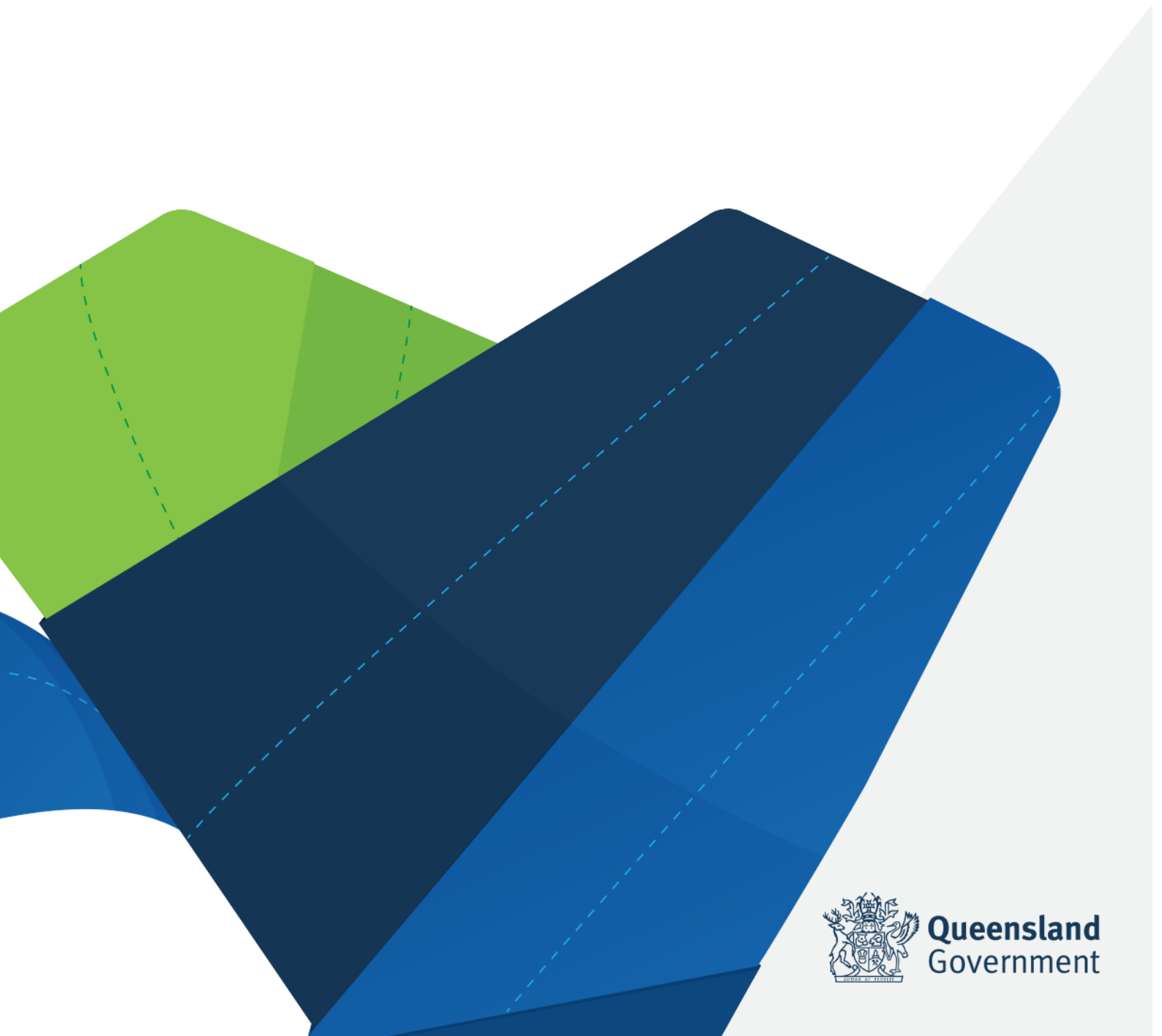


# Queensland School Immunisation Program

## 2020 Annual Report



**Queensland School Immunisation Program—Annual Report 2020**

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For more information contact:

