

Queensland Health

# Queensland School Immunisation Program

2023 Annual Report



**Queensland**  
Government

## Queensland School Immunisation Program - 2023 Annual Report

Published by the State of Queensland (Queensland Health), 2024

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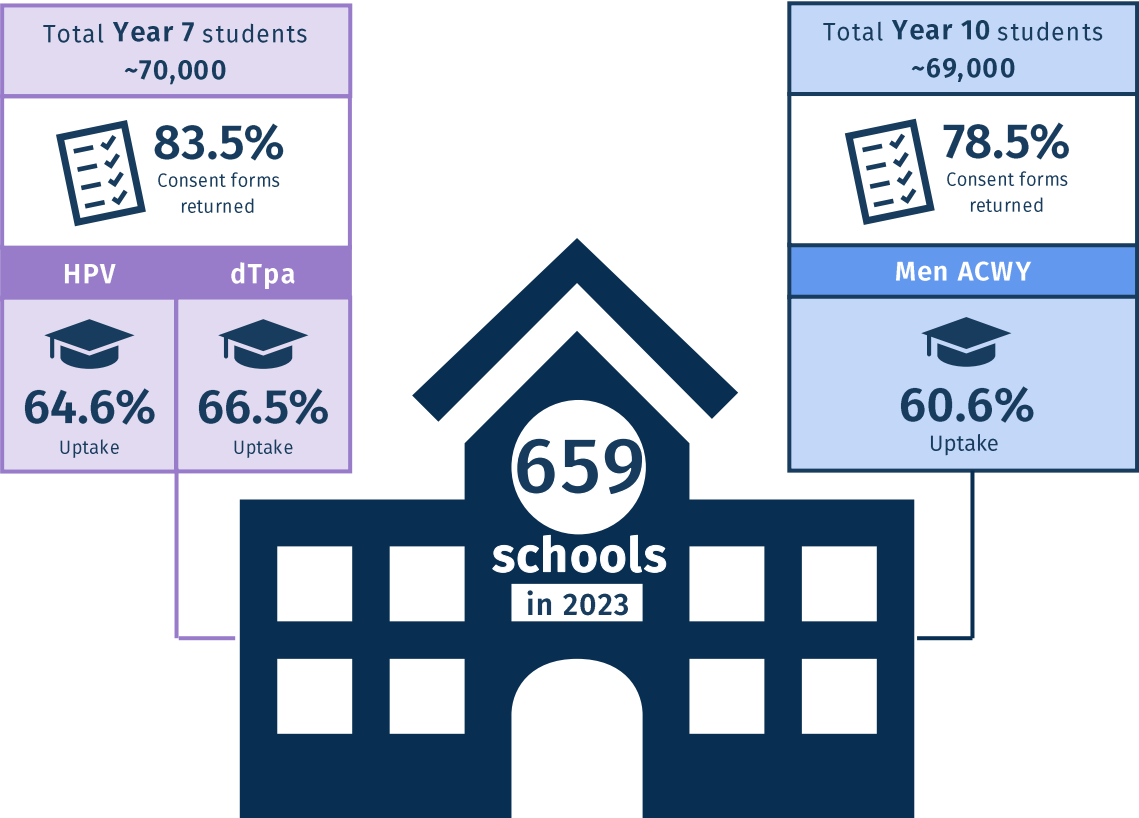
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# Key outcomes from the Queensland School Immunisation Program 2023



# 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).

This report focuses on uptake of the vaccines offered in the SIP for school year 2023.

In 2023, the vaccination recommendation for the nine-valent human papillomavirus (HPV) vaccine Gardasil 9® changed from two doses to one dose. HPV data within this report prior to 2023 is restricted to the first dose of HPV to allow comparability.

The SIP is delivered by Hospital and Health Services (HHSs) either directly or via a contracted agreement with an immunisation provider<sup>1</sup>.

Students who missed their school-based vaccination in 2023 can receive catch-up vaccinations through the school-based program in 2024 or through other immunisation providers in the community such as GPs. Overall vaccine coverage rates continue to be monitored by the Queensland Health Immunisation Program and are referenced in this report.

