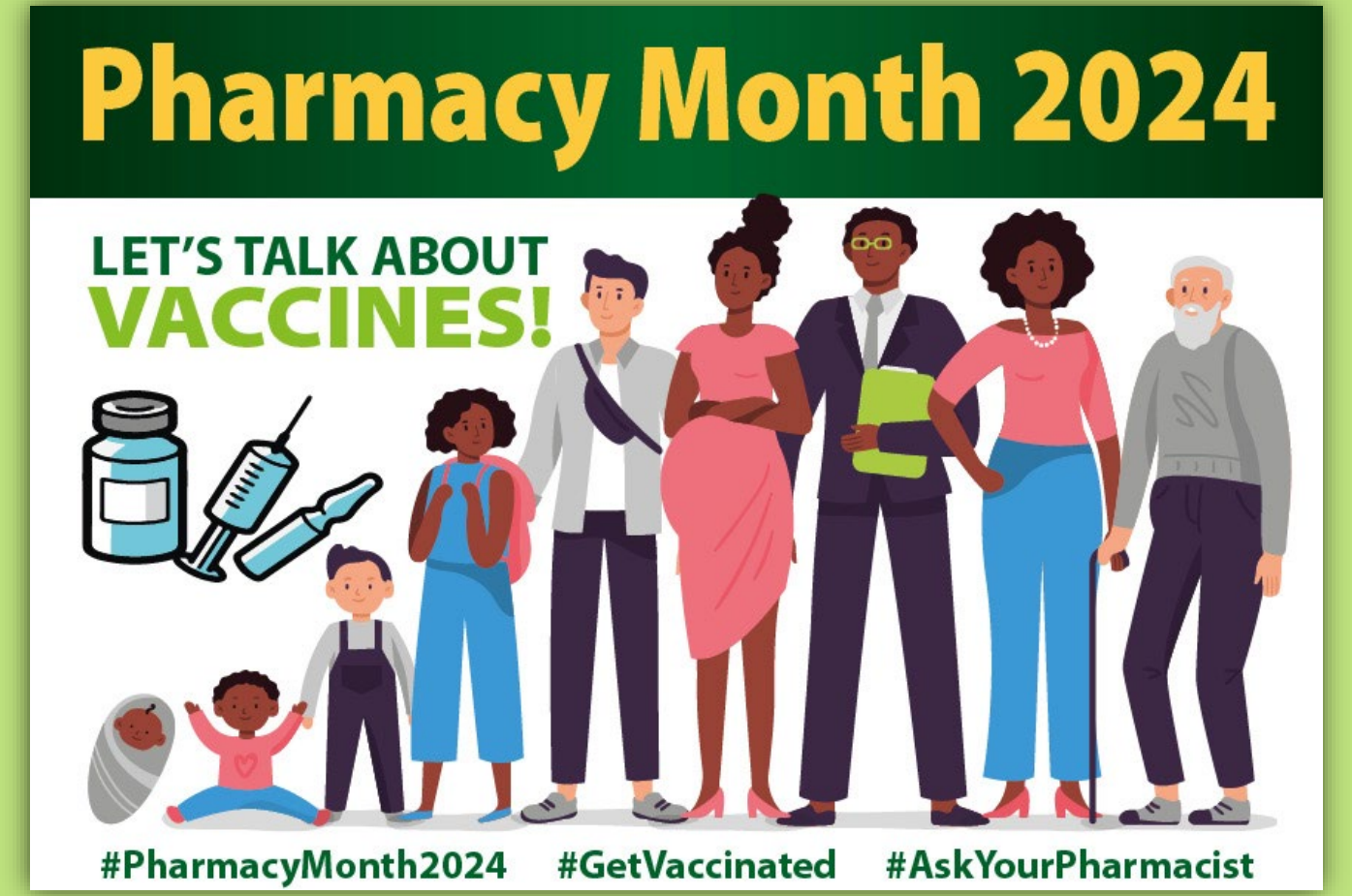
Pharmacists as powerful change agents: Leave no-one behind through life course vaccination



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SEFAKO MAKGATHO HEALTH SCIENCES UNIVERSITY

SAVIC

#PharmacyMonth2024 #GetVaccinated #AskYourPharmacist

Presentation Outline

01 Importance of vaccination

02 WHO Immunization Agenda 2030

03 Meaning of life-course vaccination

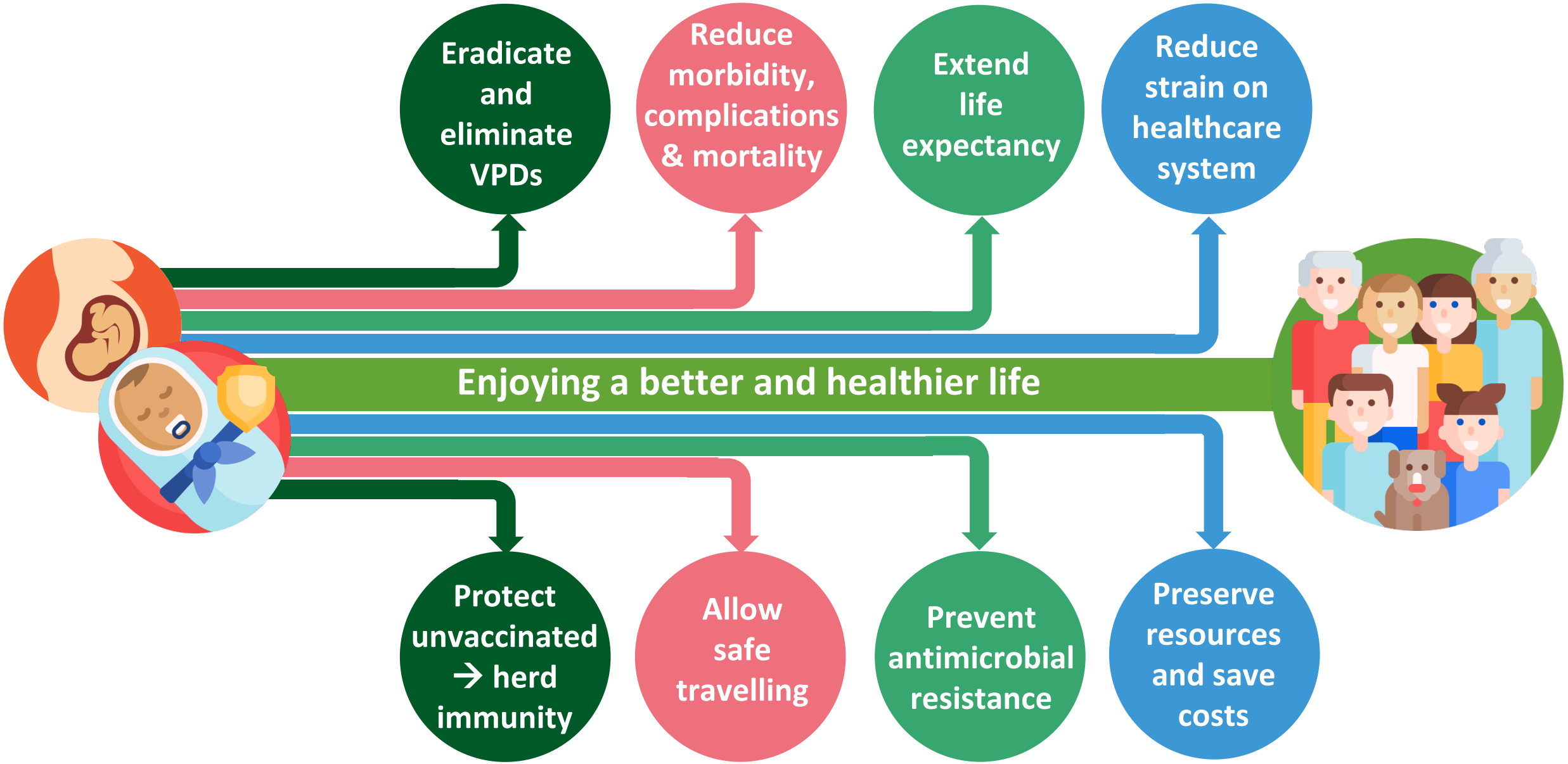
04 Putting 'talking about vaccines' into action

05 Communication and misinformation

No-brainer questions about vaccines

#PharmacyMonth2024 #GetVaccinated #AskYourPharmacist

Benefits of vaccination



World Health Organization (WHO) Immunization Agenda 2030 (IA2030)

Vaccines save

4.4 million lives

every year, a figure that could rise to

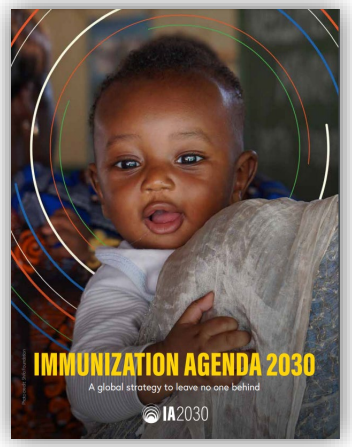
5.8 million

by 2030 if the goals of the Immunization Agenda 2030 (IA2030) are met.

A world where everyone, everywhere, at every age
... fully benefits from vaccines
... for good health and well-being

https://www.who.int/teams/immunization-vaccines-and-biologicals/strategies/ia2030

Goals of IA2030



Reduce mortality and morbidity from vaccine-preventable diseases for everyone throughout the **life course**

Leave no-one behind, by increasing equitable **access** and use of new and existing vaccines

Ensure good health and well-being for everyone by strengthening immunisation within PHC and contributing to **UHC and sustainable development**

Where can the pharmacist play a role?

Prioritise prevention (aging population)

Ensure access to vaccination services for all

Ensure sustainability and reduce inequity in healthcare

https://www.who.int/teams/immunization-vaccines-and-biologicals/strategies/ia2030

Why are pharmacists important role players in immunisation?

ACCESSIBLE

PHC – first point of access to healthcare; most people have access to community pharmacies

TRUSTED

Highly trusted by communities when seeking healthcare information

KNOWLEDGEABLE

Scientists who are ideally placed to expand health literacy

‘TIME’

More time to listen and provide advice compared to most HCPs

#PharmacyMonth2024 #GetVaccinated #AskYourPharmacist

My Provider Most Trusted as a Source of Truth on Health

Percent who say

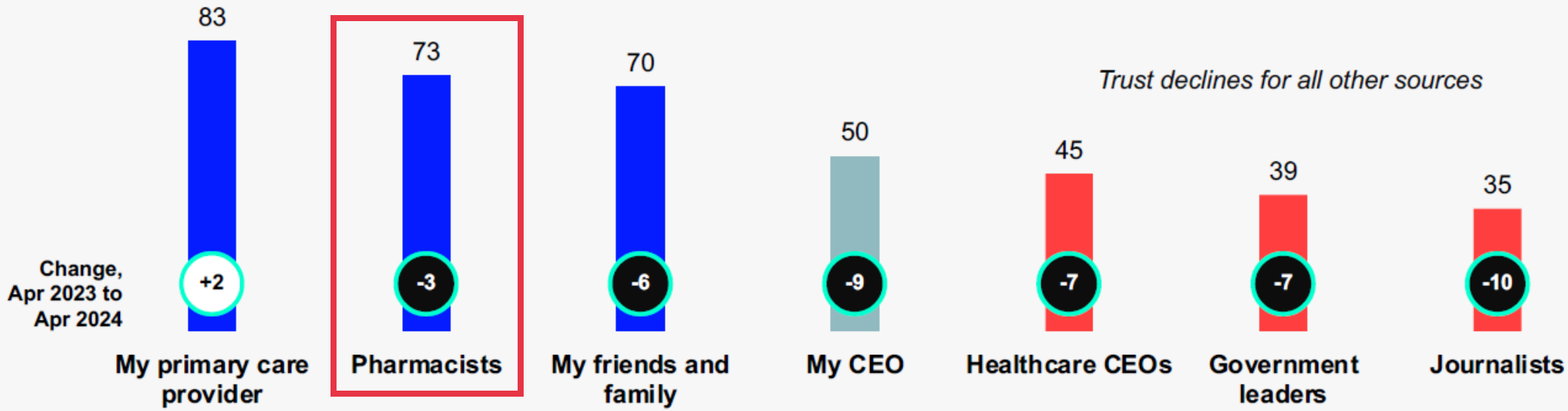
GLOBAL 12

Distrust (1-49) | Neutral (50-59) | Trust (60-100)

- 0 +

Significant change

I trust each to tell the truth about health issues and how best to protect the health of the public



My Provider Most Trusted as a Source of Truth on Health

Percent who say I trust each to tell the truth about health issues and how best to protect the health of the public

Distrust (1-49) | Neutral (50-59) | Trust (60-100)

