Global landscape analysis and literature review of 2nd Year of Life immunization platform

Global Vaccine and Immunization Research Forum
15-17 March 2016
Johannesburg, South Africa

Imran Mirza; Celina Hanson; R. Kezaala – UNICEF PD

unite for children

unicef

Scope of work

- Systematic review of published peer reviewed and grey literature, including measles 2nd dose post introduction evaluations (PIEs).
- Analysis of immunization Joint Reporting Form (JRF) data
- Analysis of Demographic and Health Surveys (DHS)
- Online survey - MoH, WHO, UNICEF country office.

unicef

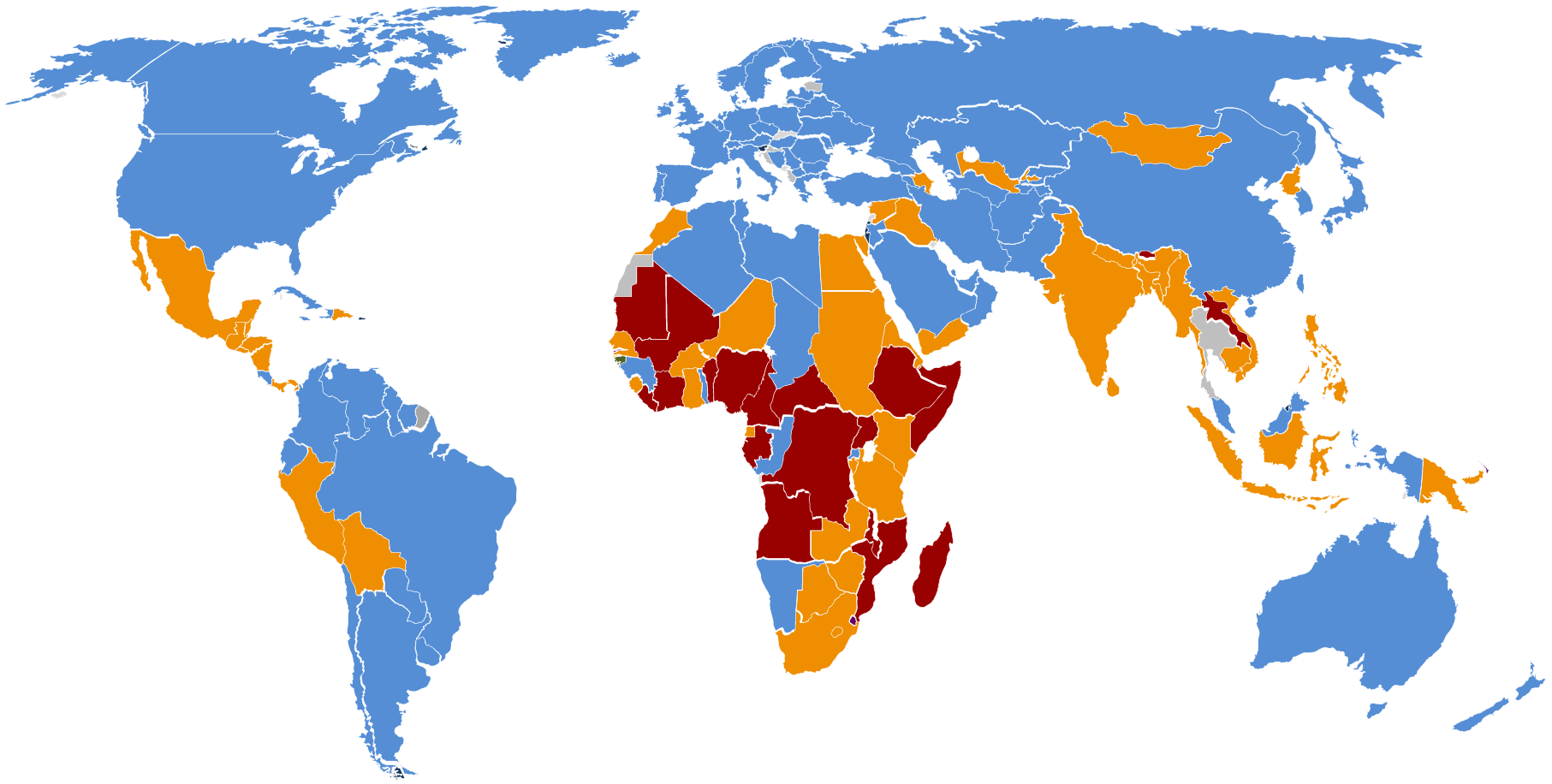
Immunization ….. not just for infants

BCG	DPT			DPT						DPT
Hep-B			Measles			Measles				
OPV			Rubella			Hep-B				
		IPV	Yellow Fever	IPV						IPV
				Men-A						
		Hib		Hib						
		PCV								
	Rota	Rota								
				JE						
					Hep-A					

Source: WHO and CDC schedules

unicef

Policies: 191 Countries have services for children in their 2YL (both vaccination and Vitamin A)



Source: Literature search, JRF, online survey, MoHs websites

unicef

Number and percentage of countries recommending immunizations and Vit-A in 2YL

WHO region	No. of member states				
	Measles containing vaccine	DT-containing vaccine	Polio	PCV	Vit A
Total (worldwide)	147	125	110	75	82
African	24	19	15	7	41
Americas	27	33	31	19	10
Eastern Mediterranean	18	18	19	12	9
European	50	40	38	28	2
South-East Asia	6	3	2	1	10
Western Pacific	22	12	5	8	10

