CONGRESO SADI 2017

Mesa redonda SADI/SAP
Coberturas de vacunación, como estamos y que podemos hacer para mejorar

" Cuál es el riesgo de las bajas coberturas "

Mar del Plata
17 de Abril 2017

Dra. Mirta Magariños

Contenido

- Situación de la cobertura global y regional
- Desigualdades en inmunización
- Que podemos aprender de los brotes
- Consideraciones finales

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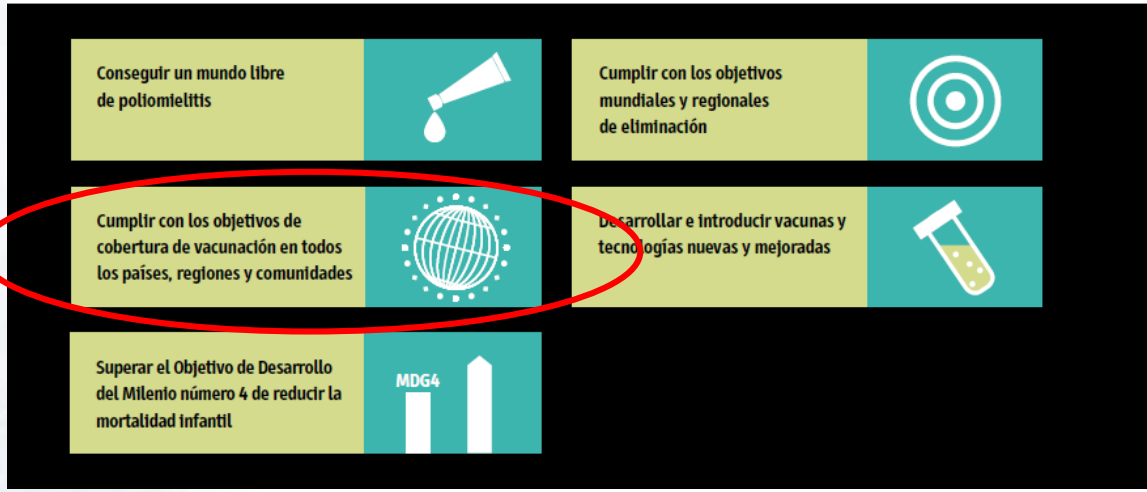
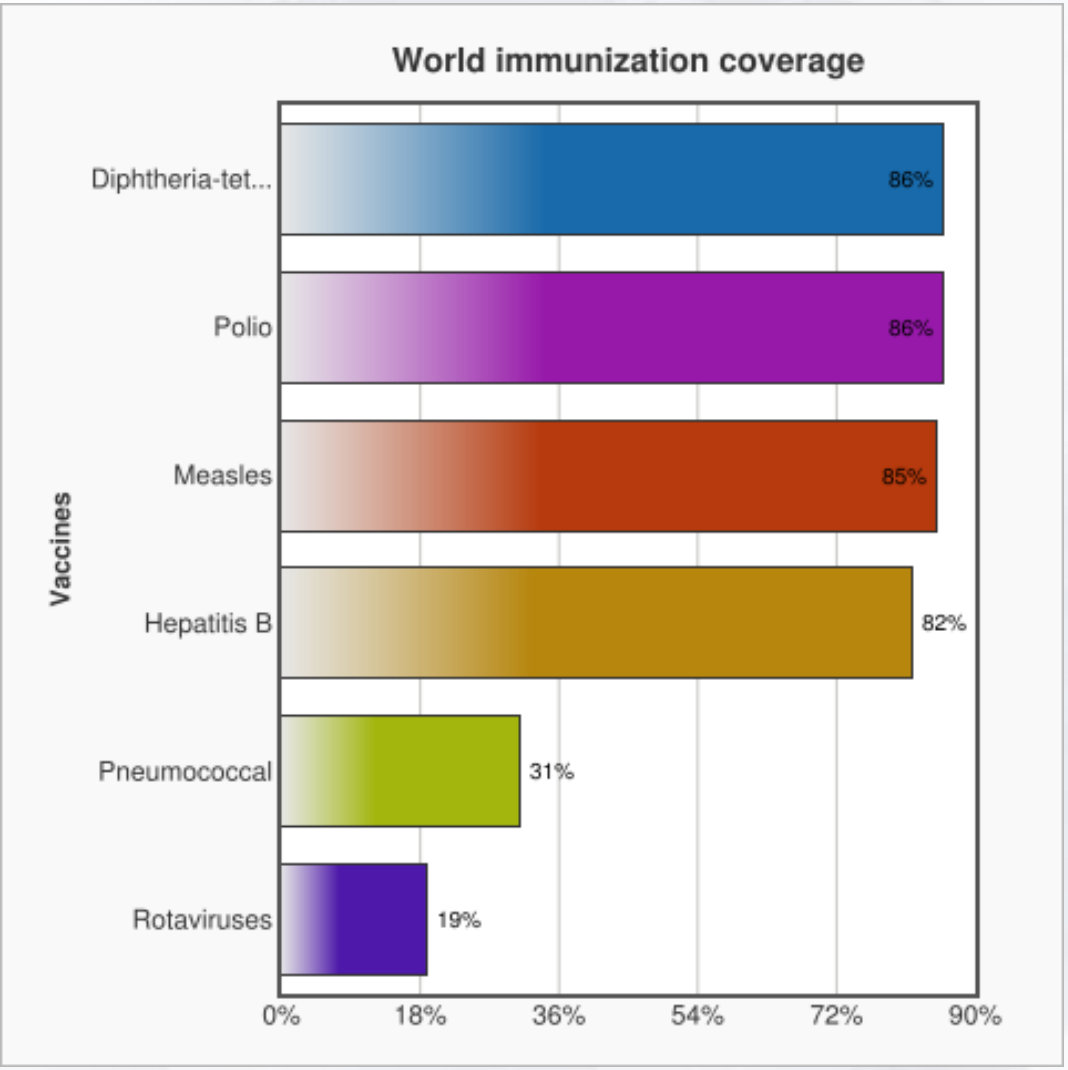
Organización Panamericana de la Salud
Organización Mundial de la Salud
Oficina Regional para las Américas

Aprobado en mayo de 2012 por los 194 Miembros Estados en la 65ta Asamblea Mundial de la Salud

Objetivos generales del Decenio de las Vacunas (2011–2020)



Algunas cifras



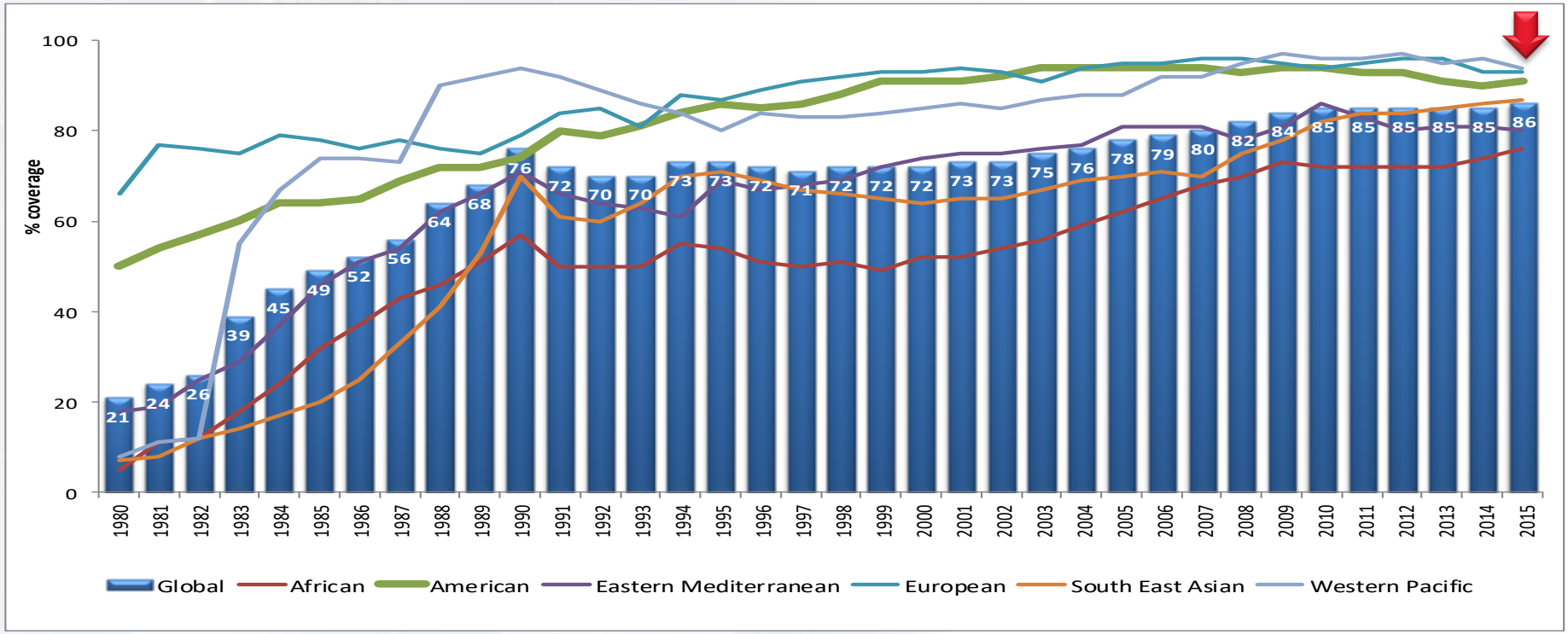
116 millones de niños vacunados con 3 dosis de DPT en 2015

Se evitan entre **2 y 3 millones** de muertes por año en todos los grupos de edad por difteria, tétanos, coqueluche y sarampión

19,4 millones de niños sin vacunar con DPT

Fact sheet N° 379
Updated September 2016

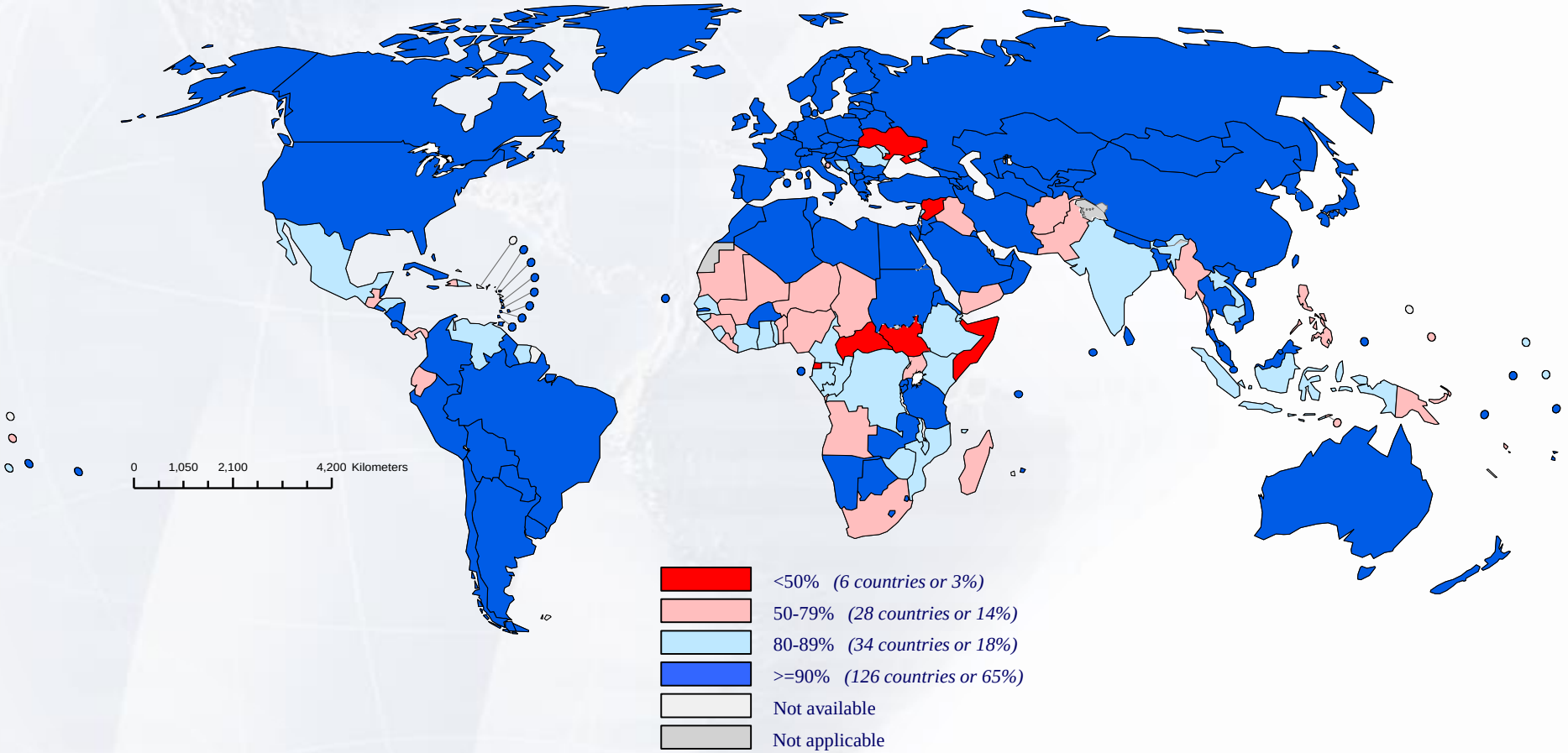
Cobertura con DTP3 a nivel Global y Regional, 1980-2015



Global coverage at 86% in 2015

Source: WHO/UNICEF coverage estimates 2015 revision. July 2016
Immunization Vaccines and Biologicals, (IVB), World Health Organization.
194 WHO Member States. Date of slide: 16 July 2016.

