# **Queensland School Immunisation Program**

2019 Annual Report



# Key outcomes from the Queensland School Immunisation Program 2019



#### Introduction

The School Immunisation Program (SIP) offers secondary school students in state and non-state schools across Queensland the opportunity to be vaccinated against a range of diseases in the school setting. The diseases vaccinated against through the SIP are:

- human papillomavirus (HPV)
- diphtheria, tetanus, pertussis (dTpa)
- meningococcal ACWY (menACWY).

The SIP is delivered by Hospital and Health Services (HHSs) either directly or via an agreement with an immunisation provider. The model for delivery varies across the state and some HHSs deliver the SIP to schools in other HHSs<sup>1</sup>. Meningococcal ACWY vaccine was also offered free in the community setting via GPs for adolescents aged 15 -19 years of age.

This report focuses on the vaccines offered in the SIP for school year 2019. The report presents the vaccination uptake of the SIP in 2019.

## A Strategic Goal

Key focus area 2: Adolescents, Objective 2.1 of the *Queensland Health Immunisation Strategy 2017-2022* (the Strategy) sets an aspirational target of 85 per cent of adolescents to be vaccinated through the SIP. To achieve this target the Strategy identifies three specific actions:

- Implement recent amendments to the *Public Health Act 2005* to empower school immunisation providers to follow up parents of students who did not return consent forms (Action 2.1.1)
- Continue to streamline consent and follow-up processes (Action 2.1.2)
- Implement initiatives to increase participation and ensure completion of the vaccination schedule (Action 2.1.3).

The following sections include details of how these actions are being implemented through the SIP.

<sup>&</sup>lt;sup>1</sup> It is important to note that some HHSs use a flexible model of service delivery due to a range of reasons including fluctuations in staff availability, access during the wet season and mobility of adolescents from remote communities. Strategies include offering continual catch up vaccination of those aged 12 – 19 years in the community setting during the year and catch up in the following school year.

# School Immunisation Program 2019 performance results

#### Consent form return

Implementation of Action 2.1.1 of the Strategy has provided school immunisation providers legislative power since the 2017 school year to request student and parent details from school principals to follow up directly with parents whose child did not return a consent form. Most providers access student and parent details from all, or a targeted proportion, of their schools to improve consent form return.

The 2019 consent form had an option for parents to indicate 'yes' or 'no' to vaccination, so school immunisation providers did not directly follow up with parents who had indicated 'no' to vaccination. This has assisted in the implementation of Action 2.1.2 of the Strategy, streamlining consent and follow-up processes.

These changes have also assisted in implementation of Action 2.1.3.

Consent form return in the 2019 SIP report is stated as a proportion of the total students and includes those who indicated 'no' to vaccination. Consent form return results are stated for each vaccine in the following sections.

#### **HPV** uptake results

In 2018, the nine-valent human papillomavirus (HPV) vaccine, Gardasil 9®, was introduced onto the National Immunisation Program (NIP) schedule for adolescents, replacing the four-valent vaccine Gardasil®. Consequently, the HPV vaccine regimen used in the SIP changed from a three-dose course (given at 0, 2 and 6 months) to a two-dose course (given at 0 and 6 months). In 2019, SIP providers were not required to report the sex of a student.

In school year 2019:

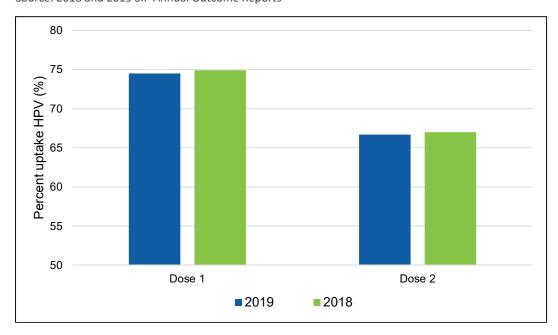
- Table 1 shows that 86.7% of students returned a consent form compared with 86% in 2018.
- Two-thirds (66.7%) of year 7 students completed their two-dose HPV vaccination course.
- Figure 1 shows that there was a slightly lower completion of the HPV vaccination course in 2019 (66.7%) compared to 2018 (67.0%).
- Figure 1 also shows that a similar proportion (74.5%) of students received their first dose of HPV vaccine in 2019 compared to 2018 74.9(%).
- HPV uptake fell by 7.8 percentage points over the two-dose course, a similar proportion to 2018 (7.9%).