Significant change*

+/- Apr 2022 to Apr 2023	Global 12		*Australia		Brazil		Canada		China		France		Germany		India		Japan		Mexico		*Nigeria		*Singapore		S. Africa		S. Korea		*UAE		UK		U.S.	
	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-	%	+/-
My primary care provider	83	2*	83	-	83	1	85	2	84	-4	86	2	84	1	88	-3	72	3	85	4	85	-	83	-	85	5*	75	2	90	-	83	4	82	4
Pharmacists	73	-3*	77	-	70	-2	65	-14*	81	-7*	79	-1	76	-1	78	-8*	69	3	67	-2	82	-	59	-	76	2	67	0	79	-	78	-2	71	-2
My friends and family	70	-6*	71	-	64	-10*	70	-4	87	-3	67	-3	58	-22*	86	-4*	63	1	74	-3	77	-	69	-	67	-6*	63	-10*	88	-	71	-5	69	-4
My CEO	50	-9*	47	-	56	-10*	42	-12*	71	-14*	38	-7	35	-3	77	-5	37	-6	60	-7	64	-	50	-	53	-8	31	-14*	72	-	43	-7	48	-11*
Healthcare CEOs	45	-7*	35	-	52	-4	33	-10*	75	-10*	32	-6*	29	-6*	74	-8*	35	-5	57	-6*	69	-	46	-	48	-5	38	-10*	71	-	36	-5	30	-13*
Government leaders	39	-7*	37	-	40	-5	36	-11*	79	-11*	35	-9*	27	-7*	67	-6*	26	-5*	39	-7*	49	-	70	-	26	-2	32	-2	72	-	31	-4	31	-9*
Journalists	35	-10*	24	-	39	-6*	34	-14*	69	-12*	23	-8*	28	-7*	62	-11*	23	-7*	40	-11*	51	-	40	-	30	-10*	21	-6*	57	-	20	-10*	30	-13*

https://www.edelman.com/sites/g/files/aatuss191/files/2024-04/2024%20Edelman%20Trust%20Barometer%20Trust%20and%20Health%20FINAL.pdf

2024 Edelman Trust Barometer

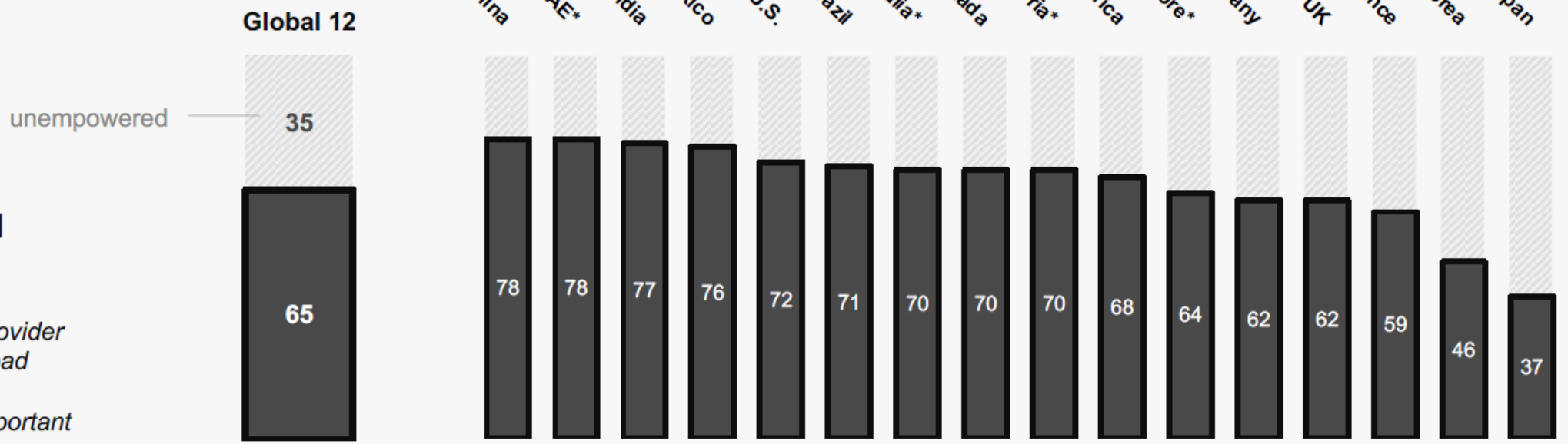
Globally, 2 in 3 Feel Empowered to Manage Their Health

Percent who say

GLOBAL 12

I am **health empowered**

I confidently make decisions
I confidently inform myself
I speak up to my primary care provider
I can tell good information from bad
I'm in charge of my health
My health decisions are most important



https://www.edelman.com/sites/g/files/aatuss191/files/2024-04/2024%20Edelman%20Trust%20Barometer%20Trust%20and%20Health%20FINAL.pdf

What is life course vaccination?

Persons should receive all recommended vaccine doses along their life course to **reap maximum benefits of preventing vaccine-preventable diseases** at **different ages, across generations, and within their communities**

PAHO. Immunization across the life course - Resource center. https://www.paho.org/en/topics/immunization/immunization-across-life-course-resource-center#:~:text=A%20life%20course%20approach%20(LCA,generations%2C%20and%20within%20their%20communities.

Vaccines are **NOT ONLY** for babies or children …

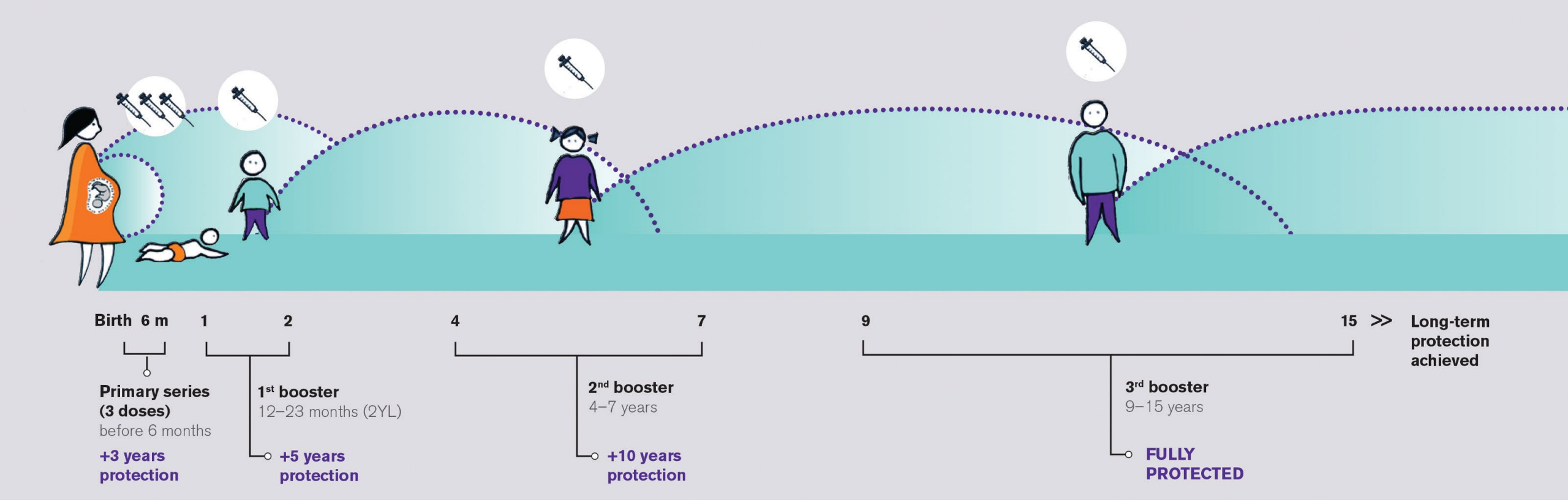
Paradigm shift

Vaccines are for **EVERYONE** – all ages and all stages

Examples of life-course immunisation

Families: Tetanus, diphtheria, and pertussis (TdaP)

Optimise heath outcomes across generations



World Health Organization. Protecting all against tetanus: guide to sustaining maternal and neonatal tetanus elimination (MNTE) and broadening tetanus protection for all populations. Geneva: WHO; 2019 [cited 9 March 2023]. Available from: https://apps.who.int/iris/handle/10665/329882.

Examples of life-course immunisation

Individuals: Human papillomavirus (HPV)

Prevent cervical cancer later in life

Table 1. Crude incidence rates of HPV-related cancers

	Male	Female
Cervical cancer	-	35.6
Anal cancer	0.66	0.90
Vulva cancer	-	1.29
Vaginal cancer	-	0.62
Penile cancer	0.72	-
Oropharyngeal cancer	1.31	0.38
Oral cavity cancer	3.99	2.55
Laryngeal cancer	2.45	0.54

HPV vaccination ALSO for prevention of certain cancers in males

Table 2. Burden of cervical cancer

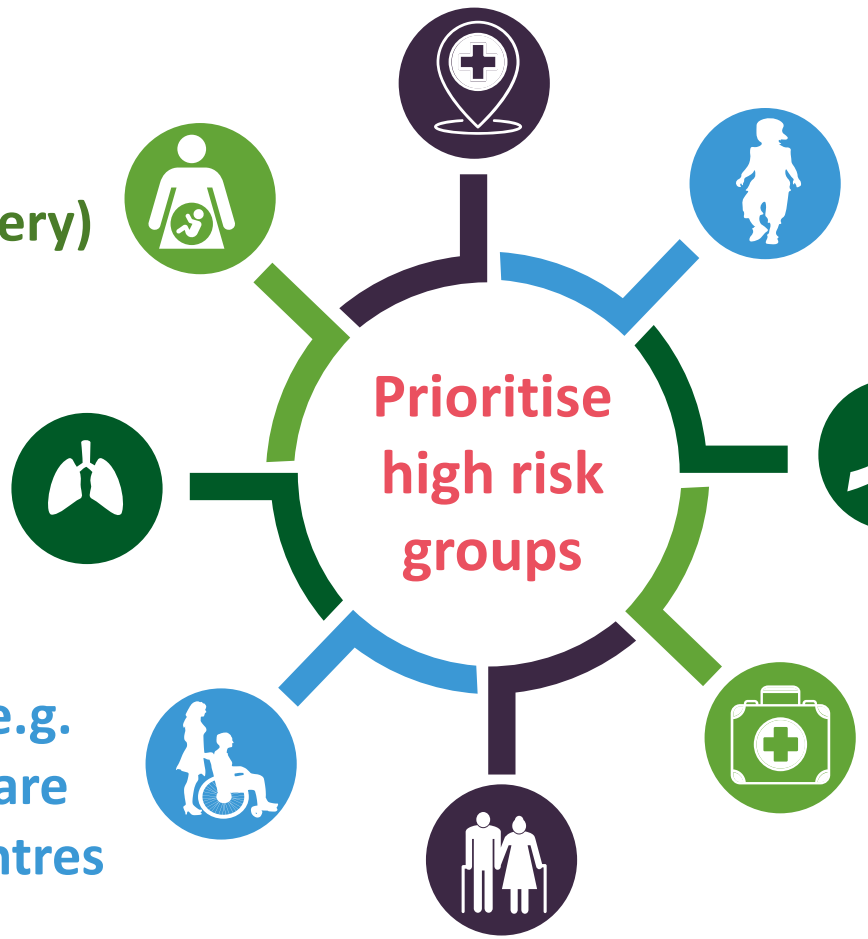
	Incidence	Mortality
Annual number of new cases/deaths	10702	5870
Crude rate	35.6	19.5
Age-standarized rate	35.3	19.6
Cumulative risk 0-74 years (%)	3.58	2.10
Ranking of cervical cancer (all years)	2nd	1st
Ranking of cervical cancer (15-44 years)	1st	1st

https://hpvcentre.net/statistics/reports/ZAF_FS.pdf

Examples of life-course immunisation

Communities: Influenza vaccine

Reduce burden of disease in the community



Healthcare workers

Pregnant women (including 2 weeks after delivery)

Young children (particularly <2 years)