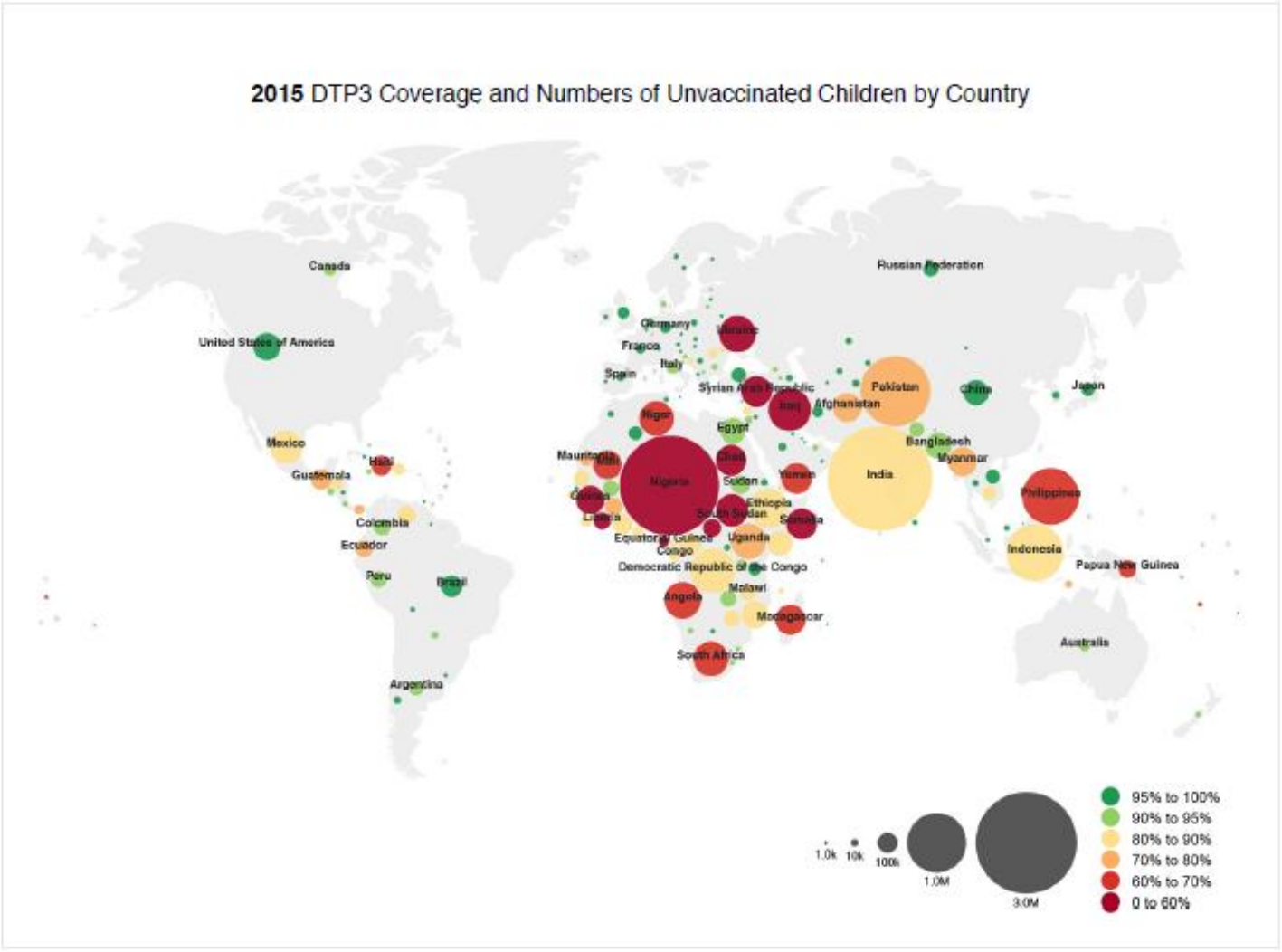
Cobertura con DTP3, 2015



Source: WHO/UNICEF coverage estimates 2015 revision. July 2016. Map production: Immunization Vaccines and Biologicals, (IVB). World Health Organization. 194 WHO Member States.
Date of slide: 28 July 2016

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 lines on maps represent approximate border lines for which there may not yet be full agreement. © WHO 2016. All rights reserved

19.4 millones de niños no inmunizados (DTP3), 2015



Many countries still struggle to achieve high immunization coverage.

67 countries have not yet been able to reach and sustain the GVAP coverage targets, and will need to carefully examine their data and develop strategies to address gaps in immunization coverage. Despite recent progress, the challenges remain largest in the African, Eastern Mediterranean and South East Asian regions. the African region still has most unvaccinated children, as well as most of the countries with very low coverage.

Source: WHO/UNICEF coverage estimates 2015 revision, for 194 WHO Member States. Slide produced in July 2016 by Immunization Vaccines and Biologicals, (IVB), World Health Organization. All content of this slide may be reused, with credit to WHO.

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 lines on maps represent approximate border lines for which there may not yet be full agreement. © WHO 2015. All rights reserved

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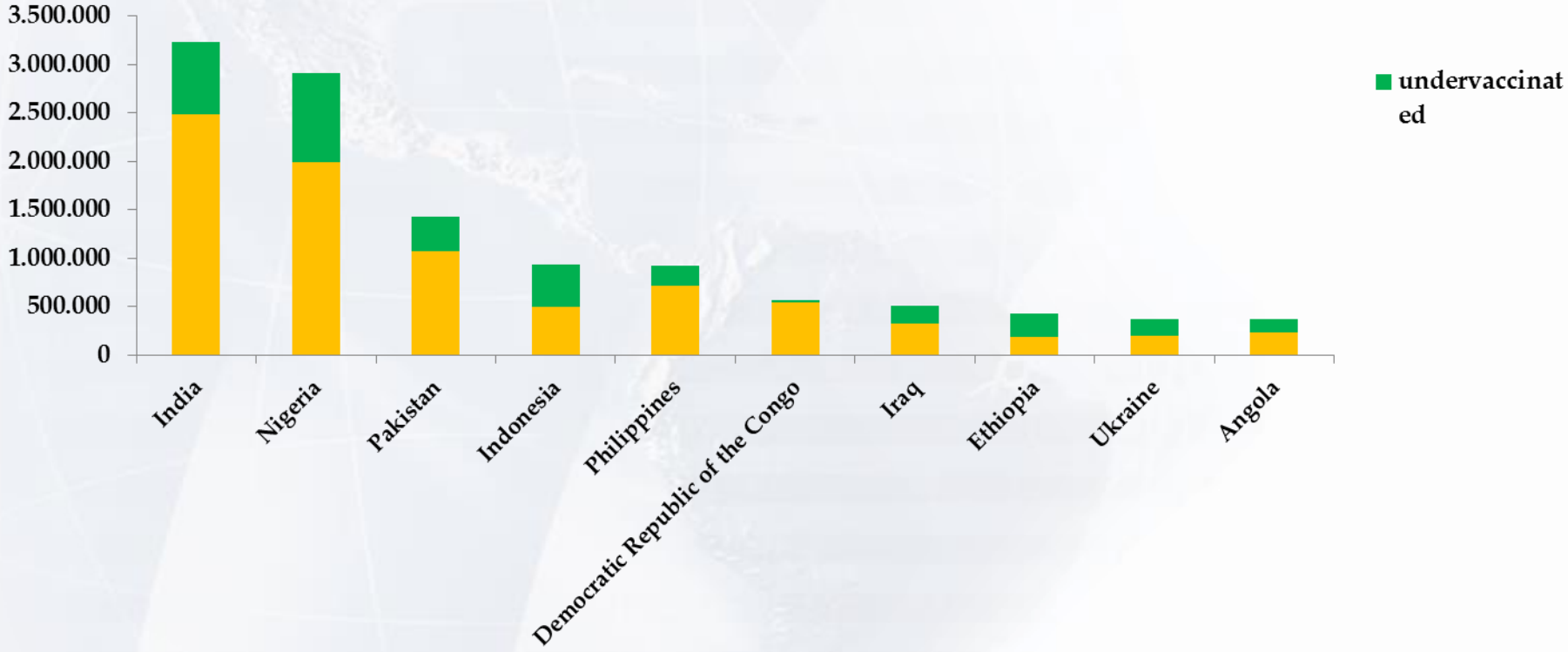
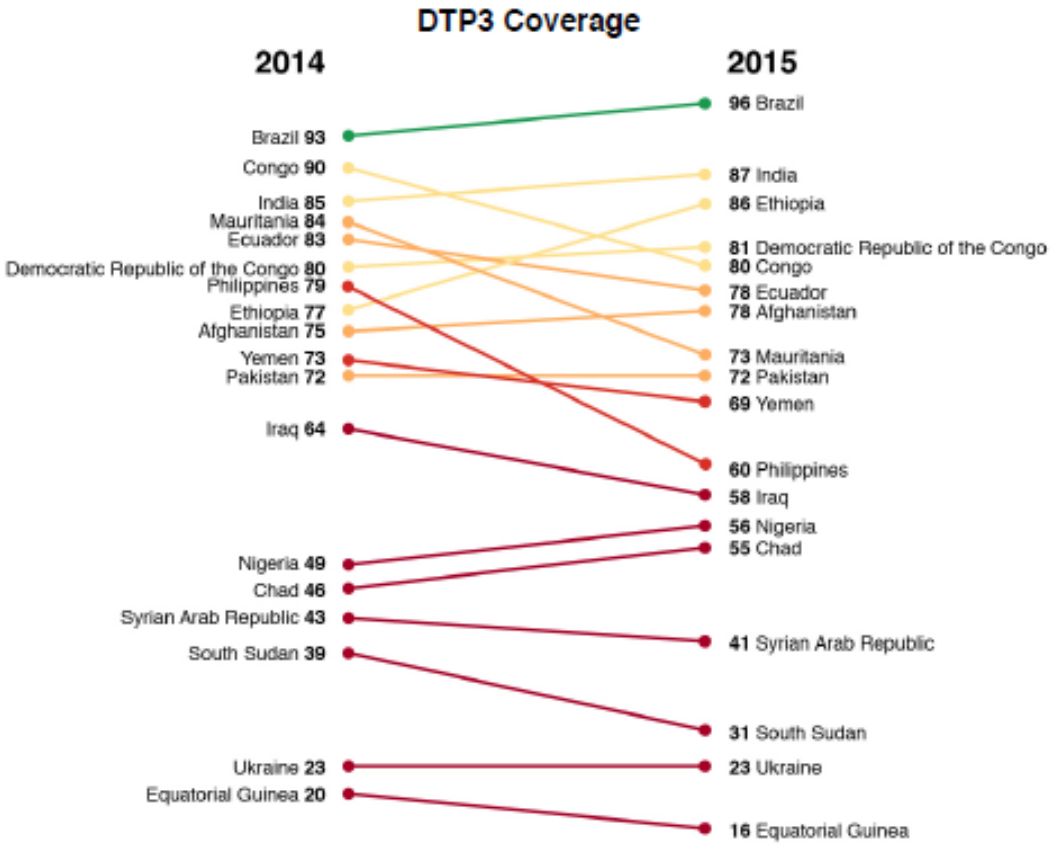
Países con mayor cantidad de niños no inmunizados (basados en la cobertura DPT3), 2015



Source: WHO/UNICEF coverage estimates 2015 revision. July 2016
Immunization Vaccines and Biologicals, (IVB), World Health Organization.
194 WHO Member States. Date of slide: 19 July 2016



Selected Movers In 2015

The most significant year-over-year changes in 2015 include a drop in coverage in the Philippines, due to vaccine stock-outs, and a further deterioration in South Sudan. On the other hand, Chad, Nigeria, and Ethiopia all report robust progress. Upcoming coverage evaluation surveys will need to confirm that progress.

