

*“Building one world class
health system for the Gold Coast.”*

IMMUNISATION SUMMARY

Needs Assessment Summary



2018

phn
GOLD COAST

An Australian Government Initiative

Immunisation

Identified local health needs and service issues

- Lower rates of children fully immunised in Gold Coast Hinterland, Surfers Paradise and Mudgeeraba-Tallebudgera.
- Lower rates of HPV vaccination in Gold Coast compared to the national figure.
- Higher rates of hospitalisation for pneumonia and influenza in Gold Coast compared to the national figure.
- Southport and Surfers Paradise had the highest rates in the Gold Coast for hospitalisation for pneumonia and influenza.
- Access to ongoing quality education / training.



Key findings

Achievement of the National Immunisation Program is measured by vaccination coverage, and is reported at 12, 24 and 60-month milestones (1, 2 and 5 years of age). Health authorities at the national, state and local level aim for vaccination coverage of at least 95%. Generally speaking, childhood immunisation rates on the Gold Coast have increased in recent years but remain slightly below (but comparable to) national immunisation rates apart from 2-year old's which is now above the national average. Vaccination rates for Aboriginal and Torres Strait Islander children are generally higher than the national rates on the Gold Coast.

HPV (Human Papillomavirus) causes genital warts and a number of cancers in males and females. Under a national program, vaccinations are provided free in schools to all males and females aged 12-13 years. In the Gold Coast region, rates are increasing but remain lower than national rates.

Gold Coast has higher rates of people admitted to hospital for potentially preventable hospitalisations due to vaccine-preventable conditions compared to national figures, with influenza and pneumonia being more common for very young children and older people.

Evidence

Immunisation coverage

Table 1 below shows the percentage of children immunised against a range of infectious diseases and fully immunised at age 1 year, 2 years and 5 years as at March 2018. These immunisations are based on the National Immunisation Program Schedule, which include:

- Diphtheria, tetanus and pertussis (DTP)
- Polio, haemophilus influenzae type b (HIB)
- Hepatitis B
- Measles, mumps and rubella
- Pneumococcal
- Meningococcal
- Varicella

Immunisation for DTP and polio at 5 years shows a large discrepancy (i.e. over 2%) between rates for the Gold Coast PHN region and nationally. Immunisation for hepatitis B, pneumococcal and DTP at 1 year also show modest discrepancies between rates on the Gold Coast and nationally.

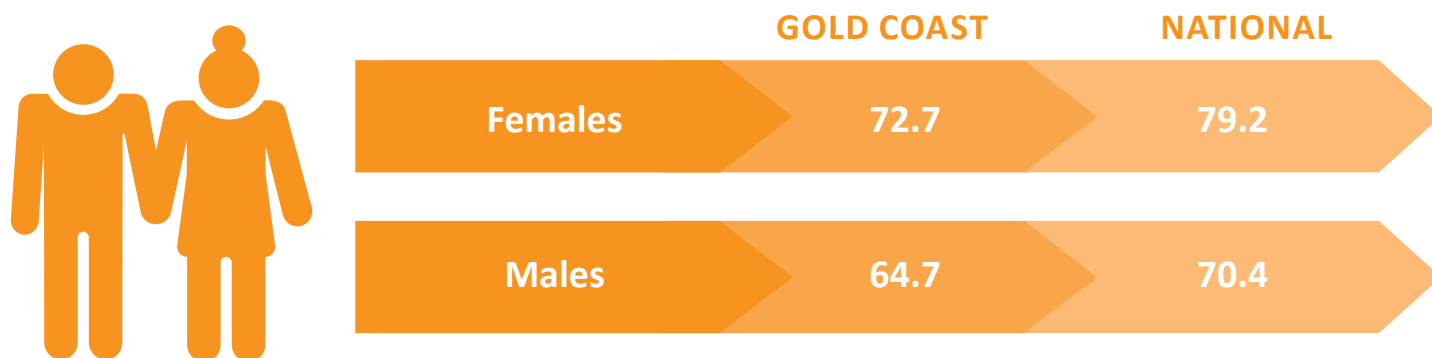
Table 1: Percentage of children immunised based on National Immunisation Program Schedule, March 2018

	At 1 year		At 2 years		At 5 years	
	Gold Coast	National	Gold Coast	National	Gold Coast	National
Fully immunised	93.1	94.1	91.2	90.5	92.2	94.2
DTP	92.7	94.8	91.8	93.0	91.3	94.5
Polio	93.3	94.7	94.8	96.5	91.5	94.5
HIB	92.6	94.5	93.4	95.5	n/a	n/a
Hep B	92.6	94.7	94.6	96.3	n/a	n/a
MMR	n/a	n/a	93.3	93.3	94.1	94.8
Pneumococcal	92.4	94.4	n/a	n/a	n/a	n/a
Meningococcal	n/a	n/a	93.5	95.4	n/a	n/a
Varicella	n/a	n/a	91.6	92.6	n/a	n/a

Source: Australian Government, Department of Health, Resources, <https://beta.health.gov.au/resources/publications/qld-childhood-immunisation-coverage-data-by-sa3>. n/a indicates not measured in the aged cohort.

