

# Sarampión: una historia sin final feliz.

## ¿De verdad que vamos a eliminar el sarampión?

Jesús Ruiz Contreras

Hospital Universitario 12 de octubre. Universidad Complutense. Madrid

## **Conflicto de intereses**

**Dr. Jesús Ruiz Contreras**

Hospital Universitario 12 de Octubre

Participación en actividades docentes subvencionadas por Pfizer

Estudios de investigación Pfizer (Heracles) y MSD (rotavirus)

# Conflictos de intereses

- Actividades formativas con Pfizer (4 en los últimos tres años)
- Co-coordinador del Estudio Heracles (Pfizer)
- Ayuda científica elaboración de manuscritos estudio Heracles
- Asistencia a Congreso para presentación Comunicaciones (Estudio Heracles)
- Investigación de hospitalizaciones por rotavirus: MSD







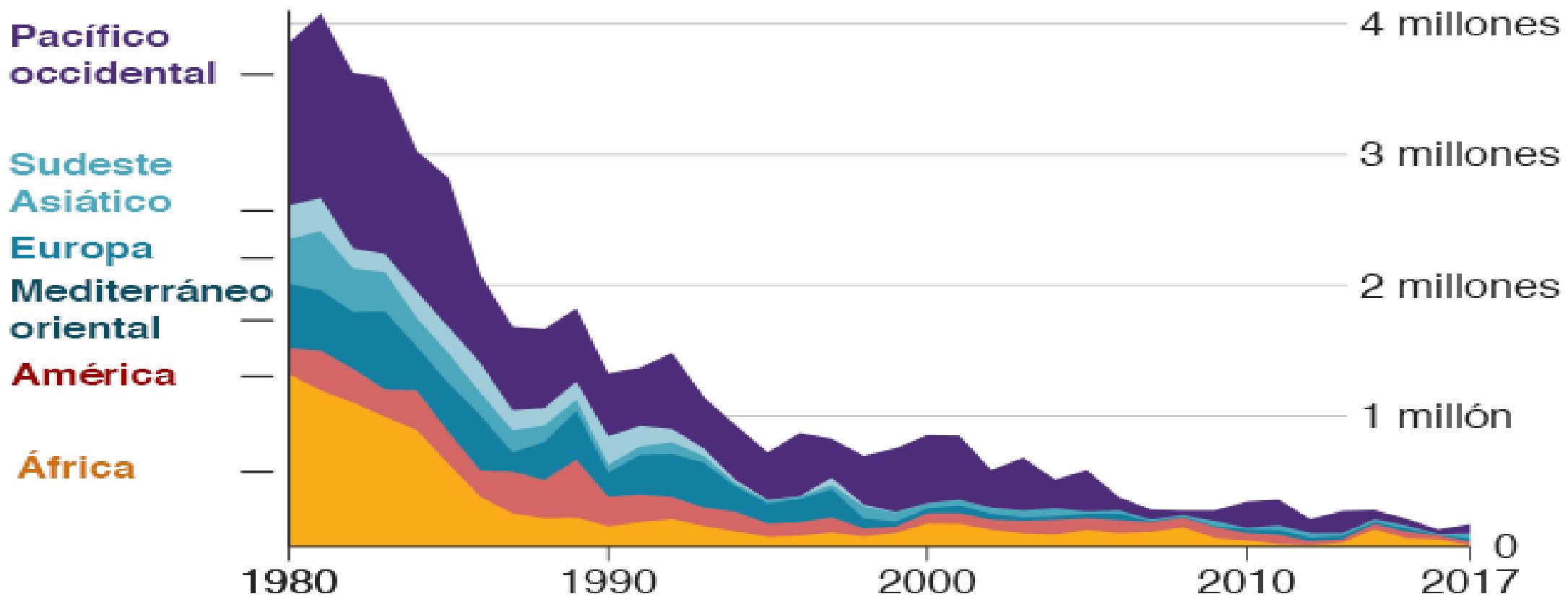
**John Franklin Enders (1897-1985)**



**Thomas C. Peeble (1921-2010)**

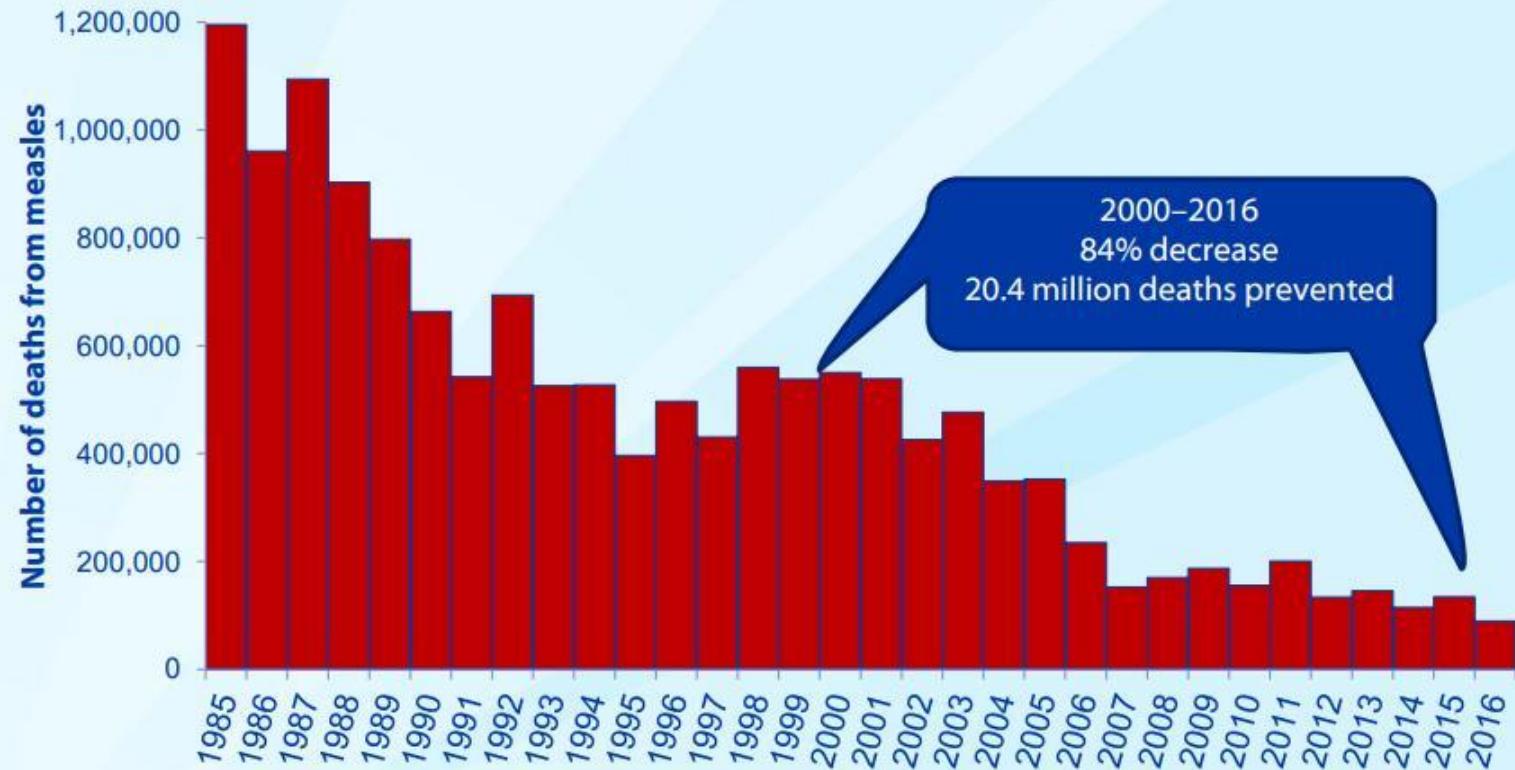
# Los casos de sarampión han disminuido mucho desde los años 1980

Número de casos confirmados por región, 1980-2017



Fuente: OMS

## Number of Lives Saved by Measles Vaccine Globally



Source: MMWR: Oct 27, 2017 / Vol. 66 / No. 42

3

## Region of the Americas is declared free of measles

Washington, D.C., 27 September 2016 (PAHO/WHO) – The Region of the Americas is the first in the world to have eliminated measles, a viral disease that can cause severe health problems, including pneumonia, brain swelling and even death. This achievement culminates a 22-year effort involving mass vaccination against measles, mumps and rubella throughout the Americas.

The declaration of measles' elimination was made by the International Expert Committee for Documenting and Verifying Measles, Rubella, and Congenital Rubella Syndrome Elimination in the Americas. The announcement came during the 55<sup>th</sup> Directing Council of the Pan American Health Organization/World Health Organization (PAHO/WHO), which is

# NEWS

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## Measles cases quadruple globally in 2019, says UN