Source: WHO/UNICEF coverage estimates 2015 revision, for 194 WHO Member States. Slide produced in July 2016 by Immunization Vaccines and Biologicals, (IVB), World Health Organization. All content of this slide may be reused, with credit to WHO.

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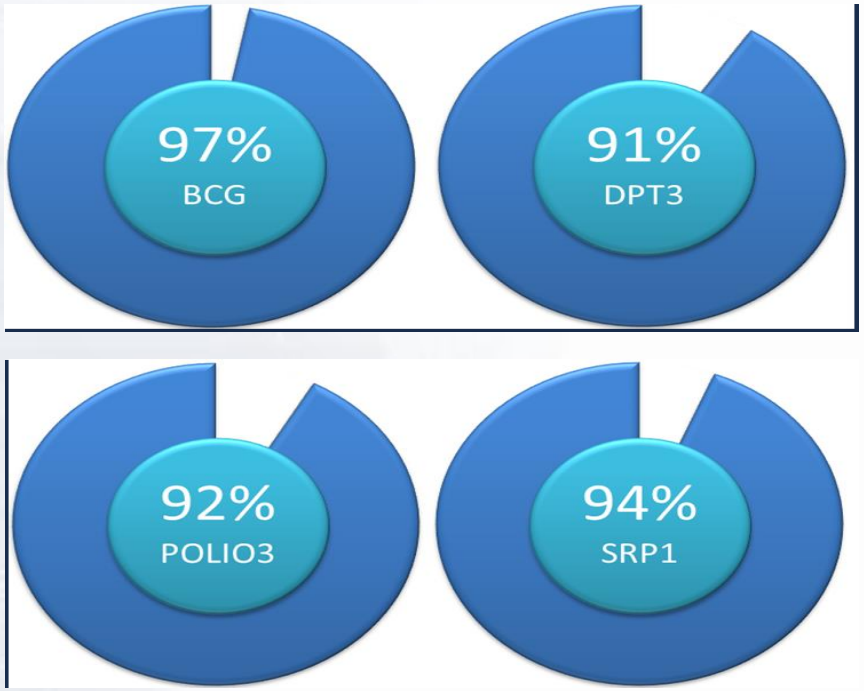
Cobertura de vacunación en la Región de las Américas 2015



Source: Joint Reporting Form, JRF 2016.

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Organización Panamericana de la Salud
Organización Mundial de la Salud
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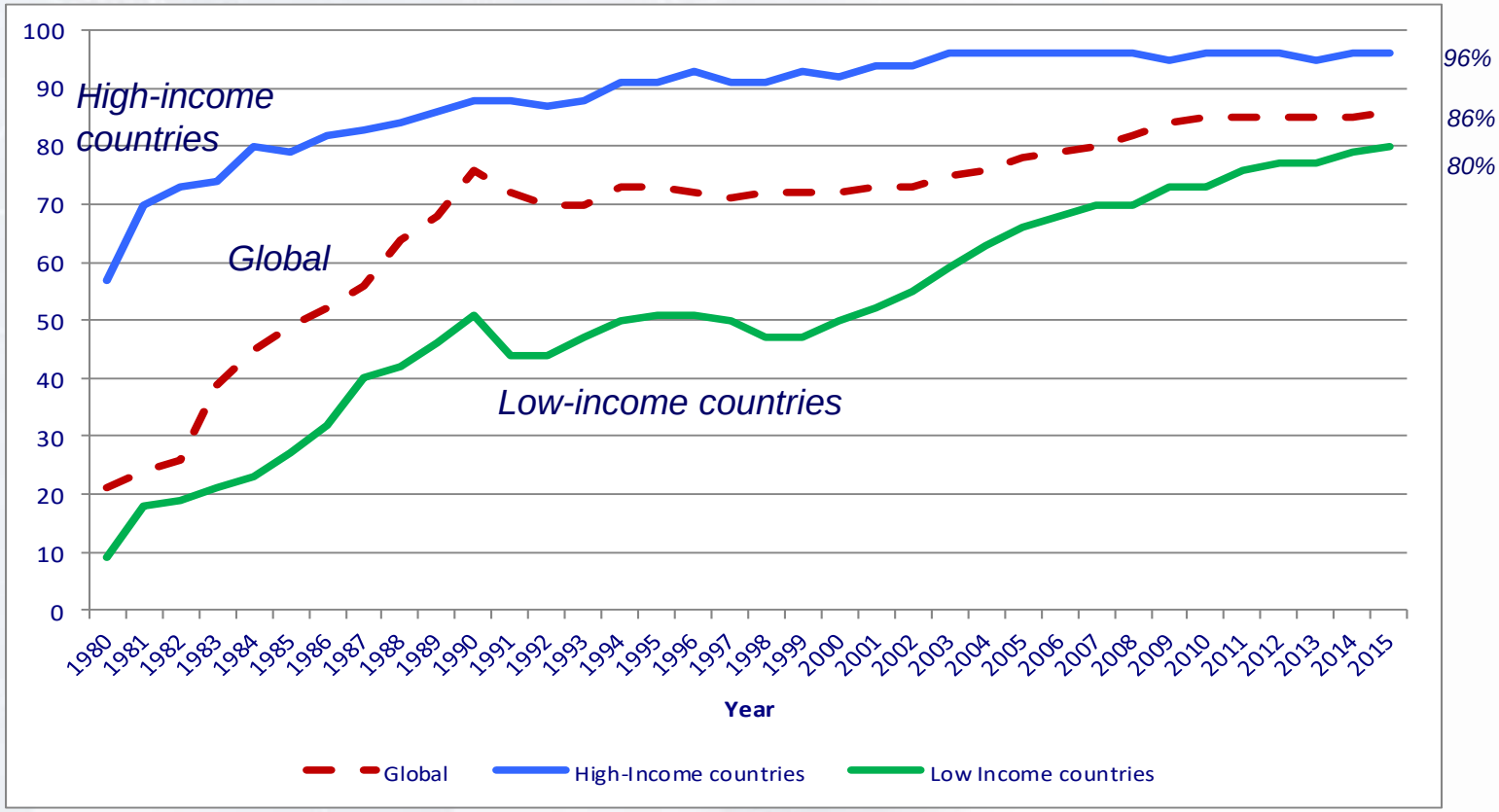
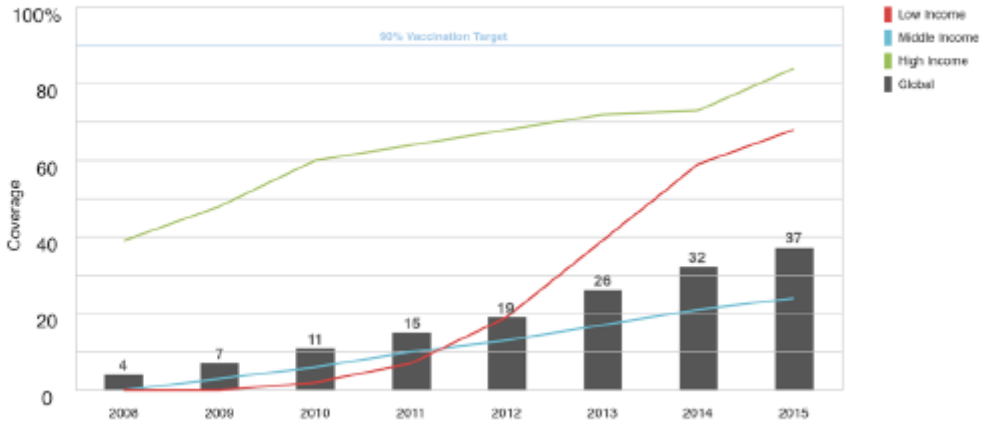
Cobertura con DTP3, según niveles de ingreso de los países, 1980-2015

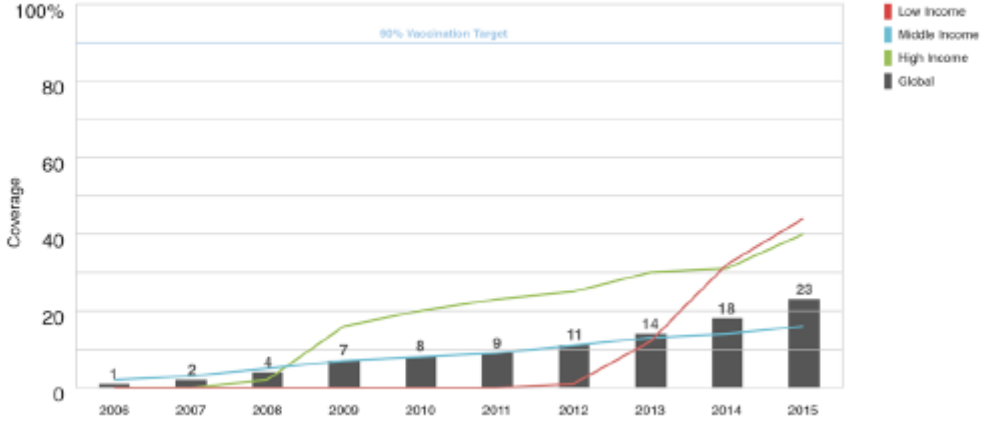


Source: WHO/UNICEF coverage estimates 2015 revision. July 2016 and Country Income Categories (World Bank) as of July 2016 (2015 GNI per capita). Income classification not available for: Cook Islands and Niue
Immunization Vaccines and Biologicals, (IVB), World Health Organization.
194 WHO Member States. Date of slide: 28 July 2016.

Pneumococcal Vaccine



Rotavirus Vaccine



Coverage for newer vaccines is lagging in middle income countries.

The number of countries using new vaccines such as rotavirus (81 countries) and pneumococcal conjugate vaccine (128 countries) has increased, but global coverage remains low at 23% and 32%, respectively. Vaccine introduction is especially lagging in middle income countries. These countries are often not able to finance introduction with national resources, while they generally don't have access to external funding sources. Low income countries have largely been able to close the gap in coverage with high income countries with assistance from Gavi, the Vaccine Alliance.

Source: WHO/UNICEF coverage estimates 2015 revision, for 194 WHO Member States. Slide produced in July 2016 by Immunization Vaccines and Biologicals, (IVB), World Health Organization. All content of this slide may be reused, with credit to WHO.

