Il rischio legato alle Malattie Infettive: tra paura e realtà

Roberto Luzzati
SC Malattie Infettive, Ospedale Maggiore
Azienda Ospedaliero-Universitaria di Trieste

The NEW ENGLAND JOURNAL of MEDICINE

200 NEJM ANNIVERSARY ARTICLE

The Perpetual Challenge of Infectious Diseases

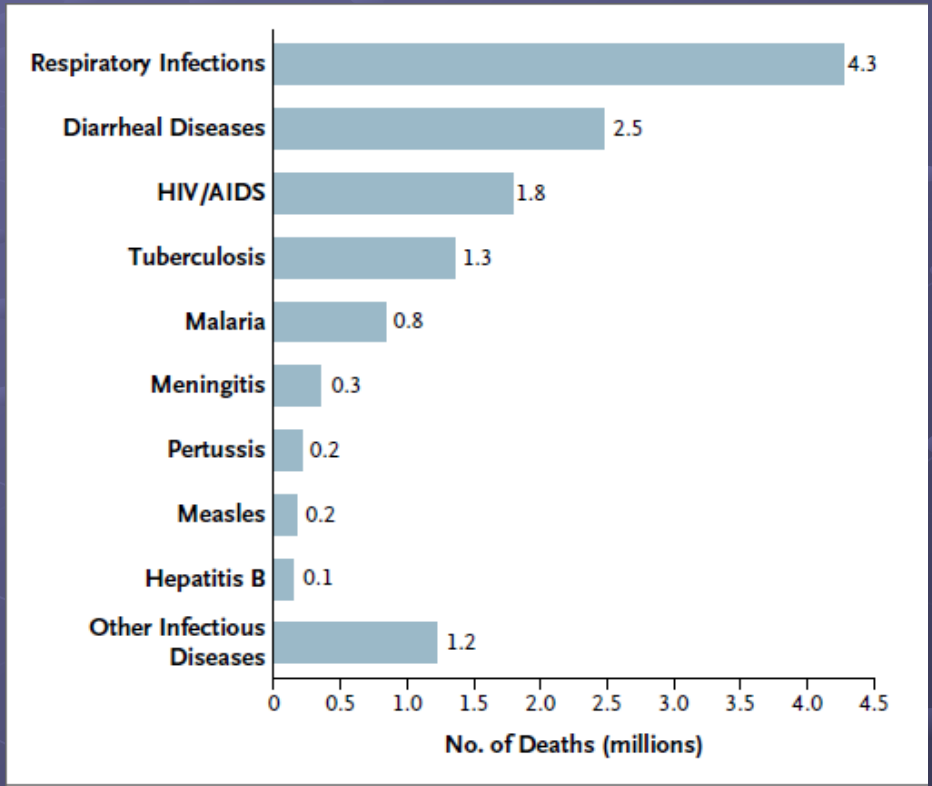


Figure 1. Leading Causes of Global Deaths from Infectious Diseases.

Of an estimated 58.8 million annual deaths worldwide, approximately 15.0 million (25.5%) are believed to be caused by infectious diseases. Cause-specific mortality estimates are provided by the World Health Organization.[43,44] The data do not include deaths from secondary infectious causes, such as rheumatic fever and rheumatic heart disease, liver cancer and cirrhosis, or other chronic diseases.

