



Vaccine Update: What's new in 2024?

Gary Reubenson
26 July 2024



Disclosures

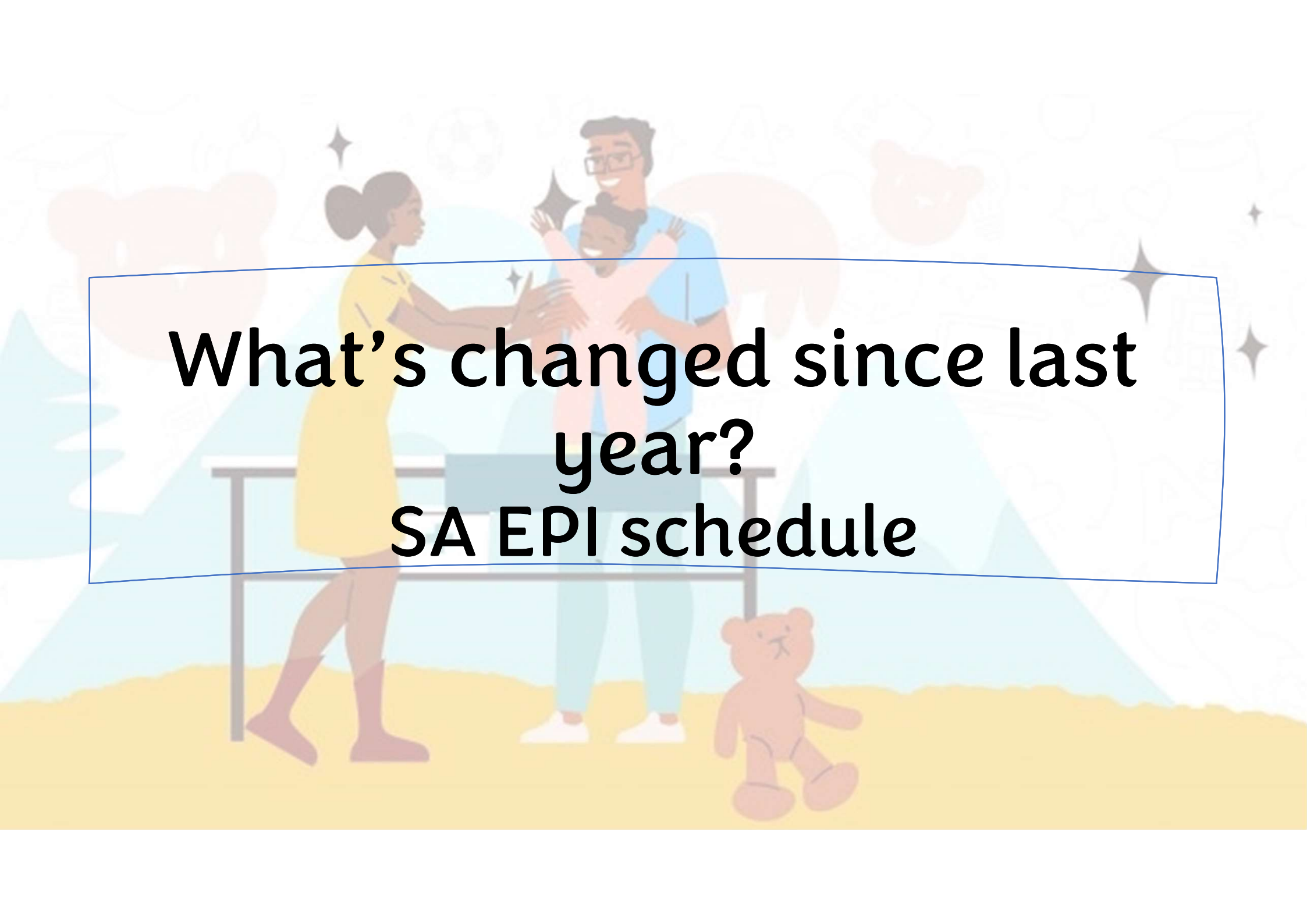
- National EML
- Paediatric Expert Review Committee
- Provincial PTC, AMS
- Institutional PTCs (NMCH & RMMCH)
- GSK medical advisory board





Overview

- **What's changed since last year?**
 - SA EPI schedule
 - Rubella-containing vaccine
 - PCV10
 - Tdap
 - HPV
 - Planned campaigns
 - Non-EPI changes
 - Maternal Tdap
 - Maternal & Neonatal Hepatitis B
 - MCV & PPV23
- **What's likely to change in the next year?**
 - Update on RSV vaccination
- **Costs**

An illustration of a family celebrating a child's achievement. A woman in a yellow dress is clapping, a man in a blue shirt is holding a young girl in a pink shirt, and a teddy bear is on the ground. The background features a globe, a graduation cap, and various icons. The text is centered in a blue-bordered box.

**What's changed since last
year?
SA EPI schedule**

REVISED EPI ROUTINE SCHEDULE, 2024



AGE	VACCINE
Birth	Bacille Calmette-Guérin (BCG)
	Oral Polio Vaccine (OPV) -0
6 weeks	Oral Polio Vaccine (OPV) -1
	Rotavirus (RV) -1
	Pneumococcal conjugate (PCV) -1
	Hexavalent (DTaP-IPV-HepB-Hib) -1
10 weeks	Hexavalent (DTaP-IPV-HepB-Hib) -2
14 weeks	Rotavirus (RV) -2
	Pneumococcal conjugate (PCV) -2
	Hexavalent (DTaP-IPV-HepB-Hib) -3