🕒 16 April 2019

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GETTY IMAGES



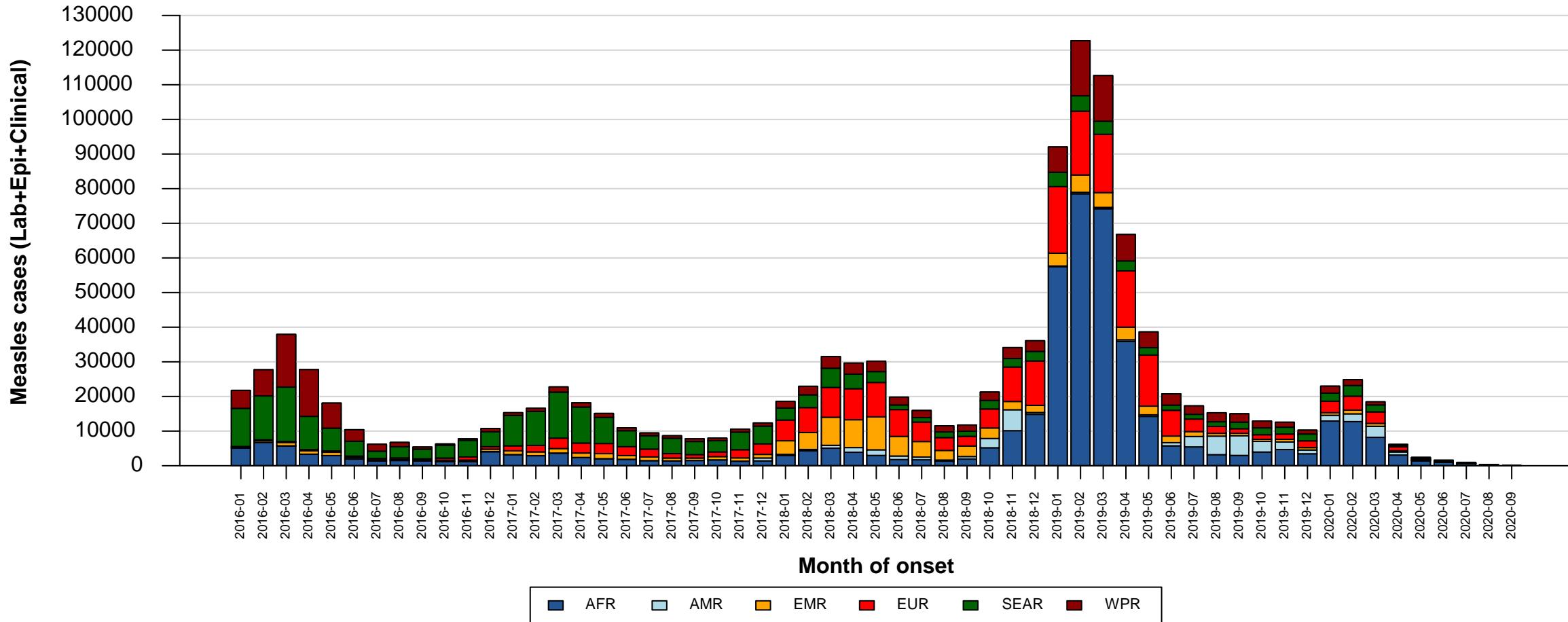
World Health Organization



5 December 2019 | Joint News Release

## More than 140,000 die from measles as cases surge worldwide

# Measles case distribution by month and WHO Region (2016-2020)



# Madagascar measles epidemic kills more than 1,200 despite desire for vaccinations



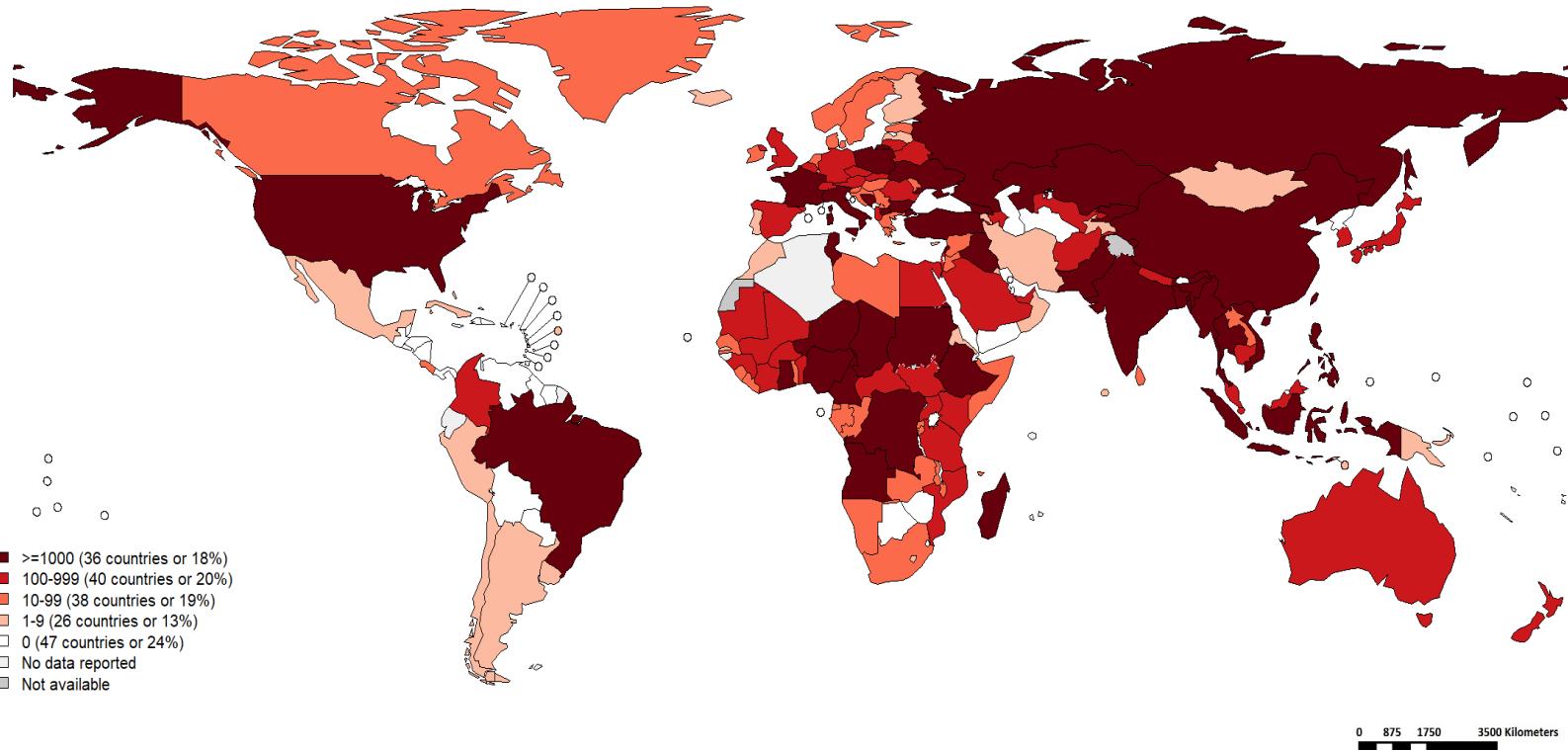
Lack of information, resources the biggest impediments to combatting disease

The Associated Press · Posted: Apr 14, 2019 10:13 AM ET | Last Updated: April 14



# Number of Reported Measles Cases (6M period)

Top 10*	
Country	Cases
Madagascar	86376
India**	44020
Ukraine	41933
Philippines	32414
Nigeria	23342
Kazakhstan	7925
DR Congo	6443
Myanmar	4206
Sudan	3296
Angola	2840

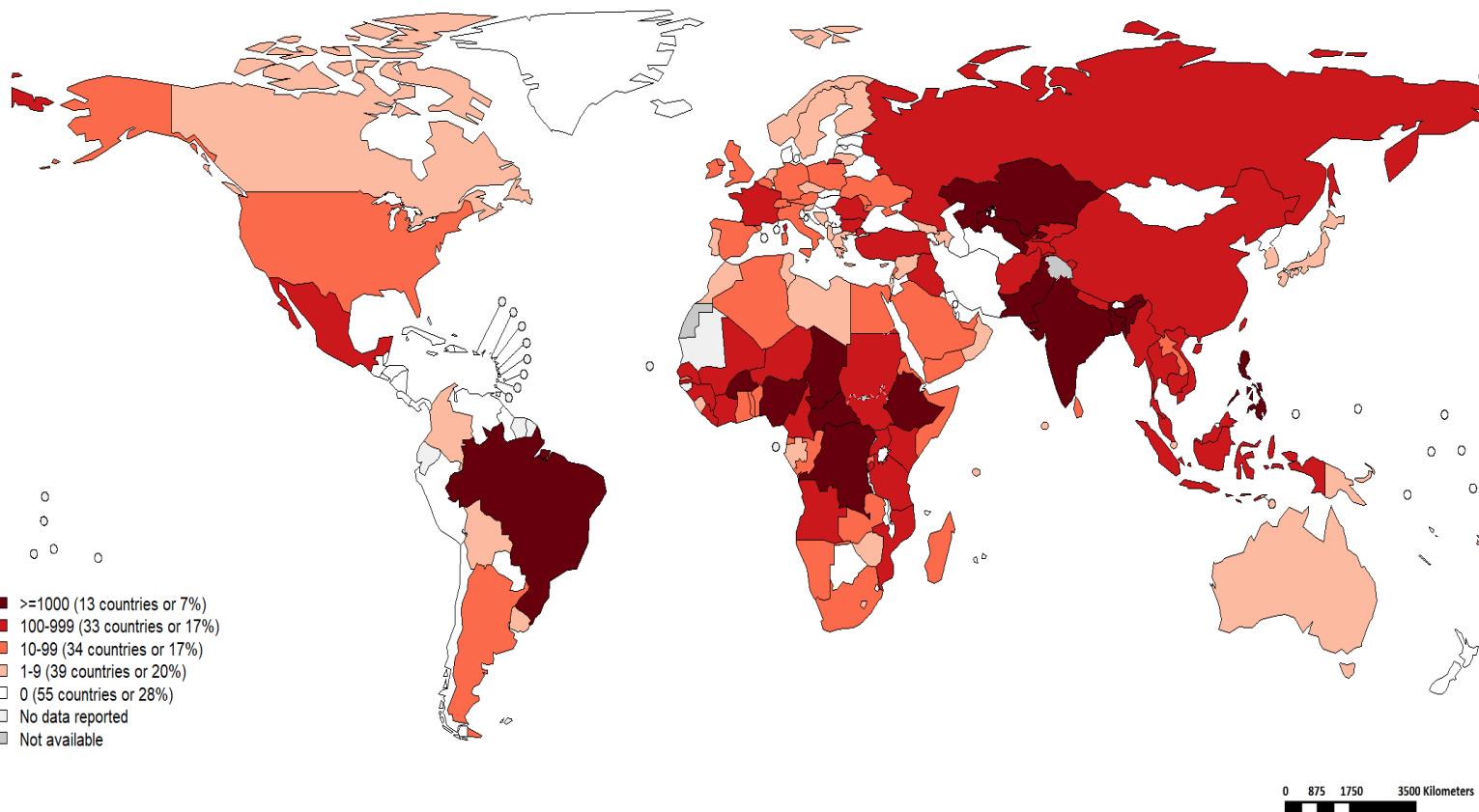


Map production: World Health Organization, WHO, 2019. All rights reserved  
Data source: IVB Database

