

Jornada de Salut
Internacional i One Health
V EDICIÓ

Salut/Institut Català de la Salut/
Metropolitana Nord


Germans Trias i Pujol
Hospital

Riscos sanitaris i cribratge en nens i nenes immigrants

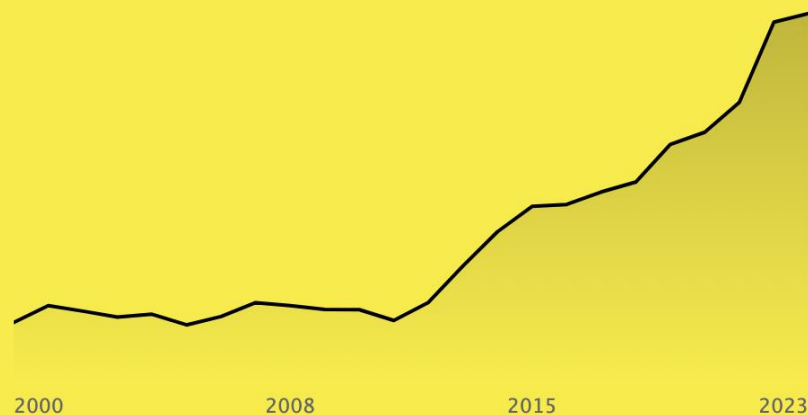
Clara Carreras Abad
Unitat de Salut Internacional
Servei de Pediatria



110 MILLION

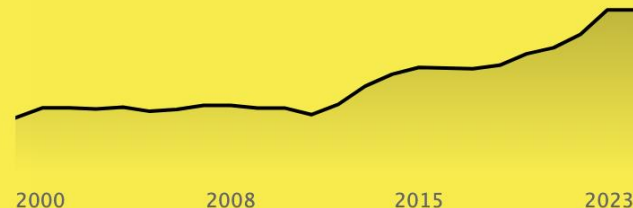
Forcibly displaced people worldwide

at mid-2023 as a result of persecution, conflict, violence, human rights violations or events seriously disturbing public order.



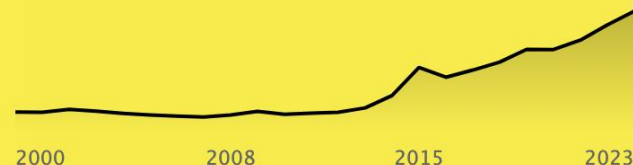
62.5 MILLION

are internally displaced people (Source: IDMC, as of end-2022)



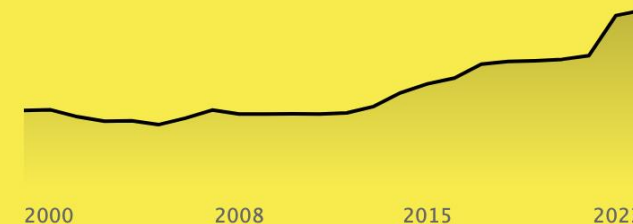
6.1 MILLION

are asylum-seekers



36.4 MILLION

are refugees



5.3 MILLION

are other people in need of international protection

43.3 million

are children

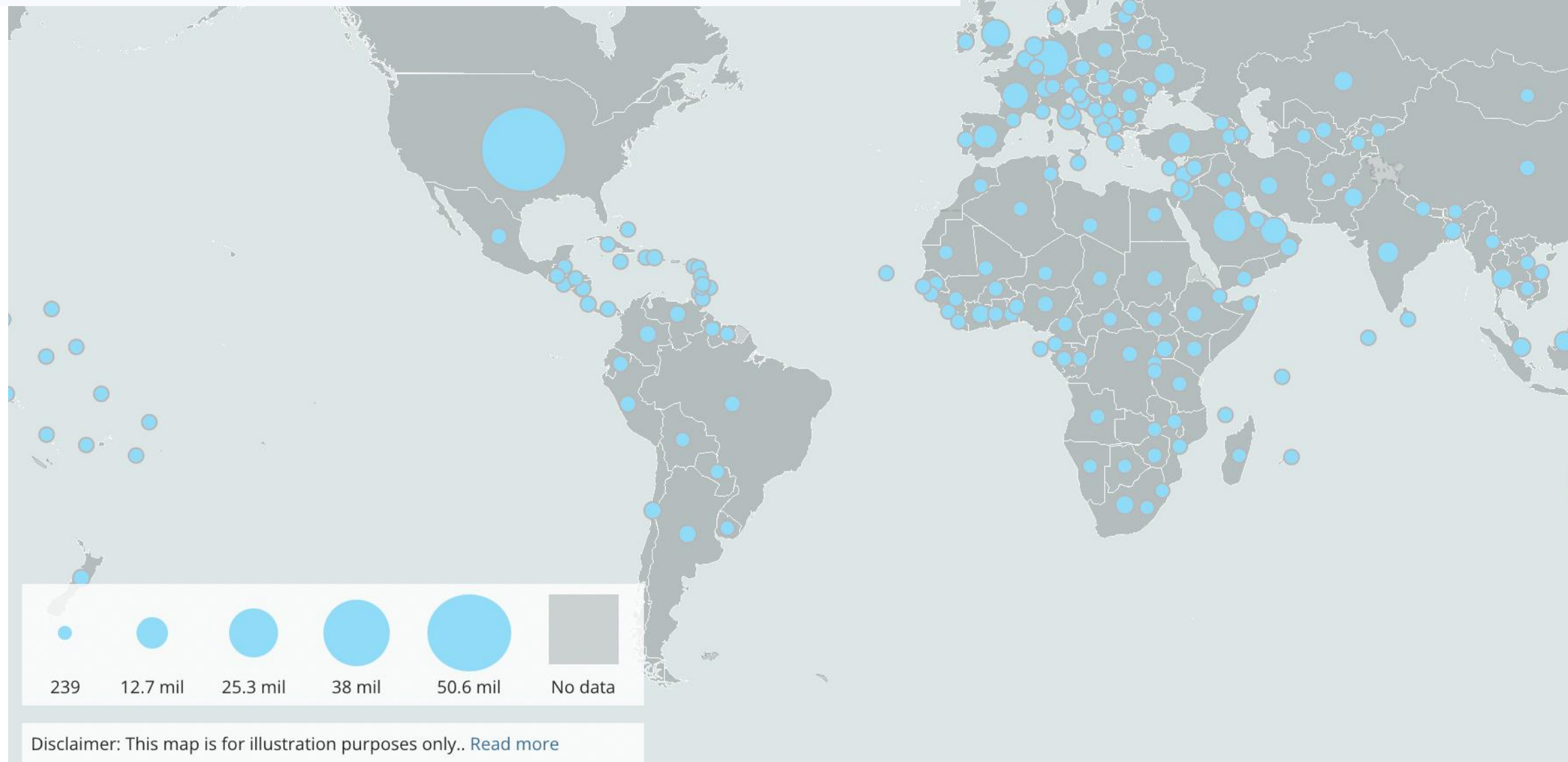
At the end of 2022, of the 108.4 million forcibly displaced people, an estimated 43.3 million (40 per cent) are children below 18 years of age.

