

Health indicators 2025

Snapshot series II: Childhood vaccination

Metro South HHS, to quarter 4, 2024

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Childhood vaccination at a glance

All Children fully vaccinated rates: quarter 4, 2024

- 12 months age cohort – 92.3%
- 24 month age cohort – 90.7%
- 60 month age cohort – 93.2%

Indigenous Children fully vaccinated rates: quarter 4, 2024

- 12 months age cohort – 90.1%
- 24 month age cohort – 88.0%
- 60 month age cohort – 91.7%

All children rate trends

12 month age cohort

- Trend ↓ downward since quarter 3, 2020
- Quarterly moving average currently at lowest point since quarter 4, 2015

24 month age cohort

- Trend ↓ downward since quarter 4, 2021
- Quarterly moving average currently at lowest point since quarter 4, 2015

60 month age cohort

- Rate decreased during late 2021 and 2022 but stable since quarter 4, 2022
- Quarterly moving average stable at a level similar to quarter 1, 2017.

Indigenous children rate trends

12 month age cohort

- Trend generally ↓ downward since quarter 3, 2020
- Quarterly moving average relatively stable in 2024 at level similar to quarter 3, 2017

24 month age cohort

- Trend generally ↓ downwards since quarter 3, 2021
- Quarterly moving average relatively stable in 2024 at a level similar to quarter 4, 2018.

60 month age cohort

- Trend generally ↓ downward since quarter 1, 2021
- Quarterly moving average currently at lowest point since quarter 1, 2016

Local variation in rates (All children)

- Proportion of SA2s reaching the 95% target rate in 12 and 24 month cohorts has declined
- Lowest rates in 12 month cohort in Southern Moreton Bay Islands, Kingston, Robertson and Daisy Hill SA2s (all <85%)
- Lowest rates in 24 month cohort in Kingston, Munruben – Park Ridge South, Eagleby, South Brisbane, Kangaroo Point and Southern Moreton Bay Islands SA2s (all <82%)
- Lowest rates in 60 month cohort in Woolloongabba, Southern Moreton Bay Islands and North Stradbroke Island SA2s (all <80%)

Local variation in numbers of under-vaccinated children (All children)

- High vaccination rates do not necessarily translate into low numbers of under-vaccinated children
- Highest numbers of under-vaccinated children in 12 and 24 month cohorts in Boronia Heights – Park Ridge and Kingston SA2s
- Highest numbers of under-vaccinated children in 60 month cohort in Marsden, Inala – Richlands and Eagleby SA2s

Areas of greatest potential gains

- Greatest potential gains are in areas with the highest numbers of under-vaccinated children.
- These are likely to be in the suburbs of:
 - North-eastern and central Logan LGA
 - Central south Brisbane bordering Logan LGA

Factors influencing decreases in childhood vaccination

- Decreases primarily since start of COVID-19 pandemic
- Complex pattern of causes including:
 - Increased vaccine hesitancy
 - Increased vaccine fatigue
 - Decreased vaccine confidence
 - Decreased access to bulk-billing

Health indicators 2025 snapshot series II: Childhood vaccination

Introduction

The Metro South Health (MSH) *Health indicators report series* is a compendium report compiled on an approximately biennial basis that covers a wide range of health indicators and population statistics for the residents of the MSH area. The report is produced as a series of snapshot reports each covering specific indicators/topic areas. The aims of the report series are to examine the current and multi-year trends in various aspects of the health status of people living in the geographical area covered by MSH.

MSH is one of 16 Hospital and Health Services (HHS) in Queensland and serves an estimated population of over 1.2 million people, representing 23 per cent of Queensland's population. The HHS's catchment spans 3,856 square kilometres and covers the area from the Brisbane River in the north to Redland City in the east, south to Logan City and the eastern portion of the Scenic Rim to the border of New South Wales. A detailed profile of the population of MSH can be found in the Snapshot Series Report I¹.

This sub-report provides an overview of childhood vaccination rates and trends in MSH as at quarter 4, 2024.

Background

Vaccination is a simple and effective way of protecting children from serious diseases. Vaccines work by triggering the immune system to fight against certain diseases. If a vaccinated person comes in contact with these diseases, their immune system is able to respond more effectively, preventing the disease from developing or greatly reducing its severity and possible complications².

The Queensland Childhood Vaccination Program is part of the broader National Immunisation Program (NIP) in Australia. It provides free vaccines to eligible infants, children and adolescents to prevent a range of serious diseases including diphtheria, tetanus, pertussis (whooping cough), measles, mumps, rubella, rotavirus, hepatitis B, respiratory syncytial virus (RSV), pneumococcal disease, meningococcal disease, polio, varicella (chicken pox) and *Haemophilus influenzae* type B³.

Using data from the Australian Immunisation Register and nationally implemented definitions, the vaccination status of children in three birth cohorts (12 to <15 months, 24 to <27 months, 60 to <63 months) is assessed quarterly. Children are assessed as being "fully vaccinated" or "not fully vaccinated" according to the criteria in Table 1.

Table 1: Definitions used nationally to determine whether a child is classified as fully vaccinated

Age cohort	Vaccine	Vaccine doses required to meet criteria for "fully vaccinated"
12-<15 Months		
	DTP	= Diphtheria dose 3 + Tetanus dose 3 + Pertussis dose 3
	Polio	= Polio dose 3
	HIB	= Haemophilus type B (Pathway B) dose 2 or Haemophilus type B (Pathway A) dose 3
	Hep B	= Hepatitis dose 3
	MMR	= Not assessed
	Pneumo	= Pneumococcal dose 2 or 3
<i>Only those immunisation services a child has received up to 12 months of age are included.</i>		
24-<27 Months		
	DTP	= Diphtheria dose 4 + Tetanus dose 4 + Pertussis dose 4
	Polio	= Polio dose 3
	HIB	= Haemophilus type B (Pathway B) dose 3 or Haemophilus type B (Pathway B) dose 4 or Haemophilus type B (Pathway A) dose 4 or Haemophilus type B (Pathway A) dose 3 given greater than 15 months of age
	Hep B	= Hepatitis B dose 3
	MMR	= Measles dose 2 + Mumps dose 2 + Rubella dose 2
	Men C	= Meningococcal C dose 1
	Varicella	= Varicella dose 1
	Pneumo	= Pneumococcal dose 3 or 4
<i>Only those immunisation services a child has received up to 24 months of age are included.</i>		
60-<63 Months		
	DTP	= Diphtheria dose 5 + Tetanus dose 5 + Pertussis dose 5 or Diphtheria dose 4 + Tetanus dose 4 + Pertussis dose 4 if given after 3.5 years of age
	Polio	= Polio dose 4
	HIB	= Not Assessed
	Hep B	= Not Assessed
	MMR	= Not Assessed
<i>Only those immunisation services a child has received up to 60 months of age are included.</i>		

Rates: most recent quarter

Summary of rate changes: quarter 3 to quarter 4, 2024

All children

12 month cohort:	MSH quarterly rate <u>increased</u> by 0.7 percentage points to 92.3% Qld quarterly rate increased by 0.2 percentage points MSH quarterly moving average <u>(QMA) decreased</u> to 92.5%
24 month cohort:	MSH quarterly rate <u>increased</u> by 0.5 percentage points to 90.7% Qld quarterly rate increased by 0.7 percentage points MSH <u>QMA rate decreased marginally</u> to 90.7%
60 month cohort:	MSH quarterly rate <u>increased</u> by 0.5 percentage points to 93.2% Qld quarterly rate increased by 0.2 percentage points MSH <u>QMA rate decreased marginally</u> to 93.1%

Indigenous children

12 month cohort:	MSH quarterly rate <u>increased</u> by 2.8 percentage points to 90.1% Qld quarterly rate increased by 0.4 percentage points MSH <u>QMA rate remained stable</u> at 89.4%
24 month cohort:	MSH quarterly rate <u>decreased</u> by 1.8 percentage points to 88.0% Qld quarterly rate increased by 2.3 percentage points MSH <u>QMA rate decreased marginally</u> to 88.0%
60 month cohort:	MSH quarterly rate <u>increased</u> by 0.4 percentage points to 91.7% Qld quarterly rate decreased by 0.4 percentage points MSH <u>QMA rate decreased</u> to 93.0%

Quarterly child vaccination rates are presented for three age cohorts: 12, 24 and 60 month and separately for Indigenous and All children (Table 2).