Cardiovascular disease and chronic lung disease

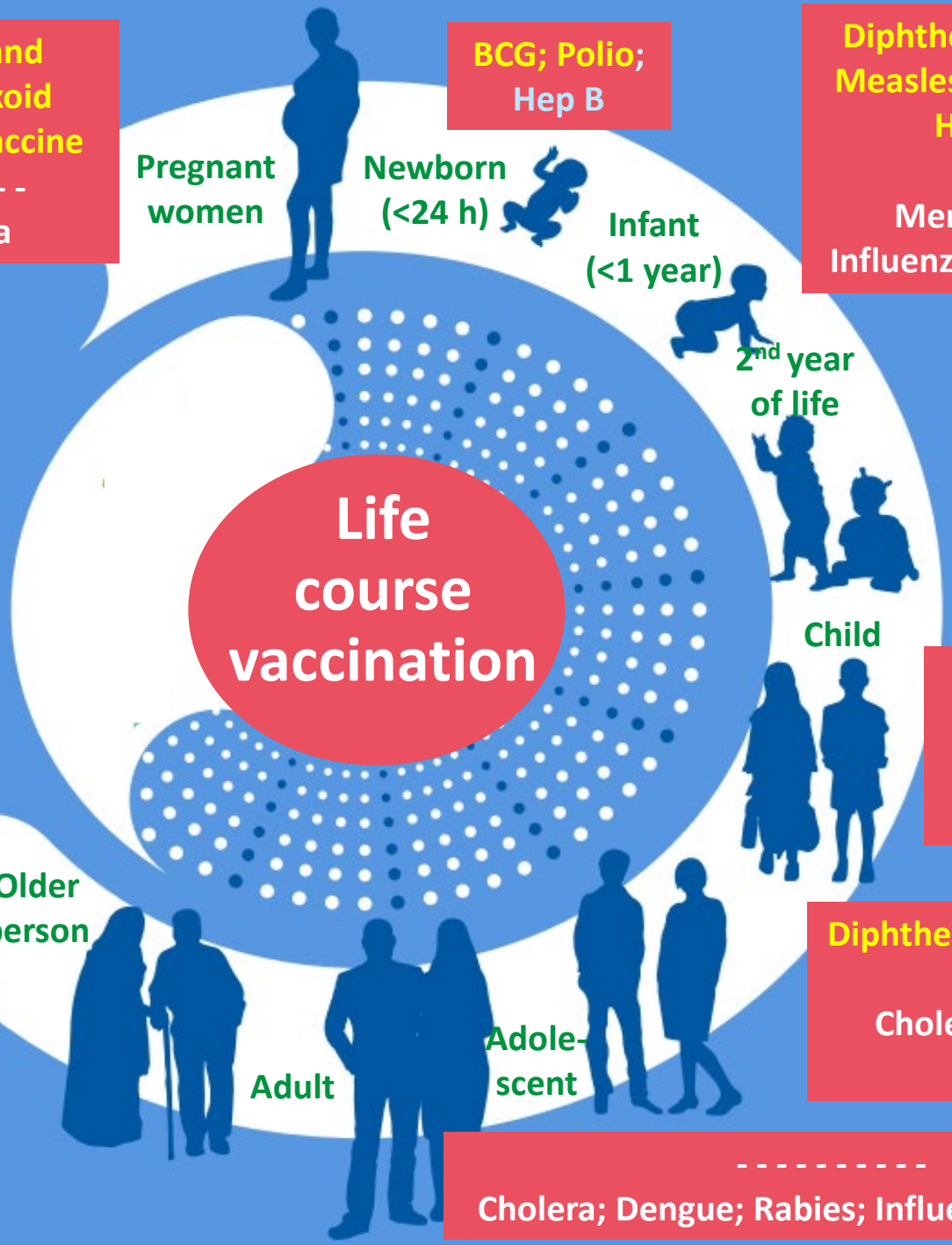
HIV-infected
Other immunocompromised

Residents at institutions e.g. old-age homes, chronic care facilities, rehabilitation centres

Underlying medical conditions
On long-term aspirin treatment (6 months to ≤18 years)
Morbidly obese (BMI ≥ 40)

Elderly persons ≥ 65 years

Specific vaccines are recommended at each stage of life



Pertussis and tetanus toxoid containing vaccine

- - - - - - - - -

Influenza

BCG; Polio; Hep B

Diphtheria, tetanus, pertussis; Measles; HepB; PCV; Rotavirus; Hib; Polio; Rubella

- - - - - - - - - -

Meningococcal; Rabies; Influenza; Typhoid; Yellow fever

Diphtheria, tetanus, pertussis booster; Measles

- - - - - - - - - -

Meningococcal; Hepatitis A; Mumps; Rabies; Influenza; Varicella; Cholera; Typhoid

Diphtheria booster; Tetanus booster

- - - - - - - - -

Cholera; Rabies; Influenza; Typhoid; COVID-19

Diphtheria booster; Tetanus booster; HPV

- - - - - - - - -

Cholera; Dengue; Rabies; Influenza; Typhoid; COVID-19

- - - - - - - - - -

Cholera; Dengue; Rabies; Influenza; COVID-19

- - - - - - - - - -

PCV; shingles; Cholera; Rabies; Influenza; COVID-19

WHO. Working together: an integration resource guide for immunization services throughout the life course.https://apps.who.int/iris/handle/10665/276546

EPI Schedule from 2024

- **Target:** Vaccine-preventable diseases (VPDs) with highest morbidity and mortality
- Currently EPI-SA provides protection against 14 VPDs

AGE	VACCINE
Birth	Bacille Calmette-Guérin (BCG)
	Oral polio vaccine (bOPV) -0
6 weeks	Oral polio vaccine (bOPV) -1
	Rotavirus vaccine (RV) -1
	Pneumococcal conjugate (PCV10) -1
	Hexavalent (DTaP-IPV-HepB-Hib) -1
10 weeks	Hexavalent (DTaP-IPV-HepB-Hib) -2
14 weeks	Rotavirus (RV) -2
	Pneumococcal conjugate (PCV10) -2
	Hexavalent (DTaP-IPV-HepB-Hib) -3

AGE	VACCINE
6m	Measles/rubella vaccine (MR) -1
9 months	Pneumococcal conjugate vaccine (PCV10) -3
12 months	Measles/rubella vaccine (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) -1
Grade 5 ≥9 years (campaign only)	Human papillomavirus vaccine (HPV) 1+2
12 years	Tetanus diphtheria, acellular pertussis (TdaP) -2

EPI catch-up Schedule from 2024

Vaccine	Age of child	First dose	Interval for subsequent doses		
			Second dose	Third dose	Fourth dose
Bacille Calmette-Guérin (BCG)	<1 year	Give one dose			
	≥1 year	**Do NOT give**			
Oral Polio Vaccine (bOPV)	<6 months	Give first dose	4 weeks		
	≥6 months	**Do NOT give**			
Hexavalent (DTaP-IPV-HepB-Hib)	Up to 5 years	Give first dose	4 weeks	4 weeks	12 months (Do not give before child is 18 months old)
Pneumococcal conjugate (PCV)	<6 months	Give first dose	4 weeks	Give at 9 months of age	*PCV13 and PCV10 will be considered interchangeable – no catch up of PCV10 required if child previously received PCV13 as per EPI schedule*
	6-9 months	Give first dose	4 weeks	8 weeks	
	>9-24 months	Give first dose	4 weeks	8 weeks	
	2-6 years	Give one dose			
Rotavirus	<20 weeks	Give first dose	4 weeks		
	20-24 weeks	Give one dose			
	>24 weeks	**Do NOT give**			
Measles/Rubella (MR)	<11 months	Give first dose	At 12 months	*If 1st dose is MCV, 2nd dose is MR – no catch up with MR required*	
	≥11 months	Give first dose	4 weeks		
Tetanus diphtheria acellular Pertussis (TdaP)	≥6 years	Give first dose	At 12 years	*Td and TdaP will be considered interchangeable – no catch up of TdaP required if child previously received Td as per EPI schedule*	

Public and Private schedule

The following schedule is to be read only in conjunction with the footnotes below

Vaccine Schedules for South Africa for 2024

Compiled by Amayeza Info Services' Vaccine Helpline: for more information call 0860 160 160

Age of child	EPI schedule (6-10-14 wks)	Age of child	Private Starting schedule with Hexaxim® at 6 weeks	Age of child	Private Starting schedule with Infanrix Hexa® at 8 weeks
At birth	OPV(0)	At birth	OPV(0)	At Birth	OPV(0)
	BCG		BCG		BCG
			*[illegible] vaccine at birth		
6 weeks	OPV(1)	6 weeks	OPV(1)	8 weeks	OPV(1)
	Rotarix® (1)		Rotarix® (1) or Rotateq®(1)		Rotarix® (1) or Rotateq®(1)
	PCV10-Cipla®(1)		Prevenar13® or Synflorix®[3]		Prevenar13® or Synflorix®[3]
	Hexaxim® (1)		Hexaxim®		Infanrix Hexa® (1)[1]
10 weeks	Hexaxim® (2)	10 weeks	Rotateq® (2)[2]	12 weeks	Rotateq® (2)[2]
			PCV (if using 3+1 schedule)[3]		PCV (if using 3+1 schedule)[3]
			Hexaxim®(2)		Infanrix hexa®(2)
14 weeks	Rotarix® (2)	14 weeks	Rotarix® (2) or Rotateq® (3)	16 weeks	Rotarix® (2) or Rotateq(3)
	PCV10-Cipla®(2)		Prevenar13® or Synflorix®[3]		Prevenar13® or Synflorix®[3]
	Hexaxim® (3)		Hexaxim® (3)		Infanrix hexa® (3)
6 months	MR SII®[4] (1)	6 months	Measbio®[4] or Measles vaccine Cipla®		
			Vaxigrip Tetra® or Influvac Tetra® (one month after Measbio®)[5]		

Heberbio®, Hep B SII®, Engerix B® **or** Euvax® (0) given at birth to babies born to mothers who test positive for hepatitis B

General:
(0) Birth dose which doesn't count as part of primary series
(1) First dose in a series
(2) Second dose in a series
(3) Third dose in a series
(4) Fourth dose - a booster

https://www.amayeza-info.co.za/wp-content/uploads/2024/01/2024-Childhood-Vaccine-Schedule.pdf

Public and Private schedule (2)

The following schedule is to be read only in conjunction with the footnotes below

Vaccine Schedules for South Africa for 2024

Compiled by Amayeza Info Services' Vaccine Helpline: for more information call 0860 160 160

9 months	PCV10-Cipla®(3)	9 months	Prevenar13® if using 2+1 schedule. (Do not give now if using 3+1 schedule) or Synflorix®[3] [at least 6 months from previous dose]
			Menactra® (1)
			Measles vaccine Cipla®[6] (if measles vaccine was not given at 6 months)
12 months	MR SII® (2)[4]	12-15 months	Priorix® (1)[7] or Omzyta® at 12 months
			Avaxim 80® or Havrix Jnr® (1) at 12 months
			Onvara® or Varilrix®[6,8] (1)
			Menactra® (2) (At least 3 months after the first dose of Menactra®)
			Prevenar13® (if using 3+1 schedule)
18 months	Hexaxim® (4)	18 months	Hexaxim® (4) or Infanrix Hexa® (4)
			Avaxim 80® or Havrix Jnr® (2) (At least 6 months after the first dose of Hep A)
6years	Adacel® (6 years)	5-6 years	Tetraxim®[9] or Boostrix tetra® or Adacel Quadra®
			Priorix® or Omzyta®(2)[6]
			Varilrix® (2)[6,10]
9 years	Cervarix®[11] (second dose 6 mnths later)	9 years	Cervarix® or Gardasil® or Gardasil 9®[12] (from 9 years) (Second dose 6 months later)
12 years	Adacel® vaccine	12 years	Adacel Quadra®, Adacel®, Boostrix® or Boostrix Tetra®[13]

General:
(0) Birth dose which doesn't count as part of primary series
(1) First dose in a series
(2) Second dose in a series
(3) Third dose in a series
(4) Fourth dose - a booster

https://www.amayeza-info.co.za/wp-content/uploads/2024/01/2024-Childhood-Vaccine-Schedule.pdf

The following schedule is to be read only in conjunction with the footnotes below

Vaccine Schedules for South Africa for 2024

Compiled by Amayeza Info Services' Vaccine Helpline: for more information call 0860 160 160

Public and Private schedule (3)

Referenced notes (superscripts)

1. If the hexavalent vaccine -Infanrix-hexa® is given according to the EPI schedule (6, 10 and 14 weeks), then a birth dose of hepatitis B vaccine is required. However, if Hexaxim® is used according to the EPI schedule, a birth dose of HBV is NOT required. If no birth dose is given, then Infanrix Hexa® should only be given from 8 weeks of age. The first three doses must be at least 4 weeks apart.
2. If Rotateq® vaccine is used, then 3 doses are required, 6, 10 and 14 weeks. If Rotarix® is used, only 2 doses are given – 6 and 14 weeks.
3. If PCV is given as a 2+1 schedule, it is given at 6 and 14 weeks and at 9 months. When Synflorix® or PCV10-Cipla® is used as per the 3+1 schedule, it is given at 6, 10 and 14 weeks and the 4th dose should be given at least 6 months after the third dose. When Prevenar 13® is used as per the 3+1 schedule, it is given at 6,10,14 weeks and the 4th dose is given after 12 months of age (12-15 months).
4. Measbio® cannot be given at the same time as other vaccines. MR SII® should not be given with any other vaccines at 6 months of age but can be given with other vaccines from 9 months of age.
5. The flu vaccine can be given from 6 months of age but should be separated from Measbio® or MR SII® by 4 weeks. The first year a child gets the vaccine, 2 doses a month apart are indicated.
6. Measles vaccine Cipla® can be given at 9 months if the child did not have a measles vaccine at 6 months. Can be given on the same day as other vaccines.
7. If Measbio® is used at 12 months in the private sector, all other vaccines will then have to be given at least a month later. This will then mean that the second hepatitis A dose cannot be given at 18 months, but at least six months after the first dose.
8. Varilrix® can be given any time from 9 months of age but is probably most effective if given over the age of 12 months. If not given on the same day as measles vaccines, must then be separated by at least one month. The second dose can be given as early as 4-6 weeks after the first dose but is routinely given at 5-6 years of age.
9. Internationally a DTaP-containing vaccine is recommended at 6 years, but Tdap-IPV may also be used.
10. Currently Onvara® is registered as a single dose for children younger than 13 years in South Africa.
11. Cervarix® in the EPI for girls only. 2 doses six months apart. Given to girls >9 years in public schools.
12. HPV vaccines are for boys and girls. Course consists of 2 doses, six months apart for children 9 -13/14 years of age or 3 doses – 0, 2 and 6 months for older adolescents.
13. If not given at six years, as Boostrix Tetra® is currently only licensed as a single dose.