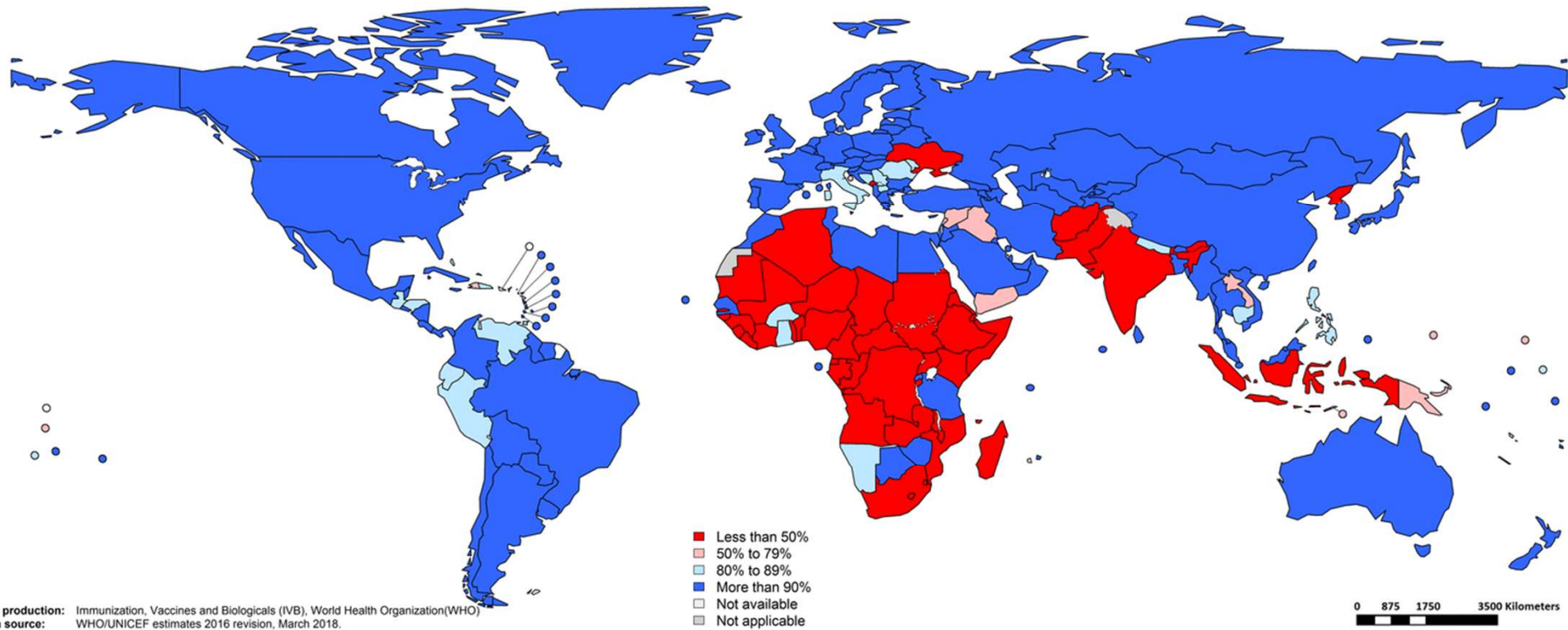
AGE	VACCINE
6m	Measles/Rubella (MR) -1
9 months	Pneumococcal conjugate (PCV) -3
12 months	Measles/Rubella (MR) -2
18 months	Hexavalent (DTaP-IPV-HepB-Hib) -4
6 years	Tetanus diphtheria, acellular Pertussis (TdaP) -1
Grade 5 (campaign only)	Tetanus diphtheria, acellular Pertussis (TdaP) -
Grade 5 ≥ 9 years (campaign only)	Human Papilloma Virus (HPV) 1+2
12 years	Tetanus diphtheria, acellular Pertussis (TdaP)-2



MR replacing M

Immunization coverage with 1st dose of rubella containing vaccines

2016



Map production: Immunization, Vaccines and Biologicals (IVB), World Health Organization (WHO)
Data source: WHO/UNICEF estimates 2016 revision, March 2018.
194 WHO Member states.

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 nor 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.
World Health Organization, WHO, 2018. All rights reserved



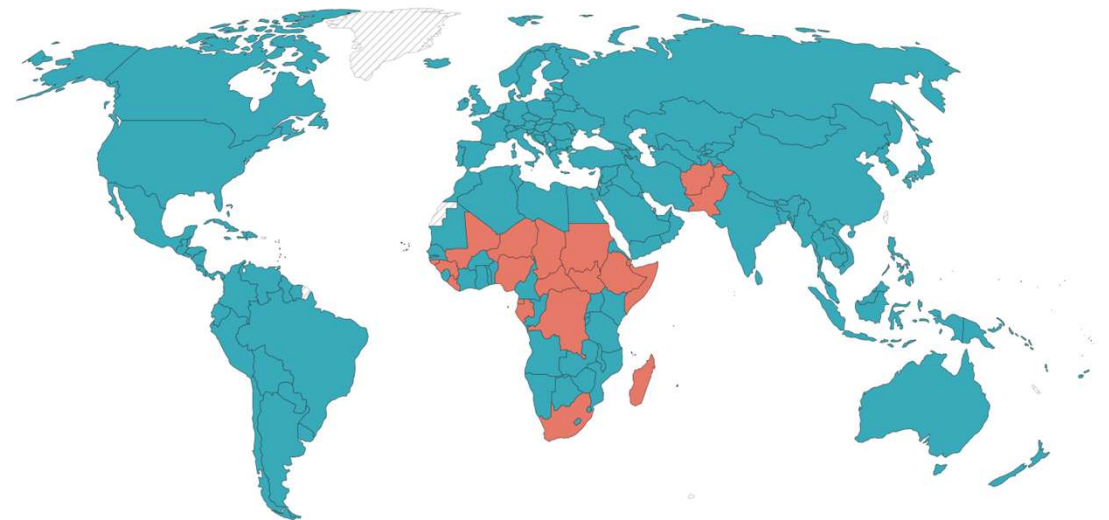
MR replacing M

- Same dosing schedule & route of administration
- Suboptimal measles vaccination coverage, so concerns about paradoxical increase in CRS cases
- Ongoing surveillance (suspected measles & CRS)

Which countries include rubella vaccines in their vaccination schedules?, 2021

Our World in Data

This shows which countries provide and recommend rubella vaccines through routine services. People may still be able to receive the vaccine if it's not in the routine schedule – it might be optional or available commercially.



■ Entire country ■ Not routinely administered ■ Regions of the country ■ No data

Source: WHO and UNICEF (2021)

Note: Rubella vaccines became available for the first time in 1969.