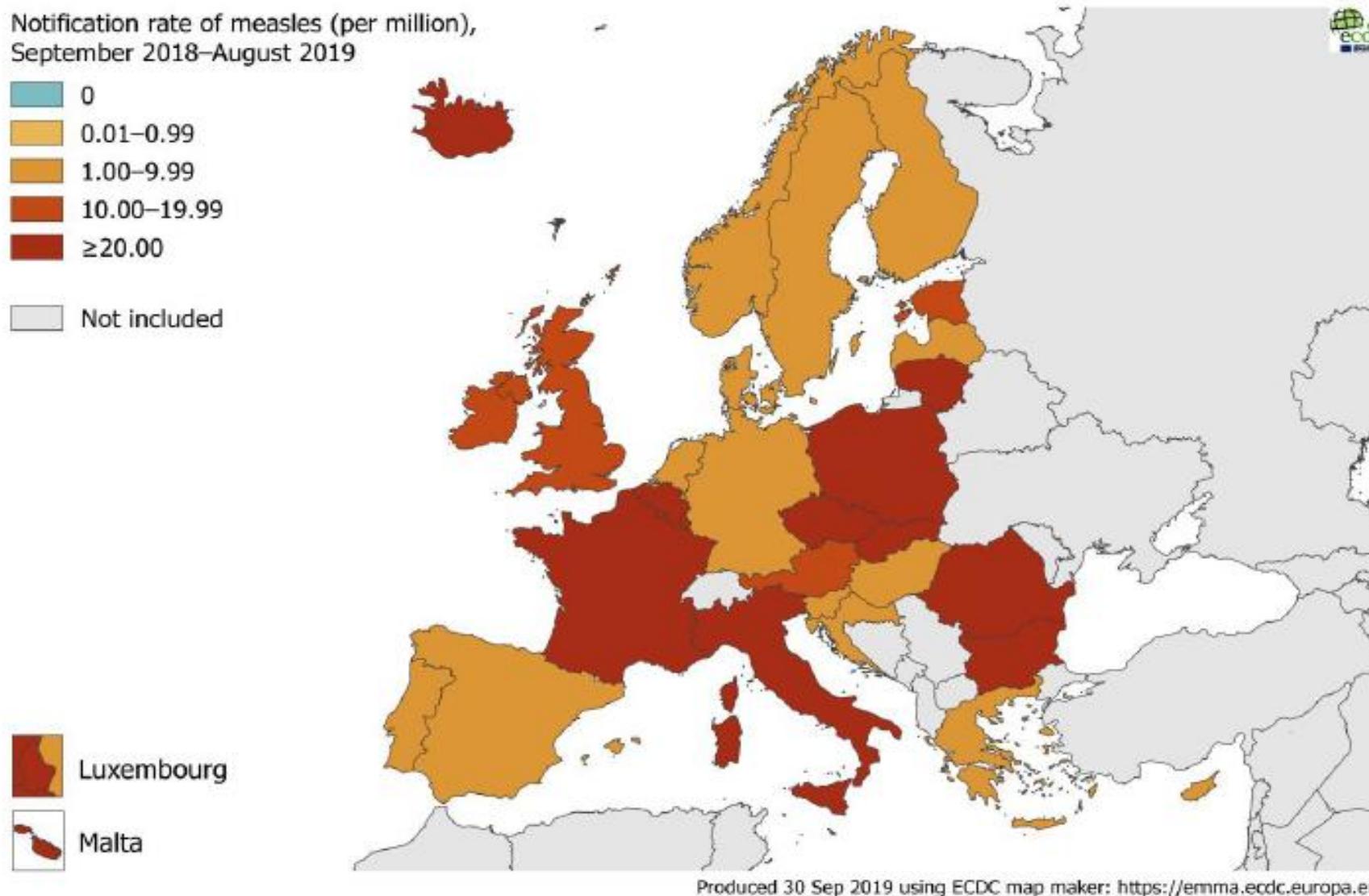
**Disclaimer:**  
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

# Number of Reported Measles Cases (6M period)

Top 10*	
Country	Cases
DR Congo	7736
Brazil	6241
Nigeria	4664
Uzbekistan	3341
India**	3084
Central African Republic	2705
Philippines	2083
Kazakhstan	2073
Chad	1898
Bangladesh	1720



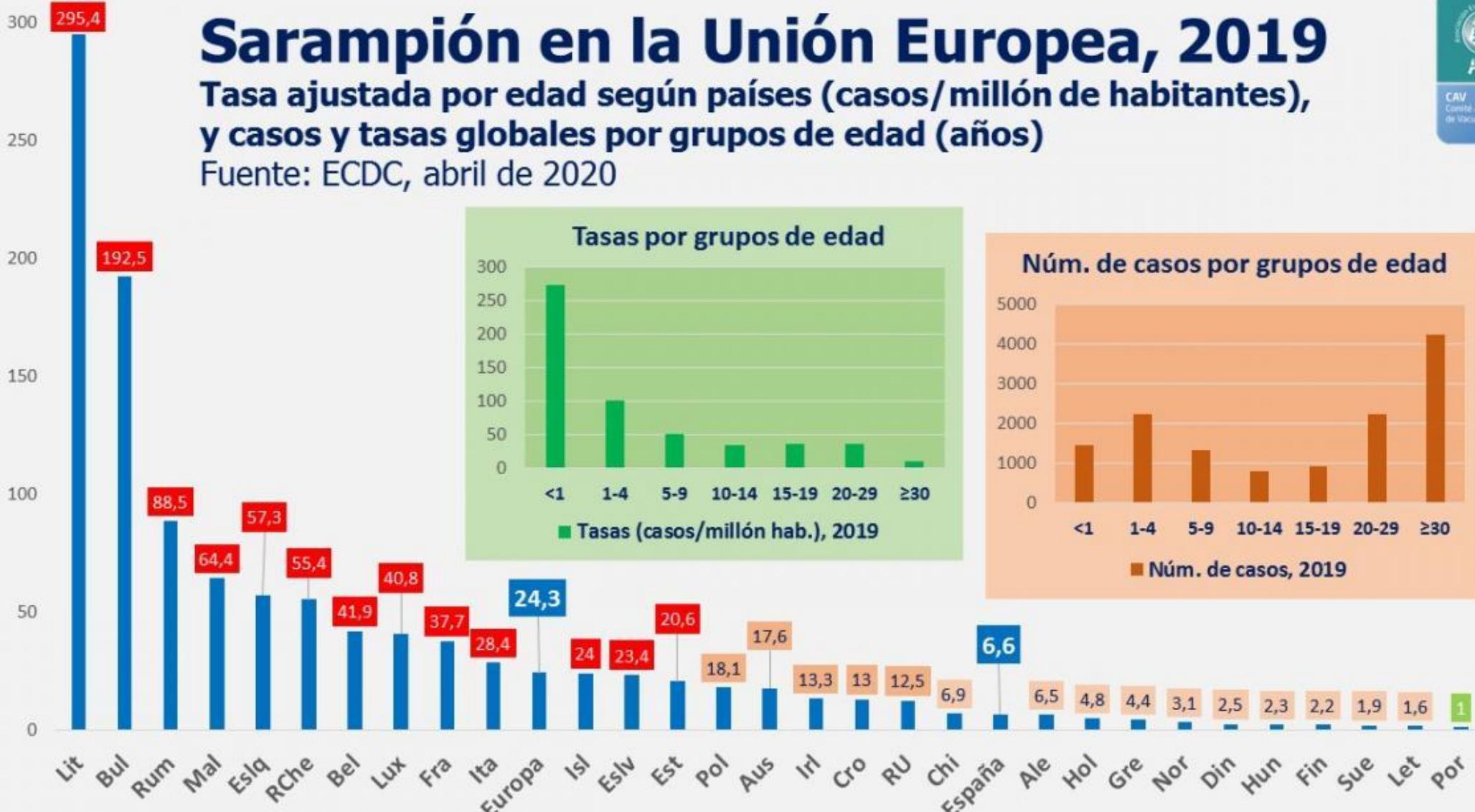
**Figure 2. Measles notification rate per million population by country, EU/EEA, 1 September 2018–31 August 2019**



# Sarampión en la Unión Europea, 2019

Tasa ajustada por edad según países (casos/millón de habitantes),  
y casos y tasas globales por grupos de edad (años)

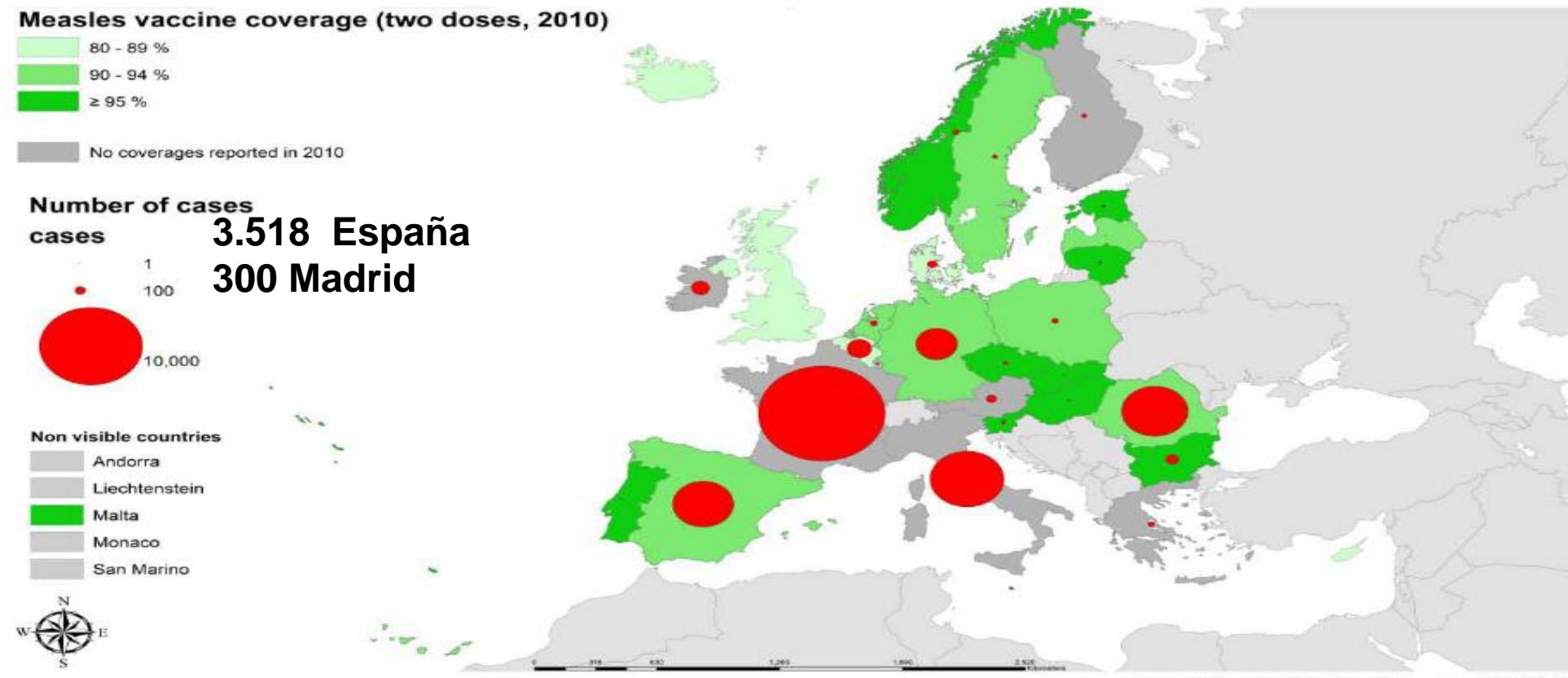
Fuente: ECDC, abril de 2020



<https://vacunasaeep.org/> • @CAV\_AEP • Mayo, 2020

# Sarampión en la UE en 2011

**Figure 3. Distribution of measles cases reported to TESSy by EU and EEA countries for January–December 2011 (n=32 021) and two-dose measles vaccine coverage\* (2010 CISID)**



