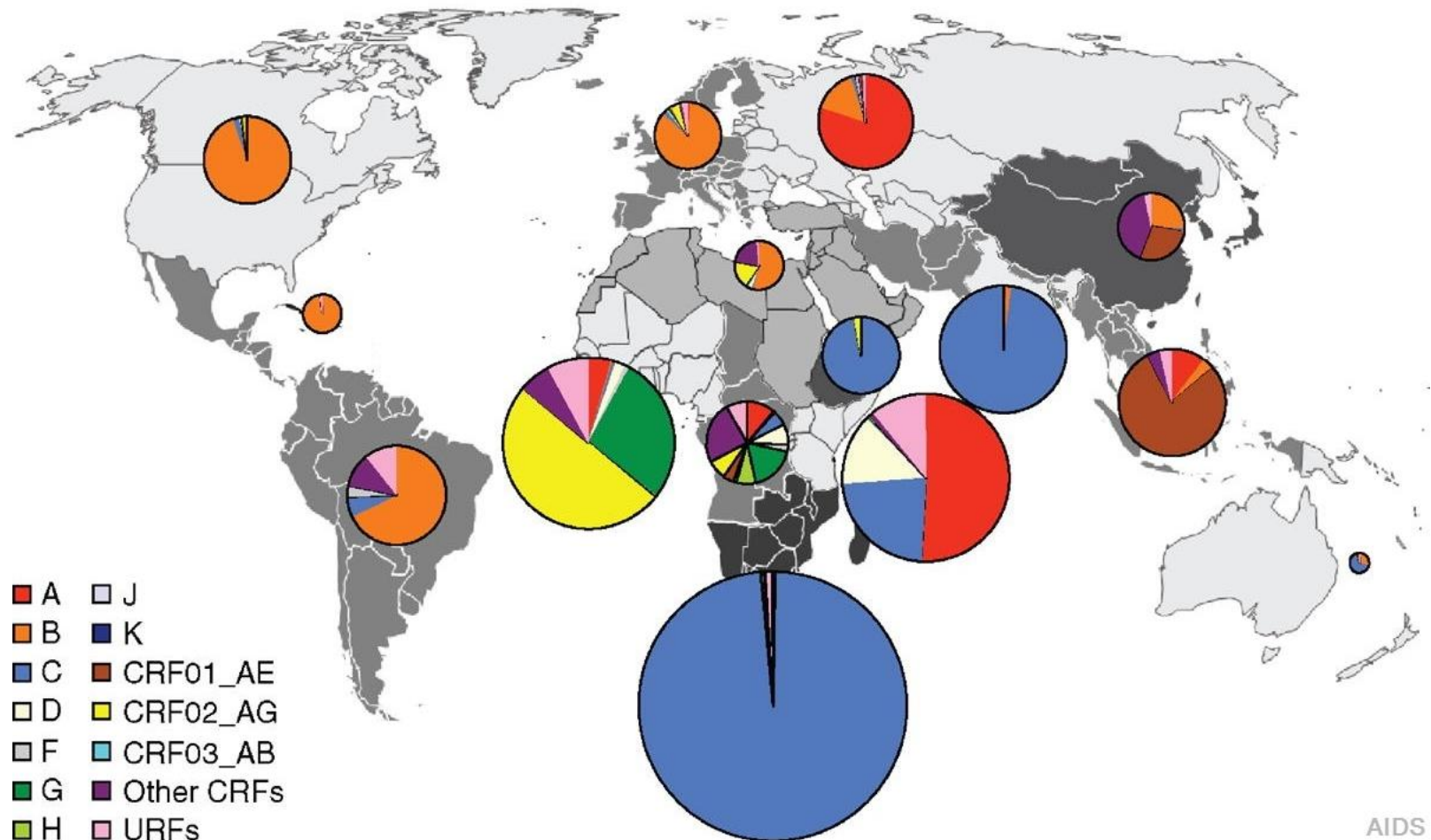
Olson AD, Meyer L, Prins M, Thiebaut R, et al. (2014) An Evaluation of HIV Elite Controller Definitions within a Large Seroconverter Cohort Collaboration. PLoS ONE 9(1): e86719. doi:10.1371/journal.pone.0086719
<http://www.plosone.org/article/info:doi/10.1371/journal.pone.0086719>



