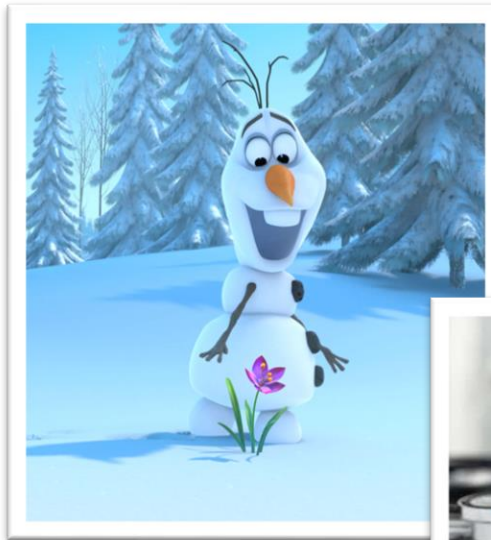


Winter 2024 and the seasons ahead

Dr Kate Alexander
Medical Director
GC Public Health Unit

Gold Coast Health
always care





Jingeri.

We acknowledge the Traditional Custodians of the land in which we work, live and grow, the Kombumerri, Wangerriburra, Bullongin, Minjungbal and Birinburra peoples, of the Yugambah Language speaking nation. We also pay our respects to Elders past, present and emerging. We also acknowledge other Aboriginal and Torres Strait Islander people present today.



Influenza

INFLUENZA

Common signs and symptoms of influenza in INFANTS AND CHILDREN can include...

- 1** Fever
- 2** Chills
- 3** Headache
- 4** Abdominal pain and body aches
- 5** Feeling weak or more tired than usual
- 6** Cough
- 7** Sore throat
- 8** Runny or stuffy nose
- 9** Loss of appetite
- 10** Diarrhoea

Symptoms in infants can be difficult to recognise. The health of infants and children can change rapidly. If you are concerned call your GP or 13 HEALTH (13 43 25 84).

 Queensland Government



FREE FLU VACCINE

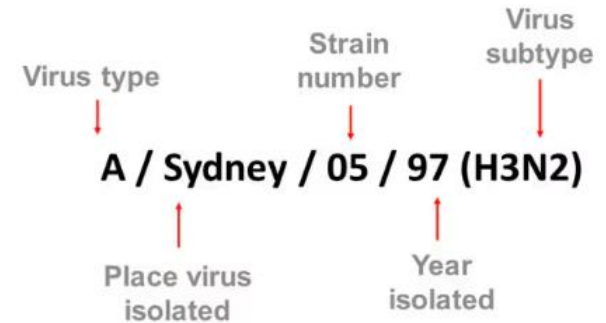
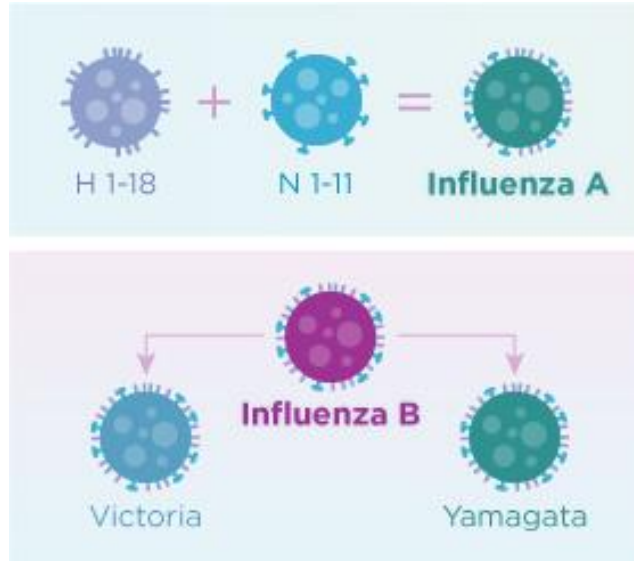
FOR EVERY QUEENSLANDER

AVAILABLE NOW



Influenza virus

- Four types of influenza virus: A, B, C and D
- Seasonal epidemics: **A** (pandemics) and **B**



2024 influenza vaccine recommendations

- Australian Technical Advisory Group on Immunisation (ATAGI)
 - **Recommended** for all people aged 6 months and over
- QLD in 2024
 - Also **funded** for all people aged 6 months and over

Table 1. Seasonal influenza vaccines registered and available for use in Australia in 2024, by age

Vaccine	Vaxigrip Tetra 0.5 mL (Sanofi)	Fluarix Tetra 0.5 mL (GSK)	Flucelvax Quad 0.5 mL (Seqirus)	Afluria Quad 0.5 mL (Seqirus)	FluQuadri 0.5 mL (Sanofi)	Influvac Tetra 0.5 mL (Viatris)	Fluad Quad 0.5 mL (Seqirus)	Fluzone High-Dose Quad 0.7 mL (Sanofi)
Registered age group								
6 months to <5 years	✓	✓	✓	X	✓	✓	X	X
≥5 to <60 years	✓*	✓*	✓*	✓	✓	✓	X	X
≥60 to <65 years	✓*	✓*	✓*	✓	✓	✓	X	✓
≥65 years	✓	✓	✓	✓	✓	✓	✓	✓

Ticks indicate the age at which a vaccine is registered and available. Crosses indicate that the vaccine is not available for that age group. White boxes indicate availability for free under the NIP.

* NIP funding only for Aboriginal and Torres Strait Islander people, pregnant women and people who have certain medical conditions.