# Doce adultos, contagiados de sarampión en Barcelona

Desde el 2000 está erradicado, aunque hay brotes esporádicos

**46 casos confirmados  
Solo 4 niños  
Resto: 24-54 años  
10 hospitalizados**



# Dos niños sin vacunar provocaron el brote de sarampión de Manises

Salud Pública envía 600 dosis al hospital afectado para cubrir al personal sanitario - CSI·F critica que se limite la inoculación a los nacidos antes de 1980

Victoria Salinas | València | 13.03.2018 | 23:13

Dos menores con sarampión y no vacunados, ingresados el pasado mes de febrero en el Hospital de Manises, son el foco del brote de la enfermedad infecciosa que se ha registrado en el centro hospitalario y que afecta ya a 11 personas, aunque la cifra podría aumentar a 16.

Así lo confirmaron ayer fuentes de la **Conselleria de Sanidad** y de la dirección del hospital que hicieron



## SEGUIMIENTO SANITARIO

# Cinco auxiliares de vuelo y un pasajero, diagnosticados de sarampión en Barcelona

Los afectados viajaron en vuelos nacionales y a otros países de la UE en noviembre

El Periódico

Barcelona - Lunes, 24/12/2018 | Actualizado a las 11:38 CET





## Region of the Americas is declared free of measles

Washington, D.C., 27 September 2016 (PAHO/WHO) – The Region of the Americas is the first in the world to have eliminated measles, a viral disease that can cause severe health problems, including pneumonia, brain swelling and even death. This achievement culminates a 22-year effort involving mass vaccination against measles, mumps and rubella throughout the Americas.

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Brasil > 2.000 casos

Venezuela: > 5.000 casos



2.018



# Una enfermedad posible de erradicar

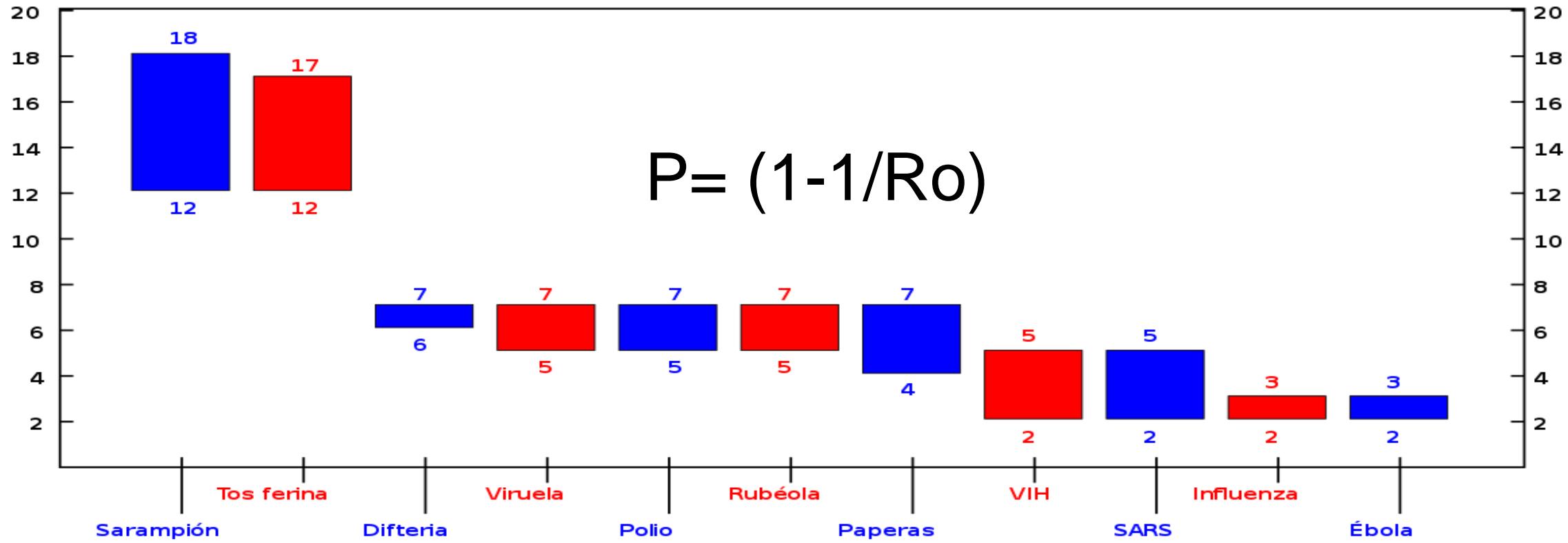
- No hay reservorio animal
- Las vacunas originales muy efectivas (décadas de uso)
- El virus tiene estabilidad antigenica

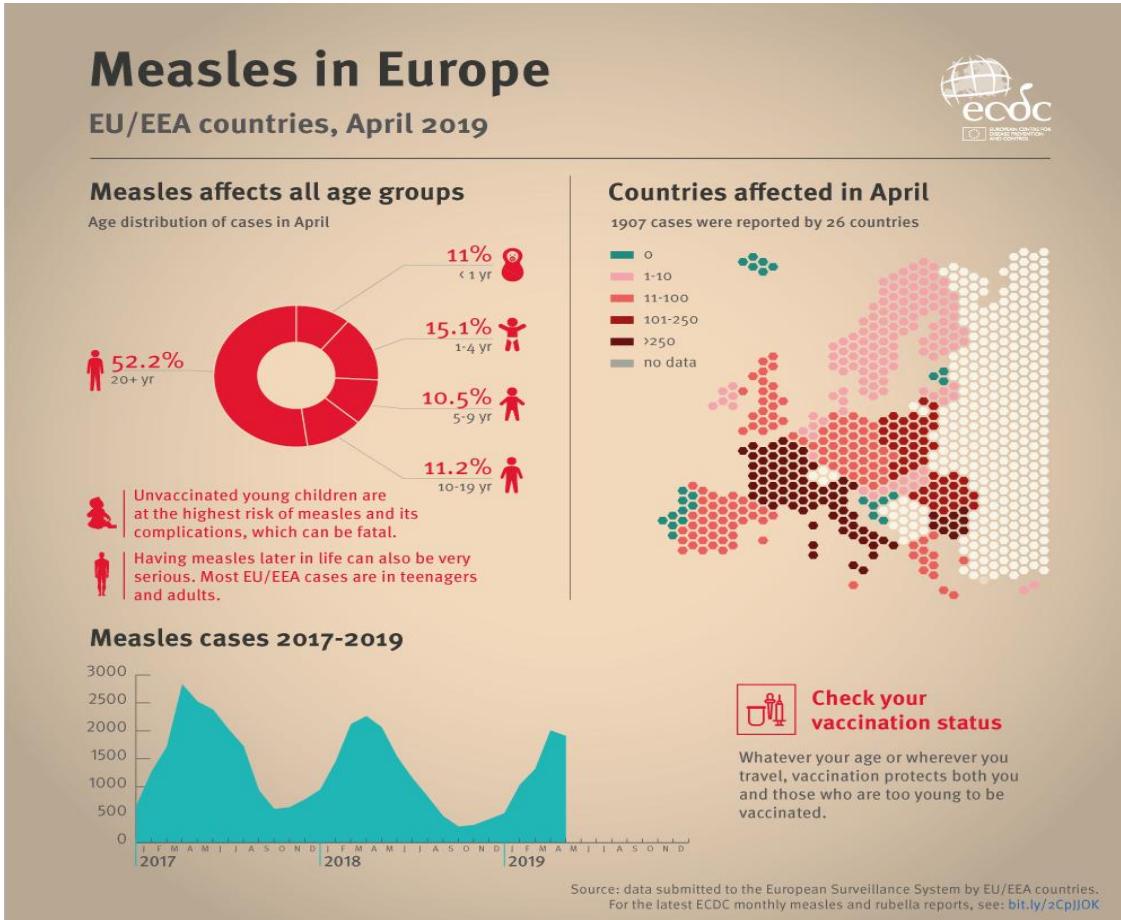
# ¿Qué ha pasado?