Number needed to vaccinate (NNV)

The metric 'number needed to vaccinate' (NNV) is defined as the number of children in a particular age group cohort who would need to be vaccinated in order to achieve a particular vaccination rate in that cohort.

For example, NNV95 for Metro South Health (MSH) one-year olds is the number of additional one year old children in MSH per quarter who would need to become fully vaccinated in order for the vaccination rate in that cohort to reach 95% (Table 2).

Table 2: NNV95 and NNV100 for All Children and Indigenous Children, MSH and Queensland for each of the three age cohorts, quarter 4, 2024.

Area	Age cohort	Group	Fully vaccinated rate (%)	Number in cohort	NNV95	NNV100
MSH	12-<15 months	All children	92.3	3,575	97	275
Queensland	12-<15 months	All children	90.7	14,572	627	1,355
MSH	24-<27 months	All children	90.7	3,747	161	348
Queensland	24-<27 months	All children	89.5	15,359	845	1,613
MSH	60-<63 months	All children	93.2	3,920	71	267
Queensland	60-<63 months	All children	92.4	15,944	415	1,212
MSH	12-<15 months	Indigenous children	90.1	292	14	29
Queensland	12-<15 months	Indigenous children	89.0	1,645	99	181
MSH	24-<27 months	Indigenous children	88.0	259	18	31
Queensland	24-<27 months	Indigenous children	88.6	1,687	108	192
MSH	60-<63 months	Indigenous children	91.7	217	7	18
Queensland	60-<63 months	Indigenous children	94.2	1,617	13	94

All children

- To reach the 95% fully vaccinated target across all cohorts combined in MSH would have required an additional 328 children to be fully vaccinated out of a combined cohort of 11,242 children. This was a 30% increase from the 252 required in quarter 4, 2023.
- To reach 100% fully vaccinated across all cohorts combined would have required an additional 890 children to be fully vaccinated out of a combined cohort of 11,242 children. This was an 11% increase from the 801 required one year previously.

Indigenous children

- To reach the 95% fully vaccinated target across all Indigenous cohorts combined would have required an additional 40 children to be fully vaccinated out of a combined cohort of 768 children. This was an increase from the 31 required in quarter 4, 2023.
- To reach 100% fully vaccinated across all Indigenous cohorts combined would have required an additional 78 children to be fully vaccinated out of a combined cohort of 768. This was an increase from the 68 required in quarter 4, 2023.

Trends 2014 to 2024

Within each cohort, vaccination rates vary slightly from quarter to quarter owing to differences in the make-up of the cohort each quarter. These minor variations up and downwards do not necessarily indicate any longer-term trends. To adjust for these variations, quarterly moving average (QMA) rates are calculated over the four most recent quarters for each age cohort. These QMAs provide a more accurate picture of the underlying rate in each cohort. Both raw quarterly rates and QMAs are presented in this section.

All children, 12-<15 month cohort

The fully vaccinated rate of children in the 12 month cohort showed a strong upward trend from the start of 2014 to the end of 2017. Through 2018 and 2019 the rate remained relatively stable but it trended downwards following a peak of 95.3% in quarter 3, 2020. The rate reached or exceeded the 95% target on six occasions between quarter 3, 2017 and quarter 3, 2021 but the target was not sustained for more than three successive quarters (Figure 1).

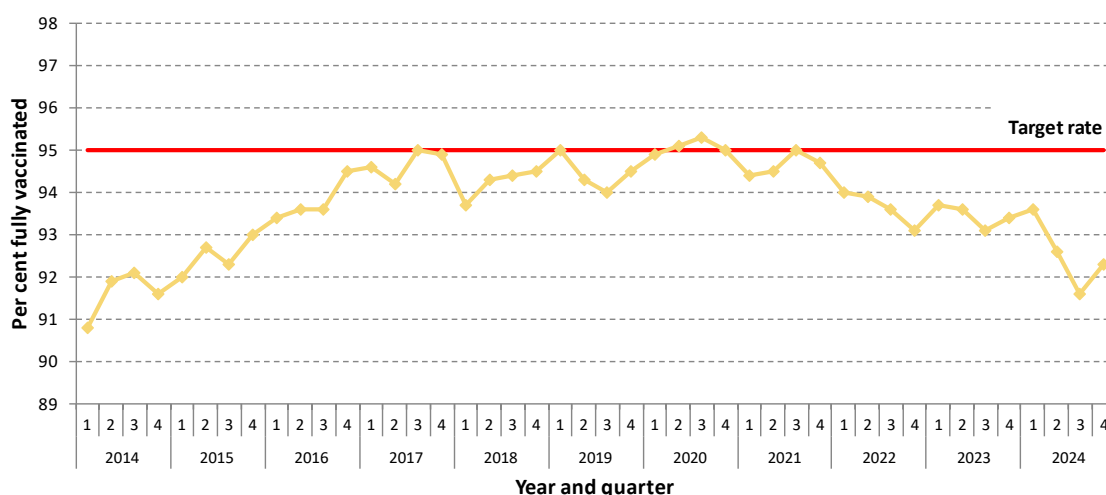


Figure 1. Percentage of All children aged 12 to <15 months (12 month cohort) fully vaccinated, MSH, quarter 1, 2014 to quarter 4, 2024.

The QMA for the 12 month cohort shows that the fully vaccinated rate has steadily declined since quarter 4, 2020 (Figure 2). In quarter 4, 2024 it was at the lowest point recorded since quarter 4, 2015.