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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 2023 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, an increase in student absenteeism, confusion and hesitancy around routine vaccination services, and general vaccine “fatigue”. School-based vaccination services throughout the country experienced a decline in uptake<sup>2</sup>.

Data for 2023 indicate a small rebound from the downward trend, signalling a potential turning point. It is hoped that a sustained focus on the importance of vaccination in the school program, as well as the introduction of the meningococcal B vaccine in 2024, will continue to reverse the decline in uptake observed over the last three years.

## 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. 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.*

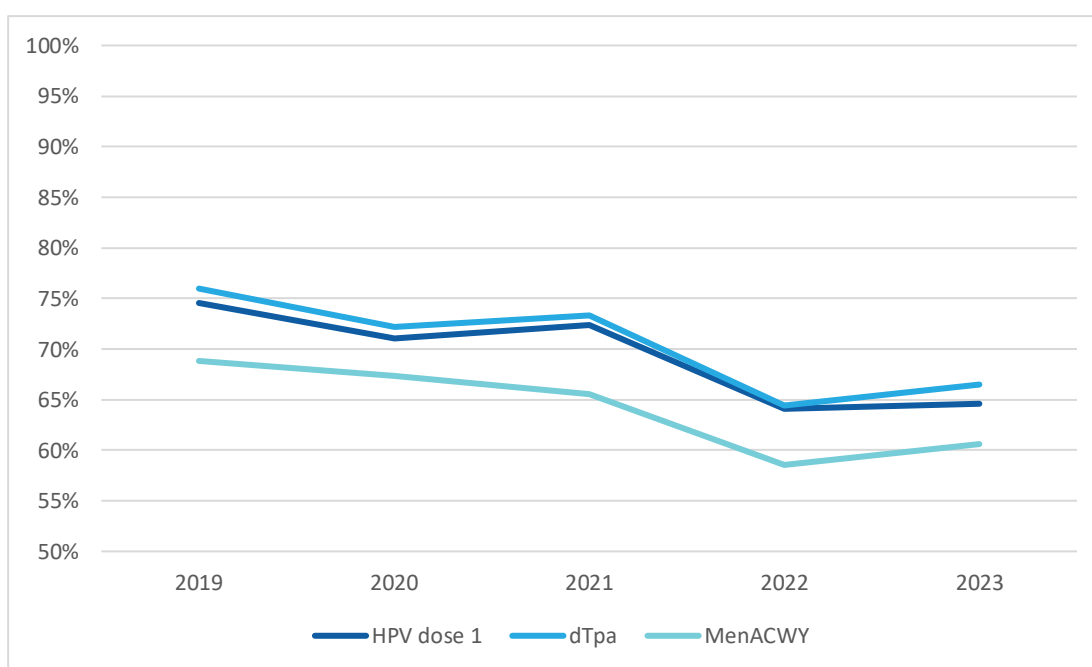
## Uptake over time

As shown in Figure 1, uptake of SIP vaccines has decreased since 2019. However, small increases were observed for each vaccine offered in 2023.

Vaccine uptake rates for HPV and dTpa offered in year 7 stood at 64.6 per cent and 66.5 per cent respectively. This aligns with the ongoing trend of lower consent and uptake for the HPV vaccine..

Uptake of menACWY in year 10 rose to 60.6 per cent in 2023, up from 58.5 per cent recorded in 2022. However, vaccine uptake in year 10 continues to lag behind that of year 7, a trend primarily driven by a lower return rate of consent forms.

**Figure 1: SIP uptake over time, Queensland, 2019-2023**



## HPV uptake results

In 2023, the vaccination recommendation for the nine-valent human papillomavirus (HPV) vaccine Gardasil 9® changed from two doses to one dose.