The human papillomavirus (HPV) vaccine is provided free to girls and boys aged 12–13 years as part of the National HPV Vaccination Program. Table 2 shows the percentage of females and males aged 12-13 years in mid-2013, who had received the third dose by 2016. It shows significantly lower levels of vaccination in both males and females on the Gold Coast compared to national levels.

Table 2: Percentage of children aged 12-13 years in mid-2013 who had received Dose 3 of HPV vaccine by 2016



Source: Compiled by Public Health Information Development Unit (PHIDU), Torrens University using data from the National HPV Vaccination Program Register



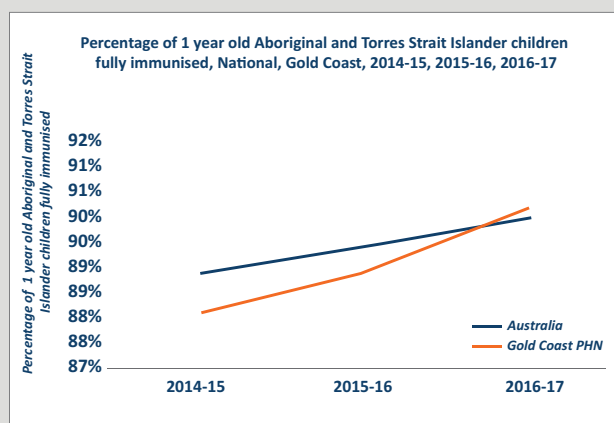
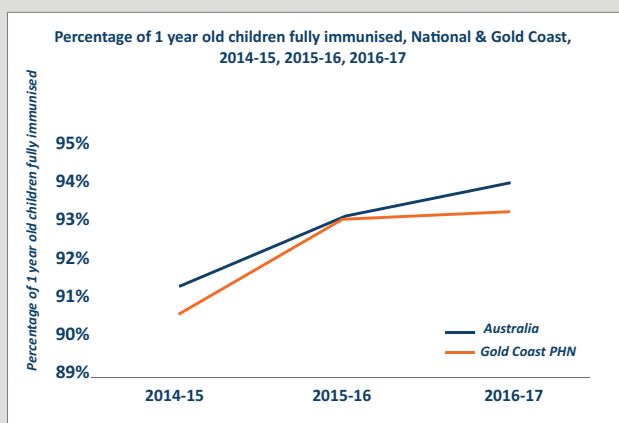
Table 3 below illustrates that childhood immunisation rates for all children and those who identified as Aboriginal and Torres Strait Islander within the Gold Coast have fluctuated between 2014-15 and 2016-17.

For all children, the Gold Coast has consistently returned lower immunisation rates for children aged 1, 2 and 5 years each year for the five-year period when compared to the national average. However, in 2016-17 the Gold Coast average for 2 year old’s fully immunised children was higher compared to the national average. For Aboriginal and Torres Strait Islander children, the Gold Coast mostly returned higher immunisation rates for children aged 1, 2 and 5 years old each year over the period than the national average. In 2016-17, 5-year-old Aboriginal and Torres Strait Islander children on the Gold Coast had a lower immunisation rate compared to the national figure.