2024 circulating influenza strains vs vaccine

Influenza strains included in the 2024 Southern Hemisphere seasonal influenza vaccines

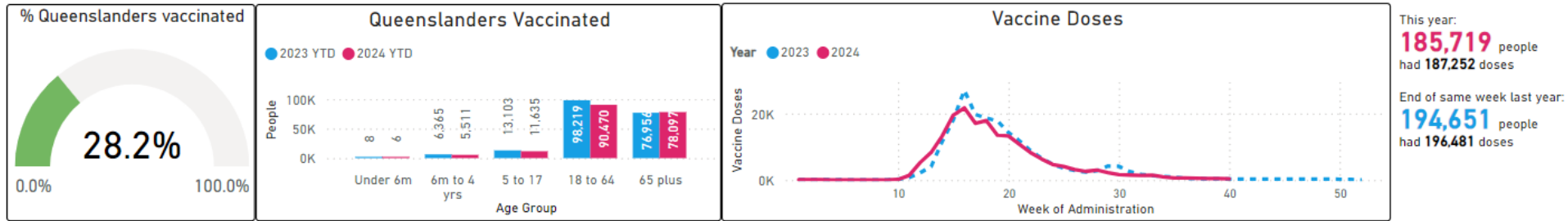
Egg-based influenza vaccines	Cell-based influenza vaccines
A/Victoria/4897/2022 (H1N1)pdm09-like virus	A/Wisconsin/67/2022 (H1N1)pdm09-like virus
A/Thailand/8/2022 (H3N2)-like virus	A/Massachusetts/18/2022 (H3N2)-like virus
B/Austria/1359417/2021 (B/Victoria lineage)-like virus	B/Austria/1359417/2021 (B/Victoria lineage)-like virus
B/Phuket/3073/2013 (B/Yamagata lineage)-like virus	B/Phuket/3073/2013 (B/Yamagata lineage)-like virus

Summary of QLD influenza virus positive samples with sequenced HA gene from 04/07/2024 to 17/08/2024

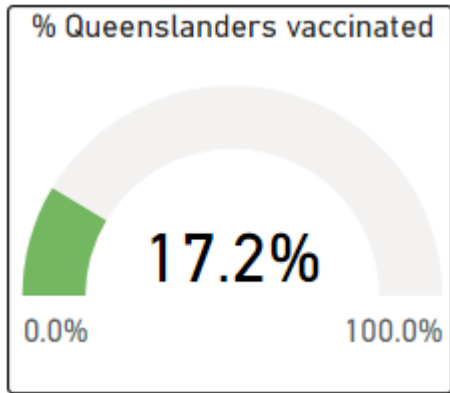
Influenza virus type	Influenza virus subtype	Count year to date	% year to date
Type A	H1N1	112	36%
Type A	H3N2	176	57%
Type B	-	19	6%
Total		307	

2024 GC influenza immunisation coverage

All ages



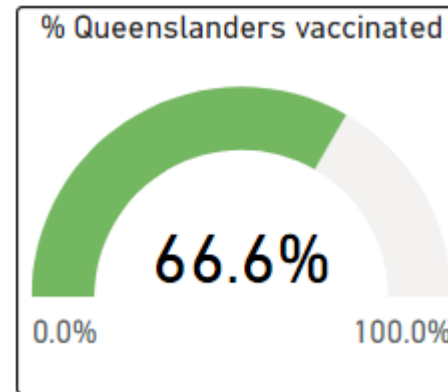
Under 5 years



This year:
5,517 people
had **6,547** doses

End of same week last year:
6,373 people
had **7,669** doses

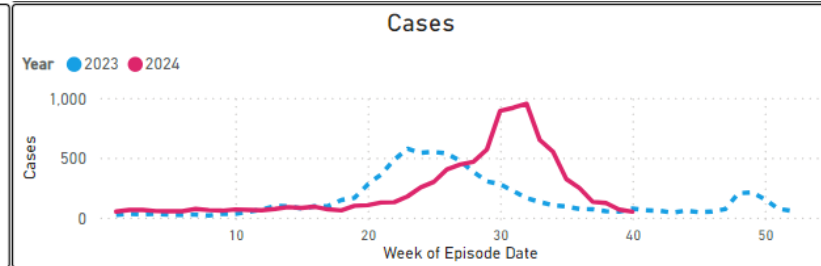
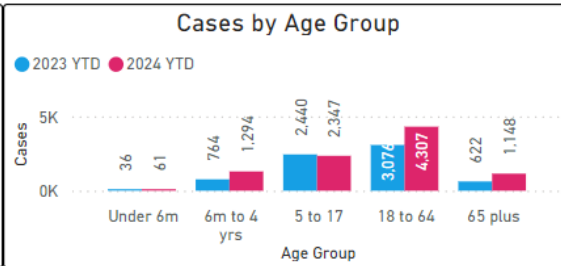
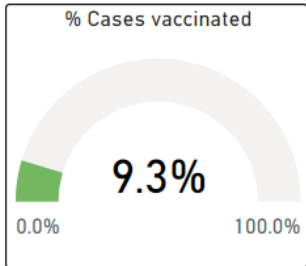
65 years and over



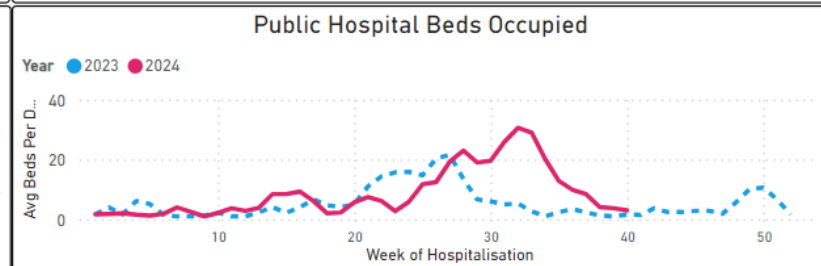
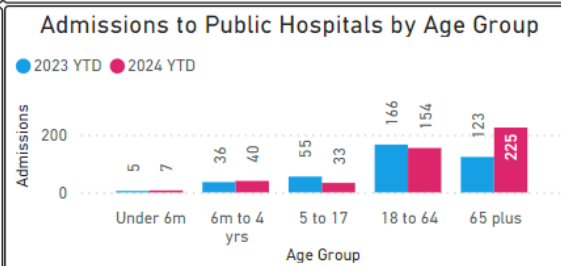
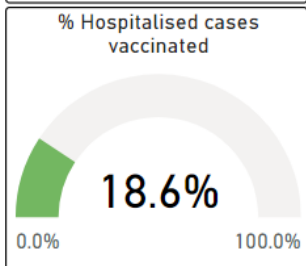
This year:
78,097 people
had **78,342** doses