As shown in Table 1 and Figure 2, for the 2023 school year:

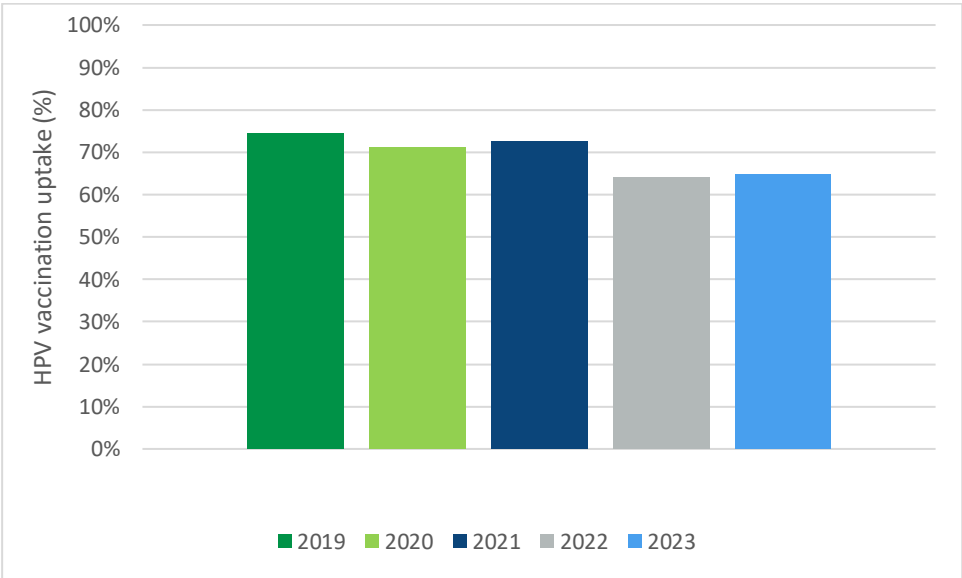
- 83.5 per cent of Year 7 students returned a consent form. This was a small increase from the 81.7 per cent return rate observed in 2022.
- 64.6 per cent of Year 7 students were vaccinated against HPV. This was comparable to the first dose uptake rate of 64.1 in 2022 (noting two doses were required in 2022).
- As observed in Figure 2, there has been a substantial reduction in HPV uptake over time, from a high of 74.5 per cent first dose uptake in 2019 to a low of 64.1 per cent uptake in 2022.

**Table 1: Year 7 HPV vaccine uptake by HHS, Queensland SIP 2023**

Year 7 HPV (2023)				
Hospital and Health Service	Total Schools	Total Cohort	% consent forms returned	% uptake
Cairns and Hinterland	41	3,657	74.7%	63.8%
Central Queensland	43	3,497	81.1%	67.7%
Central West	8	110	80.0%	68.2%
Darling Downs	64	4,266	78.0%	61.3%
Gold Coast	59	8,205	83.9%	66.3%
Mackay	25	2,558	84.3%	70.0%
Metro North	103	14,222	88.8%	65.1%
Metro South	114	15,160	93.2%	66.9%
North West	11	375	59.2%	51.7%
South West	11	259	83.0%	75.7%
Sunshine Coast	55	6,002	69.8%	50.6%
Torres and Cape	9	275	72.4%	62.2%
Townsville	45	3,452	81.6%	71.2%
West Moreton	38	4,808	75.2%	65.1%
Wide Bay	33	2,801	75.4%	63.8%
<b>Queensland Total</b>	<b>659</b>	<b>69,647</b>	<b>83.5%</b>	<b>64.6%</b>

Source: 2023 SIP Annual Outcome Reports

**Figure 2: Year 7 HPV vaccine dose one uptake by year, Queensland SIP 2019-2023**



Source: 2019-2023 SIP Annual Outcome Reports

Queensland coverage data from the Australian Immunisation Register indicates that 82.8 per cent of girls and 80.9 per cent of boys turning 15 years of age in 2022 had received at least one dose of HPV vaccine. These rates were lower for Aboriginal and Torres Strait Islander people, at 81.3 per cent for girls and 77.8 per cent for boys<sup>3</sup>.

<sup>3</sup> National Centre for Immunisation Research and Surveillance, 2023. *Annual Immunisation Coverage Report 2022*.



## dTpa uptake results

As shown in Table 2, for the 2023 school year:

- 66.5 per cent of students received dTpa vaccination, a slight increase from the 64.4 per cent uptake rate achieved in the 2022 school year.