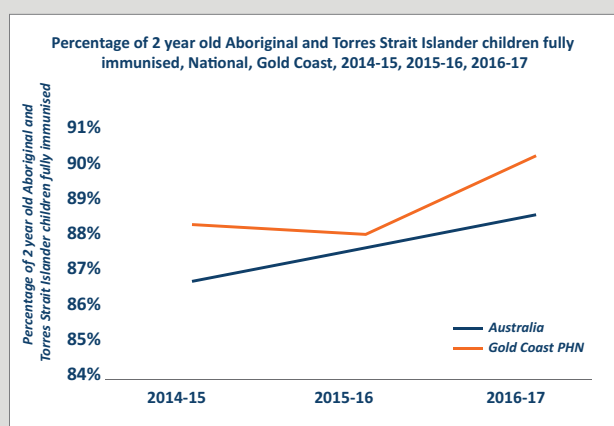
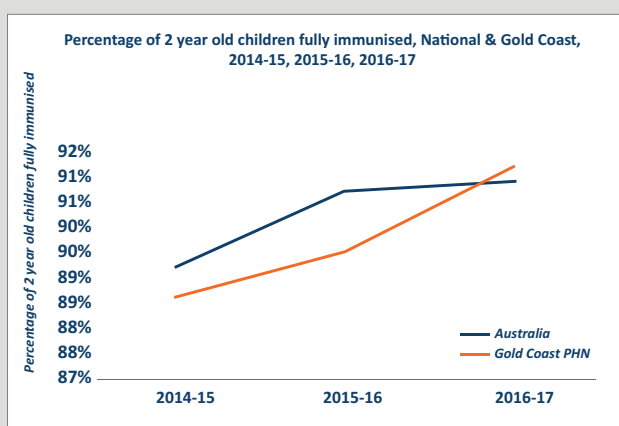
Noticeably, local trends in immunisation rates largely mirror national trends which may indicate the significance of Australia-wide immunisation policy and universal immunisation initiatives.

Table 3: Immunisation trends over time, all children and Aboriginal and Torres Strait Islander children, 2014-15 to 2016-17

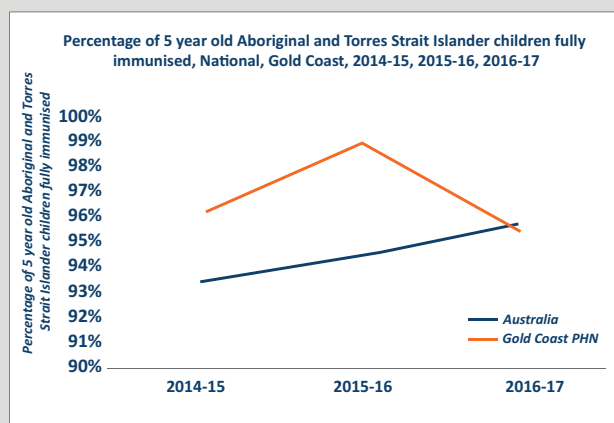
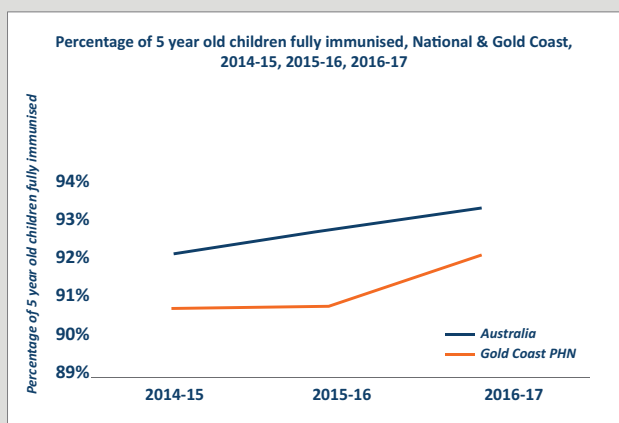
Percentage of 1 year old children fully immunised



Percentage of 2 year old children fully immunised



Percentage of 5 year old children fully immunised



Source: AIHW analysis of Department of Human Services, Australian Immunisation Register statistics 201516. Extracted from my-healthycommunities.gov.au on 26/07/2017

Data analysis at a more granular level provides further insight into geographic regions where increased effort may be required to improve immunisation coverage. The data displayed in Table 4 highlights Statistical Area Level 3 (SA3) regions with either a low immunisation rate or a high number of children not immunised at ages 1, 2 and 5 years old.

Table 4: Percentage of 1, 2 and 5-year old's fully immunised, and number of children not fully immunised, by SA3 region, 2016-17

Region	At 1 year old		At 2 years old		At 5 years old	
	% fully immunised	Number not fully immunised	% fully immunised	Number not fully immunised	% fully immunised	Number not fully immunised
Broadbeach-Burleigh	92.2	61	90.1	75	92.6	56
Coolangatta	90.2	63	91.7	51	91.2	51
Gold Coast-North	93.7	42	91.1	63	91.6	58
Gold Coast Hinterland	90.2	17	89.7	21	87.8	27
Mudgeeraba-Tallebudgera	90.8	37	90.1	39	90.5	41
Nerang	93.9	57	91.9	81	92.9	72
Ormeau-Oxenford	94.0	118	91.8	169	93.4	145
Robina	94.5	32	91.7	45	91.7	52
Southport	94.1	37	92.6	50	91.7	58
Surfers Paradise	91.7	31	86.8	48	90.6	33
Gold Coast	93.1	492	91.2	642	92.2	594
Australia	93.8	19,171	90.9	28,484	93.5	20,524

Source: AIHW analysis of Department of Human Services, Australian Immunisation Register statistics 2016–17. Extracted from myhealthycommunities.gov.au on 25/09/2018.

