Immunization Program in the Americas

Achievements and Challenges

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Pan American Health Organization PAHO/WHO

Miami, Florida. May 22, 2018

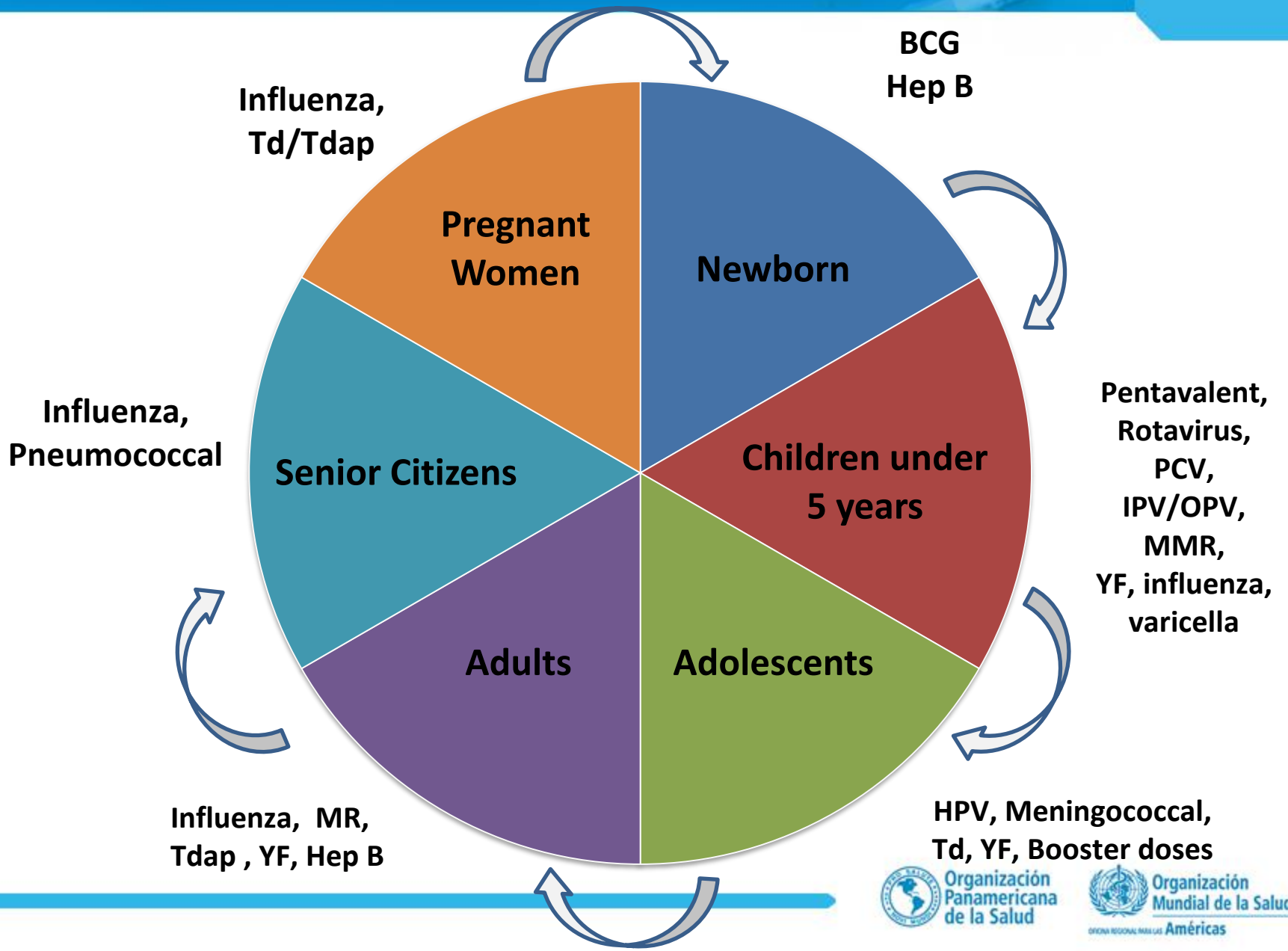
Organización Panamericana de la Salud

Organización Mundial de la Salud
Oficina Regional para las Américas

Content

- Regional context
- Global and regional frameworks
- Opportunities and Challenges

PAHO's Regional Vaccination Program: Across the Life Course



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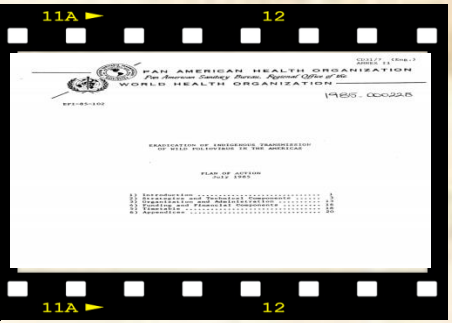
Américas

Milestones in the 40 years of the EPI in the Americas

1977:
EPI established by PAHO's Directing Council

1979:
Revolving Fund created

1983:
"Days of Tranquility"



1985:
EPI Technical Advisory Group established

1994:
"1st Region certified free of polio"

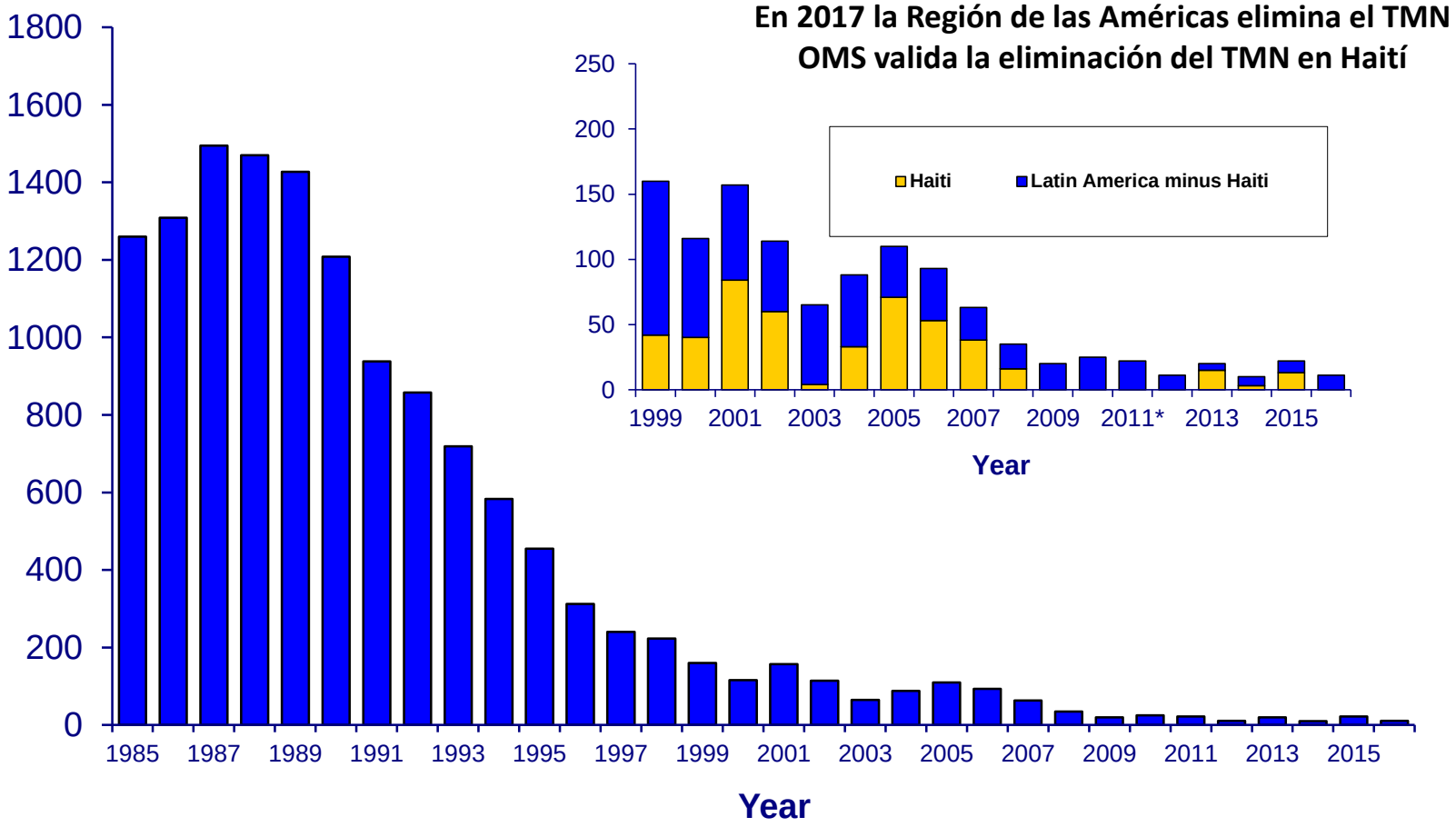
2003:
"1st Vaccination Week in the Americas"

2015:
"1st Region free of rubella"

2015:
"Directing Council resolution on the RIAP"

2016:
"1st Region free of measles"

Maternal and Neonatal Tetanus Elimination Américas, 1985-2017



Source: PAHO-WHO/UNICEF Joint Reporting Form (JRF) and country reports
*2011-2012 not available.

http://www.who.int/immunization/diseases/MNTE_initiative/en/index4.html

Organisation
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Fax direct : +41 22 791 4193

Prière de rappeler
la référence :

Votre référence :

Monsieur le Représentant permanent d'Haïti
auprès de l'Office des Nations Unies à
Genève et des autres Organisations
internationales en Suisse
89 rue de Lyon
1203 Genève

Genève, le 24 août 2017

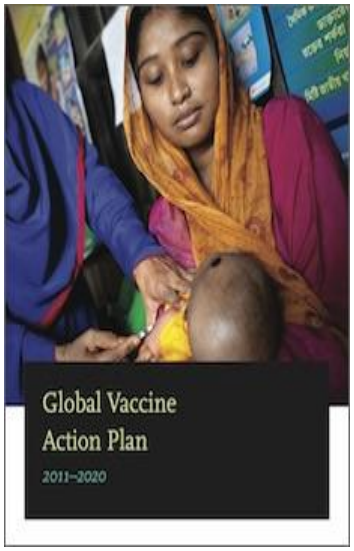
Monsieur l'Ambassadeur,

J'ai l'honneur de féliciter Haïti pour avoir franchi le cap décisif de l'élimination du tétanos maternel et néonatal (TMN), en 2017.

L'enquête communautaire pour la validation de l'élimination du TMN a été menée dans le département du sud. Ce département était considéré le moins performant lors de l'évaluation des risques d'élimination du TMN menée en 2016. L'enquête, conduite en juin 2017 et utilisant la méthode standard de l'OMS, a confirmé l'élimination du TMN comme problème de santé publique dans le département du sud durant la période du 1er mai 2016 au 30 avril 2017 et, par conséquent, dans le pays tout entier durant cette même période.

GLOBAL VACCINE ACTION PLAN (GVAP) 2011 - 2020
REGIONAL IMMUNIZATION ACTION PLAN (RIAP) 2016 - 2020

GVAP



RIAP

Vision of the RIAP (2016 – 2020):
"The population of the Region of the Americas is protected against vaccine-preventable diseases and the Member States promote universal and equitable access to immunization services, with safe and affordable vaccines throughout the life cycle"

Adapt the GVAP to the regional context

Cooperate with countries for the adoption of goals, strategies and common activities

Facilitate dialogue, promote synergies with partners and continue to strengthen the EPI in the Region

- Equity
- Shared responsibility
- Solidarity
- Universality
- Sustainability
- Quality

STRATEGIC AREAS OF THE RIAP

1. Sustain the achievements
2. Complete the unfinished agenda
3. Tackle new challenges
4. Strengthen health services for effective vaccine administration

GVAP mid-point targets 2016

- **DTP3**: All countries >90% national coverage, and >80% in every district by end 2015
- **Polio**: transmission stopped by end 2014
- **Maternal and neonatal tetanus**: eliminated by 2015
- **Measles**: eliminated in 4 regions by end-2015
- **Rubella**: eliminated in 2 regions by end-2015
- **Introduction of under-utilized vaccines:** At least 90 low or middle income countries to have introduced one or more such vaccines by 2015