**Table 2: Diphtheria, tetanus and pertussis (dTpa) vaccine uptake by HHS, Queensland SIP 2023**

Year 7 HPV (2023)				
Hospital and Health Service	Total Schools	Total Cohort	% consent forms returned	% uptake
Cairns and Hinterland	41	3,657	74.7%	64.6%
Central Queensland	43	3,497	81.1%	70.1%
Central West	8	110	80.0%	70.9%
Darling Downs	64	4,266	78.0%	62.8%
Gold Coast	59	8,205	83.9%	67.9%
Mackay	25	2,558	84.3%	71.6%
Metro North	103	14,222	88.8%	68.0%
Metro South	114	15,160	93.2%	69.9%
North West	11	375	59.2%	53.1%
South West	11	259	83.0%	75.7%
Sunshine Coast	55	6,002	69.8%	51.7%
Torres and Cape	9	275	72.4%	63.6%
Townsville	45	3,452	81.6%	71.4%
West Moreton	38	4,808	75.2%	65.3%
Wide Bay	33	2,801	75.4%	63.6%
<b>Queensland Total</b>	<b>659</b>	<b>69,647</b>	<b>83.5%</b>	<b>66.5%</b>

Source: 2023 SIP Annual Outcome Reports

Coverage data from the Australian Immunisation Register indicates that for Queensland adolescents turning 15 years of age in 2022, 84.5 per cent had received their adolescent booster of dTpa. The rate was slightly lower for Aboriginal and Torres Strait Islander adolescents at 81.3 per cent<sup>4</sup>.

<sup>4</sup> National Centre for Immunisation Research and Surveillance, 2023. *Annual Immunisation Coverage Report 2022*.

# Meningococcal ACWY uptake results

As shown in Table 3, for the 2023 school year:

- 78.5 per cent of students returned a consent form, an increase from the 75.8 per cent return rate of 2022.
- There was a small but encouraging increase in the proportion of year 10 students who received their meningococcal ACWY vaccination in 2023 (60.6 per cent) compared to the 2022 SIP (58.5 per cent).

**Table 3: Meningococcal ACWY vaccine uptake by HHS, Queensland SIP 2023**

Year 10 Meningococcal ACWY (2023)				
Hospital and Health Service	School count	Total cohort	% consent forms returned	% Meningococcal ACWY uptake
Cairns and Hinterland	41	3,739	67.1%	58.3%
Central Queensland	43	3,459	72.3%	62.1%
Central West	8	107	81.3%	74.8%
Darling Downs	64	4,319	69.0%	55.5%
Gold Coast	59	8,255	77.7%	62.0%
Mackay	25	2,350	79.3%	69.5%
Metro North	103	14,343	84.1%	62.3%
Metro South	114	14,756	92.9%	61.4%
North West	11	364	61.8%	54.7%
South West	11	277	76.5%	73.6%
Sunshine Coast	55	5,875	62.1%	47.4%
Torres and Cape	9	285	71.9%	56.8%
Townsville	45	3,393	78.5%	71.1%
West Moreton	38	4,556	69.1%	61.7%
Wide Bay	33	2,854	67.6%	58.8%
<b>Queensland Total</b>	<b>659</b>	<b>68,932</b>	<b>78.5%</b>	<b>60.6%</b>

Source: 2023 SIP Annual Outcome Reports

Coverage data from the Australian Immunisation Register indicates that 73.6 per cent of Queensland adolescents turning 17 years of age in 2022 had received their adolescent booster of Meningococcal ACWY. The rate was lower for Aboriginal and Torres Strait Islander people at 67.5 per cent<sup>5</sup>.

<sup>5</sup> National Centre for Immunisation Research and Surveillance, 2023. *Annual Immunisation Coverage Report 2022*.

## Other SIP outcome 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 be vaccinated at the school clinic. It is useful to 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.

As shown in Table 4:

- consent form return improved slightly in 2023, with return of the year 10 form consistently lower than the year 7 form.
- there has been a decline in the proportion of returned SIP forms indicating parental approval for vaccination since 2019.
- the proportion of students vaccinated after returning a consent form indicating approval for vaccination was unchanged from 2022.

