

# Queensland School Immunisation Program

## 2022 Annual Report



**Queensland School Immunisation Program—Annual Report 2022**

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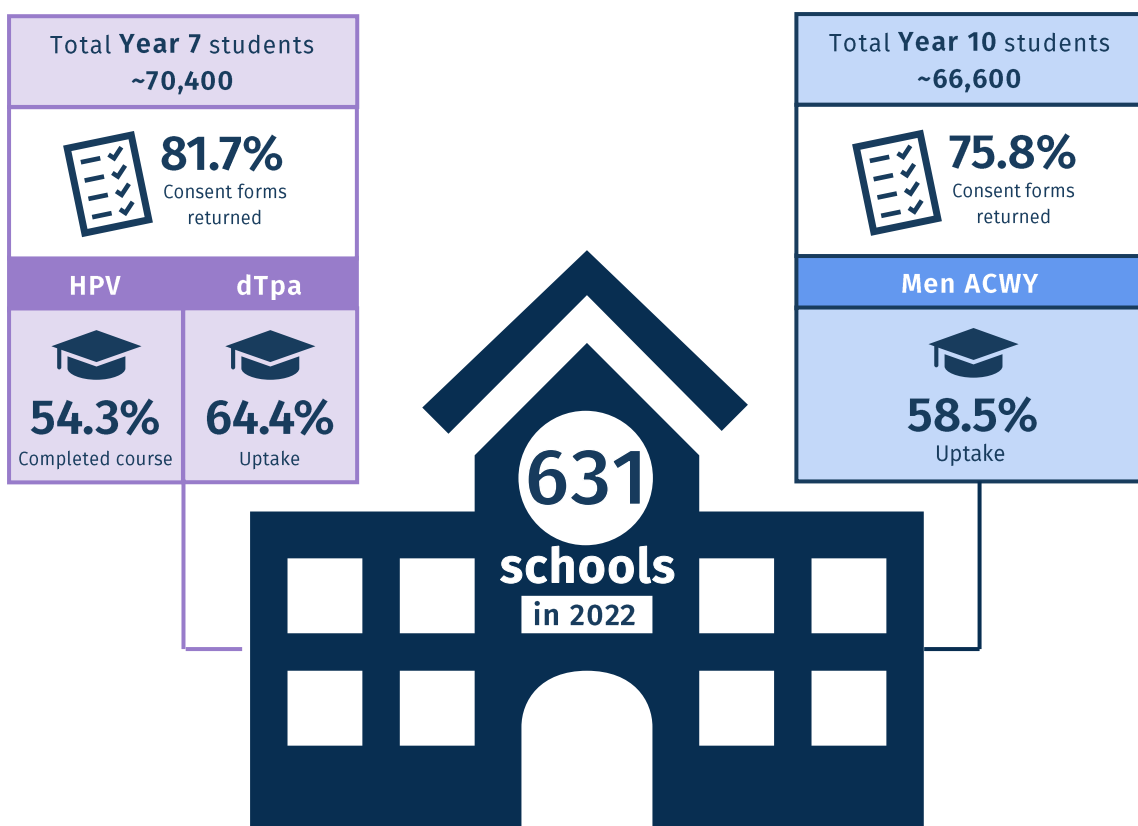
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# Key outcomes from the Queensland School Immunisation Program 2022



# Introduction

The School Immunisation Program (SIP) offers Queensland secondary school students the opportunity to be vaccinated against a range of vaccine preventable diseases in the school setting. The following vaccine preventable diseases are the focus of the SIP:

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

The SIP is delivered by Hospital and Health Services (HHSs) either directly or via a contracted agreement with an immunisation provider. The service delivery model varies across the state with some HHSs delivering the program to schools in other HHSs<sup>1</sup>. Adolescent vaccines are also offered free in the community setting via general practitioners and other National Immunisation Program (NIP) providers to eligible individuals.

This report focuses on uptake of the vaccines offered in the SIP for school year 2022.

## 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 GP or community immunisation clinic.

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<sup>1</sup> 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 2022 performance

## Summary

School-based vaccination rates have been declining since 2019. This is likely a result of the COVID-19 pandemic, which at different stages has resulted in the cancellation of some school vaccination clinics, a sustained increase in student and staff absenteeism, increased confusion and hesitancy around routine vaccination services, and general vaccine “fatigue”. School-based vaccination services throughout the country have experienced a decline in uptake, most markedly for HPV<sup>2</sup>.