CD4 at SC and viral set-point by subtype



Global distribution of HIV subtypes



AIDS

Hemelaar *et al* AIDS 2011

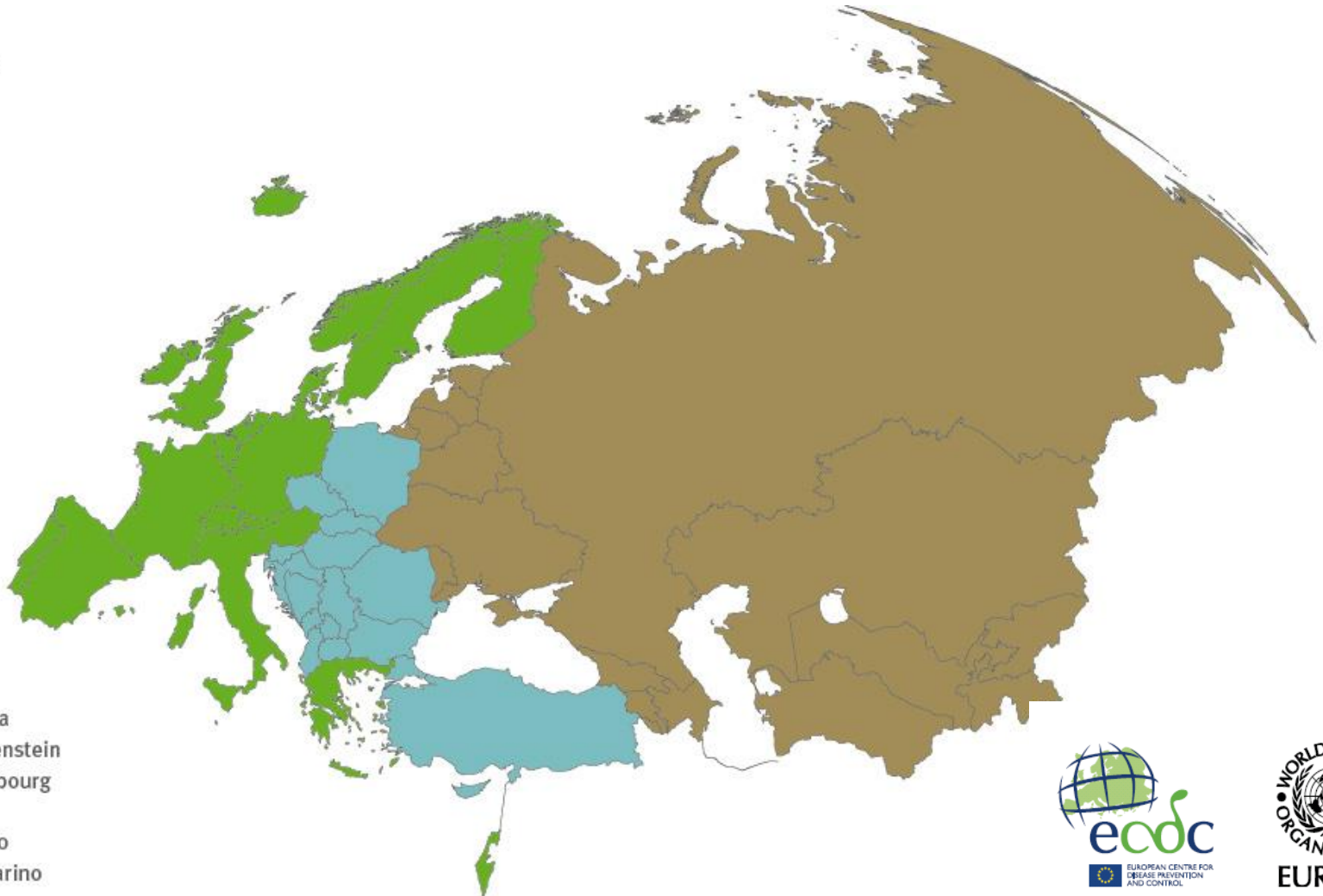


WHO European Region

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West
Centre
East

Andorra
Liechtenstein