1.9 million

children were born as refugees

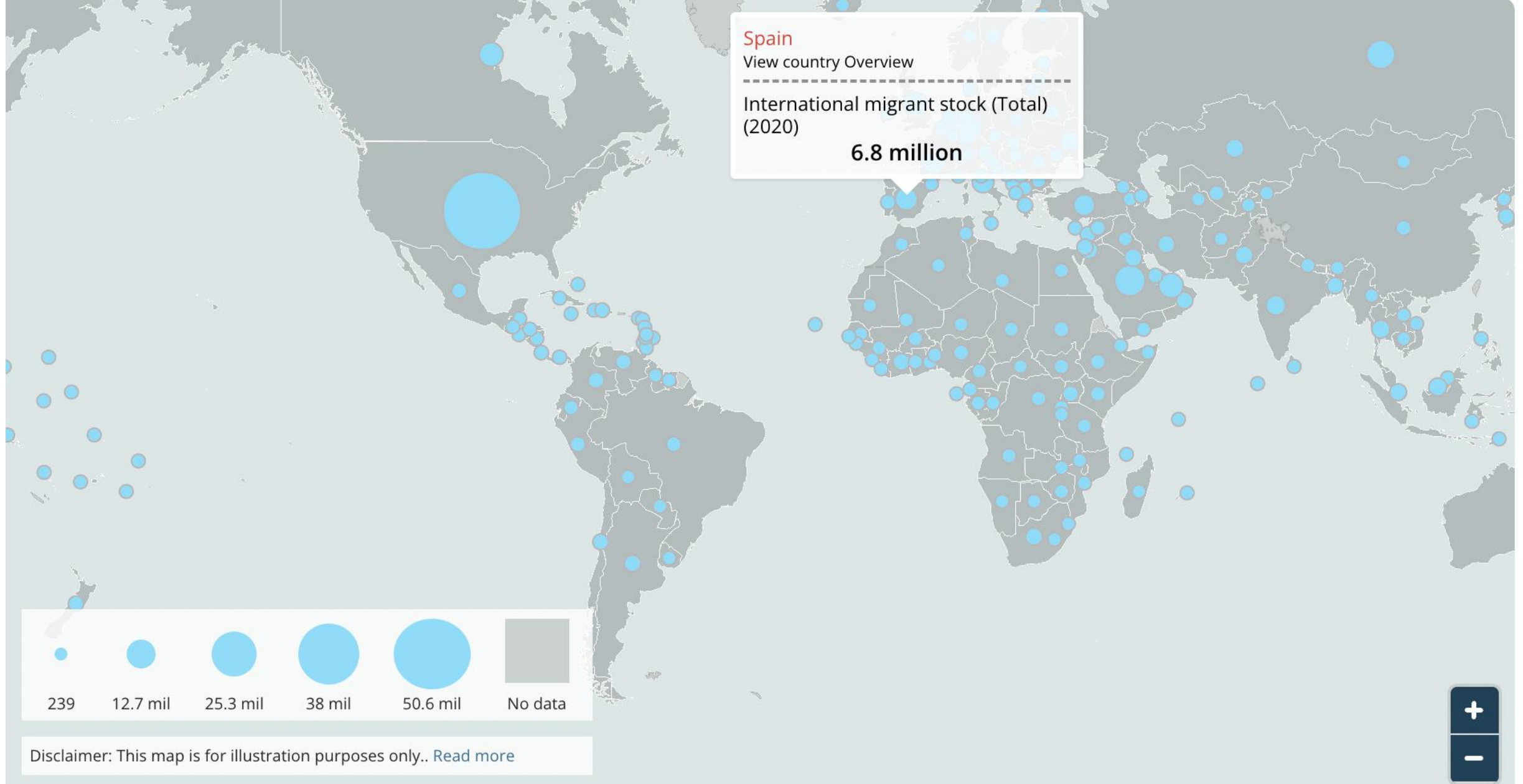
Between 2018 and 2022, an average of 385,000 children were born as refugees per year.