Fauci A, NEJM 2012

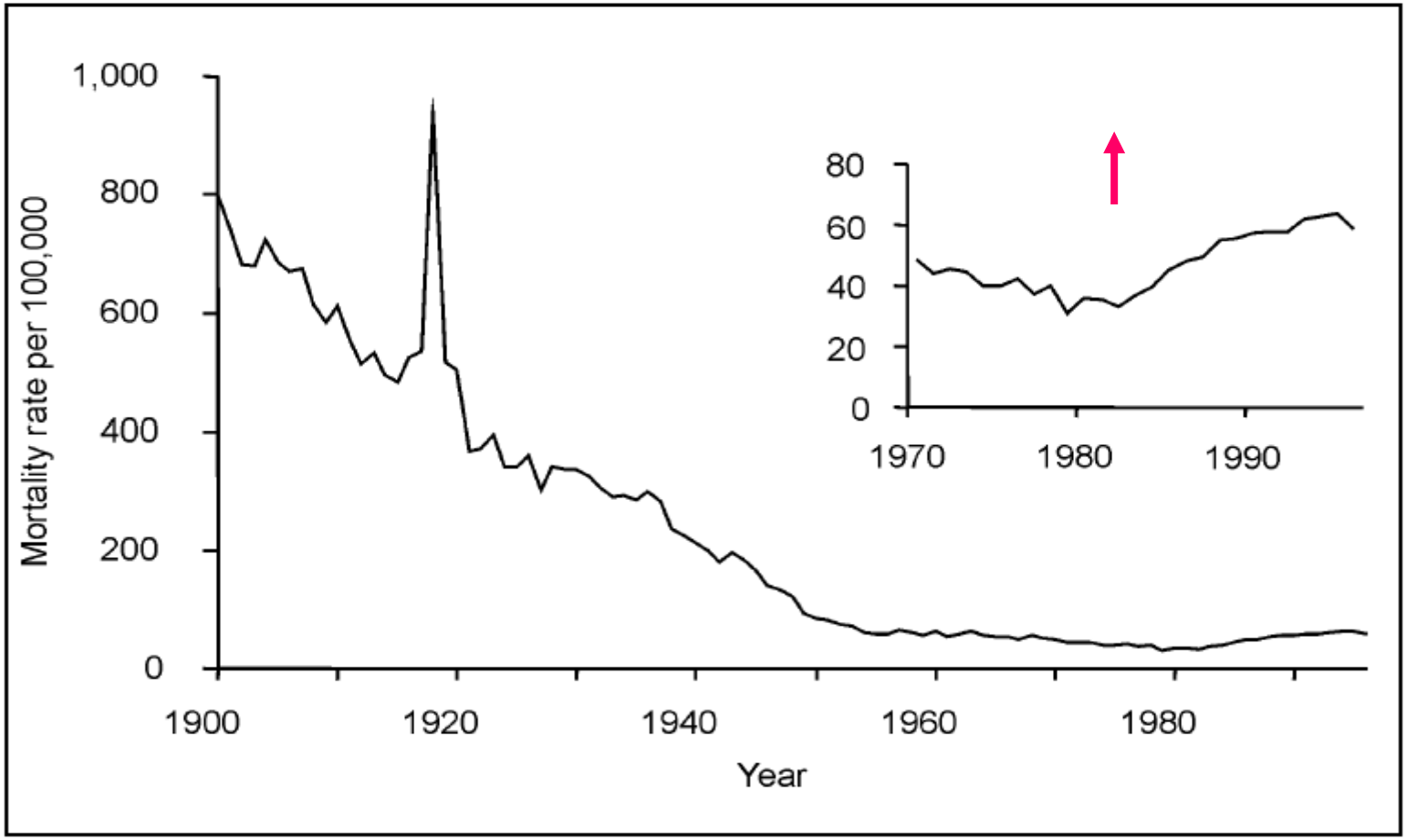
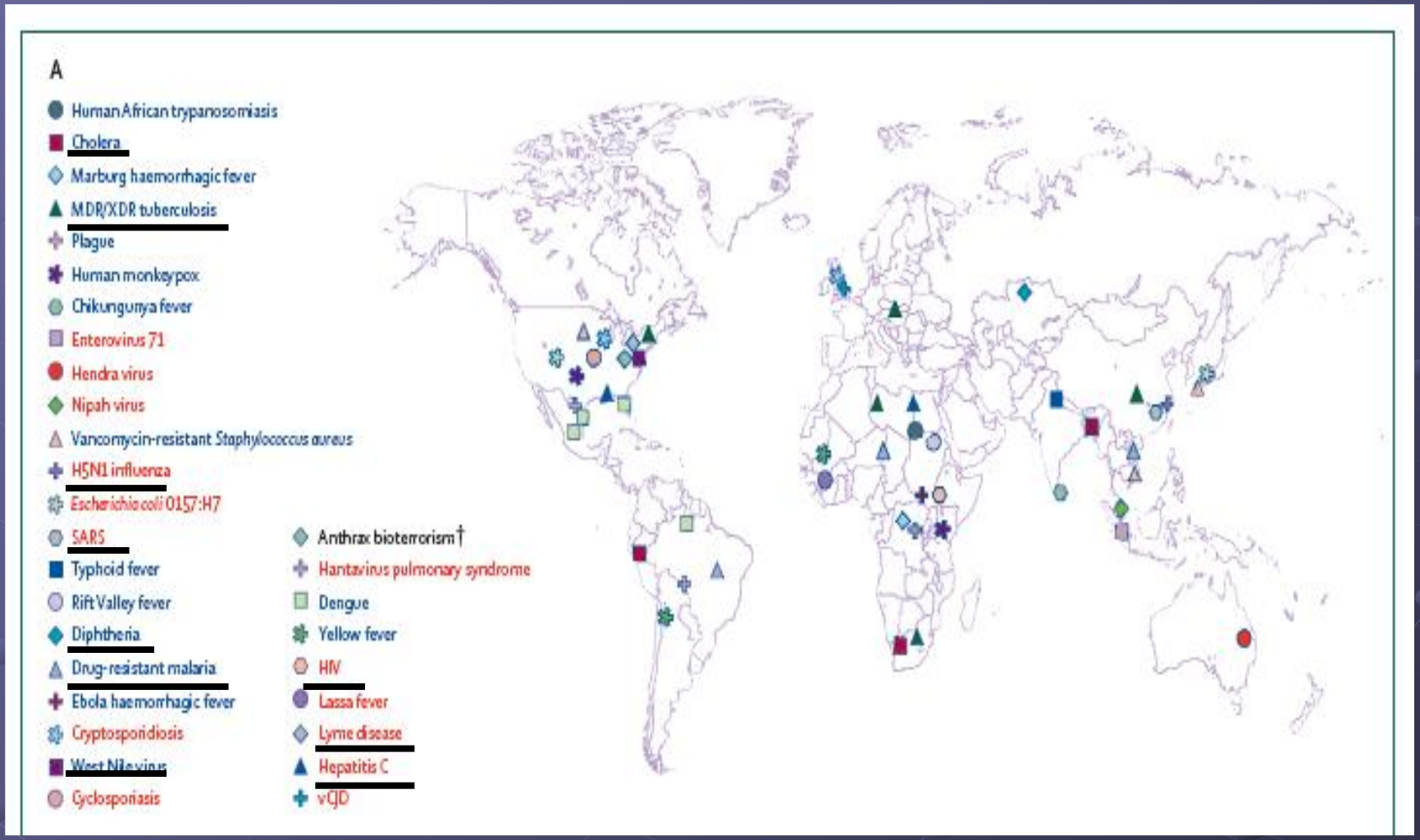


Figure 1. Trends in Infectious Diseases Mortality, 1900-1996. Deaths resulting from infectious diseases decreased markedly in the United States during most of the 20th century. However, between 1980 and 1992, the death rate from infectious diseases increased 58%. The sharp increase in infectious disease deaths in 1918 and 1919 was caused by an influenza pandemic, which killed more than 20 million people.

Patologie emergenti, ri-emergenti o deliberatamente emergenti negli ultimi 30 anni (1977-2007) nel mondo (Lancet ID, 2008)



'Evoluzione' delle Malattie Infettive

- **malattie scomparse o in via di estinzione**: vaiolo, SARS, poliomielite (….?)
- **malattie ri-emergenti :** tubercolosi, difterite, enteriti ed tossinfezioni alimentari, colera, peste, etc
- **malattie 'nuove':** HIV/AIDS, morbo di Lyme, legionellosi, alcune infezioni tropicali/subtropibcali (encefalite west-Nile, malattia di Chikungunja, febbri emorragiche ed Ebola), infezioni del paziente 'fragile' , infezioni associate all'assistenza sanitaria