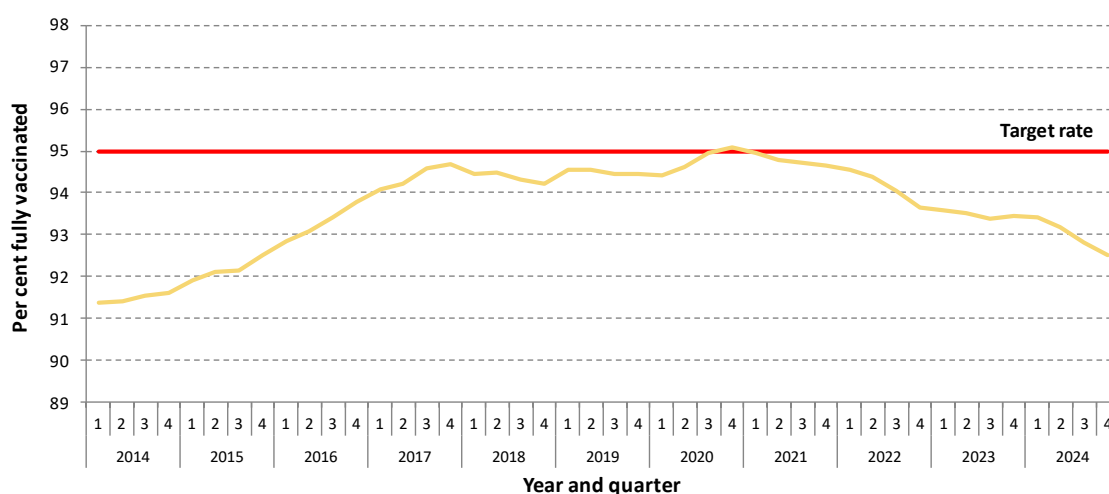


Figure 2. Quarterly moving average of percentage of All children aged 12 to <15 months (12 month cohort) fully vaccinated, MSH, quarter 1, 2014 to quarter 4, 2024.

All children, 24-<27 month cohort

Vaccination rates in the 24 month cohort are consistently substantially lower than in the younger cohort. The rate was highly variable from 2014 to 2018 but generally increased through 2019 to 2021, peaking at 93.9% in quarter 3, 2021. However following that peak, rates moved strongly downwards (Figure 3). In quarter 3, 2024, the rate fell to the lowest level recorded since quarter 2, 2015. This was followed by a slight rebound in quarter 4, 2024 which did not alter the overall downward trend (Figure 3).

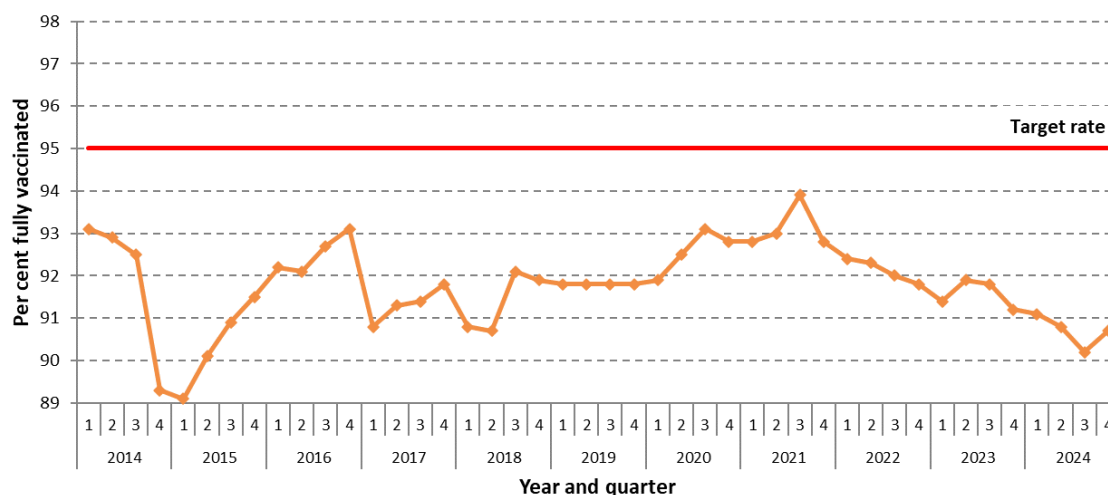


Figure 3. Percentage of All children aged 24 to <27 months (24 month cohort) fully vaccinated, MSH, quarter 1, 2014 to quarter 4, 2024.

The QMA for the 24 month cohort shows the relatively steady increase in rates that occurred between 2018 and 2021, mirrored by the steady decline through 2022 and 2024 (Figure 4). In quarter 4, 2024 it was at the lowest point recorded since quarter 4, 2015.

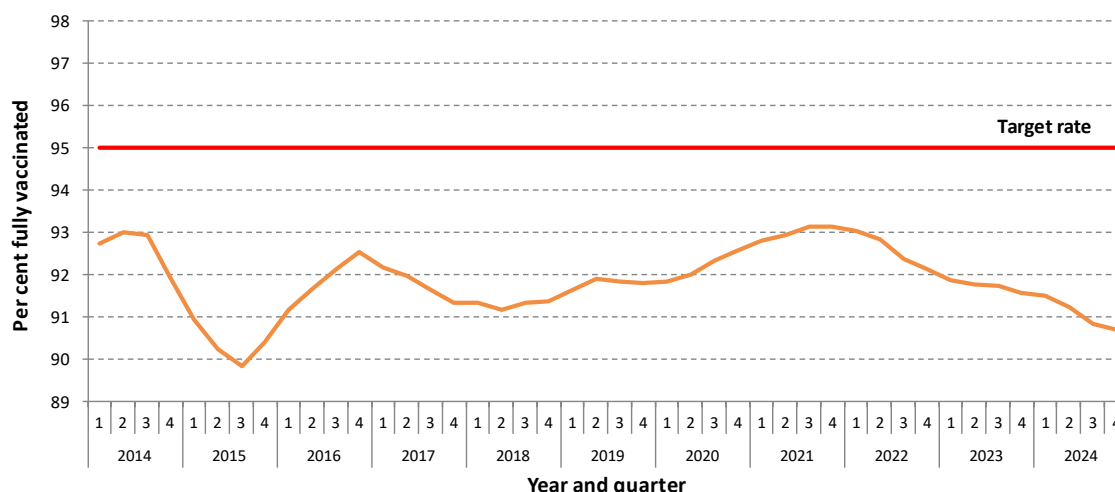


Figure 4. Quarterly moving average of percentage of All children aged 24 to <27 months (24 month cohort) fully vaccinated, MSH, quarter 1, 2014 to quarter 4, 2024.

All children, 60-<63 month cohort

Since 2014, vaccination rates in the 60 month cohort have been almost always slightly lower than in the 12 month cohort but higher than the 24 month cohort. The rate in the 60 months group trended upwards between 2014 and 2018, reaching the 95% target in two quarters in 2018-2019 however this level has not been reached since quarter 2, 2019. Following a period of stability at over 94% from 2019 to 2021, a general decrease occurred with the rate recorded in quarter 3, 2023 (92.2%) the lowest achieved since 2016 (Figure 5).

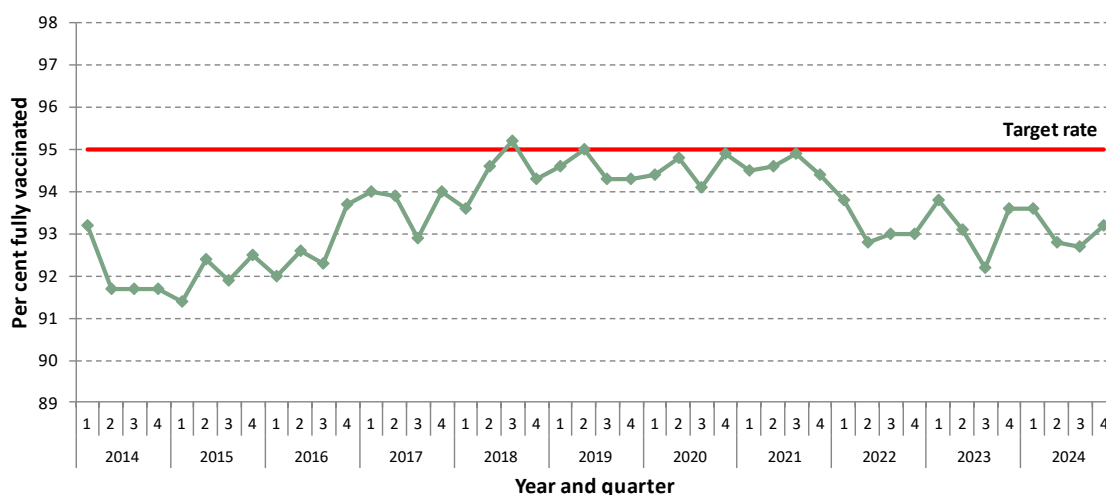


Figure 5. Percentage of All children aged 60 to <63 months (60 month cohort) fully vaccinated, MSH, quarter 1, 2014 to quarter 4, 2024.