Table 1: Year 7 HPV vaccine uptake by HHS, Queensland SIP 2019

| Year 7 HPV (2019)              |               |              |                          |                    |                    |  |
|--------------------------------|---------------|--------------|--------------------------|--------------------|--------------------|--|
| Hospital and Health<br>Service | Total Schools | Total Cohort | % consent forms returned | % dose 1<br>uptake | % dose 2<br>uptake |  |
| Cairns and Hinterland          | 37            | 3,738        | 84.1                     | 74.5               | 64.7               |  |
| Central Queensland             | 41            | 3,405        | 88.8                     | 77.4               | 69.2               |  |
| Central West                   | 8             | 106          | 90.6                     | 84.0               | 68.9               |  |
| Darling Downs                  | 64            | 4,368        | 87.9                     | 73.0               | 64.6               |  |
| Gold Coast                     | 47            | 7,732        | 88.4                     | 74.2               | 67.7               |  |
| Mackay                         | 23            | 2,392        | 91.7                     | 81.3               | 73.5               |  |
| Metro North                    | 85            | 13,686       | 85.5                     | 75.3               | 68.8               |  |
| Metro South                    | 100           | 15,264       | 88.6                     | 75.0               | 66.7               |  |
| North West                     | 11            | 382          | 83.2                     | 74.9               | 59.4               |  |
| South West                     | 12            | 337          | 88.1                     | 81.0               | 80.7               |  |
| Sunshine Coast                 | 51            | 6,112        | 80.8                     | 64.2               | 56.9               |  |
| Torres and Cape                | 9             | 292          | 87.0                     | 79.5               | 38.7               |  |
| Townsville                     | 39            | 3,362        | 87.7                     | 79.0               | 70.6               |  |
| West Moreton                   | 30            | 4,173        | 84.8                     | 74.5               | 66.6               |  |
| Wide Bay                       | 32            | 2,913        | 87.6                     | 78.3               | 70.2               |  |
| Queensland Total               | 589           | 68,262       | 86.7                     | 74.5               | 66.7               |  |

Source: 2019 SIP Annual Outcome Reports

Figure 1: Year 7 HPV vaccine uptake by year level and dose number, Queensland SIP 2018 and  $2019^2$  Source: 2018 and 2019 SIP Annual Outcome Reports



### dTpa uptake results

In school year 2019:

- 86.5% of students returned a consent form compared with 86.1% in 2018.
- Table 2 shows that 76.0% of students received their dTpa vaccination compared to 76.9% in the 2018 SIP.

Table 2: Diphtheria, tetanus and pertussis (dTpa) vaccine uptake by HHS, Queensland SIP 2019

| Year 7 dTpa (2019)          |               |              |                          |                  |  |  |
|-----------------------------|---------------|--------------|--------------------------|------------------|--|--|
| Hospital and Health Service | Total schools | Total Cohort | % consent forms returned | % dTpa<br>uptake |  |  |
| Cairns and Hinterland       | 37            | 3,738        | 84.3                     | 76.1             |  |  |
| Central Queensland          | 41            | 3,405        | 88.7                     | 79.7             |  |  |
| Central West                | 8             | 106          | 89.6                     | 81.1             |  |  |
| Darling Downs               | 64            | 4,368        | 85.7                     | 75.5             |  |  |
| Gold Coast                  | 47            | 7,732        | 88.1                     | 76.8             |  |  |
| Mackay                      | 23            | 2,392        | 91.9                     | 81.8             |  |  |
| Metro North                 | 85            | 13,686       | 85.4                     | 75.9             |  |  |
| Metro South                 | 100           | 15,264       | 88.0                     | 78.6             |  |  |
| North West                  | 11            | 382          | 83.0                     | 77.2             |  |  |
| South West                  | 12            | 337          | 88.1                     | 81.0             |  |  |
| Sunshine Coast              | 51            | 6,112        | 81.3                     | 60.1             |  |  |
| Torres and Cape             | 9             | 292          | 88.0                     | 78.8             |  |  |
| Townsville                  | 39            | 3,362        | 87.7                     | 79.9             |  |  |
| West Moreton                | 30            | 4,173        | 85.4                     | 75.6             |  |  |
| Wide Bay                    | 32            | 2,913        | 87.7                     | 80.3             |  |  |
| Queensland Total            | 589           | 68,262       | 86.5                     | 76.0             |  |  |

Source: 2019 SIP Annual Outcome Reports

#### Meningococcal ACWY uptake results

In school year 2019:

- A higher proportion of students returned a consent form (79.6%) compared with 2018 (76.9%).
  This result continues the upward trend of consent form return since introduction of the program in 2017.
- Table 3 shows a similar proportion (68.8%) of Year 10 students received their meningococcal ACWY vaccination compared to the 2018 SIP (68.7%).