https://www.amayeza-info.co.za/wp-content/uploads/2024/01/2024-Childhood-Vaccine-Schedule.pdf

HPV vaccination

Best protection against cancer-causing HPV infections

HPV vaccine	Bivalent	Quadrivalent	Nonavalent
HPV types	16 and 18	6, 11, 16 and 18	6, 11, 16, 18, 31, 33, 45, 52, 58
Age group first dose	Girls & Boys: 9-14 years	Girls & Boys: 9-13 years	Girls & Boys: 9-14 years
Dose: 2-dose	Interval: 5-13 months apart	6 months apart	5-13 months apart
Age group first dose	Women & Men: 15-45 years	Women: 14-45 years Men: 14-26 years	Women & Men: 15 years with no upper age limit
Dose: 3-dose	Interval (months): 0, 1–2.5 and 5–12 months	0, 1–2 and 4–6 months	0, 1–2 and 4-6 months

WHO. Weekly epidemiological record. 16 December 2022. No 50, 2022, 97, 645–672. http://www.who.int/wer

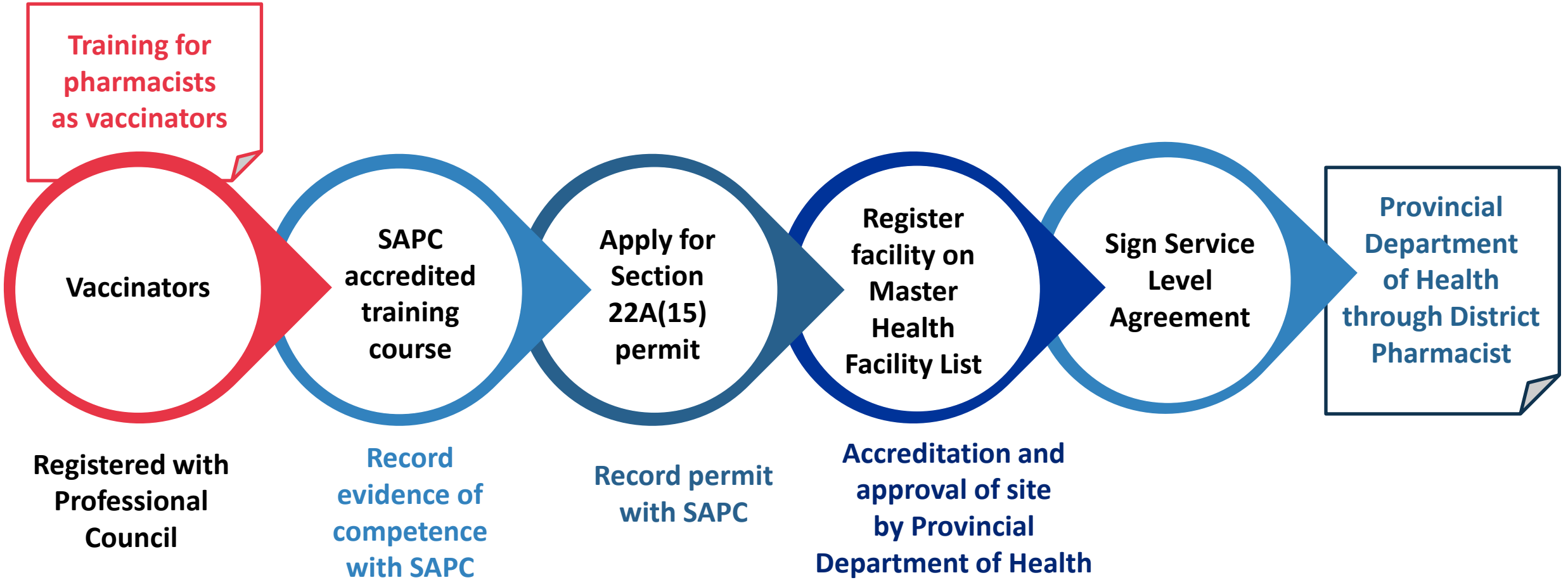
#PharmacyMonth2024 #GetVaccinated #AskYourPharmacist

How to put …
LET'S TALK ABOUT VACCINES …

… into action!

• Educated • Motivated • Vaccinated • Protected •

1 Public-Private partnerships: Offer EPI services and vaccines in the pharmacy



2 Get trained as a vaccinator

BOARD NOTICES • RAADSKENNISGEWINGS

1

BOARD NOTICE 100 OF 2021

THE SOUTH AFRICAN PHARMACY COUNCIL

PHARMACIST WHO PROVIDES IMMUNISATION SERVICES

PART 1 SCOPE OF PRACTICE FOR A PHARMACIST OFFERING IMMUNISATION SERVICES

In addition to the acts and services which form part of the scope of practice of the pharmacist as prescribed in terms of Regulations 3 and 4 of the *Regulations relating to the practice of Pharmacy* (GNR 1158, published on 20 November 2000), a pharmacist who has completed the supplementary training on immunisation and injection techniques; and has obtained a section 22A(15) permit, may be allowed to acquire, possess, use and supply vaccines and medicines required for adjunct therapy and perform consultations with patients at a pharmacy or in an approved setting, which includes:

(a) comprehensive patient history taking;

(b) administering of vaccines in line with the Expanded Programme on Immunisation in South Africa (EPI-SA) and any other vaccine programme as may be approved by the Director-General (Health);

(c) monitoring of the outcomes of the immunisation;

(d) treating of adverse events following immunisation and anaphylactic shock; and reporting of adverse events;

(e) referral to another health care provider where necessary; and

(f) record keeping and maintaining confidentiality.

2

PART 2: COMPETENCY STANDARDS

Summary of competency standards for pharmacist providing immunisation services.

DOMAIN	Competency Standard
1. Public health	1.1 Professional advocacy 1.2 Pandemic management
2. Safe and rational use of vaccine and administration device	2.1 Patient consultation 2.2 Communication with patient, caregiver, and agent of a patient 2.3 Patient management 2.4 Vaccine and administration device safety
3. Supply of vaccines	3.1 Vaccine administration 3.2 Vaccine storage and control 3.3 General housekeeping and administrative tasks in the pharmacy
4. Organisational and management skills	4.1 Quality assurance 4.2 Record keeping 4.3 Policy development
5. Professional and personal practice	5.1 Professional practice 5.2 Ethical and legal practice 5.3 Continuing professional development

3

PART 3: CRITERIA TO ACCREDIT A GENERIC SHORT COURSE FOR PHARMACISTS IN IMMUNISATION AND INJECTION TECHNIQUES, AND DELIVERING IMMUNISATION SERVICES.

SAPC accredited training providers → Short course

Complete training on immunisation and injection techniques Record evidence of competence with SAPC

Apply to the NDoH for a Section 22(A)15 permit

Record Section 22(A)15 permit with SAPC

#PharmacyMonth2024 #GetVaccinated #AskYourPharmacist

3 Get trained on how to manage vaccines

Training available on the Knowledge Hub for all healthcare workers

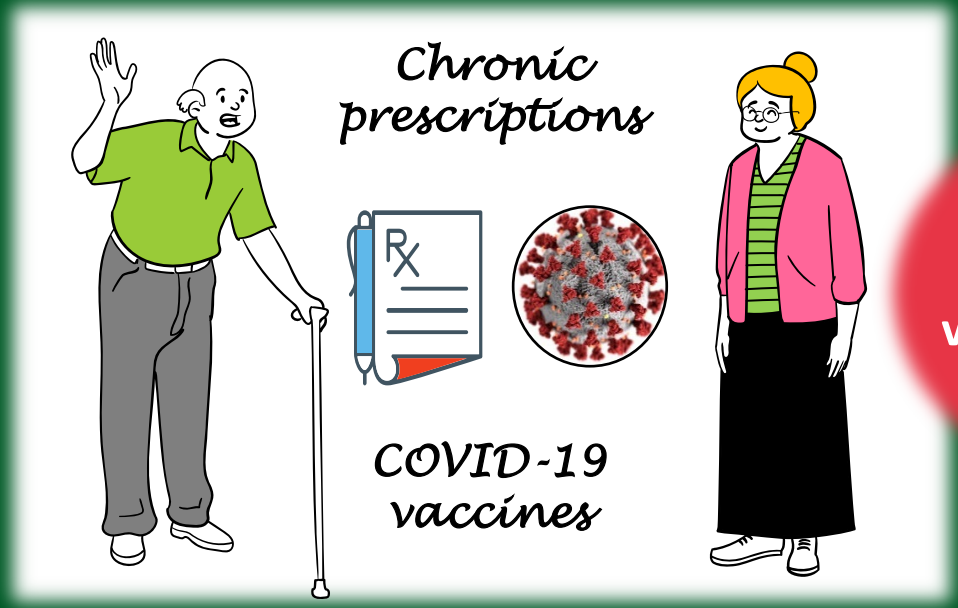
4 Do not miss ANY opportunity to vaccinate

Have vaccines in stock

Pregnant women and unborn foetus

Rule out perceived contra-indications

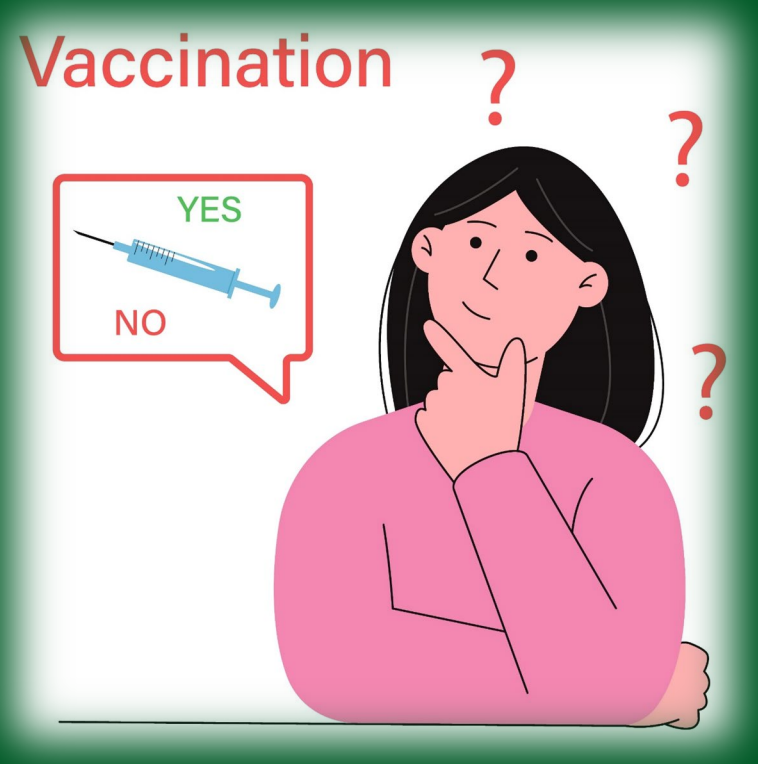
Screen the entire family for eligibility



Offer influenza vaccination

https://www.who.int/immunization/programmes_systems/policies_strategies/MOV_GIM_27June2018.pdf

5 Communicate effectively to address people's concerns



- Does the vaccine work?
- Is the vaccine safe?
- What is your recommendation?

