

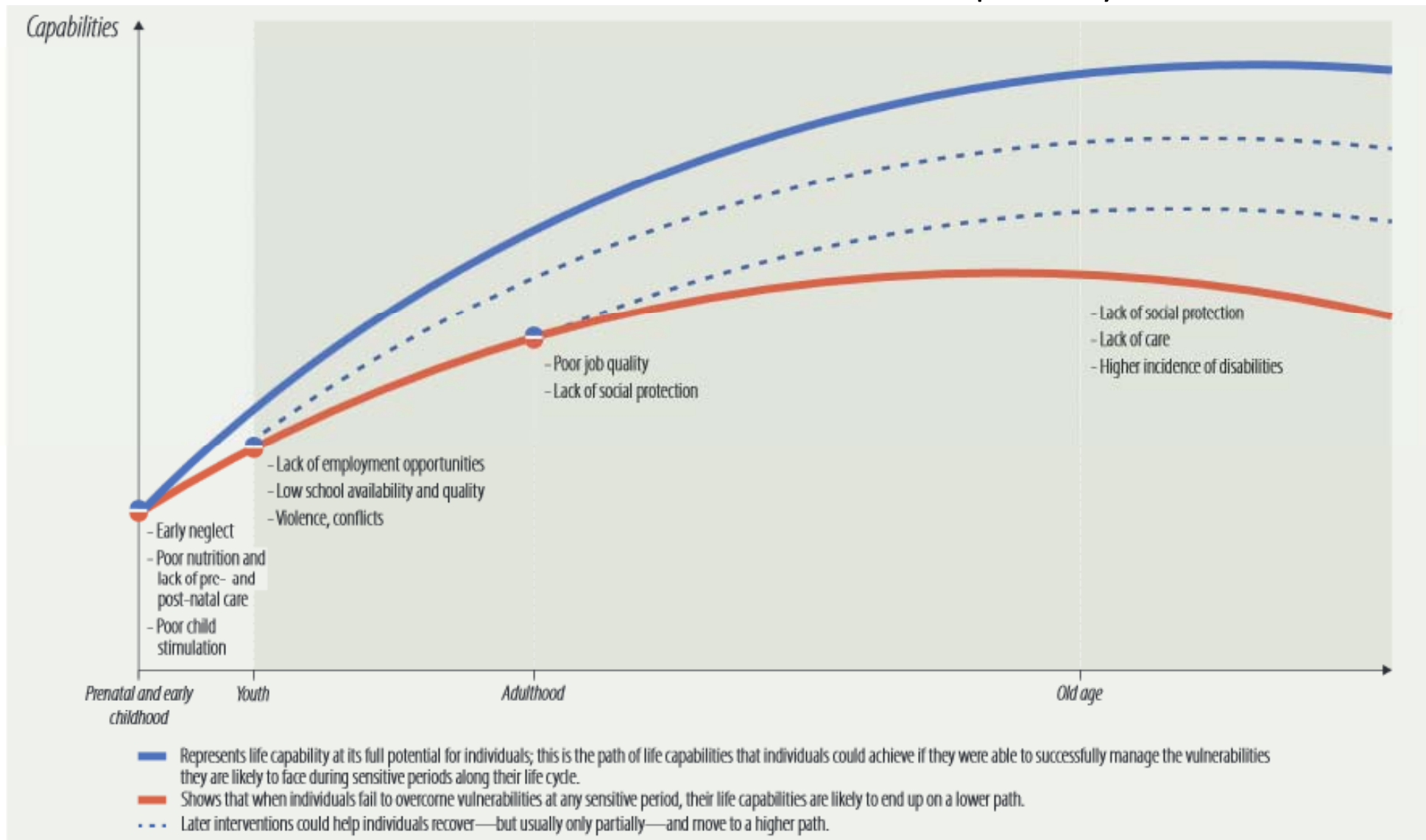
Deviations from the Immunisation Schedule