Students who missed their school-based vaccination in 2022 can receive catch-up vaccinations through the school-based program in 2023 or through other immunisation providers such as GPs. Vaccine completion rates continue to be monitored by the Queensland Health 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 the legislative power to request student and parent details from school principals to follow up directly with parents / legal guardians. Most providers access student and parent details from all, or a targeted proportion of their schools, to improve consent form return.

Parents / legal guardians can indicate ‘yes’ or ‘no’ to vaccination i.e. consent or not. School immunisation providers do not follow up with parents who indicate ‘no’ to vaccination.

Consent form return is stated as a proportion of the total students and includes those who indicated ‘no’ to vaccination.

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<sup>2</sup> National Centre for Immunisation Research and Surveillance, 2023. *Impact of COVID-19 on School-based Vaccination Programs. Report 2021.*

## 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 2022 school year:

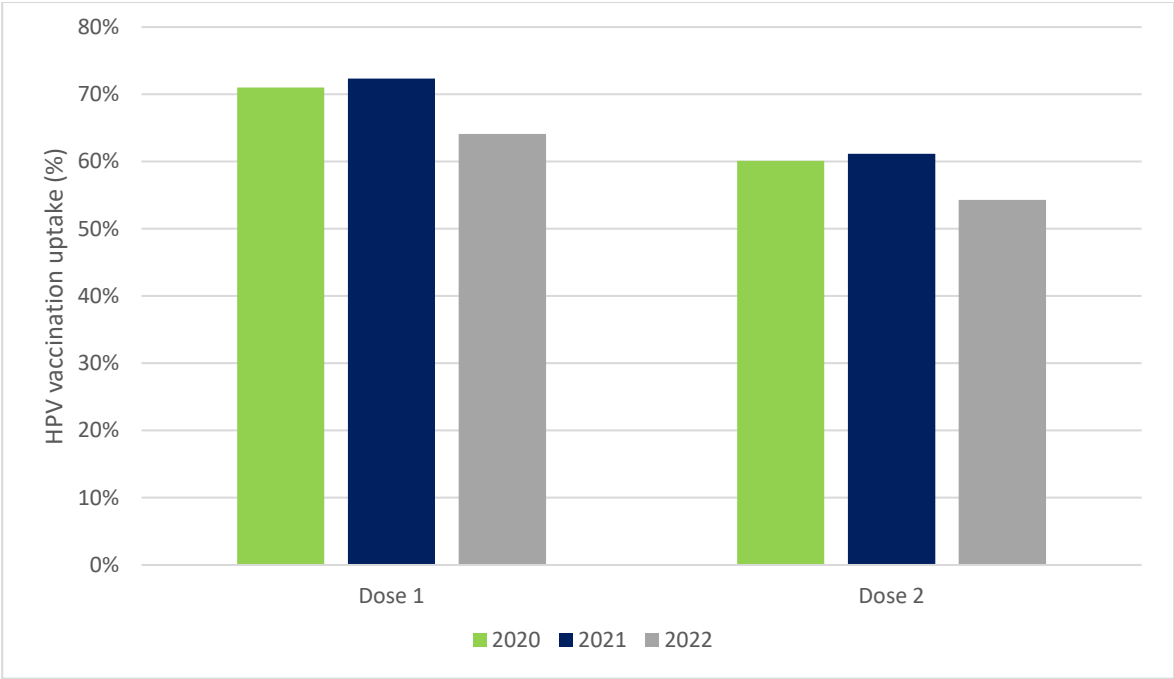
- 81.7 per cent of Year 7 students returned a consent form. This was a substantial decrease from the 92.6 per cent consent form return rate of 2021.
- 54.3 per cent of Year 7 students completed their two-dose HPV vaccination course in 2022. This is the lowest SIP vaccination uptake rate on record and was a large drop from 2021 uptake (61.1 per cent).
- 64.1 per cent of Year 7 students received their first dose of the HPV vaccination course in 2022, a drop from 72.4 per cent first dose uptake observed in 2021.
- HPV uptake fell by 9.7 per cent over the two-dose course (64.1 per cent for dose 1 and 54.3 per cent for dose 2), smaller than the 11.3 percentage point difference observed in 2020.