Total number of international migrants at mid-year 2020

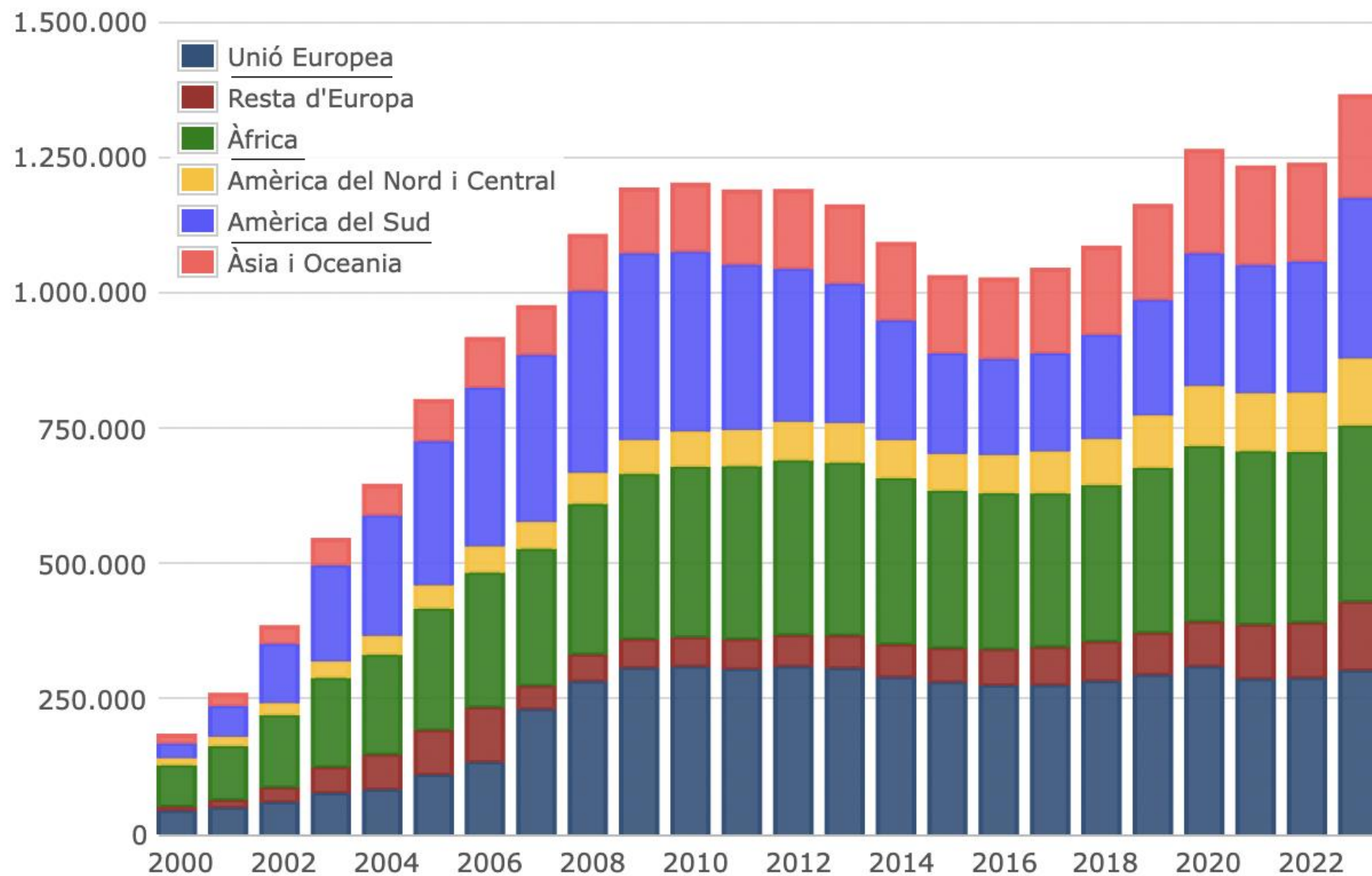


Source: UN DESA, 2020

Latest data upload on 20 January 2021



Població estrangera. Per nacionalitats. Catalunya. 2000-2023



Font: Idescat, a partir del Cens de població anual de l'INE.

Població estrangera a 1 de gener. Per països. 2023
Catalunya

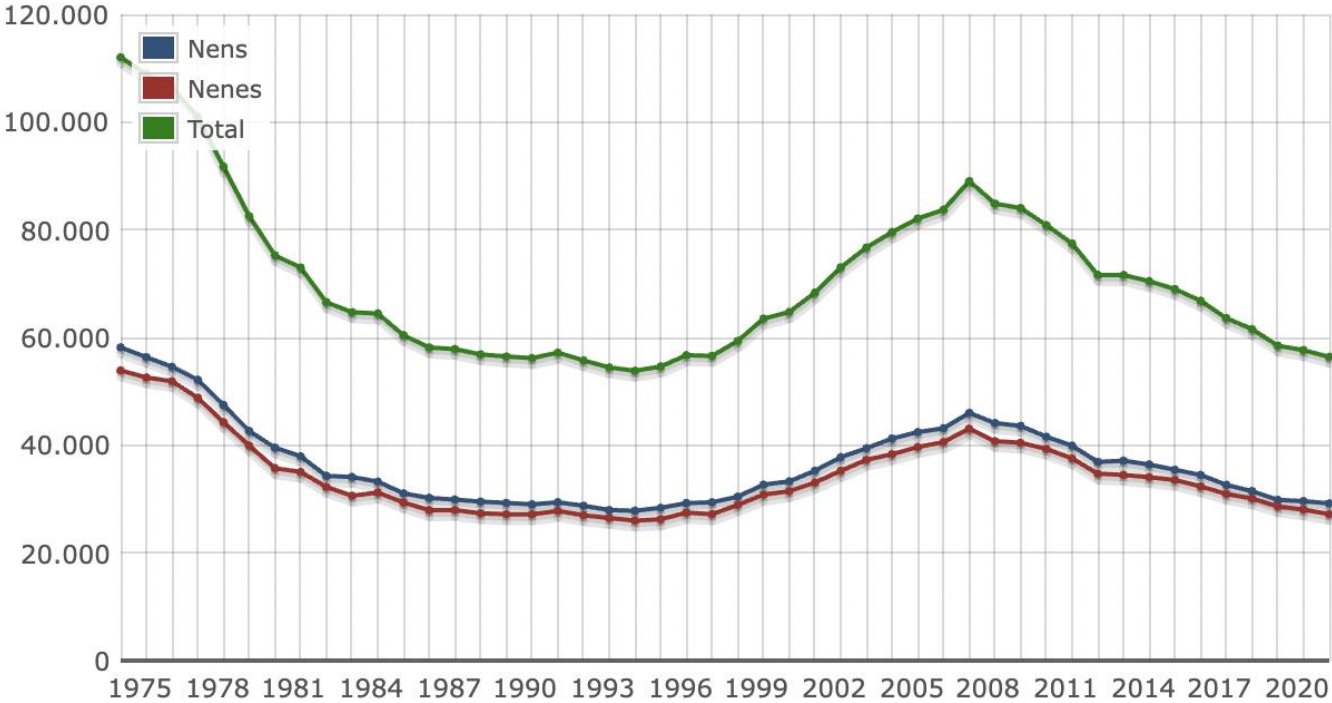
	Homes	Dones	Població del país	% respecte el total de la població estrangera
Marroc, el →	133.024	101.030	234.054	17,18
Romania →	42.386	44.365	86.751	6,37
Itàlia →	43.546	37.262	80.808	5,93
Colòmbia →	35.199	41.208	76.407	5,61
Xina →	30.321	31.543	61.864	4,54
Hondures →	20.222	39.284	59.506	4,37
Pakistan →	39.137	17.897	57.034	4,19
Perú →	18.448	22.387	40.835	3,00
Ucraïna →	16.116	24.499	40.615	2,98
Veneçuela →	17.719	22.400	40.119	2,95
França →	19.597	18.704	38.301	2,81
Argentina →	15.552	16.932	32.484	2,39
Rússia →	10.993	18.354	29.347	2,15
Índia →	17.910	11.153	29.063	2,13
Senegal →	19.563	6.275	25.838	1,90
Equador →	12.641	11.116	23.757	1,74
Regne Unit →	13.034	10.257	23.291	1,71
Brasil →	9.425	13.230	22.655	 gencat Institut d'Estadística de Catalunya
Bolívia →	10.625	11.817	22.442	