Luxembourg
Malta
Monaco
San Marino



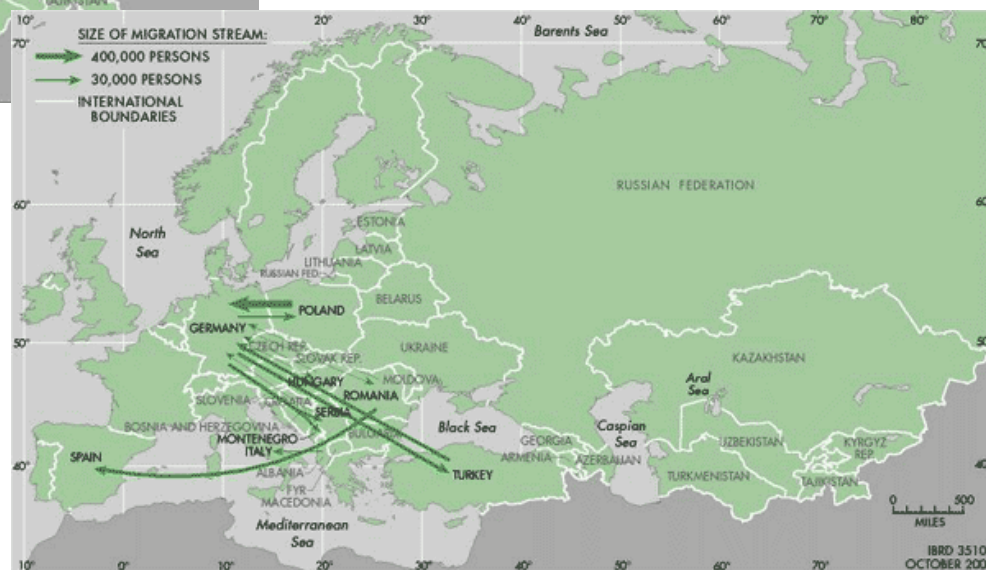
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Migration- last 30 years



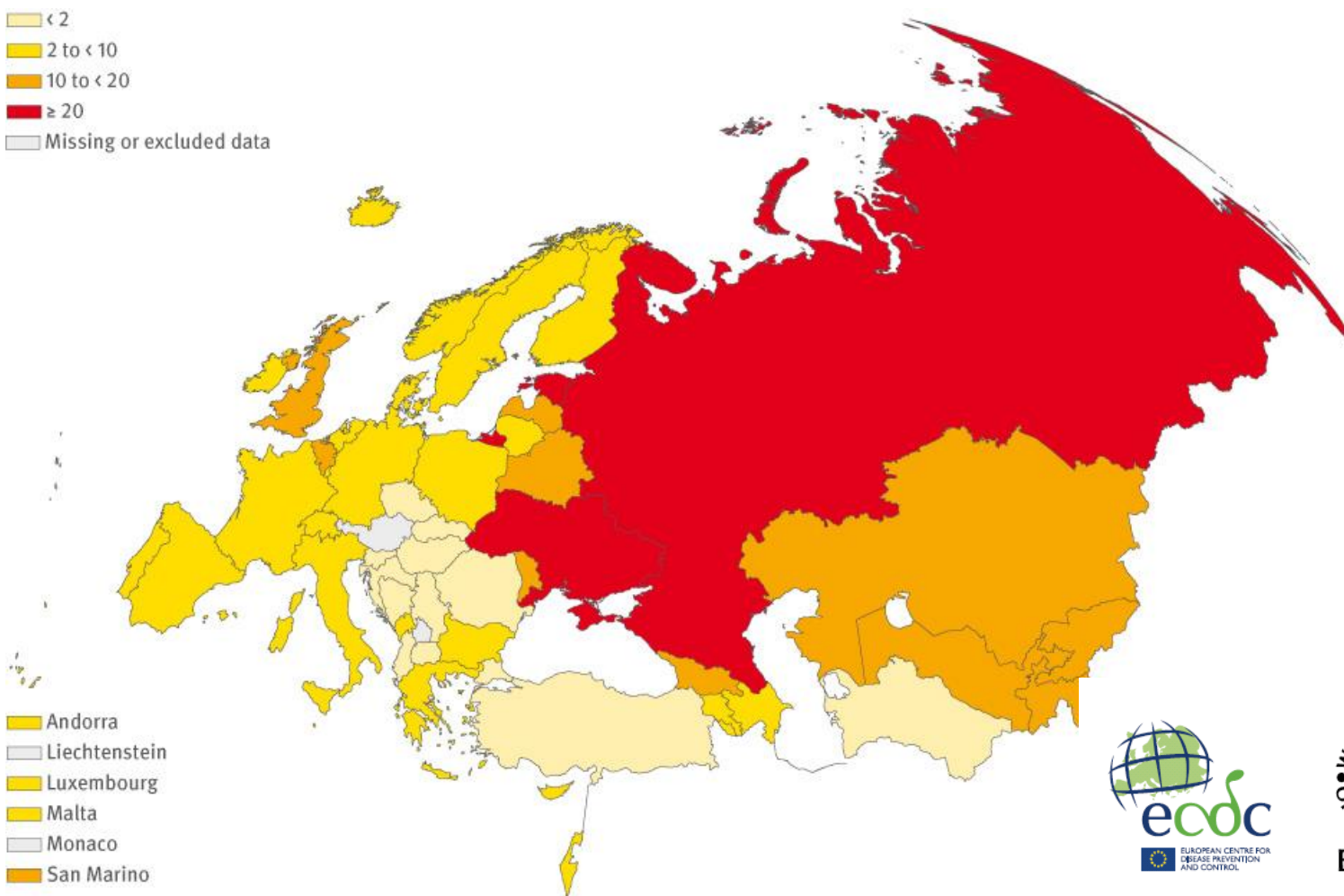
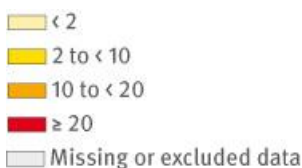
Flows from the CIS to Russia