Areas that have low immunisation rates include Surfers Paradise, Gold Coast Hinterland and Mudgeeraba-Tallebudgera. However, these regions have some of the lowest absolute numbers of children who are not fully immunised. Those regions with a high absolute number of children not immunised include Ormeau-Oxenford and Nerang. Analysis of the Australian Immunisation Register statistics at a more granular SA2 level for the 1 July 2016 to 30 June 2017 highlights even smaller geographic pockets that have lower rates of immunisation including Coolangatta, Guanaba-Springbrook, Currumbin Valley – Tallebudgera.

Health service utilisation

Potentially preventable hospitalisations (PPHs) are an indicator of both adverse health outcomes but also financial costs to the health system. Table 5 shows the rate of PPH per 100,000 people for vaccine-preventable conditions between 2013-14 and 2015-16. 'Other vaccine-preventable conditions' include chicken pox, diphtheria, haemophilus meningitis, hepatitis, measles, mumps, pertussis (whooping cough), polio, rubella and tetanus.

Table 5: Age-standardised rate of potentially preventable hospitalisations per 100,000 people for vaccine-preventable conditions, 2013-14 to 2015-16

Category	Region	2015-16	2014-15	2013-14
Total vaccine-preventable	Gold Coast	236	195	103
	National	199	175	128
Pneumonia and influenza (vaccine-preventable)	Gold Coast	159	123	42
	National	92	81	49
Other vaccine-preventable conditions	Gold Coast	78	73	62
	National	107	95	80

Source: AIHW analysis of the National Hospital Morbidity Database 2015-16. Extracted from myhealthycommunities.gov.au on 26/07/2017.

Table 5 shows the Gold Coast has a higher rate of PPHs for vaccine-preventable conditions compared to the national figure. These conditions accounted for approximately 1,427 hospitalisations in the Gold Coast region in 2015-16 and accrued a total of 6,890 hospital bed days. The rates of PPHs have been steadily increasing in the Gold Coast region, mirroring the trend at a national level. Most of the increase in PPHs observed for the Gold Coast region was driven by pneumonia and influenza.

Table 6 shows the rate and absolute number of PPHs for vaccine-preventable conditions in 2015-16 at the SA3 level.

Table 6: Regional breakdown of age-standardised rate (ASR) of potentially preventable hospitalisations (PPHs) per 100,000 people and number of PPHs for vaccine-preventable conditions, 2015-16

Region	Pneumonia and influenza		Other vaccine-preventable conditions	
	ASR	Number of PPH	ASR	Number of PPH
Broadbeach - Burleigh	133	94	59	42
Coolangatta	123	79	50	29
Gold Coast - North	164	136	98	78
Gold Coast Hinterland	NP	19	NP	7
Mudgeeraba - Tallebudgera	178	56	NP	13
Nerang	148	103	76	56
Ormeau - Oxenford	158	176	60	68
Robina	165	89	76	40
Southport	219	137	176	105
Surfers Paradise	178	66	95	40
Gold Coast	159	955	78	478
National	92	23,774	107	27,022

Source: AIHW analysis of the National Hospital Morbidity Database 2015-16. Extracted from myhealthycommunities.gov.au on 26/07/2017. NP=not available for publication.

This data shows that the rate of possible preventable hospitalisations for pneumonia and influenza is higher across all local areas of the Gold Coast than the national rate. Southport has a very high rate and absolute number of PPHs for both pneumonia/influenza and other vaccine-preventable conditions. Ormeau-Oxenford has a very high absolute number of PPHs for pneumonia and influenza. Avoidable admissions data provided from Gold Coast Health indicates that young children aged 0-5 and older people aged 65-75 have the highest percentage of people being admitted to hospital for influenza and pneumonia.