**Table 1: Year 7 HPV vaccine uptake by HHS, Queensland SIP 2022**

Year 7 HPV (2022)					
Hospital and Health Service	Total Schools	Total Cohort	% consent forms returned	% dose 1 uptake	% dose 2 uptake
Cairns and Hinterland	40	3,791	72.1%	61.0%	49.7%
Central Queensland	42	3,432	79.5%	65.8%	54.7%
Central West	9	102	92.2%	85.3%	58.8%
Darling Downs	64	4,526	72.1%	55.5%	45.7%
Gold Coast	54	8,401	81.6%	64.3%	53.8%
Mackay	25	2,602	86.0%	71.7%	60.1%
Metro North	101	14,353	86.0%	67.4%	59.7%
Metro South	113	15,448	91.4%	65.8%	56.0%
North West	11	363	73.0%	60.3%	42.1%
South West	12	310	84.2%	71.0%	53.9%
Sunshine Coast	54	5,949	67.5%	52.4%	45.7%
Torres and Cape	9	312	64.7%	59.0%	35.3%
Townsville	42	3,414	80.7%	70.2%	57.9%
West Moreton	34	4,632	74.6%	61.7%	52.6%
Wide Bay	33	2,779	78.3%	66.3%	54.2%
<b>Queensland Total</b>	<b>643</b>	<b>70,414</b>	<b>81.7%</b>	<b>64.1%</b>	<b>54.3%</b>

Source: 2022 SIP Annual Outcome Reports

**Figure 1: Year 7 HPV vaccine uptake by year and dose number, Queensland SIP 2020-2022**



Source: 2020-2022 SIP Annual Outcome Reports

Queensland coverage data from the Australian Immunisation Register indicates that in 2021, 76.4 per cent of girls and 73.3 per cent of boys were fully vaccinated against HPV by the age of 15 years. These rates were lower for Aboriginal and Torres Strait Islander children, at 69.9 per cent for girls and 63.9 per cent for boys by the age of 15 years<sup>3</sup>.

Of note, the NIP HPV vaccination schedule will change from two doses to a single dose of the same vaccine commencing in the 2023 school year.

<sup>3</sup> National Centre for Immunisation Research and Surveillance, 2022. *Annual Immunisation Coverage Report 2021*.

## dTpa uptake results

As shown in Table 2, for the 2022 school year:

- 80.4 per cent of students returned a consent form, a decrease from the 89.0 per cent return rate of 2021.
- 64.4 per cent of students received their dTpa vaccination, a substantial drop from the 73.3 per cent uptake rate achieved in the 2021 SIP year.

**Table 2: Diphtheria, tetanus and pertussis (dTpa) vaccine uptake by HHS, Queensland SIP 2021**

Year 7 dTpa (2022)				
Hospital and Health Service	Total schools	Total Cohort	% consent forms returned	% dTpa uptake
Cairns and Hinterland	40	3,791	72.1%	62.4%
Central Queensland	42	3,432	79.9%	67.2%
Central West	9	102	91.2%	84.3%
Darling Downs	64	4,526	72.1%	56.9%
Gold Coast	54	8,401	82.1%	66.4%
Mackay	25	2,602	86.0%	74.1%
Metro North	101	14,353	85.2%	67.3%
Metro South	113	15,448	86.0%	66.0%
North West	11	363	73.0%	60.9%
South West	12	310	84.2%	69.7%
Sunshine Coast	54	5,949	66.9%	48.4%
Torres and Cape	9	312	64.7%	58.7%
Townsville	42	3,414	80.7%	70.6%
West Moreton	34	4,632	75.4%	62.2%
Wide Bay	33	2,779	78.2%	67.3%
<b>Queensland Total</b>	<b>643</b>	<b>70,414</b>	<b>80.4%</b>	<b>64.4%</b>

Source: 2022 SIP Annual Outcome Reports

Coverage data from the Australian Immunisation Register indicates that in 2021, 84.5 per cent of Queensland children had received their adolescent booster of dTpa by the age of 15 years. The rate was slightly lower for Aboriginal and Torres Strait Islander children, at 81.0 per cent by the age of 15 years<sup>4</sup>.

<sup>4</sup> National Centre for Immunisation Research and Surveillance, 2022. *Annual Immunisation Coverage Report 2021*.