Número de reproducción básico (Ro)

Población susceptible

# Número de reproducción básico (Ro) de las enfermedades infecciosas





## Measles outbreaks in Europe

Measles cases in Europe primarily occur in unvaccinated populations in both adults and children. Large outbreaks with fatalities are ongoing in countries that had previously eliminated or interrupted endemic transmission. *Last updated: 27 July 2019*

**Highest numbers**

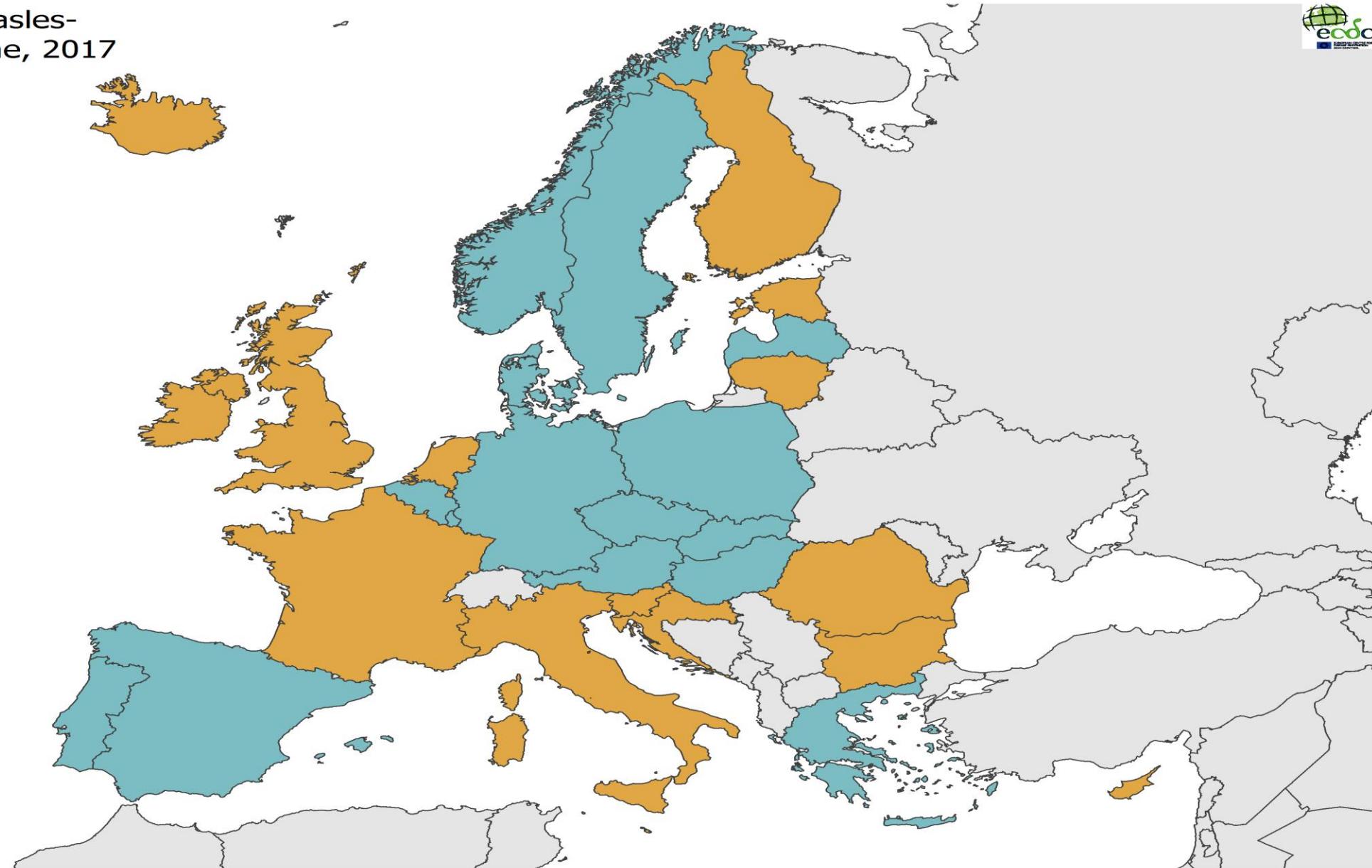
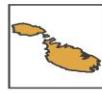
France, Bulgaria, Italy,  
Poland and Lithuania

**10 958 cases**

from 1 January to 14  
July

**Vaccination coverage**

is below 95% in  
most countries

Coverage of first dose of measles-  
and rubella-containing vaccine, 2017 0–84% 85–94% 95–99% Not included Luxembourg Malta

Source: WHO/UNICEF Estimates of National Immunization Coverage

Produced 06 Feb 2019 using ECDC map maker: <https://emma.ecdc.europa.eu>

# Coverage of second dose of measles-containing vaccine, 2017

0–84%  
85–94%  
95–99%

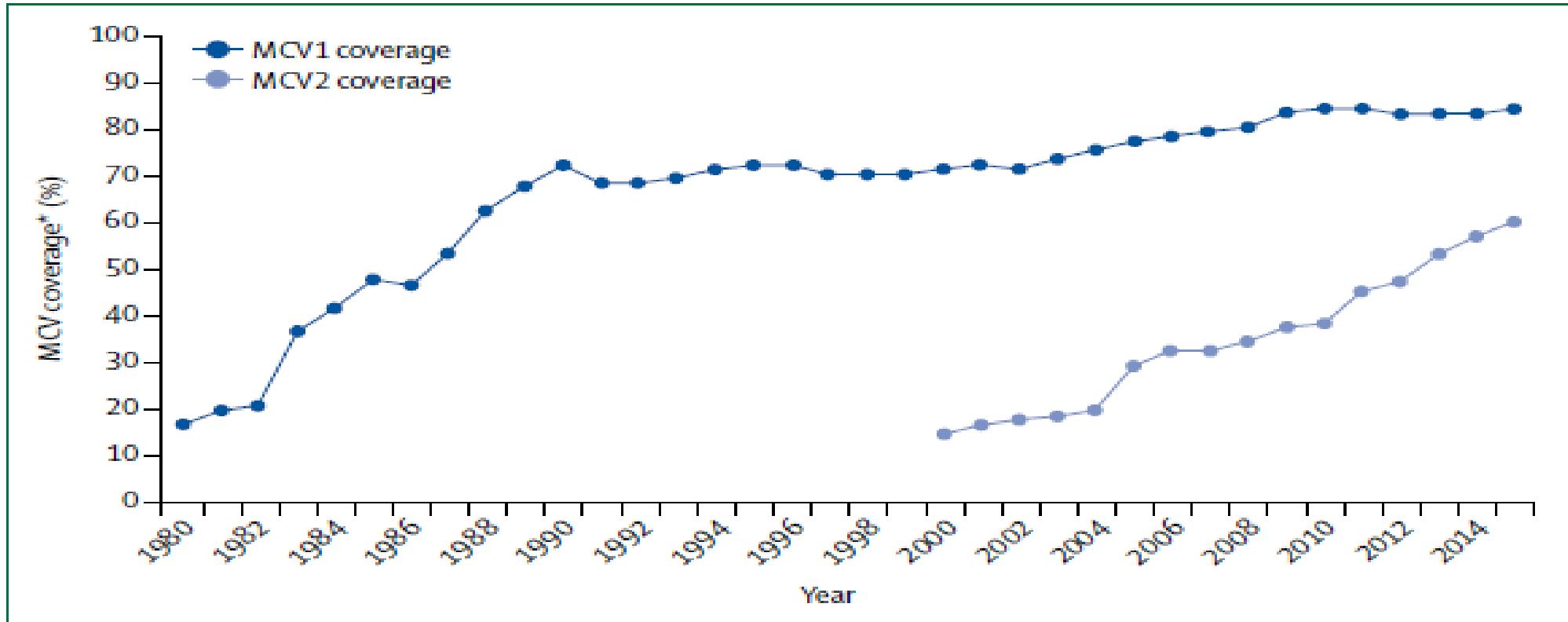
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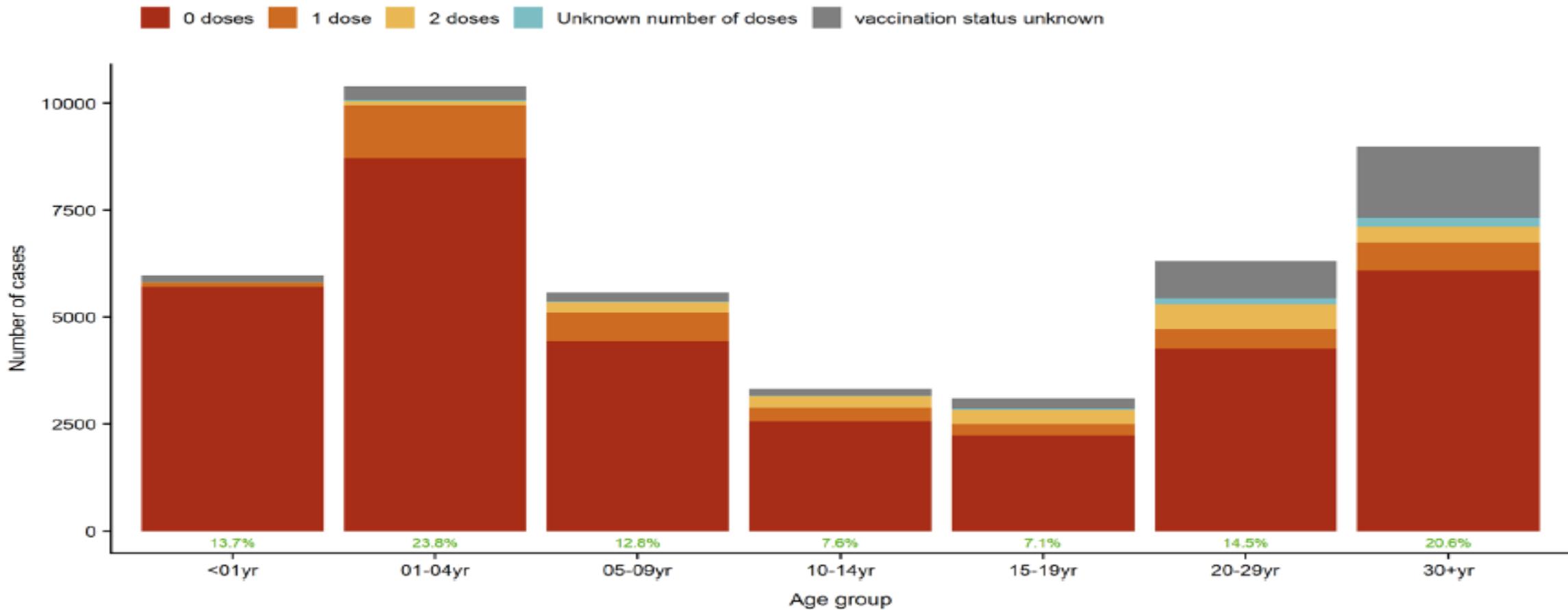
Source: WHO/UNICEF Estimates of National Immunization Coverage