Table 3: Meningococcal ACWY vaccine uptake by HHS, Queensland SIP 2019

| Year 10 Meningococcal ACWY (2019) |              |              |                                |                                |  |  |
|-----------------------------------|--------------|--------------|--------------------------------|--------------------------------|--|--|
| Hospital and Health Service       | School count | Total cohort | % consent<br>forms<br>returned | % Meningococcal<br>ACWY uptake |  |  |
| Cairns and Hinterland             | 37           | 3,336        | 75.9                           | 67.2                           |  |  |
| Central Queensland                | 41           | 3,080        | 72.8                           | 69.4                           |  |  |
| Central West                      | 8            | 117          | 58.1                           | 55.6                           |  |  |
| Darling Downs                     | 64           | 3,838        | 81.1                           | 68.5                           |  |  |
| Gold Coast                        | 47           | 7,088        | 84.2                           | 71.9                           |  |  |
| Mackay                            | 23           | 2,133        | 88.0                           | 79.6                           |  |  |
| Metro North                       | 85           | 12,488       | 78.4                           | 66.8                           |  |  |
| Metro South                       | 100          | 14,273       | 81.9                           | 69.5                           |  |  |
| North West                        | 11           | 283          | 69.3                           | 59.0                           |  |  |
| South West                        | 12           | 242          | 87.2                           | 83.9                           |  |  |
| Sunshine Coast                    | 51           | 5,399        | 74.9                           | 60.1                           |  |  |
| Torres and Cape                   | 9            | 250          | 55.2                           | 30.4                           |  |  |
| Townsville                        | 39           | 3,131        | 77.6                           | 70.6                           |  |  |
| West Moreton                      | 30           | 3,716        | 80.9                           | 73.5                           |  |  |
| Wide Bay                          | 32           | 2,568        | 79.4                           | 72.7                           |  |  |
| Queensland Total                  | 589          | 61,942       | 79.6                           | 68.8                           |  |  |

Source: 2019 SIP Annual Outcome Reports

#### Other measures

Even when parents provide consent and students return a 'yes' consent form, not all these students will end up vaccinated. This can be for a variety of reasons including student absence on the vaccination day, conflicting school scheduling (e.g. school camp at same time as vaccination day), or severe needle phobia.

Therefore, another valuable measure of the SIP is analysing the proportion of the students that returned a 'yes' consent form that were actually vaccinated through the SIP (Table 4). This is considered a useful measure of performance in the SIP as a lot of the factors that affect overall vaccination uptake are outside of the providers' control. For example, providers can only vaccinate

those students whose parents have provided consent. However, providers can control scheduling of their vaccination clinics to fit with school schedules and follow-up students with consent who were not present on the day.

Between 2018 and 2019, the proportion of students who returned a 'yes' consent form and were vaccinated, decreased approximately 10 percentage points across all vaccines.

Table 4: Percent of total students vaccinated and percent 'yes' consent vaccinated by vaccine, Queensland SIP 2018 and 2019

|                               | 2019   |        |         | 2018   |        |         |
|-------------------------------|--------|--------|---------|--------|--------|---------|
| Vaccine                       | HPV    | dTpa   | MenACWY | HPV    | dTpa   | MenACWY |
| TOTAL students                | 68,262 | 68,262 | 61,942  | 65,545 | 65,545 | 58,216  |
| TOTAL students vaccinated (%) | 66.7   | 76.0   | 68.8    | 67.0   | 76.9   | 68.7    |
| YES consent                   | 59,193 | 59,044 | 49,334  | 50,611 | 51,597 | 41,822  |
| YES consent vaccinated (%)    | 76.9   | 87.8   | 86.4    | 86.8   | 97.6   | 95.6    |

# Methods and assumptions

The data in this report are derived from the SIP Annual Outcome Reports submitted to Communicable Diseases Branch (CDB) by the HHSs.<sup>2</sup> These data are used to determine vaccine 'uptake' in the SIP.

The following methods/assumptions were used to determine HPV, dTpa, and meningococcal ACWY uptake in the SIP:

- **Student cohort:** The student cohort is the total number of students in that year level reported as 'total cohort for dose 1' on the SIP Annual Outcome Report. This information is provided by schools to SIP providers
- Consent forms returned: The percent of consent forms returned has been calculated by dividing the number of forms returned by the 'total student cohort'. For HPV this is presented as percent of consent forms for dose 1, and
- Vaccine uptake: The uptake for each dose is the number of students vaccinated for that dose divided by the 'total student cohort'.

Data in this report cannot be compared to coverage data produced by other national agencies as the methodology may differ with respect to source of data, time period, age group and geographical areas.

<sup>&</sup>lt;sup>2</sup> At the conclusion of each year's SIP, the HHS's Public Health Units collate data from each SIP provider and produce a SIP Annual Outcome Report. The report provides information such as total enrolments, number of consent forms returned and number of students vaccinated by dose number, sex and year level.