NOT ACHIEVED

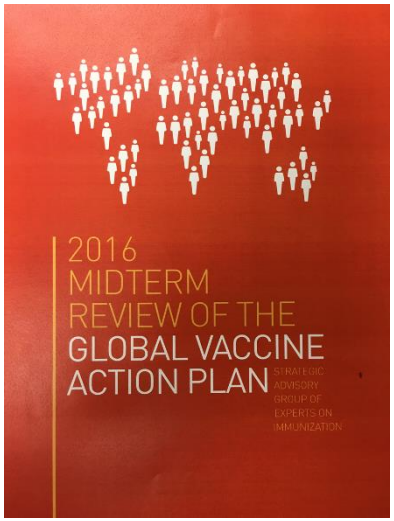
NOT ACHIEVED

NOT ACHIEVED

NOT ACHIEVED

NOT ACHIEVED

ACHIEVED



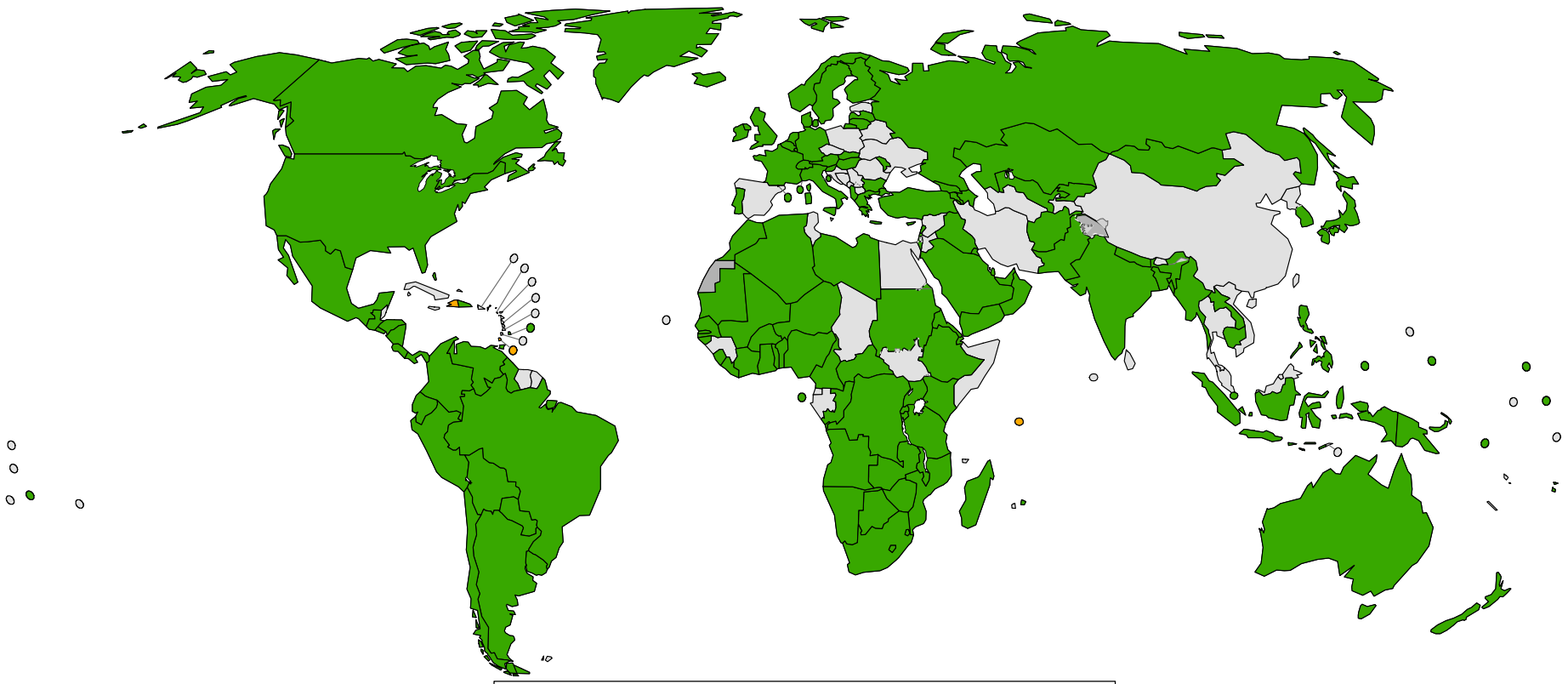
Surce: GVAP midterm review, 2016

Regional Immunization Action Plan (*RIAP*)

STRATEGIC AREAS	GENERAL OBJETIVES	STRATEGIC OBJETIVES
1.Sustain the achivements	▪ Maintain the Region's status as polio-free ▪ Maintain elimination of measles, rubella, and CRS ▪ Maintain achievements reached in vaccine-preventable disease control	▪ All countries make a commitment to vaccination as a priority for health and development ▪ Individuals and communities understand the value of the vaccines
2.Complete the unfinished agenda	▪ Eliminate neonatal tetanus as a public health problem in all countries- Achieved ▪ Meet DPT vaccination coverage targets at all levels	▪ Immunization benefits extend equitably to all people and social groups
3.Tackle new challenges	▪ Introduce vaccines in accordance with technical and programmatic criteria	▪ Decision-making is evidence-based and impact assessments ensure that policies are adopted to maximize the benefits of vaccination
4. Strengthen health services for effective vaccine administration	▪ Achieve the expected results proposed by the Post-2015 Development Agenda for reductions in infant mortality and maternal mortality	▪ Supplies are available for the immunization program on a sustainable basis with national resources ▪ Strengthened immunization services are part of comprehensive, well-run health services

Countries with Pneumococcal Conjugate vaccine in the national immunization programme; and planned introductions in 2018

0 1,200 2,400 4,800
Kil



	Introduced* to date	*(138 countries or 71%)*
	Planned introductions in 2018	*(3 countries or 2%)*
	Not Available, Not Introduced/No Plans	*(53 countries or 27%)*
	Not applicable	

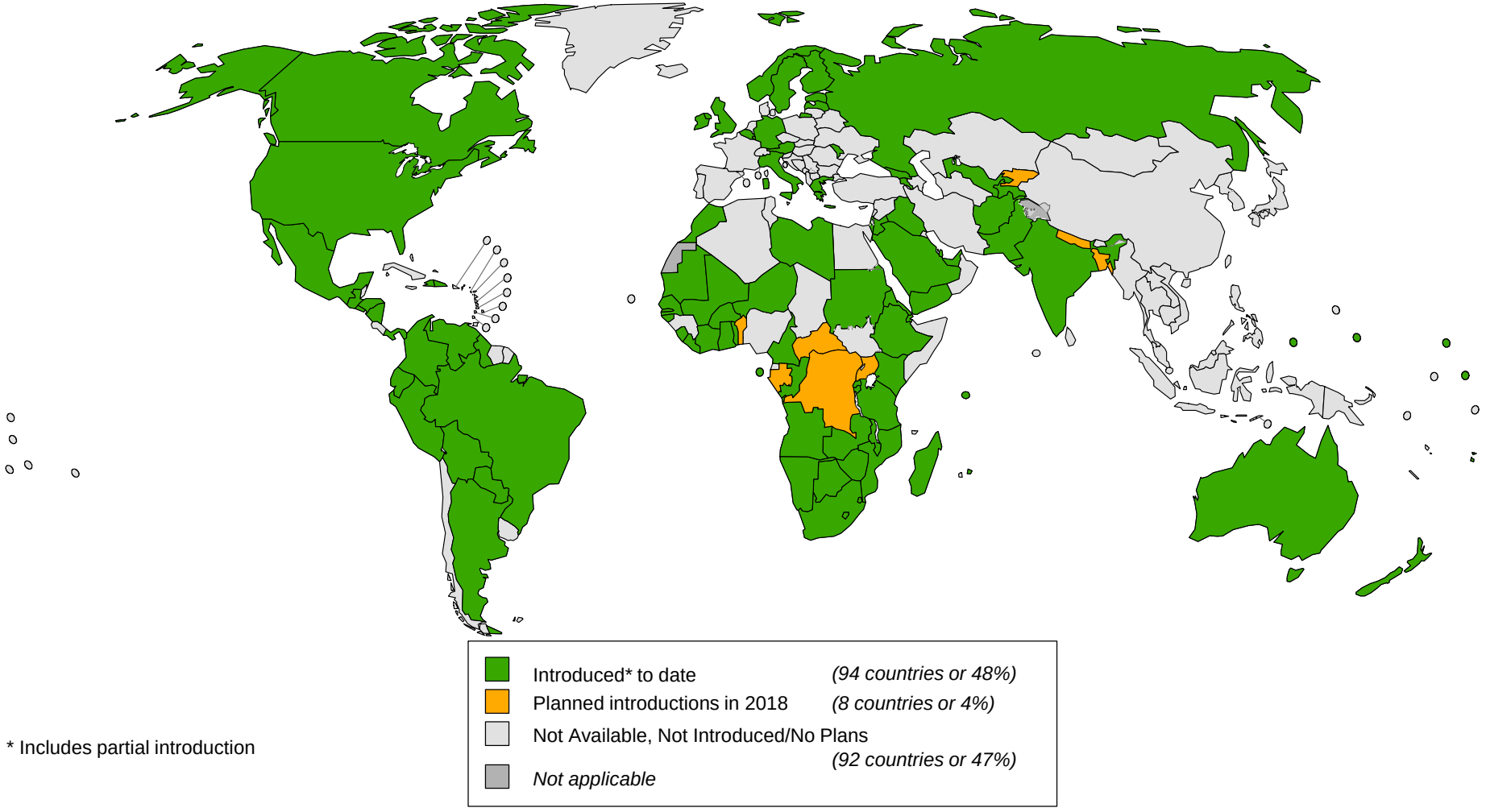
* Includes partial introduction

Data source: WHO/IVB Database, as of 15 May 2018
Map production Immunization Vaccines and Biologicals (IVB), World Health Organization

WHO

Countries with Rotavirus vaccine in the national immunization programme; and planned introductions in 2018

0 1,200 2,400 4,800
Kil



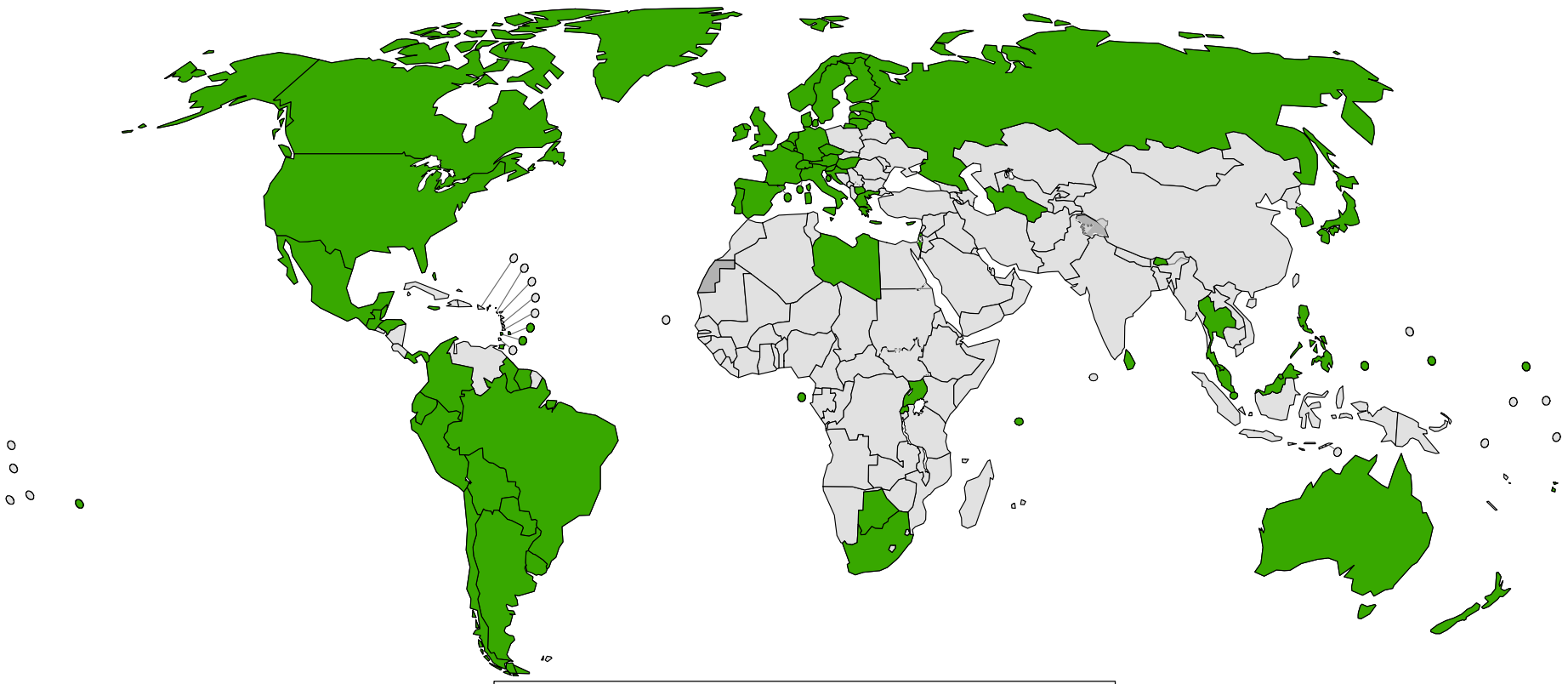
* Includes partial introduction

Data source: WHO/IVB Database, as of 15 May 2018
Map production Immunization Vaccines and Biologicals (IVB), World Health Organization

WHO

Countries with HPV vaccine in the national immunization programme

0 1,200 2,400 4,800
Kil



	Introduced* to date	*(80 countries or 41%)*
	Not Available, Not Introduced/No Plans	*(114 countries or 59%)*
	Not applicable	