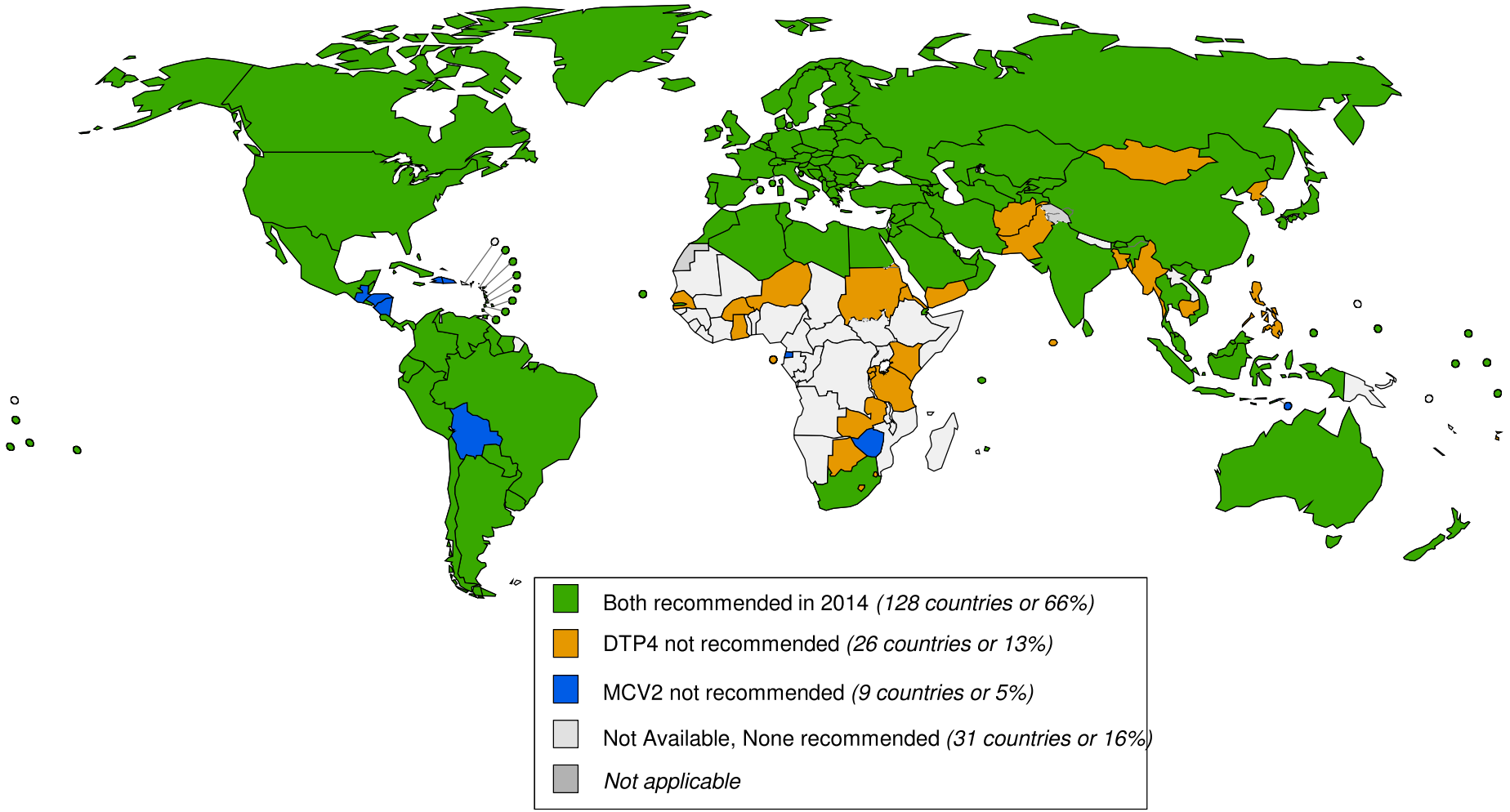
Source: WHO/IVB Database as of Dec 2014, EVERYTHING

Date of slide:18 February 2016

*2YL: 12-23 months

unicef

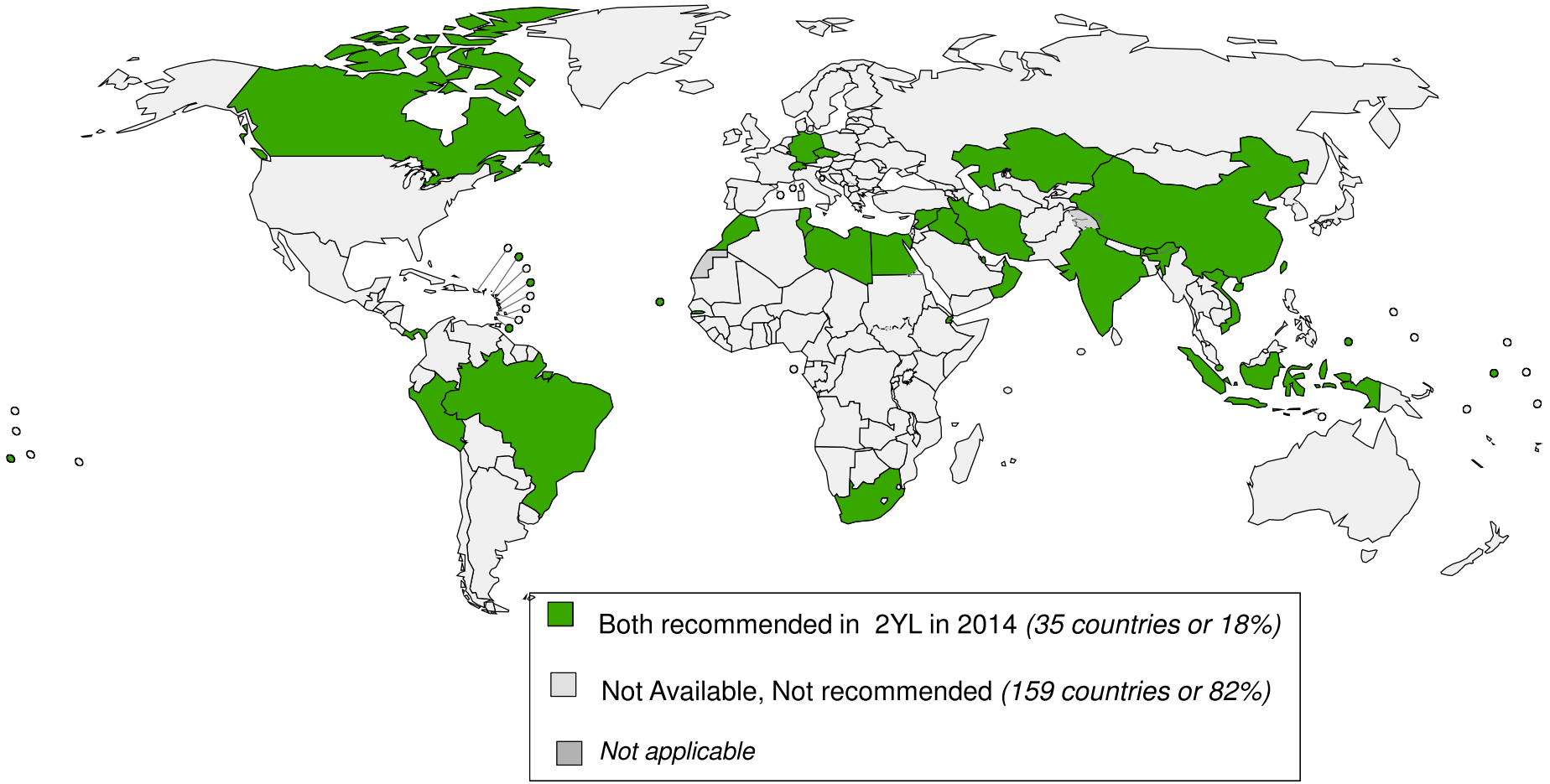
128 Countries recommending both MCV2 and DTPCV4, 2014