The QMA for the 60 month cohort illustrates the steady upward trend in rates between 2015 and 2019. While the rate decreased during late 2021 and 2022, it has maintained at an average of just above 93% since quarter 4, 2022 (Figure 6).

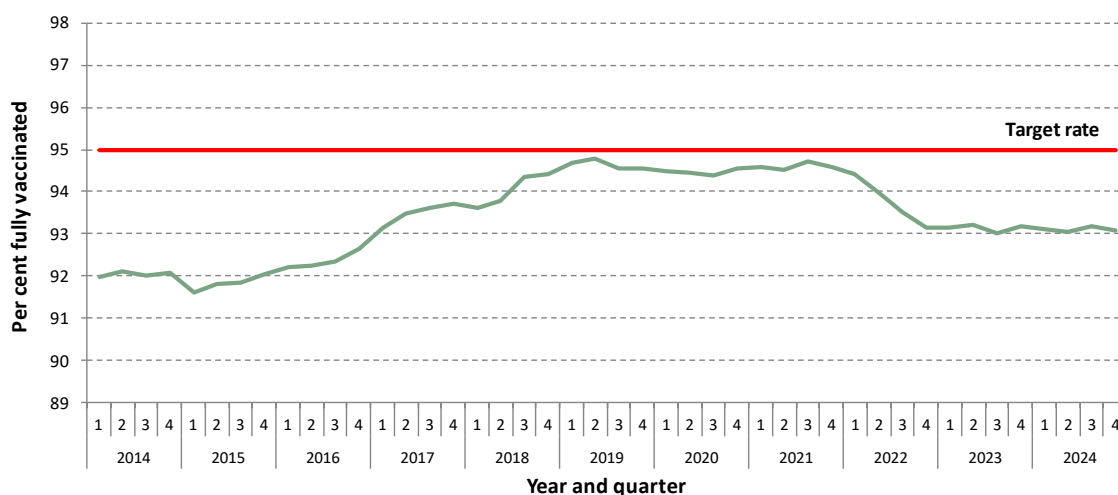


Figure 6. Quarterly moving average of percentage of All children aged 60 to <63 months (60 month cohort) fully vaccinated, MSH, quarter 1, 2014 to quarter 4, 2024.

Indigenous children, 12-<15 month cohort

Between-quarter volatility in vaccination rates in the three Indigenous children cohorts is commonly recorded. This is largely the result of the small and variable cohort sizes in this population. Recently, from 2023 to 2024 each cohort has represented an average of around 230 to 260 children in Metro South. As a result, small between-quarter changes in either reported cohort size and/or reported numbers being vaccinated can cause relatively major changes in reported vaccination rates. Owing to this volatility, overall trends are the most reliable and important information rather than quarter-to-quarter variability.

Vaccination rates in Indigenous children in the 12 month cohort peaked at 96.3% in quarter 2, 2020. However since that time they have trended downwards. The rate in quarter 3, 2024 (87.3%) was the lowest recorded since quarter 2, 2016 (Figure 7).

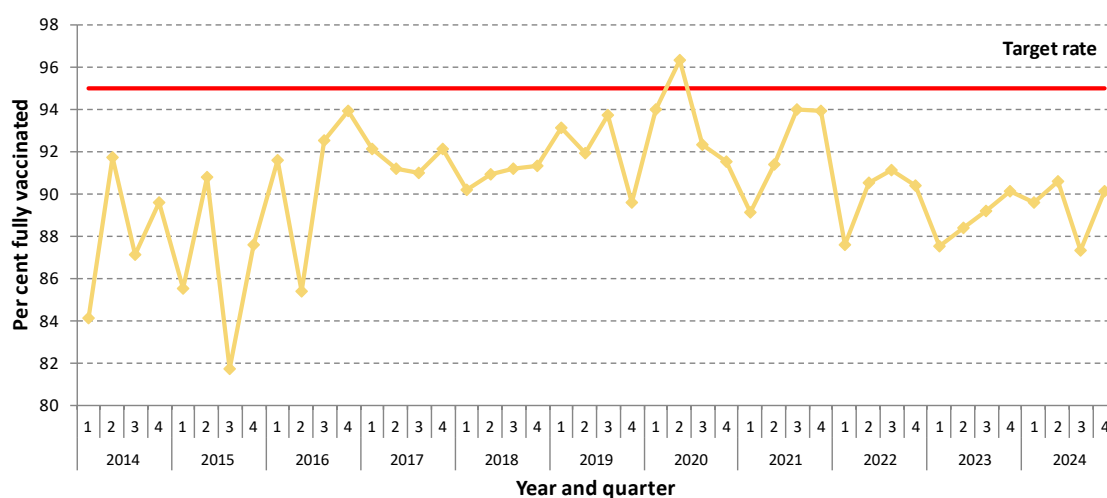


Figure 7. Percentage of Indigenous children aged 12 to <15 months (12 month cohort) fully vaccinated, MSH, quarter 1, 2014 to quarter 4, 2024.

The QMA for the 12 month Indigenous cohort shows the increasing rate trend from 2014 to quarter 4, 2020. From 2021 onwards the rate trended fairly consistently downwards (Figure 8) with a relative steadying occurring in 2024.

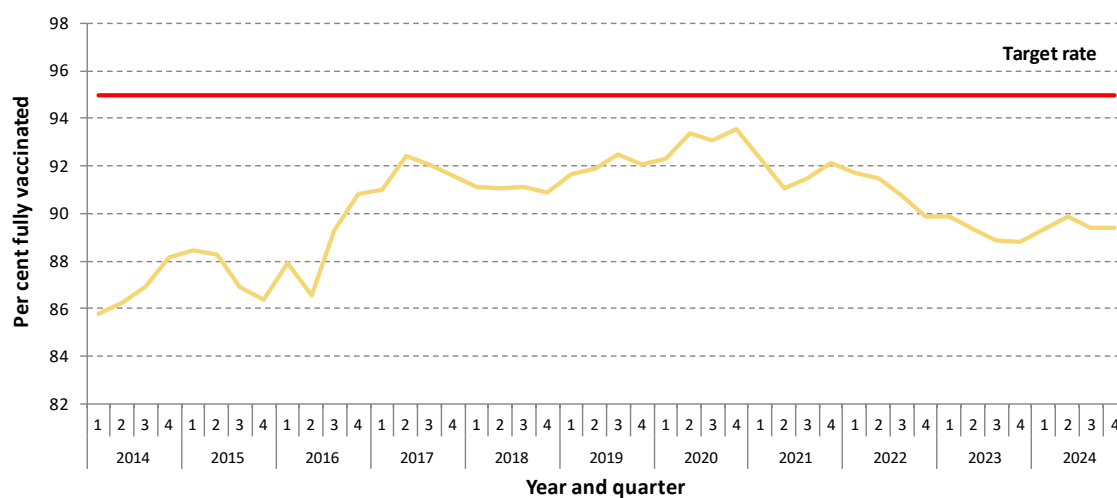


Figure 8. Quarterly moving average of percentage of Indigenous children aged 12 to <15 months (12 month cohort) fully vaccinated, MSH, quarter 1, 2014 to quarter 4, 2024.