Nascuts vius de mare estrangera segons el sexe i la nacionalitat de la mare

Cataluña

2022

Nascuts vius segons el sexe. Catalunya. 1975-2022

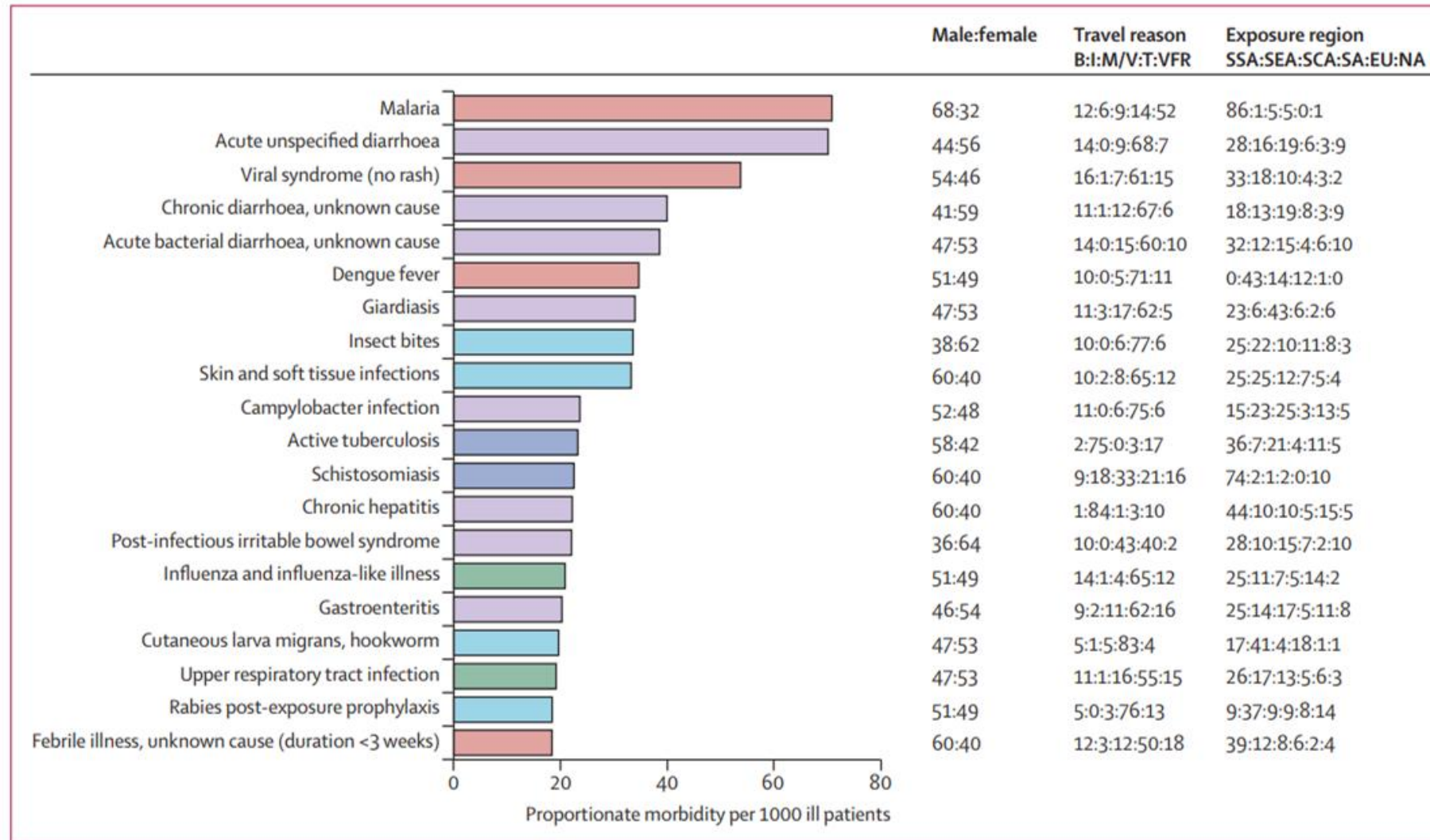


Regió	N per regió	N per país
Àfrica	6347	Marroc 4936
		Senegal. 388
		Gàmbia 220
		...
Amèrica del Sud	3409	Colòmbia. 803
		Perú 520
		Veneçuela. 421
		...
Total		18423 (33%)

Factors de risc per adquirir malalties infeccioses

- Prevalença més alta d'algunes infeccions en països de baixa renda.
- Condicions de vida en el país d'acollida (habitatge inadequat,...)
- Dificultats per accedir al sistema sanitari (barrera lingüística, cultural...)
- Falta de protocols estandaritzats de cribratge de patologia importada.
- Malnutrició, especialment important en etapa de creixement.
- Viatges “VFR” als països d'origen o dels pares per visitar familiars (sistema immune immadur, no semiimmunitat per infeccions locals,...)

Urgències a la tornada d'un viatge internacional



Schlagenhauf et al. Travel-associated infection presenting in Europe (2008–12): an analysis of EuroTravNet longitudinal, surveillance data, and evaluation of the effect of the pre-travel consultation *Lancet Infect Dis* 2014.