Data source: WHO/IVB Database, as of 13 January 2016
Map production Immunization Vaccines and Biologicals (IVB),
World Health Organization

unicef

35 Countries recommending both DTPCV4 and MCV2 during 2YL, 2014

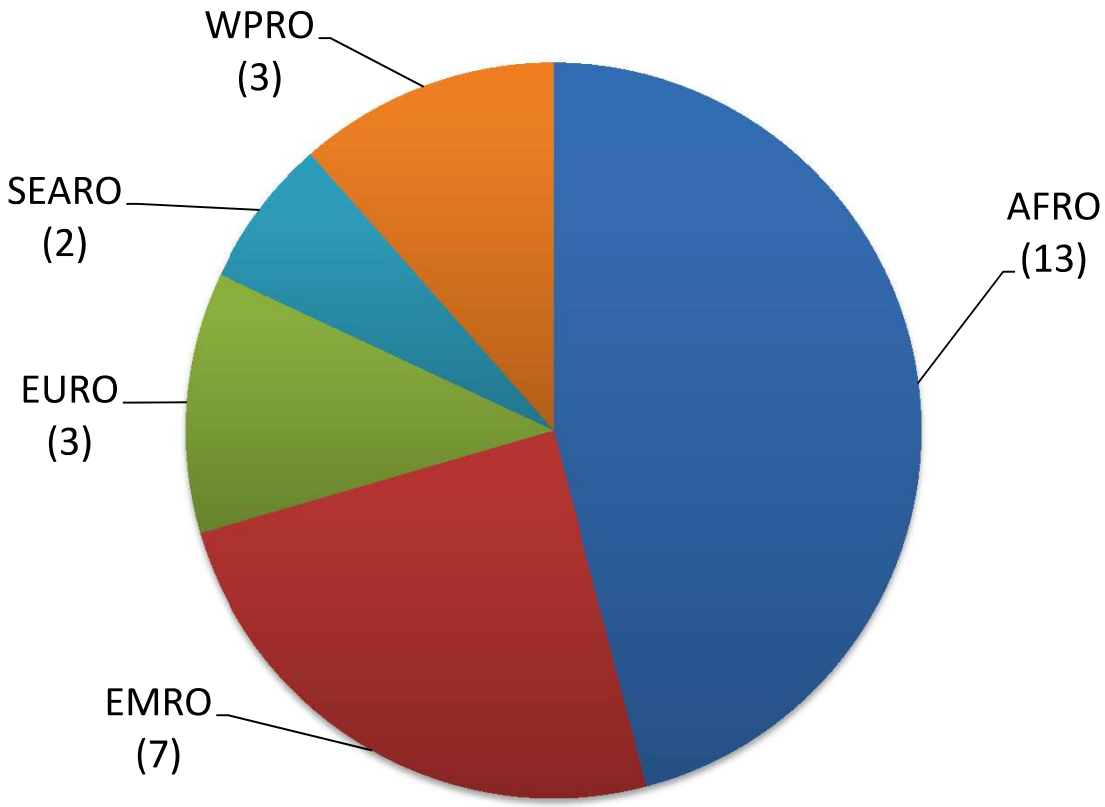


Data source: WHO/IVB Database, as of 13 January 2016
Map production Immunization Vaccines and Biologicals (IVB),
World Health Organization

unicef

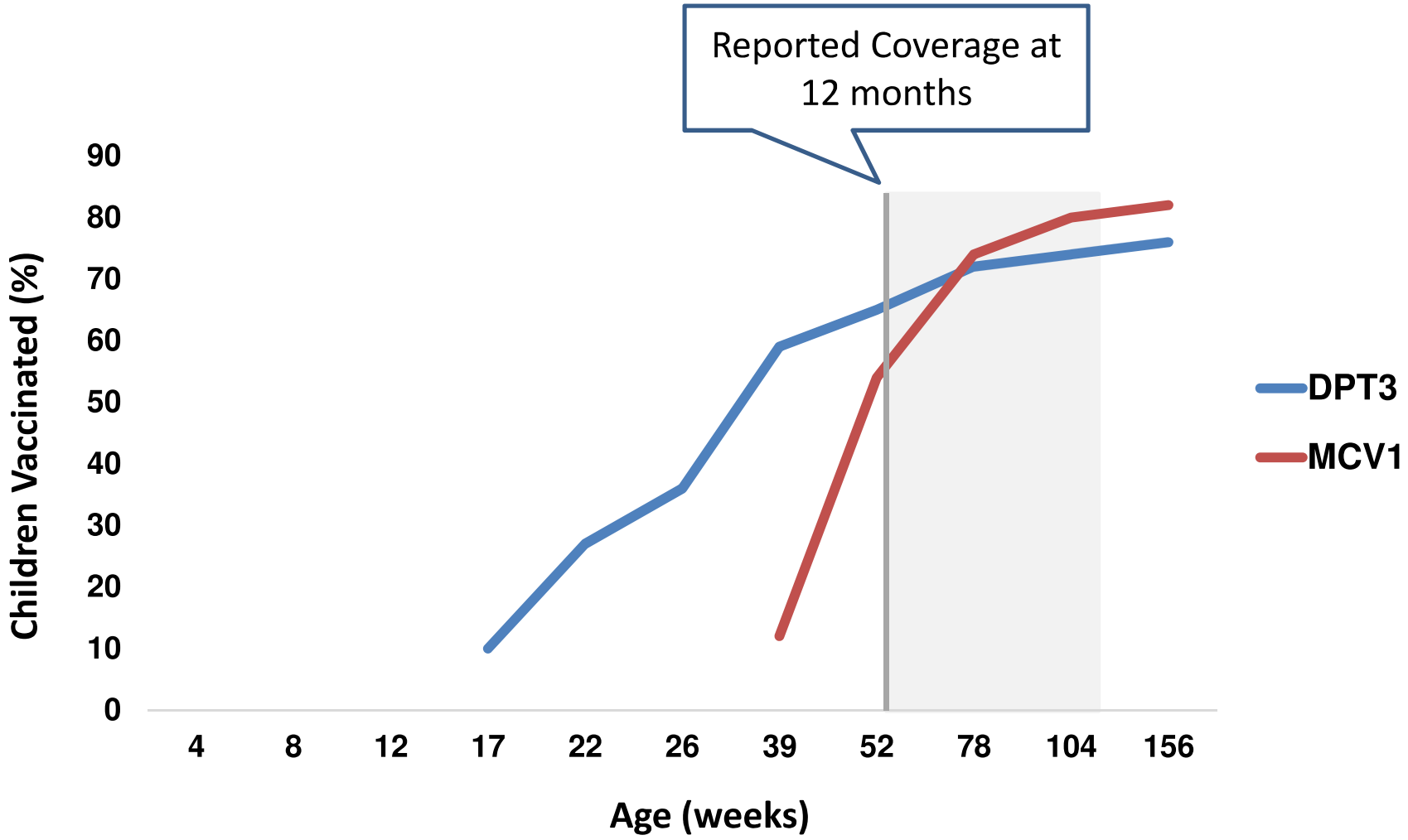
Countries that would vaccinate a non-FIC if they come to a health facility between 12 – 23 months of age