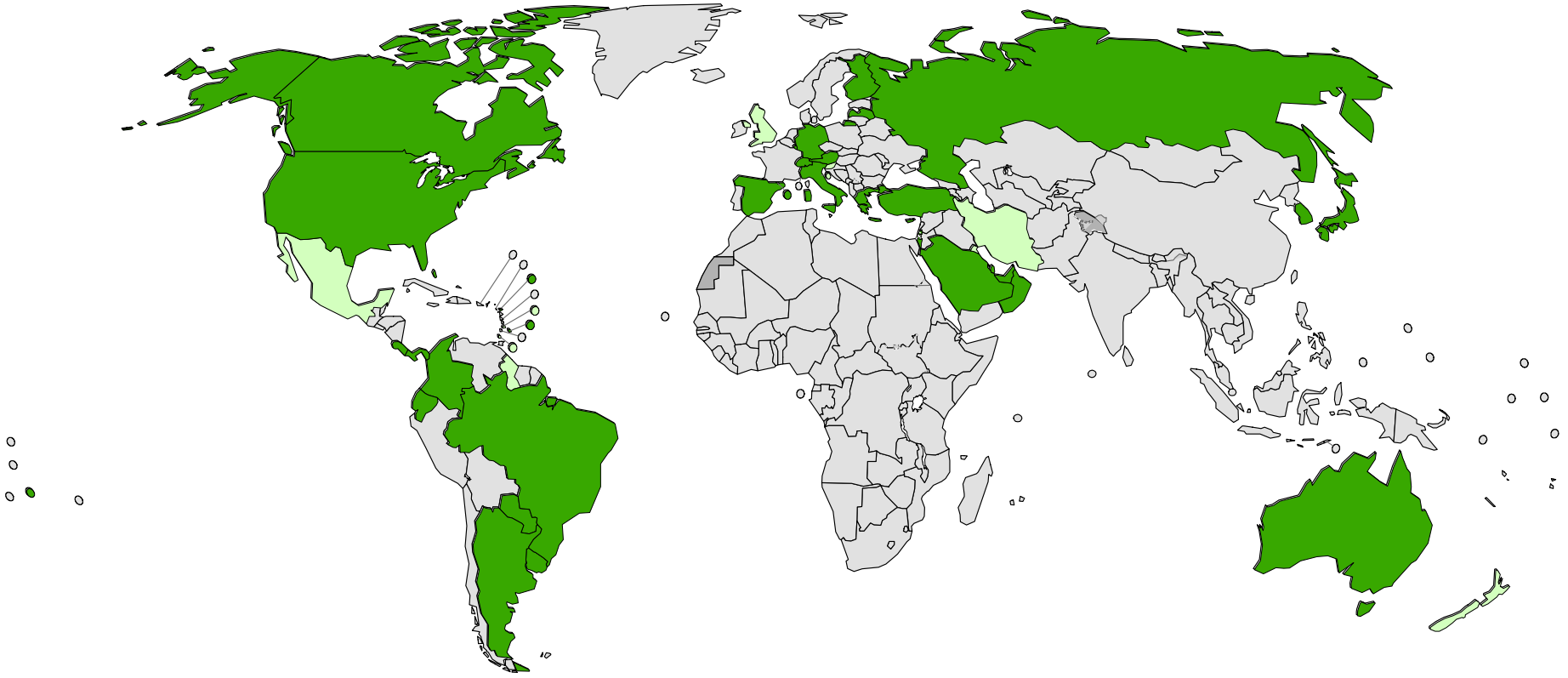
* Includes partial introduction

Data source: WHO/IVB Database, as of 15 May 2018
Map production Immunization Vaccines and Biologicals (IVB),
World Health Organization

WHO

Introduction of Varicella Containing Vaccines in National Immunization Programmes, updated as of January 2018

0 1,200 2,400 4,800
Kil



	Introduced* to date	*(36 countries or 18%)*
	Introduced for risk groups only	*(10 countries or 6%)*
	Not Available, Not Introduced/No Plans	*(149 countries or 77%)*
	Not applicable	

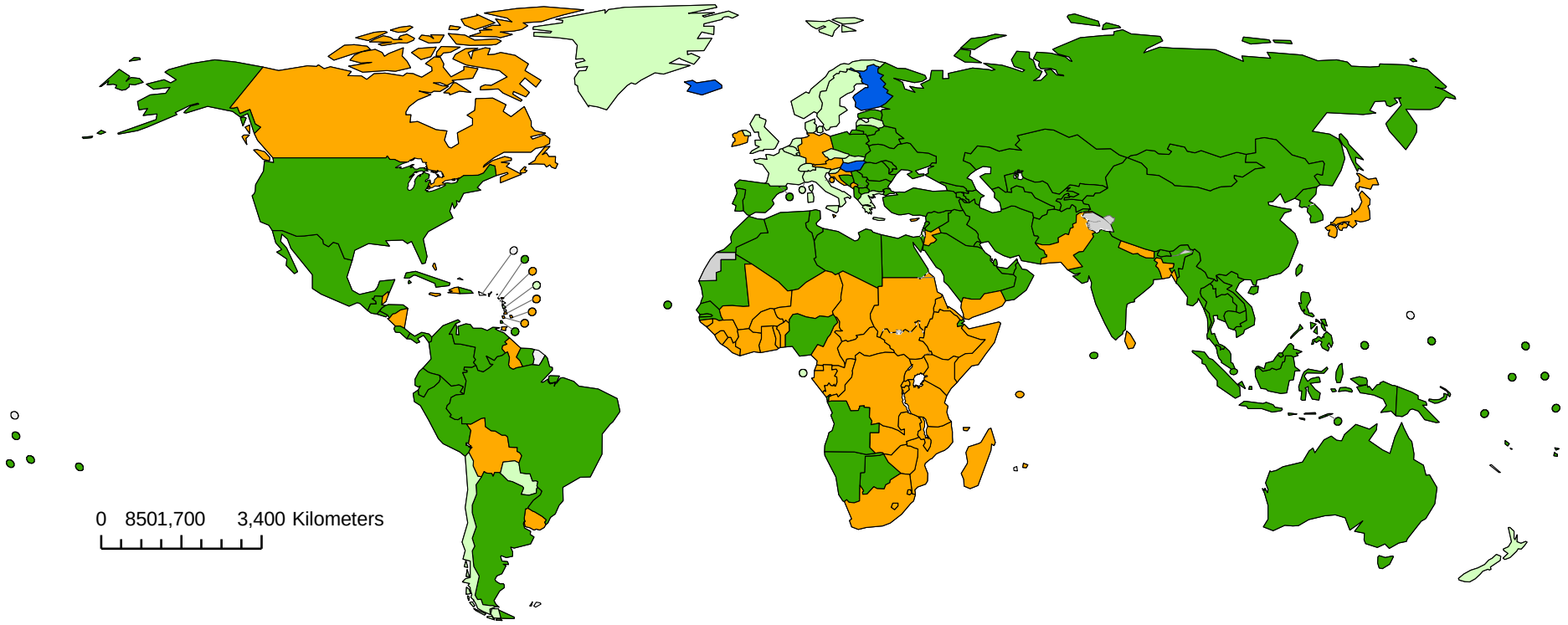
* Includes partial introduction

Data source: WHO/IVB Database, as of 15 May 2018 and ECDC website https://vaccine-schedule.ecdc.europa.eu/

Map production Immunization Vaccines and Biologicals (IVB),
World Health Organization

WHO

Hepatitis B Birth dose (HepB-BD) vaccination strategies by country, updated as of January 2018

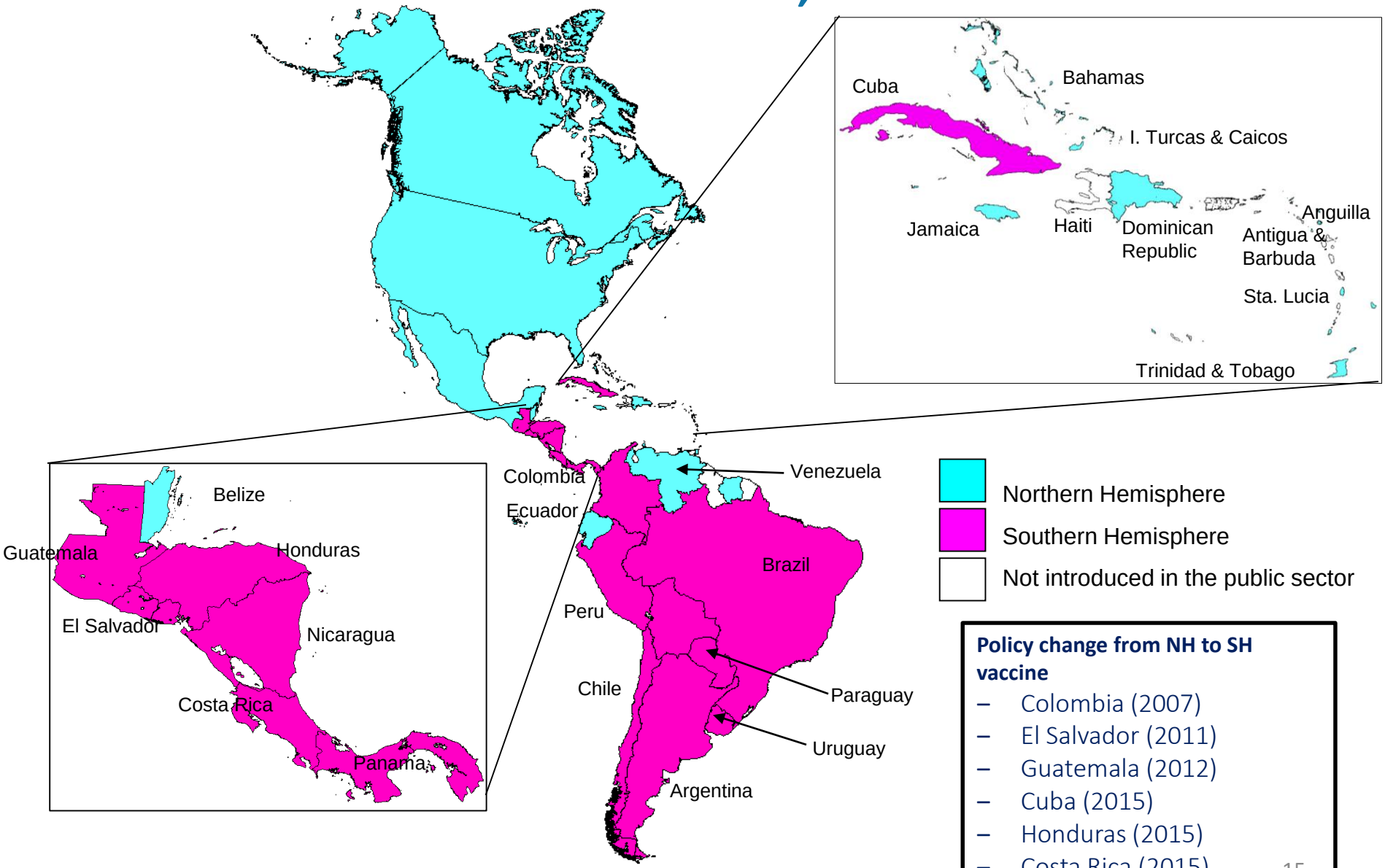


Universal HepB-BD introduced to date	*(102 countries or 53%)*
HepB-BD only for infants born to mothers with chronic hepatitis B virus infection	*(21 countries or 11%)*
Hepatitis B vaccine in childhood schedule but no universal HepB-BD'	*(68 countries or 35%)*
HepB only given to adolescents or adults risk groups	*(3 countries or 2%)*
Not available	
Not applicable	

Data source: WHO/IVB Database as at 25/01/2018 and ECDC published data at http://vaccine-schedule.ecdc.europa.eu/Pages/Scheduler.aspx
194 WHO Member States
Map production Immunization Vaccines and Biologicals (IVB), World Health Organization
Date of slide: 15 May 2018

WHO

Use and formulation of seasonal influenza vaccines in the Americas, 2016



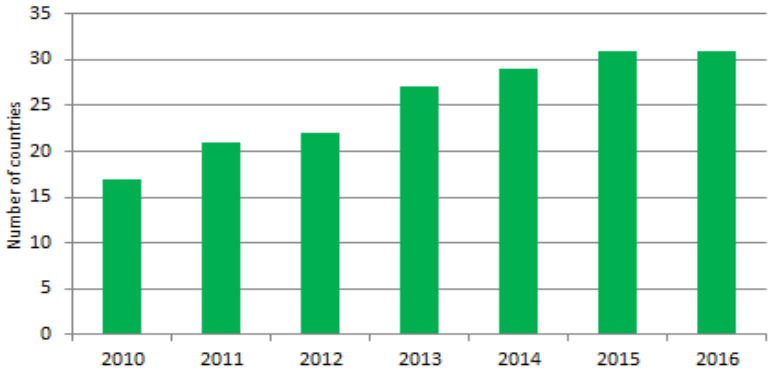
Policy change from NH to SH vaccine

- Colombia (2007)
- El Salvador (2011)
- Guatemala (2012)
- Cuba (2015)
- Honduras (2015)
- Costa Rica (2015)

Source: Country reports to PAHO, MOHs Webpage, PAHO/WHO Surveys

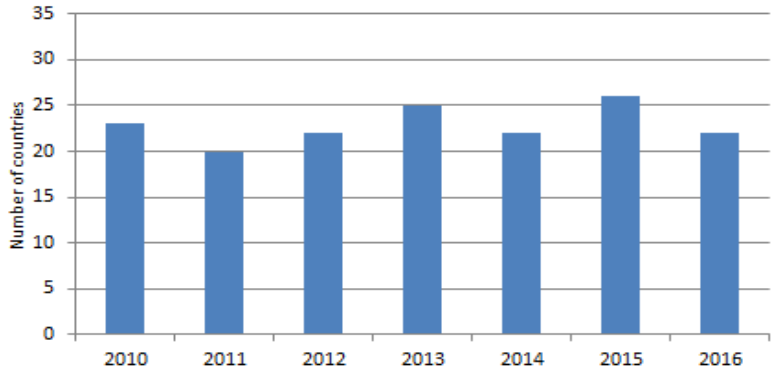
Progress on Maternal and Neonatal Immunization in the Americas, 2010-2016

Countries using Seasonal Influenza in Pregnant Women. The Americas, 2010-2016



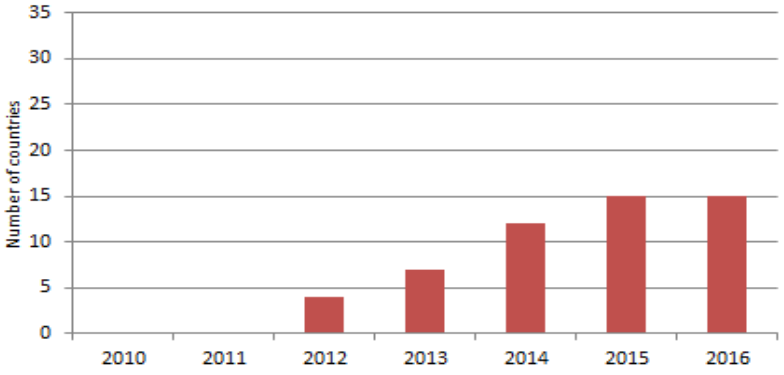
Source: Country reports to PAHO, PAHO/WHO/UNICEF (JRF).