Produced 06 Feb 2019 using ECDC map maker: <https://emma.ecdc.europa.eu>

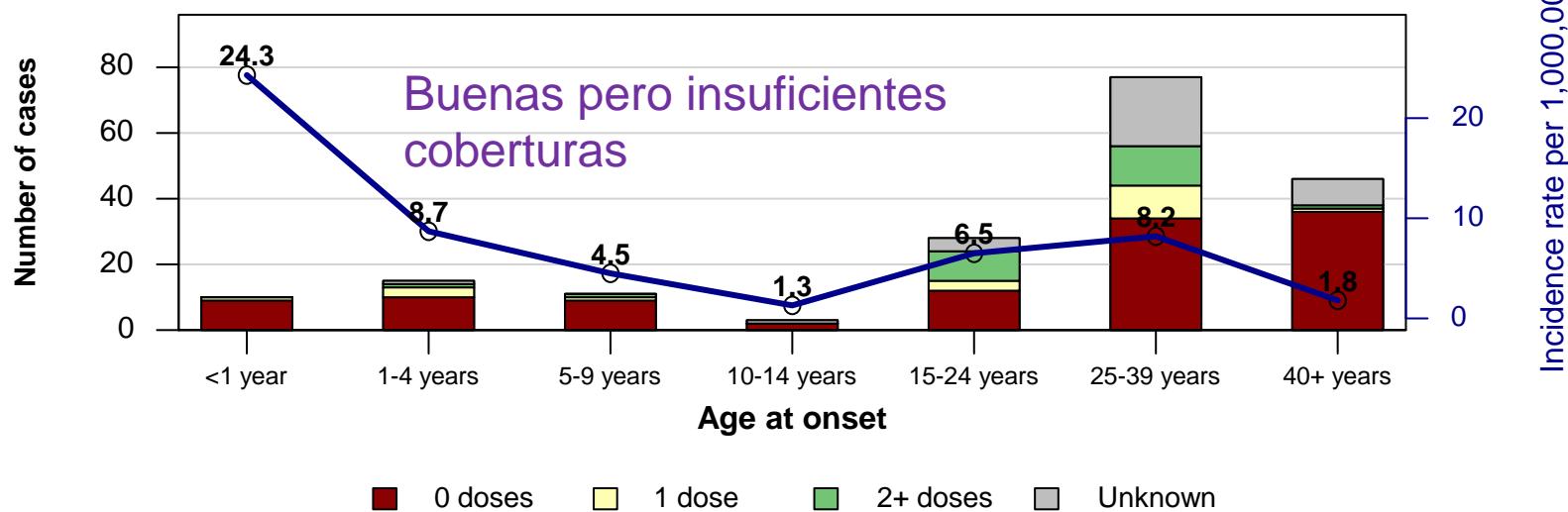
# Coberturas globales en el mundo para la primera y segunda dosis de vacuna frente a sarampión



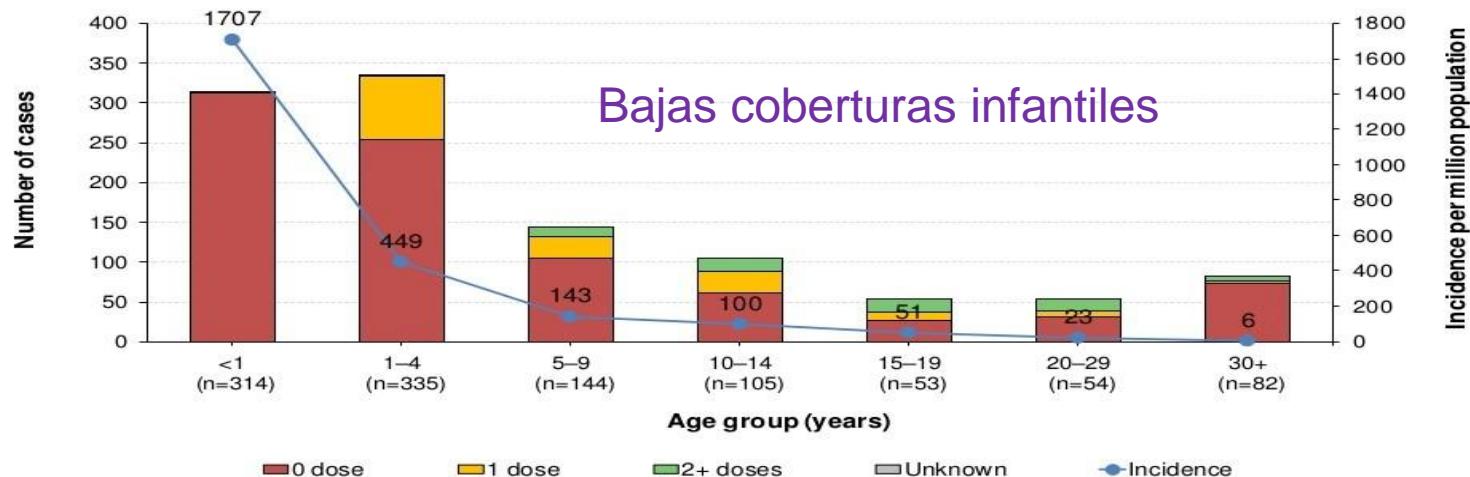
# Número de casos y estado de vacunación en la UE



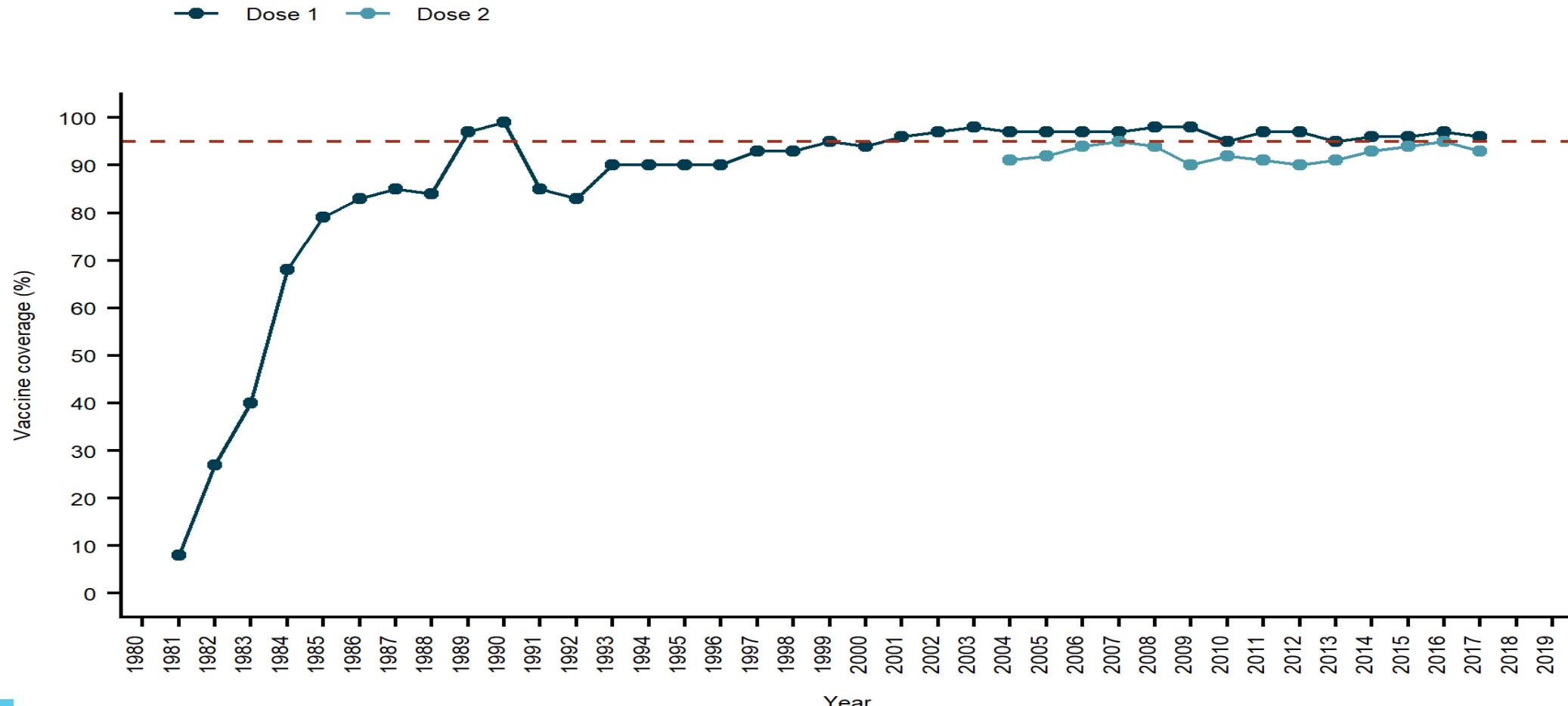
Spain age distribution, vaccination status, and incidence, 2018-04 to 2019-03



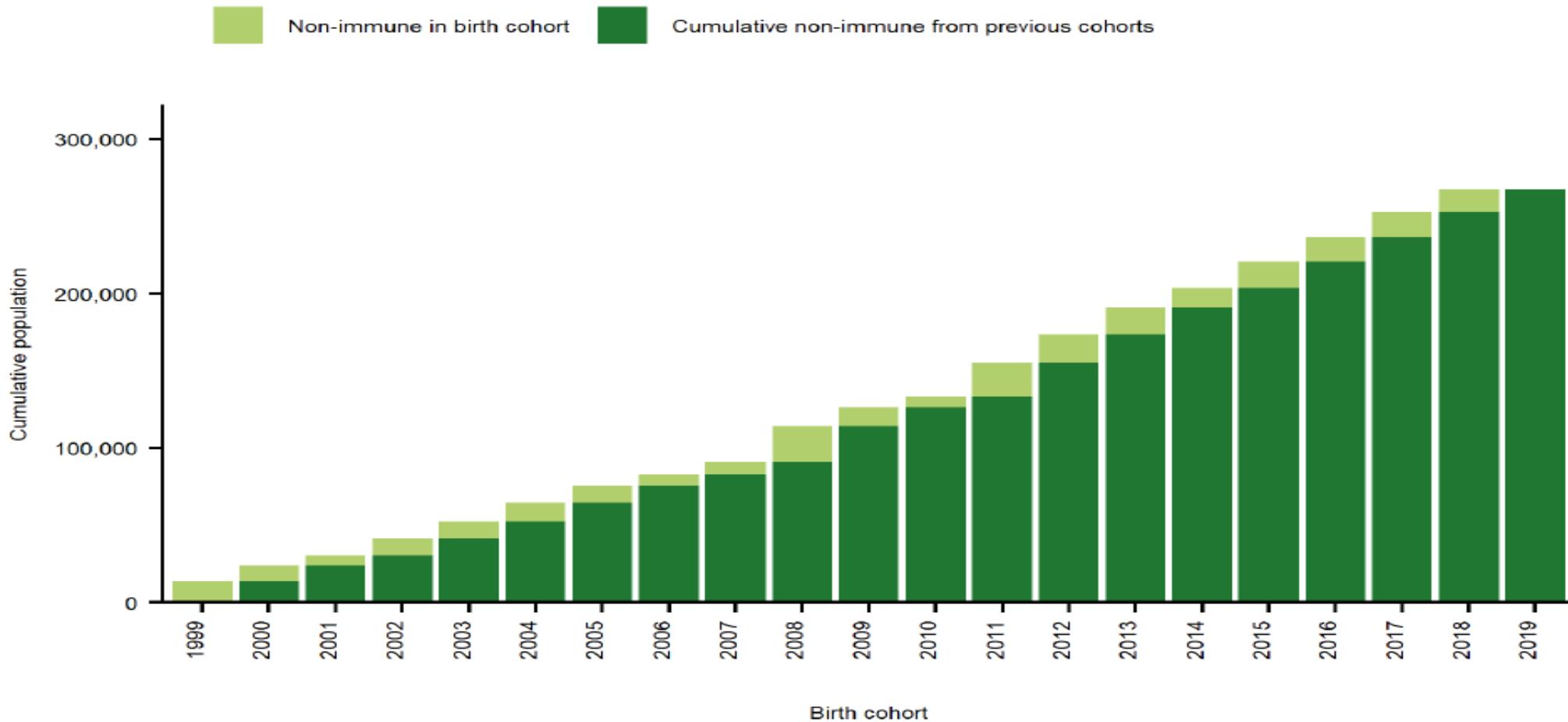
Romania: measles cases and incidence by age group and vaccination status, January–December 2018