End of same week last year:
76,956 people
had **77,217** doses

2024 GC influenza notifications – all ages



This year: **9,157** cases
 End of same week last year: **6,938** cases

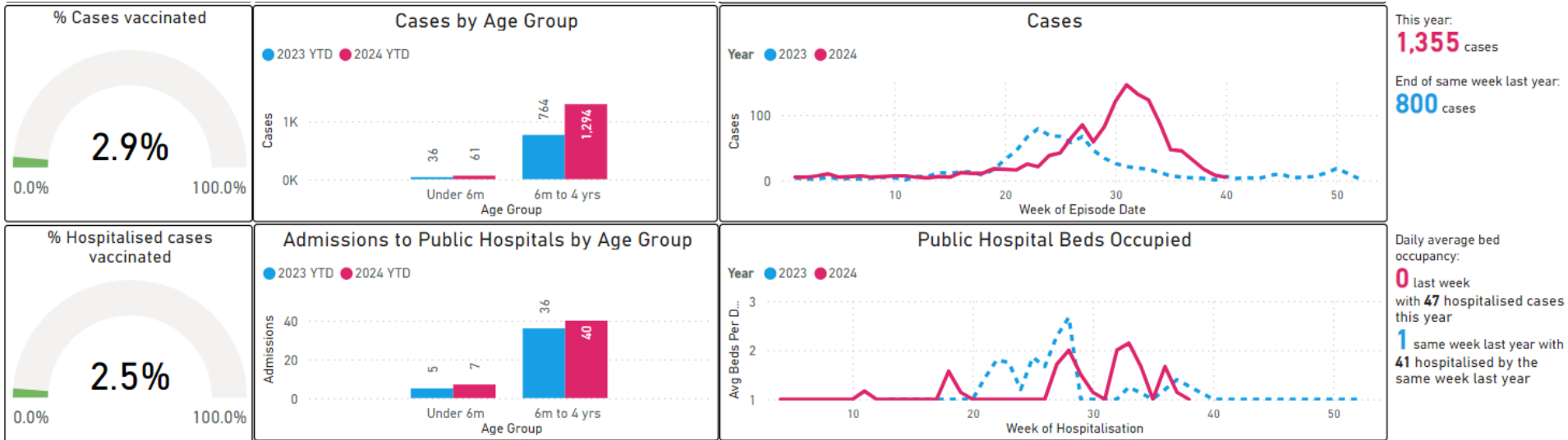


Daily average bed occupancy:
3 last week with **459** hospitalised cases this year
2 same week last year with **385** hospitalised by the same week last year

* 2024 data up to week 40

Source: Public Health Intelligence Branch. Acute Respiratory Infections Executive Summary dashboard. Queensland Health, 2024 [accessed 9 Oct 2024]

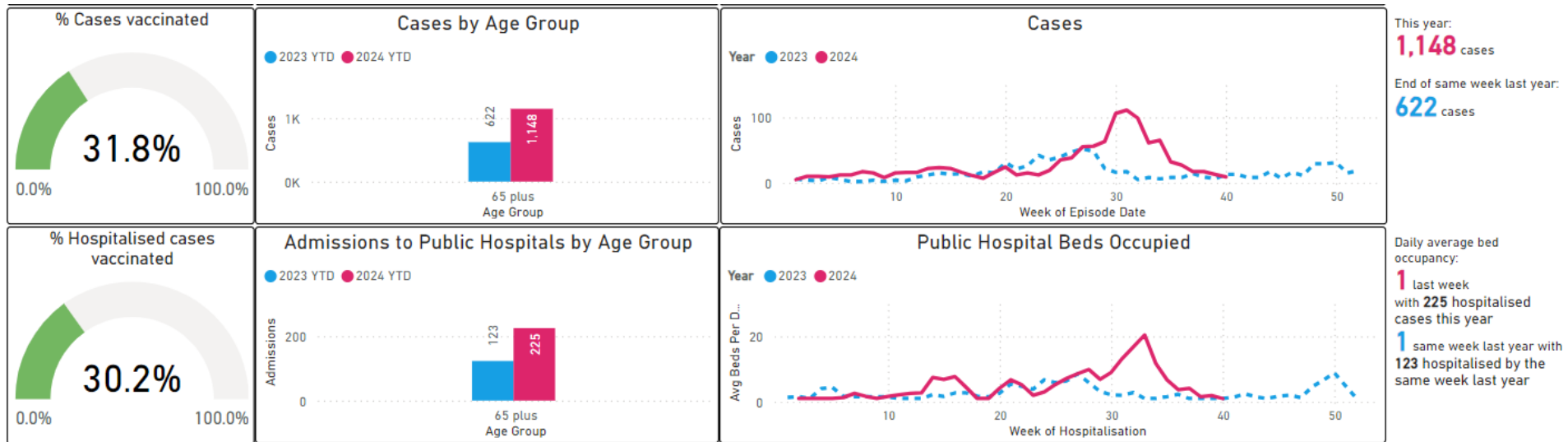
2024 GC influenza notifications – under 5



* 2024 data up to week 40

Source: Public Health Intelligence Branch. Acute Respiratory Infections Executive Summary dashboard. Queensland Health, 2024 [accessed 9 Oct 2024]