Educated • Motivated • Vaccinated • Protected

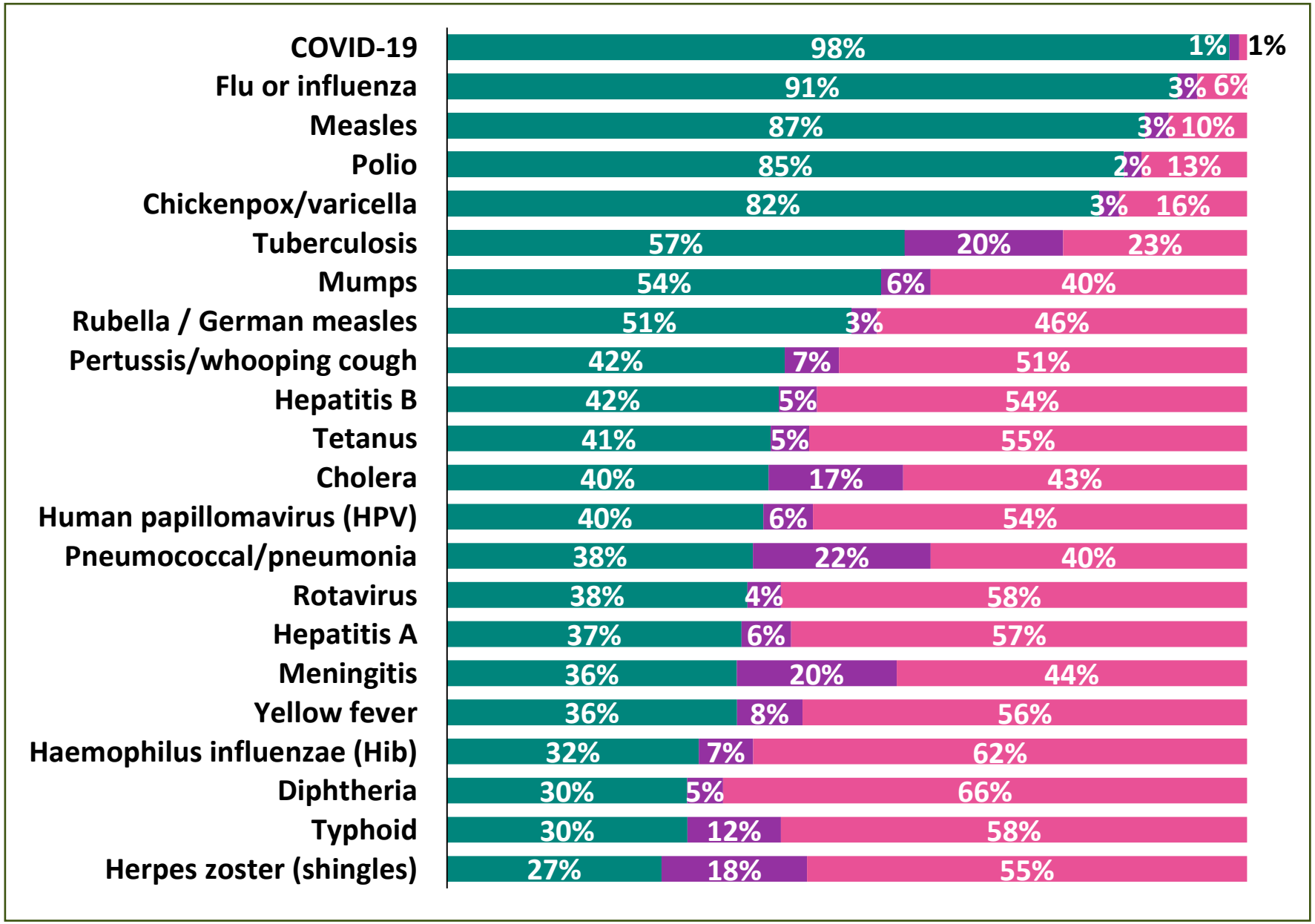
2023 Post COVID-19

Knowledge of vaccine preventable diseases in South Africa (n=400)

	Never heard of it before today	Heard of it but don't know anything about it	Heard of it, know what it is, but not much else	Somewhat knowledgeable	Know a lot about it
Rotavirus diarrhoea	52%	18%	16%	8%	6%
Diphtheria	51%	22%	17%	7%	4%
Haemophilus influenzae type b (Hib)	48%	24%	15%	10%	4%
Human papillomavirus (HPV)	44%	19%	15%	14%	8%
Tetanus	42%	21%	14%	16%	7%
Yellow fever	42%	22%	16%	13%	8%
Hepatitis A	40%	23%	16%	14%	8%
Rubella / German measles	39%	12%	14%	22%	14%
Hepatitis B	36%	20%	18%	18%	8%
Pertussis/whooping cough	33%	19%	23%	16%	9%
Typhoid	31%	35%	20%	11%	4%
Herpes zoster (shingles)	23%	31%	24%	16%	8%
Mumps	22%	16%	19%	25%	18%
Meningitis / meningococcal disease	12%	21%	26%	26%	15%
Pneumococcal disease /pneumonia	12%	16%	27%	27%	18%
Cholera	11%	37%	16%	20%	15%
Polio	9%	13%	23%	35%	20%
Measles	7%	9%	16%	36%	33%
Chickenpox/varicella	5%	6%	16%	36%	38%
Tuberculosis	4%	8%	15%	34%	38%
COVID-19	2%	3%	10%	26%	61%
Flu or influenza	2%	3%	8%	23%	65%

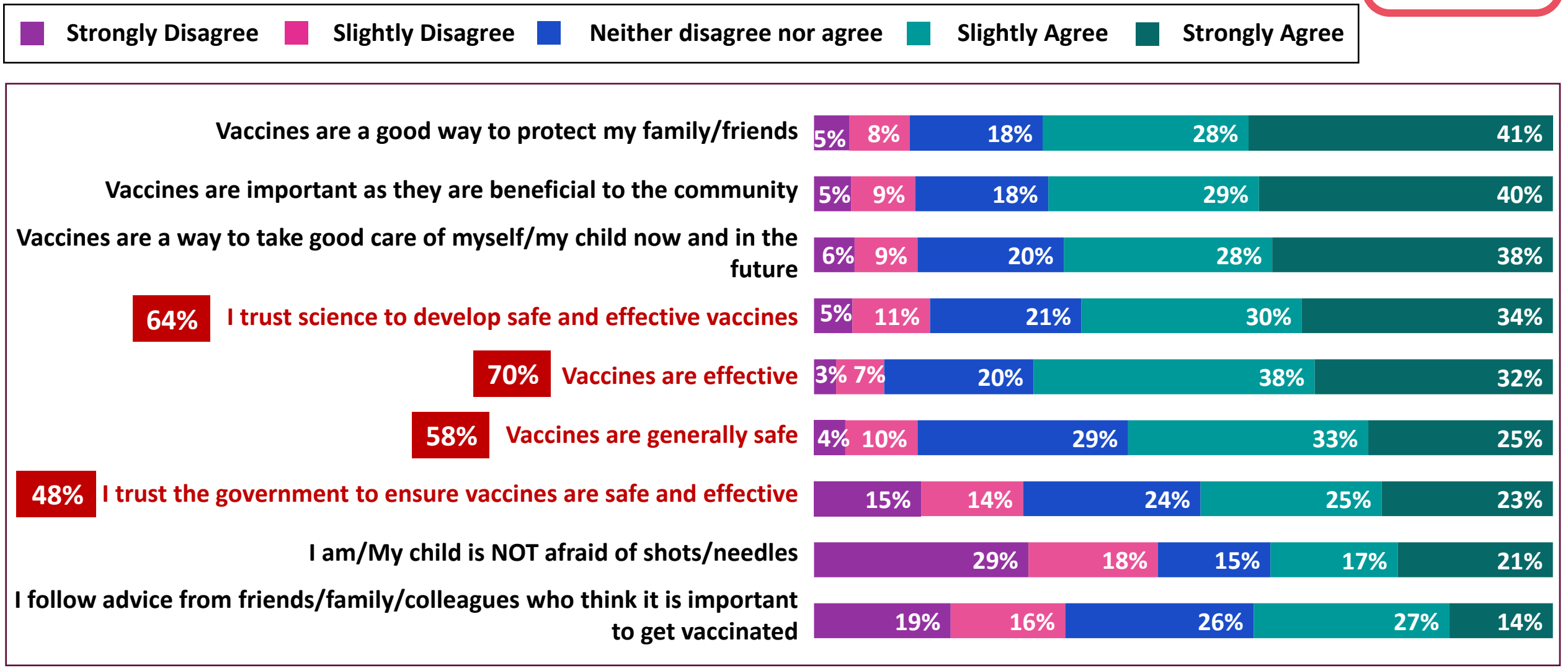
Knowledge of available vaccines in South Africa (n=400)

2023 Post COVID-19



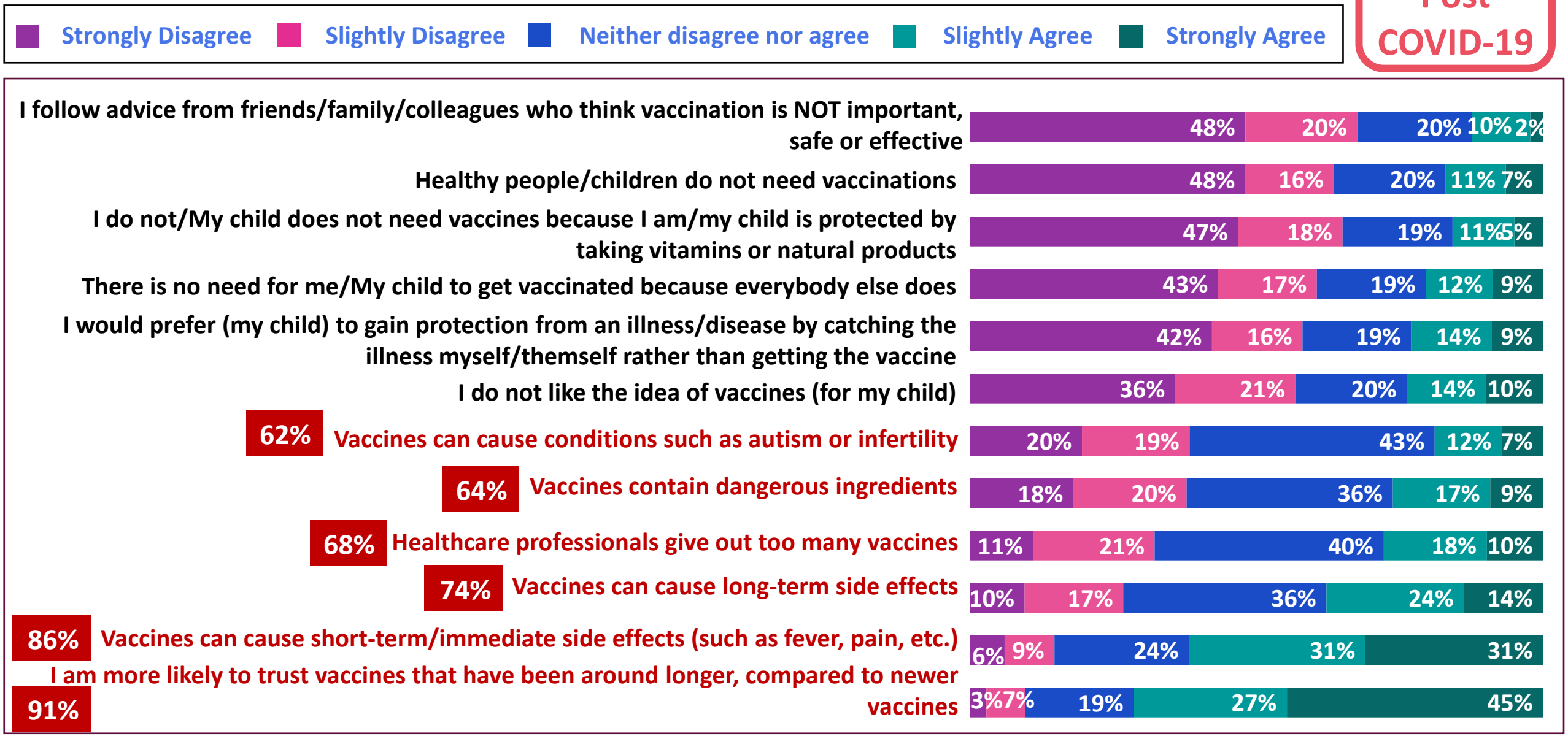
Perceptions of safety of vaccines in South Africa (n=400)

2023 Post COVID-19



Perceptions of safety of vaccines in South Africa (n=400) (2)