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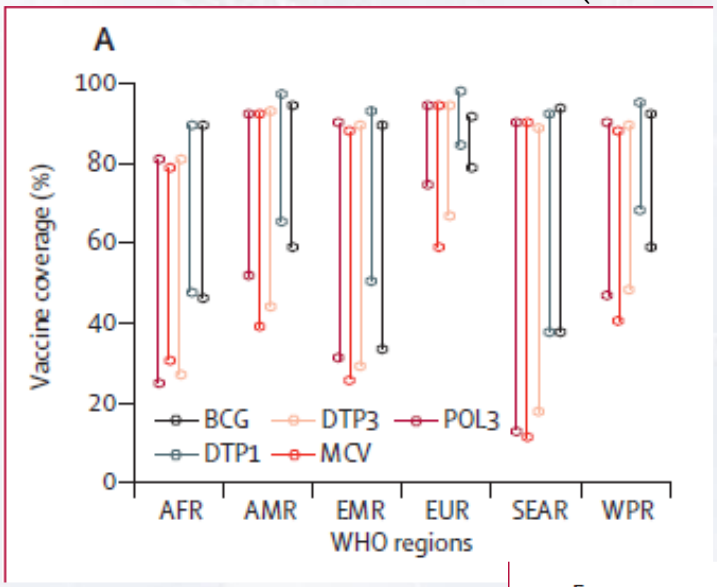
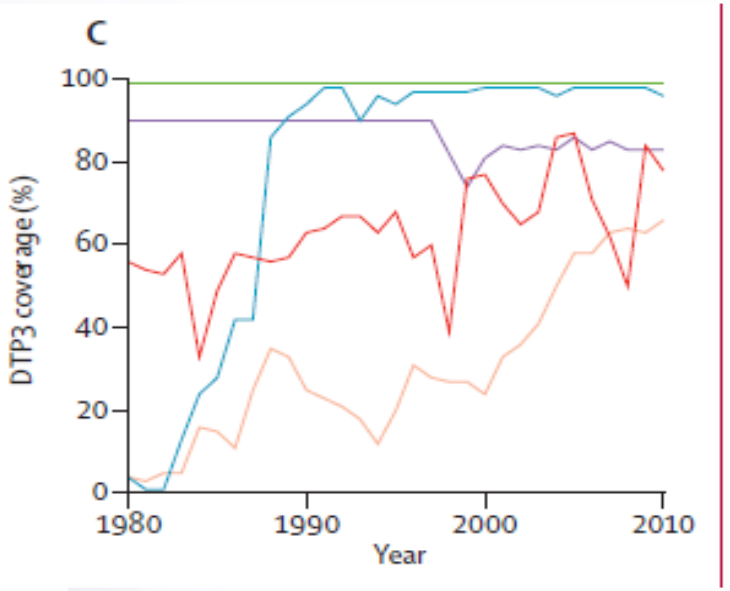
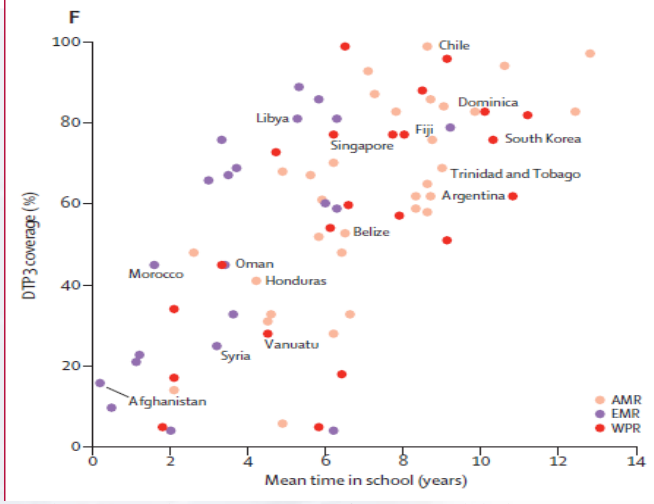
Dinámica de los factores socioeconómicos en la cobertura de DPT 3

Tendencia de cobertura DPT3 (1980-2010)



Comportamiento de la cobertura de DPT3 (1980-2010)



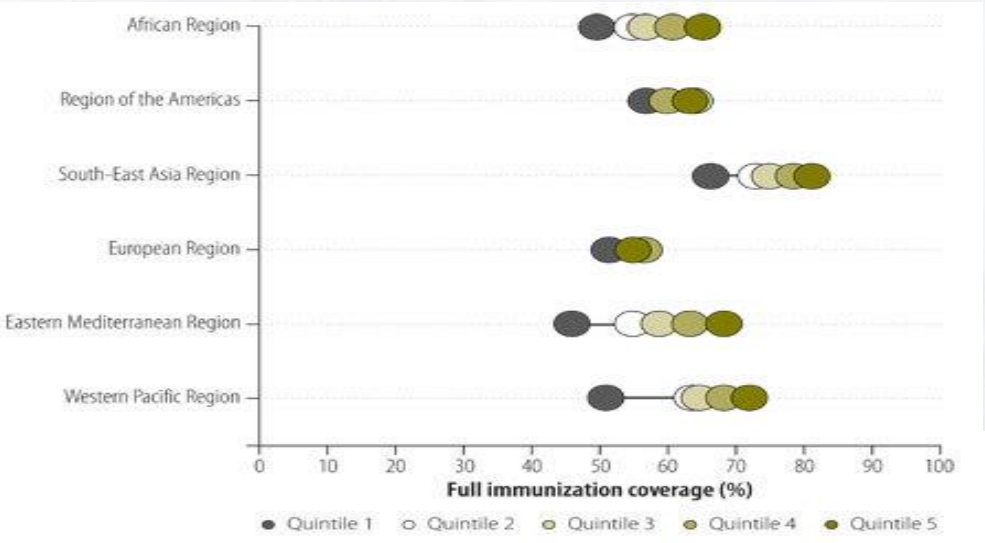


Correlación de cobertura DPT3 y educación materna según región de WHO

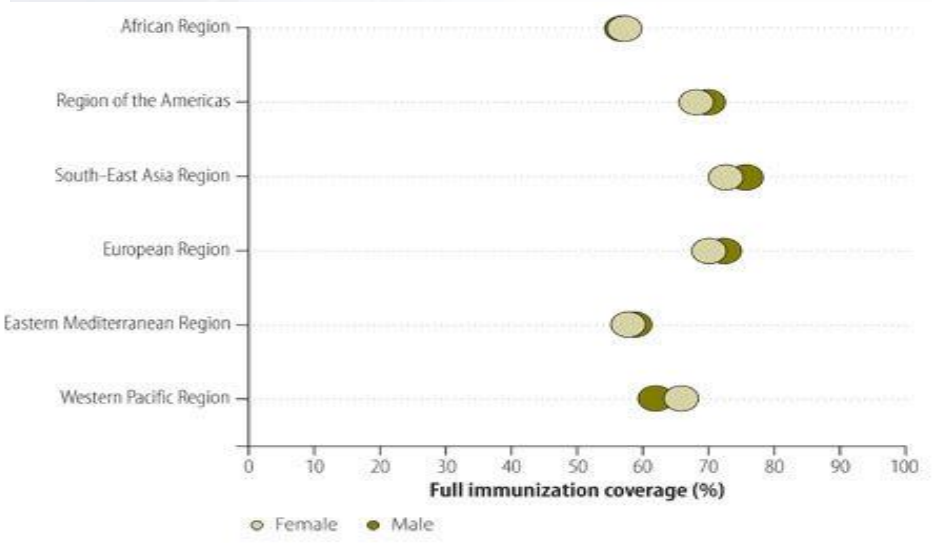
Forecasted trends in vaccination coverage and correlations with socioeconomic factors: a global time-series analysis over 30 years. Alexandre de Figueiredo, Iain G Johnston, David M D Smith, Sumeet Agarwal, Heidi J Larson, Nick S Jones* Lancet Glob Health 2016; 4: e726–35*

Cobertura promedio de niño totalmente inmunizado en 86 países de bajo o medio ingreso 2001-2012

según quintiles de riqueza



según sexo



Bulletin of the World Health Organization 2016;94:794-805B. Full coverage indicates the proportion of eligible children, included in national surveys, conducted between 2001 and 2012, who, at any age, had received one dose of bacille Calmette-Guérin vaccine, one dose of measles vaccine, three doses of – trivalent, tetravalent or pentavalent – vaccine against diphtheria, pertussis and tetanus and three doses of polio vaccine

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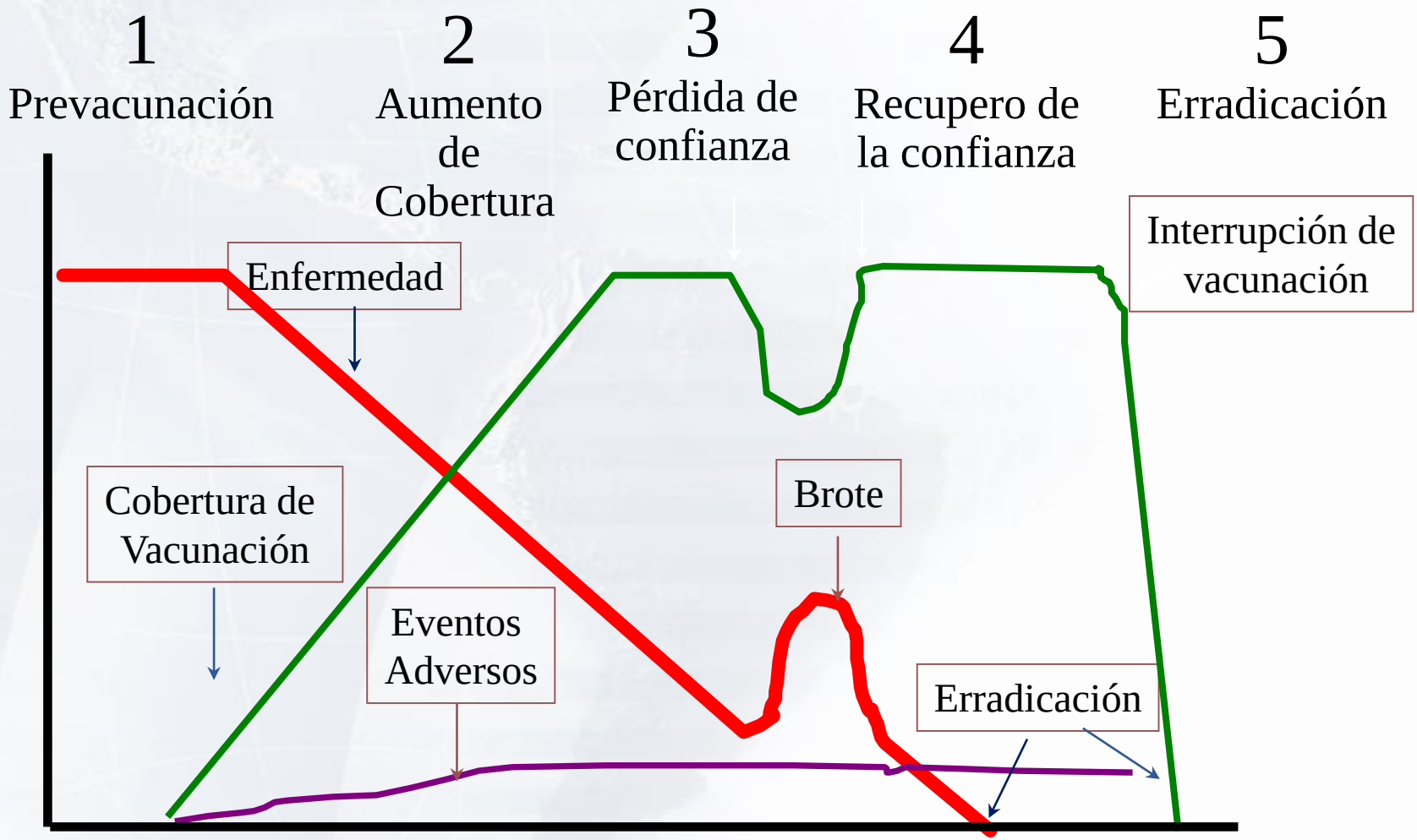
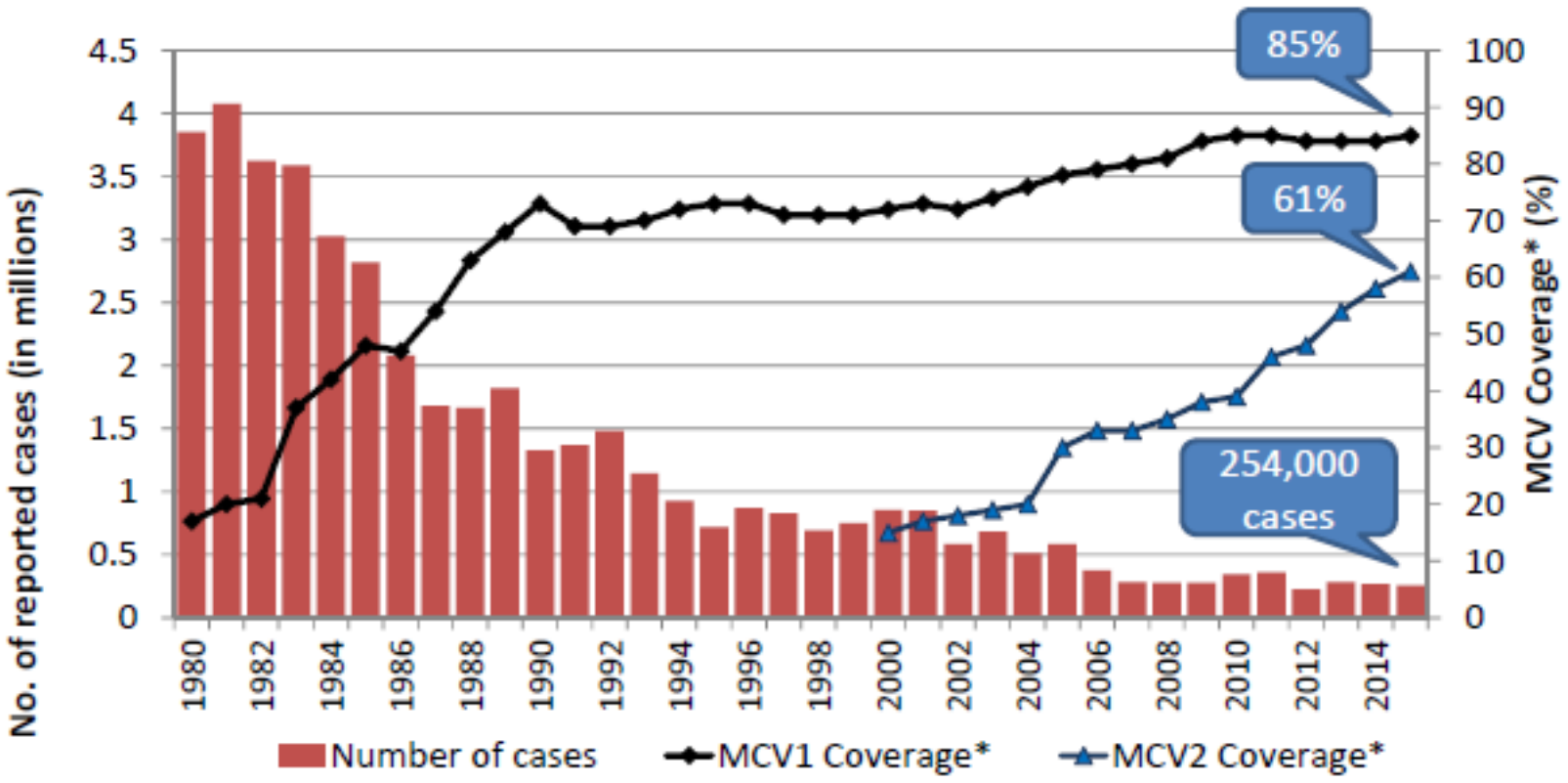
Historia Natural de los Programas de Vacunación