# Coberturas vacunales frente a sarampión en España



# Acúmulo de casos susceptibles en España



# No vacunamos lo suficiente

¿Por qué no vacunamos?

# En países desarrollados

# STATE OF VACCINE CONFIDENCE IN THE EU 2018

A report for the European Commission by  
**Prof. Heidi Larson, Dr. Alexandre de Figueiredo,  
Emilie Karafillakis and Mahesh Rawal**

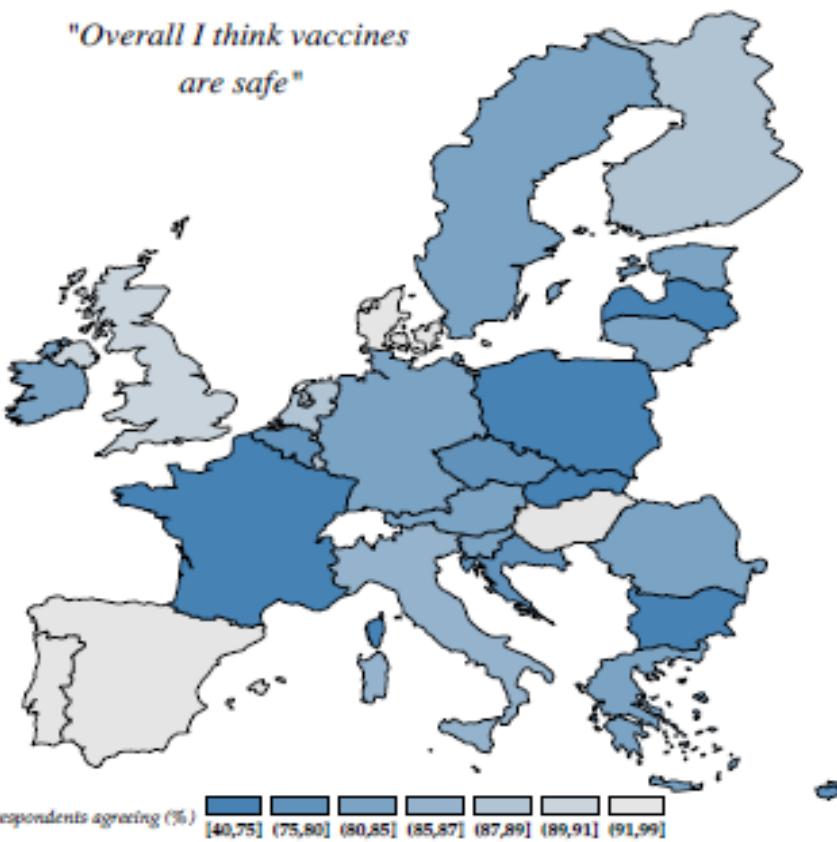
LONDON  
SCHOOL of  
HYGIENE  
& TROPICAL  
MEDICINE



a



b



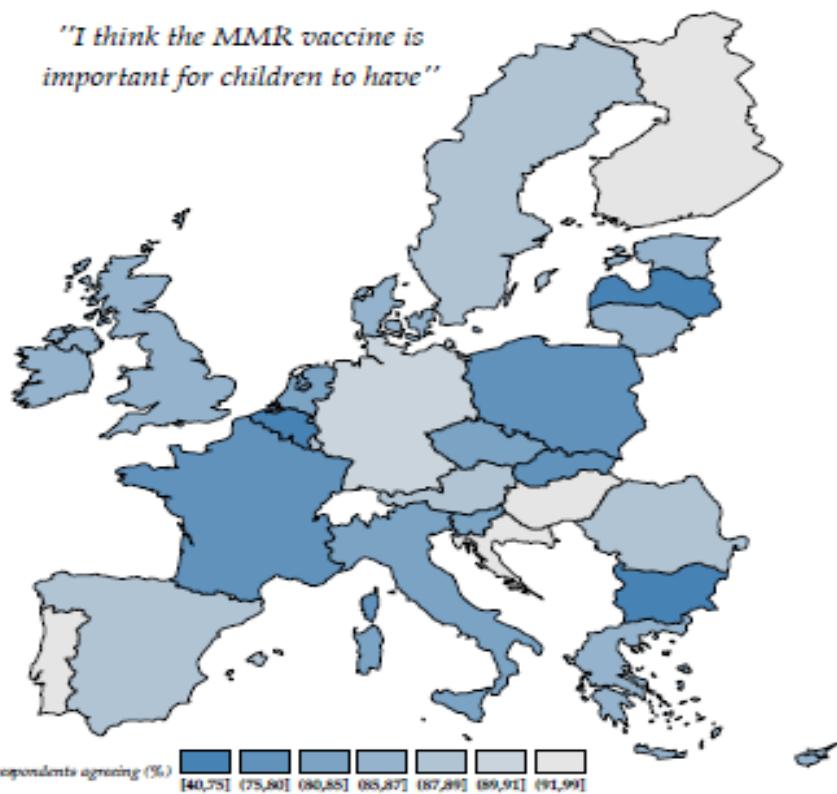
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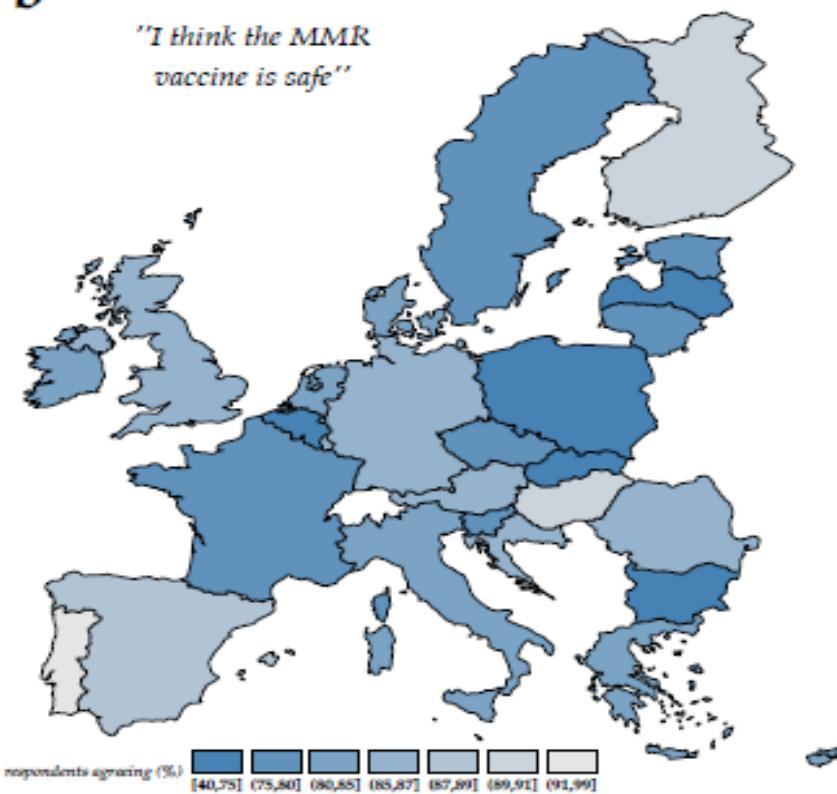
Rubeola  
Measles  
ROTAVIRUS  
VARICELLA DTpA/  
MMR/DTaP/OPV/HIB/HI

**a**

*"I think the MMR vaccine is important for children to have"*

**b**

*"I think the MMR vaccine is safe"*



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XI JOR  
VAC

Jornadas digitales 8 Y 9 DE OCTUBRE DE 2020  
vacunas.aep.org



HIS Rubeola  
Measles  
ROTAVIRUS  
VARICELLA DTpA/  
MEASLES, RUBELLA, ROTAVIRUS, VARICELLA, DTpA/

# La moda que disparó el sarampión

La enfermedad crece en España ayudada por grupos que no vacunan a sus hijos por ideología - Los 1.300 casos de 2011 multiplican por cinco los de 2010



ANTÍA CASTEDO

Girona - 6 JUN 2011

Europa ha retrocedido una década en la lucha contra enfermedades como el sarampión y la rubéola, casi erradicadas en el cambio de siglo y que hoy vuelven a causar grandes brotes comunitarios. España, que solo sufrió dos casos de sarampión en 2004, acumula más de 1.300 en lo que va de año, cinco veces más que en todo 2010. El rebrote ha puesto en guardia a las autoridades de gran parte del continente: en Francia, por ejemplo, han muerto seis personas y más de 300 han sufrido neumonías graves entre los más de 5.000 afectados.