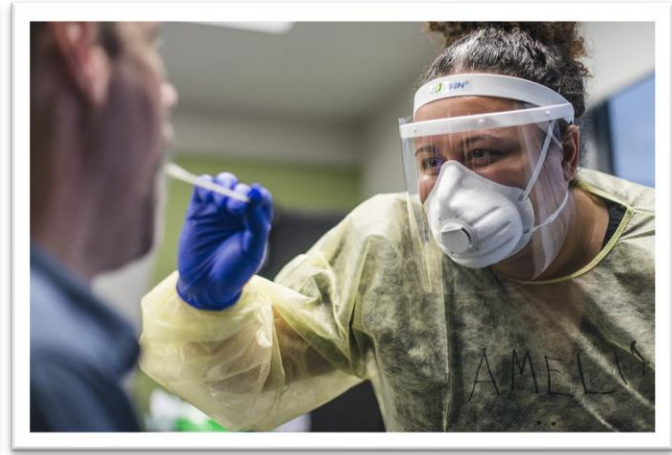
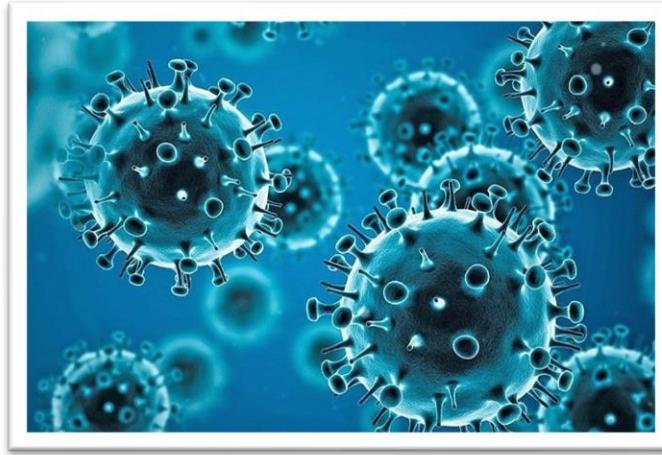
2024 GC influenza notifications – 65 years +



* 2024 data up to week 40

Source: Public Health Intelligence Branch. Acute Respiratory Infections Executive Summary dashboard. Queensland Health, 2024 [accessed 9 Oct 2024]

COVID-19



COVID-19

- Caused by SARS-CoV-2 (virus)
- Wide range of symptoms and severity with millions of cases and deaths globally since pandemic declared on 12 March 2020
- SARS-CoV-2 evolved over time, emerging variants with differing symptoms, severity and transmission characteristics
- Current dominant lineage: KP.3.1.1 (41% QLD) > XEC (23%) > KP.3 (14%)

SARS-CoV-2 Whole Genome Sequencing

Results

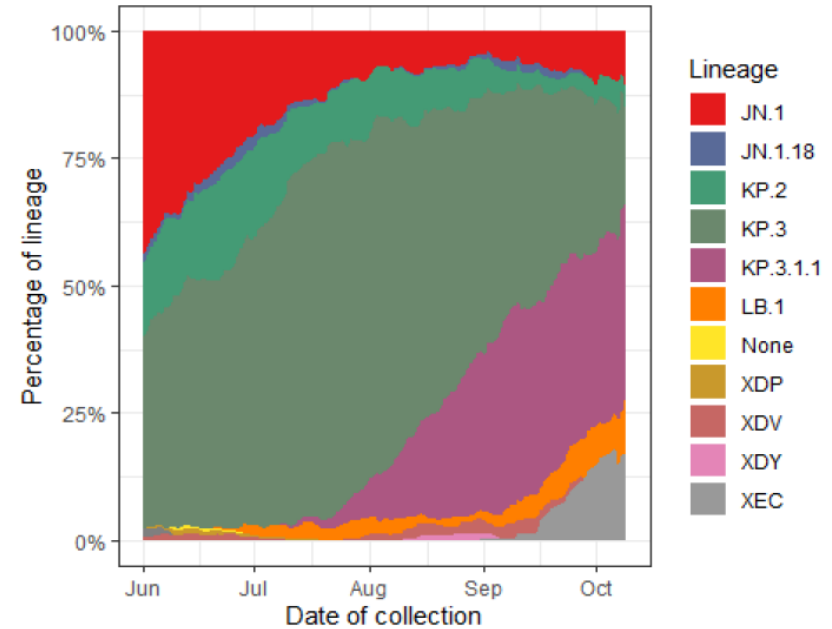
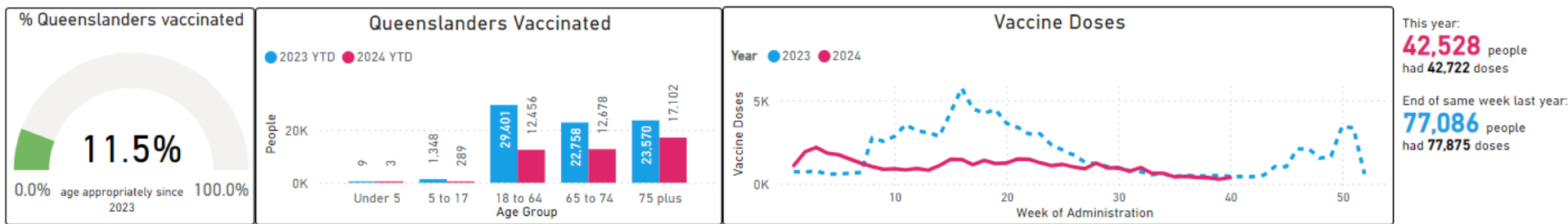


Figure 1: Proportion of Omicron lineages recently sequenced in Queensland for the reporting period [2024-06-01,2024-10-09].

Recent data to be interpreted with caution due to sequencing lag.

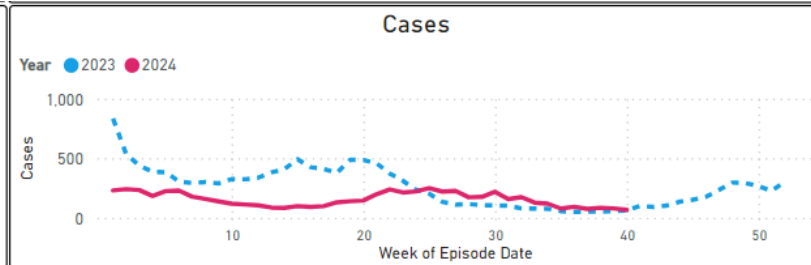
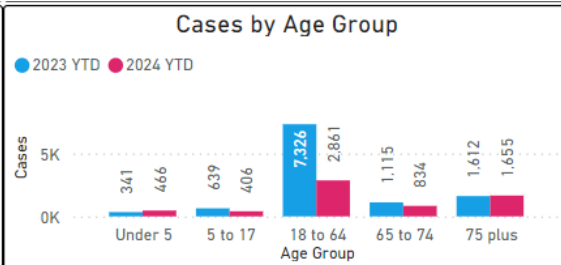
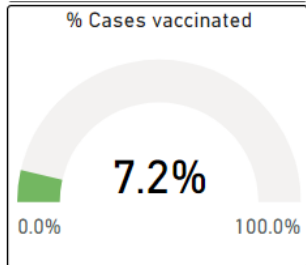
2024 GC COVID-19 immunisation coverage – all ages