2023 Post COVID-19

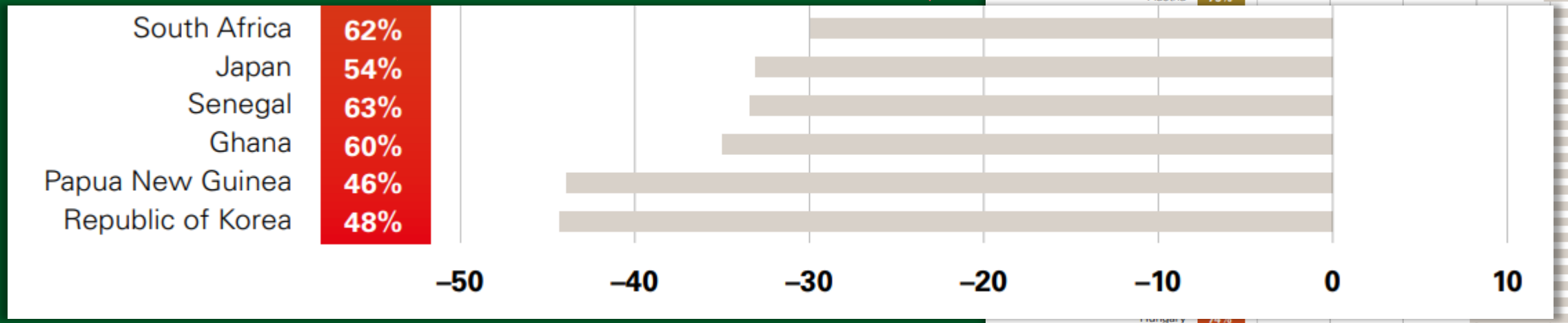


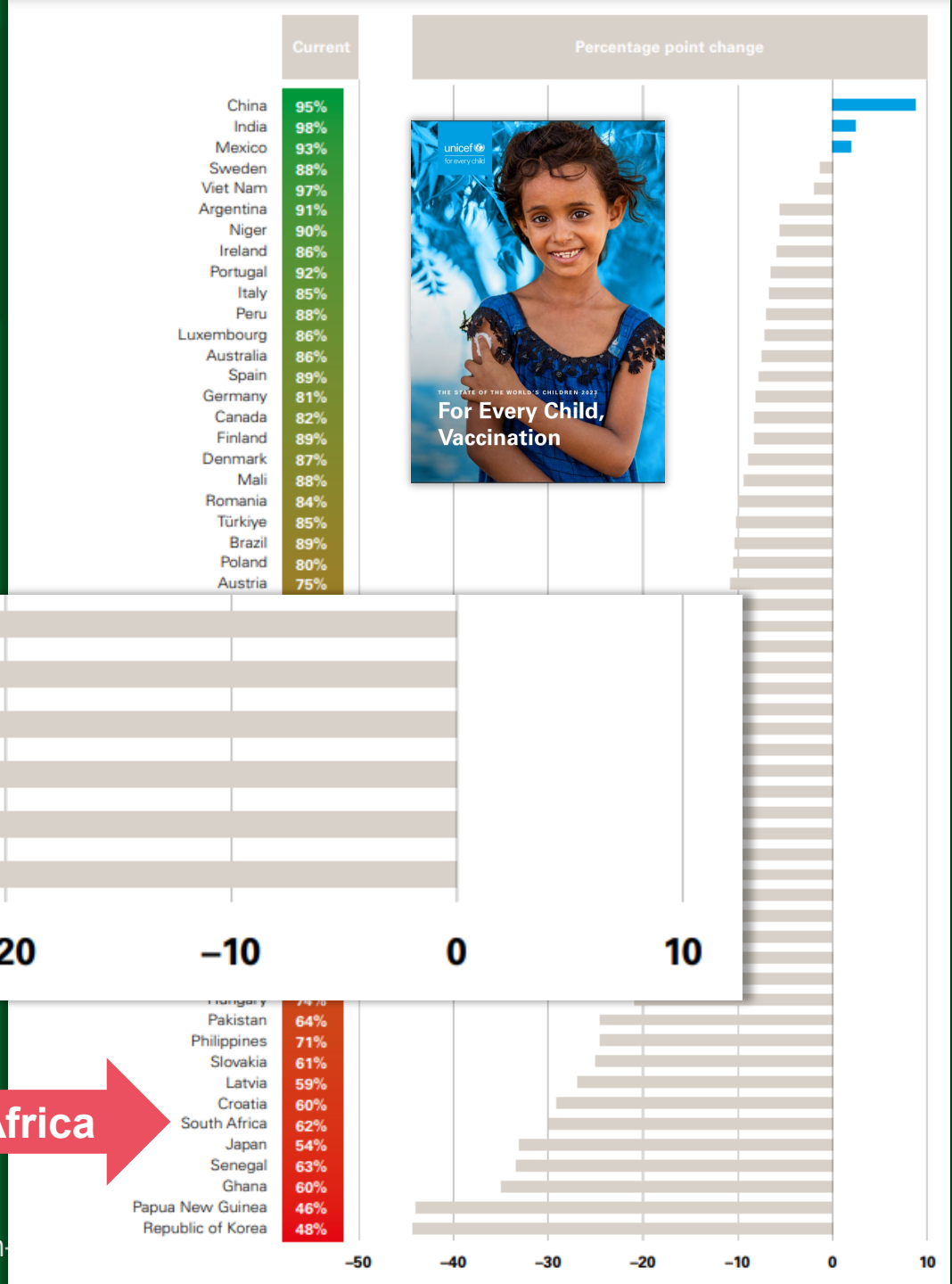
New data indicates 30% decline in confidence in childhood vaccines in South Africa

UNICEF's flagship report highlights 1 in 5 children in South Africa are under-immunised amid heightened vaccine scepticism during COVID-19, while 67 million children globally missed out on one or more vaccinations over the past 3 years.

% population confident that vaccines are important for children

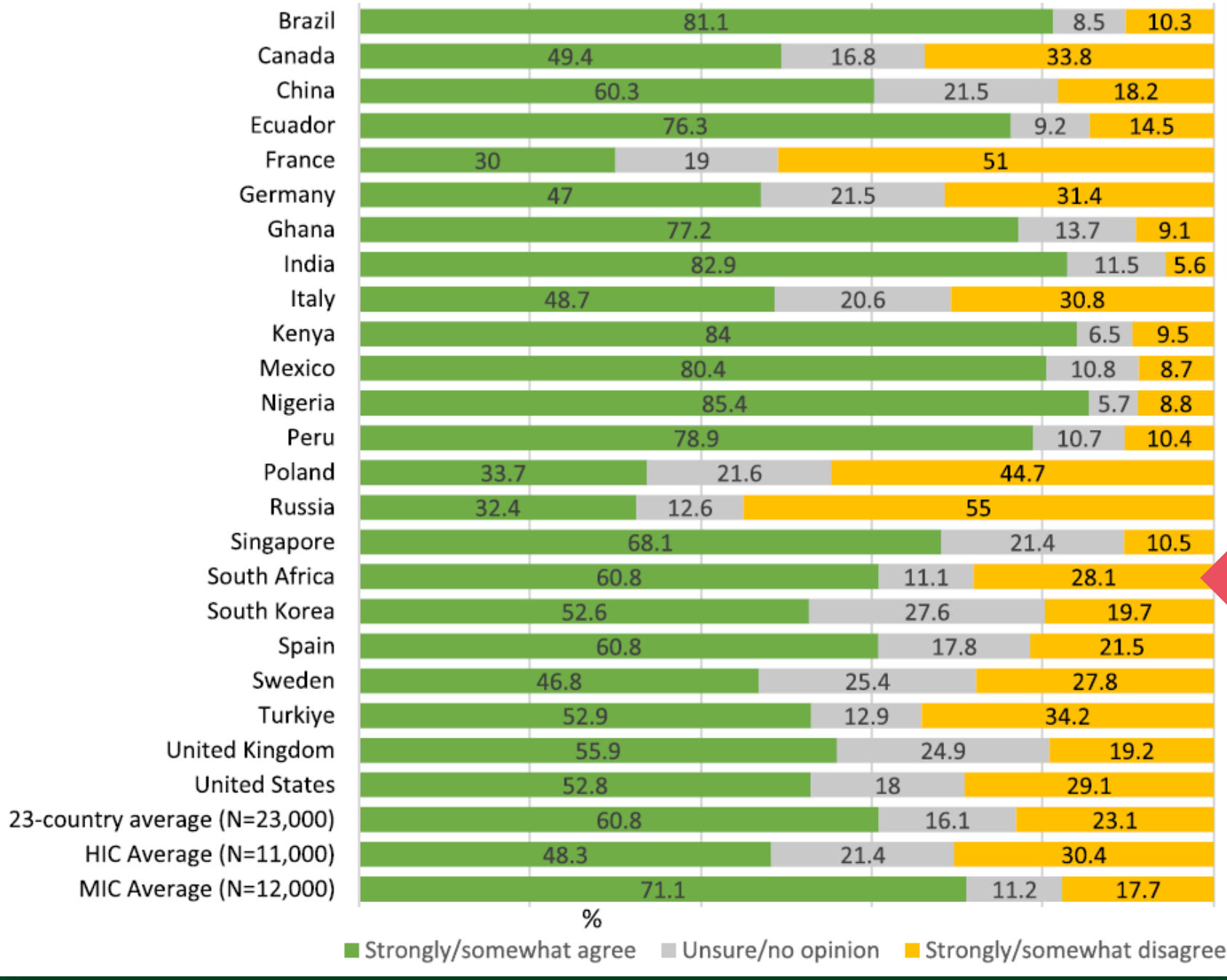
30%-point change before and after the pandemic





South Africa

https://www.unicef.org/reports/state-worlds-children-2023#SOWC
https://www.unicef.org/southafrica/press-releases/new-data-indicates-30-decline-confidence-childhood-vaccines-south-



Brief Communication https://doi.org/10.1038/s41591-024-02939-2

Influence of COVID-19 on trust in routine immunization, health information sources and pandemic preparedness in 23 countries in 2023

Received: 19 December 2023
Accepted: 21 March 2024
Published online: 29 April 2024
Check for updates

Jeffrey V. Lazarus[1,2,3], Trenton M. White[1,2], Katarzyna Wyka[1], Scott C. Ratzan[1], Kenneth Rabin[1], Heidi J. Larson[4,5], Federico Martinon-Torres[6], Ernest Kuchar[7], Salim S. Abdool Karim[8,9], Tamara Giles-Vernick[10], Selina Müller[11], Carolina Batista[12,13], Nellie Myburgh[14], Beate Kampmann[15] & Ayman El-Mohandes[1]

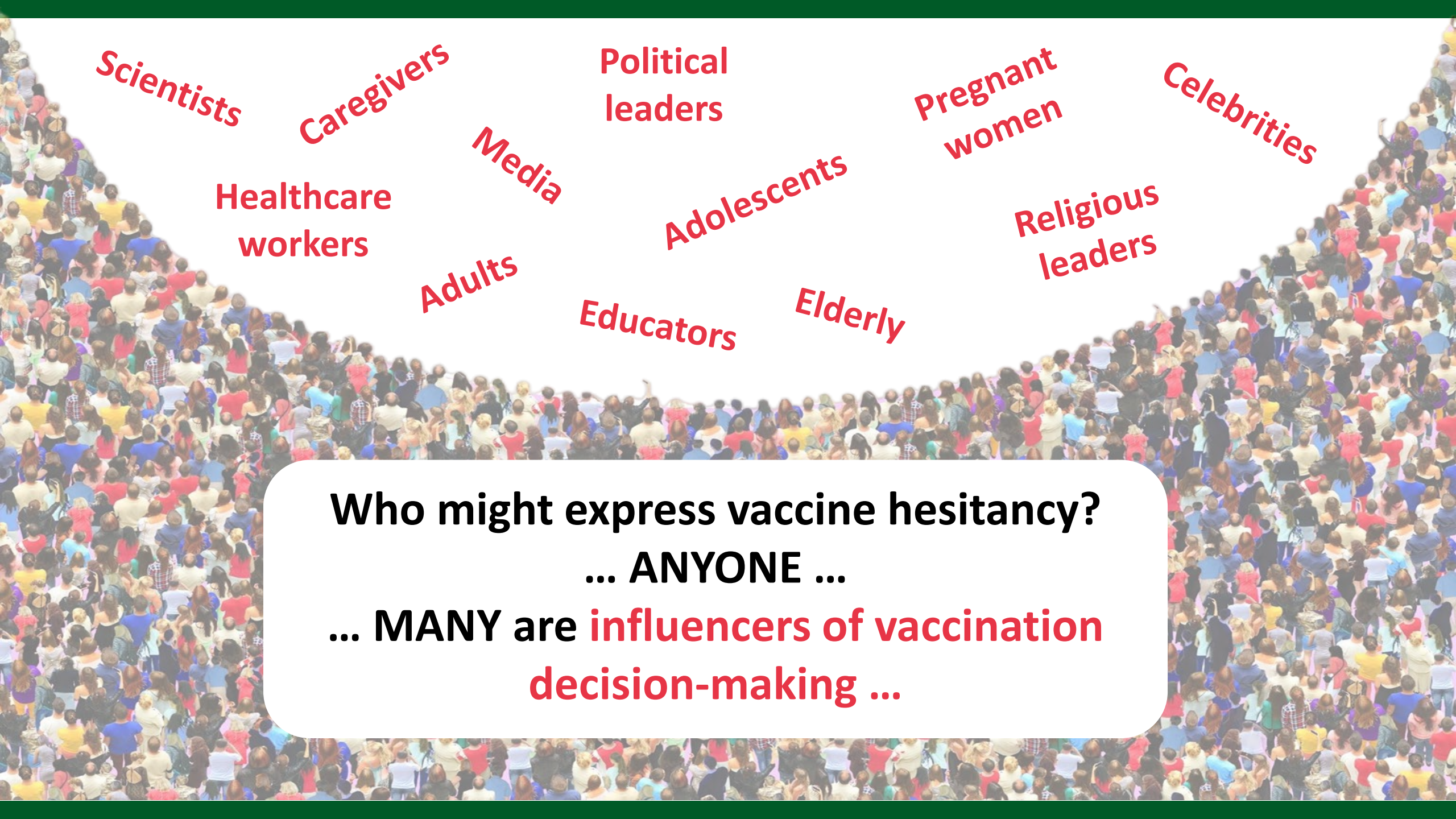
Willingness to get vaccinated against other diseases e.g. flu, measles, hepatitis B

South Africa

39.2%
Unsure / No opinion
Strongly / Somewhat disagree

Lazarus JV et al. Nat Med. 2024 Apr 29. doi: 10.1038/s41591-024-02939-2

How is vaccine hesitancy expressed?