C., R et. al., "Vaccine Safety: Future Challenges" Ped. Ann., July 1998; 27(7): 445-55

MCV1 coverage and measles case count

Annual reported measles cases and MCV1 and MCV2** coverage*, 1980-2015



* Coverage as estimated by WHO and UNICEF.

**MCV2 estimates is only available from 2000 when global data collection started, however some countries have introduced the vaccine earlier.

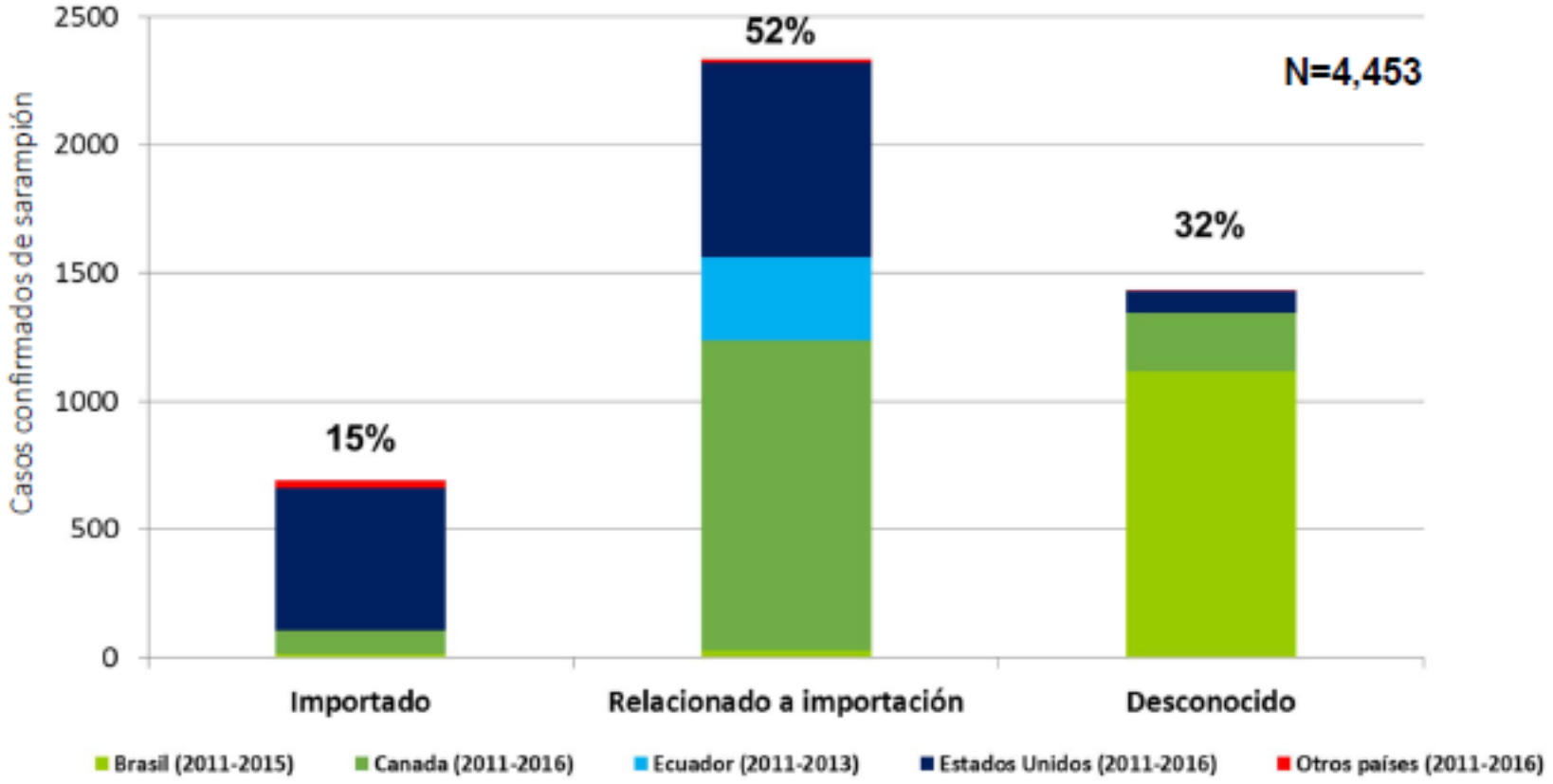
MEASLES & RUBELLA INITIATIVE

Source: JRF
194 WHO Member States.
Updated on 18 July 2016

American Red Cross · CDC · unicef · UNITED NATIONS FOUNDATION · World Health Organization

WHO

Casos de sarampión importados y relacionados a importación. Las Américas, 2011-2016*



Fuente: sistemas de información de vigilancia sarampión-rubeola de la OPS (MESS e ISIS) y reporte de países

*Datos hasta la SE 11, 2017

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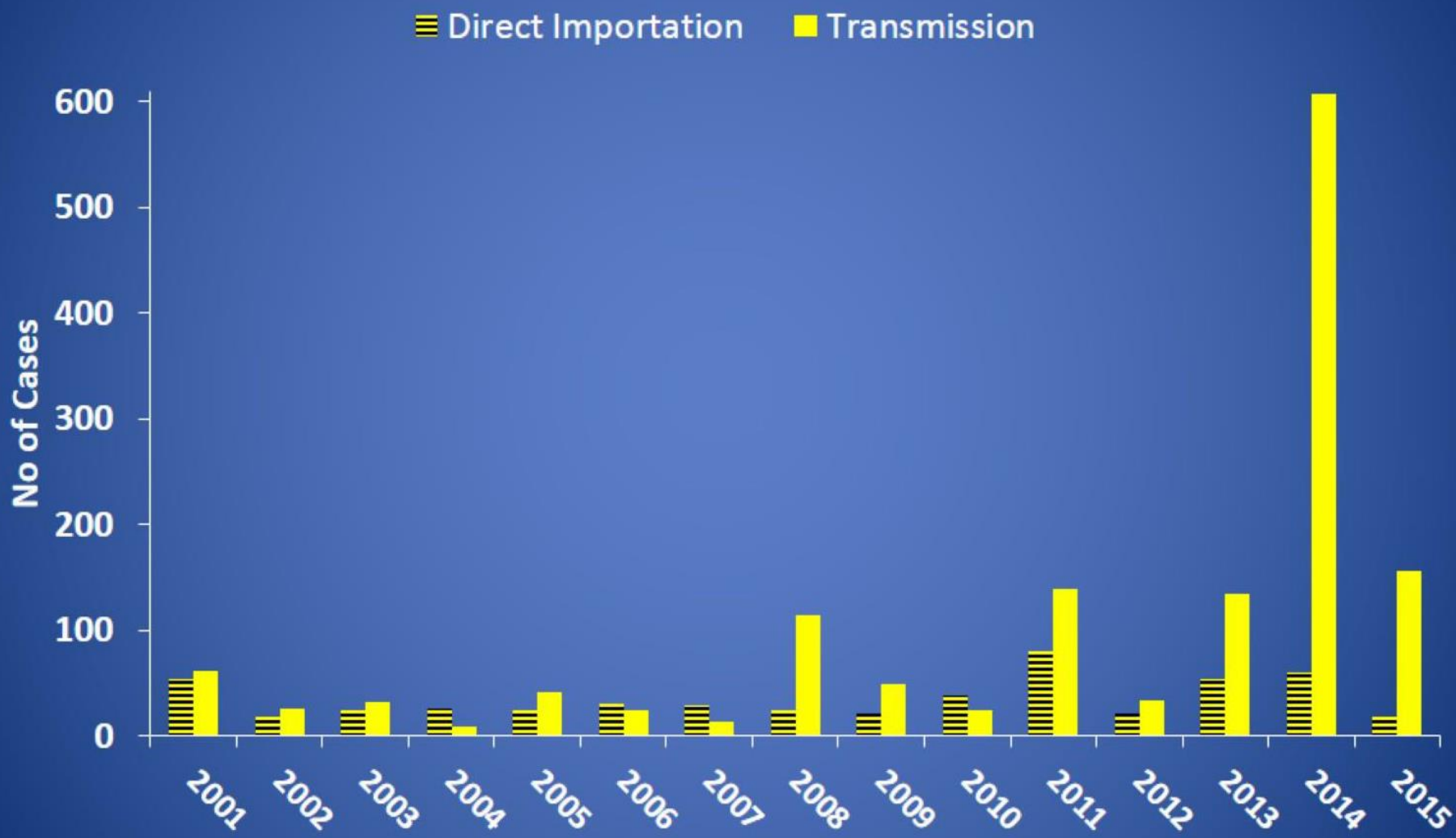
Organización Mundial de la Salud Américas

Measles Outbreaks (>20 cases), United States, 2001-2015*

Year	State	# of Cases	Source Country (genotype)	Setting	Duration	Median Age	# (%) Unvaccinated	# (%) Unknown Vaccine Status	Reason Unvaccinated %PBE/% Too Young/% Unknown
2014	**OH**	**383**	**Philippines (D9)**	**Community**	**18 weeks**	**23 yrs (early) 13 yrs (late)**	**354 (92)**	**23 (6)**	**92%/5%/3%**
2014/15	**CA + 6**	**147**	**Unknown (B3)**	**Community**	**9 weeks**	**21 yrs**	**63 (43)**	**60 (41)**	**60%/25%/14%**
2013	**NYC**	**58**	**United Kingdom (D8)**	**Household/ community**	**13 weeks**	**10 yrs (early) 19 mos (late)**	**59 (100)**	**0 (0)**	**92%/7%/2%**
2014	MO/KS (TX/NE)	43	Unknown (B3)	Community	11 weeks	21 yrs	29 (66)	10 (23)	7%/24%/69%
2005	IN	34	Romania (D4)	Church/ household	6 weeks	13 yrs	30 (88)	2 (6)	97%/3%/0%
2008	IL	30	Unknown (D4)	Homeschool	7 weeks	10 yrs	30 (100)	0 (0)	94%/3%/3%
2014	NYC	25	Unknown (B3)	Community	6 weeks	22 yrs	9 (36)	10 (40)	22%/44%/33%
2013	NC	23	India (D8)	Community	5 weeks	14 yrs	18 (78)	2 (9)	100%/0%/0%
2013	TX	21	Indonesia (D9)	Church	5 weeks	13 yrs	18 (86)	1 (5)	94%/6%/0%
2011	**MN**	**21**	**Kenya (B3)**	**Shelters**	**10 weeks**	**23 mos**	**17 (81)**	**4 (19)**	**41%/41%/18%**
2008	NYC	21	Israel/Belgium (D4)	Community	10 weeks	15 mos	14 (67)	6 (29)	29%/36%/36%