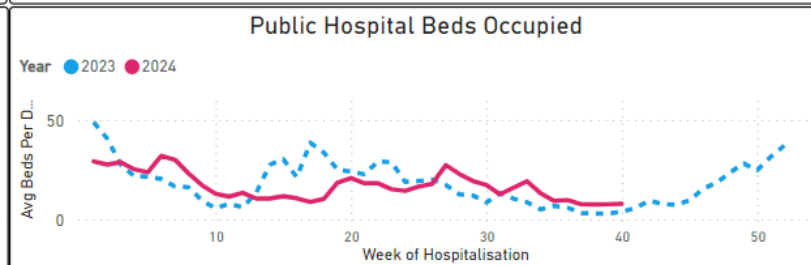
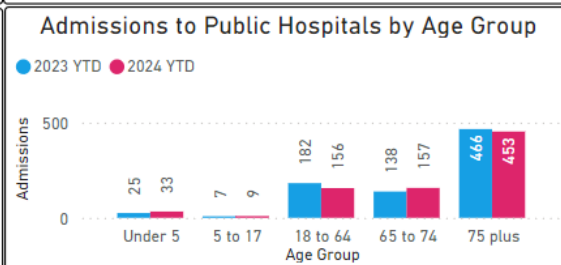
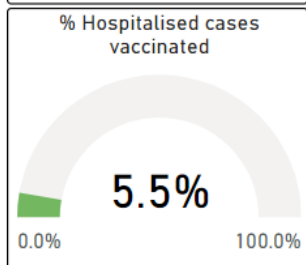
* 2024 data up to week 40

Source: Public Health Intelligence Branch. Acute Respiratory Infections Executive Summary dashboard. Queensland Health, 2024 [accessed 9 Oct 2024]

2024 GC COVID-19 notifications – all ages



This year: **6,222** cases
 End of same week last year: **11,033** cases



Daily average bed occupancy:
8 last week with **808** hospitalised cases this year
4 same week last year with **818** hospitalised by the same week last year

* 2024 data up to week 40

Source: Public Health Intelligence Branch. Acute Respiratory Infections Executive Summary dashboard. Queensland Health, 2024 [accessed 9 Oct 2024]

Pertussis

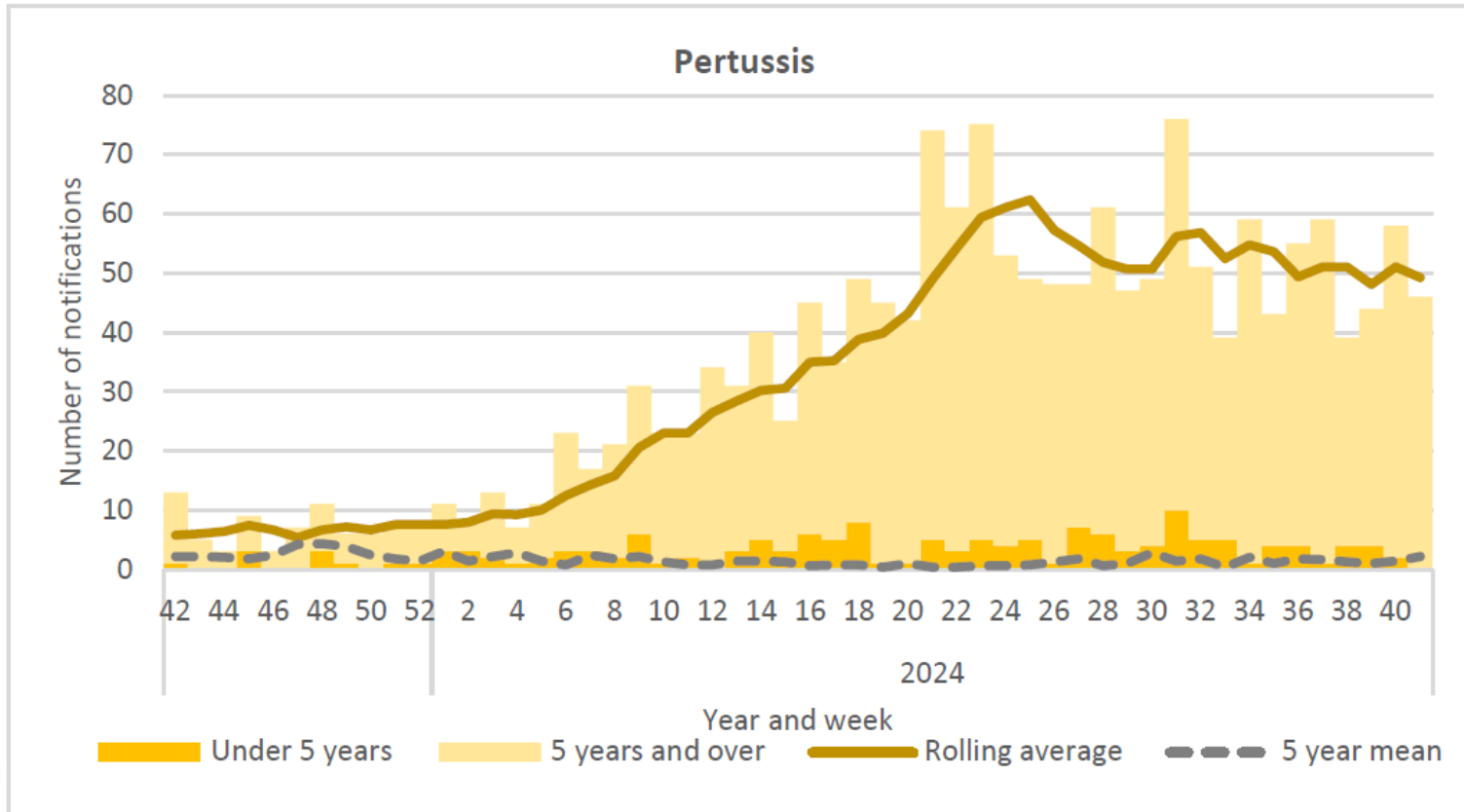


Pertussis (whooping cough)