PATOLOGIA DA AGENTI MICROBICI

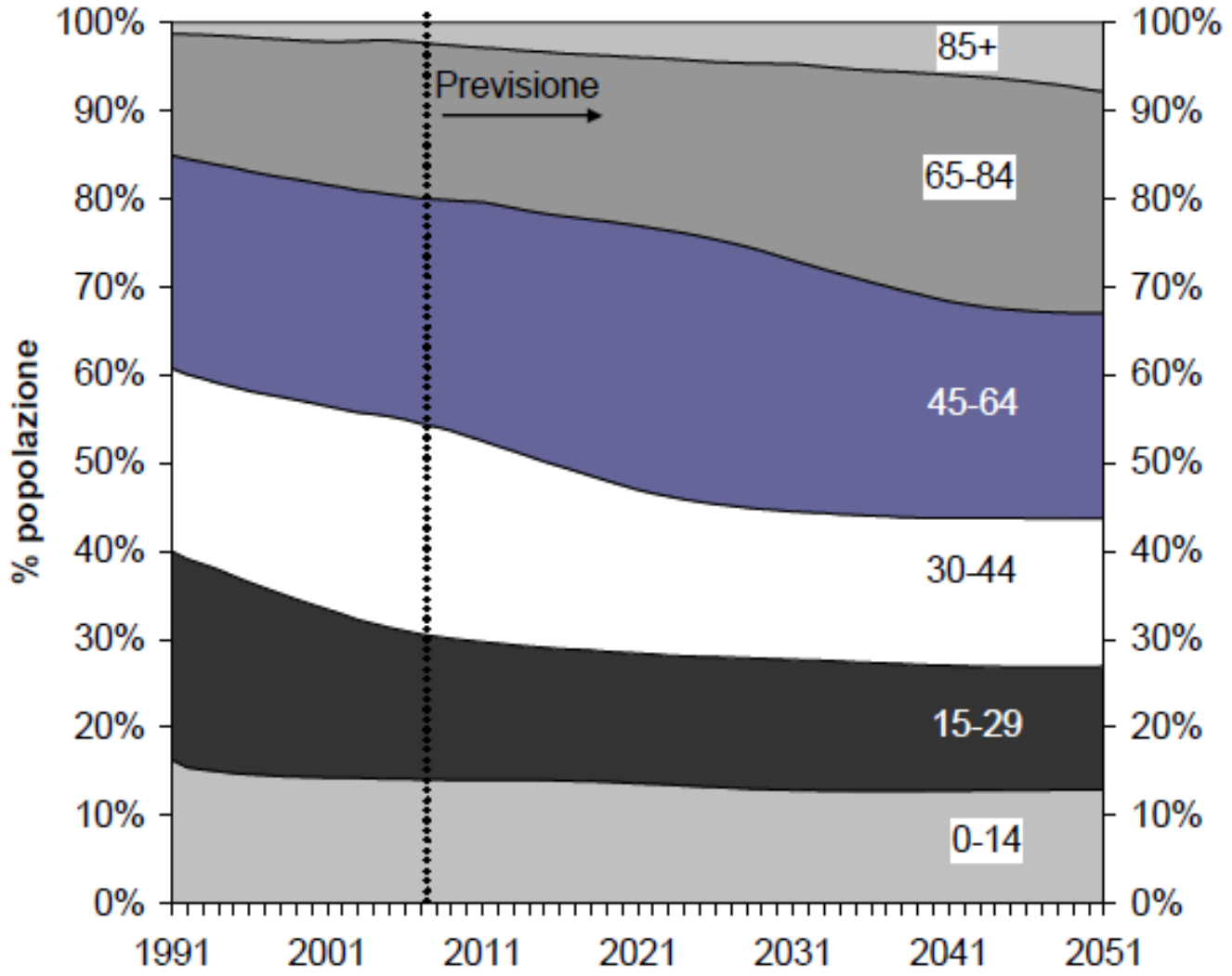
Malattie Infettive emergenti oppure ri-emergenti: WHY ?

- Variazioni dell'eco-sistema →
  nuove aree endemiche (es. m.Lyme)
- Maggiori contatti con alcuni animali (es. salmonellosi, toxoplasmosi, ebola, etc)
- Variazioni demografiche (es. anziani 'fragili') e delle abitudini di vita/sessuali (es HIV)
- Aumento della povertà /diseguaglianze sociali/carestie/guerre (es.TBC)
- Diffusione dei viaggi aerei (es SARS)
- Aumento dell'antibiotico-resistenza

SENECTUS IPSA EST MORBUS

Figura 3 – Popolazione per classi di età, Italia 1991-2051,

Scenario centrale, dati al 1° gennaio, valori percentuali



DATI ISTAT

Increasing Hospital Admissions for Pneumonia, England

Caroline L. Trotter,* James M. Stuart,† Robert George,‡ and Elizabeth Miller‡

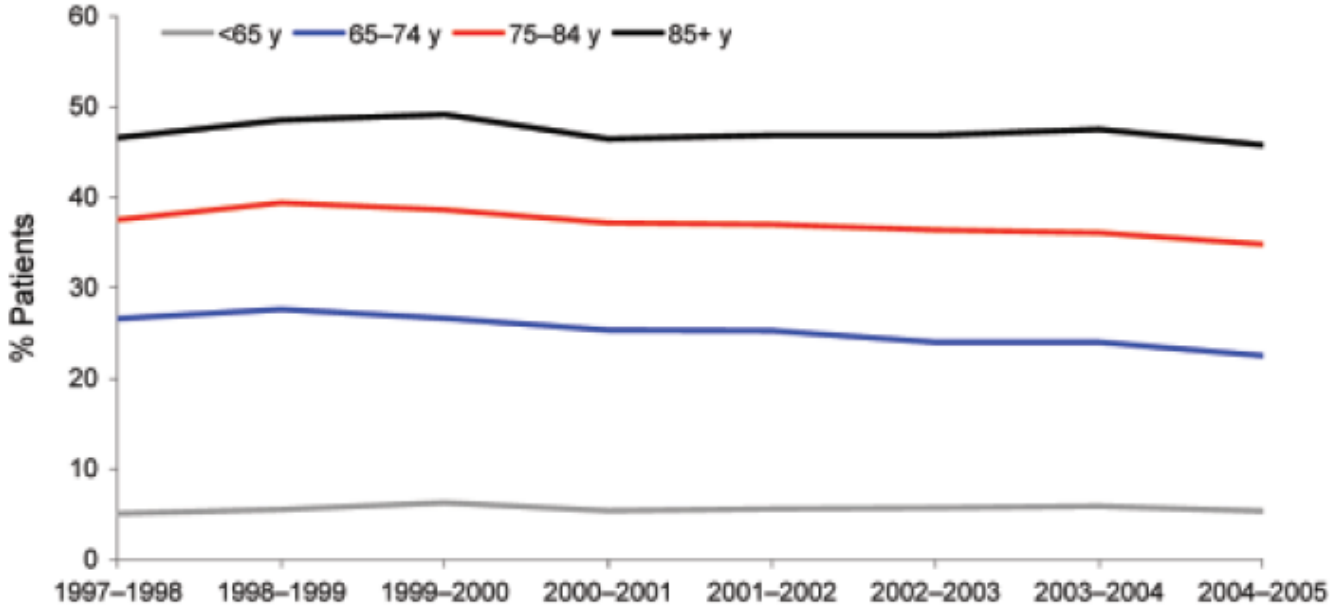


Figure 3. Percentage of patients admitted with a primary diagnosis of pneumonia who died in hospital with pneumonia within 30 days of their first pneumonia admission, by Hospital Episode Statistics year (April to March).