Indigenous children, 24-<27 month cohort

Historically, vaccination rates in the Indigenous children 24 month cohort have had higher levels of variability than the 60 month cohort and lower than in the younger cohort. Following a drop in late 2014 caused by a change in the definition of “fully vaccinated”, rates generally increased to a peak of 94.5% in quarter 2, 2021 (Figure 9). This was followed by a fall over two quarters to 84.1%. The quarter 4, 2024 rate of 88.0% was 0.6 percentage points lower than the average rate from quarter 1, 2022 onwards. The extreme variability in the cohort indicates why concerns should generally only be raised either if a rate remains at a particularly low level for two or more successive quarters or when negative trends are established.

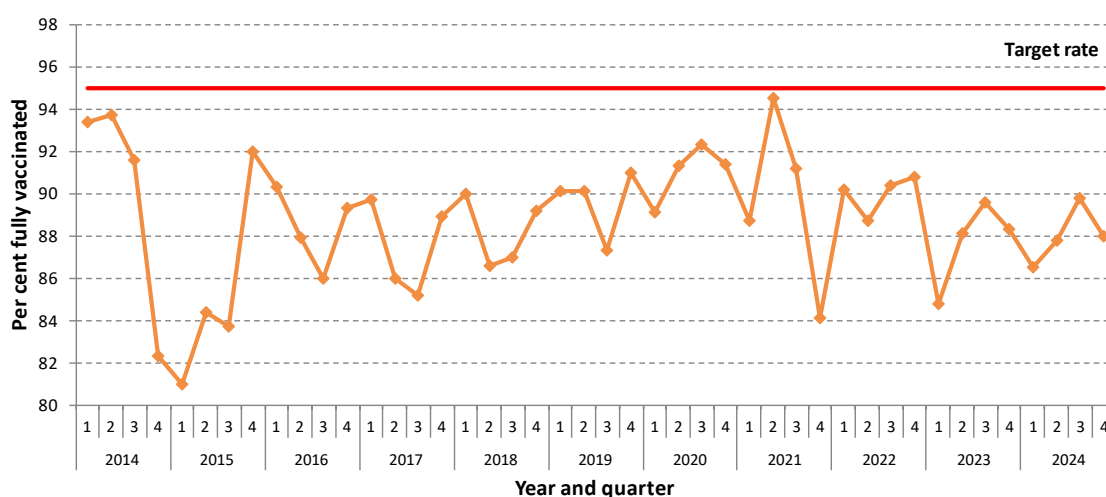


Figure 9. Percentage of Indigenous children aged 24 to <27 months (24 month cohort) fully vaccinated, MSH, quarter 1, 2014 to quarter 4, 2024.

The QMA for the 24 month Indigenous cohort illustrates the gradual increase in rates which occurred from 2018 to 2021. After quarter 3, 2021 the general trend was downward although unusual stability in the QMA was recorded throughout 2024 which was at the same level as recorded in late 2018 to early 2019 (Figure 10).

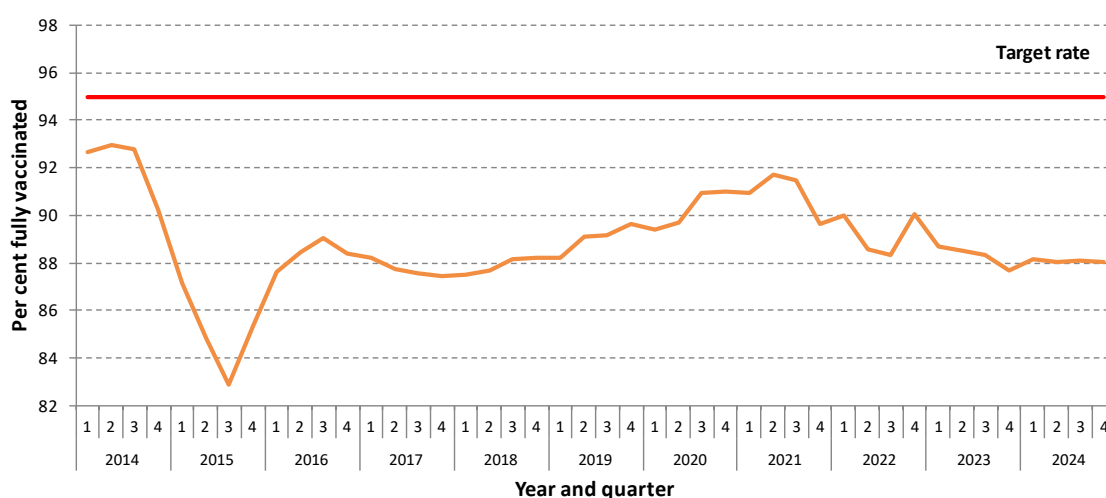


Figure 10. Quarterly moving average of percentage of Indigenous children aged 24 to <27 months (24 month cohort) fully vaccinated, MSH, quarter 1, 2014 to quarter 4, 2024.

Indigenous children, 60-<63 month cohort

Indigenous child vaccination rates in the 60 month cohort were consistently higher and much more stable than those in the 12 and 24 month cohorts. The cohort rate was consistently at or above the 95% target rate from quarter 1, 2017 to quarter 3, 2021 (Figure 11). However, following the peak of 97.8% recorded in quarter 2, 2019, the rate fell below 95% for seven quarters (Figure 11). The rate in quarter 3, 2024 (91.3%) was the lowest recorded since quarter 2, 2015 (90.3%).

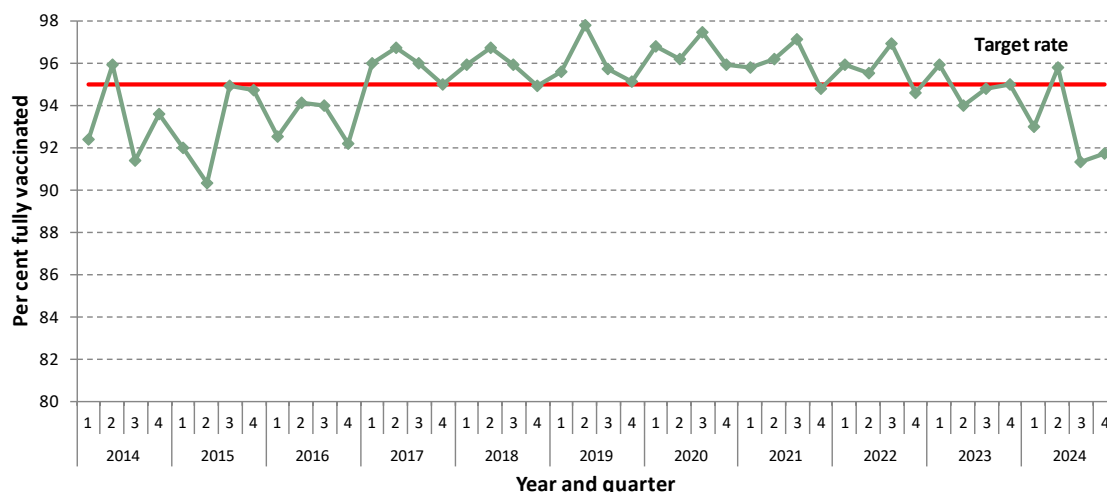


Figure 11. Percentage of Indigenous children aged 60 to <63 months (60 month cohort) fully vaccinated, MSH, quarter 1, 2014 to quarter 4, 2024.