- Caused by bacterium *Bordetella pertussis*
- Affects any age, highest risk of severe disease in babies and young children
- Most hospitalisations and deaths in **babies <6 months**
- **Epidemics** occur every 3 – 4 years in Australia
- **Prevention:** Vaccination esp. to protect babies < 6 months (incl. antenatal vaccination)



2024 GC pertussis notifications



Pertussis vaccination

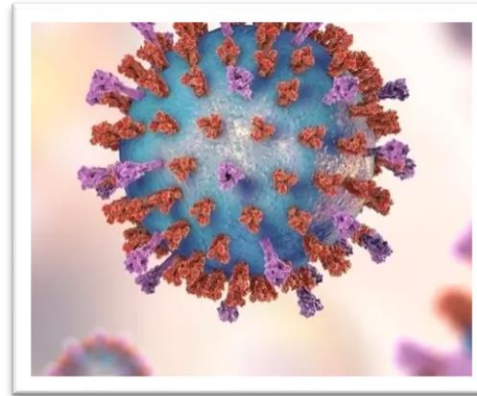
- Funded via the NIP:
 - Infants aged **2 months, 4 months, 6 months**
 - Children at **18 months**
 - Children at **4 years**
 - **Year 7** booster dose (School Immunisation Program)
 - Each **pregnancy** at 20 to 32 weeks
- Booster dose recommended (not funded) for any adult without a pertussis booster in last 10 years, especially people living with or caring for babies under six months

Practice points

- School aged child needs tetanus booster → give **dTpa** (Boostrix) rather than dT (ADT booster)
- **Reminder:** 15 – 19 year olds due for adolescent vaccines won't flag on AIR as overdue, but they are still due!



Respiratory Syncytial Virus (RSV)




Respiratory Syncytial Virus (RSV)

- Common cause of respiratory illness
- Affects all ages but children < 3 years, older adults with cardiac, respiratory or immune problems at risk of serious illness
- Babies < 6 months at risk of bronchiolitis or pneumonia
- One of most common causes of hospitalisation in infants and young children
- Outbreaks occur in childcare and residential care









NSW Health

RSV



Respiratory syncytial virus (RSV) is a virus that causes respiratory infections. RSV symptoms are usually mild and in most cases you can safely look after your child at home.

Symptoms of RSV:



 Runny nose	 Cough	 Sneezing	 Fever
 Wheezing	 Shortness of breath	 Irritability	 Poor feeding

If you are concerned:

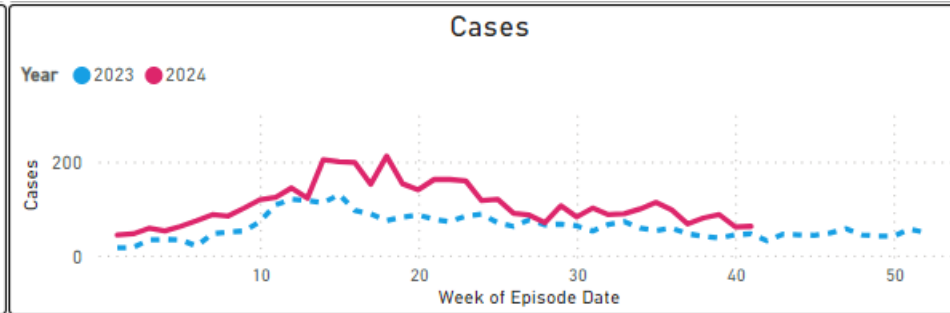
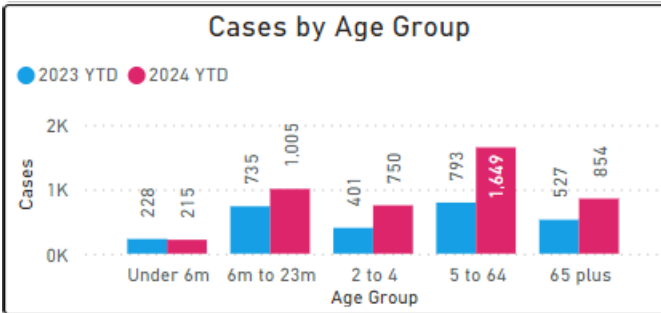
- contact your doctor
- call Healthdirect on 1800 022 222 for free 24 hour health advice
- speak to your local pharmacist.

If your child's symptoms are severe, visit your local Emergency Department or call Triple Zero (000) immediately.

Scan the QR code for more information:

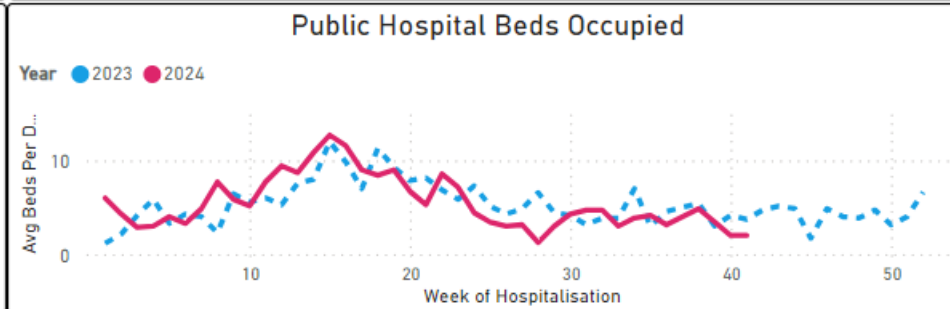
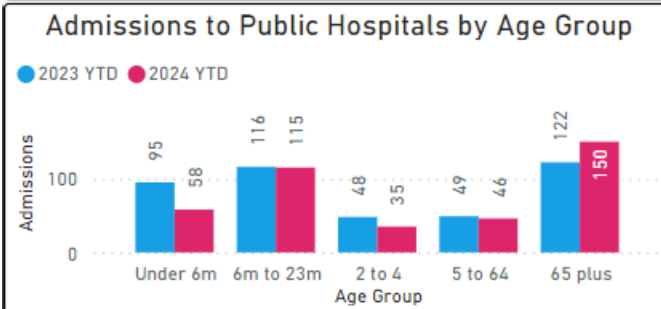