Flows from Central and Eastern Europe to Western Europe



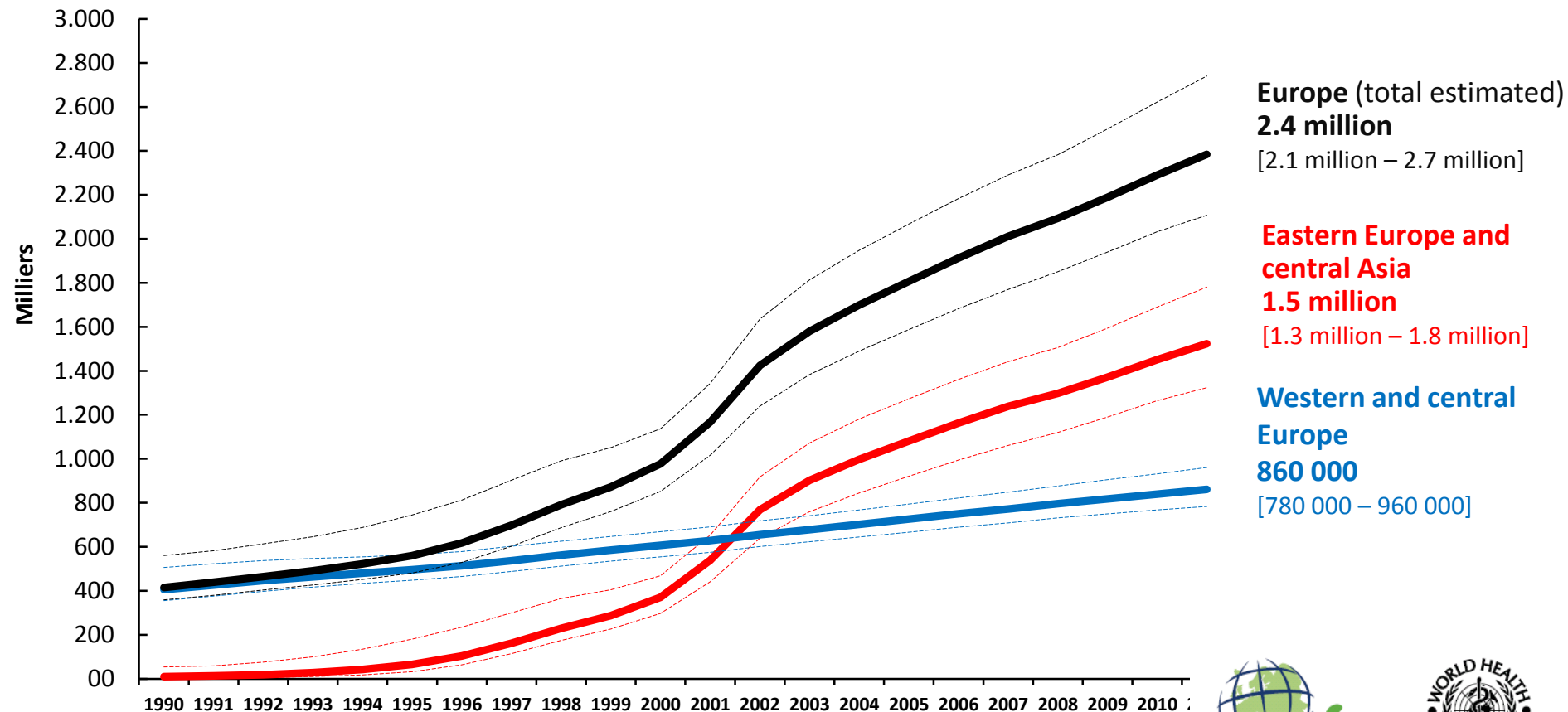
HIV infections reported per 100,000 population, 2010