# Meningococcal ACWY uptake results

As shown in Table 3, for the 2022 school year:

- A markedly lower proportion of students returned a consent form (75.8 per cent) compared with 2021 (88.8 per cent). This result continues the low trend of consent form return for 2022.
- There was a decrease in the proportion of Year 10 students who received their meningococcal ACWY vaccination in 2022 (58.5 per cent) compared to the 2021 SIP (65.6 per cent).

**Table 3: Meningococcal ACWY vaccine uptake by HHS, Queensland SIP 2022**

Year 10 Meningococcal ACWY (2022)				
Hospital and Health Service	School count	Total cohort	% consent forms returned	% MenACWY uptake
Cairns and Hinterland	40	3,508	64.1%	56.0%
Central Queensland	42	3,261	68.1%	58.0%
Central West	9	88	81.8%	73.9%
Darling Downs	64	3,992	65.8%	53.4%
Gold Coast	54	8,044	77.0%	61.9%
Mackay	25	2,314	78.6%	67.9%
Metro North	101	14,129	83.6%	57.7%
Metro South	113	14,376	86.5%	59.3%
North West	11	309	72.8%	63.8%
South West	12	251	73.3%	61.8%
Sunshine Coast	54	5,693	57.8%	49.1%
Torres and Cape	9	282	60.6%	53.9%
Townsville	42	3,306	74.3%	67.0%
West Moreton	34	4,208	66.4%	58.3%
Wide Bay	33	2,816	69.2%	61.5%
<b>Queensland Total</b>	<b>643</b>	<b>66,577</b>	<b>75.8%</b>	<b>58.5%</b>

Source: 2022 SIP Annual Outcome Reports

Coverage data from the Australian Immunisation Register indicates that in 2021, 73.7 per cent of Queensland children had received their adolescent booster of Meningococcal ACWY by the age of 17 years. The rate was lower for Aboriginal and Torres Strait Islander children, at 66.8 per cent by the age of 17 years<sup>5</sup>.

<sup>5</sup> National Centre for Immunisation Research and Surveillance, 2022. *Annual Immunisation Coverage Report 2021*.

## 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 consent to vaccinate, and the student must attend and complete the vaccination appointment. It is useful to also analyse the proportion of students who completed each step of this pathway as 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 2022 was significantly lower than in previous years (76 to 82 per cent in 2022 and 89 to 93 per cent in 2021). This was the main driver of the reduced SIP immunisation uptake observed in 2022 as compared to 2021 and may be a result of increased vaccine hesitancy and/or "fatigue".

A similar proportion of returned forms indicated parental approval for vaccination over the last three years (84 to 87 per cent in 2022, 87 to 88 per cent in 2021, and 88 to 91 per cent in 2020).

For HPV and meningococcal ACWY, there was a small increase in the proportion of students fully vaccinated after returning a consent form indicating approval to vaccination (a 3 per cent increase for HPV, and a 5 per cent increase for menACWY). This could indicate a reduced impact of COVID-19 related factors such as cancellation of school clinics and high staff/student absenteeism.

**Table 4: Number and percentage of students completing steps of the Queensland SIP pathway by vaccine, 2020-2022**

Vaccine	2022			2021			2020		
	HPV	dTpa	MenACWY	HPV	dTpa	MenACWY	HPV	dTpa	MenACWY
Total student cohort (n)	70,414	70,414	66,577	69,558	69,558	65,381	70,183	70,183	62,820
Consent forms returned (n,%)	57,500 (81.7%)	56,593 (80.4%)	50,495 (75.8%)	64,416 (92.6%)	61,896 (89.0%)	58,074 (88.8%)	60,916 (86.8%)	60,906 (86.8%)	51,714 (82.3%)
Consented to vaccination (n,%)	48,542 (84.4%)	49,175 (86.9%)	43,713 (86.6%)	55,844 (86.7%)	53,879 (87.0%)	50,914 (87.7%)	53,797 (88.3%)	54,517 (89.5%)	46,909 (90.7%)
Proportion of students who consented to vaccination who were vaccinated (%)	78.8%	92.2%	89.2%	76.2%	94.7%	84.2%	78.5%	92.9%	90.2%
Vaccine uptake (n,%)	38,262 (54.3%)	45,358 (64.4%)	38,977 (58.5%)	42,534 (61.1%)	51,002 (73.3%)	42,860 (65.6%)	42,213 (60.1%)	50,632 (72.1%)	42,321 (67.4%)

Source: 2020-2022 SIP Annual Outcome Reports.