Communicable Diseases Branch, Immunisation Program, Department of Health, GPO Box 48, Brisbane QLD 4001,

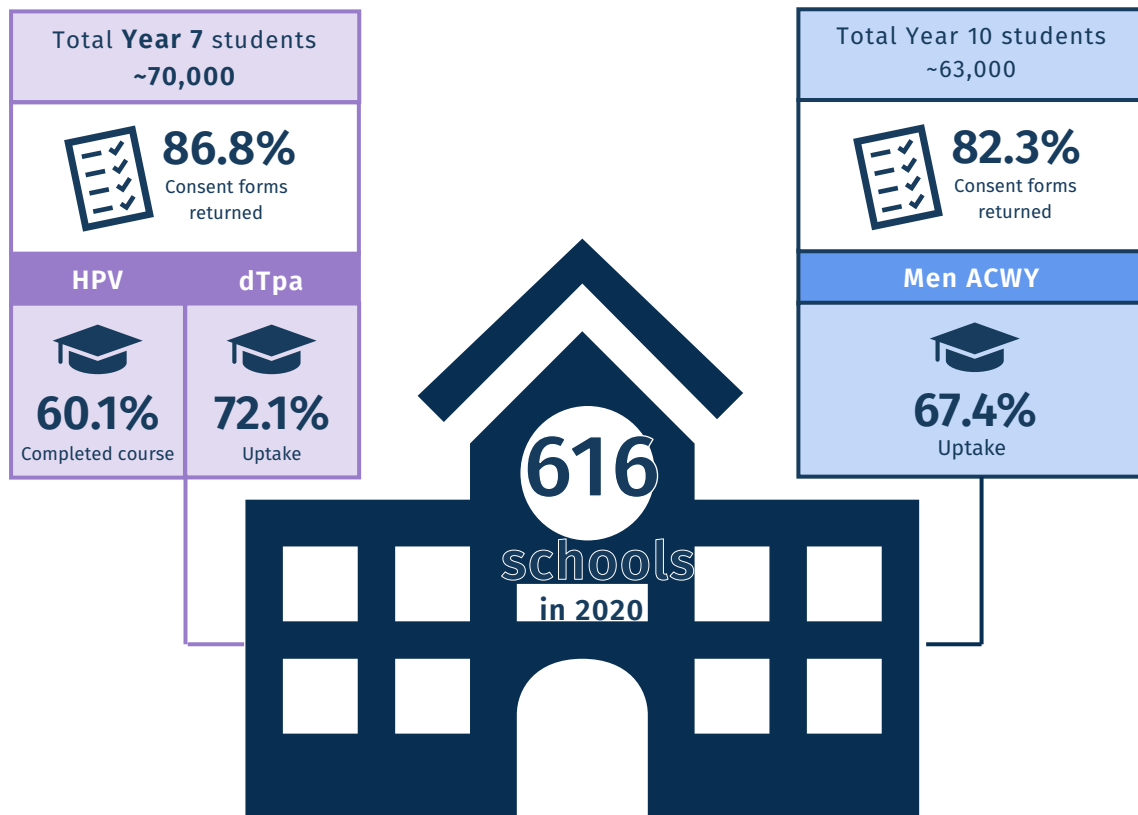
Email: [immunisation@health.qld.gov.au](mailto:immunisation@health.qld.gov.au).

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# Key outcomes from the Queensland School Immunisation Program 2020



# 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 is also offered free in the community setting via GPs for adolescents aged 15–19 years of age.

This report focuses on uptake of the vaccines offered in the SIP for school year 2020.