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People living with HIV: fast growing numbers in Eastern region

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Estimated number of people living with HIV in Europe, 1990-2011

Donoghoe 2012



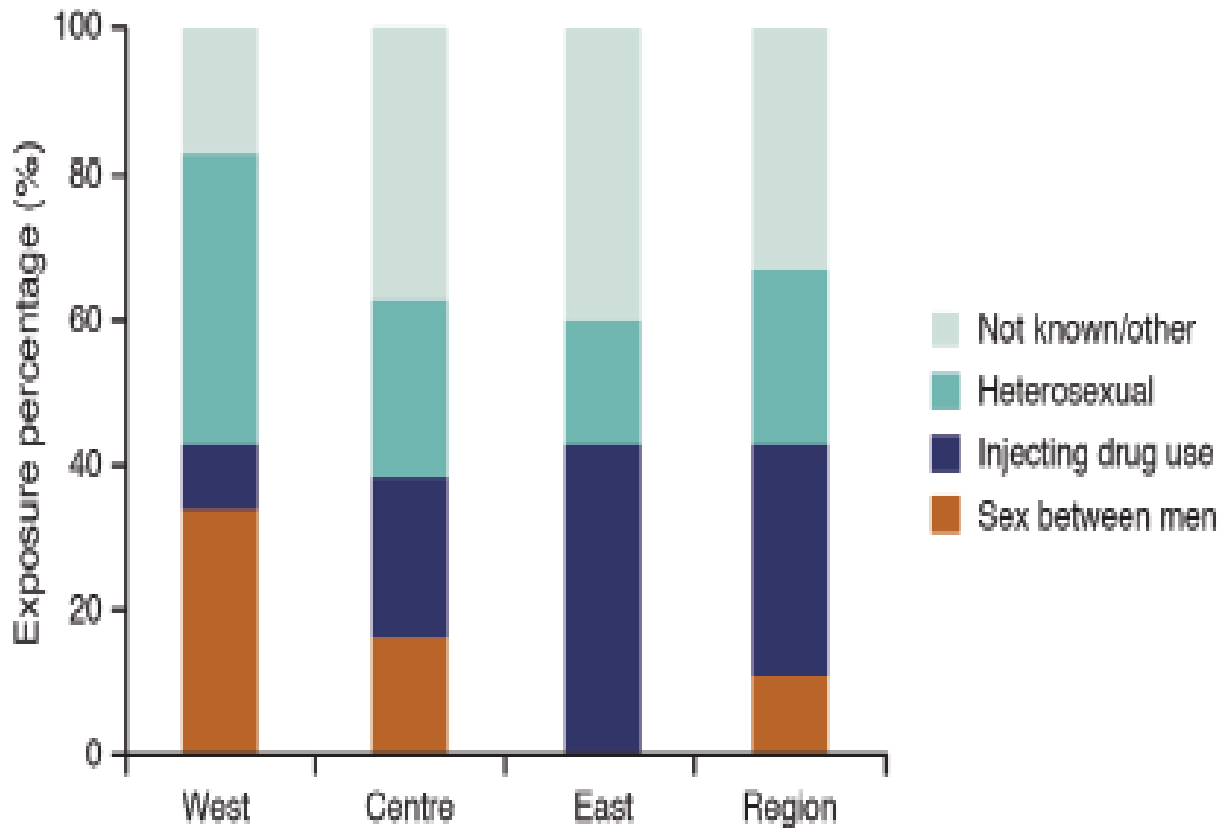
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HIV epidemic: eastern European region