OurWorldInData.org/vaccination • CC BY

PCV10_SII vs PCV13

- Same dosing schedule
- No longer includes 3, 4, and 18C
- NICD isolates from 2022:
 - These serotypes constituted approximately 8-9% of isolates submitted and analysed
- Ongoing surveillance to detect emergence of these non-vaccine types

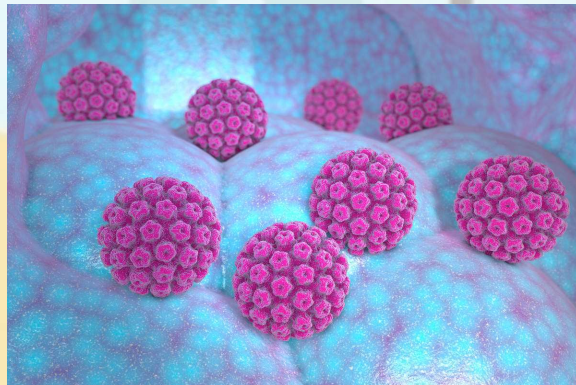


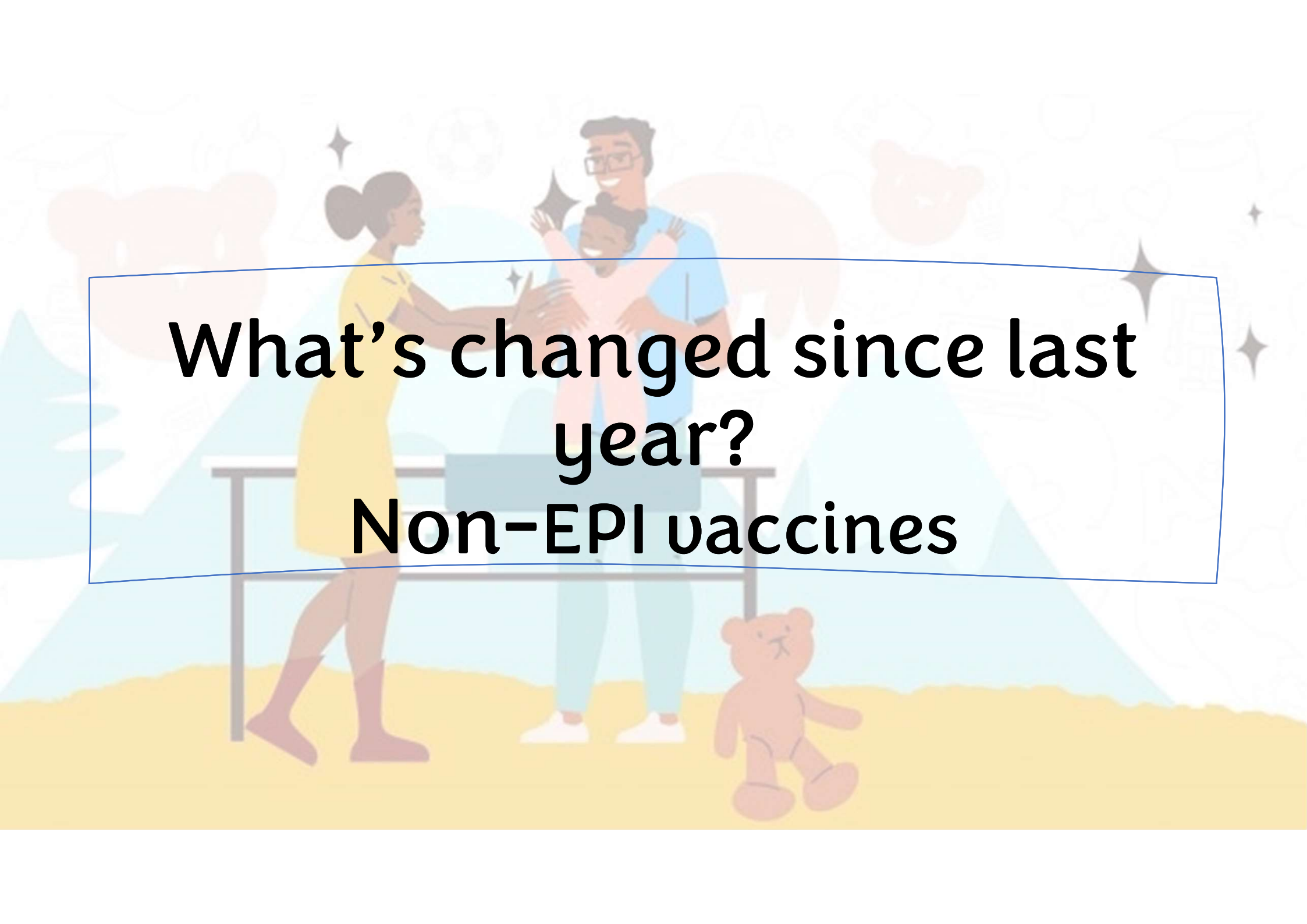
Tdap (not TdapP) replacing Td

- Same dosing schedule (but low coverage at 6 & 12y)
- Aim to boost pertussis immunity in children & adolescents to reduce transmission to infants
- In conjunction with maternal Tdap introduction
- Upcoming campaign for Grade 5 students

HPV

- Single dose rather than 2-dose schedule under consideration
- Campaign planned in conjunction with Tdap for Grade 5s
- Stocking & administration at hospitals?



An illustration of a family celebrating a child's achievement. A woman in a yellow dress is clapping, a man in a blue shirt is holding a child in a pink shirt, and a teddy bear is on the ground. The background features a globe, a graduation cap, and a lightbulb, symbolizing education and progress. The scene is set in a room with a wooden table and a yellow rug.

**What's changed since last
year?
Non-EPI vaccines**



Maternal Tdap

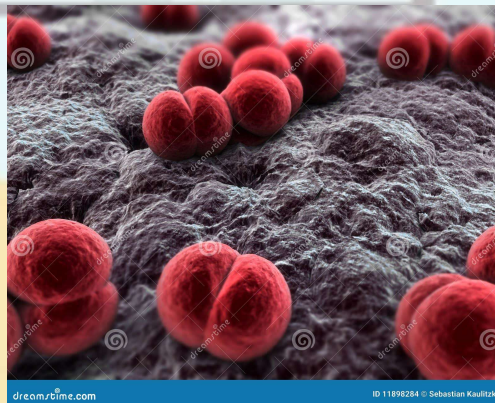
- Replaced TT as part of routine antenatal care
- Aims to reduce infant pertussis morbidity and mortality
- Will confer some direct benefit
- Ongoing pertussis surveillance

Maternal & Neonatal Hepatitis B

- Routine Hepatitis B serological testing antenatally
- HBeAg- & HBsAg-positive mothers to get TDF
 - Aligning with WHO
- Greater number of Hepatitis-B exposed newborns will be identified
 - HBIG
 - Stand-alone Hepatitis B vaccine

MCV & PPV23

- Both EML items since 2020, but limited uptake
- For all SCD patients & others with actual/functional asplenia