Countries using Td in Pregnant Women The Americas, 2010-2016



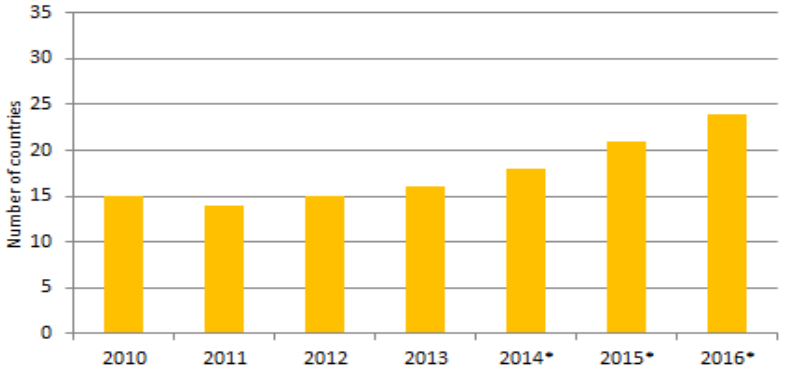
Source: Country reports to PAHO, PAHO/WHO/UNICEF (JRF).

Countries using Tdap in Pregnant Women The Americas, 2010-2016



Source: Country reports to PAHO, PAHO/WHO/UNICEF (JRF).

Countries using HepB Birth Dose The Americas, 2010-2016



Source: Country reports to PAHO, PAHO/WHO/UNICEF (JRF)
Canada includes 3 provinces.

Regional Maternal Immunization Recommended Vaccines (TAG/SAGE)

Vaccine	Pre-pregnancy	Pregnancy	Post-partum
Tetanus/ diphtheria	**Yes, ideal moment**	Yes, 2 doses, if she was not previously vaccinated.	Yes, to complete schedule
Inactivated influenza*		**Yes, ideal moment**	Yes if she was not vaccinated during pregnancy, to protect the newborn.

*Since 2004


2012, 87, 461–476 No. 47

World Health Organization

Organisation mondiale de la Santé

Weekly epidemiological record
Relevé épidémiologique hebdomadaire

23 NOVEMBER 2012, 87th YEAR / 23 NOVEMBRE 2012, 87e ANNÉE
No. 47, 2012, 87, 461–476
http://www.who.int/wer

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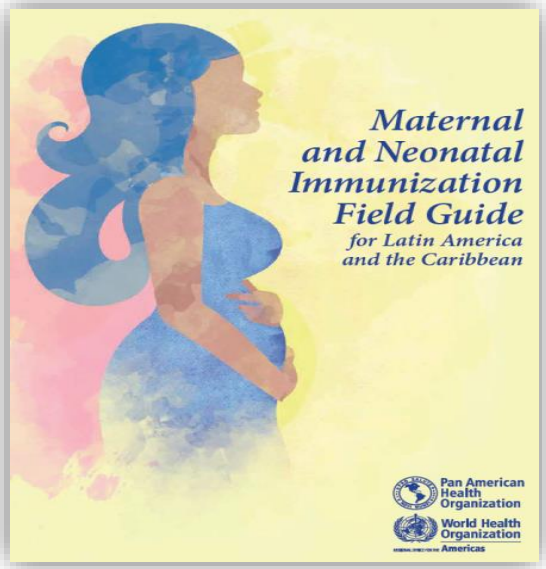
461 Vaccines against influenza WHO position paper – November 2012

Vaccines against influenza WHO position paper – November 2012

Note de synthèse de l'OMS concernant les vaccins antigrippaux – novembre 2012



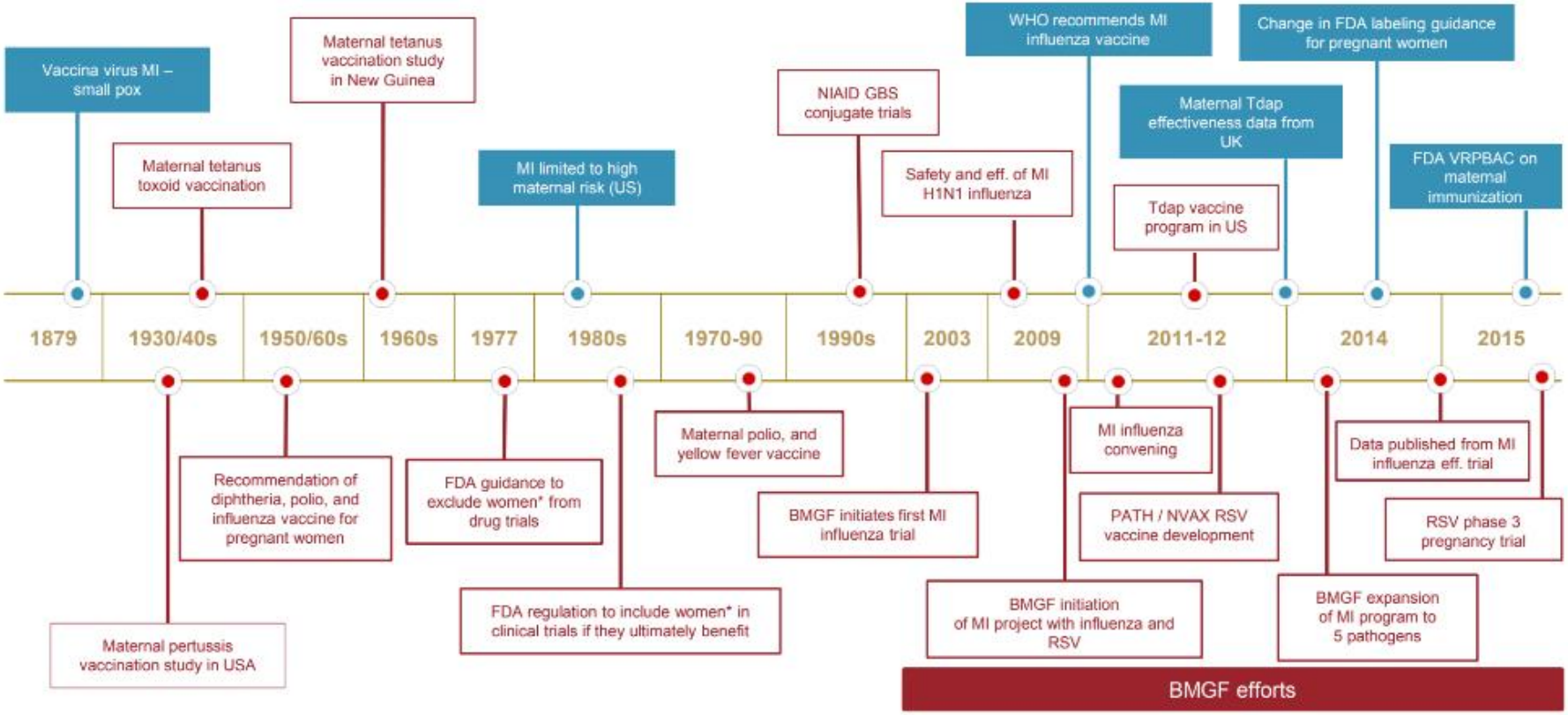
http://iris.paho.org/xmlui/bitstream/handle/123456789/34150/9789275119501-eng.pdf

Recommended Vaccines during Pregnancy in Special Situations Only

Vaccine	Pre-pregnancy	Pregnancy	Post-partum
Tdap		**Yes, during outbreaks (ideal moment between 27-36 weeks of gestation)**	Yes
Hepatitis B	Yes, ideal moment	**Yes, IF she didn't complete schedule and IF high risk situation** (eg. More than 5 sexual partners during last 6 months, STD, IDU, partner + for HBsAg)	Yes, to complete schedule: 3 doses.
Hepatitis A		**Yes, during outbreaks.**	
Yellow fever	Yes, ideal moment (in endemic areas).	**Yes, prior to travel to endemic areas with current outbreak, with prior risk/benefit analysis.**	
IPV		**Yes, prior to travel to endemic areas with current outbreak**	
OPV		**Yes, prior to travel to endemic areas with current outbreak**	
Rabies		**After high risk exposure.**	
Meningococcus conjugate		**Yes, during outbreaks.**	
Meningococcus Polysaccharide (MPSV4)		**Yes, during outbreaks.**	

Long history of progress in MI

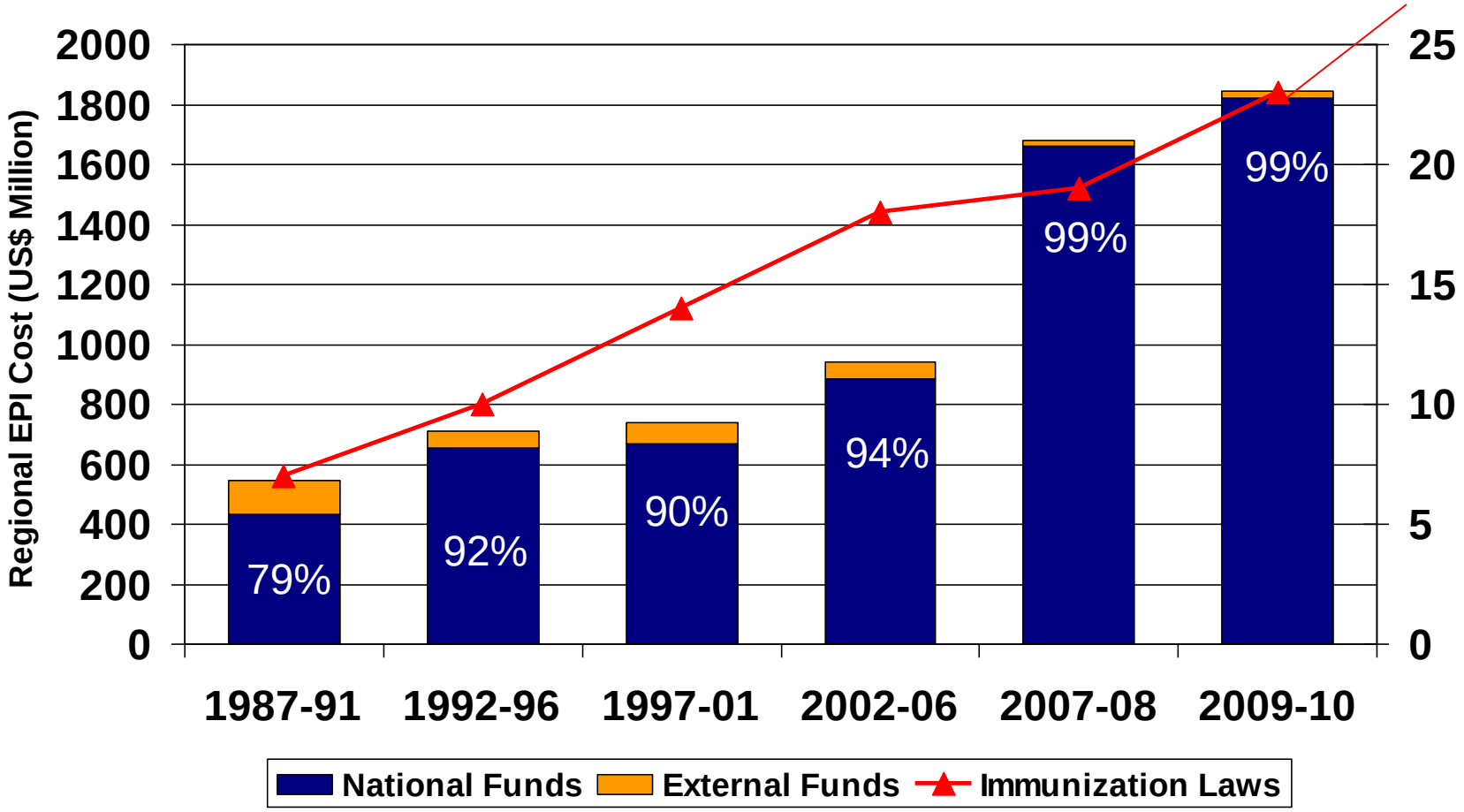
>150 Million women* vaccinated
WHO/UNICEF MNTE program since 1999



*pregnant women and women of childbearing age

Regional Immunization Program in Latin America and the Caribbean

Leyes y Fuente de Recursos



Economía de Escala

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A new study, published February 2016 in the journal *Health Affairs*, puts a precise figure on the value of vaccinating children.