Emerg Infect Dis 2008


Roller Skate Rental
SNACKS
DRINKS
HOT DOGS $1
POPCORN $1
SNO CONE $1

Malattia infettiva ‘classica’: microrganismo (patogeno, invasivo, ecc) / macrorganismo ‘normale’

Malattia infettiva §: microrganismo della flora endogena o ambientale / macrorganismo ‘compromesso’

§ malattia infettiva da microrganismi a ‘patogenicità condizionata’ (opportunisti)

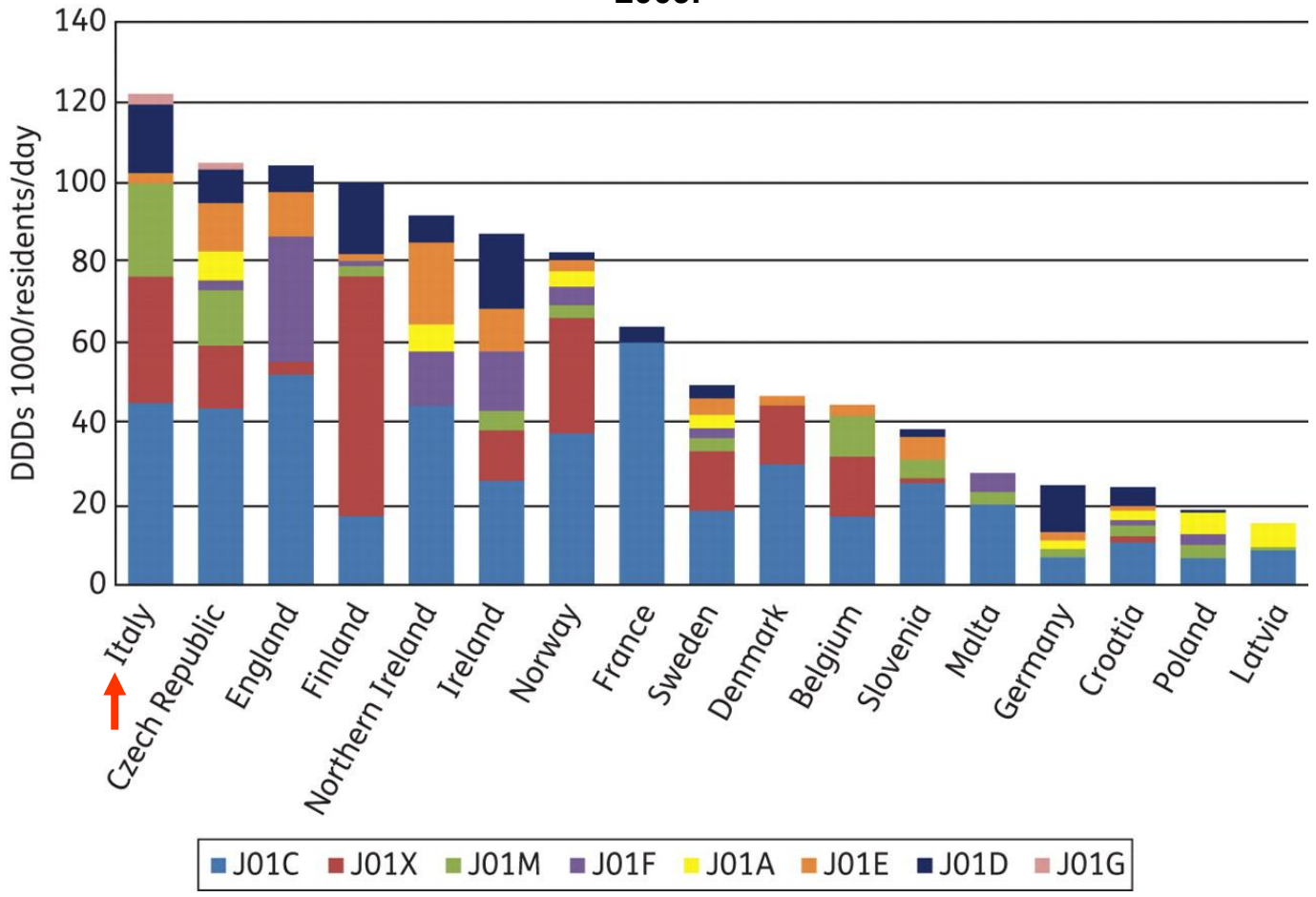
Figure 1. Posters from nationwide educational campaigns against misuse of antimicrobial drugs.

MICROBES VERSUS HUMANS

Variable	MICROBES	HUMANS	Factor
Number on earth	5×10^{31}	6×10^{9}	$\sim 10^{22}$
Mass. metric tons (biomass)	5×10^{16}	3×10^{8}	$\sim 10^{8}$
Generation time (genetic plasticity)	30 min	30 years	$\sim 5 \times 10^{5}$
Time on earth, years	3.5×10^{9}	4×10^{6}	$\sim 10^{3}$