Urgències a la tornada d'un viatge internacional

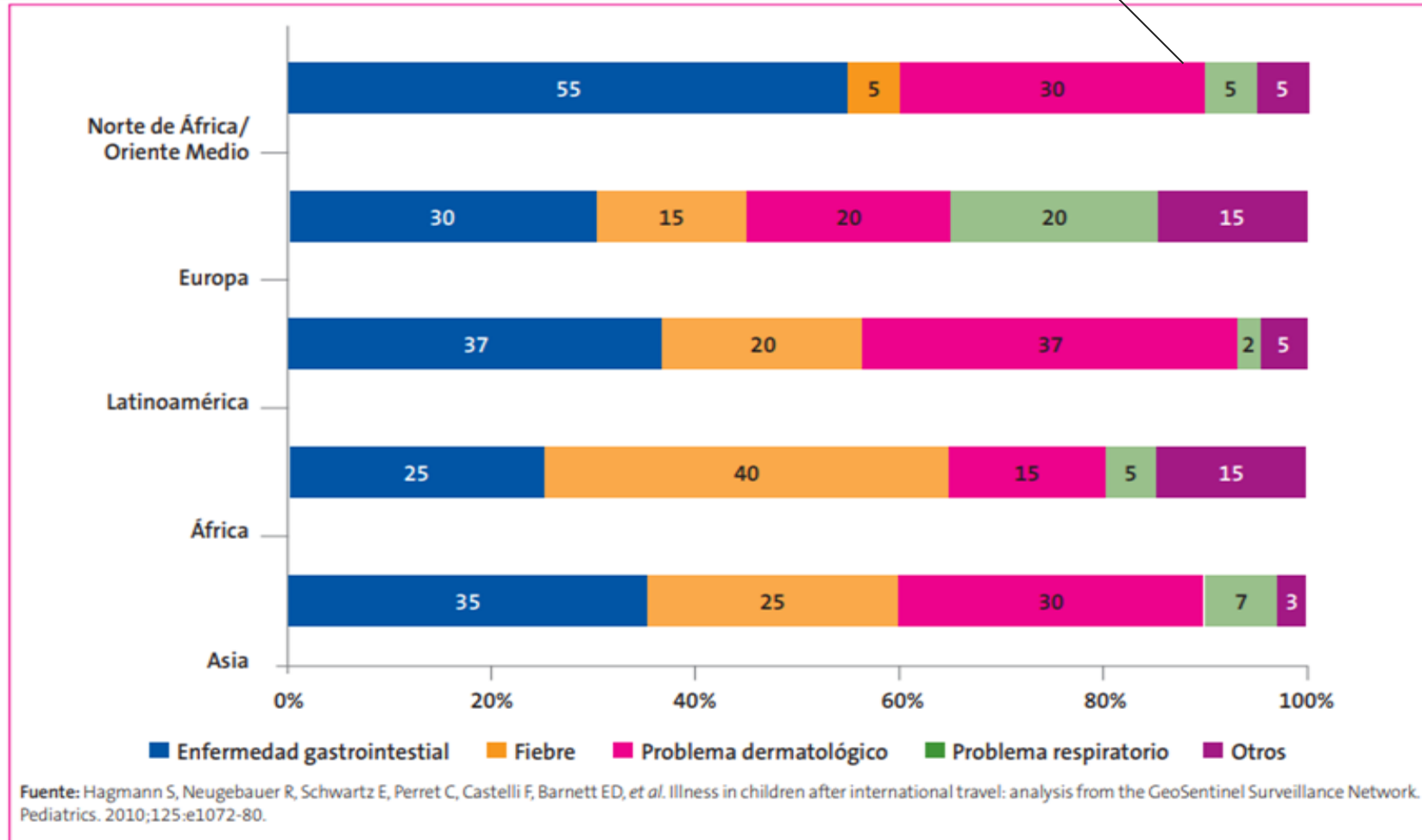


Figura 1. Principales grupos sindrómicos en niños según la región de origen.

Diagnòstic diferencial Sd. febril

Tabla 2. Causas más frecuentes de fiebre según la región de destino

Región	Enfermedad
África Subsahariana	Malaria (generalmente <i>P. falciparum</i>) Rickettsiosis Esquistosomiasis
Asia	Dengue Fiebre entérica Malaria (generalmente no <i>falciparum</i>)
Latinoamérica	Dengue Malaria (especialmente por <i>P. vivax</i>)

Tabla 3. Orientación diagnóstica en función de los síntomas acompañantes de la fiebre

Síntoma acompañante	Posibles diagnósticos
Fiebre + exantema	Dengue, chikunguña, rickettsiosis, fiebre tifoidea, infección aguda VIH, sarampión
Fiebre + dolor abdominal	Fiebre tifoidea Absceso amebiano
Fiebre + hemorragia	Fiebres hemorrágicas víricas, meningococemia, leptospirosis
Fiebre + eosinofilia	Esquistosomiasis aguda, fasciola, infecciones parasitarias (raro)
Fiebre + infiltrados pulmonares	Neumonías bacterianas, legionelosis, esquistosomiasis aguda, fiebre Q, leptospirosis, tuberculosis
Fiebre + afectación estado conciencia	Malaria cerebral, meningitis vírica o bacteriana, tripanosomiasis africana, tifus, neurocisticercosis
Fiebre + ictericia	Hepatitis víricas, fiebre amarilla, fiebres hemorrágicas víricas, leptospirosis, malaria (hemolisis), fiebre recurrente, tifus
Fiebre + esplenomegalia	Síndrome mononucleósico (EB, CMV, VIH), malaria, leishmaniasis visceral, tripanosomiasis, esquistosomiasis aguda, brucelosis, fiebre tifoidea
Fiebre que persiste más de dos semanas	Malaria, fiebre tifoidea, infección por CMV o EB, toxoplasmosis, brucelosis, primoinfección VIH, esquistosomiasis aguda, fiebre Q, leishmaniasis visceral, brucelosis, tuberculosis
Fiebre + broncoespasmo	Síndrome de Löeffler, fiebre de Katayama, eosinofilia pulmonar tropical

CMV: citomegalovirus; EB: virus de Epstein-Barr; VIH: virus de la inmunodeficiencia humana.

Altres reptes



Resistències antimicrobianes

S'estima que són directament responsables d'**1.27 M de morts** en tot el món

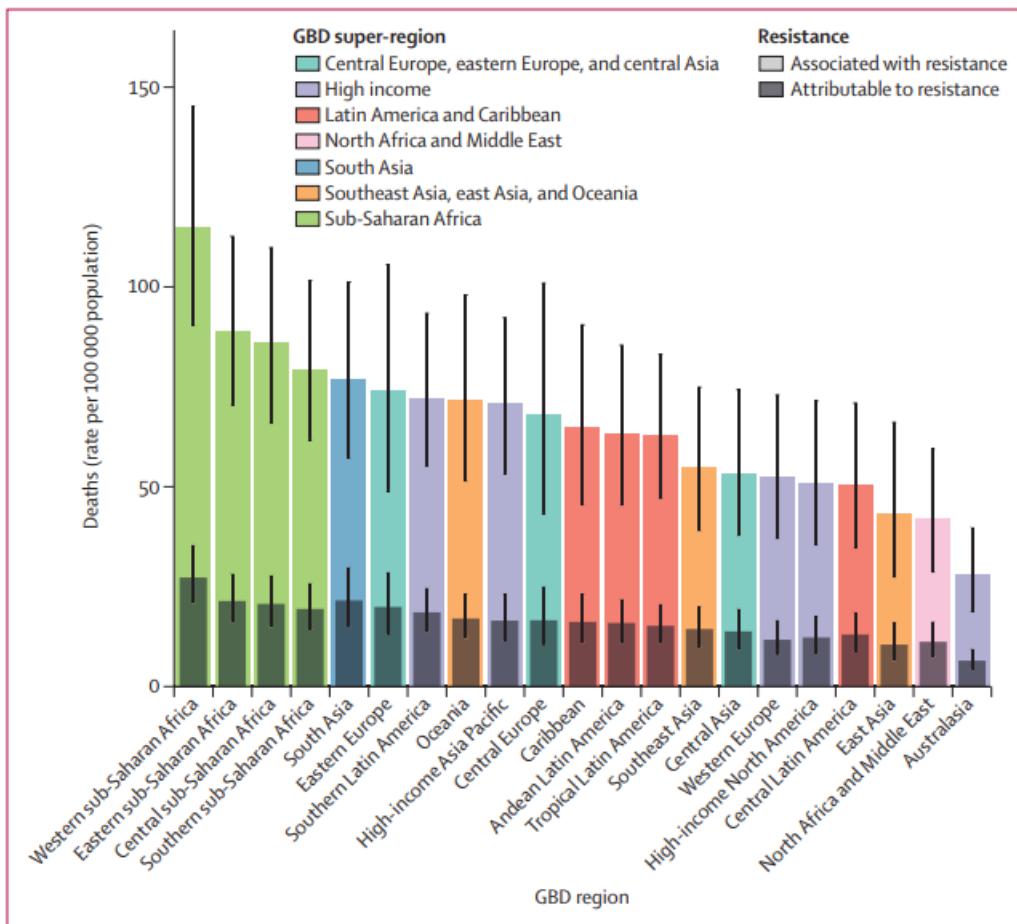


Figure 2: All-age rate of deaths attributable to and associated with bacterial antimicrobial resistance by GBD region, 2019

Estimates were aggregated across drugs, accounting for the co-occurrence of resistance to multiple drugs. Error bars show 95% uncertainty intervals. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study.