IMMUNISATION
A HEALTHY RETURN ON INVESTMENT

RETURN ON INVESTMENT

FOR EVERY $1 INVESTED IN:

- IMMUNISATION[1]
- PRE-SCHOOL EDUCATION[2]
- PUBLIC INFRASTRUCTURE[3]
- COMMUNITY HEALTH WORKERS[4]
- GOVERNMENT BONDS (10-YEAR)[5]
- CARDIOVASCULAR DISEASE RESEARCH[6]

Indicative figures based on the rounded average values cited in the following sources:

1. Return on investment from childhood immunizations in low- and middle-income countries, 2011-20. Health Affairs. 35(2):199-207. Ozawa S, Clark S, Portnoy A, Grewal S, Brenzel L, Walker D. 2016
2. The rate of return to the HighScope Perry Preschool Program. Department of Economics, University of Chicago, April 2009
3. The Economic Benefits of Public Infrastructure Spending in Canada. The Centre for Spatial Economics, September 2015
4. Strengthening primary health care through community health workers.... Dessalegn H, Chambers R, Clinton C, Phiumaphi J, Sinkaf J, Evans T, et al. 2015
5. Example bond issued with a fixed coupon rate of 5% over a 10-year period.
6. Returns on NHMRC funded Research and Development. Australian Society for Medical Research, 17 October 2011

Vaccination Legislation in Latin America and the Caribbean, 2012

Original Article

Vaccination legislation in Latin America and the Caribbean

Silas P. Trumbo[a], Cara B. Janusz[b,*], Barbara Jauregui[b], Mike McQuestion[c], Gabriela Felix[b], Cuauhtémoc Ruiz-Matus[b], Jon K. Andrus[d] and Ciro de Quadros[c]

[a]Atlanta, GA, USA.

[b]Comprehensive Family Immunization Project, Pan American Health Organization, c/o PAHO, Washington, DC, 20037 USA.
E-mail: januszc@paho.org

[c]Sabin Institute, Washington, DC, USA.

[d]Pan American Health Organization, Washington, DC, USA.

*Corresponding author.

Abstract Governments have the authority and responsibility to ensure vaccination for all citizens. The development of vaccination legislation in Latin America and the Caribbean (LAC) parallels the emergence of sustainable, relatively autonomous, and effective national immunization programs. We reviewed vaccination legislation and related legal documents from LAC countries (excluding Canada, Puerto Rico, the United States, and the US Virgin Islands), and described and assessed vaccination legislation provisions. Twenty-seven of the 44 countries and territories in the Region have proposed or enacted vaccination legislation. Provisions vary substantially, but legal frameworks generally protect the sustainability of the immunization program, the individual's right to immunization, and the state's responsibility to provide it as a public good. Of the legislation from countries and territories included in the analysis, 44 per cent protects a budget line for vaccines, 96 per cent mandates immunization, 63 per cent declares immunization a public good, and 78 per cent explicitly defines the national vaccine schedule. We looked for associations between vaccination legislation in LAC and national immunization program performance and financing, and conclude with lessons for governments seeking to craft or enhance vaccination legislation.
Journal of Public Health Policy (2013) 34, 82–99. doi:10.1057/jphp.2012.66

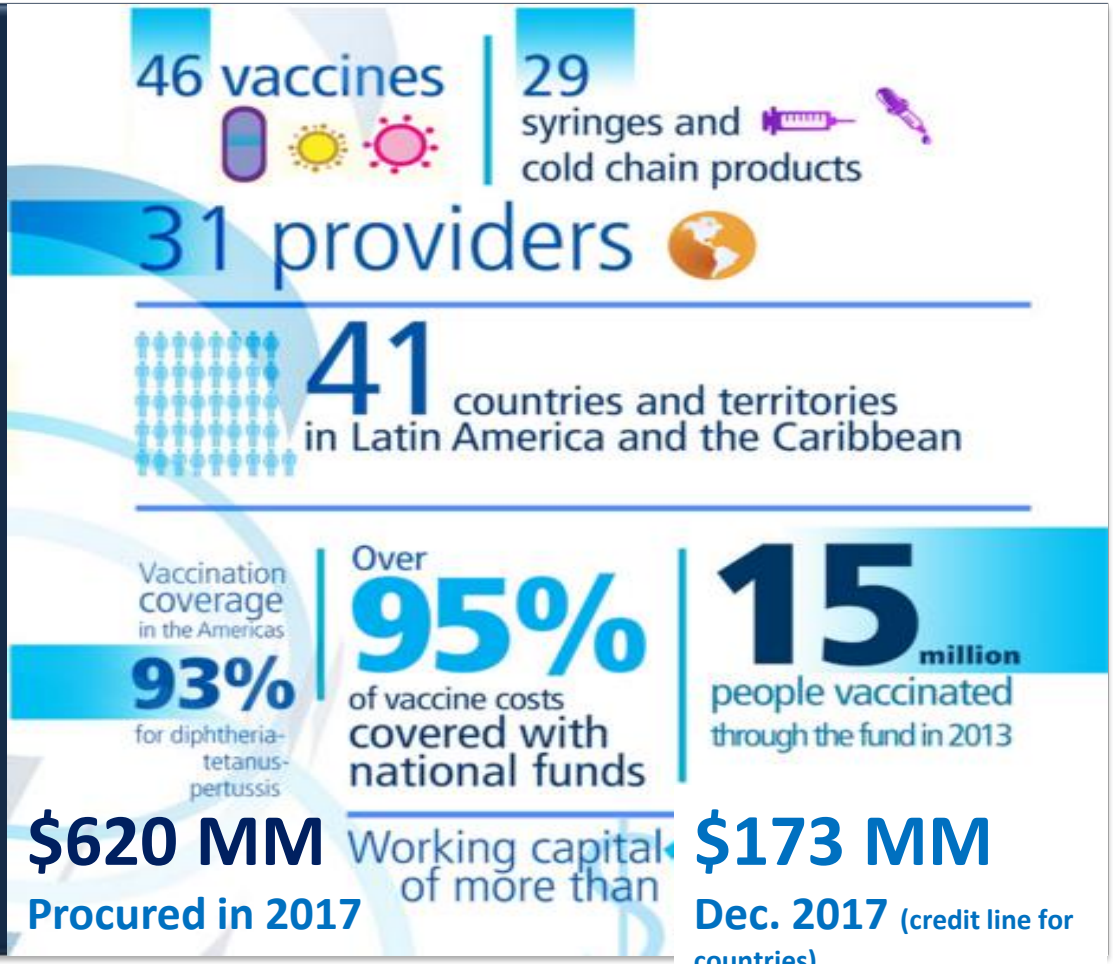
Keywords: public health law; immunization; vaccination law; vaccination policy; vaccine financing

- 29 países con legislación nacional
- Criterios identificados
  - Declarativos (gratuidad, obligatoriedad)
  - Financieros (línea presupuestaria, exoneración de impuestos)
  - Operativos(Normas, NTAG)
  - Regulatorios (Funciones reguladoras, habilitación de centros de vacunación etc.)

1979 → 2017

PAHO Revolving Fund

1979: 38 years



www.paho.org/revolvingfund

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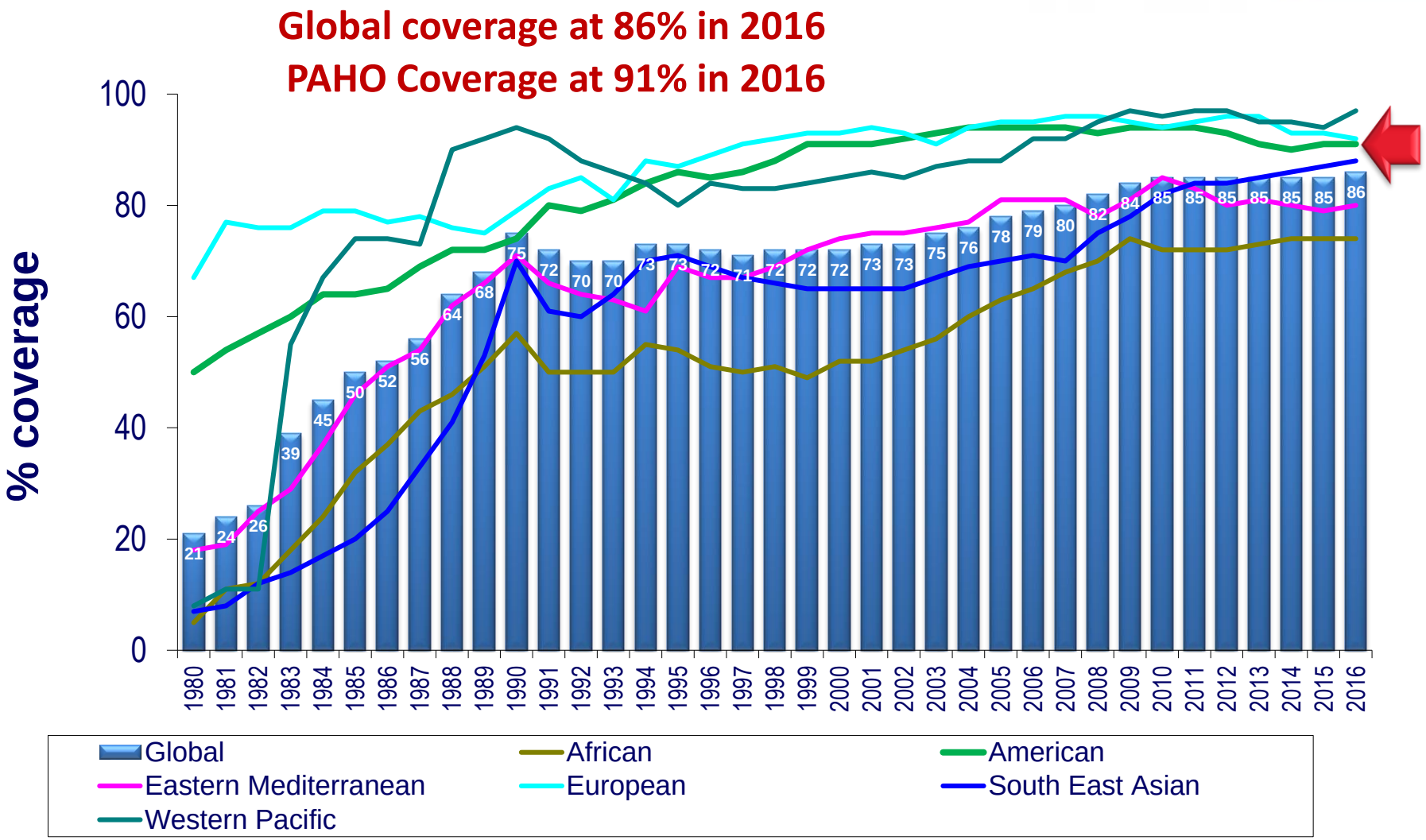
Complete the Unfinished Agenda and Tackle New Challenges

Global and Regional DTP3 Coverage, 1980-2016



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.

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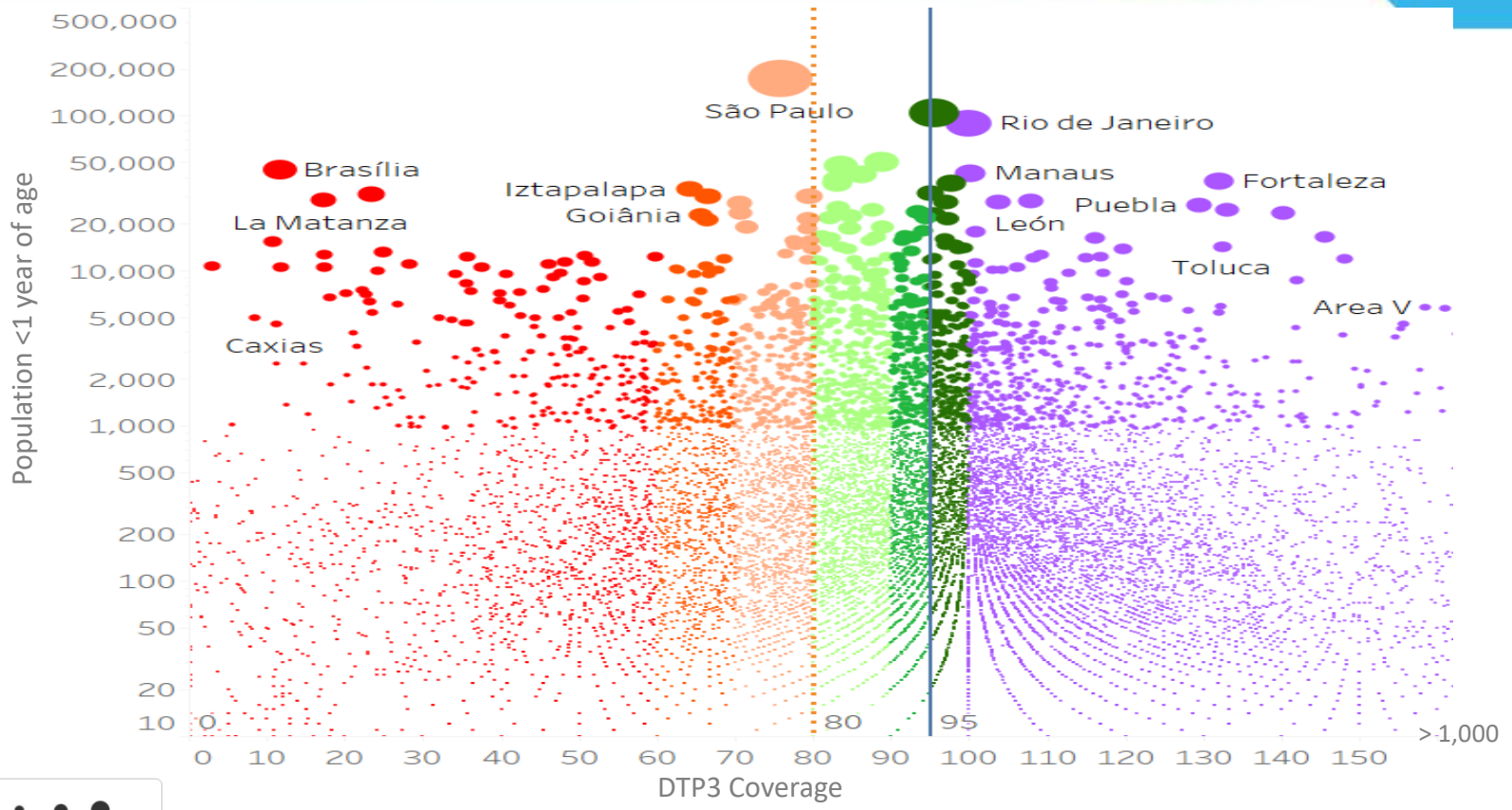
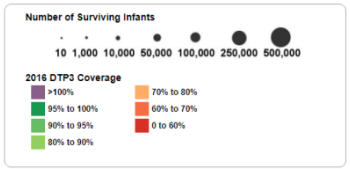
DTP3 Coverage by municipalities
Latin America and the Caribbean, 2016