Online survey data from 46 countries



unicef

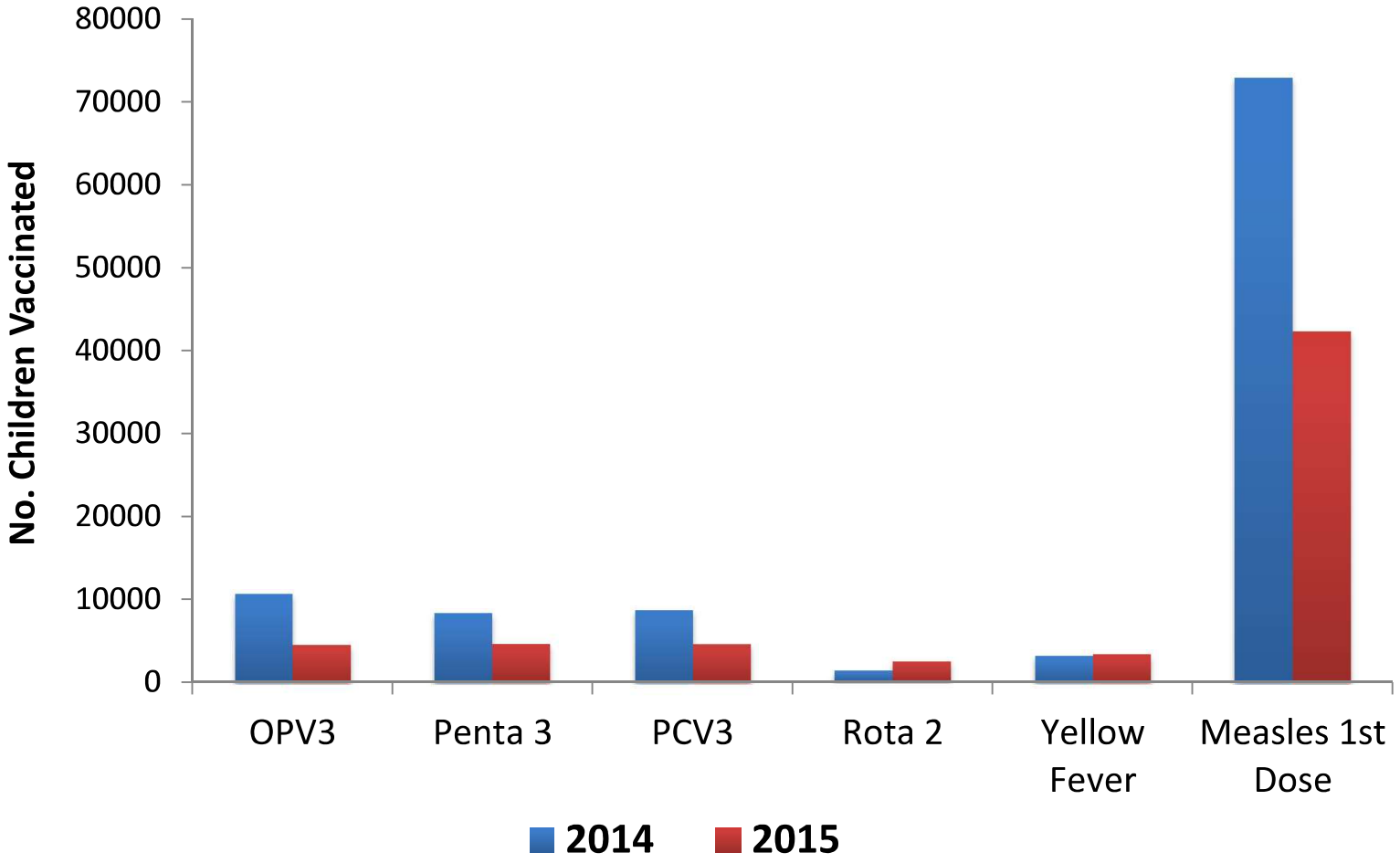
Catching-up: coverage rates across 45 low and middle income countries at different ages – DHS data



Lancet 2009; 373: 1543-49

unicef

Number of non-FIC received missed doses during 2YL DHMS Kenya



* 2015 data is not complete

unicef

New vaccines: introduction and the 2YL

MenA WHO recommends

- 1 - dose schedule, at 9 – 18 months.
- Routine immunisation can be co-administered with yellow fever, measles and rubella vaccines.

Malaria vaccine (RTSS)
4th dose: 15-18 m ???

Unvaccinated children and MCV2 coverage - selected countries despite immunization policy among 12-23 mo

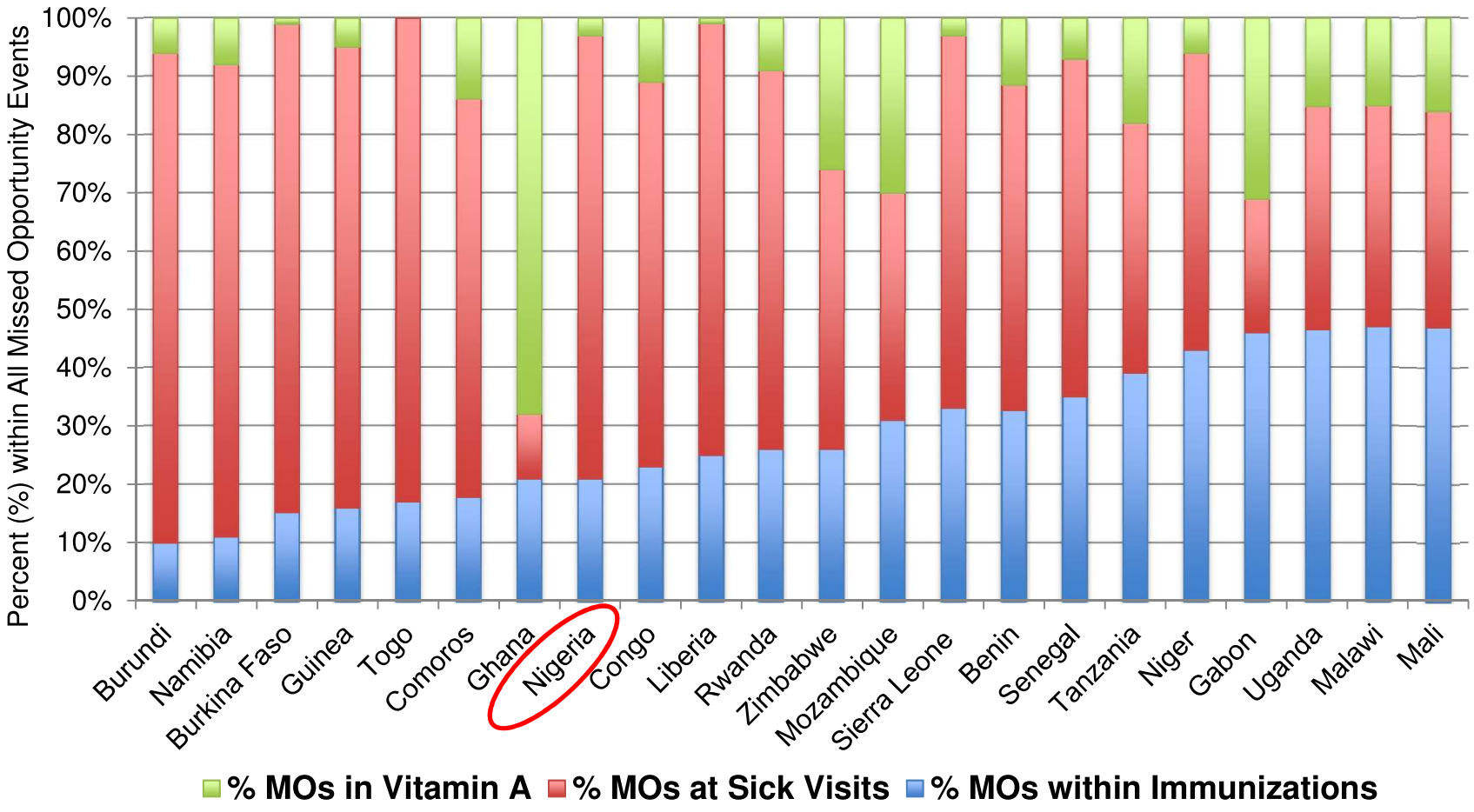
Country	% missing*	MCV2** %
Burkina Faso	11	17
Ghana	40	67
Mali	41	
Niger	36	