Schaechter M, ASM 2004

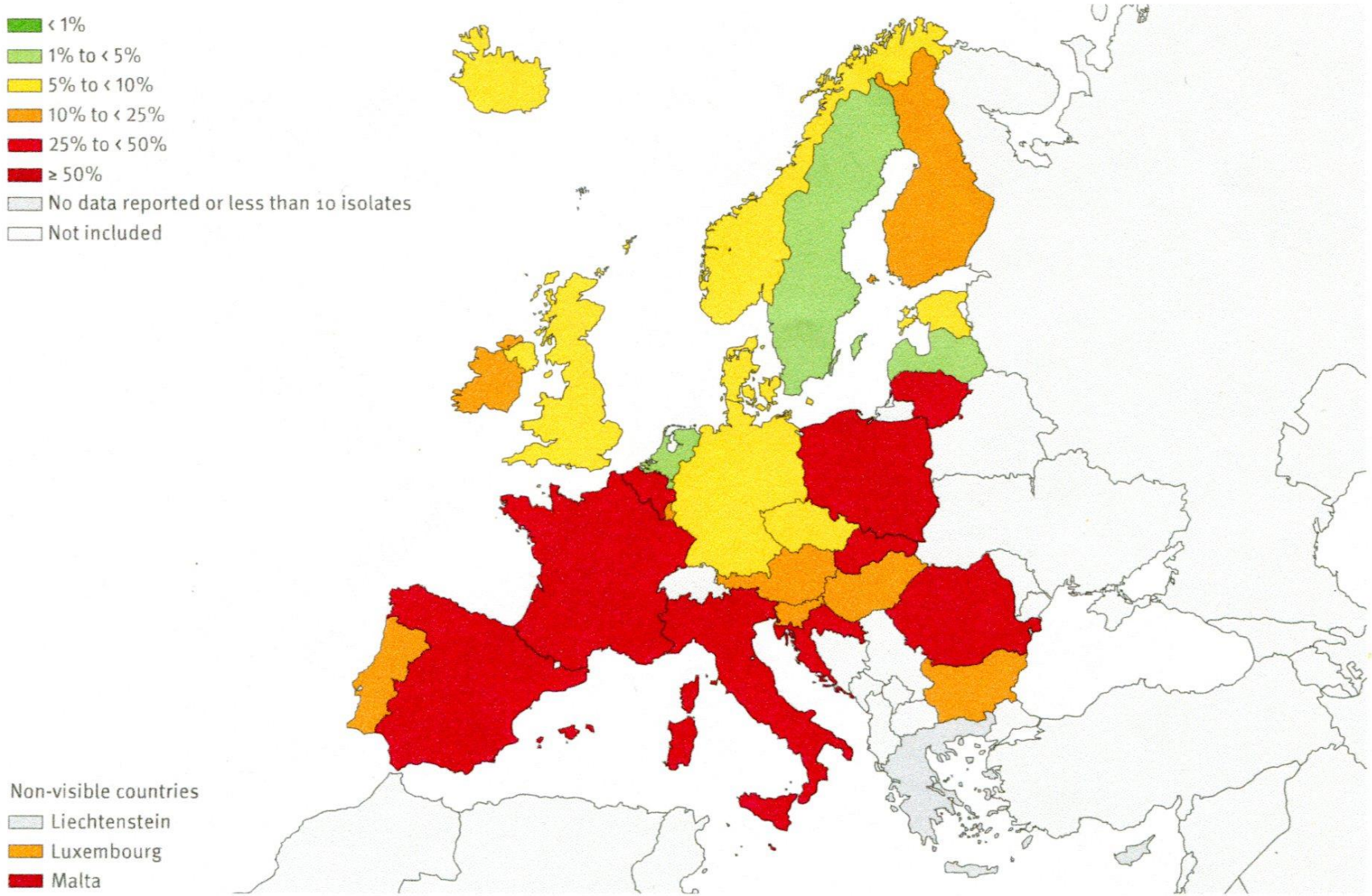
Patterns of prescribing of antimicrobials for systemic use (J01 class) in the selected sample of European nursing homes according to country in DDDs/1000 residents/day in November 2009.



McClean P et al. J. Antimicrob. Chemother. 2011;66:1609-1616

Journal of Antimicrobial Chemotherapy

Figure 3.37. ***Streptococcus pneumoniae*****. Percentage (%) of invasive isolates non-susceptible to macrolides by country, EU/EEA countries, 2012**