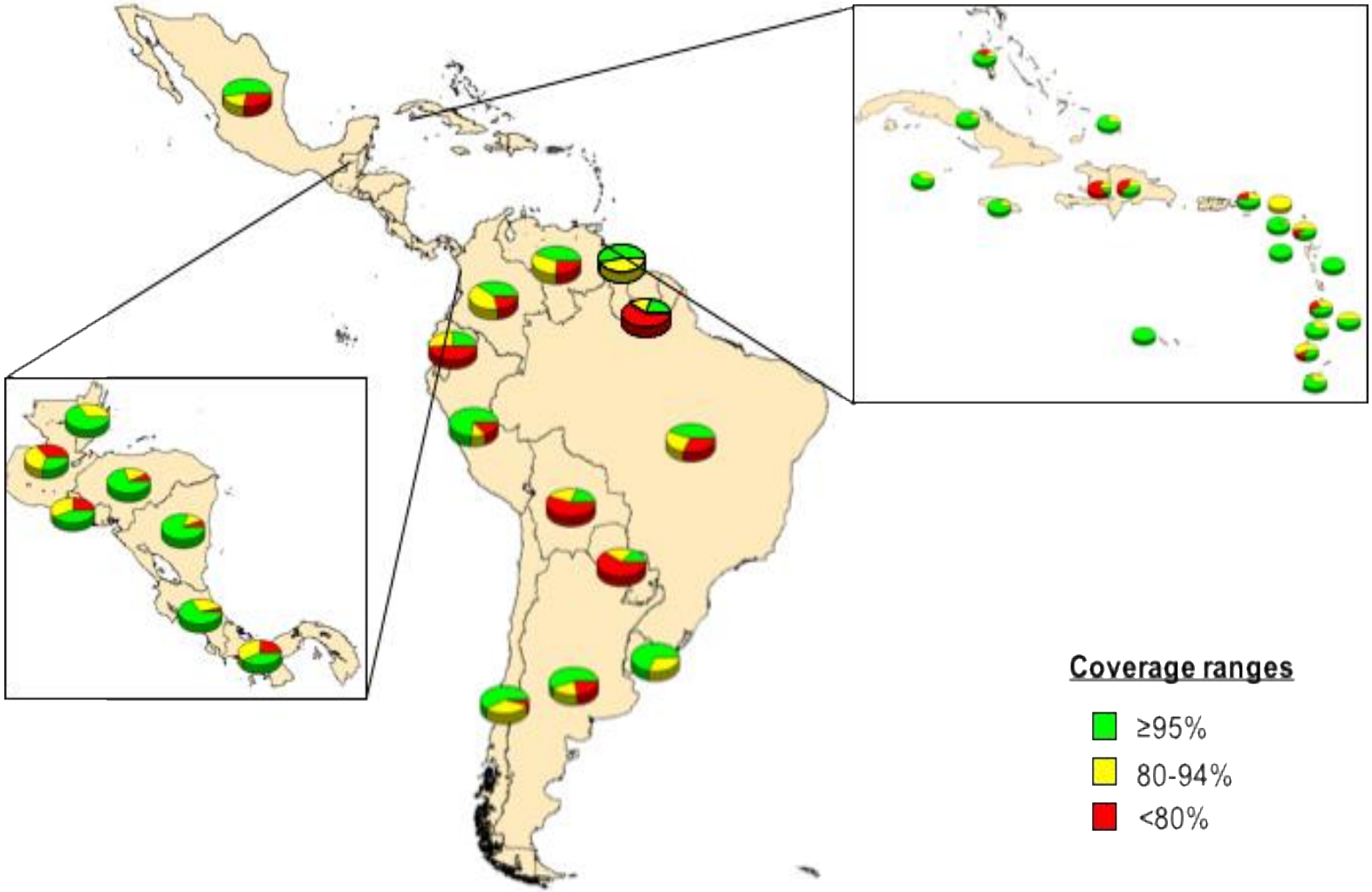
0 – 80%:
- 3,711 municipalities
- 25% de los municipios

80% - 94%:
- 3,553 municipios
- 23% de los municipios.

95% - 100%:
- 1,835 municipios
- 12% de los municipios.

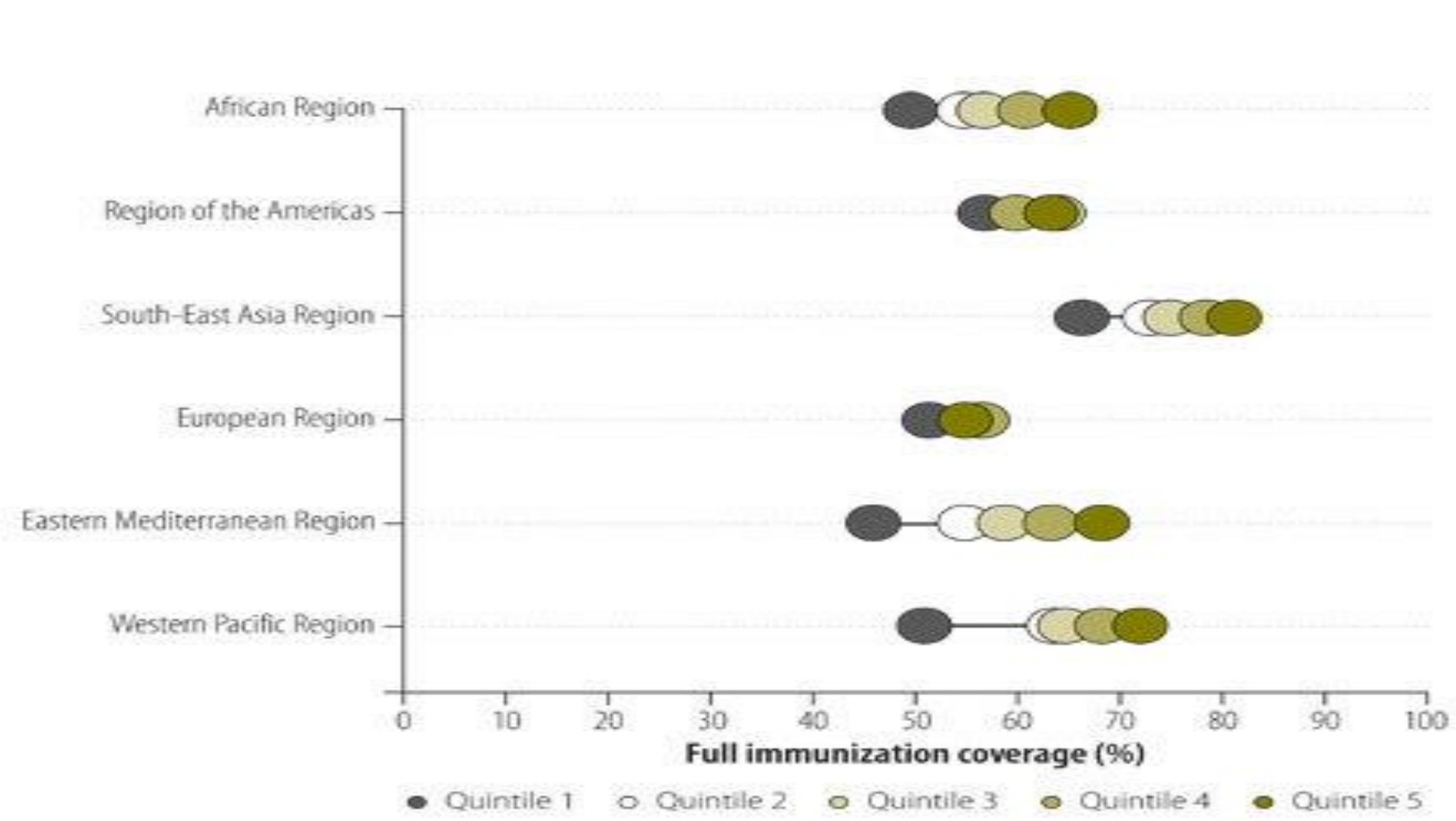
>100%:
- 6,017 municipios
- 40% de los municipios.

Percentage of municipalities by Coverage Levels, DPT3, 2016



Source: Country reports through the PAHO-WHO/UNICEF Joint Reporting Form (JRF), 2017.

Inequalities in Full Immunization Coverage in 86 Low and Middle Income Countries per Quintiles 2001-2012



Bulletin of the World Health Organization 2016;94:794-805B

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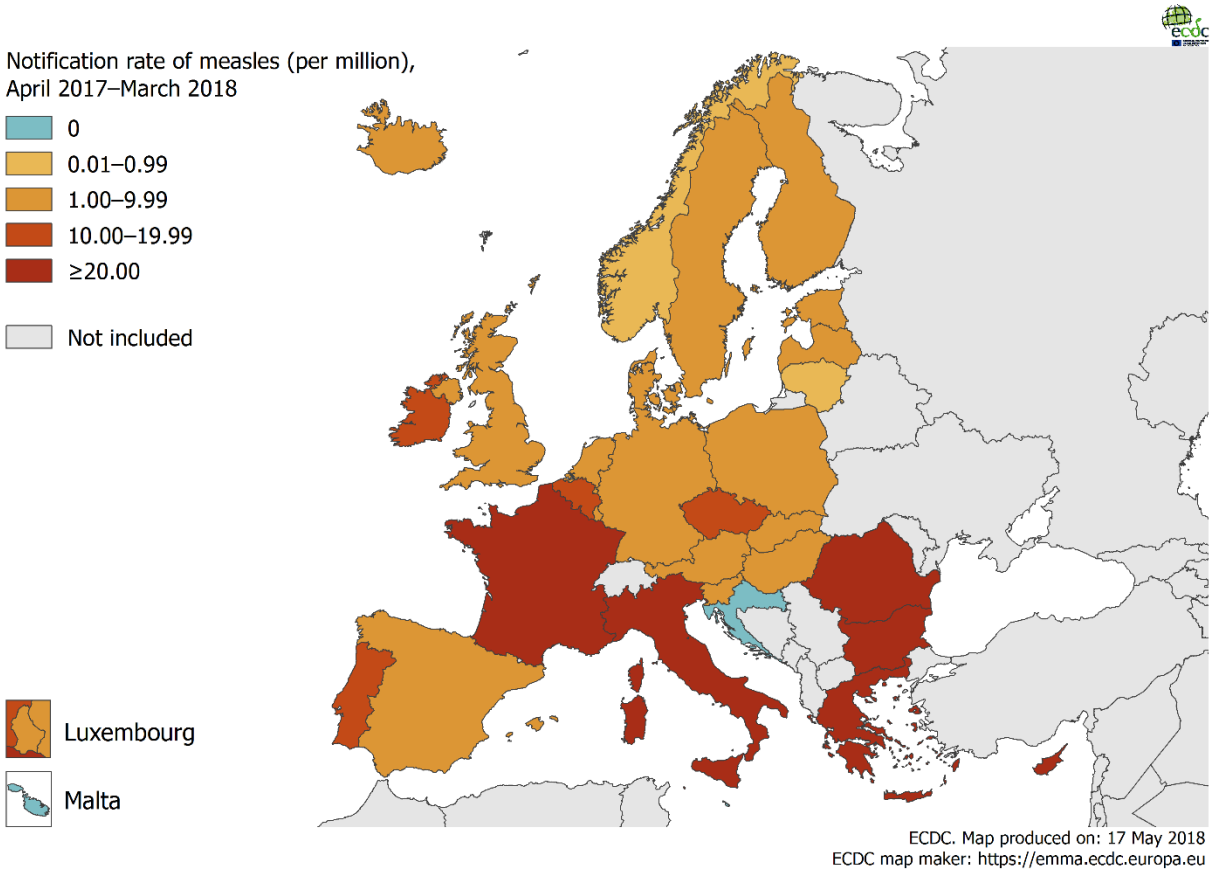
Risk of Importation of VPD

21,315 cases 2017



72% of cases in 3 countries

Rumania 5,562

Italia 5,006

Ukraine 4,767

- Travel
- Migration
- Areas with low coverage
- Lost of Herd immunity

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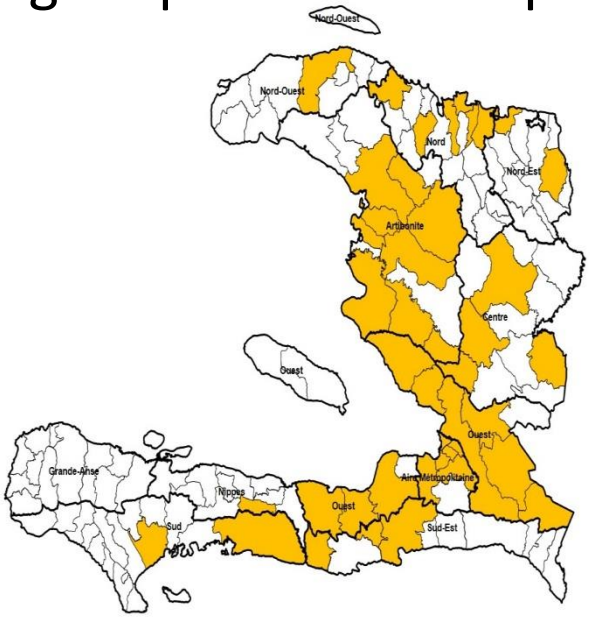
Response to the Diphtheria outbreak in Haiti