*mainly measles 1st dose
** MCV2 coverage in 2014

Info from cards only (DHS data)

unicef

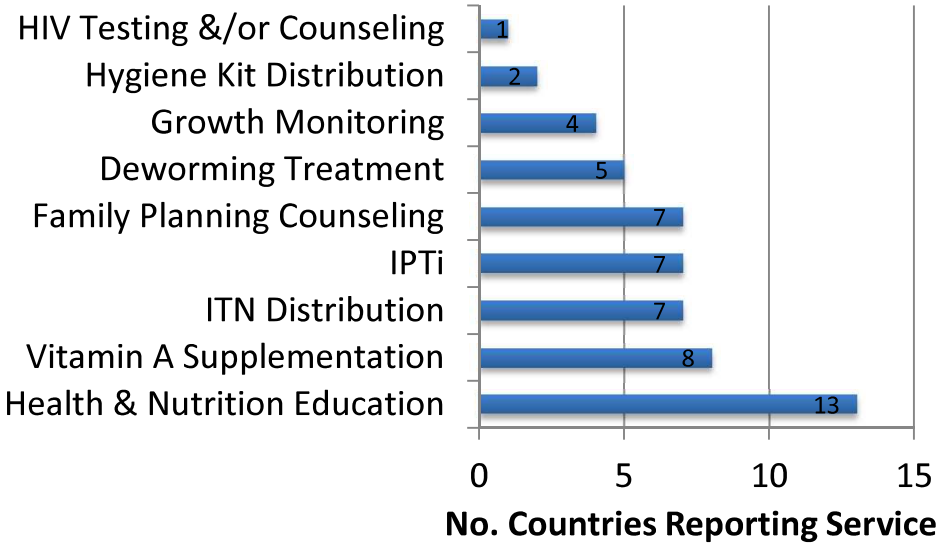
Missed opportunities: non-FIC attending healthcare facilities during 2YL but not being vaccinated



Source: DHS data, children with card

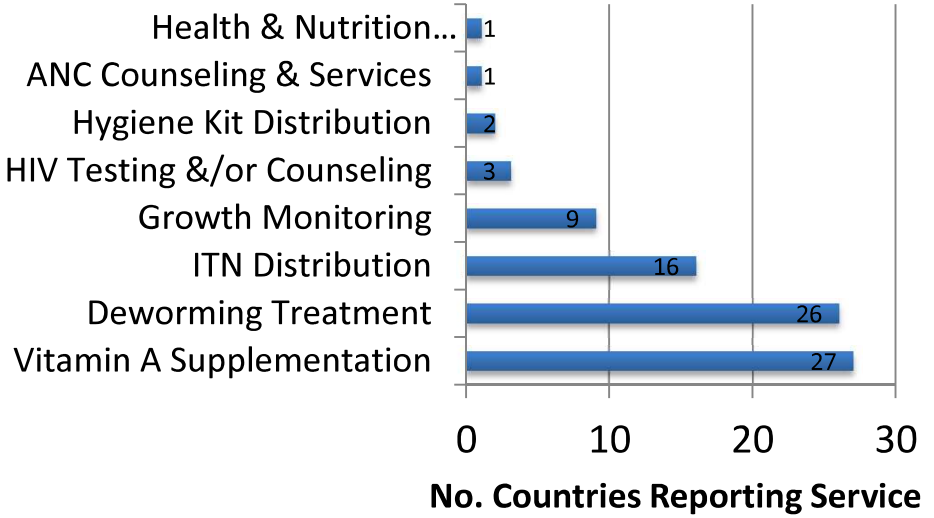
unicef

Integration: most common interventions integrated with immunization



Integration with routine immunization services

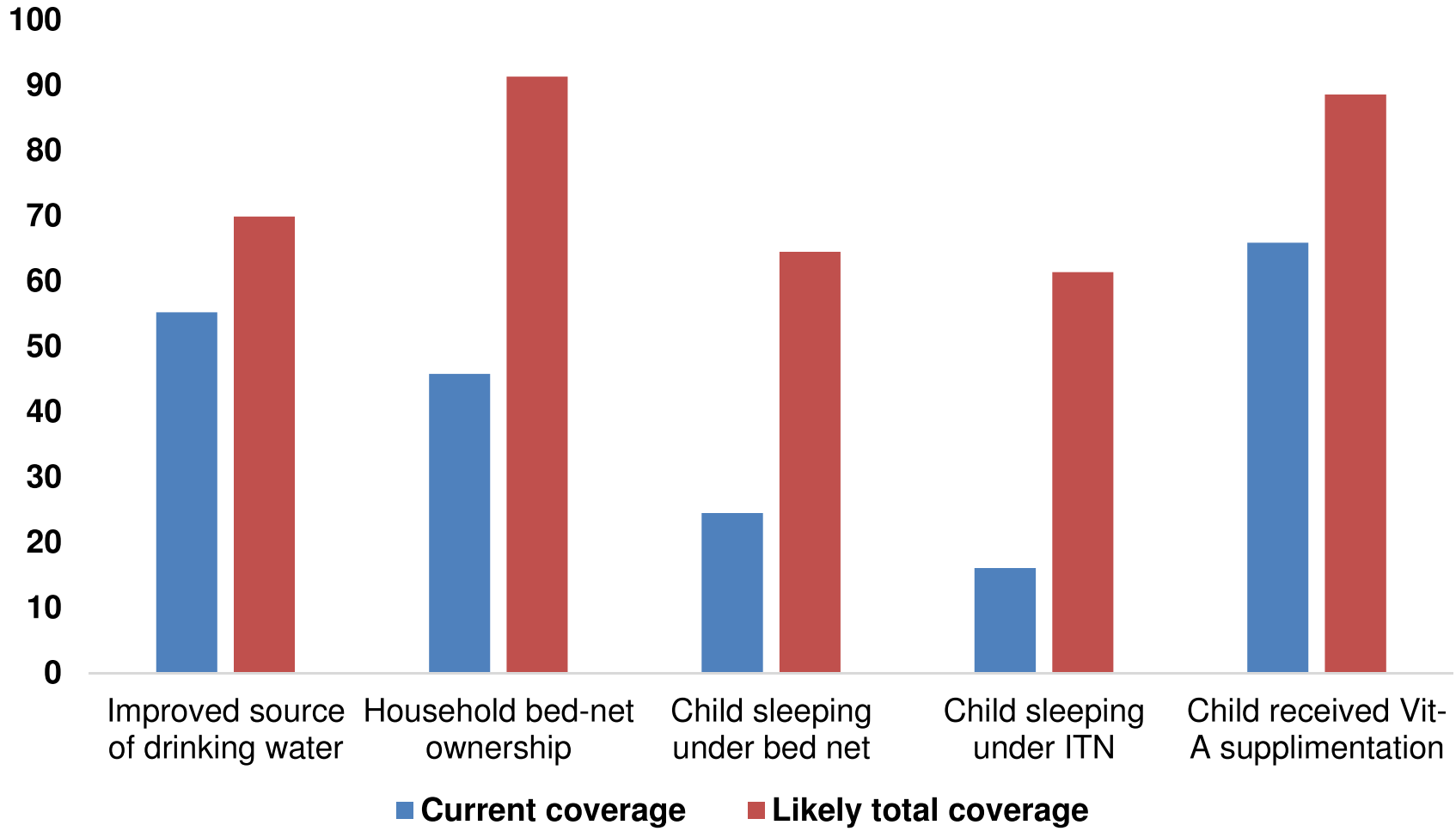
Integration with immunization campaigns



Source: Online survey

unicef

Likely interventions coverage among households with a child aged 12-23 months if integrated with routine immunization - 28 sub-Saharan African countries