ECDC .Europa.2012

ISTITUTO SUPERIORE DI SANITÀ

Agenzia Italiana del Farmaco
AIFA

Ministero del Lavoro
della Salute e delle Politiche Sociali

NON RENDERLI INEFFICACI:

- NON USARLI IN CASO DI RAFFREDDORE O INFLUENZA
- ASSUMILI SOLO DIETRO PRESCRIZIONE MEDICA
- PRENDILI NELLE DOSI E NEI TEMPI INDICATI DAL MEDICO

WWW.ANTIBIOTICORESPONSABILE.IT

NUMERO VERDE AIFA
800-571661

TUBERCOLOSI NEL MONDO (WHO, 2013)

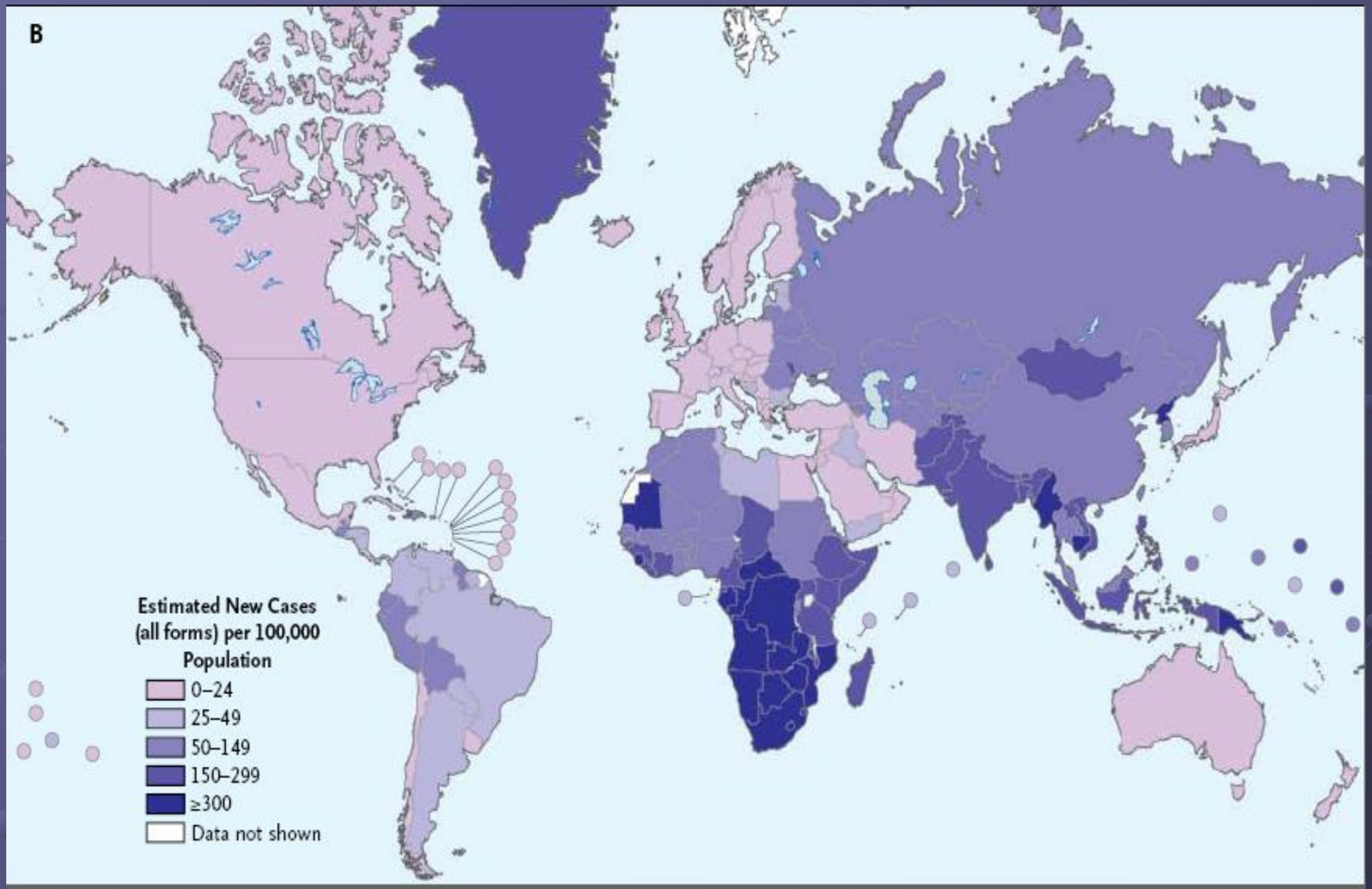
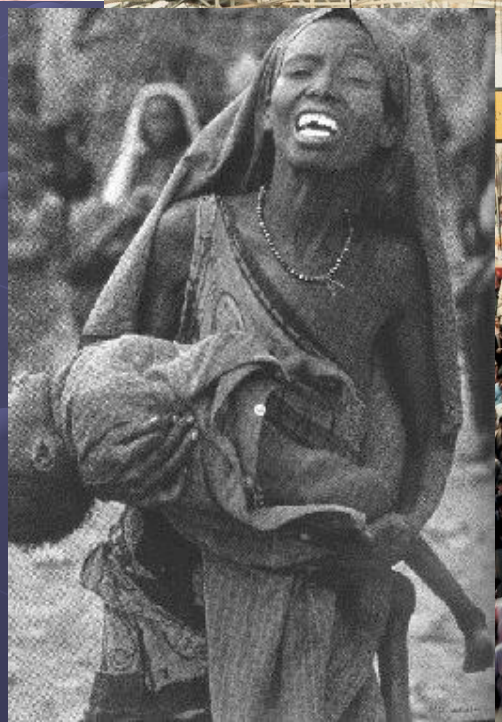