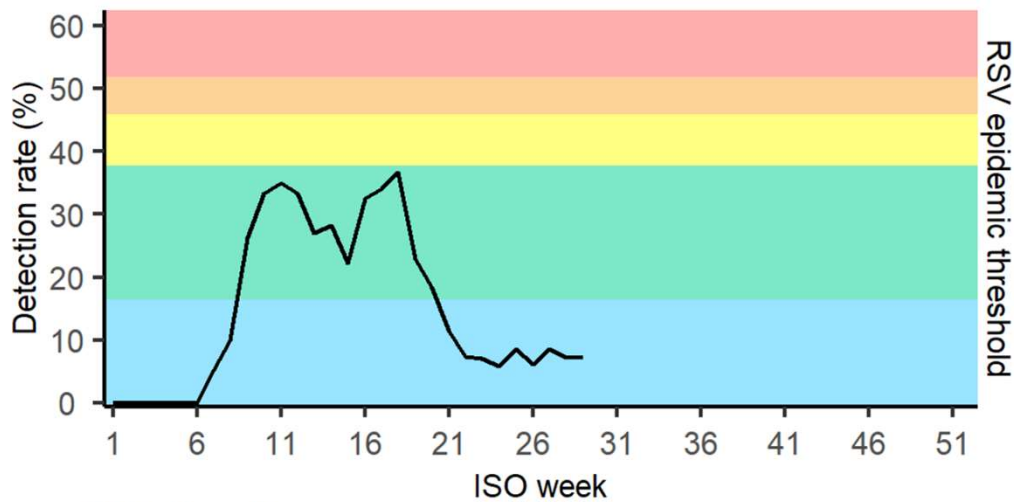


An illustration of a family celebrating. A woman in a yellow dress is on the left, a man in a blue shirt is in the center holding a child, and another child is on a swing set. A teddy bear is on the ground. The background is light blue and yellow with stars and faint outlines of people and objects.

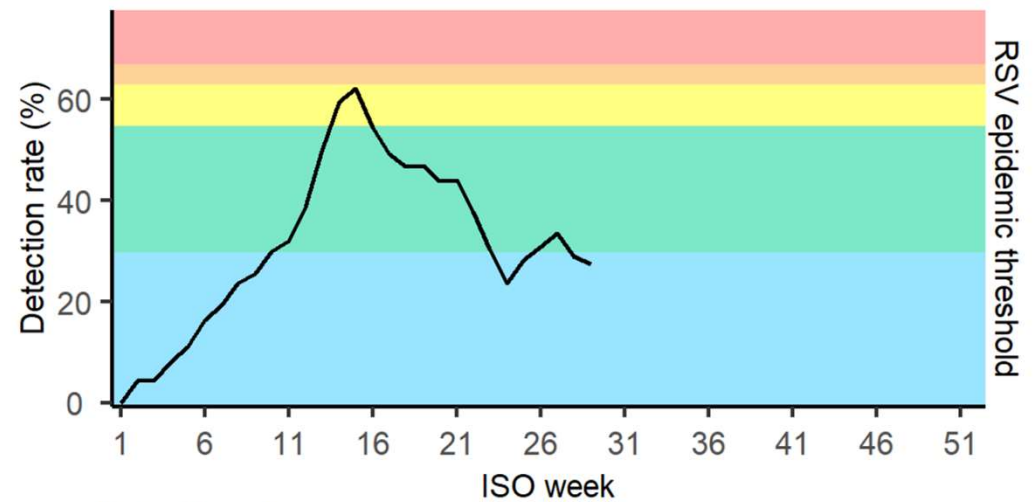
**What's likely to change in the
next year?
Update on RSV vaccination**

RSV (to 21 July 2024)

RSV transmission
(Outpatient ILI surveillance in public primary health care clinics, <5 years)



RSV transmission
(Inpatient pneumonia surveillance in public hospitals, <5 years)



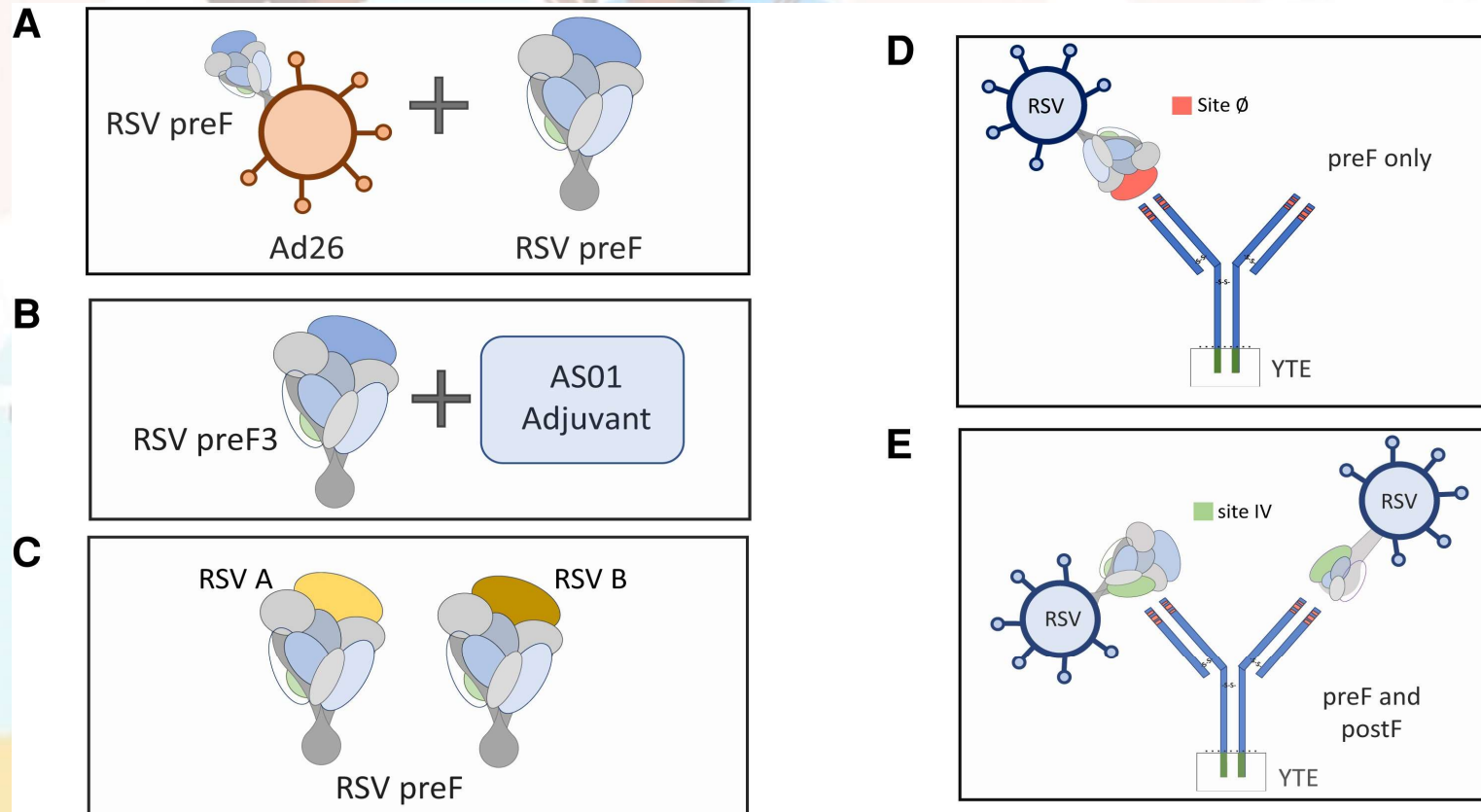
- Detection rate
- Below threshold
- Low
- Moderate
- High
- Very high