## Strategic Goals

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. These are outlined below, along with progress to date:

- Action 2.1.1: Implement and monitor changes to the *Public Health Act 2005* to enable disclosure of identifiable student information to vaccine service providers.
  - School immunisation providers now have legislative power to request student and parent details from school principals to follow up with parents who did not return a consent form.
- Action 2.1.2: Review consent and follow-up processes to streamline the School Immunisation Program.
  - Consent forms now allow parents to indicate ‘yes’ or ‘no’ to vaccination. Immunisation providers do not follow up parents who indicate ‘no’ to vaccination
  - Action 2.1.3: Implement and evaluate innovative projects to increase participation, including opportunistic vaccination, to ensure completion of the vaccination schedule.
  - SIP providers are encouraged to offer catch-up vaccinations for students who miss scheduled school clinics. Students can also receive their vaccination at their doctor or community immunisation clinic.

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<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 2020 performance

## COVID-19 pandemic

School-based vaccination rates were lower in 2020 than in 2019. This is likely an effect of the COVID-19 pandemic, which necessitated the cancellation of some school vaccination clinics early in the school year. Where possible, Queensland SIP providers worked with schools to reschedule cancelled vaccination clinics to the second half of the school year. Increased student absenteeism in 2020 due to COVID-19 would also have impacted upon the school-based vaccination rates.

Students who missed their school-based vaccination in 2020 can receive catch-up vaccinations through the school-based program in 2021 or through other immunisation providers such as GPs. Vaccine completion rates will continue to be monitored by the Queensland Immunisation Program.

## Consent form return

Every student must return a form indicating parental consent to vaccination prior to being vaccinated.

Where a student does not return a consent form, school immunisation providers have legislative power to request student and parent details from school principals to follow up directly with the parents. Most providers access student and parent details from all, or a targeted proportion, of their schools to improve consent form return.

Parents can indicate 'yes' or 'no' to vaccination. School immunisation providers do not follow up with parents who indicate 'no' to vaccination.

Consent form return in the 2020 SIP report is stated as a proportion of the total students and includes those who indicated 'no' to vaccination.

## 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).

As shown in Table 1 and Figure 1, for the 2020 school year:

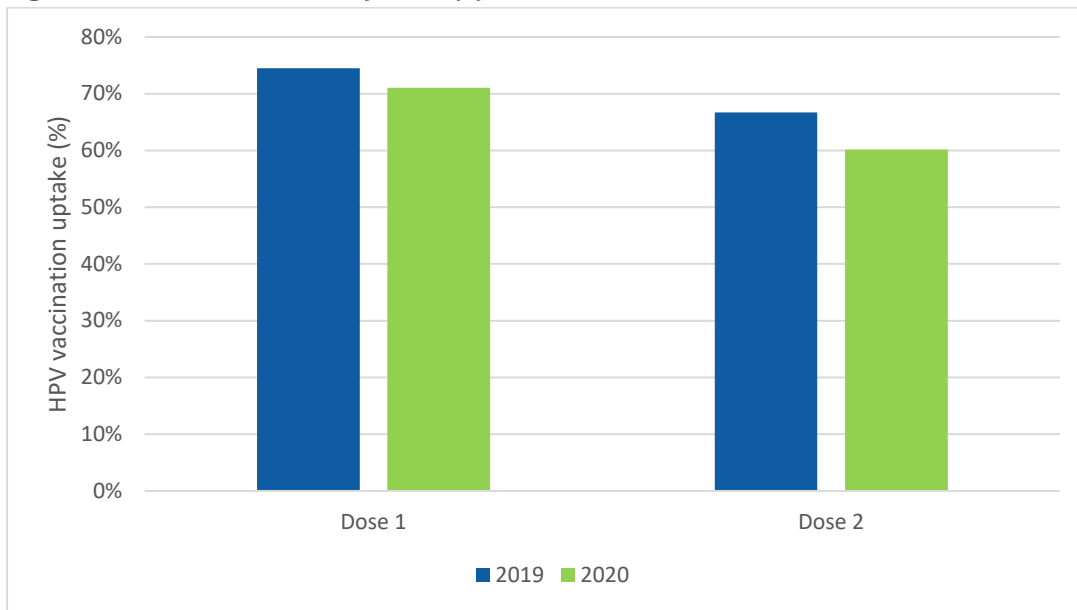
- 86.8% of year 7 students returned a consent form. This was constant from 86.7% in 2019.
- 60.1% of year 7 students completed their two-dose HPV vaccination course in 2020. This was substantially lower than in 2019 (66.7%).
- A lower proportion (71.0%) of students received their first dose of HPV vaccine in 2020 compared to 2019 (74.5%).
- HPV uptake fell by 10.9% over the two-dose course (71.0% for dose 1 and 60.1% for dose 2), greater than the 7.8% percentage point fall observed in 2019.