2024 GC RSV notifications



This year:
4,473 cases

End of same week last year:
2,684 cases



Daily average bed occupancy:
2 last week with **404** hospitalised cases this year

4 same week last year with **430** hospitalised by the same week last year

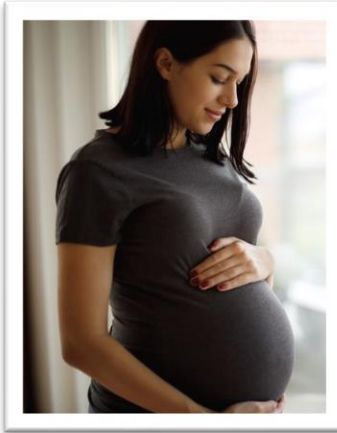
* 2024 data up to week 40

Source: Public Health Intelligence Branch. Acute Respiratory Infections Executive Summary dashboard. Queensland Health, 2024 [accessed 9 Oct 2024]

QLD Paediatric RSV Prevention Program

- **Nirsevimab** (Beyfortus[®]): long-acting monoclonal antibody
- Protects infants and young children against RSV for at least 5 months
- Up to 80% effective in decreasing infant RSV hospitalisations
- **Eligibility:** Infants born on or after 1 Feb 2024, First Nations infants < 8 months and infants with certain complex medical conditions from birth to <8 months
- Young children 8 months to <20 months with certain complex medical conditions eligible until 31 Oct 2024

Future seasons: Horizon scanning



What's on the horizon for RSV vaccines – infants

- **Nirsevimab** (Beyfortus, Sanofi-Aventis, long-acting mAb):
Newborns/infants and children up to 24 months with risk conditions
 - TGA approved 2023, not recommended for NIP funding by PBAC
 - State and territory funded programs (ACT, NSW, NT, QLD, Tas, WA)
- **Abrysvo** (Pfizer, protein subunit vaccine): infants from birth to 6 months of age through active immunisation of pregnant women (28 – 36 weeks gestation)
 - TGA approved Mar 2024, not on NIP (PBAC recommended, dependent on price reduction for current indication) – **watch this space!**
 - Private market supply

What's on the horizon for RSV vaccines ≥ 60 years

- **Abrysvo** (Pfizer; protein subunit vaccine): Recommended in all adults ≥ 75 years, with risk conditions and First Nations ≥ 60 years
 - TGA approved Mar 2024
 - PBAC assessment (?NIP) in Nov 2024 – *watch this space!*
 - Private market supply available
- **Arexvy** (GSK, protein subunit vaccine with adjuvant): Recommended in all adults ≥ 75 years, with risk conditions and First Nations ≥ 60 years
 - TGA approved Mar 2024
 - Not recommended for NIP funding by PBAC
 - Private market supply available
- **mRESVIA** (Moderna RSV mRNA-1345 vaccine): Submitted to TGA for adults ≥ 60 years – *watch this space!*

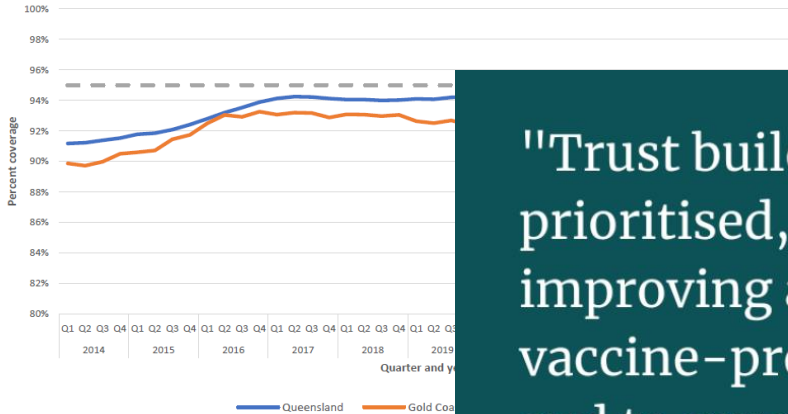
Combined COVID and flu vaccines

- Under development and being trialled
- Clinical trial at the Mater in Brisbane: protein-based combined influenza and COVID-19 vaccine