The QMA for the 60 month Indigenous cohort shows the fully vaccinated rate increased from below 92% at the start of 2014, to almost 96% in quarter 4, 2017. After that time, the rate remained around 96% for almost five years. However, following a peak of 96.6% in quarter 4, 2020, the rate trended gradually downward, dropping below the target rate of 95% from quarter 3, 2023 onwards (Figure 12). The observed downward trend is concerning in the context of the downward trends in the 24 month cohort and because the rate of decline increased in the most recent quarters.

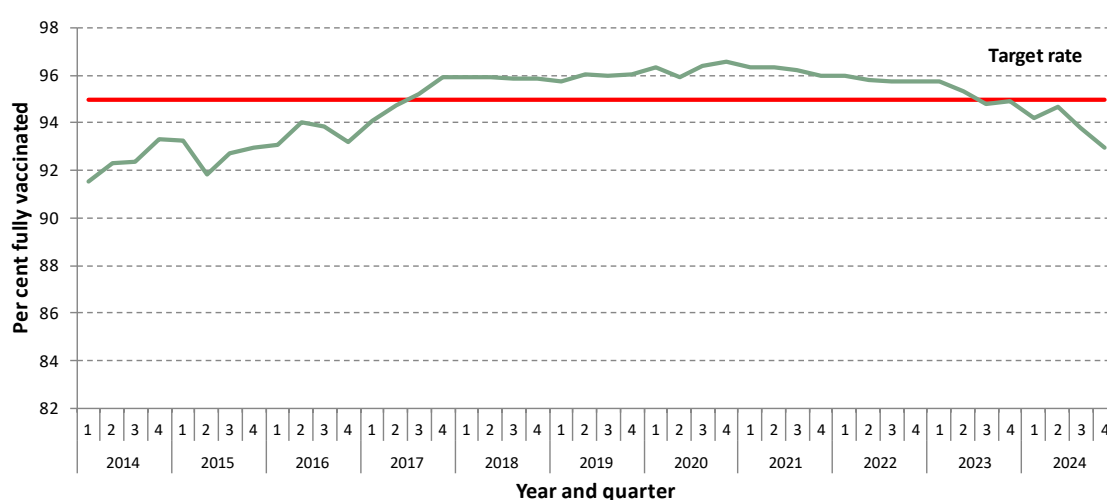


Figure 12. Quarterly moving average of percentage of Indigenous aged 60 to <63 months (60 month cohort) fully vaccinated, MSH, quarter 1, 2014 to quarter 4, 2024.

Local variation in vaccination – All children

Under the Australian Statistical Geography Standard (ASGS) 2021 classification, MSH is subdivided into 116 statistical area level 2s (SA2s) which broadly represent suburbs or groupings of suburbs¹.

The four-quarterly moving average rates, as at quarter 4, 2024, were mapped at the statistical area level 2 (SA2) level for each of the three age cohorts. In the greater Brisbane area SA2 boundaries map well to the boundaries of individual or pairs of suburbs and therefore they can be used as a proxy for suburbs.

Using the number of children in the cohort and the quarterly moving average vaccination rate, the number of children who were not fully vaccinated was imputed at the SA2 level. These counts were also mapped by SA2. Some comparisons with the four-quarterly moving average rates as at quarter 3, 2024 were undertaken.

All children, 12-<15 month cohort

Twenty-eight per cent (32/114) of MSH SA2s recorded the 95% target rate in the 12 month cohort. This was lower than the 33% recorded at the four-quarter moving average to quarter 3, 2024 and was a substantial decrease from the 43% and 56% recorded at quarters 3 and 1 of 2022 respectively. The majority of SA2s which recorded the 95% rate were in the Brisbane local government area (LGA) (29/32), with two in Logan LGA (Shailer Park, Mount Warren Park) and one SA2 in Redland LGA (Thornlands) recording the target.

Just over half of SA2s (59/114) had rates in the range 90 to <95%. These were spread across all LGAs and included Beaudesert in Scenic Rim LGA.

Four SA2s in this cohort had rates below 85%: Robertson (84.0%) in Brisbane LGA, Daisy Hill (84.5%) and Kingston (83.0%) in Logan LGA and Southern Moreton Bay Islands (82.9%) in Redland LGA. A further 17% of SA2s (19/114) had rates in the range 85 to <90%. The majority of these (13/19) were in Logan LGA, with five in Brisbane LGA (Wakerley and Fairfield – Dutton Park) and Thornlands in Redland LGA. The areas with the lowest rates tended to cluster in the north-eastern part of Logan LGA, around the south-east freeway (Figure 13).

A high vaccination rate does not necessarily translate into a small number of children who are not fully vaccinated. For example, the SA2 of Inala - Richlands had a rate of 91.5% but was the SA2 with the third highest number of children not fully vaccinated (28) in this cohort because of its large population of young children. The SA2 with the highest number of non-fully vaccinated children in this cohort was Boronia Heights – Park Ridge (41 children) with a moderate vaccination rate of 90.6%. High numbers were also found in Kingston, Yarrabilba and Loganlea SA2s, all in Logan LGA (Figure 14). Kingston SA2 coupled high numbers of under-vaccinated children (35) with a very low vaccination rate (83.0%).

The overall Metro South 12 month cohort vaccination rate increased by 0.7 percentage points from quarter 3 to quarter 4, 2024. At the SA2 level, a decrease in rate was recorded in 57% of SA2s (65/114) over this period with an average reduction per SA2 of 1.7 percentage points. Over the same period a further 40 SA2s

(35%) recorded an increase in vaccination rate with an average increase per SA2 of 1.7 percentage points. Rates in the remaining nine SA2s were stable (varied by less than 0.15 percentage points) over the period.