- Detection rate
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ILI - influenza like illness

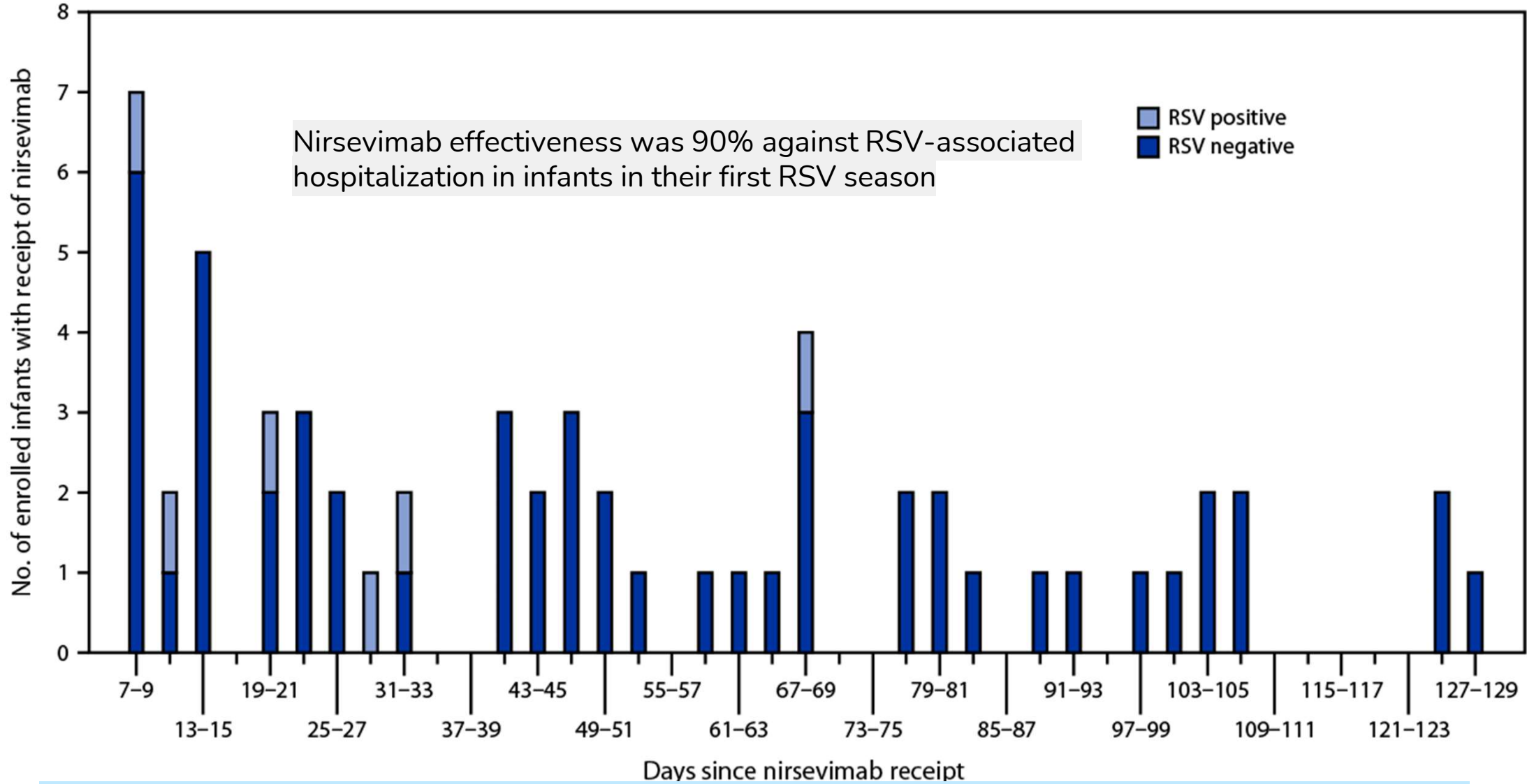
Thresholds based on 2016-2019+2022-2023 detection rates

Figure 1. Respiratory syncytial virus (RSV) vaccine platforms and monoclonal antibodies. The prefusion (preF) RSV form