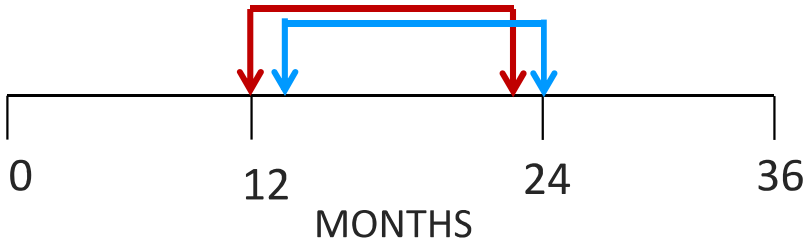


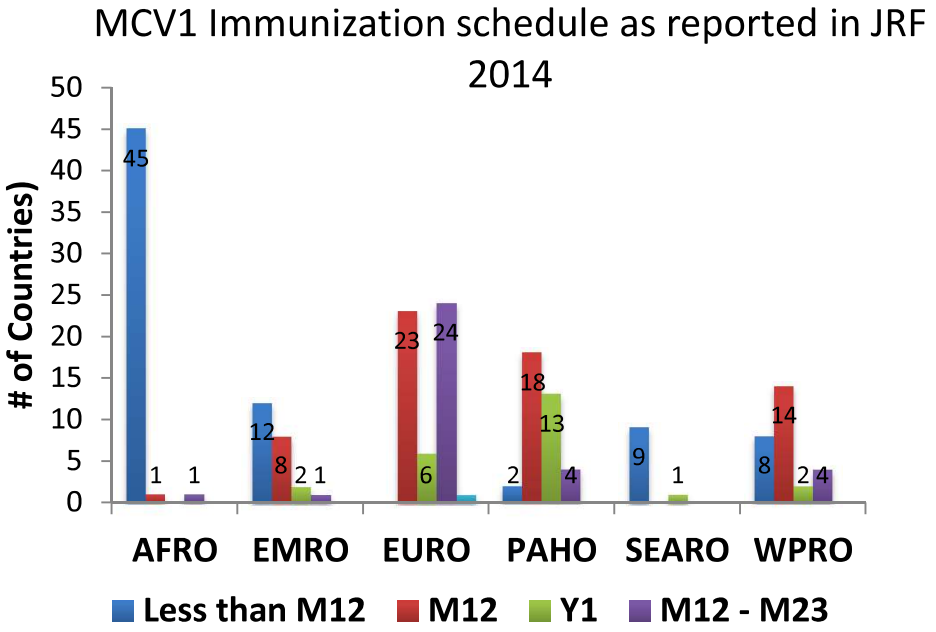
JID 2012; 205: S28-39

unicef

Issues in establishing stronger 2YL platform - definition

- 12 - 23 months or 13 – 24 months of age?
- If a country reports vaccination at 12m, or 1yr, or 24m, what does that mean?





unicef

Issues in establishing stronger 2YL platform - others

- Policies vs implementation
- Definition of fully vaccinated child (FIC) shifting
- Monitoring and accountability
  - Should coverage for all vaccines be measured in 24-59 month olds in addition to 12-23 month olds?
- Poor recording/reporting for vaccinating in 2nd year of life
- Vaccines given in 2YL in EPI coverage survey, MICS, and DHS
- Linking with well-baby as well as sick visits and other non-immunization contacts