**Table 4: Number and percentage of students completing steps of the Queensland SIP pathway by vaccine, 2021--2023**

Vaccine	2023			2022			2021		
	HPV (one dose)	dTpa	MenACWY	HPV (first dose only)	dTpa	MenACWY	HPV (first dose only)	dTpa	MenACWY
Total student cohort (n)	69,647	69,647	68,932	70,414	70,414	66,577	69,558	69,558	65,381
Consent forms returned (n,%)	58,156 (83.5%)	58,156 (83.5%)	54,145 (78.5%)	57,500 (81.7%)	57,500 (81.7%)	50,495 (75.8%)	64,416 (92.6%)	64,416 (92.6%)	58,074 (88.8%)
Consented to vaccination (n,%)	49,563 (85.2%)	50,013 (86.0%)	46,503 (85.9%)	48,542 (84.4%)	49,175 (85.5%)	43,713 (86.6%)	55,844 (86.7%)	53,879 (83.6%)	50,914 (87.7%)
Proportion of students who consented to vaccination who were vaccinated (n,%)	44,992 (90.8%)	46,301 (92.6%)	41,491 (89.9%)	45,127 (93.0%)	45,358 (92.2%)	38,977 (89.2%)	50,331 (90.1%)	51,002 (94.7%)	42,860 (84.2%)
Vaccine uptake (n,%)	44,992 (64.6%)	46,301 (66.5%)	41,791 (60.6%)	45,127 (64.1%)	45,358 (64.4%)	38,977 (58.5%)	50,331 (72.4%)	51,002 (73.3%)	42,860 (65.6%)

Source: 2021-2023 SIP Annual Outcome Reports. Year 7 consent form return rates were adjusted for 2022 and 2021 data to include consent forms returned without a response for one of the vaccines offered.

**Consent forms returned (%):** The number of consent forms returned divided by the total student cohort. This calculation was amended in in this report to include year 7 consent forms returned without a response for one of the two vaccines offered.

**Consented to vaccination (%):** The number of consent forms returned indicating 'yes' for vaccination divided by the number of consent forms returned. In this report, the number of consent forms returned includes year 7 forms returned without a response for one of the two vaccines offered.

**Proportion of students who consented to vaccination who were vaccinated (%):** The number of students vaccinated divided by the number of consent forms returned indicating 'yes' for vaccination. For HPV prior to 2023 this was presented as percentage of students vaccinated as a proportion of consent forms returned indicating 'yes' for dose 1.

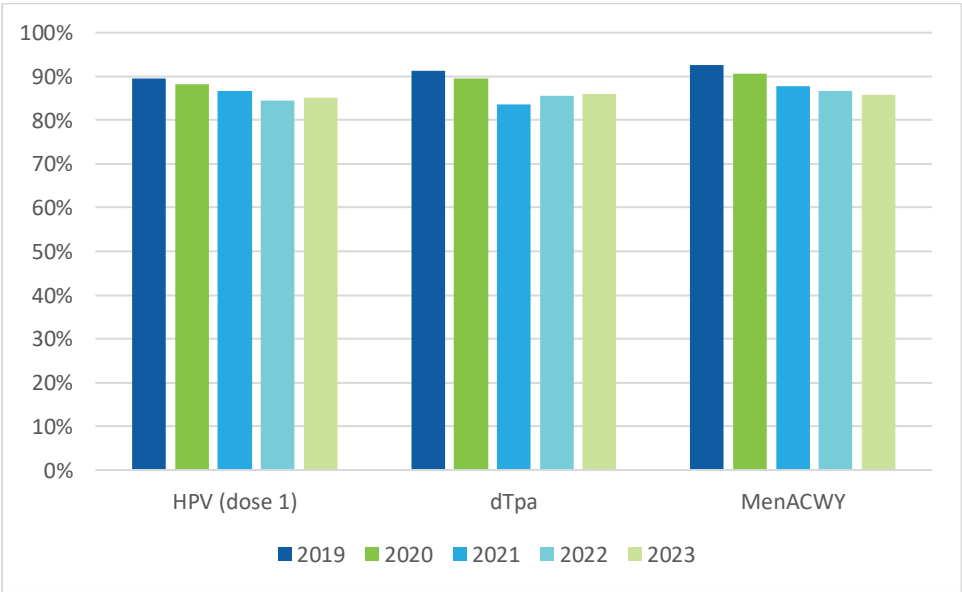
**Vaccine uptake:** The number of students vaccinated divided by the total student cohort.