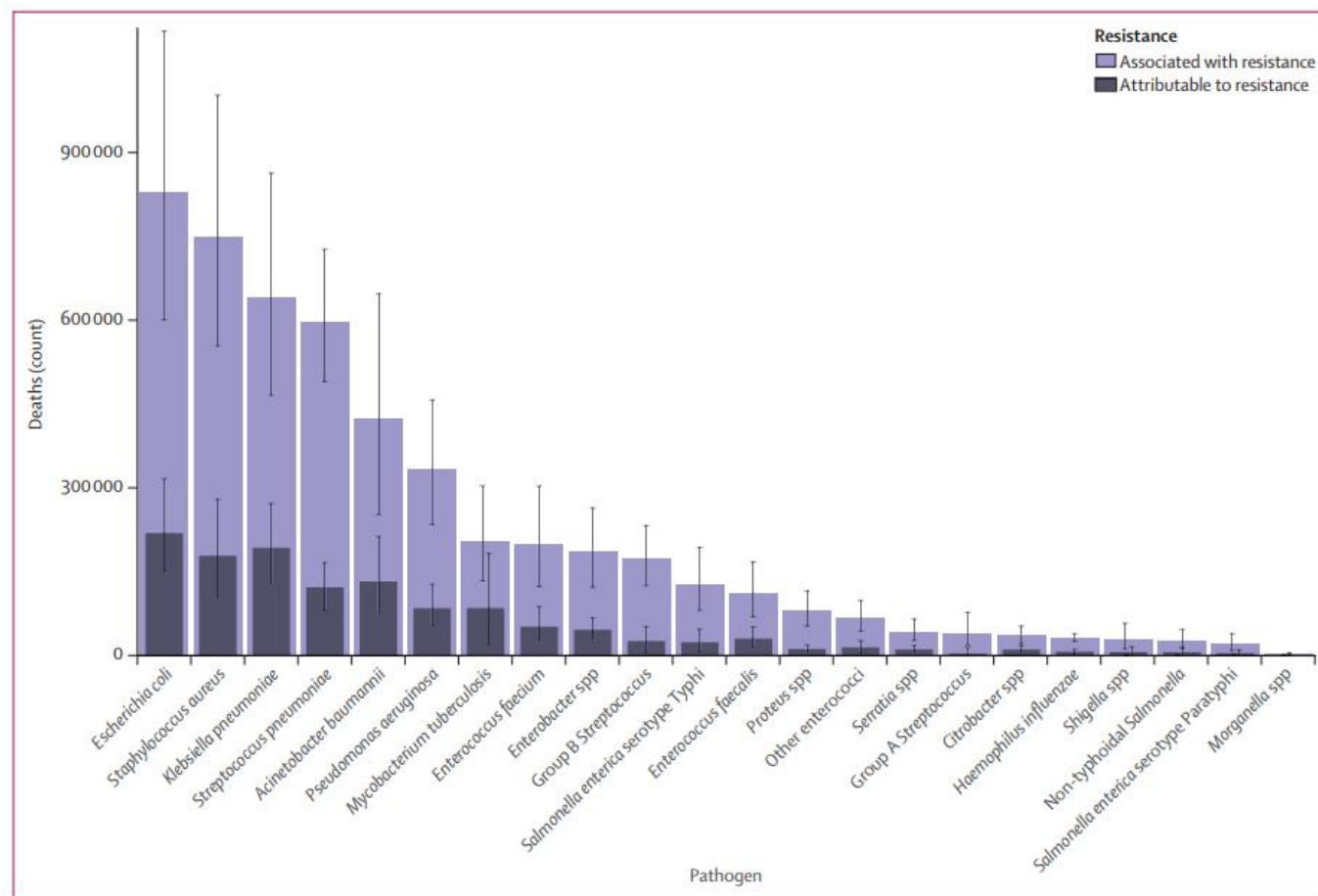


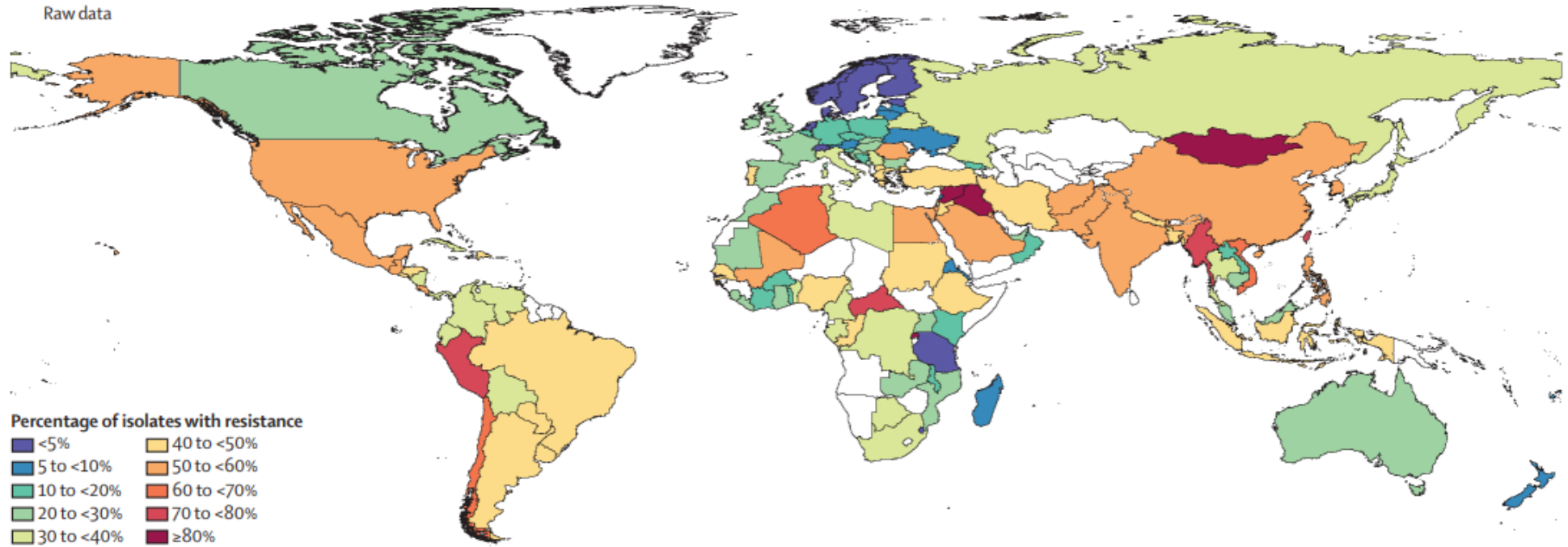
Figure 4: Global deaths (counts) attributable to and associated with bacterial antimicrobial resistance by pathogen, 2019

Estimates were aggregated across drugs, accounting for the co-occurrence of resistance to multiple drugs. Error bars show 95% uncertainty intervals.