unicef

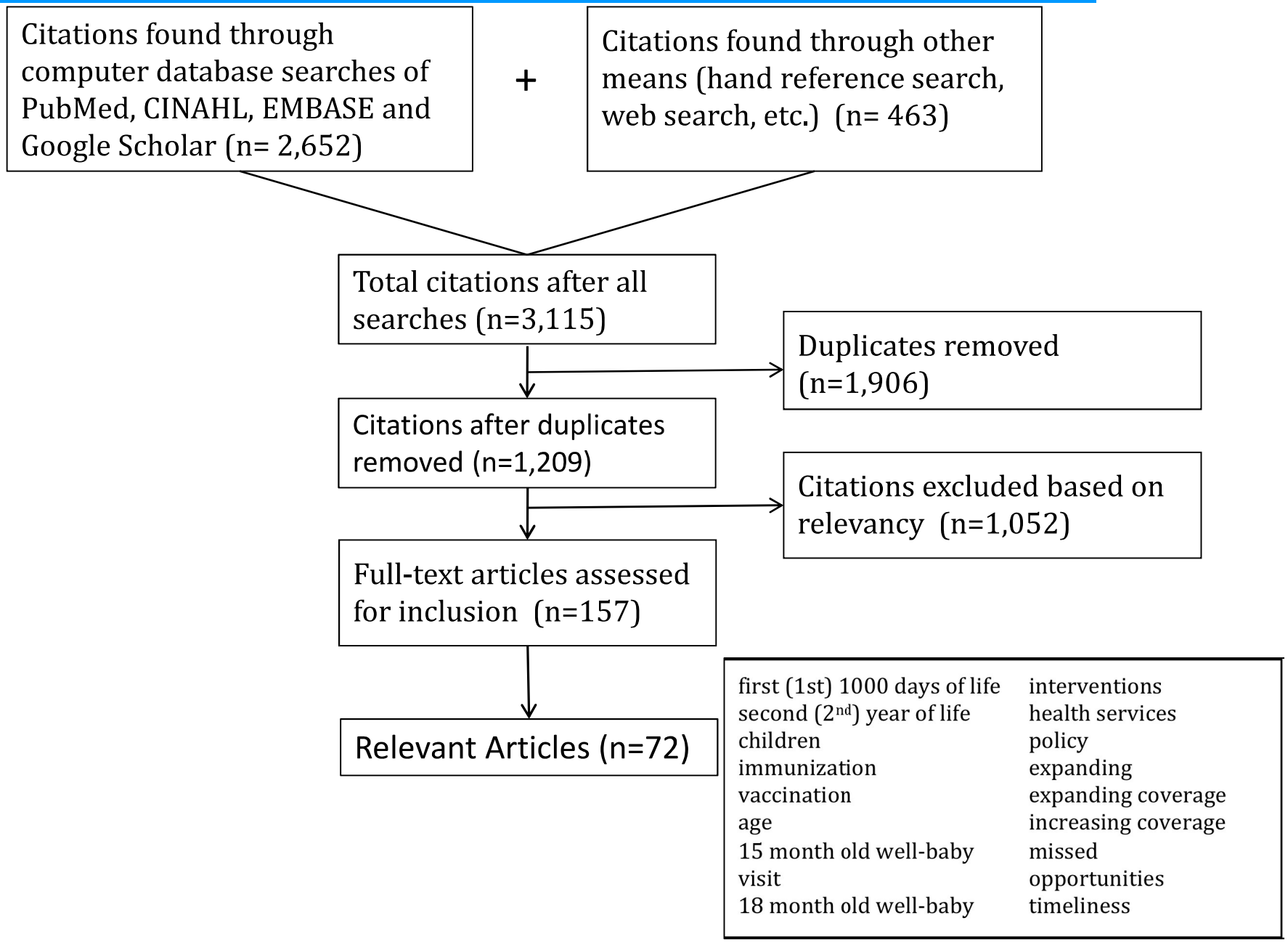
Thank you




unicef

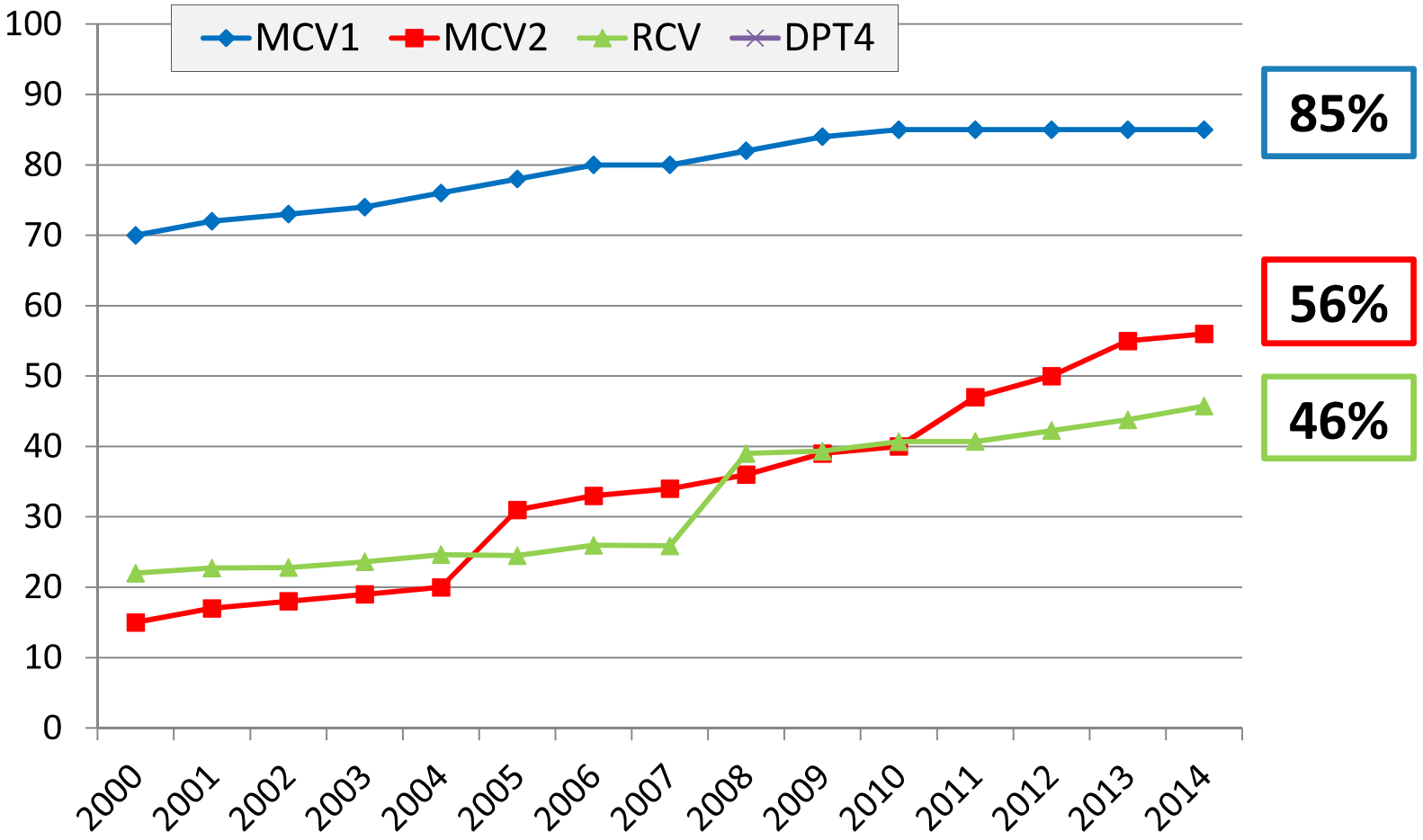
Back up

Summary of exclusion process



Significant gaps in routine coverage

Global immunization coverage with MCV1, MCV2, RCV, 2000-2014

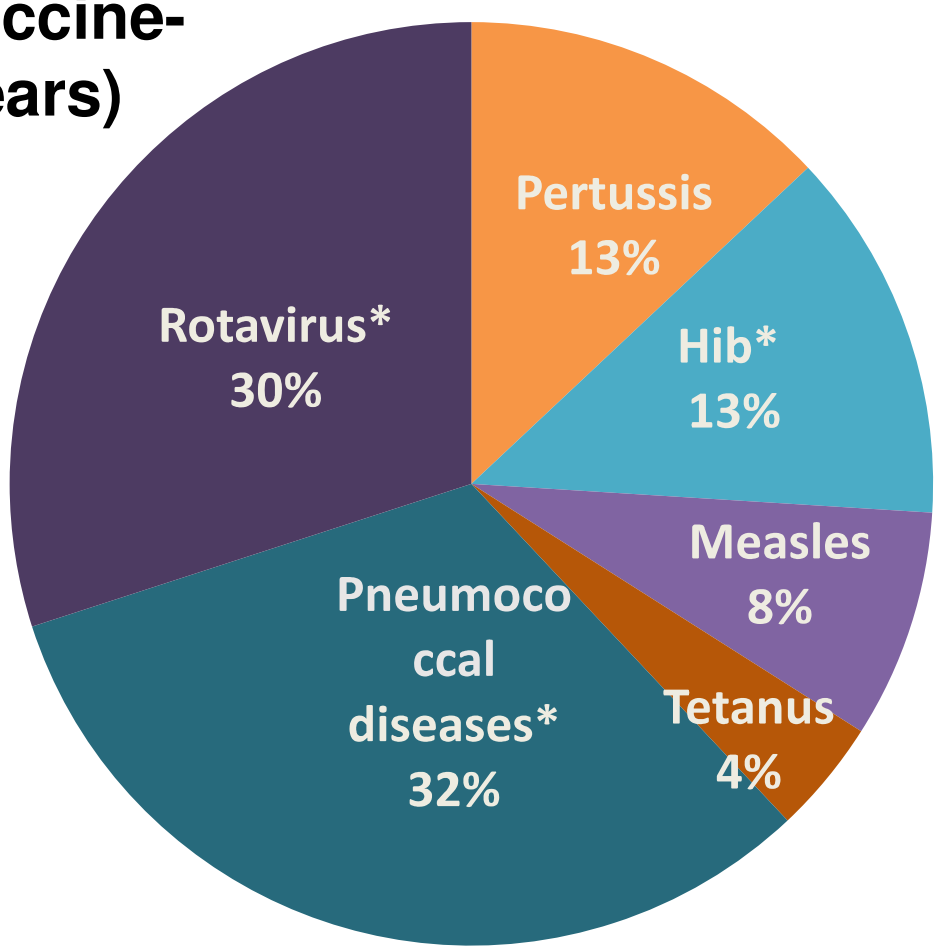


Source: WHO/UNICEF Joint Reporting Forms

unicef

Global Disease Burden of Vaccine-Preventable Deaths (< 5 years)