**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 percentage 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 percentage of consent forms returned indicating ‘yes’ for dose 1.

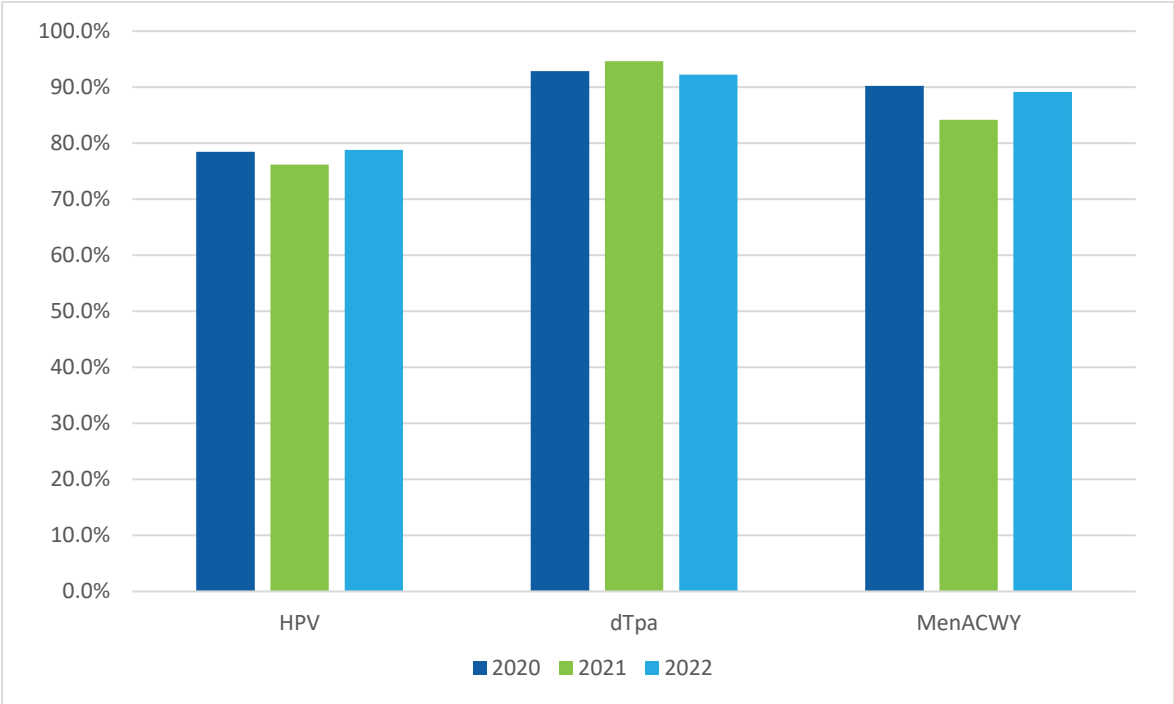
**Proportion of students who consented to vaccination who were vaccinated (%):** The number of students fully vaccinated divided by the number of consent forms returned indicating ‘yes’ for vaccination. For HPV this is presented as percentage of students vaccinated as a proportion of consent forms returned indicating ‘yes’ for dose 1.

**Vaccine uptake:** The number of students fully vaccinated divided by the total student cohort.

Figure 2 shows in 2022, approximately 90 per cent of students were vaccinated against meningococcal ACWY or dTpa after return of a consent form indicating ‘yes’ to vaccination. This was lower for HPV, with 78.8 per cent of students who had consent for vaccination being fully vaccinated by the end of the school year.

Since HPV was the only SIP vaccine that required two doses in 2022, its completion rate was most affected by operational issues such as school scheduling or student illness.