Diapositiva Dr. Wallace

Measles, United States, 2001-2015*



*as of 19 June 2015

Diapositiva Dr. Wallace

Brote de sarampión en una comunidad Amish no vacunada. Ohio 2014

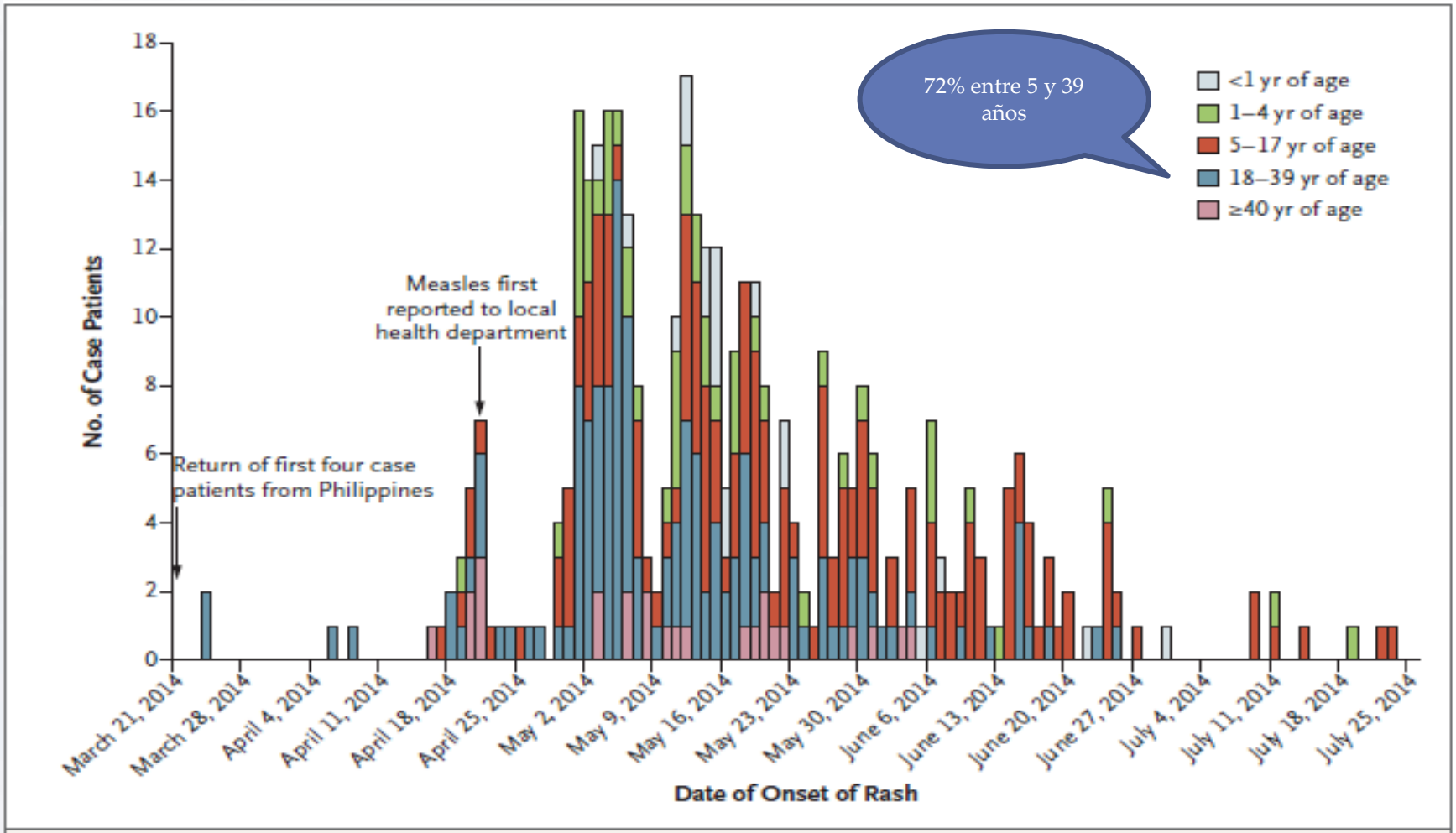


Figure 1. Epidemiologic Curve of 383 Case Patients with Confirmed Outbreak-Associated Measles in Ohio, March 24, 2014, through July 23, 2014.

Paul A. Gastanaduy, M.D., M.P.H., et all. A Measles Outbreak in an Underimmunized Amish Community in Ohio. N Engl J Med 375;14 nejm.org October 6, 2016

Brote de sarampión en una comunidad Amish no vacunada. Ohio 2014

Table 2. Measles Vaccination Status of 383 Case Patients with Outbreak-Related Measles in Ohio, March through July 2014.*

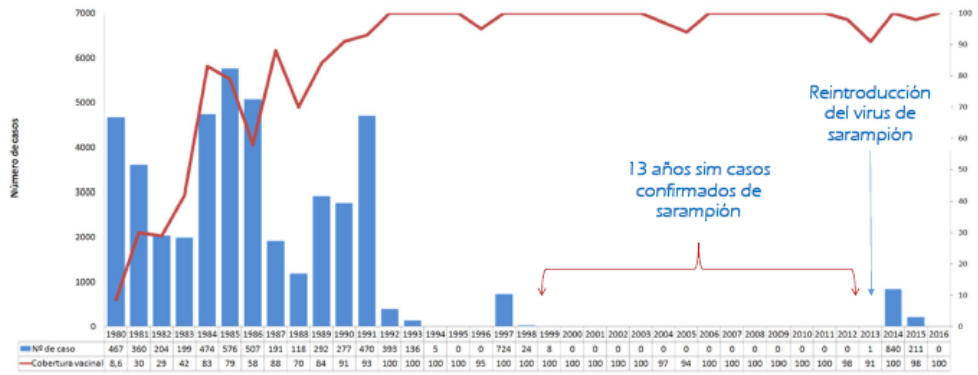
Characteristic	Value
Vaccine-eligible — no. (%)†	363 (95)
Vaccination status — no. (%)‡	
Before start of outbreak§	
0 doses	340 (89)
1 dose	4 (1)
2 doses	1 (<1)
Unknown	38 (10)
Before exposure¶	
0 doses	324 (85)
1 dose	20 (5)
2 doses	1 (<1)
Unknown	38 (10)
By end of outbreak‖	
0 doses	234 (61)
1 dose	82 (21)
2 doses	29 (8)
Unknown	38 (10)
Reasons for not receiving measles vaccine — no./total no. (%)**	
Philosophical beliefs, religious beliefs, or both††	281/340 (83)
Ineligible‡‡	20/340 (6)
Other§§	39/340 (11)

Paul A. Gastanaduy, M.D., M.P.H., et all. A Measles Outbreak in an Underimmunized Amish Community in Ohio. N Engl J Med 375;14 nejm.org October 6, 2016

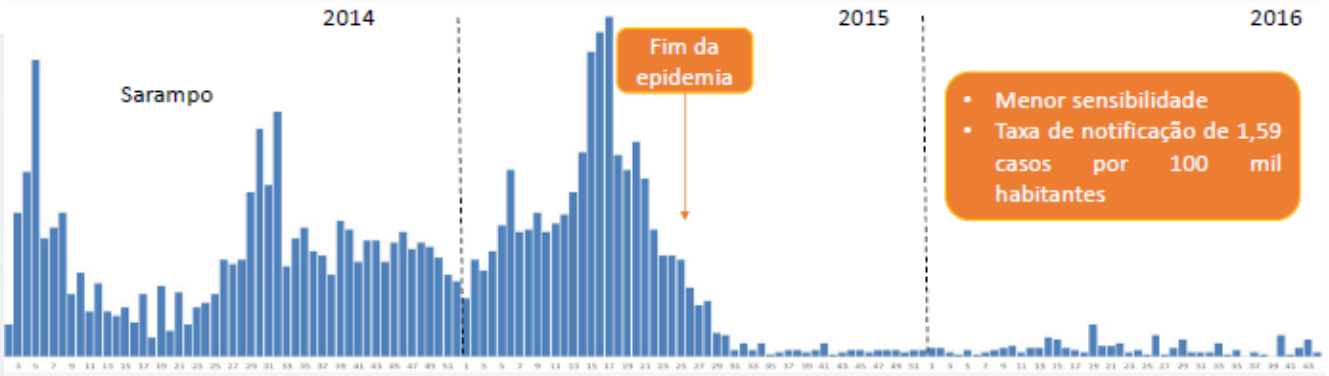
Reintroducción de la circulación endémica en Brasil

Descripción de la Epidemia

Serie histórica de casos confirmados y coberturas de vacunación de rutina. Ceará, 1980-2016*



Fonte: SESA/COPROM/NUVEP/SINAN.* Atualização em: 01/12/2016. Dados sujeitos à revisão.



Distribución de casos de sarampión con historia de vacunación con una dosis, con más de 30 días entre la vacunación e inicio de exantema. Ceará, 2013-2015

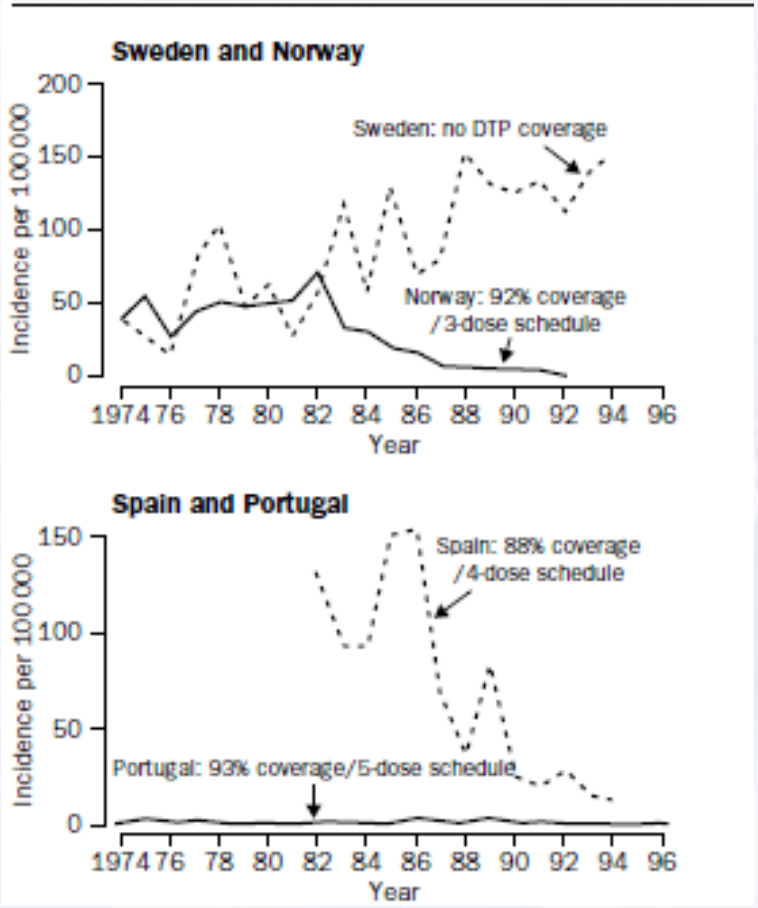
Faixa Etária	População	Nº de casos confirmados	Vacinado > 30 dias		
			N	%	Incidência
6 meses a 1 ano	69.195	181	9	5,0	13,0
1 a 4 anos	515.992	121	22	18,2	4,3
5 a 9 anos	708.874	52	5	9,6	0,7
10 a 14 anos	862.582	94	18	19,1	2,1
15 a 19 anos	862.235	133	20	15,0	2,3
20 a 29 anos	1.595.273	202	16	7,9	1,0
30 a 39 anos	1.257.355	76	6	7,9	0,5
40 a 49 anos	1.038.969	52	1	1,9	0,1
50 anos ou mais	1.624.147	25	1	4,0	0,1
Total	**8.592.285**	**936**	**98**	**10,5**	**1,1**

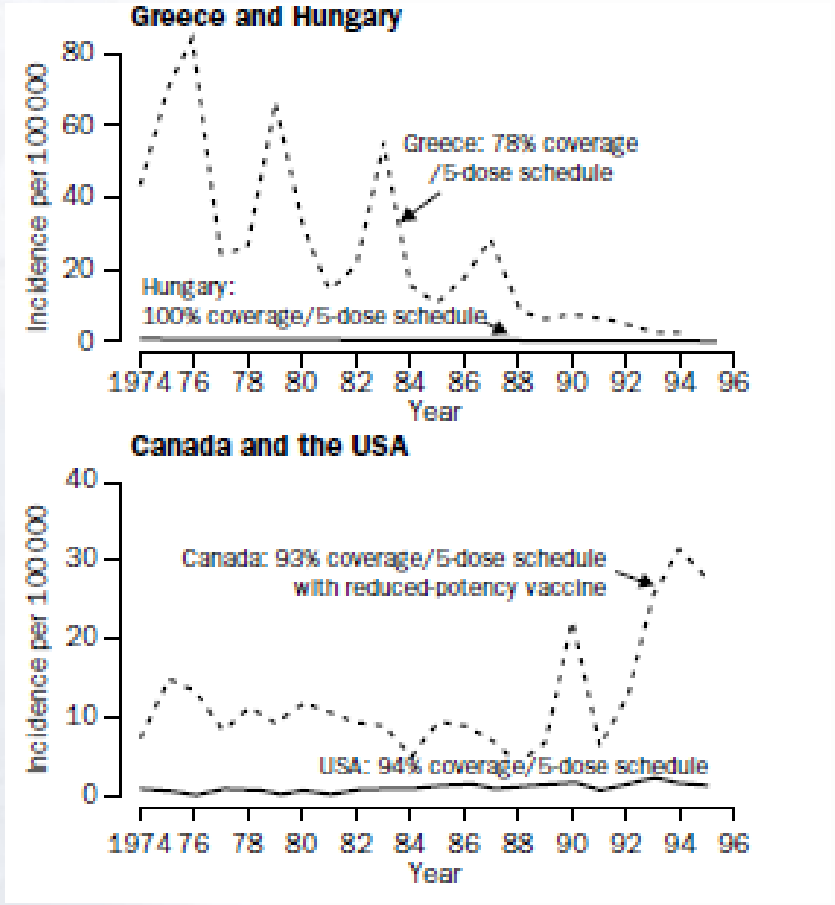
Fonte: SESA/COPROM/NUVEP/SINAN.* Atualização em: 01/12/2016.