- More recent epidemic, HIV prevalence 0.8% (0.2% in W & C)
- Of all new cases of HIV in Europe in 2010, 76% were in Eastern Europe
- 77% of new HIV diagnoses in women in Europe in 2006-2010 occurred in Eastern Europe
- 90% of new HIV cases are in Ukraine & Russia
- Only region in world with rising HIV incidence

HIV exposure categories by sub-region

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In Eastern Europe, 90,190 new HIV cases were reported in 2010 of which 43% in IDUs

In Western Europe, 28,137 new HIV were cases reported, of which 4% in IDUs

Heterosexual transmission predominates in West
Epidemic in the East is IDU-driven

Platt et al 2013

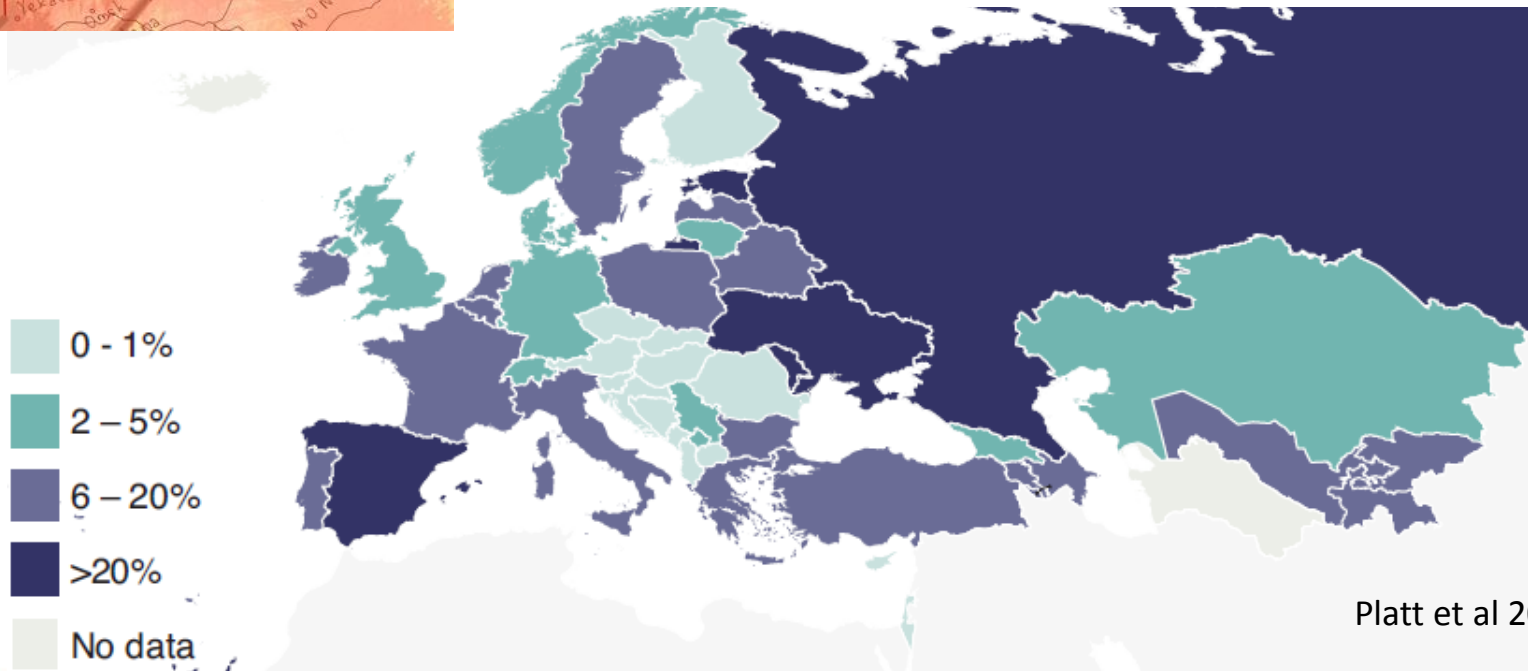


HIV and IDU in Eastern Europe



- Extremely high rates of IDU
- Drug trafficking, social changes
- Russia has 1.5-3.0 million drug users
- Ineffective / insufficient harm reduction
- Around 25-35% IDUs are women