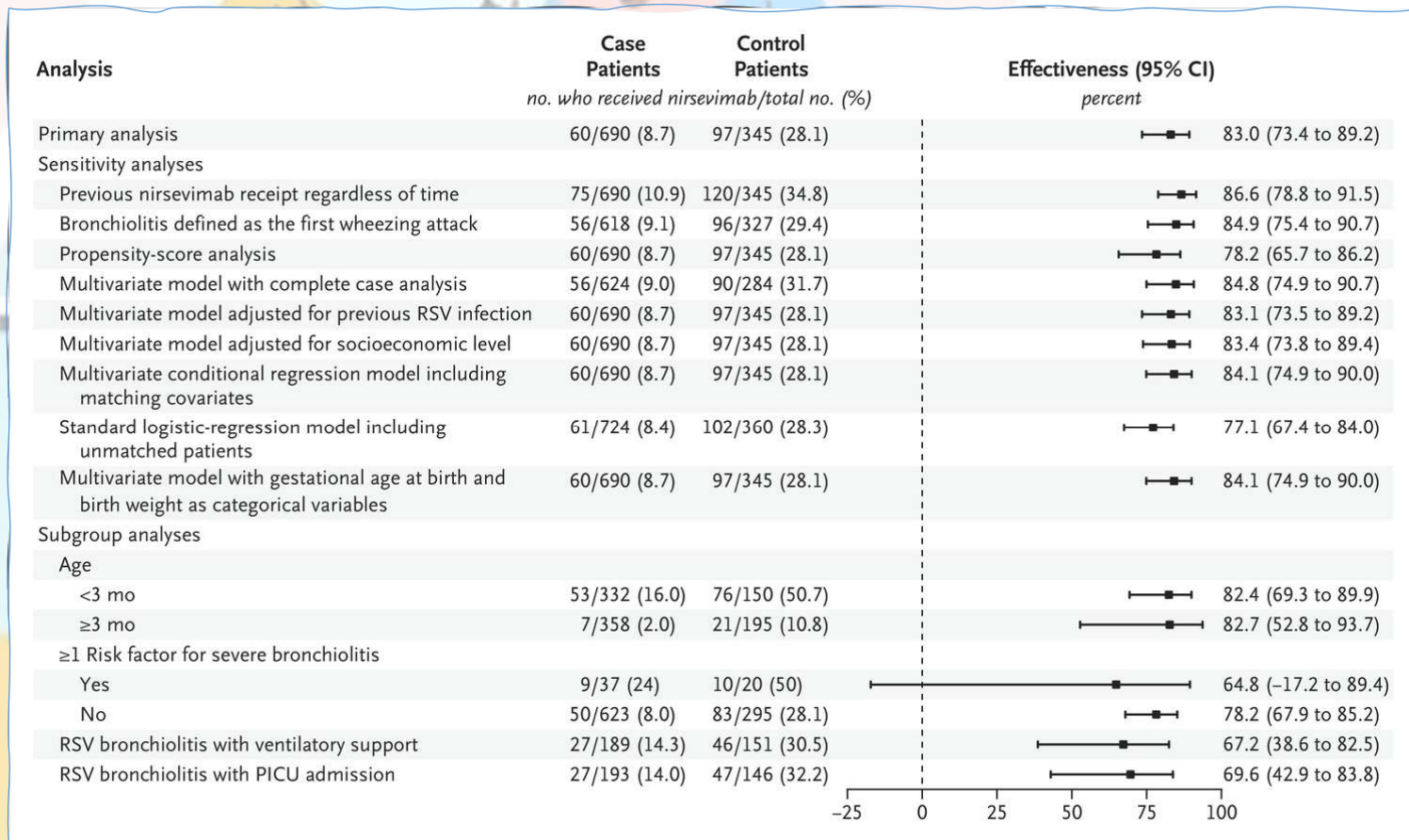
Update on RSV vaccination

- Nirsevimab: (MELDY & MEDLEY studies)
 - EU-approved 4 November 2022
 - FDA approved 17 July 2023
 - 70% reduction in medically attended RSV-associated LRTIs
 - 80% reduction in hospitalization
 - Introduced in France, Luxembourg, Spain and U.S.A.
 - Stock-outs & relatively low coverage, but encouraging effectiveness estimates from USA, France & Spain

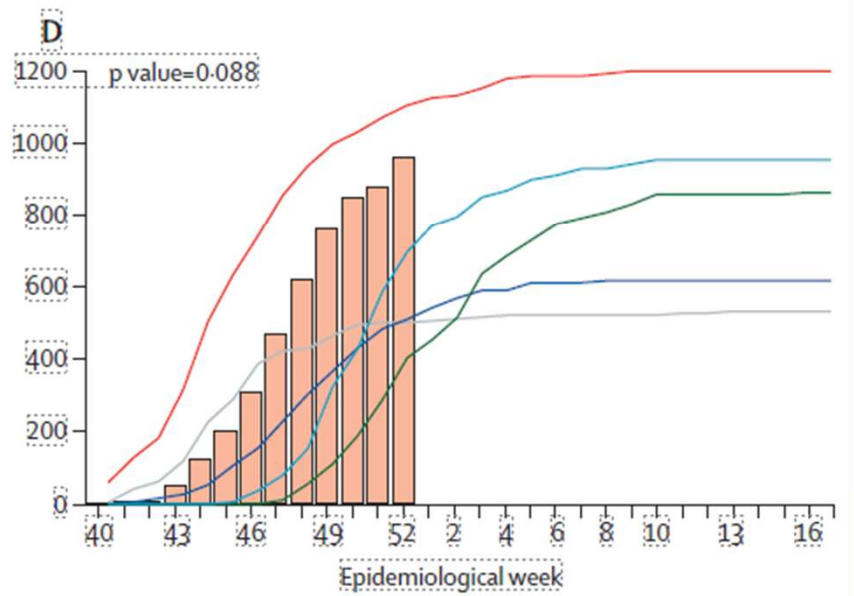
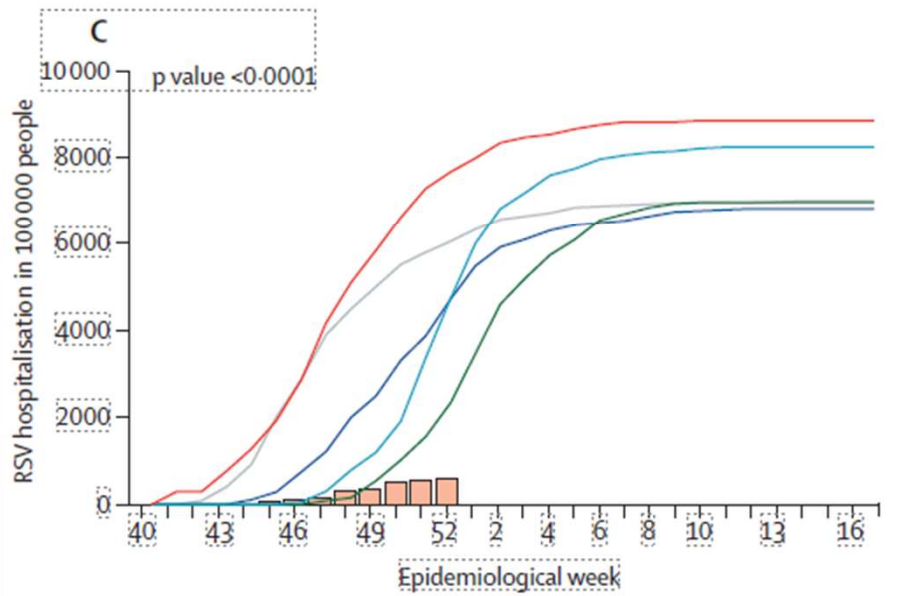
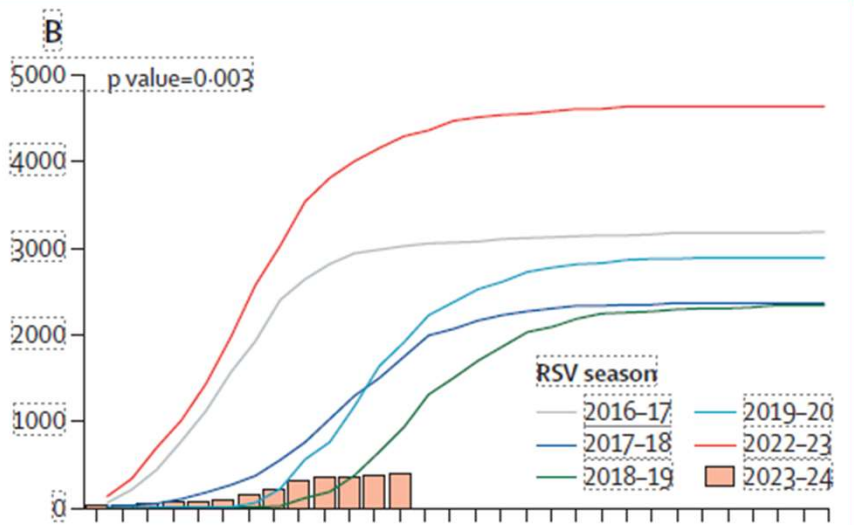
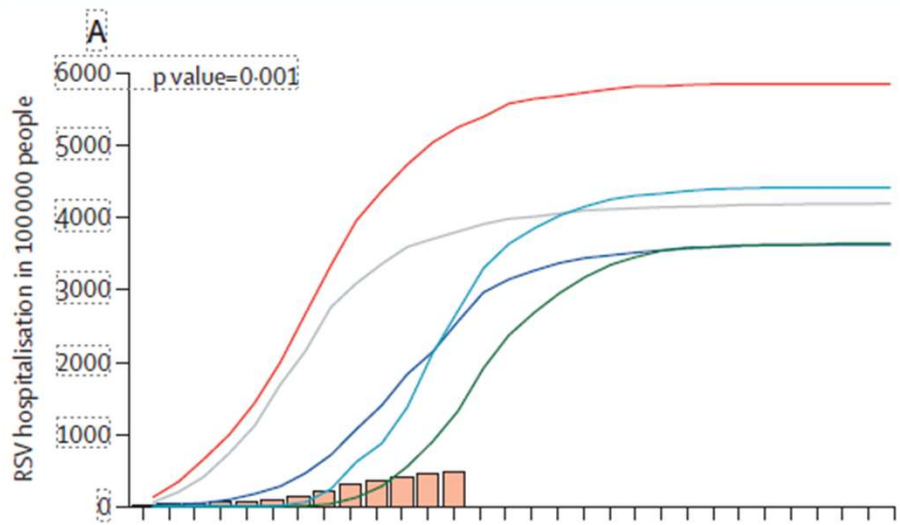