Kevin Connolly
Waterford
Aug. 25th, 2016

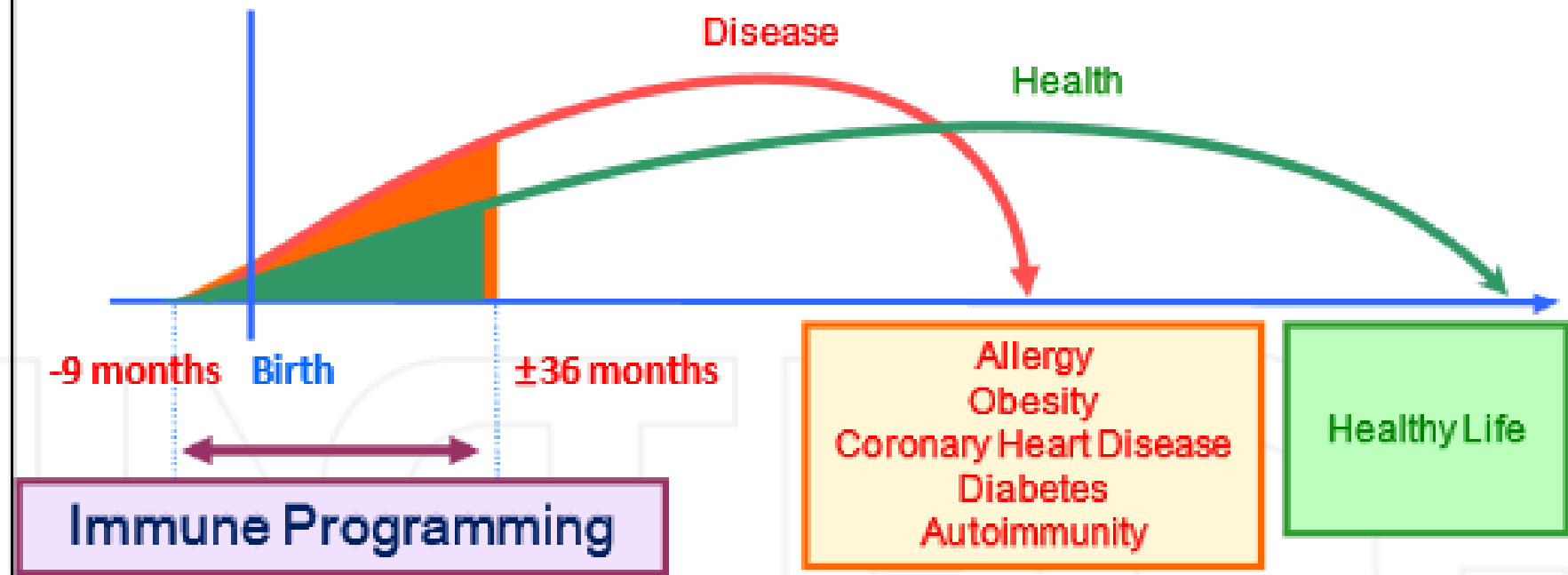
Summary of Summary

If in doubt, give them all

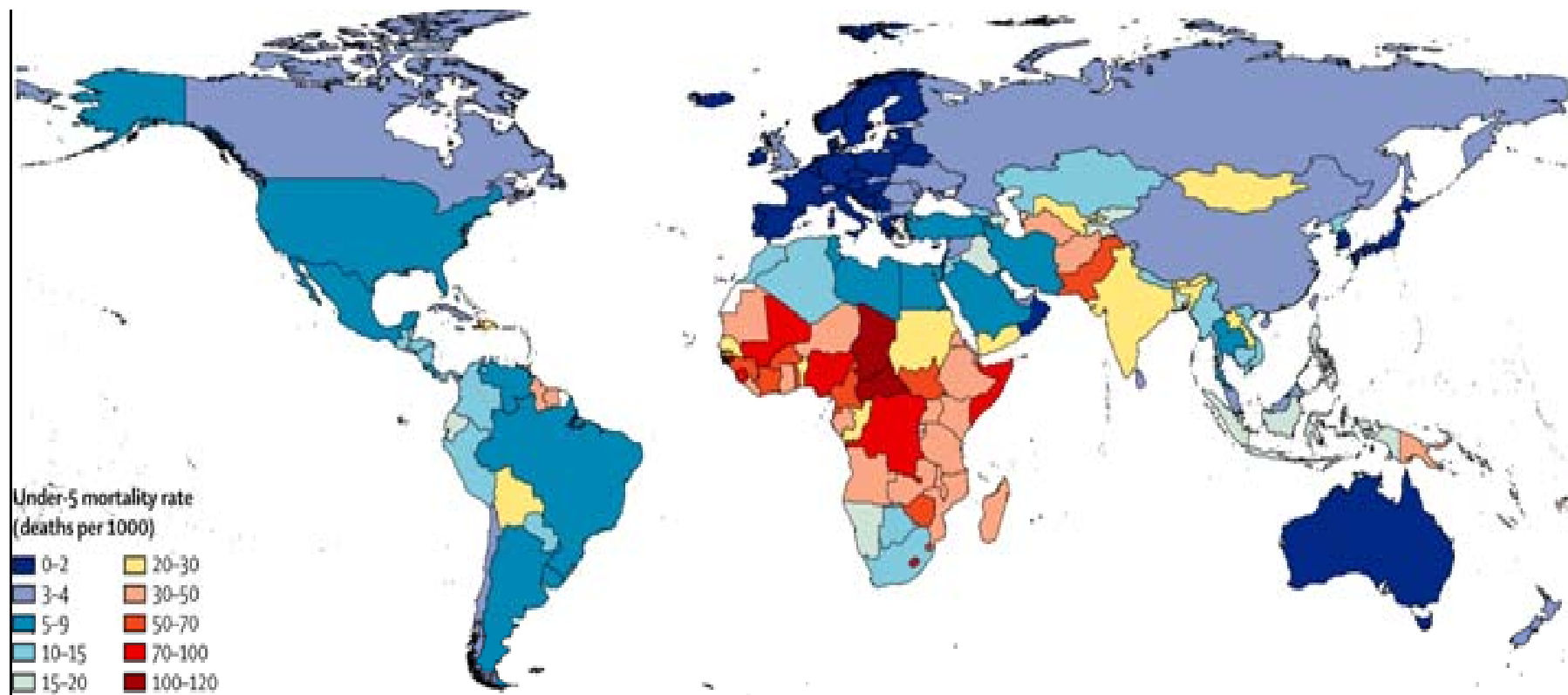