**Table 1: Year 7 HPV vaccine uptake by HHS, Queensland SIP 2020**

Year 7 HPV (2020)					
Hospital and Health Service	Total schools	Total student cohort	% consent forms returned	% dose 1 uptake	% dose 2 uptake
Cairns and Hinterland	38	3,868	82.9%	72.8%	56.4%
Central Queensland	41	3,566	87.8%	72.9%	55.3%
Central West	8	101	88.1%	75.2%	74.3%
Darling Downs	63	4,419	85.5%	70.0%	48.2%
Gold Coast	50	7,950	90.0%	74.3%	65.8%
Mackay	24	2,453	91.0%	81.2%	69.1%
Metro North	91	14,409	85.5%	65.9%	60.2%
Metro South	116	15,608	90.6%	72.8%	64.4%
North West	11	439	72.2%	65.6%	50.8%
South West	12	317	98.7%	88.6%	83.0%
Sunshine Coast	51	5,878	81.5%	61.2%	46.4%
Torres and Cape	9	275	78.5%	75.3%	50.2%
Townsville	39	3,482	86.1%	78.4%	66.5%
West Moreton	31	4,462	82.8%	71.9%	61.3%
Wide Bay	32	2,956	85.4%	74.1%	61.1%
<b>Queensland Total</b>	<b>616</b>	<b>70,183</b>	<b>86.8%</b>	<b>71.0%</b>	<b>60.1%</b>

Source: 2020 SIP Annual Outcome Reports

**Figure 1: Year 7 HPV vaccine uptake by year level and dose number, Queensland SIP 2019 and 2020<sup>2</sup>**



Source: 2019 and 2020 SIP Annual Outcome Reports

## dTpa uptake results

As shown in Table 2, for the 2020 school year:

- 86.8% of students returned a consent form, similar to 86.5% observed in 2019.
- 72.1% of students received their dTpa vaccination, lower than 76.0% achieved in the 2019 SIP.

**Table 2: Diphtheria, tetanus and pertussis (dTpa) vaccine uptake by HHS, Queensland SIP 2020**

Year 7 dTpa (2020)				
Hospital and Health Service	Total schools	Total student cohort	% consent forms returned	% dTpa uptake
Cairns and Hinterland	38	3,868	82.7%	73.8%
Central Queensland	41	3,566	87.9%	75.0%
Central West	8	101	86.1%	77.2%
Darling Downs	63	4,419	82.9%	71.3%
Gold Coast	50	7,950	90.7%	76.3%
Mackay	24	2,453	90.8%	83.7%
Metro North	91	14,409	85.5%	66.5%
Metro South	116	15,608	90.7%	73.5%
North West	11	439	71.8%	65.6%
South West	12	317	98.1%	89.3%
Sunshine Coast	51	5,878	81.7%	62.6%
Torres and Cape	9	275	78.9%	72.0%
Townsville	39	3,482	86.4%	79.0%
West Moreton	31	4,462	83.5%	72.8%
Wide Bay	32	2,956	85.3%	76.5%
<b>Queensland Total</b>	<b>616</b>	<b>70,183</b>	<b>86.8%</b>	<b>72.1%</b>

Source: 2020 SIP Annual Outcome Reports



## Meningococcal ACWY uptake results

As shown in Table 3, for the 2020 school year:

- A higher proportion of students returned a consent form (82.3%) compared with 2019 (79.6%). This result continues the upward trend of consent form return for this vaccination since its introduction in 2017.
- There was a small decrease in the proportion of Year 10 students who received their meningococcal ACWY vaccination in 2020 (67.4%) compared to the 2019 SIP (68.8%).