Moline HL, Tannis A, Toepfer AP, et al. Early Estimate of Nirsevimab Effectiveness for Prevention of Respiratory Syncytial Virus–Associated Hospitalization Among Infants Entering Their First Respiratory Syncytial Virus Season — New Vaccine Surveillance Network, October 2023–February 2024. *MMWR Morb Mortal Wkly Rep* 2024;73:209–214.

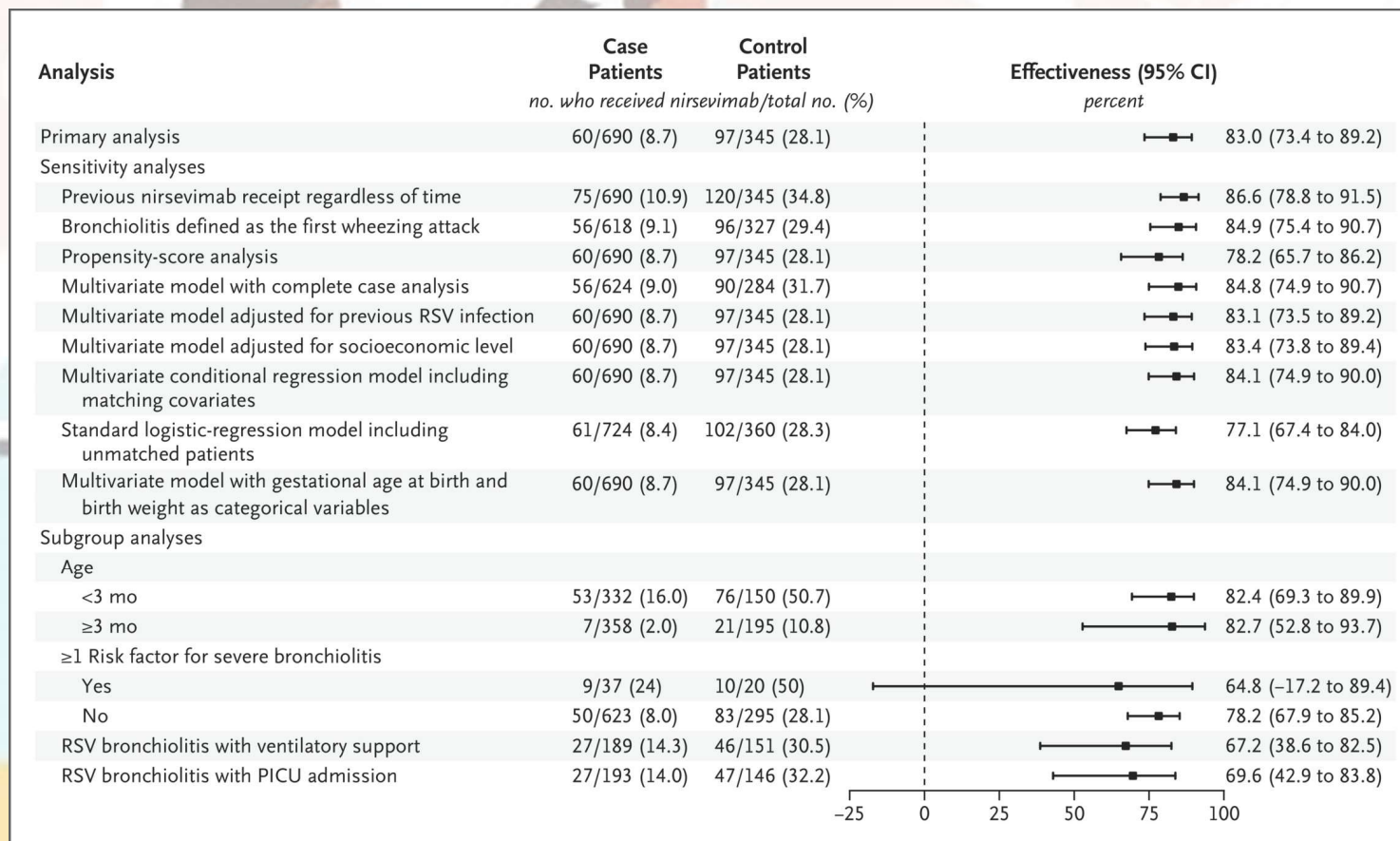
Early real world nirsevimab effectiveness



Published July 10, 2024 | N Engl J Med 2024;391:144-154



Effectiveness of Nirsevimab against Hospitalization for RSV-Associated Bronchiolitis.