Effect of Hurdles of Life-capability



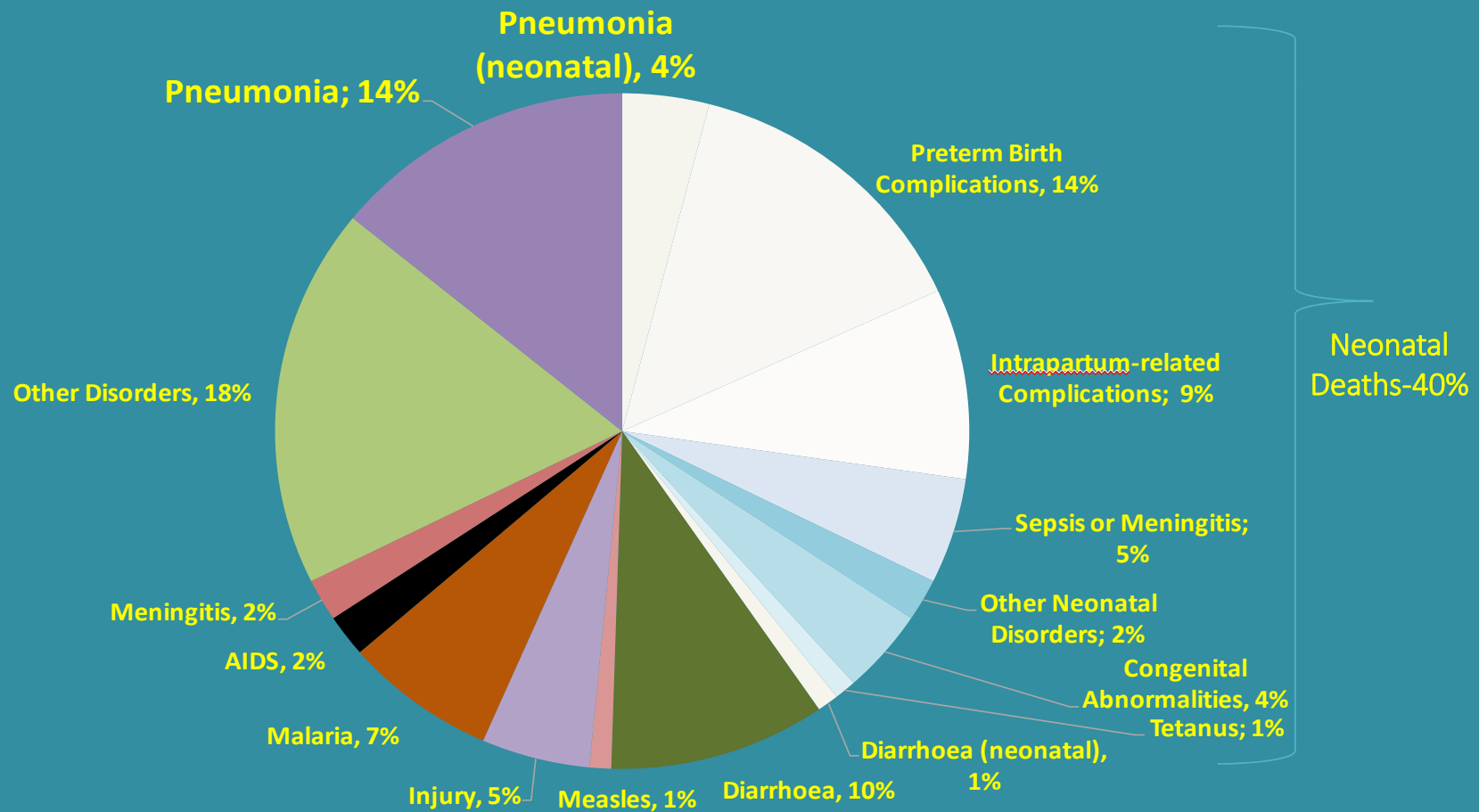
Early life: Setting the immune balance for life