**Table 3: Meningococcal ACWY vaccine uptake by HHS, Queensland SIP 2020**

Year 10 Meningococcal ACWY (2020)				
Hospital and Health Service	Total schools	Total student cohort	% consent forms returned	% Meningococcal ACWY uptake
Cairns and Hinterland	38	3,350	76.3%	66.8%
Central Queensland	41	3,061	87.0%	71.4%
Central West	8	84	64.3%	61.9%
Darling Downs	63	3,854	76.7%	62.0%
Gold Coast	50	7,211	85.8%	72.7%
Mackay	24	2,178	88.4%	81.3%
Metro North	91	12,687	88.6%	66.5%
Metro South	116	14,481	85.9%	69.0%
North West	11	340	64.1%	54.7%
South West	12	221	92.8%	80.1%
Sunshine Coast	51	5,318	68.0%	53.4%
Torres and Cape	9	279	32.6%	29.7%
Townsville	39	3,126	79.4%	71.3%
West Moreton	31	3,946	75.8%	65.7%
Wide Bay	32	2,684	77.8%	70.8%
<b>Queensland Total</b>	<b>616</b>	<b>62,820</b>	<b>82.3%</b>	<b>67.4%</b>

Source: 2020 SIP Annual Outcome Reports

## Other measures

Successfully vaccinating a student relies on several steps – the student must be provided with and return a consent form, the consent form must indicate parental approval to vaccinate, and the student must attend and complete the vaccination appointment. Therefore, it is also useful to analyse the proportion of students who completed each step of this pathway since improving any step of this pathway will improve the vaccination uptake rate. In particular, the proportion of students fully vaccinated after return of a consent form indicating approval to vaccination ('Proportion of students who consented to vaccination who were vaccinated') is a useful measure of SIP performance since there was a demonstrable intent to vaccinate these students.

Table 4 shows that vaccination consent form return in 2020 was consistent with previous years (82–87% in 2020 and 80–87% in 2019). Furthermore, a similar proportion of returned forms indicated parental approval for vaccination (88–91% in 2020 and 90–93% in 2019).

The main driver of reduced immunisation coverage in the SIP in 2020 was a lower proportion of students fully vaccinated after returning a consent form indicating approval to vaccination (79–93% in 2020 and 86–96% in 2019). This was likely due to COVID-19 related factors such as cancellation of school clinics and increased student absenteeism, in addition to standard reasons including conflicting school scheduling, student illness, or needle phobia.

**Table 4: Number and percent of students completing each step of the Queensland SIP pathway by vaccine, 2018 -2020**

Vaccine	2020			2019			2018		
	HPV	dTpa	menACWY	HPV	dTpa	menACWY	HPV	dTpa	menACWY
Total student cohort (n)	70,183	70,183	62,820	68,262	68,262	61,942	65,545	65,545	58,216
Consent forms returned (n,%)	60,916 (86.8%)	60,906 (86.8%)	51,714 (82.3%)	59,193 (86.7%)	59,044 (86.5%)	49,334 (79.6%)	56,603 (86.4%)	56,438 (86.1%)	44,740 (76.9%)
Consented to vaccination (n,%)	53,797 (88.3%)	54,517 (89.5%)	46,909 (90.7%)	52,971 (89.5%)	53,989 (91.4%)	45,691 (92.6%)	50,611 (89.4%)	51,597 (91.4%)	41,822 (93.5%)
Proportion of students who consented to vaccination who were vaccinated (%)	78.5%	92.9%	90.2%	86.0%	96.1%	93.3%	86.8%	97.6%	95.6%
Vaccine uptake (n,%)	42,213 (60.1%)	50,632 (72.1%)	42,321 (67.4%)	45,536 (66.7%)	51,860 (76.0%)	42,628 (68.8%)	43,932 (67.0%)	50,378 (76.9%)	39,980 (68.7%)

Source: 2018-2020 SIP Annual Outcome Reports. 2019 data has been amended since the last report.