**Figure 2: Students vaccinated of those who consented to vaccination (%), Queensland SIP 2020-2022**



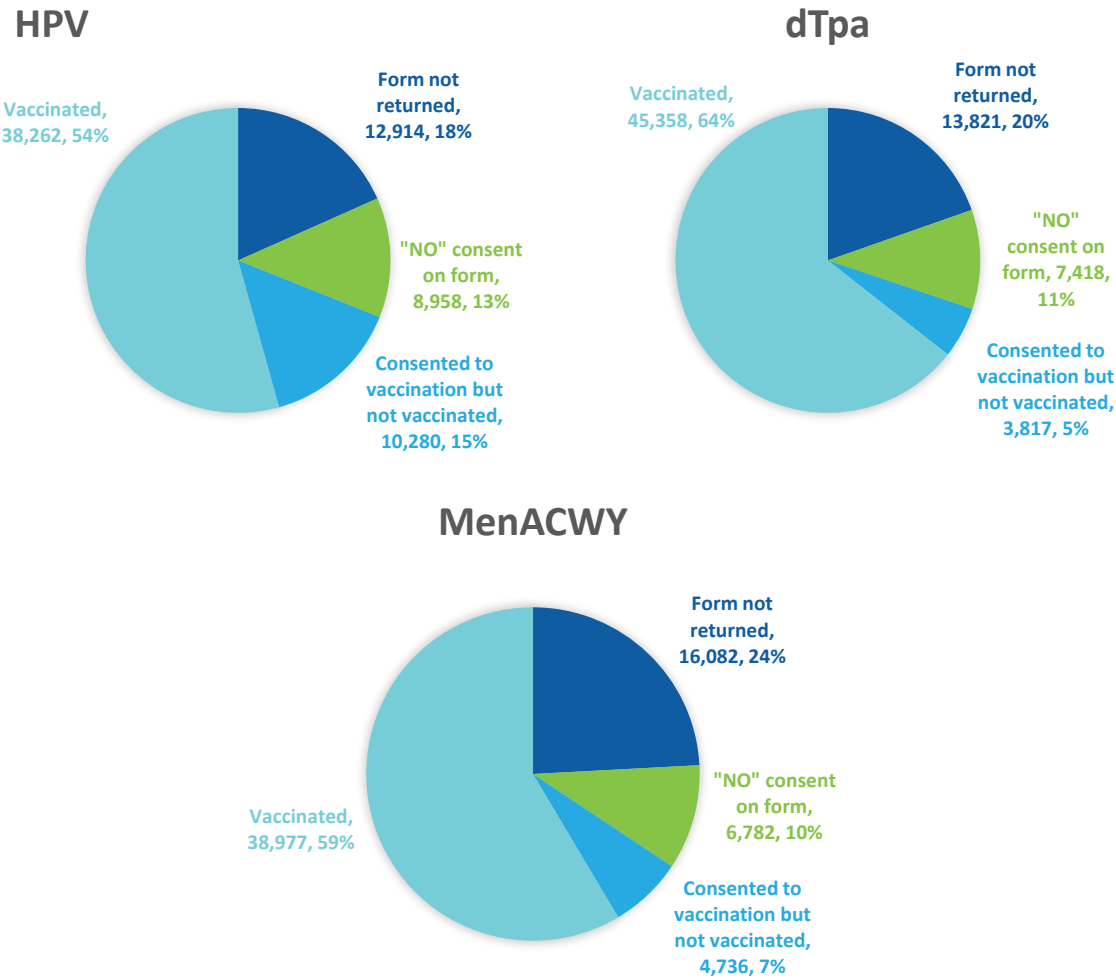
Source: 2020-2022 SIP Annual Outcome Reports

Figure 3 shows that in 2022, between 18 and 24 per cent of students did not return their consent form for the SIP. For meningococcal ACWY, over 16,000 students were not able to be vaccinated for this reason.

Between vaccine types, a similar proportion of parents (10 to 13 per cent) returned a consent form indicating they did *not* give consent for their child to be vaccinated ('no' to vaccination). This was comparable to vaccine refusal observed in 2021 (11 to 12 per cent).

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, with 10,280 students whose parents had indicated consent for vaccination not fully vaccinated by the end of the 2022 school year.

**Figure 3: Student numbers through the 2022 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>6</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 based on student enrolments reported by the Department of Education, the Association of Independent Schools Queensland and the Queensland Catholic Education Commission at February census date.
- **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 percentage 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 percentage 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 percentage 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>6</sup> At the conclusion of each year’s SIP, HHS Public Health Units collate data from each SIP provider and produce a HHS SIP Annual Outcome Report. These reports provide information such as total enrolments, number of consent forms returned, and number of students vaccinated by year level.