Under 5's Deaths per 1,000 2013

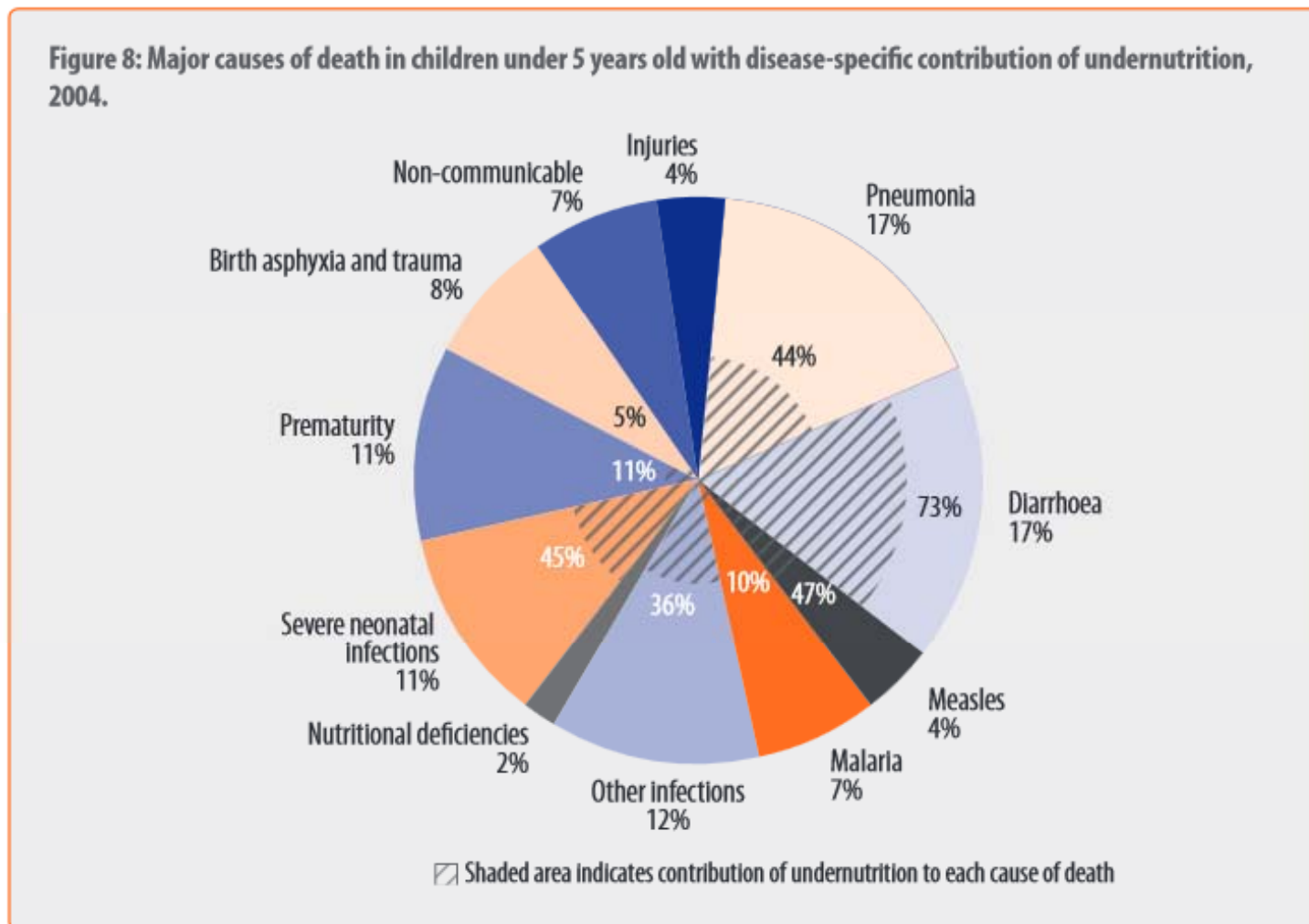


Global Deaths, Children <5 Years, 2014 (6.2m)



Adapted from Liu L et al. Lancet. 2012;379:2051-61

Contribution of Malnutrition to <5s Deaths (2004)