**Total student cohort:** 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.

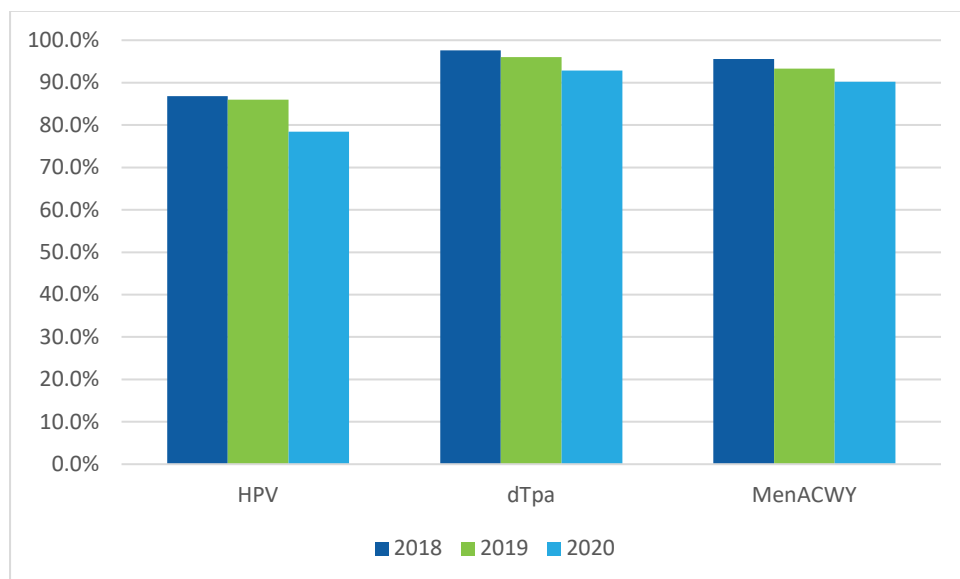
**Consent forms returned (%):** The number of consent forms returned divided by the total student cohort. For HPV this is presented as percent of consent forms returned for dose 1.

**Consented to vaccination (%):** The number of consent forms returned indicating 'yes' for vaccination divided by the number of consent forms returned. For HPV this is presented as percent of consent forms returned indicating 'yes' for dose 1.

**Proportion of students who consented to vaccination who were vaccinated (%):** The number of students fully vaccinated divided by the number of consent forms returned indicating 'yes' for vaccination. For HPV this is presented as percent of students vaccinated as a proportion of consent forms returned indicating 'yes' for dose 1.  
**Vaccine uptake:** The number of students fully vaccinated divided by the total student cohort.

Figure 2 shows that in 2020, the most significant decline in the proportion of students fully vaccinated after return of a consent form indicating 'yes' to vaccination was observed for HPV (78.5% in 2020 and 86.0% in 2019). Since HPV is the only SIP vaccine that requires two doses, its completion rate was the most likely to be affected by COVID-19-related factors such as cancellation of school clinics and absenteeism.