Características de los brotes de sarampión en las Américas, 2013–2015

	Estados Unidos (2014–2015)	Brasil (2013–2015)
Diseminación	Rápida diseminación dentro de EE.UU y países vecinos (Canadá y México)	Lenta, sostenida, transmisión por goteo en Pernambuco y Ceará
Genotipo	Más de un genotipo en EE.UU en varios brotes	Un genotipo
Control de brote	Controlados agresivamente	Sostenido por más de 24 meses
Edad de los casos	EE.UU: 53% 5-39a y 28% en <5a	Pernambuco: <1a: 48% Ceará: <1a: 28% y 15-29a: 34%
Estado vacunal	Más del 80% no vacunado	Alrededor del 89% no vacunado
Barreras a la vacunación	Razones filosóficas, religiosas o personales; no elegibles para vacunación	No elegibles para vacunación; barreras de acceso; limitados recursos humanos

Incidencia de pertussis en países vecinos con alta y baja cobertura

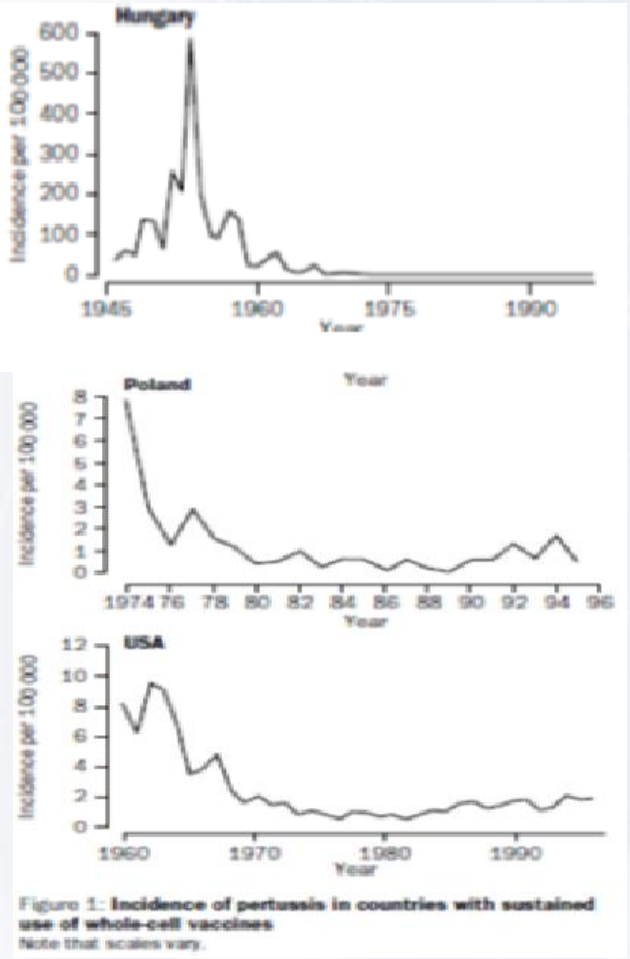


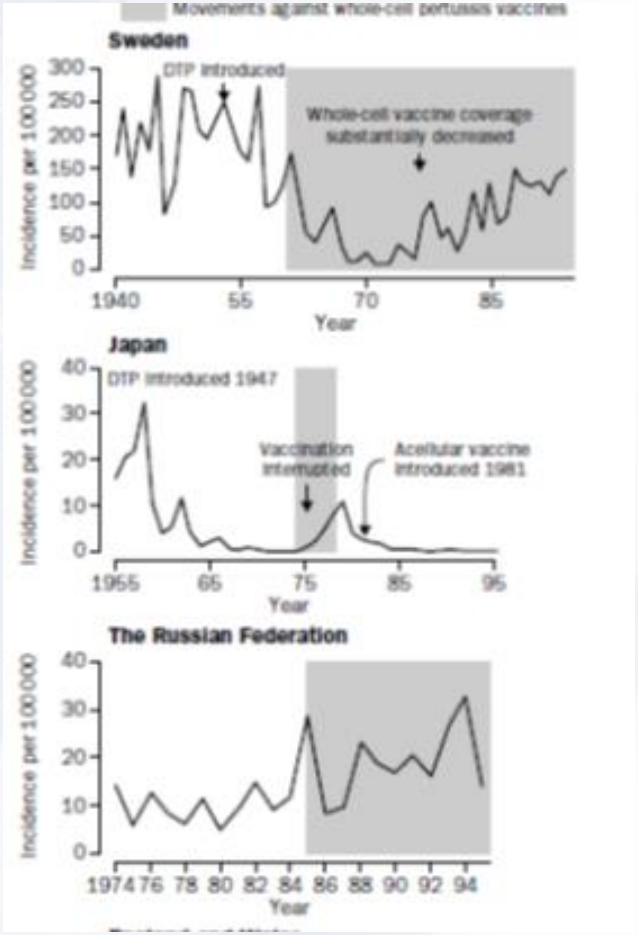


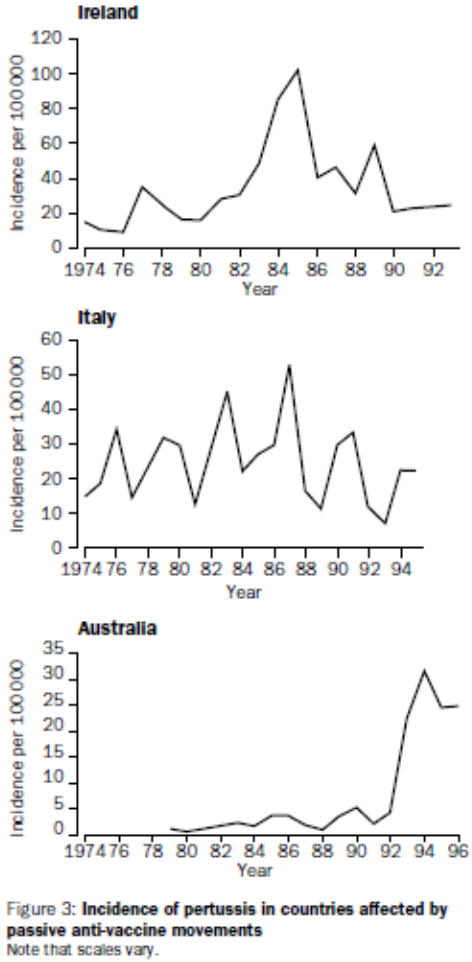
Los países con alta cobertura reportan una incidencia de pertussis 10 a 100 veces menor

E J Gangarosa . Impact of anti-vaccine movements on pertussis control: the untold story. LANCET Vol 351 January 31, 1998.,

Pertussis

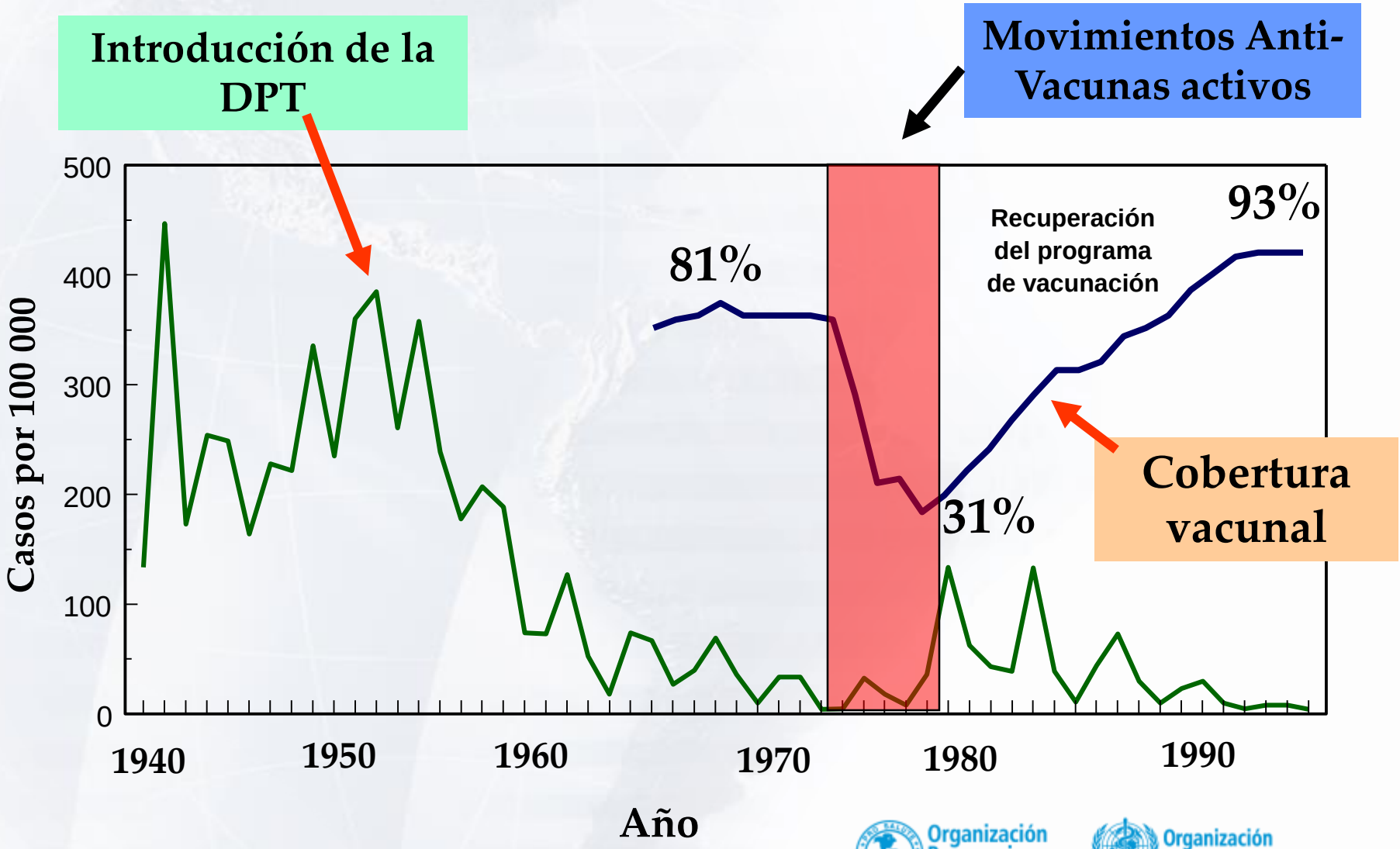






E J Gangarosa . Impact of anti-vaccine movements on pertussis control: the untold story. LANCET Vol 351 January 31, 1998.,

Incidencia de tosferina en países afectados por movimientos anti-vacunas: Inglaterra y Gales