Global Child Mortality

2000- deaths <5 years
~ 9.6 million

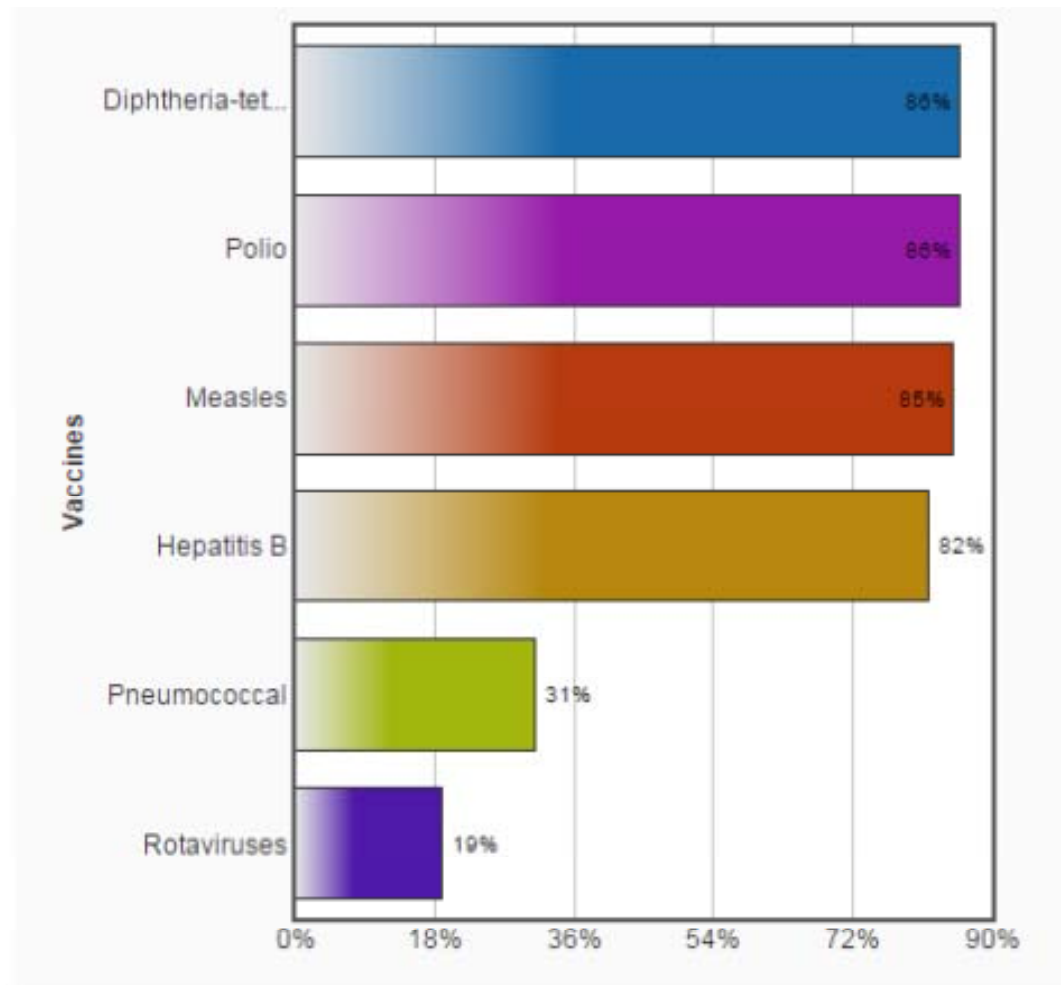


Immunisation
WASH
Education



2014- deaths <5 years
~ 6.2 million
(despite increase in number of children
born)

Global Immunisation Coverage, 2014



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Standards

Measles containing vaccine 1st dose (MCV1) immunization coverage



Situation and trends

Global coverage was at 85% in 2014

[View interactive graph](#)

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More Immunization data products

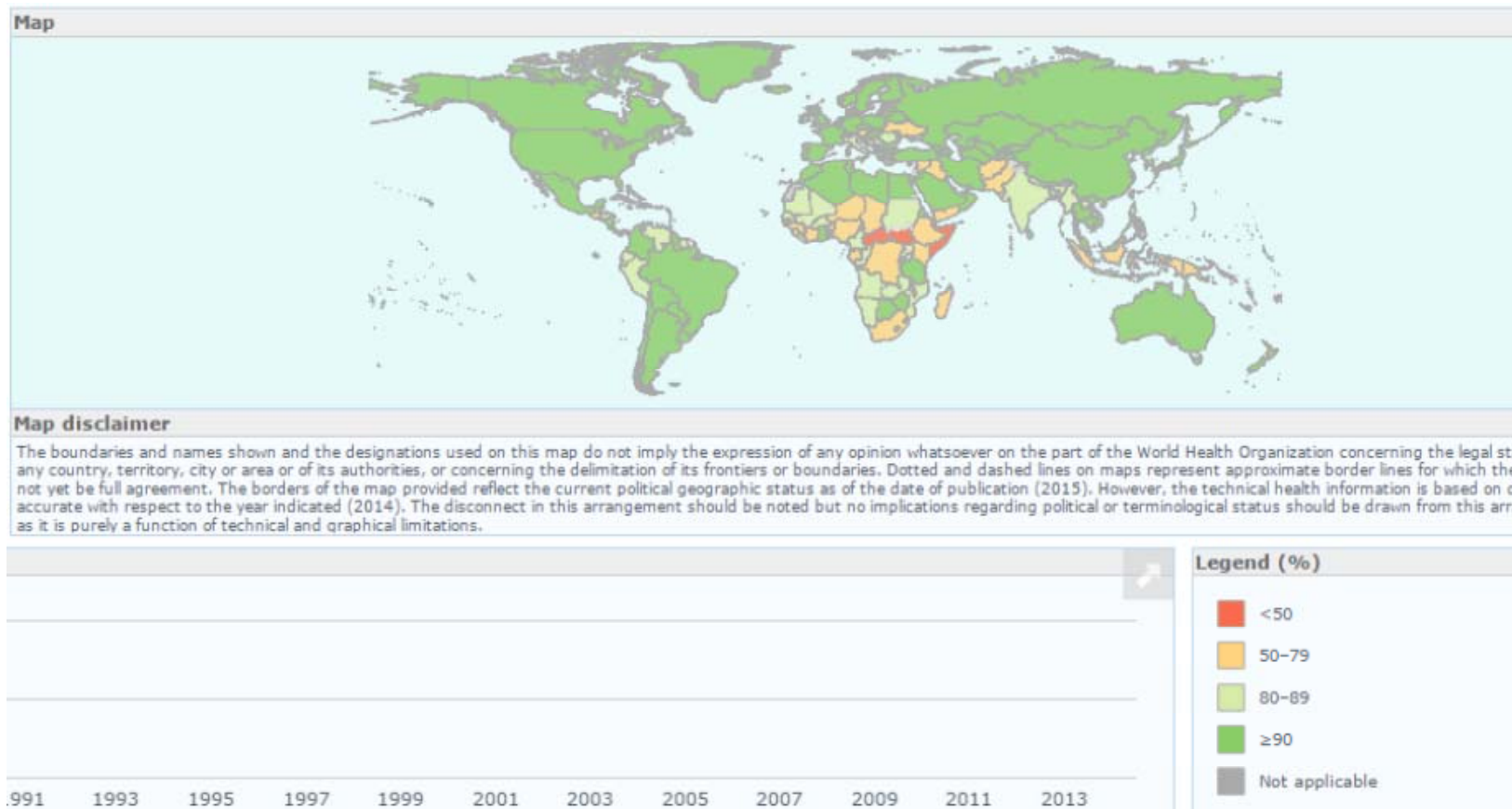
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MMR1 coverage 2014