Mini campaigns in 40 districts of 9 high risk departments

- Target children pop (1 to <15yrs old): 2.372,302
  - Phase 1: 8 departments, March 11-27
  - Western department: April 8-12
- Coverage reported as of April 10: **97%**



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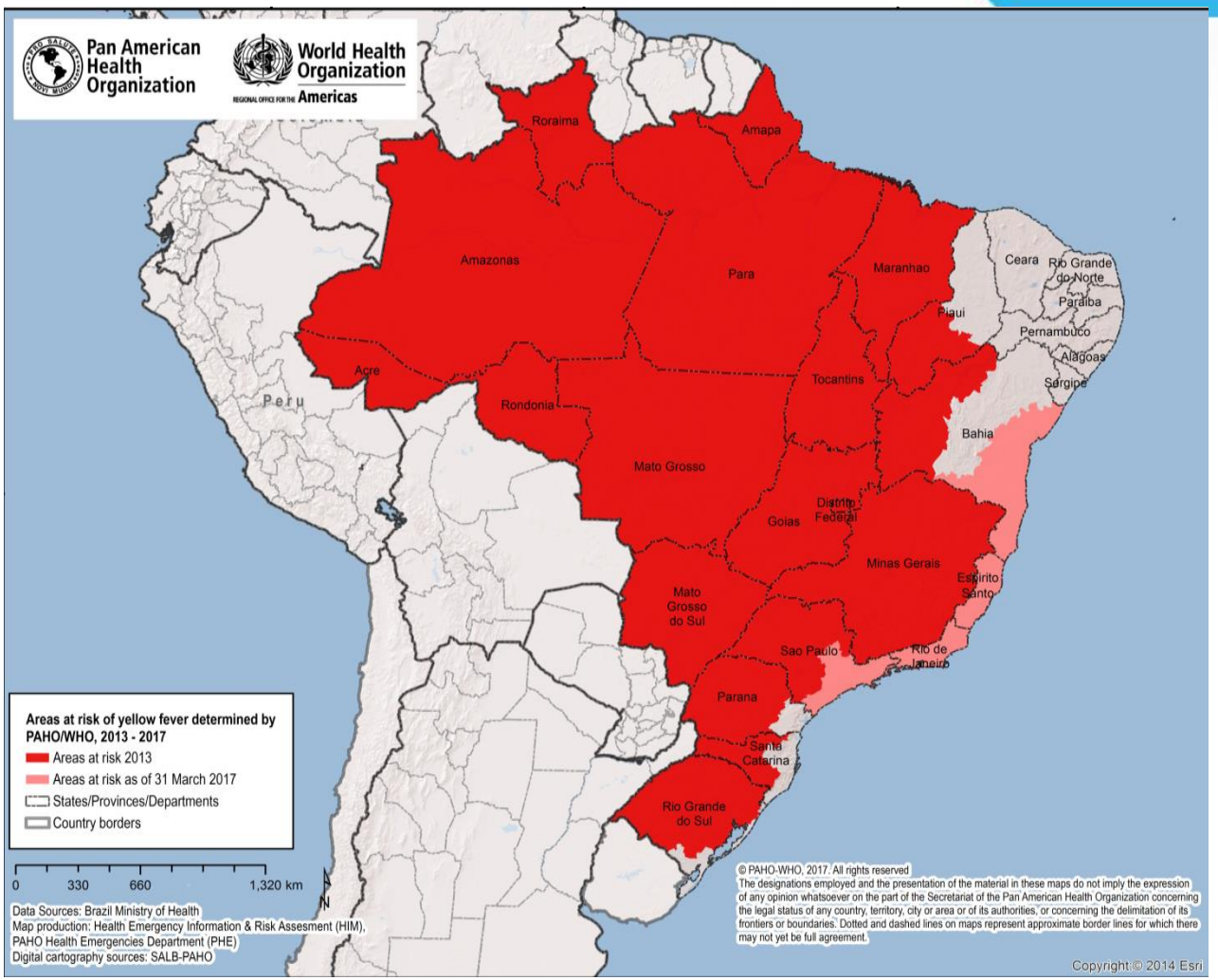
Areas at risk for YF transmission in Brazil, PAHO/WHO

Brazil: July 2017- 2018*
- 1.261 confirmed cases
- 409 fatalities
- 5 states: SP, MG, RJ, ES and DF

Peru: 2018*
- 12 confirmed cases
- 2 departments: Ucayali, Madre de Dios

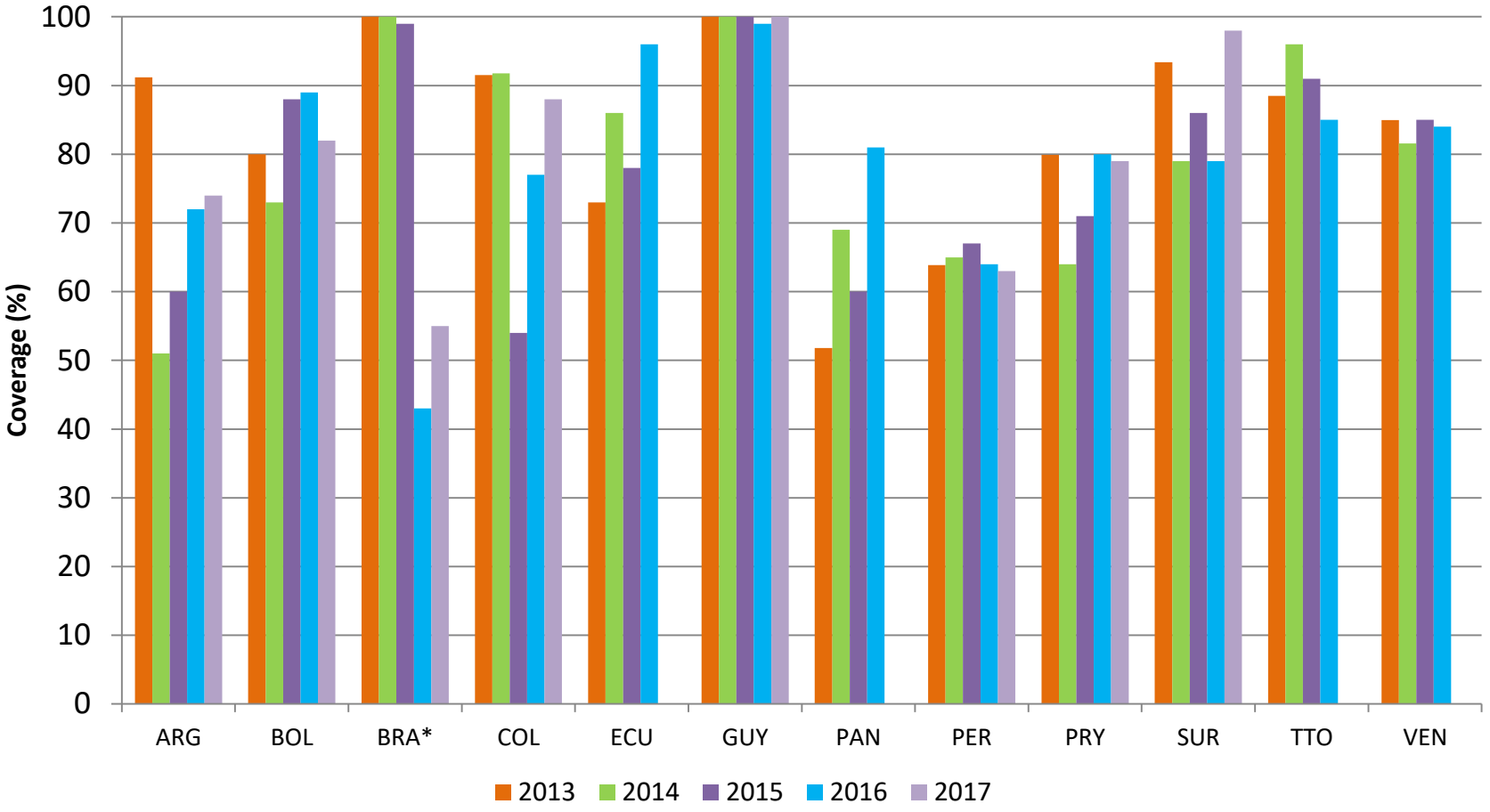
2016-18 epizootic spread in Brazil:

- > 60 M. people living in new areas determined at risk
- Vaccination campaign with YF fractional dose targeting 22 million people in Sao Paulo, Rio de Janeiro and Bahia



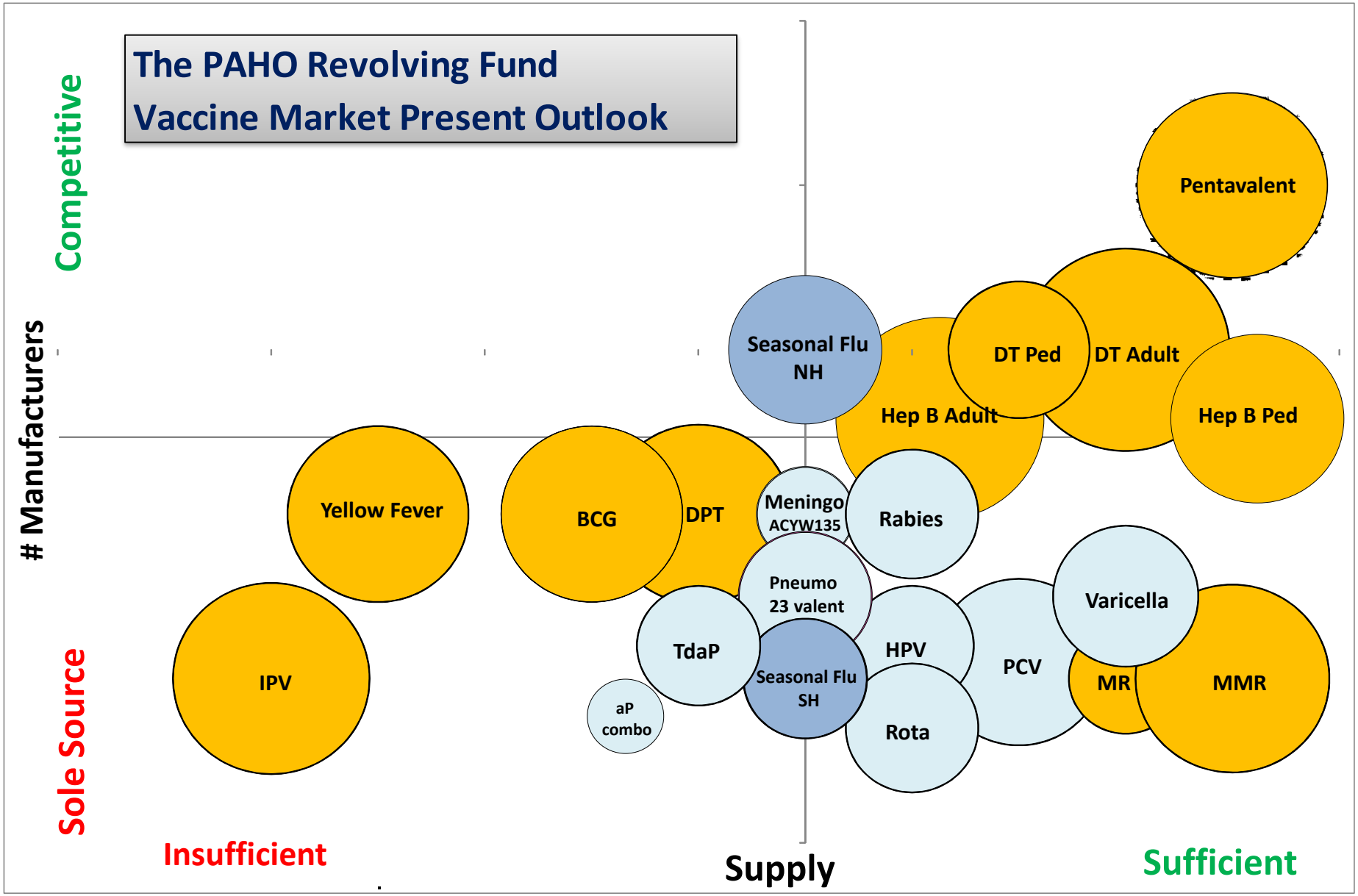
Pan American Health Organization
World Health Organization
REGIONAL OFFICE FOR THE Americas

Yellow Fever Coverage in Children 1 year of age in selected countries in LAC, 2013-2017**

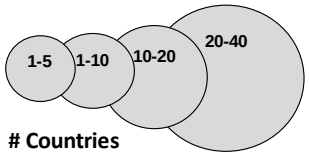


Source: Country reports through the PAHO-WHO/UNICEF Joint Reporting Forms (JRF).
*Vaccination in areas at risk and reported coverage >100%
**Provisional data