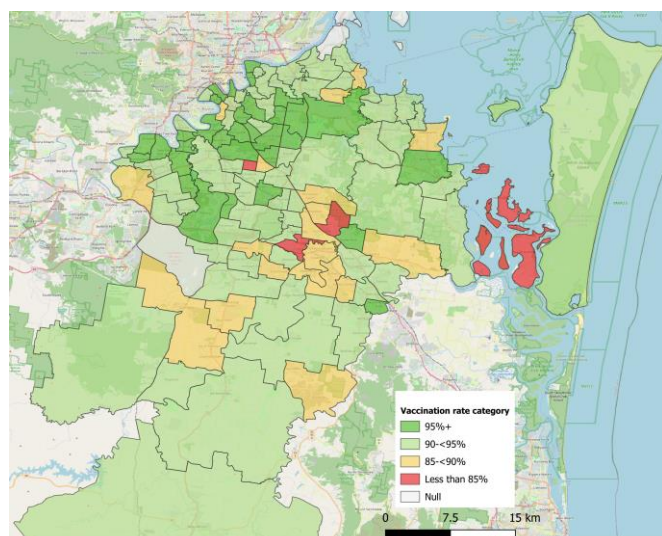


Figure 13. Four-quarterly moving average vaccination rates (Q1 to Q4-2024), 12 month cohort, by SA2

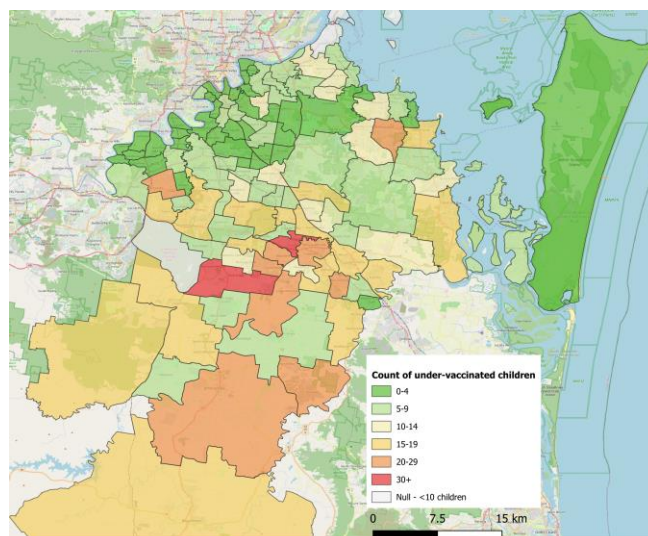


Figure 14. Four-quarterly moving average number of children not fully vaccinated (Q1 to Q4-2024), 12 month cohort, by SA2

All children, 24-<27 month cohort

Vaccination rates were generally lower in the 24 month cohort than the 12 and 60 month cohorts. This is reflected in fewer SA2s (12/114 or 11% of the total) recording the 95% target rate in this cohort. This was almost the same as the 10% recorded at the four-quarter moving average to quarter 3, 2024. The majority (10/12) of the SA2s which recorded the 95% rate in the most recent quarter were in the Brisbane LGA (Jindalee – Mount Ommaney, Manly – Lota, Fairfield – Dutton Park, Yeronga, Seventeen Mile Rocks – Sinnamoon Park, Highgate Hill, Belmont – Gumdale, Coopers Plains, Darra – Sumner, Moorooka.), with only Thornlands and Birkdale in Redland LGA and nil SA2s in Logan LGA.

Over half (56%) of SA2s (64/114) had rates in the range of 90 to <95%. These were spread across all LGAs, including Beaudesert SA2 in Scenic Rim.

Ten SA2s in this cohort had a rate below 85%: South Brisbane (81.8%) and Kangaroo Point (82.0%) in Brisbane LGA, Southern Moreton Bay Islands (82.0%) and Thorneside (83.7%) in Redland LGA and Kingston (79.5%), Munruben – Park Ridge South (80.0%), Eagleby (80.6%), Beenleigh (84.3%), Loganlea (84.7%), and Woodridge (84.8%) in Logan LGA.

An additional 28 SA2s had rates between 85 and <90%. These were spread between Brisbane (9/28), Logan (16/28) and Redland (3/28) LGAs (Figure 15).

The areas with the lowest rates in the 24 months cohort tended to cluster in the northern to central part of Logan LGA and parts of central Brisbane adjacent to the Brisbane River (Figure 13).

The SA2s with the highest numbers of under-vaccinated children in the 24 month cohort were all in Logan LGA. Boronia Heights – Park Ridge had the highest number (49), followed by Kingston (38), Eagleby (38) and Woodridge (34). All of these SA2s had a high number of children not fully vaccinated coupled with a cohort vaccination rate at or below 90% (Figure 16).

The overall Metro South 24 month cohort vaccination rate increased by 0.5 percentage points from quarter 3 to quarter 4, 2024. At the SA2 level, an increase in rate was recorded in 59 of 114 SA2s (52%) over this period with an average increase per SA2 of 1.7 percentage points. Over the same period a further 44 SA2s (39%) recorded a decrease in vaccination rate with an average reduction per SA2 of 1.9 percentage points. The rates in the remaining 11 SA2s were stable (varied by less than 0.15 percentage points) over the period.

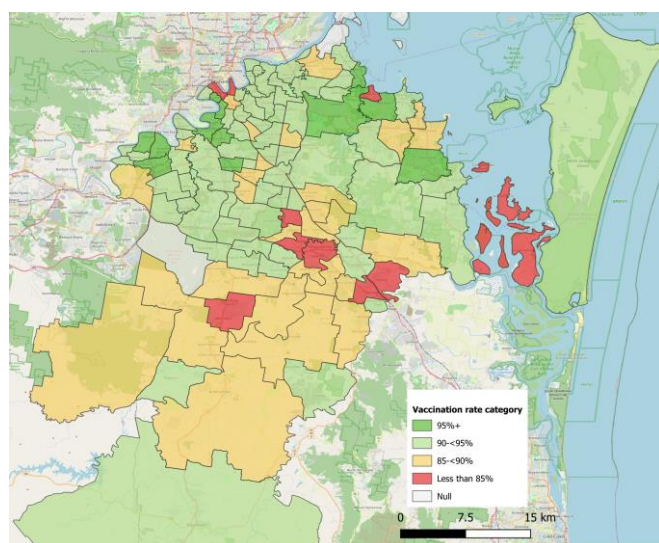


Figure 15. Four-quarterly moving average vaccination rates (Q1 to Q4-2024), 24 month cohort, by SA2

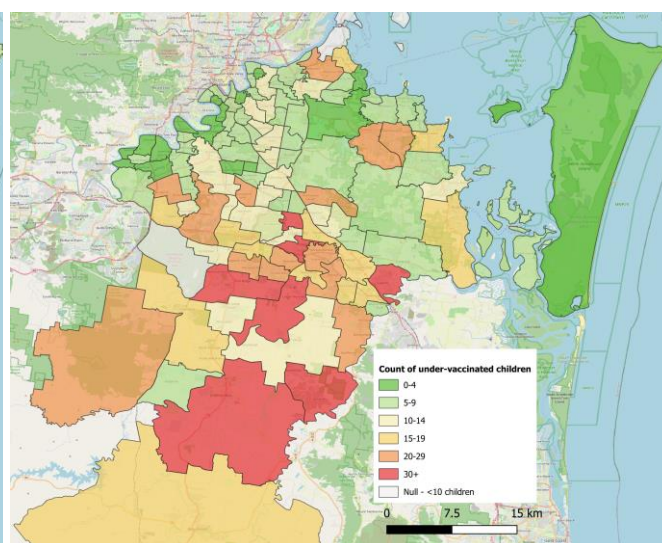


Figure 16. Four-quarterly moving average number of children not fully vaccinated (Q1 to Q4-2024), 24 month cohort, by SA2

All children, 60-<63 month cohort

One third (39/114) of MSH SA2s recorded the 95% target rate in the 60 month cohort. This was similar to the percentage recorded at the four-quarter moving average to quarter 3, 2024. The majority of the SA2s which recorded the 95% rate were in Brisbane LGA (32/39: 82%). Two SA2s in Redland LGA (Birkdale, Redland Bay) and five in Logan LGA (Cornubia – Carbrook, Underwood, Waterford West, Daisy Hill, Browns Plains) also reached the target.