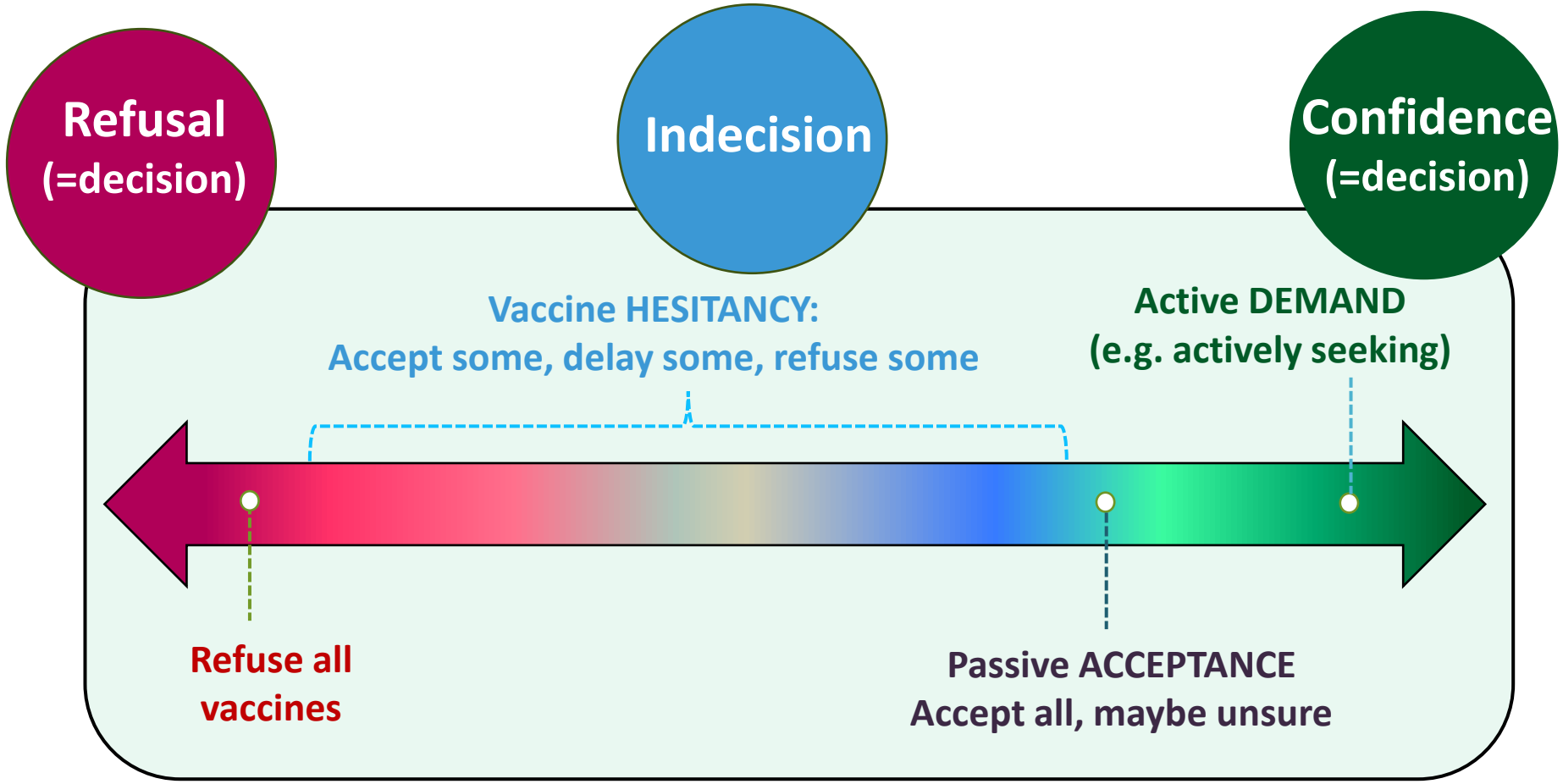


Who might express vaccine hesitancy?

… ANYONE …

… MANY are influencers of vaccination decision-making …

Vaccine hesitancy: A complex phenomenon



Variation based on

- Time
- Place (context)
- Population
- Vaccine

World Health Organization, 2014; Report of SAGE; MacDonald NE. Vaccine hesitancy: Definition, scope and determinants. Vaccine. 2015;33(34):4161-4; Larson HJ, Gakidou E, Murray CJL. The Vaccine-Hesitant Moment. N Engl J Med. 2022;387(1):58-65..

Social media allows for easy mass public communication BUT ….

- **Any opinion** can be **presented as fact**
  - Difficult to tell whether something is an established fact or not
- **Fringe opinions** and **disinformation** can be shared widely
- **Truth is lost in noise**
  - Creation of **doubt** → harmful for vaccination
  - **Uncertainty** → vaccine hesitancy
- **Social media** and the **internet**
  - Strongly associated with **perceptions that vaccines are unsafe**
  - Main influencers of **non-vaccination** against COVID-19*

Social media pushed vaccine hesitancy to a new level during COVID-19

Wilson SL, Wiysonge C. Social media and vaccine hesitancy. BMJ Glob Health. 2020 Oct;5(10):e004206;
*Unpublished data

Since January 2019, Trust in Media on Health Reporting Plummets

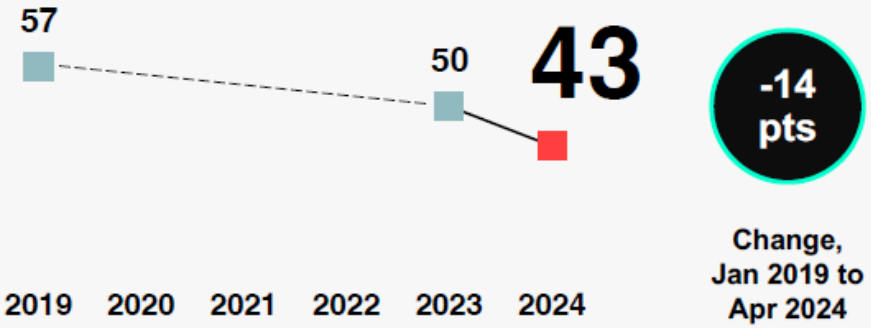
Percent who say

GLOBAL 12

Distrust (1-49) | Neutral (50-59) | Trust (60-100)

Significant change

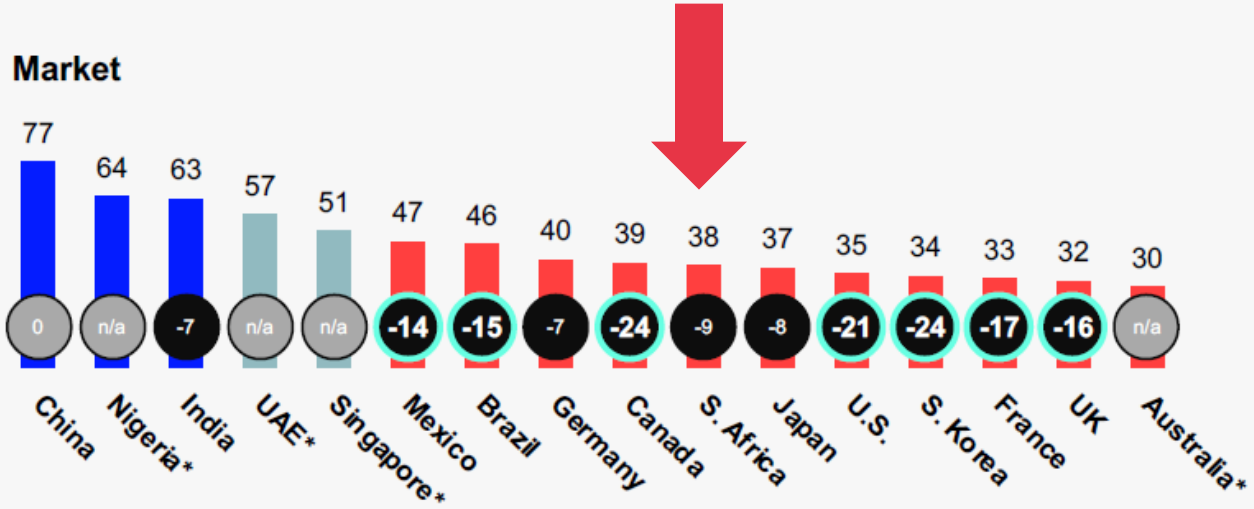
I trust the media to **report accurate information** about healthcare



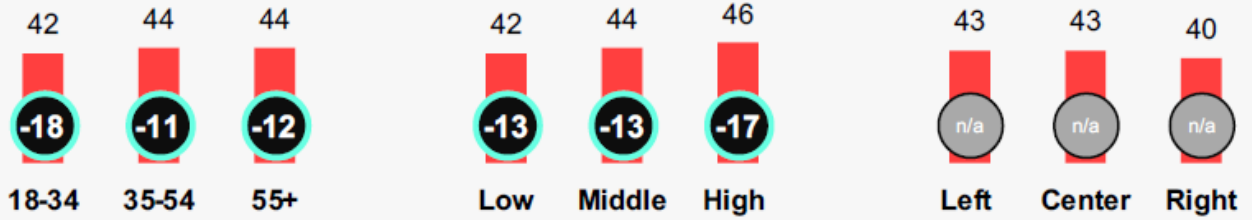
-14 pts

Change, Jan 2019 to Apr 2024

Market



Age | Income | Politics[1]



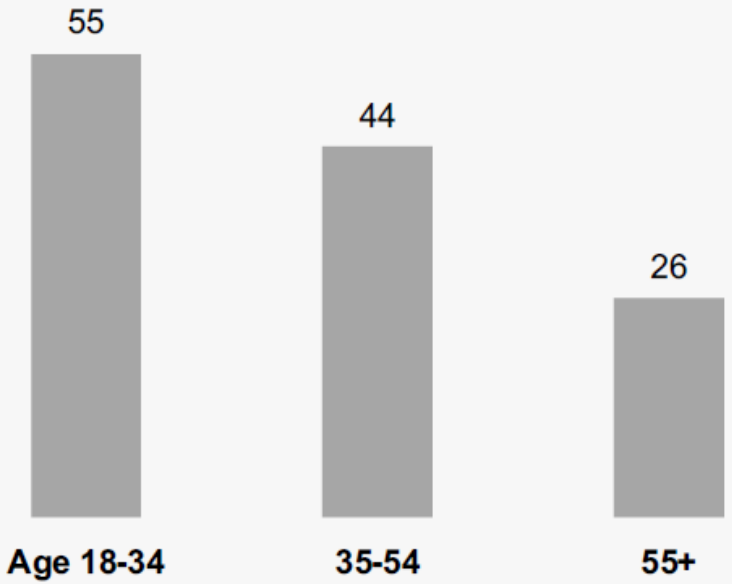
4 in 10 Regret Health Decisions Based on Misinformation

Percent who say

GLOBAL 12

I have **regretted a health decision I made based on misinformation** at least once …

41%



… and I was misinformed by:

#1	Product advertisement
#2	Friends and family
#3	User-generated content

Address Barriers to Better Health: Information Now on Par With Costs, Access

Among the 85% who say there is a gap between how well they are currently taking care of their health vs how well they should be, percent who say

GLOBAL 12 — (-) 0 (+) Change, Apr 2023 to Apr 2024 — Significant change

This plays a large role in **preventing me from taking better care of my health**

62% (+4 pts)

Cost (net)

Healthy options cost too much
Cannot afford good healthcare
Cannot afford treatments

58% (+8 pts)

Information (net)

Contradictory expert advice
Changing health recommendations
Lack of information

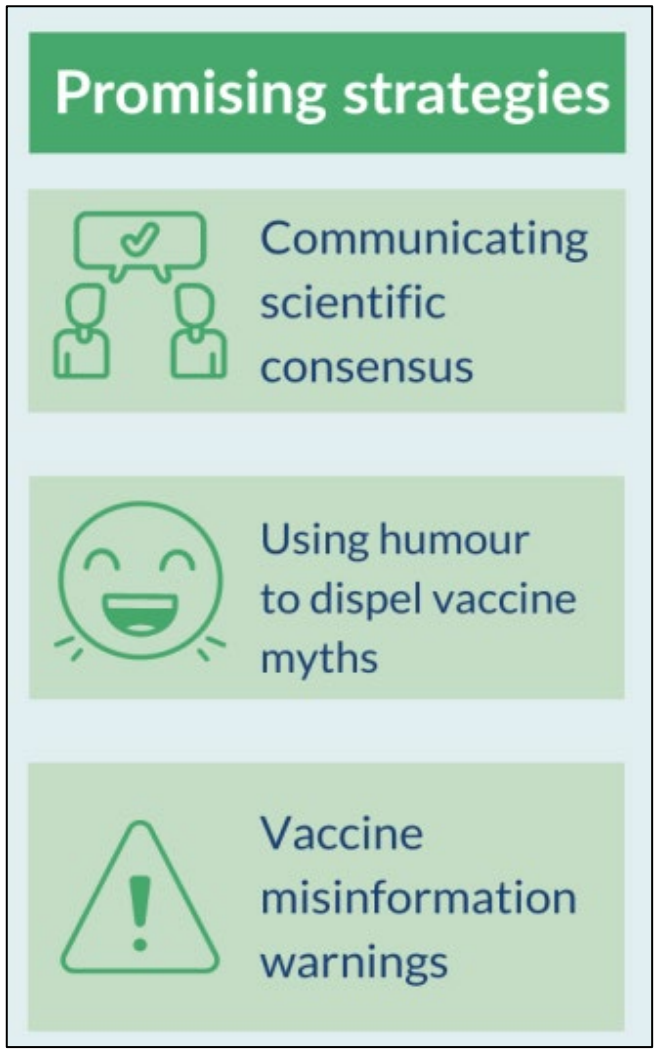
51% (+6 pts)

Access (net)

Difficulty accessing healthcare services
Lack of institutional support

How should we communicate? One size does not fit all!