The PAHO Revolving Fund
Vaccine Market Present Outlook



Vaccine Groups
- Traditional
- New and underutilized
- Seasonal Influenza



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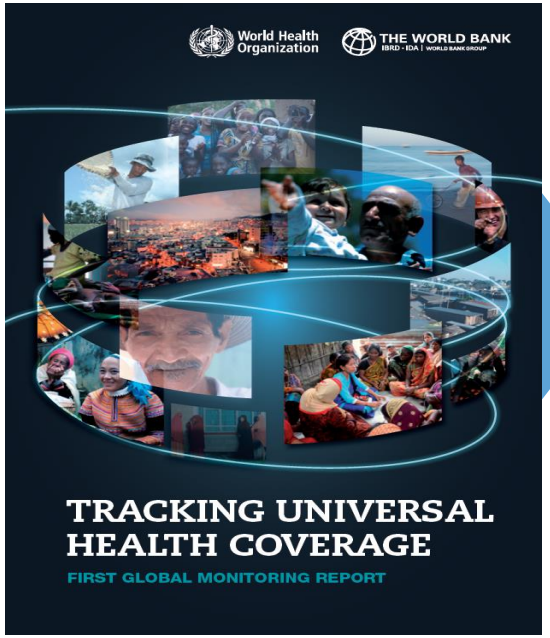
Opportunities

Immunization in the Framework of Sustainable Development Objectives Universal Coverage

Opportunities to Maintain Immunization in the Political Agenda



Immunization coverage as a tracer

MoF, Regional and Sub-regional Bodies

Organización Panamericana de la Salud

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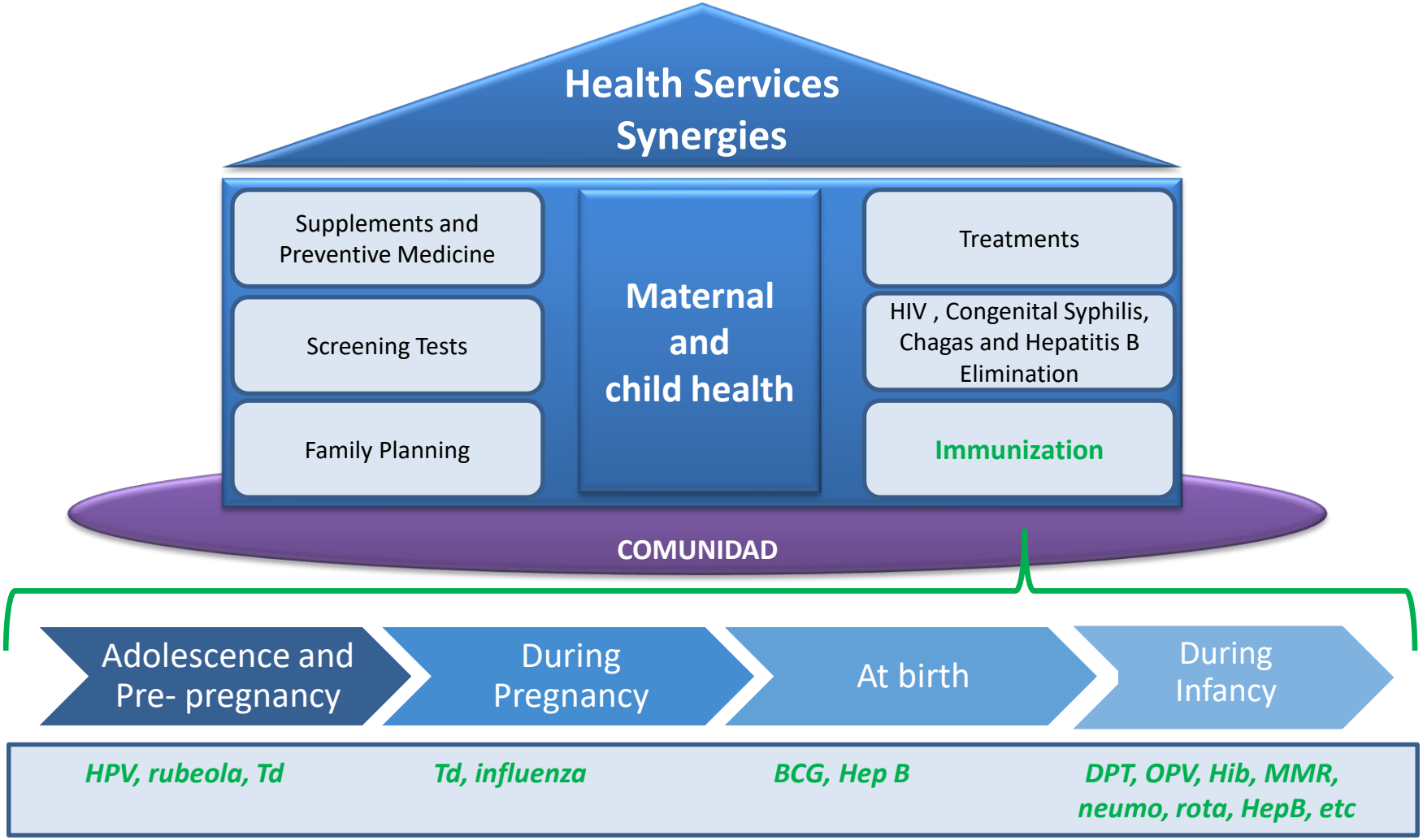
Integration of Immunization with other Health Services

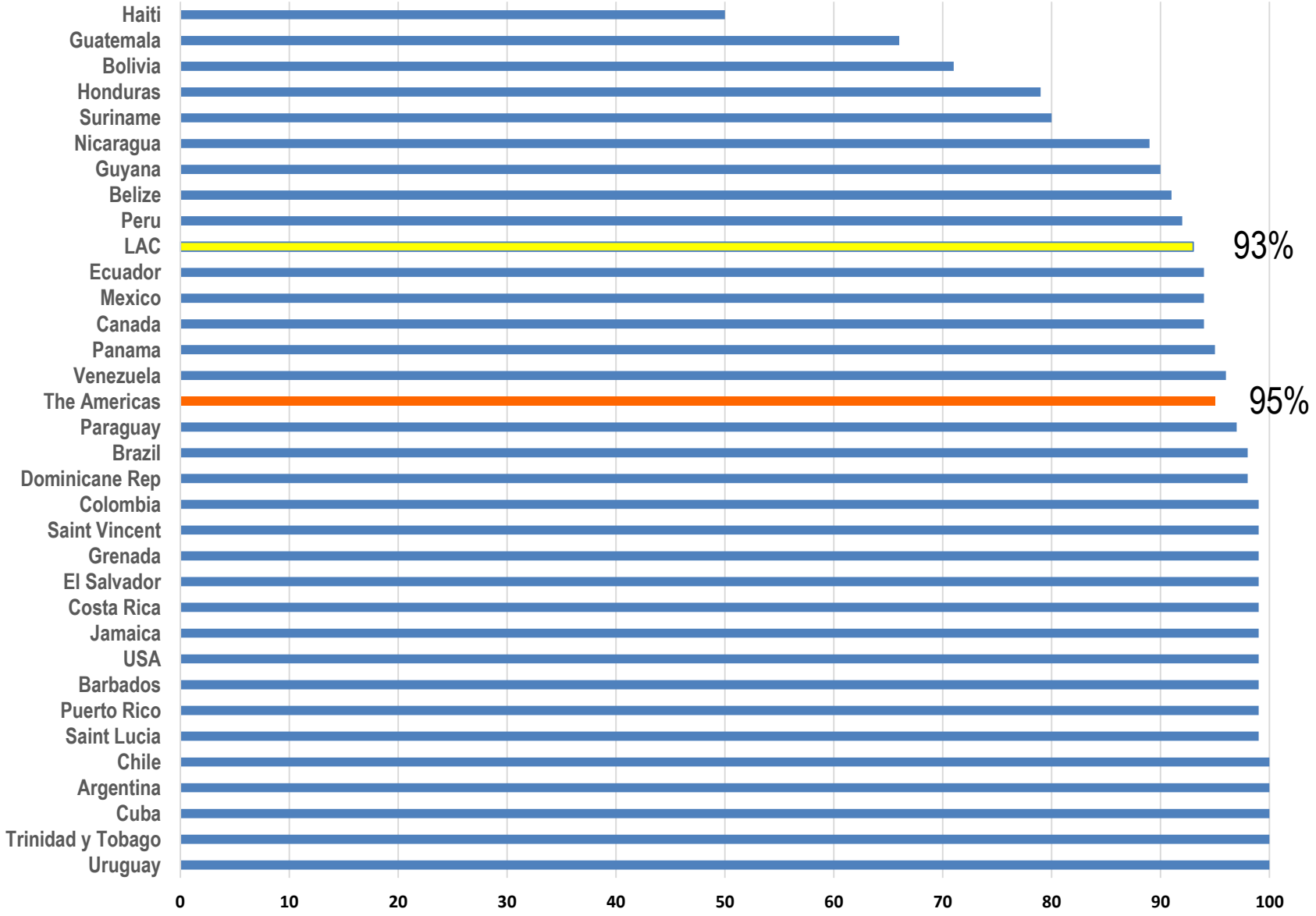


Health services:

Missed Opportunities in vaccination, Human Resources

Lack of integration with other interventions, Reach the unreached

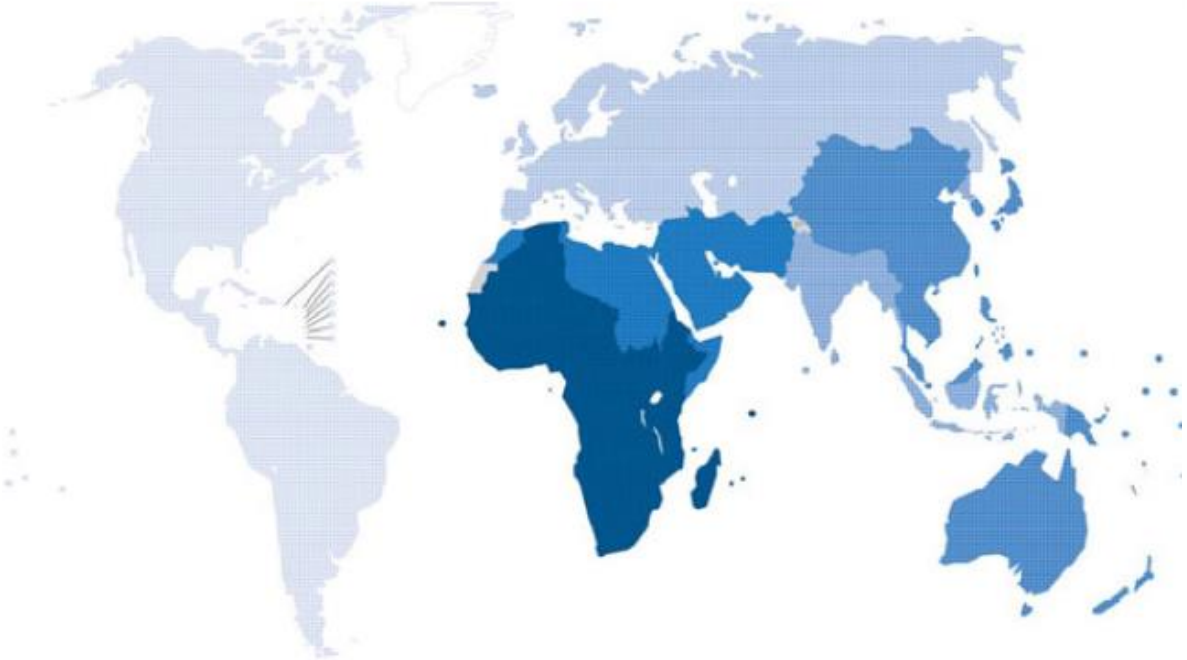
Percentage of deliveries assisted by SBA - 2015



Sources: PAHO. Basic Indicators 2017

WHO Global Hepatitis Report 2017

Table 1 (with map). Cumulated incidence of chronic HBV infection, 2015 (prevalence of HBsAg in children under 5 years) after the use of the vaccine by WHO region: about 1.3% of under-5 children have developed chronic HBV infection



		Prevalence of HBsAg (%)		
			Uncertainty intervals	
WHO region	Map key	Best	Lower	Higher
African Region		3.0	2.0	4.7
Region of the Americas		0.2	0.1	0.5
Eastern Mediterranean Region		1.6	1.2	2.1
European Region		0.4	0.2	0.8
South-East Asia Region		0.7	0.5	1.6
Western Pacific Region		0.9	0.6	1.3
Total		**1.3**	**0.9**	**2.2**

Source: WHO, work conducted by the London School of Hygiene & Tropical Medicine (LSHTM). *See* Annex 2.

http://whohbsagdashboard.com/#global-strategies

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Elimination and eradication of VPD in the Americas

First region to eliminate Smallpox

The Americas Region declared free of polio

Last endemic cases of rubella and congential rubella sindrome

Declaration of measles elimination

Elimination of Perinatal Hepatitis B transmission

1971 1991 1994 2002 2009 2015 2016 2017 2020...

Last case of wild poliovirus

Last endemic cases of measles

Declaration of elimination of rubella and CRS

Declaration of elimination of neonatal tetanus (NTT)

Strengthening Immunization to Achieve the Goals of the Global Vaccine Action Plan, WHA70/A70_R14., 2017

URGES Member States:

1. Demonstrate **stronger leadership and governance** of national immunization programmes
2. Ensure use of **up-to-date data**
3. Strengthen and sustain **surveillance capacity**
4. Expand immunization services beyond infancy to **cover the whole life course**
5. Ensure the application of the **International Health Regulations** (2005)
6. Mobilize **domestic financing**
7. Strengthen **international cooperation**; national and regional manufacturing capacity for **affordable vaccines** and **technologies**
8. Social and Risk communication -Anti-vaccine groups (HPV)

WHO/L. Cipriani

WHO/L. Cipriani


¡yo estoy
vacunad
¡yo esto
vacunado