Figure 3 shows the proportion of returned SIP forms indicating parental consent for vaccination over time. There has been a general decline in parental consent since 2019, aligning with findings of recent research<sup>6</sup> indicating that support for childhood vaccination, especially ‘strong’ support’ has dropped significantly among parents, who are now more likely to hold negative perceptions and concerns about childhood vaccination than they did in 2017. The perceived importance of childhood vaccines has also declined significantly.

In 2023, 85 to 86 per cent of parents who returned a consent form indicated consent for their child to be vaccinated. This was substantially lower than vaccine consent rates observed in 2019 (90 to 93 per cent).

For all years except 2021, there has been slightly lower parental approval for HPV vaccination than for dTpa, also offered in year 7.

**Figure 3: Proportion of returned SIP forms indicating consent for vaccination, Queensland, 2019-2023**

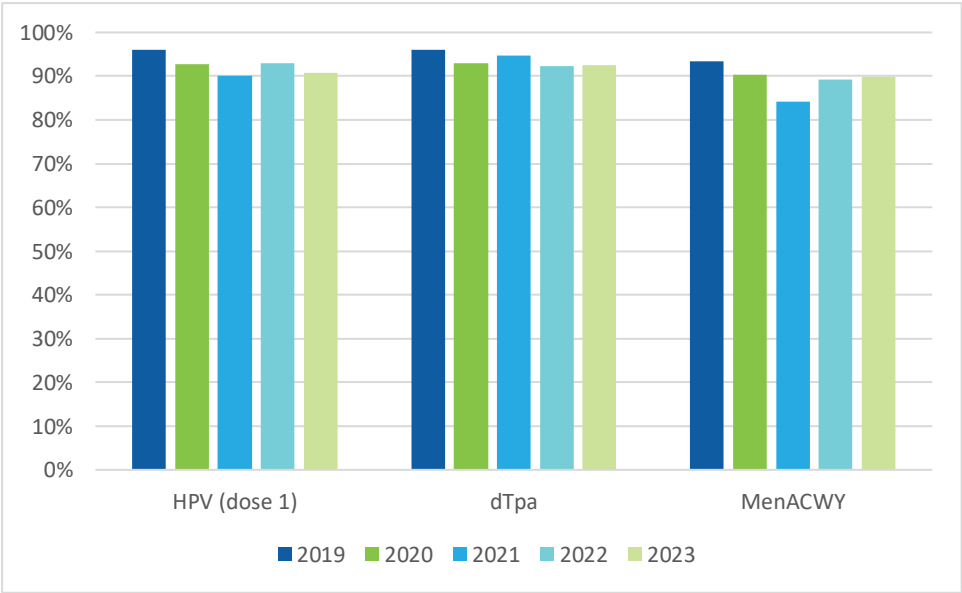


Source: 2019-2023 SIP Annual Outcome Reports.

<sup>6</sup> Australian Government Department of Health and Snapcracker, 2022. *Community Attitude Research on Childhood Immunisation 2022*.

Figure 4 shows that in 2023, 90 to 93 per cent of students were vaccinated after return of a consent form indicating 'yes' to vaccination. This was almost unchanged from the figures observed in 2022, although still a reduction from 2019 completion rates of 93 to 96 per cent.