Figure 1. Global Incidence of Tuberculosis.

HIV
Povertà
Guerre
Rifugiati
Affollamento
Immigrazione
Prigione



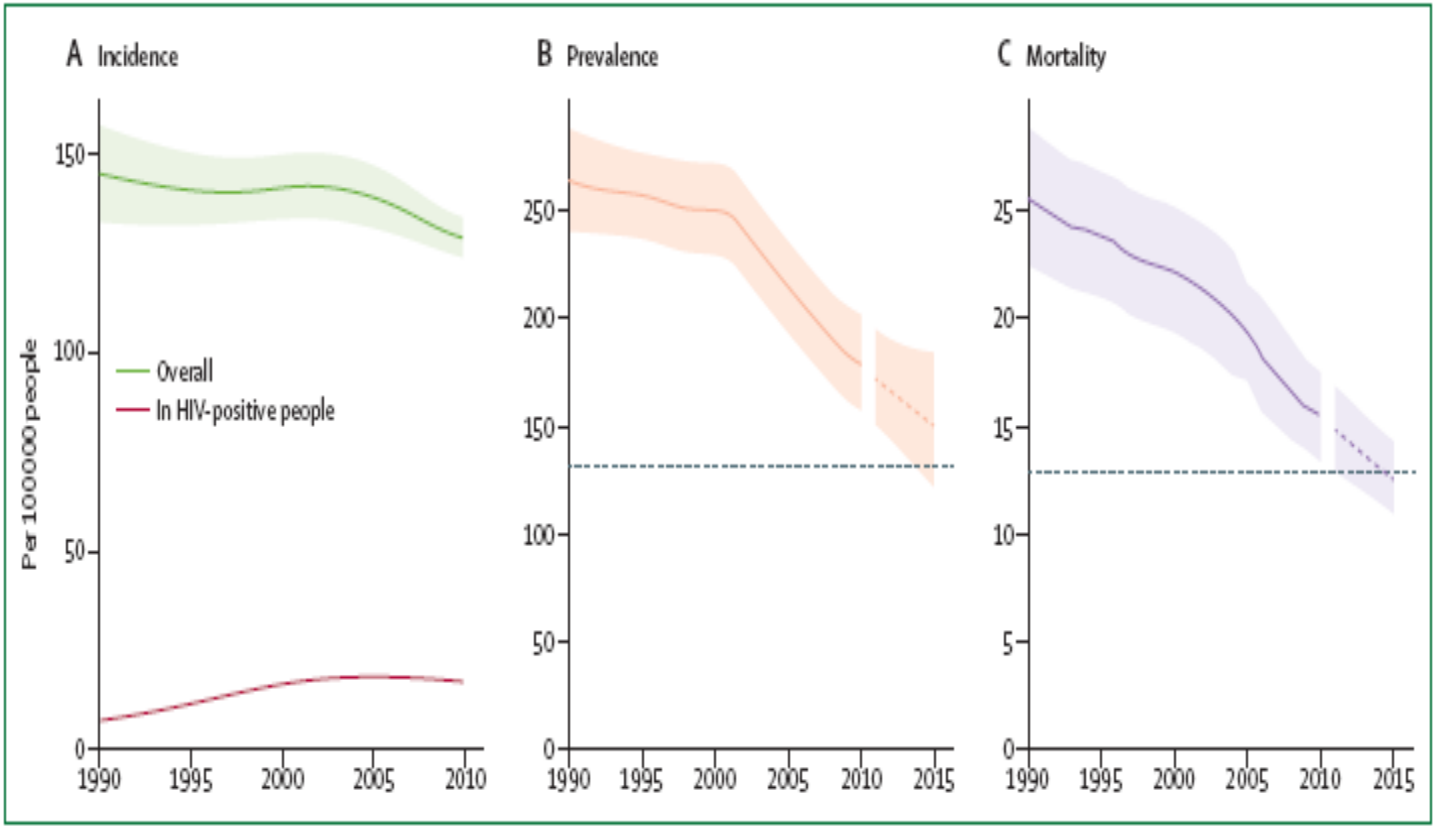
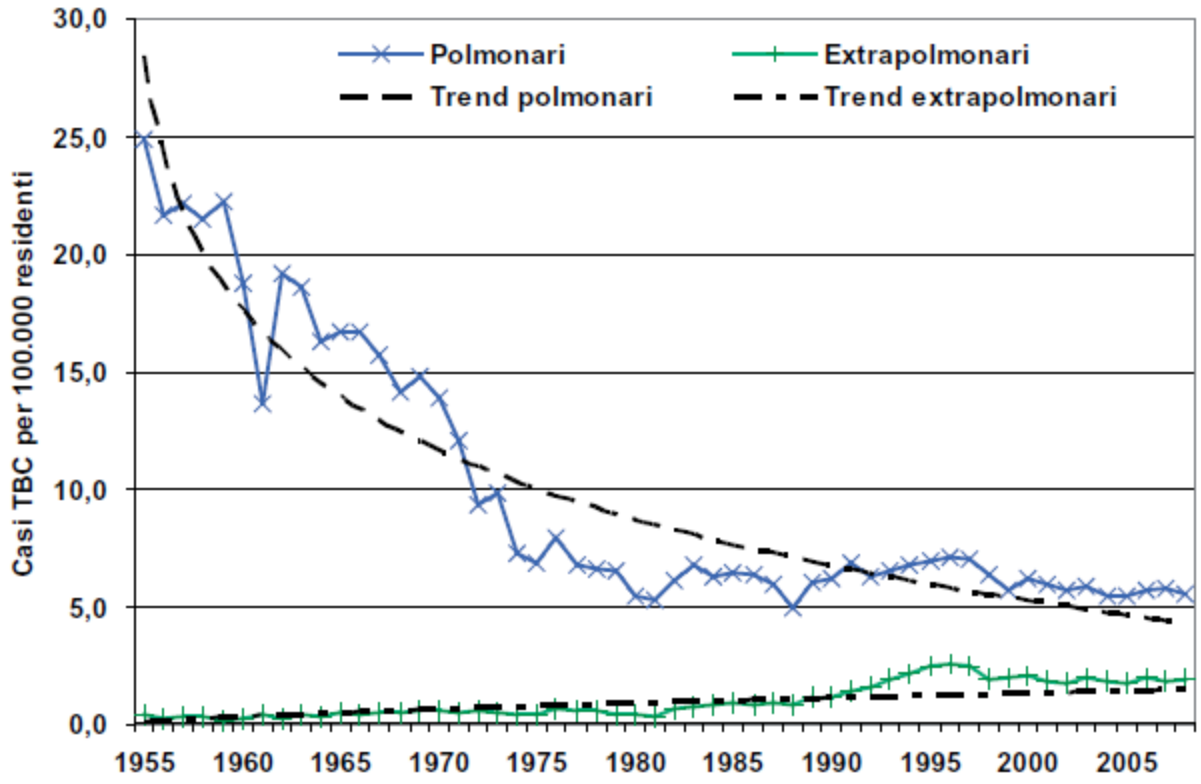