Antimicrobial Resistance Collaborators. Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. Lancet. 2022 Feb 12;399(10325):629-655..

A Meticillin-resistant *Staphylococcus aureus*

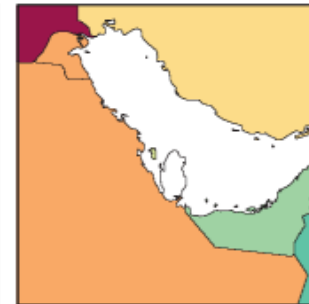
Raw data



Caribbean and central America



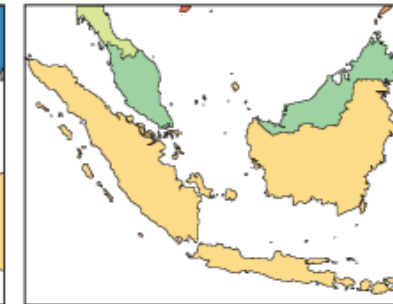
Persian Gulf



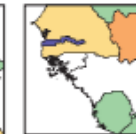
Balkan Peninsula



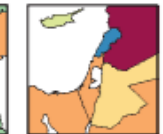
Southeast Asia



West Africa



Eastern Mediterranean



Northern Europe



Antimicrobial Resistance Collaborators. Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. Lancet. 2022 Feb 12;399(10325):629-655.

Assessing the global risk of typhoid outbreaks caused by extensively drug resistant *Salmonella* Typhi

[Joseph Walker](#) , [Chrispin Chaguza](#), [Nathan D. Grubaugh](#), [Megan Carey](#), [Stephen Baker](#), [Kamran Khan](#), [Isaac I. Bogoch](#) & [Virginia E. Pitzer](#)

Abstract

Since its emergence in 2016, extensively drug resistant (XDR) *Salmonella enterica* serovar Typhi (*S. Typhi*) has become the dominant cause of typhoid fever in Pakistan. The establishment of sustained XDR *S. Typhi* transmission in other countries represents a major public health threat. We show that the annual volume of air travel from Pakistan strongly

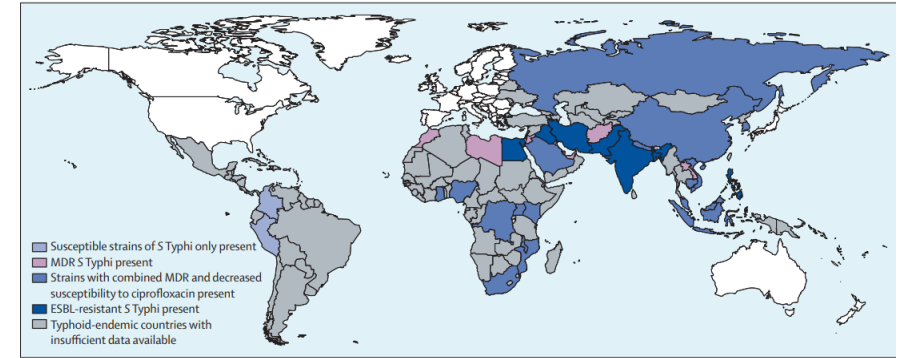


Figure 2: Worldwide distribution of antimicrobial drug resistance in *Salmonella enterica* serovar Typhi
MDR is defined as resistance to the first-line antimicrobial drugs ampicillin, co-trimoxazole, and chloramphenicol. MDR=multi-drug resistant. ESBL=extended-spectrum beta-lactamase-producer. Adapted from Bhan and colleagues,⁴¹ with data up to April, 2013.

Acollida al nou sistema sanitari

- Vinculació amb professionals salut
 - Pediatra / Infermera
- Importància del cribratge
 - Valoració de l'estat de salut: malalties transmissibles i no transmissibles.
 - Equitat (serologies embaràs, vacunes,...)
 - Benefici individual

Història clínica

- País d'origen / itinerari
- Temps arribada
- Zona rural / urbana
- Condicions de vida: tipus de vivenda, aigua corrent, nombre convivents, escolaritat
- Hàbits alimentaris
- Immunitzacions

Screening strategy

```
graph TD; A[Screening strategy] --> B[Blood test]; A --> C[Intestinal parasite screening]; A --> D[TB screening]; B --> E[Intestinal parasite screening]; E --> F[Helminth serologies]; D --> G[Chest-X-ray]; D --> H([Positive test]);
```

Blood test

- CBC, chemistry panel, IgE
- **Serologies**

Intestinal parasite screening

- 1 stool sample

TB screening

- TST and/or IGRA

Eosinophilia
↑IgE

Intestinal parasite screening

- 3 stool samples
- 1 *Strongyloides* culture

Positive test

Chest-X-ray

Helminth serologies

	Est Europa	Nord Africa	Àfrica subsahariana	Centre i Sud-amèrica	Àsia
Hepatitis B	X	X	X	X	X
Hepatitis C	X	X	X	X	X
HIV	X	X	X	X	X
Treponema pallidum	X	X	X	X	X
Strongyloides	X	X	X	X	X
Tuberculosi	X	X	X	X	X
Hepatitis A (si no vacunats)	X	X	X	X	X
Varicel·la (si no vacunats)	X	X	X	X	X
Trypanosoma cruzi				X	
Schistosoma		X(Nil)	X	X (Brasil)	X (Sudest asiàtic)
Paràsits femta	X	X	X	X	X
PEATc	< 6 mesos de vida				
Electroforesi Hb o HPLC	< 5 anys de vida				

Patologia importada més freqüent en asimptomàtics

- Infecció tuberculosa latent
- Parasitosis intestinals
- Hepatitis B

Patologia importada més freqüent en asimptomàtics

- Infecció tuberculosa latent
- Parasitosis intestinals
- Hepatitis B

	Sub-Saharan Africa	Maghreb	Asia	Total
TB	1% (2/164)	1% (1/67)	0% (0/39)	1% (3/270)
LTBI	29% (47/164)	22% (15/67)	8% (3/39)	24% (65/270)

Health and Vaccination Status of Unaccompanied Minors
After Arrival in a European Border Country

A Cross-sectional Study (2017–2020)

Paràsits

	Sub-Saharan Africa	Maghreb	Asia	Total
Intestinal parasites	27% (44/165)	14% (8/56)	34% (14/41)	25% (66/261)
<i>E. histolytica</i>	5% (8/165)	9% (5/56)	7% (3/41)	6% (16/261)
<i>S. mansoni</i>	7% (11/165)	0% (0/56)	0% (0/41)	4% (11/261)
Others	15% (25/165)	5% (3/56)	27% (11/41)	19% (49/261)
<i>Plasmodium</i> spp	4% (7/163)	0% (0/2)	0% (0/2)	4% (7/167)
Microfilariae	3% (4/156)	0% (0/1)	0% (0/0)	3% (4/157)
<i>S. haematobium</i>	5% (7/154)	0% (0/23)	0% (0/4)	4% (7/181)