**Figure 4: Students vaccinated of those who consented to vaccination (%), Queensland SIP 2019-2023**



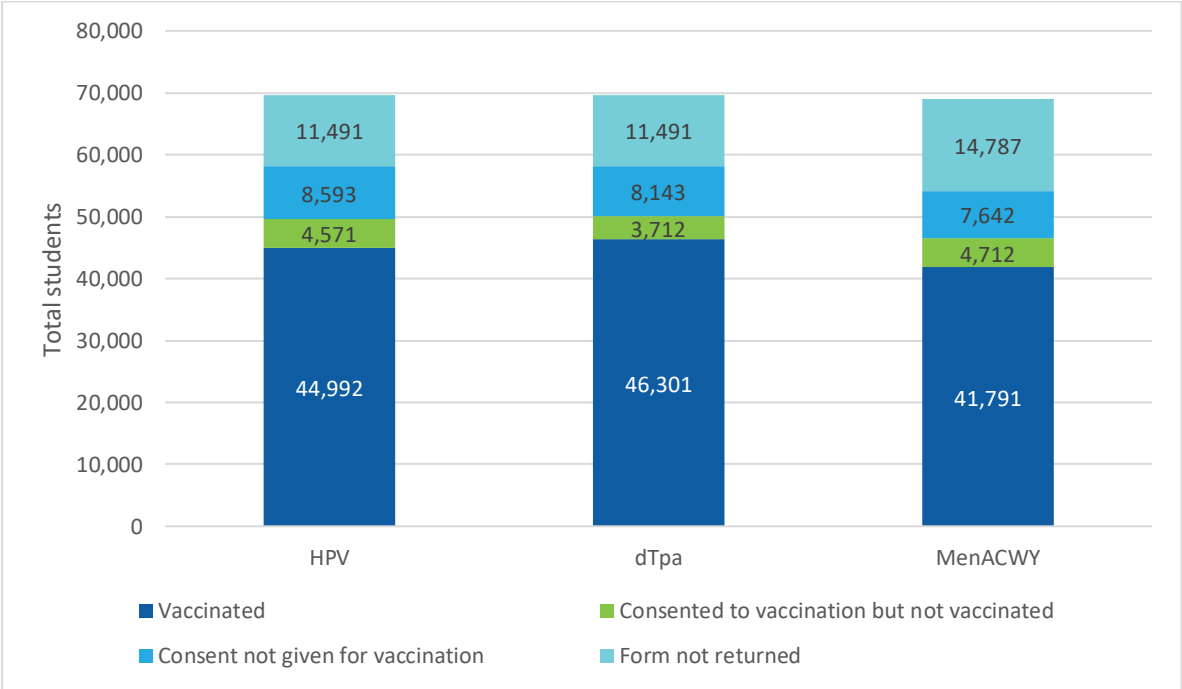
Source: 2019-2023 SIP Annual Outcome Reports

Figure 5 shows that in 2023, between 17 and 22 per cent of students did not return their consent form for the SIP. For meningococcal ACWY, 14,787 students were not able to be vaccinated for this reason.

Between vaccine types, a similar proportion of parents (14 to 15 per cent) returned a consent form indicating they did *not* give consent for their child to be vaccinated or the form was blank for one of the two vaccines ('consent not given for vaccination'). For HPV, this resulted in a missed vaccination opportunity for 8,593 students.

There were a number of students who returned a form indicating consent for vaccination but who were not vaccinated. In most cases, this was due to student absenteeism. This was particularly marked for meningococcal ACWY, with 4,712 students with a form indicating consent for vaccination not vaccinated by the end of the 2023 school year.

**Figure 5: Student numbers through the 2023 Queensland SIP pathway**



# Methods and definitions

Data in this report are derived from the SIP Annual Outcome Reports submitted to the Communicable Diseases Branch (CDB) by the HHSs.<sup>7</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 the February census date.
- **Consent forms returned (n):** Total number of consent forms returned. This was amended in this report to include year 7 consent forms returned without a response for one of the two vaccines offered.
- **Consent forms returned (%):** The number of consent forms returned divided by the total student cohort.
- **Consented to vaccination (n):** Total number of students who returned a ‘yes’ consent form.
- **Consented to vaccination (%):** The number of consent forms returned indicating ‘yes’ for vaccination divided by the number of consent forms returned. In this report, the number of consent forms returned includes year 7 forms returned without a response for one of the two vaccines offered.
- **Proportion of students who consented to vaccination who were vaccinated (%):** The number of students vaccinated divided by the number of consent forms returned indicating ‘yes’ for vaccination. For HPV prior to 2023 this was 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 divided by the total student cohort.

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

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<sup>7</sup> At the conclusion of each year’s SIP, HHS Public Health Units collate data from each SIP provider and produce an 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.