Key Challenges

- Limited resources
- Competing health priorities
- Poor management of health systems
- Inadequate monitoring and supervision
- In 2014, over 18.7 million infants not reached with routine immunisations such as DTP3
- More than 60% of these children live in 10 countries: the Democratic Republic of the Congo, Ethiopia, India, Indonesia, Iraq, Nigeria, Pakistan, the Philippines, Uganda and South Africa.

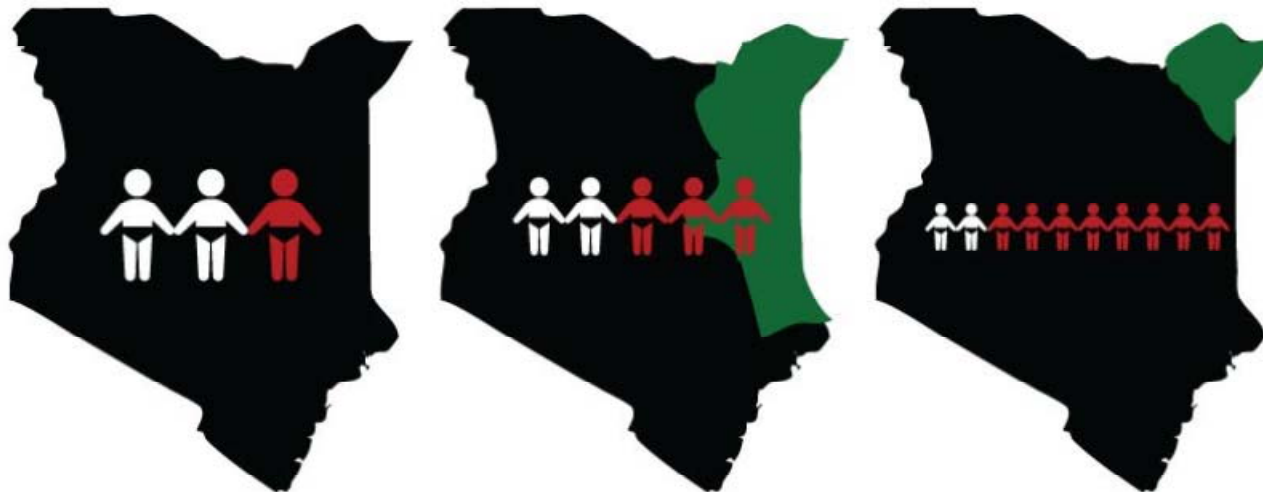
Kibera Slum, Nairobi

Pop. 800,000.

Toilets - 600







Nationally, 2 in 3 Kenyan children are fully vaccinated.

In the North Eastern region, 2 in 5 children are fully vaccinated.

In Mander County, 2 in 10 children are fully vaccinated.

Source: 2014 Kenya Demographic and Health Survey.



Syria

Proportion of districts
not reporting DTP3 coverage

16

Immunization Schedule (2014 or latest available)

Hovering over an antigen reveals its fuller definition

Vaccine	Schedule	Entire country	Comment
BCG	birth;	Yes	
DTaPHibIPV	2, 4, 6, 18 months;	Yes	
DTwPHib	2, 4, 6, 18 months;	Yes	according the availability of vaccines
DTwPHibHepB	2, 4, 6, 18 months;	Yes	according the availability of vaccines
HepB	birth; 2, 6 months;	Yes	
IPV	2, 4 months;		
MMR	12, 18 months;	Yes	
Measles	9 months;		
MenACWY	6 years;	Yes	
OPV	6, 12, 18 months; 6 years;	Yes	
TT	1st contact; +1, +6 months; +1, +1 year;	Yes	CBAW
Td	6, 12 years;	Yes	
VitaminA	12, 18 months;	Yes	

Syria

Percentage target population vaccinated by antigen

Hovering over an antigen reveals its fuller definition

Most recent coverage survey⁴

Official country estimates⁵

(Click for retrospective coverage estimates data for Syrian Arab Republic (the))