Infeccions de transmissió vertical / sexual

	Sub-Saharan Africa	Maghreb	Asia	Total
HIV	0.6% (1/166)	0% (0/65)	0% (0/41)	0.4% (1/272)
<i>T. pallidum</i>	0.6% (1/167)	0% (0/65)	0% (0/41)	0.4% (1/273)
HCV	0.6% (1/165)	0% (0/65)	0% (0/41)	0.4% (1/271)
HBV (HBsAg)	9% (15/166)	0% (0/65)	0% (0/41)	6% (15/272)

Nens i nenes "VFR"

- Estades > 1 mes
- Cribratge TB
- Estudi coproparasitològic
- Valorar analítica si > 6 mesos (eosinofília, serologies paràsits)

Tuberculosis among children visiting friends & relatives

Tomas M Perez-Porcuna, PhD , Antoni Noguera-Julian, PhD,

Journal of Travel Medicine, taee037, <https://doi.org/10.1093/jtm/taae037>

Published: 04 March 2024 **Article history** ▼

Methods

We conducted a prospective multicentric observational study in Catalonia (Spain) from June 2017 to December 2019. We enrolled children aged < 15 years with a negative tuberculin skin test (TST) at baseline and at least one parent from a high-TB-incidence country, and who had travelled to their parent's birth country for ≥21 days. TST and QuantiFERON-TB Gold Plus (QFT-Plus) were performed within 8–12 weeks post-return. LTBI was defined as a TST ≥5 mm and/or a positive QFT-Plus.

Results

Five hundred children completed the study, equivalent to 78.2 person-years of follow-up (PYFU). Thirteen children (2.6%) were diagnosed with LTBI (16.6/per100 PYFU, 95%CI = 8.8–28.5), including two cases (0.4%) of TB (2.5/per100 PYFU, 95%CI = 0.3–9.3). LTBI incidence rates remained high after

Tuberculosis among children visiting friends & relatives

Tomas M Perez-Porcuna, PhD , Antoni Noguera-Julian, PhD,

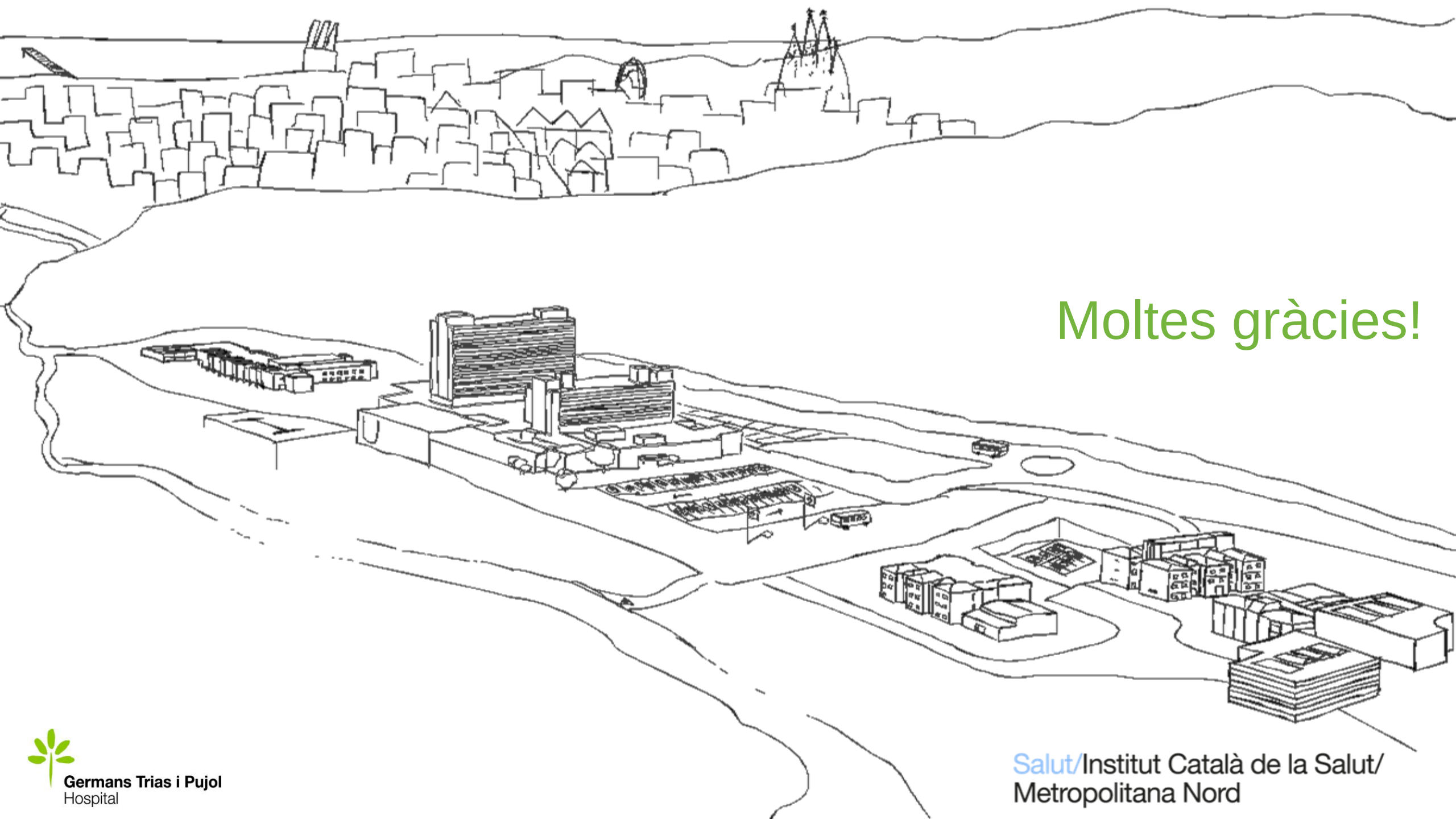
Journal of Travel Medicine, taae037, <https://doi.org/10.1093/jtm/taae037>

Published: 04 March 2024 **Article history** ▼

Conclusions

The risk of LTBI in children VFR in high-TB-incidence countries may equal, or perhaps even exceed, the infection risk of the native population. The primary associated risk factor was the presence of smokers in the household.

Furthermore, the incidence rate of active TB largely surpassed that of the countries visited. Children VFR in high-TB-incidence countries should be targeted for diagnostic and preventive interventions.



Moltes gràcies!



Germans Trias i Pujol
Hospital

Salut/Institut Català de la Salut/
Metropolitana Nord