**Figure 2: Students vaccinated of those who consented to vaccination (%), Queensland SIP 2018-2020**



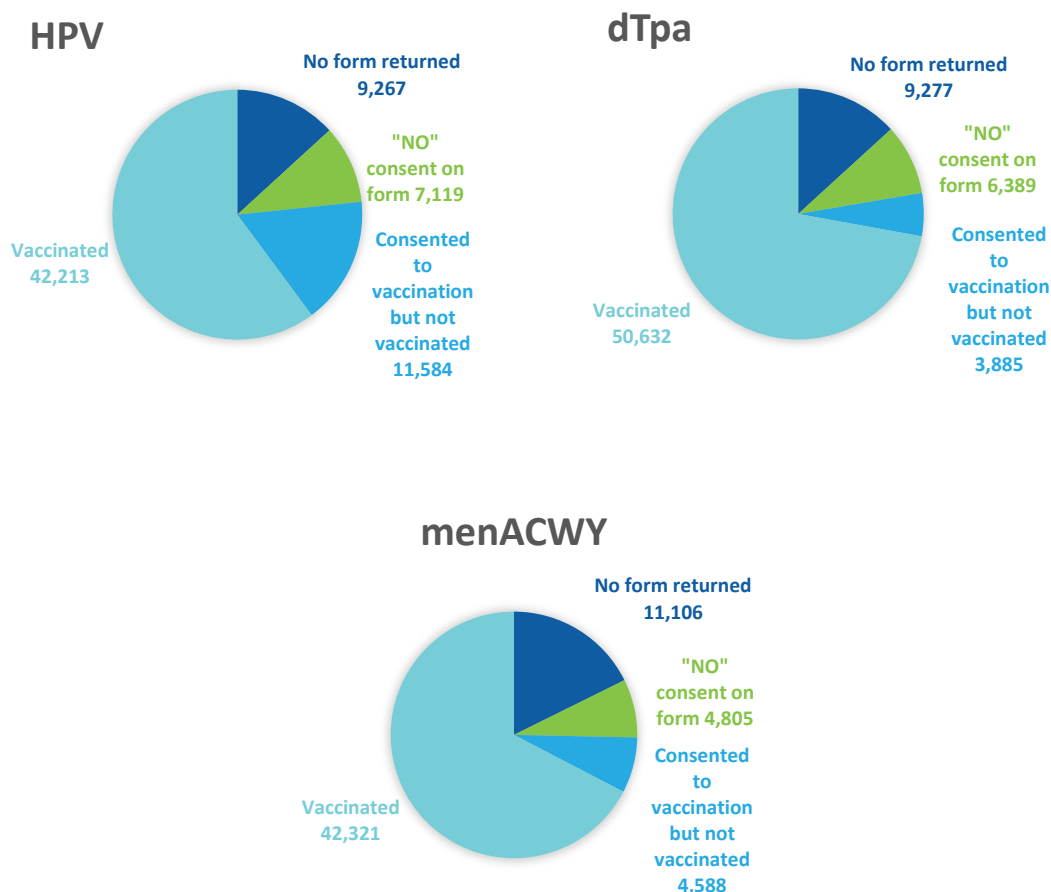
Source: 2018-2020 SIP Annual Outcome Reports

Figure 3 shows that in 2020, year 10 students were less likely to return a vaccine consent form than year 7 students, although this has improved in recent years (increasing from 72.4% in 2017 to 82.3% in 2020).

Between vaccine types, a similar proportion of parents returned a consent form indicating they did *not* give approval for their child to be vaccinated ('no' to vaccination), although the absolute number was lower for meningococcal ACWY.

There was a substantial number of students who returned a form indicating consent for vaccination but who were not fully vaccinated. This was particularly marked for HPV; 11,584 students whose parents had indicated consent for vaccination were not fully vaccinated by the end of the school year.

**Figure 3: Student numbers through the 2020 Queensland SIP pathway**



# Methods and definitions

Data in this report are derived from the SIP Annual Outcome Reports submitted to Communicable Diseases Branch (CDB) by the HHSs.<sup>2</sup>

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

- **Total student cohort:** 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 (n):** Total number of ‘yes’ and ‘no’ consent forms returned.
- **Consent forms returned (%):** The number of consent forms returned divided by the total student cohort. For HPV this is presented as percent of consent forms returned for dose 1.
- **Consented to vaccination (n):** Total number of students who returned a ‘yes’ consent form.
- **Consented to vaccination (%):** The number of forms returned indicating ‘yes’ for vaccination divided by the number of consent forms returned. For HPV this is presented as percent of consent forms returned indicating ‘yes’ for dose 1.
- **Proportion of students who consented to vaccination who were vaccinated (%):** The number of students fully vaccinated divided by the number of consent forms returned indicating ‘yes’ for vaccination. For HPV this is presented as percent of students vaccinated as a proportion of consent forms returned indicating ‘yes’ for dose 1.
- **Vaccine uptake:** 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.

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<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 HHS SIP Annual Outcome Report. The report provides information such as total enrolments, number of consent forms returned, and number of students vaccinated by year level.