- 17% of global total mortality
- Estimated 1.5 million deaths in children preventable through *routine vaccination*

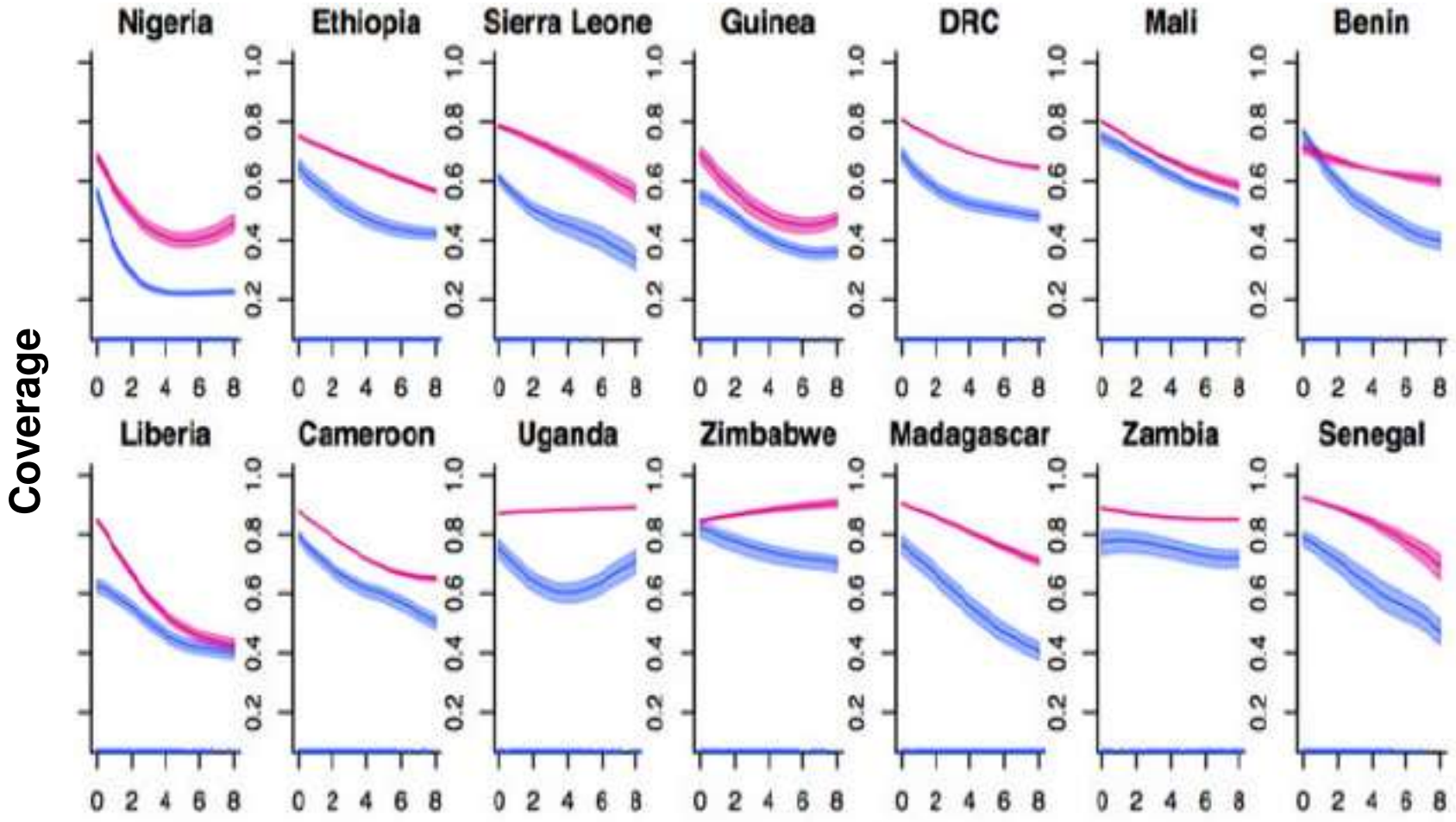


*WHO estimates

Source: Black RE et al. Global, regional, and national causes of child mortality in 2008: a systematic analysis. Lancet, 2010 Jun 5; 375(9730): 1969-87.

unicef

The effect of age and travel time on vaccination coverage

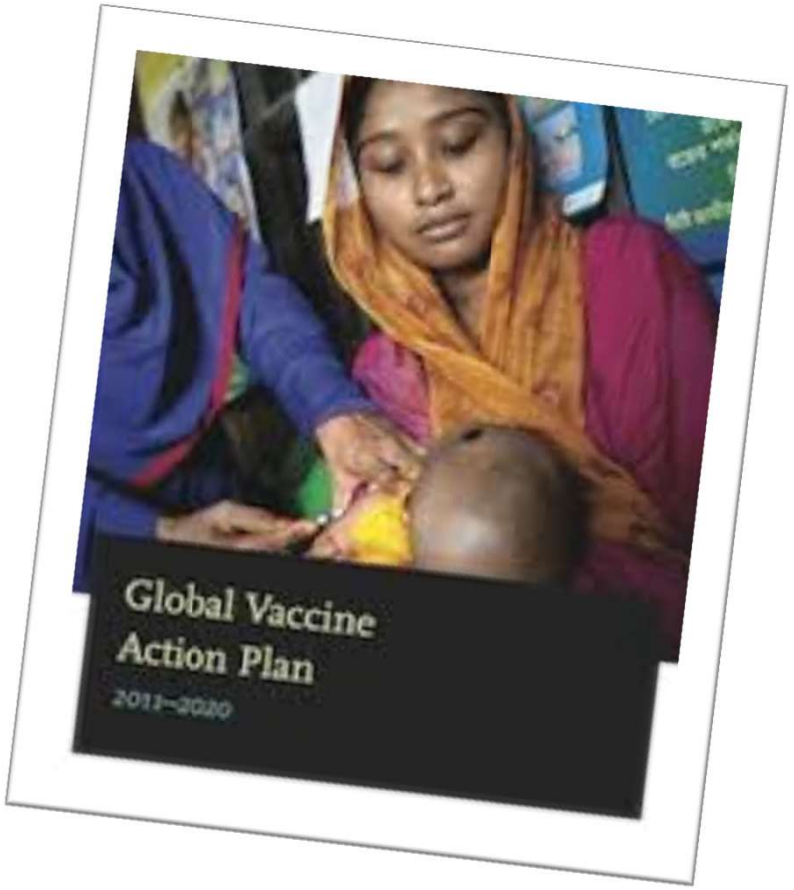


Source:

Integration: A guiding principle in the Global Vaccine Action Plan for the Decade of Vaccines

On integration, GVAP says:

"Strong immunization systems, as part of health systems and closely coordinated with other primary health care delivery programmes, are essential for achieving immunization goals."



unicef

Global Evidence from Demographic and Health Surveys

- During 1985 – 2011 increase in measles and tetanus coverage alone were responsible for 3.7% fall in global U5 mortality. McGover M E; Canning D. (2015)
- If measles coverage could be raised a further 16 percentage points, this would equate to a roughly 3% reduction in mortality, or an estimated reduction of 210,000 deaths. Hill et al. (2012)
- Major gains will be in Africa. Bosch-Capblanch et al., (2012)

unicef