Vaccine	year	result	method	% card seen								
BCG	2008	93	PAPFAM	66	83	86	84	99*	99*	99*	92	35
DTP1	2008	88	PAPFAM	66	76	66	79	97	99*	98	93	—
DTP3	2008	82	PAPFAM	66	62	60	64	91	99	97	91	13
DTP4					66	—	—	—	—	—	—	—
IPV1					76	—	—	—	—	—	—	—
HepB_BD					80	84	83	98	99*	99*	—	—
HepB3	2005	77	MICS	55	62	86	58	81	99	90	—	—
Hib3					62	60	64	91	99	—	—	—
JapEnc					—	—	—	—	—	—	—	—
MCV1					71	83	78	97	99	96	87	13
MCV2					66	75	70	88	99	92	—	—
PCV1					—	—	—	—	—	—	—	—
PCV3					—	—	—	—	—	—	—	—
Pol3	2008	81	PAPFAM	66	68	80	68	91	99	97	91	13
Rota1					—	—	—	—	—	—	—	—
Rota_Last					—	—	—	—	—	—	—	—
Rubella1					71	83	78	97	—	—	—	—
TT2plus	1989	51	EPI	70	—	10	11	16	28	20	63	1
PAB					—	—	—	—	—	—	—	—
VAD1					71	64	78	59	90	94	—	—
YFV					—	—	—	—	—	—	—	—

* indicates that more than 1 survey occurred that year

UNICEF, 2010

UNICEF, 2010

Polio Cases to 17/08/2016

Countries	Year-to-date 2016		Year-to-date 2015		Total in 2015	
	WPV	cVDPV	WPV	cVDPV	WPV	cVDPV
Afghanistan	6	0	7	0	20	0
Pakistan	13	0	29	2	54	2
Guinea	0	0	0	0	0	7
Lao PDR	0	3	0	0	0	8
Madagascar	0	0	0	9	0	10
Myanmar	0	0	0	0	0	2
Nigeria	2	0	0	1	0	1
Ukraine	0	0	0	0	0	2

You are here: [Data and monitoring](#) > [Polio this week](#) > [Polio cases worldwide](#)

Polio this week

[Polio cases worldwide](#)

[Wild poliovirus list](#)

[Circulating vaccine-derived poliovirus](#)

[Surveillance](#)

[Polio eradication targets](#)

2016

2015

previous 6 months

previous 12 months

Wild Poliovirus & cVDPV Cases¹, 2016 01 January – 31 May



Polio Immunization Campaigns

National Immunization Days involve:

- 2.3 million vaccinators
- 209 million houses visited
- 155,000 supervisors
- 172 million children under the age of five vaccinated

On average, Sub-National Immunization Days involve:

- 70 million+ children vaccinated in the highest-risk areas



National Immunization Days

National Immunization Days (NIDs) are held across India twice a year, with the Government of India setting out to give two drops of oral polio vaccine (OPV) to every child in the country under the age of five. The scale is extraordinary, with more than 172 million children immunized by 2.3 million vaccinators who visit every house in every city, town and village across the country – more than 209 million houses in all.

Sub-National Immunization Days

Several Sub-National Immunization Days (SNIDs) are also held annually in the highest-risk states, including Uttar Pradesh, Bihar, West Bengal and areas most at risk of a polio outbreak, due to underlying factors such as poor sanitation,

CAMPAIGN MATERIALS

- » [House to House Microplan](#)
- » [Date Notification Poster](#)
- » [IEC Monitoring Form](#)

[More Materials >>](#)

Late entrants

Unless reliable documentation



Assume to be unimmunised



Catch-up programme

Records may not be accurate – accept with caution

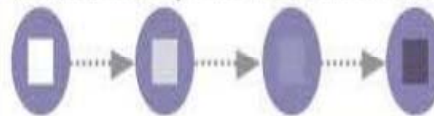
Inefficacy of vaccines may be due to :-

- Improper storage or handling
- Immune defects (e.g. severe malnutrition)

Vaccine vial monitor



VACCINE VIAL MONITORS: SAVING LIVES, ONE DOSE AT A TIME.



As of 2014, 5 billion VVMs have been used, saving lives worldwide by ensuring vaccines are still potent when they're given.



www.path.org

Suggested Rules for Catch-up

Plan on available evidence of prior vaccinations

Observe minimal intervals and age

Interval between doses may be less than optimal

Number of doses may reduce with age (e.g. PCV)

Don't restart schedule

May give all vaccines at one visit

Schedule next visit for => minimal interval

Use optimal intervals when child is back on course

Country Schedules-Europe


Vaccine Schedule

vaccine-schedule.ecdc.europa.eu/Pages/Scheduler.aspx

Google.ie Irish times Bank of Ireland Met eireann Gmail kdc CDC National Immunisatio... http://firstrownow.eu ClinicalKey Latest Issu...

This website is part of the ECDC (European Centre for Disease Prevention and Control) network

See entire ECDC network

 **European Centre for Disease Prevention and Control**

Vaccine Schedule

QUICK SEARCH Country: Select Age group: ☒ Child ☒ Adult [View the schedule](#)


ADVANCED SEARCH

Compare national immunisation schedules

Compare: Select a country
with: Select a country
Age group: ☒ Child ☒ Adult
[View the schedule](#)

Immunisation schedules by target disease

Select a disease
in: All EU countries
[View the schedule](#)



Comparisons can be made for vaccination policies between two countries or by disease for all or a selection of countries. Despite this platform being continuously monitored, it is suggested the national competent bodies are also consulted for the most up to date policies.

