

Briefing

Decision to Use: Expanding eligibility for an additional dose of Pfizer-BioNTech's Comirnaty BA.4/5 COVID-19 bivalent vaccine to pregnant people aged 16 to 29 years

Date due to MO:	13 April 2023	Action required by:	20 April 2023
Security level:	IN CONFIDENCE	Health Report number:	H2023023037
To:	Hon Dr Ayesha Verrall, Minister of Health		
Copy to:	Rt Hon Chris Hipkins, Prime Minister Hon Grant Robertson, Minister of Finance Hon Peeni Henare, Associate Minister of Health (Māori Health) Hon Barbara Edmonds, Associate Minister of Health (Pacific Peoples) Hon Willow-Jean Prime, Associate Minister of Health		

Contact for telephone discussion

Name	Position	Telephone
Susanna Chung	Acting Manager, Public Health Policy and Regulation, Public Health Agency, Te Pou Hauora Tūmatanui	s 9(2)(a)
Michelle Mako	Acting Deputy Director-General, Public Health Agency, Te Pou Hauora Tūmatanui	s 9(2)(a)

Minister's office to complete:

- | | | |
|---|------------------------------------|--|
| <input type="checkbox"/> Approved | <input type="checkbox"/> Decline | <input type="checkbox"/> Noted |
| <input type="checkbox"/> Needs change | <input type="checkbox"/> Seen | <input type="checkbox"/> Overtaken by events |
| <input type="checkbox"/> See Minister's Notes | <input type="checkbox"/> Withdrawn | |

Comment:

Decision to Use: Expanding eligibility for an additional dose of Pfizer-BioNTech's Comirnaty BA.4/5 COVID-19 bivalent vaccine to pregnant people aged 16 to 29 years

Security level: IN CONFIDENCE **Date:** 13 April 2023

To: Hon Dr Ayesha Verrall, Minister of Health

Purpose of report

1. This briefing seeks your agreement to expand the eligibility criteria for an additional dose of the Pfizer-BioNTech Comirnaty BA.4/5 COVID-19 bivalent vaccine (the "Pfizer BA.4/5 bivalent vaccine") to pregnant people aged 16 years and over (currently 30 years and over).
2. This briefing also clarifies that the Pfizer vaccine is strongly preferred over the Novavax Nuvaxovid COVID-19 vaccine (the "Novavax vaccine") for pregnant people of any age, as there is limited safety data for the use of the Novavax vaccine in pregnancy.

Key points

3. Based on the advice of the COVID-19 Vaccine Technical Advisory Group ("CV TAG"), you agreed to use the Pfizer BA.4/5 bivalent vaccine (H2023019738 refers) and the Novavax vaccine (HR2023021712 refers) in the National Immunisation Programme (the Programme) from 1 April 2023 as an additional winter dose.
4. On 24 March 2023, the CV TAG provided an addendum *Update on Intervals and Booster Eligibility* (the "CV TAG addendum memo") to further clarify recommendations on its advice of 10 February 2023 (see **Appendix 1**). However, it had 2 additional recommendations that were not in the original advice:
 - a. that pregnant people aged 16 years and over should be eligible for additional doses, particularly those with comorbidities increasing their risk of severe disease from COVID-19
 - b. that the booking systems should allow for individuals to schedule their vaccination from 3 months after infection without requiring a prescription.
5. There is limited evidence and public health rationale to allow individuals to schedule their vaccination from 3 months after a COVID-19 infection without requiring a prescription. Therefore, no further action is required. The remainder of the CV TAG addendum memo also requires no further action as the information provided is a clarification of earlier advice and does not expand the eligibility criteria.

6. This briefing seeks your agreement to expand eligibility criteria for an additional dose of the Pfizer BA.4/5 bivalent vaccine to include pregnant people aged 16 years and over, particularly those with comorbidities that puts them at risk of severe disease from COVID-19.

Recommendations

We recommend that you:

- | | | |
|----|--|---------------|
| a) | Note that you agreed to expand the eligibility criteria for an additional dose of the Pfizer BA.4/5 bivalent vaccine (H2023019738) and the Novavax vaccine (HR2023021712) for use in the National Immunisation Programme from 1 April 2023 | Noted |
| b) | Note that on 24 March 2023 the CV TAG provided updated advice " <i>Update on Intervals and Booster Eligibility</i> " as an addendum to the CV TAG advice issued on 10 February 2023 to further clarify its recommendations (see Appendix 1) | Noted |
| c) | Note that the updated advice from the CV TAG contained two new recommendations affecting eligibility for the COVID-19 vaccine. These are: <ul style="list-style-type: none"> i. that pregnant people aged 16 years and over should be eligible for additional doses, particularly those with comorbidities that put them at risk of severe disease from COVID-19 ii. that the booking systems should allow for individuals to schedule their vaccination from 3 months after infection without requiring a prescription | Noted |
| d) | Note that there is limited evidence and public health rationale to allow individuals to schedule their vaccination from 3 months after a COVID-19 infection without requiring a prescription | Noted |
| e) | Note that the remaining information contained in the CV TAG addendum memo requires no further changes as they are clarifications and do not impact eligibility for an additional dose | Noted |
| f) | Note that this briefing seeks to expand the eligibility criteria for an additional dose of a COVID-19 vaccine to include pregnant people aged 16 years and over, particularly those with comorbidities that puts them at risk of severe disease from COVID-19 | Noted |
| g) | Note that the Pfizer vaccine is the preferred vaccine for pregnant people of any age and that the Novavax vaccine be only used for pregnant people as per the Medsafe data sheet and CV TAG advice | Noted |
| h) | Agree to expand the eligibility criteria for an additional dose of a COVID-19 vaccine to include pregnant people aged 16 years and over, particularly those with comorbidities that puts them at risk of severe disease from COVID-19 | Yes/No |

- i) **Note** that implementation of this expanded eligibility criteria will take place as soon as safely practicable following agreement.

Noted



Dr Diana Sarfati
Director-General of Health
Te Tumu Whakarae mō te Hauora
Date: 12/04/2023

Hon Dr Ayesha Verrall
Minister of Health
Date:



Michelle Mako
Acting Deputy Director-General
Public Health Agency
Te Pou Hauora Tūmatanui
Date: 12/04/2023

PROACTIVELY RELEASED

Decision to Use: Expanding eligibility for an additional dose of Pfizer-BioNTech's Comirnaty BA.4/5 COVID-19 bivalent vaccine to pregnant people aged 16 to 29 years

Background and context

1. On 10 February 2023, the COVID-19 Vaccine Technical Advisory Group (CV TAG) provided advice supporting the extension of second boosters/an additional dose as part of a pre-winter vaccination programme.
2. Based on that advice, on 14 February 2023 and 20 March 2023, you agreed to use Pfizer-BioNTech's Comirnaty BA.4/5 COVID-19 vaccine (the "Pfizer BA.4/5 bivalent vaccine") (H2023019738 refers) and the Novavax Nuvaxovid COVID-19 vaccine (the "Novavax vaccine") in the National Immunisation Programme (the "Programme") from 1 April 2023 as a winter dose for (HR2023021712 refers):
 - a. anyone in the currently defined high-risk group eligible for a second booster dose who has completed a primary course¹, and regardless of the number of prior booster doses received, but who has not had a dose in the past 6 months or a confirmed case of COVID-19 in the past 6 months, and
 - b. anyone aged 30 and over who has completed a primary course or received any number of booster doses, but who has not had a booster dose in the past 6 months or a confirmed case of COVID-19 in the past 6 months.
3. While you agreed to include the Novavax vaccine as an additional dose from 1 April 2023 (HR2023021712 refers), to clarify intent, the Novavax vaccine should only be used for pregnant people as per the Medsafe data sheet and CVTAG advice. Namely that the "(a)dmistration of Nuvaxovid in pregnancy should only be considered when the potential benefits outweigh any potential risks for mother and fetus."
4. On 24 March 2023, a memo *Update on Intervals and Booster Eligibility* (the "CV TAG addendum memo") was provided to the Director-General of Health (the "Director-General") as an addendum to the CV TAG advice issued on 10 February 2023. The CV TAG addendum memo was intended to further clarify recommendations, particularly for additional doses (doses after the first booster dose) in people under the age of 30 years (see **Appendix 1**).
5. While the CV TAG addendum memo aims to clarify the CV TAG advice issued on 10 February 2023 for implementation purposes, it has included two additional recommendations that were not in the original advice, namely that:

¹ People aged 65 years and over, Māori and Pacific peoples aged 50 years and over, residents of aged residential care and disability facilities, severely immunocompromised people, people aged 16 years and over who have a medical condition that increases the risk of severe breakthrough COVID-19 illness and, people aged 16 and over who live with a disability with significant or complex health needs or multiple comorbidities.