Assad Z et al. N Engl J Med 2024;391:144-154

Update on RSV vaccination


- Maternal vaccination (MATISSE)
- Bivalent preF recommended by CDC at 32–26w gestation
- Ongoing concerns about increased risk of preterm birth in vaccine recipients
 - ?real
 - ?COVID-related
- Post-authorisation monitoring!!

An illustration of a family and a nurse. A woman in a yellow dress is standing on the left, interacting with a child on a table. A man in a blue shirt and glasses is standing behind the child, smiling. The child is wearing a pink shirt. The table has a blue cloth and a white box with a green cross. A teddy bear is sitting on the ground to the right. The background features stylized mountains, trees, and various icons like a globe, a graduation cap, a lightbulb, and a heart. The word "Costs" is written in the center in a bold, black font.

Costs



Vaccine	Price
Measles+Rubella	
Tetanus toxoid	
BCG	
Tdap	
HPV (bivalent)	
DTaP-IPV-HiB-HBV	
Hep B	
Hep B IG	
Rotavirus	
PCV-10	
PPV-23	
Influenza	
Rabies	
MCV	
Yellow fever	
OPV	



Vaccine	Price
Measles+Rubella	R177.81 for 10 dose vial
Tetanus toxoid	R49.36 for 10 dose vial
BCG	R158.66 for 20 dose vial
Tdap	R158.22 per single dose vial
HPV (bivalent)	R393.82 for 2 doses
DTaP-IPV-HiB-HBV	R423.91 for 1 dose
Hep B	Paeds R115.81 for 10 doses, Adult R71.29 per dose
Hep B IG	R917.41 per vial
Rotavirus	R131.48 for 1 dose
PCV-10	R115.32 for 1 dose
PPV-23	R210.02 for 1 dose
Influenza	R71.17 per dose
Rabies	R183.90 per dose
MCV	R495.07 per dose
Yellow fever	R346.70 per dose
OPV	?

Vaccination Catch-up Calculator



emguidance.com/content/36047



← Vaccination Catch-up Calculator

Patient Details

Today's date:
2 Jul 2024

Patient Date of Birth:
21 May 2023

Patient age:
13 Months

Disclaimer: While this calculator is a tool designed to assist, it does not constitute clinical advice and the platform as well as the sponsoring company cannot be held liable for solely relying on calculator outputs to determine vaccination catch-up. As the treating health care provider your clinical judgement remains paramount, and you remain responsible for assessing whether or not to administer any vaccination. If in doubt, seek expert advice.

Vaccination in certain conditions requires expert advice. Specific long-term health conditions include chronic lung disease, chronic heart disease, diabetes mellitus, cerebrospinal fluid leak, cochlear implant, haemoglobinopathy, asplenia, congenital or acquired immunodeficiency, chronic renal failure, nephrotic syndrome, chronic liver disease.

Next

← Vaccination Catch-up Calculator

Has the patient received any vaccinations to date?

Only valid vaccinations (given at correct dose and interval) should be included.

BCG

OPV

Rotavirus

Pneumococcal Conjugate

DTaP-IPV-HIB-HBV

Measles Containing Vaccine

Tdap

Submit

← Vaccination Catch-up Calculator

Patient age: 13 Month(s)

2 Jul 2024 Patient Age: 13 Months

Pneumococcal Conjugate 1st dose
DTaP-IPV-HIB-HBV 1st dose
Measles Containing Vaccine 1st dose

2 Aug 2024 Patient Age: 14 Months

DTaP-IPV-HIB-HBV 2nd dose
Measles Containing Vaccine 2nd dose

2 Sep 2024 Patient Age: 15 Months

Pneumococcal Conjugate 2nd dose
DTaP-IPV-HIB-HBV 3rd dose

3 Mar 2025 Patient Age: 21 Months

DTaP-IPV-HIB-HBV 4th dose

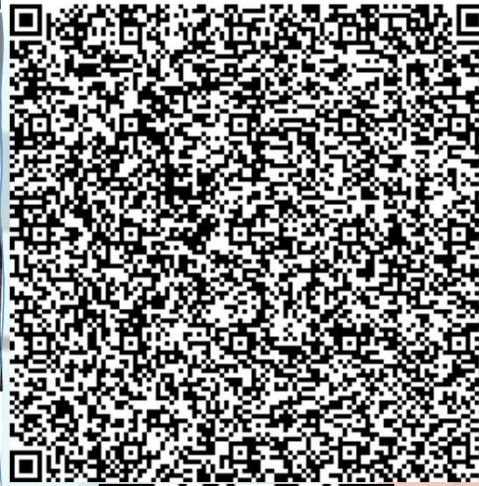
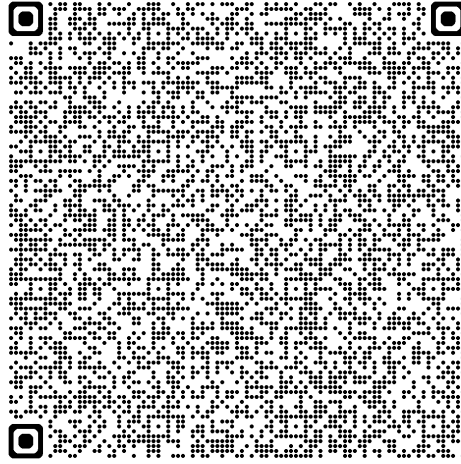
4 Jun 2029 Patient Age: 8 Years

RSV Prevention: Where the Rubber Meets the Road

Ravi Jhaveri MD
Division of Pediatric Infectious Diseases
Ann & Robert H. Lurie Children's Hospital of Chicago
January 17, 2024



@LuriePedsID
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Viral Respiratory Infections



Viral Respiratory Infections

Episode 56 • 9th July 2024 • Microbe Mail • Vindana Chibabhai