# The boy behind the measles vaccine grew up to be an anti-vaxxer. Now he wants everyone to get vaccinated

**Correspondents Report** By North America Correspondent James Glenday in Bowling Green, Virginia

Updated 11 May 2019, 11:53pm



**Early report**

# Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

*A J Wakefield, S H Murch, A Anthony, J Linnell, D M Casson, M Malik, M Berelowitz, A P Dhillon, M A Thomson, P Harvey, A Valentine, S E Davies, J A Walker-Smith*

## **Summary**

**Background** We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder.

**Methods** 12 children (mean age 6 years [range 3–10], 11 boys) were referred to a paediatric gastroenterology unit with a history of normal development followed by loss of acquired skills, including language, together with diarrhoea and abdominal pain. Children underwent gastroenterological, neurological, and developmental assessment and review of developmental records. Ileocolonoscopy and biopsy sampling, magnetic-resonance imaging (MRI), electroencephalography (EEG), and lumbar

## **Introduction**

We saw several children who, after a period of apparent normality, lost acquired skills, including communication. They all had gastrointestinal symptoms, including abdominal pain, diarrhoea, and bloating and, in some cases, food intolerance. We describe the clinical findings, and gastrointestinal features, of these children.

## **Patients and methods**

12 children, consecutively referred to the department of paediatric gastroenterology with a history of a pervasive developmental disorder with loss of acquired skills and intestinal symptoms (diarrhoea, abdominal pain, bloating and food intolerance), were investigated. All children were admitted to the ward for 1 week, accompanied by their parents.

Lancet 1998; 351: 637



SALUD

# El sarampión en España surge más de la exclusión que del rechazo a vacunar

Los colectivos antivacunación no tienen la misma incidencia que en EE UU. La inmunización es alta y los casos aparecen ligados a problemas sociales



JAVIER SALAS

4 FEB 2015 - 20:51 CET

GRANADA | Ya hay 46 afectados por el brote de la enfermedad

# Un juez autoriza vacunar a la fuerza a 35 niños con riesgo de contagiarse de sarampión



Entrada del colegio del Albaicín granadino donde se ha dado el brote. | Efe

# En países en vías de desarrollo

# Without vaccine, hundreds of children die in Madagascar measles outbreak

Agencies

MARCH 8, 2019









## LETTERS

A child who has become malnourished as a result of a measles infection eats lunch in a measles isolation ward of a hospital in the Democratic Republic of the Congo.

Edited by Jennifer Sills

## COVID-19 policies: Remember measles

Nearly 120 million children in 37 countries

those also infected by measles (4). In the conflict-affected regions of Ituri and North Kivu in eastern Democratic Republic of the Congo (DRC) alone, COVID-19 precautions are expected to delay measles vaccinations for nearly a million children (1).

COVID-19 mortality has so far been

efforts to control other high-transmission disease threats in poor countries, especially those affected by conflict.

Debarati Guha-Sapir<sup>1\*</sup>, Maria Moitinho de Almeida<sup>1</sup>, Mory Keita<sup>2</sup>, Gregg Greenough<sup>3</sup>, Eran Bendavid<sup>4</sup>

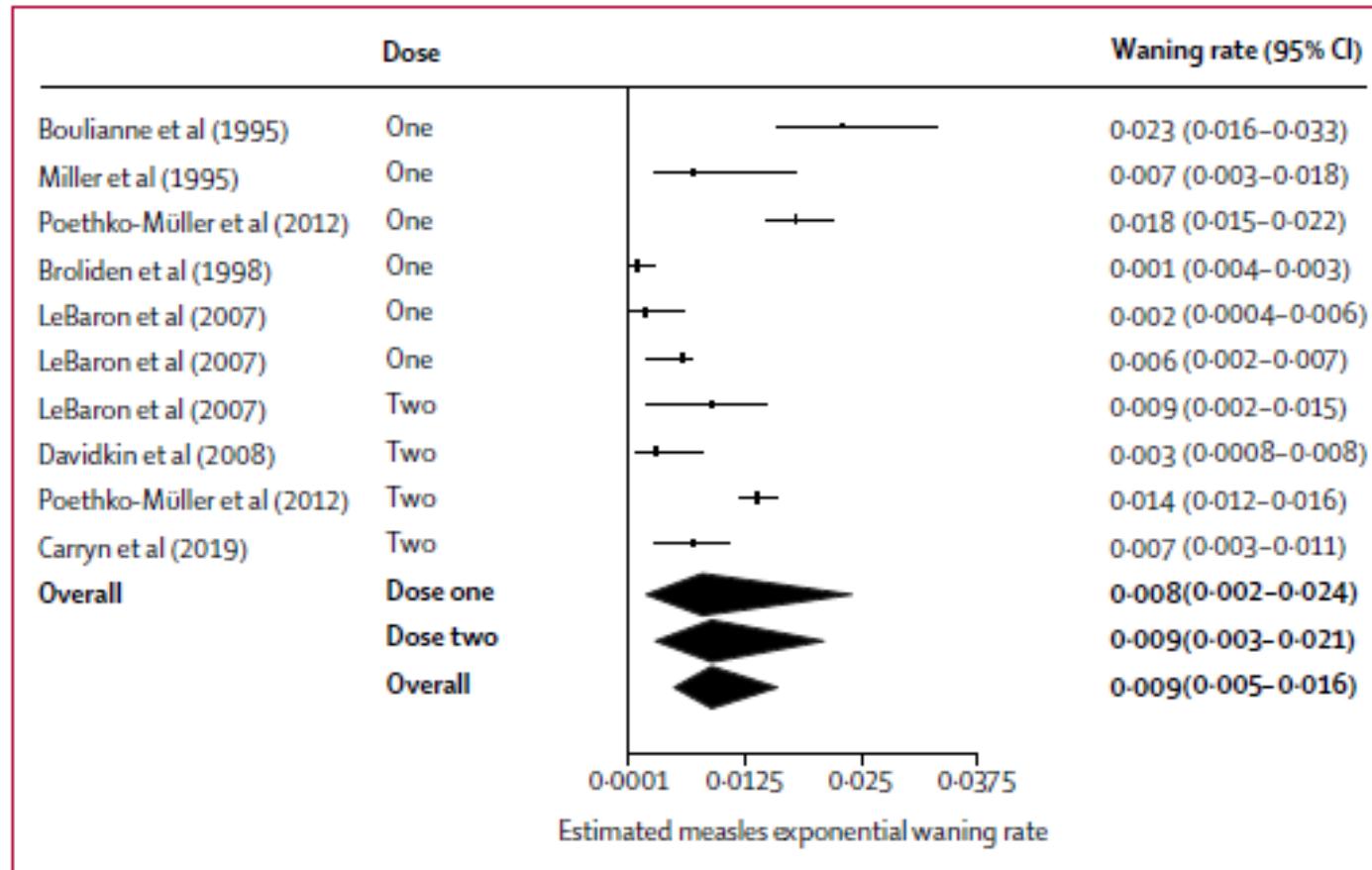
<sup>1</sup>Centre for Research on Epidemiology of Disasters, Research Institute on Health and Society, Université Catholique de Louvain, Brussels, Belgium. <sup>2</sup>World

# ¿Algo más?

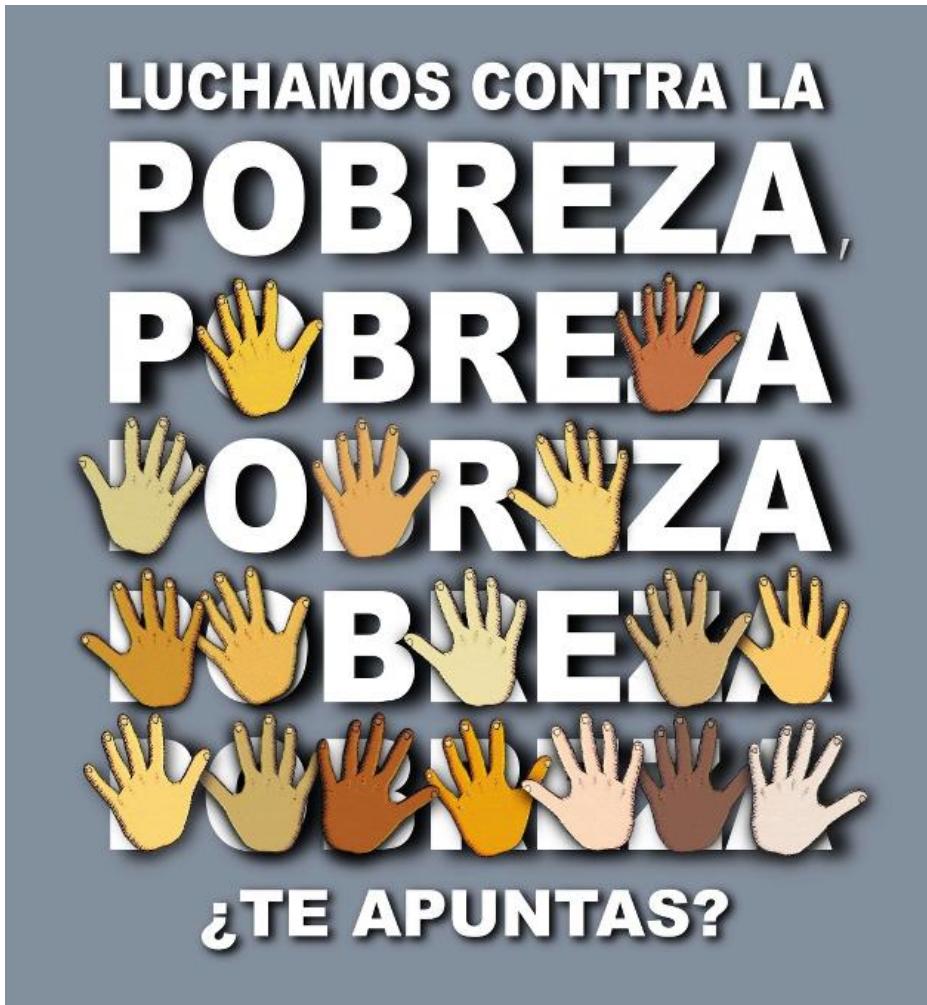
# Immunogenicity and persistence of trivalent measles, mumps, and rubella vaccines: a systematic review and meta-analysis



Julie Schenck, Steven Abrams, Heidi Theeten, Pierre Van Damme, Philippe Beutels, Niel Hens



# Conclusiones



# Conclusiones

- Mantener coberturas vacunales >95%
  - Información y educación sanitaria (redes sociales)
  - inversión
- Adelanto de las primeras dosis
- ¿ Vacunación de adultos jóvenes y adolescentes?

# Muchas gracias