EN



How can we help you?



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Immunisation Guidelines

Share:



Immunisation Guidelines for Ireland, 2013

Please check this page regularly to ensure you have the most up to date guidance.

The Immunisation Guidelines for Ireland, 2013 are only available online.

> [Anaphylaxis](#) (Updated 25th August 2015)

> [List of committee members](#)

> [Preface](#)

> [Changes to online chapters of 2013 Immunisation Guidelines \(10th January 2014\)](#)

> [Changes to online chapters of 2013 Immunisation Guidelines \(9th June 2014\)](#)

> [Changes to online chapters of 2013 Immunisation Guidelines \(22nd August 2014\)](#)

Table 2.3 Catch-up schedule for children and adults

Vaccine	4 months to <12 months	1 to < 4 years	4 to <10 years	10 to <18 years	18 years and older
BCG	1 dose	1 dose	1 dose	1 dose (up to 15 years of age if in low risk group or up to 35 years of age if in high risk group)	1 dose (up to 35 years of age if in high risk group)
6 in 1 (DTaP/IPV/Hib/Hep B)	3 doses 2 months apart	3 doses 2 months apart	3 doses 2 months apart		
Men C	1 dose	1 dose	1 dose	1 dose (if given after 10 years of age, adolescent MenC booster not required)	1 dose (up to 23 years of age)
PCV	2 doses 2 months apart	1 dose (omit if ≥ 2 years of age ²)			
MMR³		1 dose	2 doses 1 month apart	2 doses 1 month apart	2 doses 1 month apart ⁴
Tdap/IPV				3 doses 1 month apart	1 dose ⁵
Td/IPV					1 month after Tdap/IPV 2 doses 1 month apart
NOTE	Continue with routine childhood immunisation schedule from 12 months.	Continue with routine school immunisations [4 in 1 (DTaP/IPV) at least 6 months and preferably 3 years after primary course, MMR at least 1 month after previous dose]	Continue with routine school immunisations [4 in 1 (DTaP/IPV) at least 6 months and preferably 3 years after primary course]	Boosters of Tdap/IPV 5 years after primary course and Tdap 10 years later	

¹One dose of single Hib vaccine may be given to children over 12 months of age and up to 10 years of age if this is the only vaccine they require

²Unless at increased risk

³The second dose of MMR is recommended routinely at 4-5 years but may be administered earlier. Children vaccinated before their first birthday in the case of an outbreak should have a repeat MMR vaccination at 12 months of age, at least one month after the first vaccine with a further dose at 4-5 years of age. If a child aged <18 months receives a second MMR vaccine within 3 months of the first MMR a third MMR should be given at 4-5 years of age.

⁴For health care workers born in Ireland since 1978 or born outside Ireland; for contacts in outbreaks born in Ireland since 1978 or born outside Ireland and for adults from low resource countries, without evidence of two doses of MMR vaccine

⁵Only one dose of Tdap/IPV is required due to likely previous exposure to pertussis infection

Late entrants

Unless reliable documentation



Assume to be unimmunised



Catch-up programme

Summary

- No need to restart incomplete course
- Access information about schedules in other countries via websites
- Vaccinate late entrants according to new schedule

“access” the *right* or *opportunity* to use or benefit from something.”

Factors that affect service *utilization*.

access limited by geography, culture, awareness, conflict, economics, disability, policy, or attitudes.

nomadic pastoralists’ access to vaccines in NE Kenya. income is primarily based on raising livestock; nomadic pastoralists migrate with their animals seasonally in pursuit of grazing and water.

“very poor,” “move constantly” “hard to reach.” perspective of a healthcare system designed to deliver services in clinical settings or by means of “outreach” to well-identified and largely sedentary communities.

pastoralists’ viewpoint lends a different perspective on both access and utilization. Proximity to good grazing and water for livestock is paramount

they must also settle near markets where they can sell. Thus, because animal husbandry is the main driver of their seasonal movements and settlement patterns, one must consider household decision-making around utilization of health services

One woman explained that she has “no time,” and “too many household chores” to vaccinate her child. As the main caregivers of children, and primary herders of smaller, women have many responsibilities within the household, even when these are shared with co-wives or other community members.

consider the trade-offs of competing demands on mothers’ time. While health facilities and animal markets are near to each other, the clinic schedule itself may constrain access for women whose priorities begin with childcare and extend through water collection, animal husbandry, etc. So when a mother travels to a clinic (perhaps at the expense of lost income from the market) to find it closed for an unscheduled “outreach day,” or stocked out of one or more vaccines, we can begin to see the features of a health system which can unintentionally create barriers to access and, therefore, limit utilization of services by those who need it most.

health-system factors, economic behaviors and networks, cultural beliefs, and household-level decision-making which affect access to and utilization of immunization services among pastoralists.