Figure 3: Global trends in estimated rates of tuberculosis incidence, prevalence and mortality

(A) shows global trends in estimated incidence of tuberculosis. (B) shows global trends in estimated tuberculosis prevalence (1990–2010) and forecast prevalence (2011–15). (C) shows mortality (1990–2010) and forecast mortality (2011–15). The dashed line is the Stop TB Partnership target of a 50% reduction in prevalence and mortality by 2015, compared with 1990. Shaded areas are uncertainty bands. Mortality excludes tuberculosis deaths in HIV-positive people.

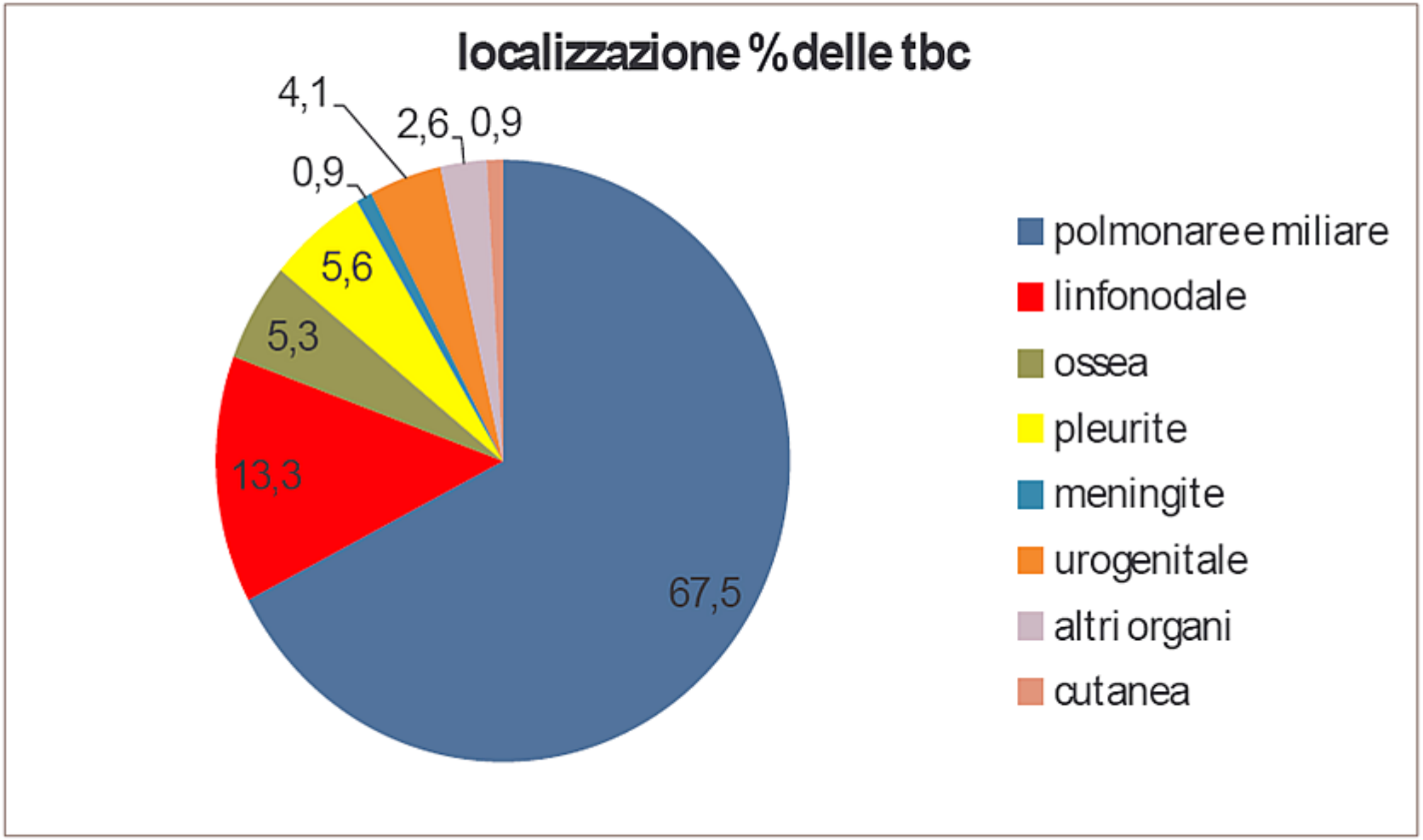
Raviglione M et al, Lancet 2012

Figura 2.3. Tassi grezzi di incidenza di TBC polmonare ed extrapolmonare dal 1955 al 2008



FONTE: Ministero della salute - Direzione generale della prevenzione sanitaria, Ufficio V Malattie infettive e profilassi internazionale

Casi di tubercolosi in FVG periodo 2008-2011 suddivisi per localizzazione in % totale casi : 339 (autoctoni: 165; immigrati: 174)



Dr. Aloyce Mshana examines a child with HIV oral candidiasis and impetigo

Zeeman B. N Engl J Med 2006;355:2276-2277

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Adults and children estimated to be living with HIV | 2013

Total: 35.0 million [33.2 million – 37.2 million]

Source: UNAIDS

UNAIDS

Global estimates for adults and children | 2013

People living with HIV	35.0 million [33.2 million – 37.2 million]
New HIV infections in 2013	2.1 million [1.9 million – 2.4 million]
Deaths due to AIDS in 2013	1.5 million [1.4 million – 1.7 million]

Source: UNAIDS

UNAIDS

Incidenza delle nuove diagnosi di infezioni da HIV (x 100.000 abitanti)-Italia anno 2012

FVG 4,1

Fonte: COA

Incidenza nuove diagnosi di HIV per modalità di trasmissione (n=180)

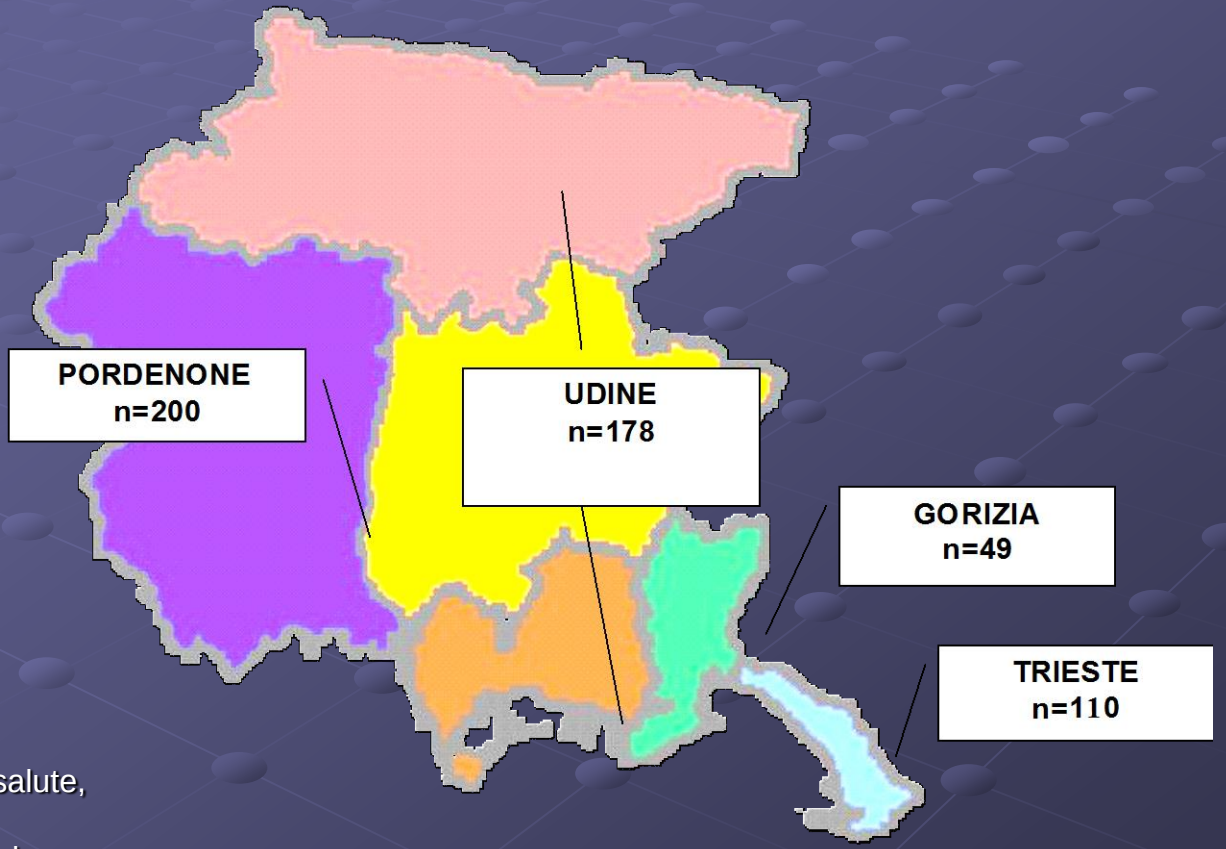
Friuli Venezia Giulia, 2010 - ottobre 2013

- 93% modalità di trasmissione sessuale
  - 57% (103) eterosessuali
  - 36% (65) MSM
  - 6% (10) non determinato
  - 1% (2) altro

- Nella popolazione straniera prevale la modalità di trasmissione eterosessuale (84%)
- Nella popolazione italiana modalità di trasmissione MSM 58%, eterosessuale 41%

Numero dei casi di AIDS dall'inizio dell'epidemia, per provincia di residenza

Friuli Venezia Giulia dati al 31.12. 2012



Direzione centrale salute, integrazione sociosanitaria,politiche sociali e famiglia
Area prevenzione e promozione della salute

cortesemente da:
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ASS n.1, Trieste