Service Mapping

Services	Number in the GCPHN region	Distribution	Capacity discussion
General practices	197	<ul style="list-style-type: none"> Practices are well spread across the region. High number of practices in the northern growth corridor where many children live, 87% of which have a practice nurse. 	<ul style="list-style-type: none"> Childhood immunisations are free, funded by the Government but the consultation fee may differ between practices. Many new practice nurses require training in immunisation—40% increase in number of practice nurses between 2015-2016. Immunisation education events always well attended, often have a wait list. Practices require support from PHN regarding data recording on Australian Immunisation Register.
Dedicated GP immunisation clinics	4	<ul style="list-style-type: none"> Labrador, Canungra, West Burleigh and Mermaid Beach 	<ul style="list-style-type: none"> These clinics provide a separate waiting area, no appointment is required and does not need to be a patient of the clinic.
Community immunisation clinics, Gold Coast Health	6	<ul style="list-style-type: none"> Helensvale, Carrara, Upper Coomera, Burleigh and Southport 	<ul style="list-style-type: none"> Drop-in—no appointments required. Free for people with a Medicare card to attend the clinic. Vaccines on the National Immunisation Program Schedule Qld are provided free. Other vaccines incur a cost.
Schools	20	<ul style="list-style-type: none"> Public and private schools across the region. 	<ul style="list-style-type: none"> Free vaccinations including HPV through the school immunisation program. Queensland has legislated to require schools to provide student details to immunisation providers to assist with communication and consent processes.
Gold Coast Hospital Maternity and Antenatal Clinic	1	<ul style="list-style-type: none"> Southport 	<ul style="list-style-type: none"> Pregnant women can access immunisations including whooping cough and influenza.
Private obstetricians and midwives	12	<ul style="list-style-type: none"> 9 obs, 3 midwives Spread across region 	<ul style="list-style-type: none"> As above

Pharmacy	At least 27	<ul style="list-style-type: none"> • Various locations 	<ul style="list-style-type: none"> • Pharmacist must undertake additional training to administrate vaccines and pharmacy must implement additional processes (e.g. cold chain). • The Pharmacy guild has had two sessions at GCPHN to Pharmacist about vaccination procedures in 2018. • In these two sessions a total of 19 Pharmacist attended. • The Gold Coast Public Health Unit (GCPHU) conducts backs to basics training around immunisation to nurses monthly. • GCPHU offers catch up schedule immunisation to nurses monthly. • Pharmacists can't vaccinate children or pregnant women.
Homeless immunisation clinics	2	<ul style="list-style-type: none"> • Surfers Paradise and Coolangatta 	<ul style="list-style-type: none"> • 140 people experiencing homelessness on the Gold Coast have been vaccinated between 1/5/18 and 31/8/18. This occurred across the Homeless Connect event and the regular church free meals. • PHN/PHU continue with annual homeless connect day in August to provide influenzas and pneumovax vaccines. • Interest reported from some homeless support services to work with PHU and PHN to improve vaccination access to homeless or at-risk people.
Information	Multiple	<ul style="list-style-type: none"> • Web, brochures etc 	<ul style="list-style-type: none"> • While there are credible sources, there is a lot of incorrect information on the internet.

Consultation

Feedback from general practices and the GCPHN Primary Health Care Improvement Committee identified a number of issues:

- Consistent and reliable supply of some vaccines to general practice remains an issue. Most but not all general practice clinics have a reminder system in place to follow up overdue immunisations and the inconsistent supply impacts on ability to efficiently manage use of recall and reminder systems, resulting in many immunisations being done opportunistically.
- Travel vaccinations also noted as challenging with a desire for improved access to up to date information to support GPs.
- Larger uptake of flu vax for children observed over recent season, noted this is likely due to media coverage.
- Some general practices advertise to the general population that flu vax is free 'for everyone' creating confusion for some patients if they are not in an eligible group and the practice they visit does not bulk bill.
- Ongoing education for staff in a highly mobile workforce is very important. In addition, there are some concerns there may be health professionals on the Gold Coast who do not actively support or recommend vaccination, further reinforcing the need for ongoing education.
- Complicated changes to schedules and variation between states cause issues, particularly for cross border patients.

GCPHN Community Advisory Council (October 2017) identified:

- As flu vaccines only covers some strains there is scepticism about effectiveness of flu vaccine and having / hearing about reactions to vaccines make many reluctant to have one
- Growing awareness in community of potential harm of vaccine preventable diseases but still some who are adamant against childhood vaccines in particular. Some concerns that forcing people to vaccinate their children through monetary and other mechanisms is not ethical.
- Where there is a cost for a vaccine it is a significant barrier for many.

What we understand works

Research, evaluation, service reviews

Gold Coast Primary Health Network

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