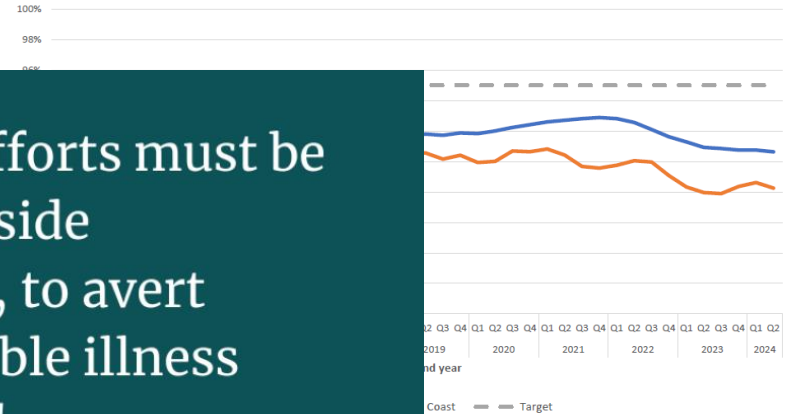


Immunisation post COVID-19 pandemic

Moving average vaccination coverage for 1 year olds



Moving average vaccination coverage for 2 year olds

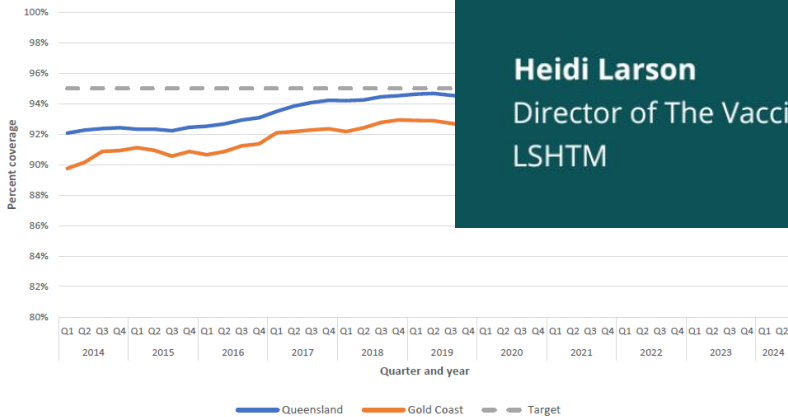


"Trust building efforts must be prioritised, alongside improving access, to avert vaccine-preventable illness and to save lives."

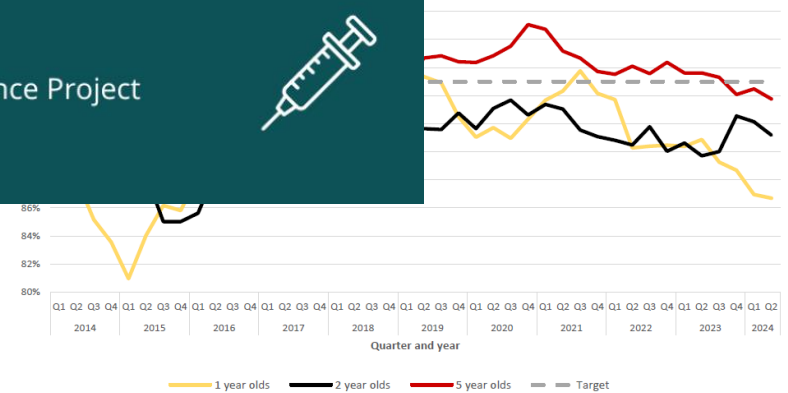
Heidi Larson
 Director of The Vaccine Confidence Project
 LSHTM



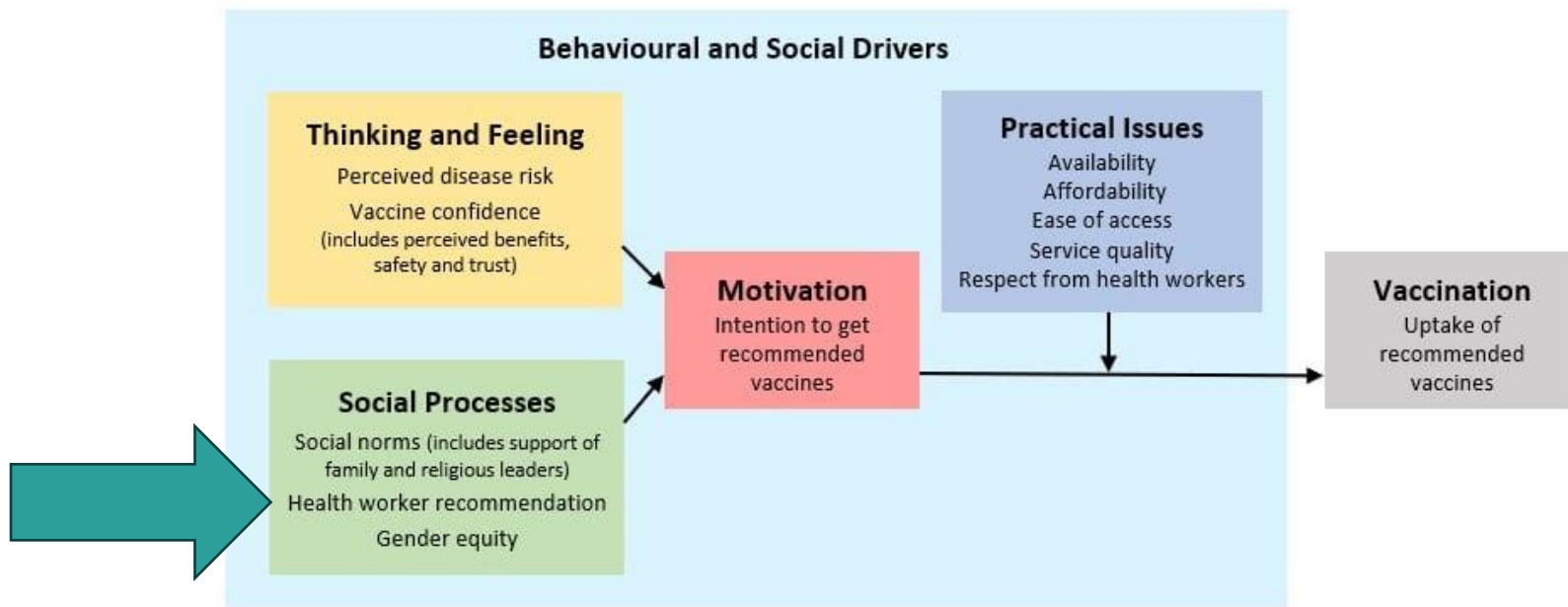
Moving average vaccination coverage for 5 year olds



Moving average vaccination coverage for original and Torres Strait Islander children in Queensland HHS



What can you do?



Take home points

- Immunisation protects our most vulnerable against severe disease and hospitalisations for COVID-19, influenza, RSV and pertussis
- Declining immunisation uptake: recommendations by a HCW are highly influential
- Adolescents: Tetanus booster → give **dTpa** (Boostrix) rather than dT (ADT booster)
- 15–19 year olds due for school aged vaccines (despite AIR showing up to date)
- Immunisation = ever changing landscape!



Thank you