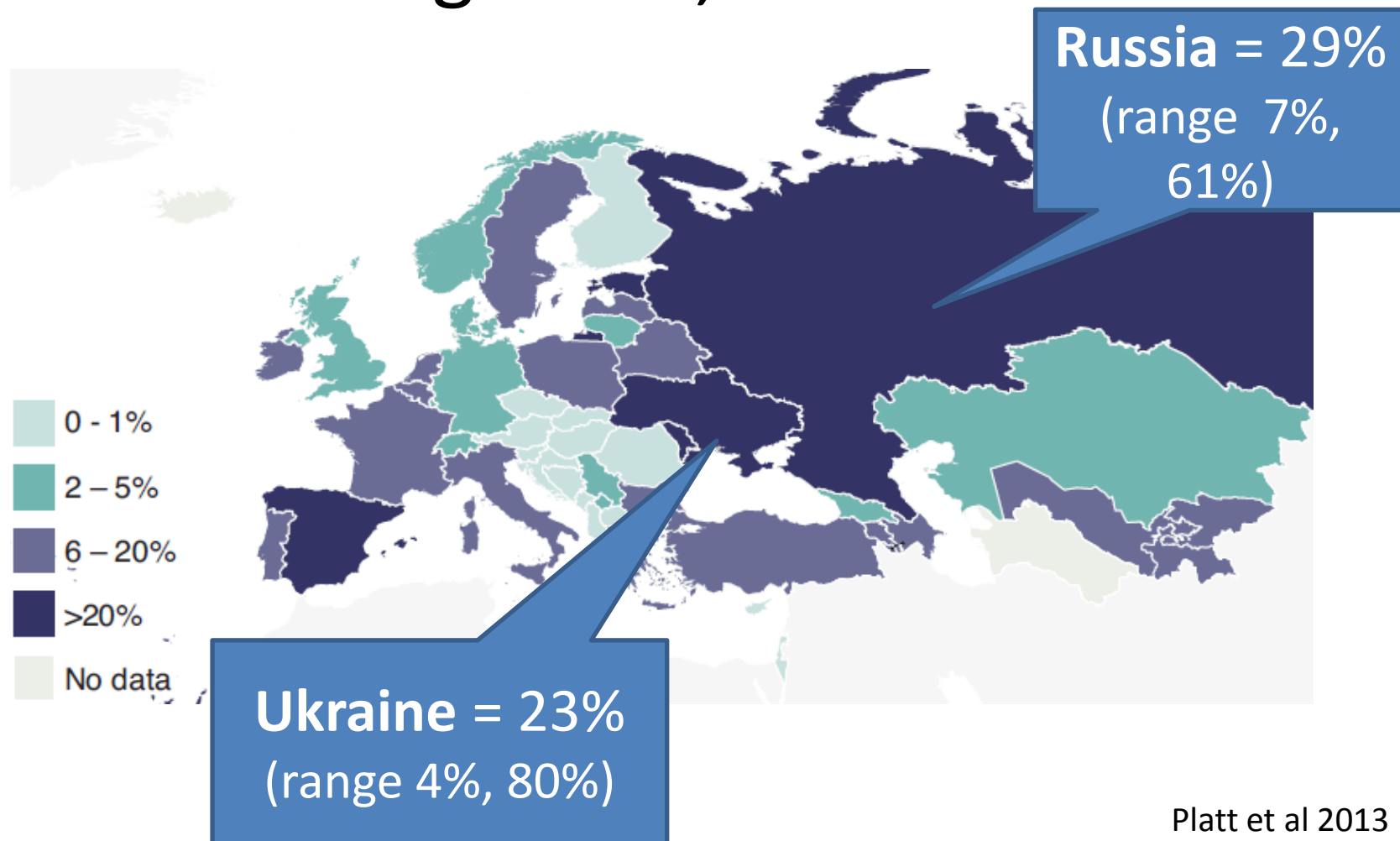
HIV prevalence among IDUs, 2006-10



Platt et al 2013

“Best estimates” HIV prevalence among PWID, 2006-10

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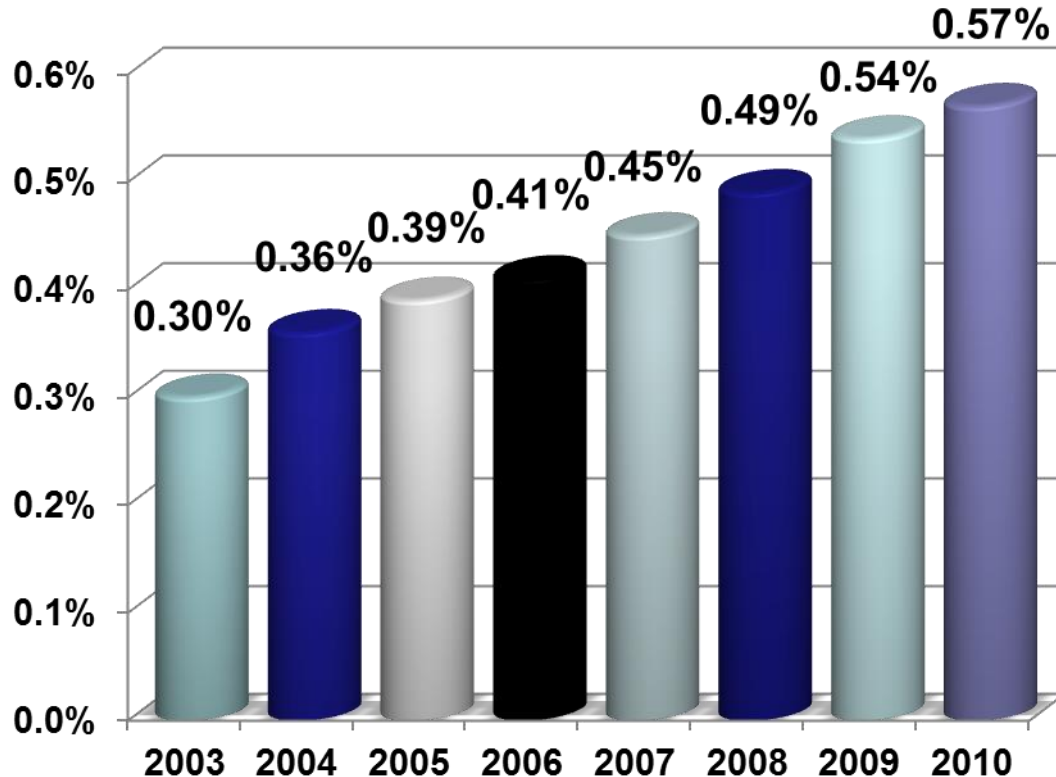


Platt et al 2013



HIV among pregnant women

Russia



- 8 regions have prevalence >1%
- ~11,000 women with HIV delivering each year

Data courtesy of Inga Latysheva

Ukraine

- Antenatal HIV prevalence ~0.5% ; 3% in some regions
- ~4,000 women with HIV delivering annually



Thank you!

- Anastasia Pharris- ECDC
- Claire Thorne- UCL
- Martin Donoghe- WHO