Countering misinformation



- Most **effective written communication messages** amongst COVID-19 hesitant people
  - Emphasising **personal benefits** (i.e. prevention of serious illness or long-COVID) of the vaccine rather than benefits to the community
  - Information on the **safety of the vaccines**
- Vaccine promotion messages → **delivered**
  - **Trustworthy** sources
  - Use **persuasive arguments**
  - Consider prior **beliefs and attitudes** of people

Exposure to information on vaccine efficacy and safety (science-based messaging) → associated with a higher likelihood of vaccination intention

NIHR Evidence; Promoting vaccination: the right approach for the right group; July 2023; doi: 10.3310/nihrevidence_59296; Whitehead et al. Vaccine. 2023 Jan 27;41(5):1018-1034; Freeman D et al. Lancet Public Health. 2021 Jun;6(6):e416-e427; Avelino-Silva et al. BMC Public Health, 2023; 23, 1162.

How should we communicate? One size does not fit all!

Countering misinformation

- Debunking misinformation by presenting present common vaccine myths with corrective facts → **mixed results**
  - Reduced people's belief in correct information
  - Increased beliefs in false information
    - Incorrect information is repeated → easier to remember
    - **What you see first is what 'gets stuck in your mind'**
- Educational materials
  - Improving **knowledge**
  - **Mixed results** or no effect on **attitudes** to vaccines

Personal communication is key

WHAT you say and HOW you communicate and WHO communicates → building trust

Patient-centred open dialogue and empathy

NIHR Evidence; Promoting vaccination: the right approach for the right group; July 2023; doi: 10.3310/nihrevidence_59296; Whitehead et al. Vaccine. 2023 Jan 27;41(5):1018-1034; Freeman D et al. Lancet Public Health. 2021 Jun;6(6):e416-e427; Avelino-Silva et al. BMC Public Health, 2023; 23, 1162.

How should we communicate? One size does not fit all!

Countering misinformation

- **Scare tactics** e.g. photos of children with vaccine-preventable diseases
  - Can **backfire** and increase the perceived risk of vaccine side effects
- Messages about vaccine effectiveness and **not acknowledging risk → increase vaccine hesitancy**
  - Communicate uncertainty by acknowledging that some information is still unknown →reduced vaccine hesitancy

Exposure to information on disease severity (fear-based messaging) → lower likelihood of vaccination intention

Communicate with honesty and transparency

Knowledge gaps including research; Risks of side effects; Policy-making surrounding vaccines

NIHR Evidence; Promoting vaccination: the right approach for the right group; July 2023; doi: 10.3310/nihrevidence_59296; Whitehead et al. Vaccine. 2023 Jan 27;41(5):1018-1034; Freeman D et al. Lancet Public Health. 2021 Jun;6(6):e416-e427; Avelino-Silva et al. BMC Public Health, 2023; 23, 1162.

Report adverse events following immunisation (AEFI)

Be transparent at all times

Report any AEFI using the Med Safety App

Used by the public

Used by healthcare professionals

Android and iOS devices

Download instructions and information:

http://medsafety.sahpra.org.za/

https://www.youtube.com/watch?v=jvuQZddyFTM

#PharmacyMonth2024 #GetVaccinated #AskYourPharmacist

SUMMARY:

‘SOP’ for vaccination conversations to address people’s concerns

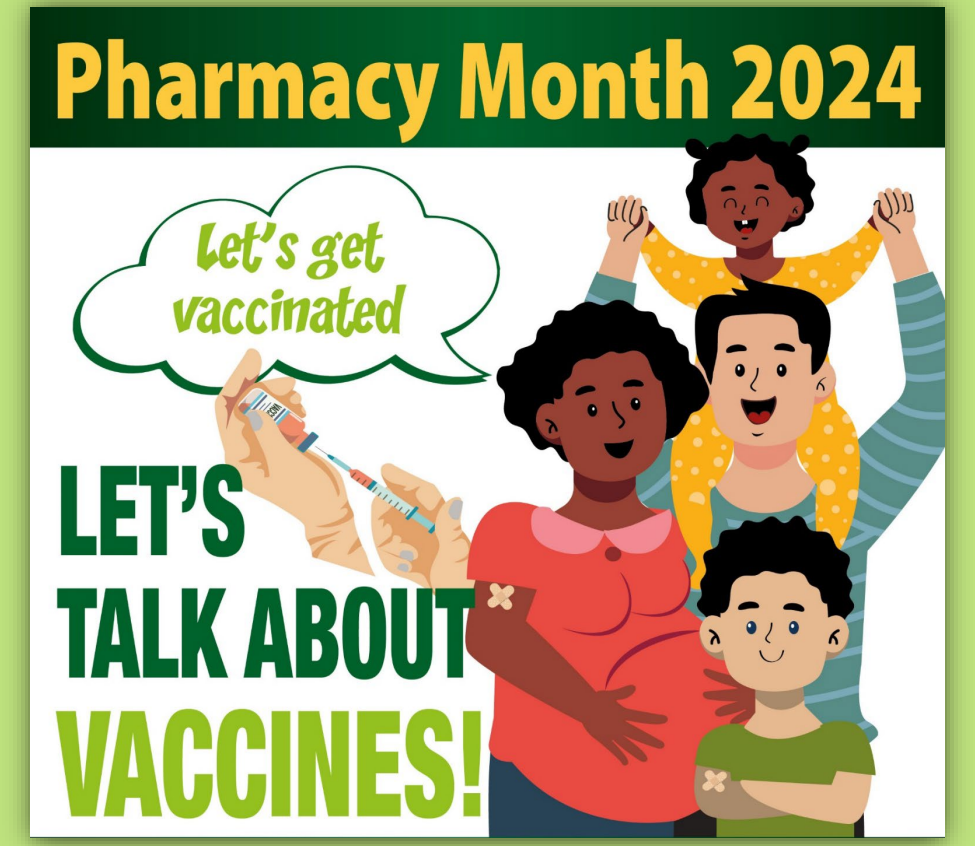
S — **STRONG recommendation**
Use strong language in favour of vaccination (benefits)

O — **OPEN dialogue, listen to concerns, never judge**

P — **PRESUMPTIVE style of communication; recommendation as statement and not requiring a response**

Fenton et al. Human Vaccines & Immunotherapeutics. 2018; 14, 2503–2509. doi:10.1080/21645515.2018.1480237.
Constable et al. A Cancer Journal for Clinicians. 2022; 72, 561–569. doi:10.3322/caac.21753.

Pharmacists are critical change agents for life course vaccination



01 Practice aligned to the goals of IA2030

02 Accessible and trusted source of health information

03 Identify and address missed opportunities

04 Communicate effectively and contribute to health literacy – huge opportunity

05 Training and public-private partnerships to extend services

THANK YOU

“Vaccinated communities, healthy communities”

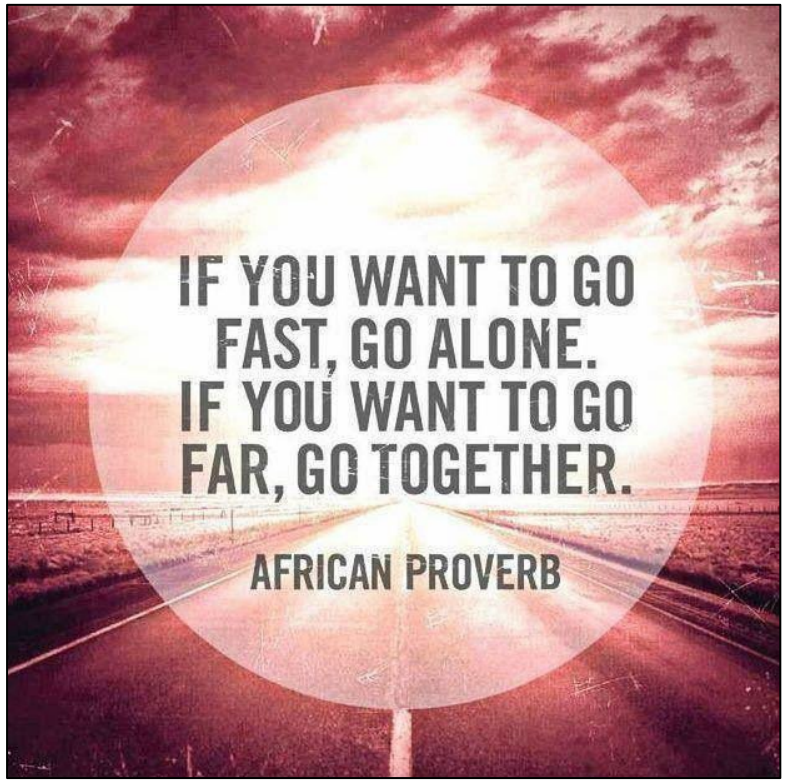
‘It takes a village to raise a child’

Furthermore …

‘It takes a healthy vaccinated village to raise a vaccinated child towards a healthy future’

Our strength lies in UNITY

Building confidence in vaccines



Picture source: https://www.pngegg.com/en/png-nspqu; https://www.picturequotes.com/if-you-want-to-go-fast-go-alone-if-you-want-to-go-far-go-together-quote-17698

Useful resources on life course vaccination

https://www.fip.org/file/5588

https://www.fip.org/file/5638

Are vaccine components safe?

Example: Aluminium

- Aluminium is used as an adjuvant
  - Enhance the immune response (help the vaccine work better)
  - Allow for fewer quantities of active ingredients
  - Allow for fewer doses of vaccine
- History of safety information since the 1930s
- Amount of aluminium in vaccines
  - Extremely small
  - Does not pose a health risk
- Body is able to remove aluminium, thus safe to use
  - About half eliminated in less than 24 hours.
  - More than three-quarters eliminated within 2 weeks

Source: https://immunizebc.ca/vaccine-safety/vaccine-ingredients/whats-vaccines

How much aluminium do babies receive from vaccination?

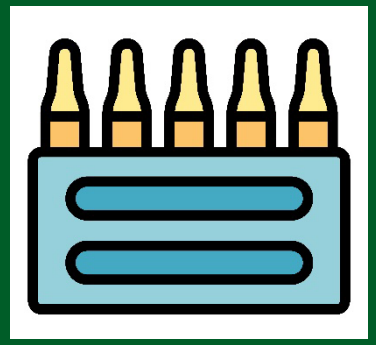
38 mg

From infant formula

7 mg

In breast milk

Babies receive more aluminium in their diet during the first 6 months of life, than from all vaccines combined



3 mg From all vaccines combined

Source: https://immunizebc.ca/vaccine-safety/vaccine-ingredients/whats-vaccines

Are vaccine components safe?

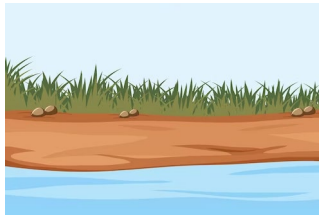
Example: Thiomersal

- Thiomersal is also known as thimerosal
- Thiomersal is used as a **preservative**
  - Preservatives are added during manufacturing to prevent the growth of harmful microbes like bacteria and fungi
  - Contamination with microbes can occur when a syringe needle enters a vial during preparation for administration
  - Contaminated vaccines could cause severe local reactions, serious illness or death
- History of safety information since the 1930s
- Rapidly excreted from the body; hence **safe to use**
- No evidence that thiomersal in vaccines poses a health threat or causes autism

Sources: https://www.chop.edu/centers-programs/vaccine-education-center/vaccine-ingredients/thimerosal
https://www.goodrx.com/health-topic/vaccines/thimerosal-in-vaccines
https://www.cdc.gov/vaccinesafety/concerns/thimerosal/faqs.html

What is thiomersal? Is it the same as mercury?

Thiomersal does **NOT contain the element mercury** → it contains a **compound of ethylmercury**
It is also very **different from methylmercury**

Ethylmercury	**Differences**	**Methyl**mercury
Preservative used in multi-dose vaccine vials 	**Where found**	 Found in soil, water, fish, breastmilk, etc. and other sources 
Mercury in vaccines is bound to an **ethyl group**	**Compound**	Mercury in fish is bound to a methyl group
Very low toxicity; not enough to cause poisoning	**Toxicity**	Can be very toxic in low doses
Rapidly metabolised → does **not** accumulate in body	**Accumulation in body**	Not easily metabolised → accumulates in body
Rapidly excreted → within days	**Excretion from body**	95% absorbed from gut into the bloodstream→ remains for months/longer

Sources: https://www.chop.edu/centers-programs/vaccine-education-center/vaccine-ingredients/thimerosal
https://www.goodrx.com/health-topic/vaccines/thimerosal-in-vaccines
https://www.cdc.gov/vaccinesafety/concerns/thimerosal/faqs.html