Fuente: Gangarosa. Lancet 351, 1998

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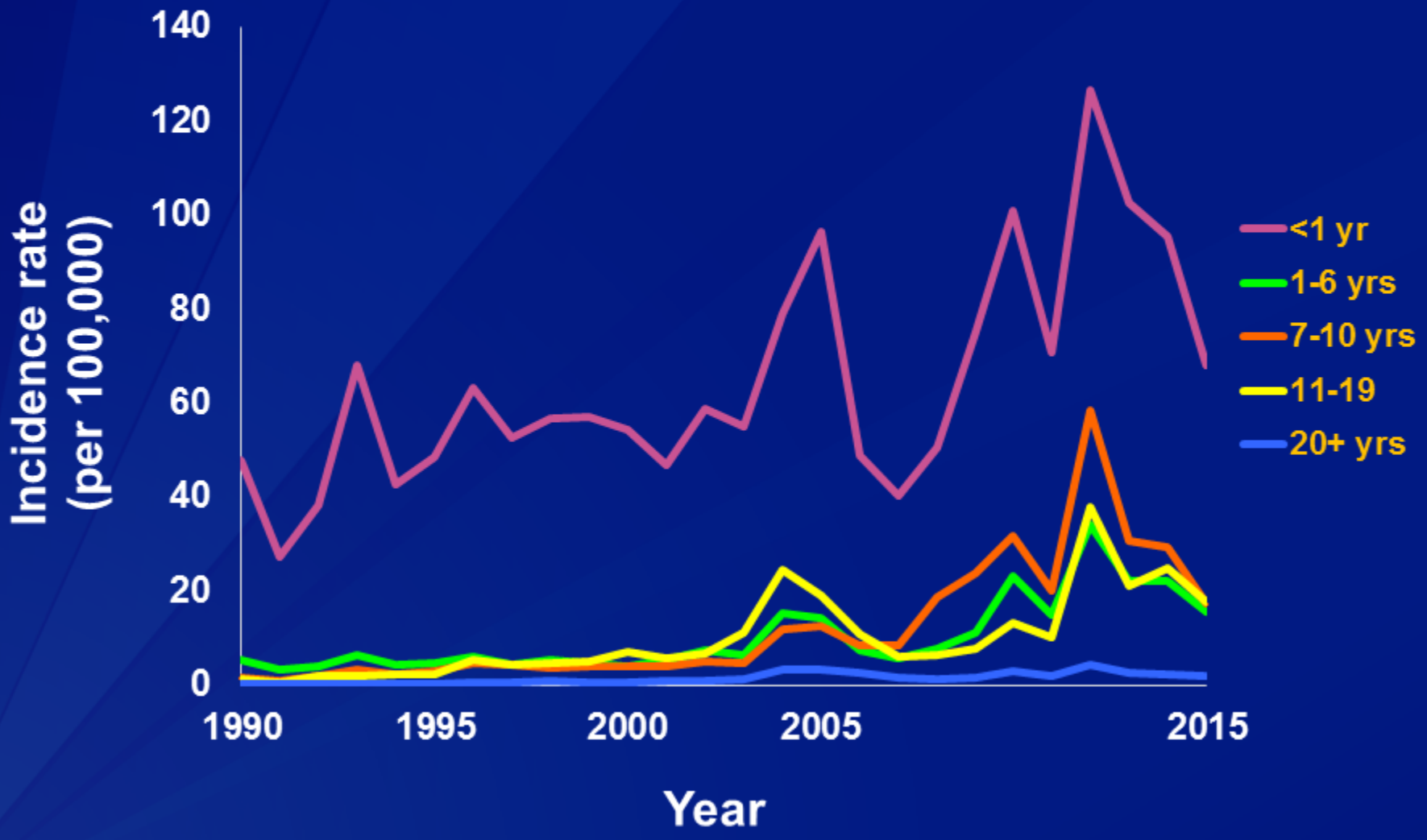
Reported NNDSS pertussis cases: 1922-2015

SOURCE: CDC, National Notifiable Diseases Surveillance System and Supplemental Pertussis Surveillance System and 1922-1949, passive reports to the Public Health Service

Reported pertussis incidence by age group: 1990-2015



SOURCE: CDC, National Notifiable Diseases Surveillance System and Supplemental Pertussis Surveillance System

Contenido

- Situación de la cobertura global y regional
- Desigualdades en inmunización
- Que podemos aprender de los brotes
- Consideraciones finales

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Consideraciones

Retos relacionados con la equidad en las coberturas de vacunación

- Hay un estancamiento en las coberturas de vacunación en la región
- Hay diferencia de las coberturas entre los países y dentro de los países
- Diferencias por estatus socioeconómico
- Disminución en la diferencia urbano rural pero aún hay diferencias
- No hay diferencias por género
- El análisis de la información a niveles mas bajos (subnacional y local) permitirá identificar donde están estos niños

Consideraciones

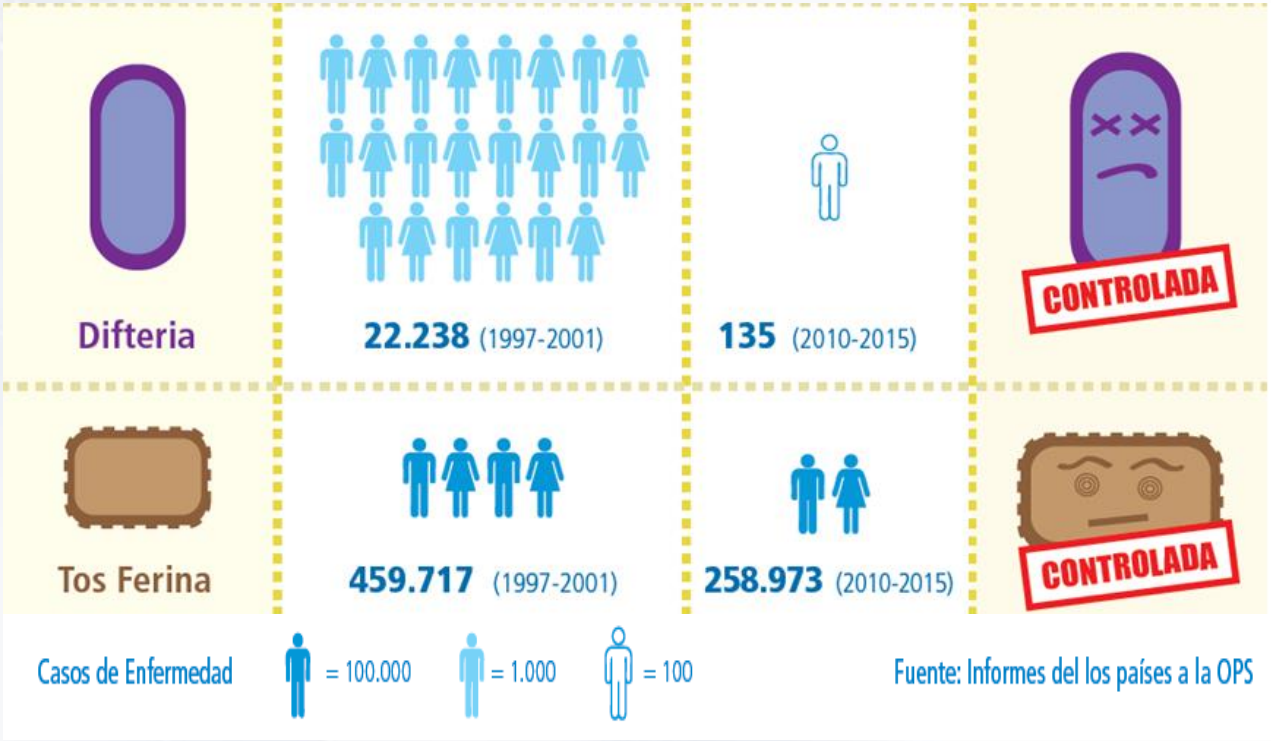
Retos relacionados con la equidad en las coberturas de vacunación

- La región tiene el compromiso de lograr la cobertura universal "efectiva" y equitativa
- Asegurar los recursos para implementar estrategias que favorezcan el aumento de coberturas empezando por los más vulnerables
- Integración intersectorial y con otros servicios de salud en el primer nivel de atención
- Participación de la comunidad

Consideraciones

- El abordaje de las bajas coberturas involucra múltiples factores
- Comportamiento de la inmunidad de rebaño en escenarios de coberturas subóptimas
- Comportamiento de los no vacunados y de los vacunados tardíamente en la dinámica de los brotes
- La no vacunación incrementa el riesgo individual y comunitario
- Implementar análisis de riesgo con la incorporación de otras variables además de la cobertura vacunal para predecir brotes

Proteger los logros (I)



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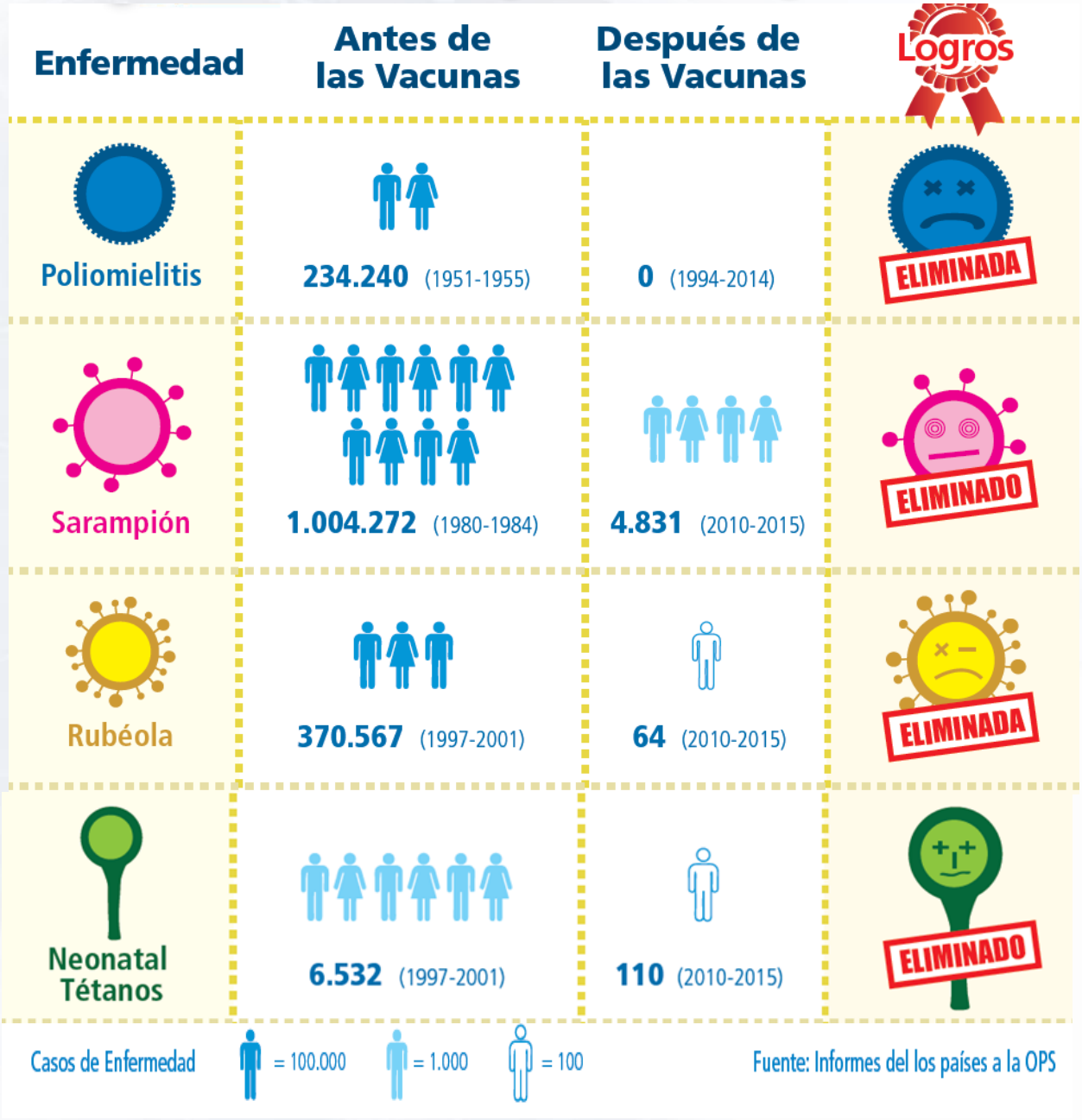
Proteger los logros II



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www.paho.org/immunization

Muchas Gracias!

Thanks!

Merci!

Obrigada!

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