The worst performing SA2s in this cohort with rates under 85% were Woolloongabba (73.8%) and Robertson (81.0%) in Brisbane LGA, Southern Moreton Bay Islands (75.5%) and North Stradbroke Island (77.3%) in Redland LGA and Eagleby (84.5%) in Logan LGA.

An additional 13 SA2s had rates between 85% and <90%. These included Ormiston (89.0%) in Redland LGA, South Brisbane (87.5%), East Brisbane (89.1%) and Greenslopes (89.2%) in Brisbane LGA along with a mix of SA2s largely in the northern part of Logan LGA (Figure 17).

The SA2 with the highest number of children in this cohort who were not fully vaccinated was Marsden (30 children) despite Marsden having a cohort vaccination rate of 91%. Fifteen additional SA2s had 20 or more under-vaccinated children in this cohort. Two-thirds of these SA2s were in Logan LGA. Over half (58%) of Metro South SA2s had fewer than ten children in this cohort who were not fully vaccinated (Figure 18).

The overall Metro South 60 month cohort vaccination rate increased by 0.5 percentage points from quarter 3 to quarter 4, 2024. At the SA2 level, an increase in rate was recorded in 45 of 114 SA2s (39%) over this period with an average increase per SA2 of 1.6 percentage points. Over the same period 59 SA2s (52%) recorded a reduction in vaccination rate with an average decrease per SA2 of 1.6 percentage points. Rates in the remaining ten SA2s were stable (varied by less than 0.15 percentage points) over the period.

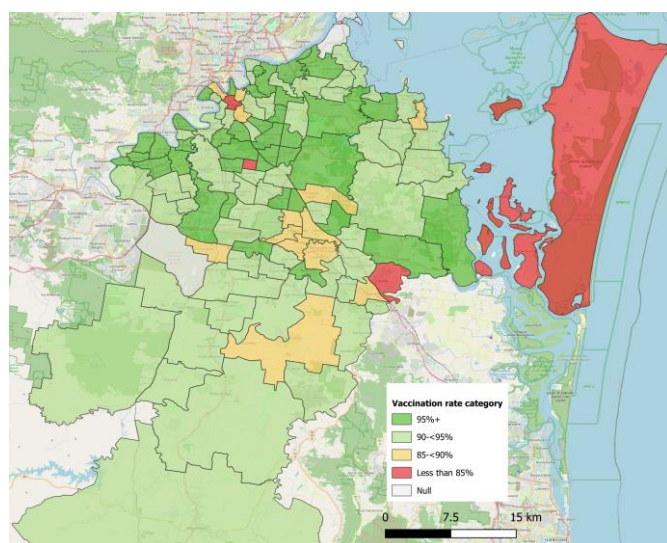


Figure 17. Four-quarterly moving average vaccination rates (Q1 to Q4-2024), 60 month cohort, by SA2

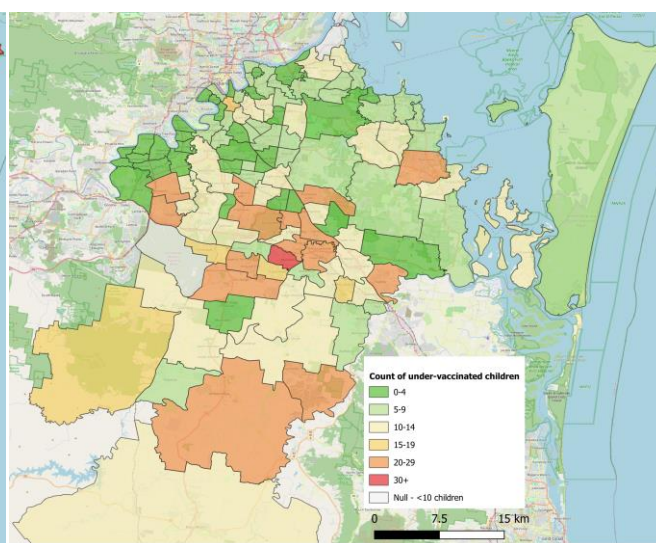


Figure 18. Four-quarterly moving average number of children non fully vaccinated (Q1 to Q4-2024), 60 month cohort, by SA2

Conclusion

All children

- Vaccination rates in the all children 12, 24 and 60 month age cohorts increased in the most recent quarter, having all decreased by a greater percentage in the previous quarter.
- All children four-quarterly moving average rates:
 - 12 month cohort: trending down; currently at lowest point since quarter 4, 2015.
 - 24 month cohort: trending down currently at lowest point since quarter 4, 2015
 - 60 month cohort: steady at just over 93% since quarter 4, 2022.
- To reach the 95% fully vaccinated target across the three MSH all children age cohorts combined would have required an additional 328 children to be fully vaccinated out of a combined cohort of 11,242.

Indigenous children

- Vaccination rates in the Indigenous children cohorts are consistently more volatile than the all children cohorts because of their small cohort sizes.
- Vaccination rates in the Indigenous children 12 and 60 month age cohorts each increased, having both decreased by a greater percentage in the previous quarter.
- The Indigenous children 24 month cohort rate decreased in the most recent quarter.
- Indigenous children four-quarterly moving average rates:
 - 12 month cohort: generally trending down; currently at a level comparable with quarter 2, 2023 and quarter 3, 2016
 - 24 month cohort: generally trending down however stable throughout 2024 at lowest level since quarter 3, 2018
 - 60 month cohort: trending strongly down; currently at lowest level since quarter 4, 2015
- To reach the 95% fully vaccinated target across the three Indigenous children cohorts combined an additional 40 children out of a combined cohort of 768 children would have to be fully vaccinated.

Local-level variation

- At the local level, a high vaccination rate does not always translate to a low number of under-vaccinated children, owing to variations in population density and structure.
- Across all three cohorts combined, the SA2s with the highest numbers of non-fully vaccinated children were Boronia Heights – Park Ridge (112 children) and Kingston (97 children).
- While Kingston SA2 had a low three-cohort combined vaccination rate of 83.6%, in Boronia Heights – Park Ridge SA2 the rate was substantially higher at 91.4%.
- Areas with the highest numbers of under-vaccinated children (rather than areas with the lowest rates) are potentially where the greatest gains can be made through increased resourcing.
- On this basis, the greatest gains will likely be found in the suburbs of north-eastern and central Logan LGA and central south Brisbane bordering Logan LGA.

Factors influencing vaccination rates

- The decreases observed in vaccination rates across all three cohorts have primarily occurred since the start of the COVID-19 pandemic. Temporary factors related to COVID-19 (such as decreased GP access) likely contributed to the decline. However rates continued to decrease as the pandemic receded in the second half of 2022 and into 2023.
- Co-incident with the pandemic recovery period has been a reported reduction in GPs offering bulk-billing even for children. This is a further factor which may be contributing to the reduction in vaccination rates.
- The highest numbers of under-vaccinated children are consistently found in areas within Logan LGA. The Logan City Council operates a free vaccination program, meaning GP access is unnecessary to access childhood vaccination in this LGA. This points towards a more complex pattern of causes than merely access to GPs.
- It is likely that the pandemic has had longer term impacts in the community such as increasing vaccine hesitancy and vaccine fatigue and decreased vaccine confidence.

References

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