- a. pregnant people aged 16 years and over should be eligible for additional doses, particularly pregnant people who additionally have further comorbidities putting them at risk of severe COVID-19
 - b. booking systems should allow for individuals to schedule their vaccination from 3 months after infection without requiring a prescription.
6. There is limited evidence and public health rationale to allow individuals to schedule their vaccination from 3 months after a COVID-19 infection without requiring a prescription. We therefore consider that the current dose interval should remain at 6 months post infection. The remainder of the CV TAG addendum memo requires no further action as the information provided is a clarification of earlier advice and does not expand the eligibility criteria.
7. For changes in eligibility, a Decision to Use is required before implementation can be undertaken. This briefing seeks your agreement to expand eligibility criteria for an additional dose of the Pfizer BA.4/5 bivalent vaccine to include pregnant people aged 16 years and over, particularly those with comorbidities that puts them at risk of severe disease from COVID-19.

Expanding eligibility to pregnant people aged between 16 to 29 years

8. Currently, pregnant people aged between 16 to 29 years can receive an additional dose of a COVID-19 vaccine by obtaining a prescription from their General Practitioner following a consultation, while pregnant people aged 30 years and over are eligible without a prescription.
9. The CV TAG addendum memo introduces a new recommendation to expand eligibility for an additional dose to include pregnant people aged between 16 to 29 years, particularly those with comorbidities that put them at risk of severe disease from COVID-19.

There is evidence to support additional doses for pregnant people aged between 16 and 29 years

10. While the CV TAG addendum memo does not provide evidence or rationale for the change in eligibility criteria for pregnant people, evidence around pregnancy being a risk factor for serious COVID-19 disease has been raised in several previous memos issued by CV TAG. It is also consistent with recent advice published by the World Health Organization's Strategic Advisory Group of Experts on Immunization (SAGE).²
11. COVID-19 infection with an Omicron variant during pregnancy is associated with an increased risk of severe maternal morbidity and mortality. Studies have shown that pregnant people who are fully vaccinated or boosted have a reduced risk for severe symptoms, complications and death compared to pregnant people who are unvaccinated.³

² www.who.int/publications/i/item/WHO-2019-nCoV-Vaccines-SAGE-Roadmap - accessed 3 April 2023

³ Villar, Jose Prof et al (2023) "Pregnancy outcomes and vaccine effectiveness during the period of omicron as the variant of concern, INTERCOVID-2022: a multinational, observational study" in The Lancet: [www.thelancet.com/journals/lancet/article/PIIS0140-6736\(22\)02467-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)02467-9/fulltext) - accessed on 3 April 2023 and Birol Ilter, P et al (2022) "Clinical severity of SARS-CoV-2 infection among vaccinated and unvaccinated pregnancies during the Omicron wave" in Ultrasound Obstet Gynecol 59(4) www.ncbi.nlm.nih.gov/pmc/articles/PMC9111183/ - accessed 3 April 2023

Maternal vaccination is protective against severe pregnancy or neonatal COVID-19 outcomes.⁴

12. Evidence also indicates that there may be an increase in protection against severe COVID-19 disease for pregnant people who have received a booster dose compared to those that have received only the primary course or are unvaccinated.⁵

Preferred COVID-19 vaccine for pregnant people of any age

13. The CV TAG addendum memo notes that the Pfizer vaccine remains the preferred vaccine for pregnant people of any age as the safety data in pregnancy is scarce for the Novavax vaccine. Pregnant people who are unable, or do not wish to receive the Pfizer vaccine, should discuss if the Novavax vaccine might be suitable for them with their healthcare provider.
14. While the Novavax vaccine is available as a primary course for those aged 12 and over, and as a booster for those aged 18 and over, the Pfizer vaccine remains the preferred choice as there is currently not enough data on the use of the Novavax vaccine in pregnant people. This is consistent with the Medsafe datasheet.
15. The Novavax vaccine should only be made available for pregnant people of any age following a consultation with a health professional and with a prescription.

International recommendations and experiences

16. The Advisory Committee on Immunization Practices (ACIP) within the United States Centre for Disease Control and Prevention (US CDC) recommend that pregnant people remain 'up-to-date'⁶ with their vaccination, and this is currently defined as having received an updated bivalent booster.⁷
17. The Australian Technical Advisory Group on Immunisation (ATAGI) recommend that pregnant people of any age should receive a booster dose 6 months after their last dose or COVID-19 infection.⁸ ATAGI advises that Pfizer vaccines are preferred for pregnant people on account of the limited safety data for the Novavax vaccine. However, those who cannot access Pfizer may consider vaccination with Novavax if the benefits outweigh the potential risks.
18. In the United Kingdom, the Joint Committee on Vaccination and Immunisation (JCVI) advises that pregnant people are more at risk of severe COVID-19 disease. For this reason, pregnant people are included amongst those considered high-risk and therefore eligible for an autumn booster dose, if it has been at least 3 months since their last vaccination.⁹
19. Pfizer vaccines are the JCVI's recommended autumn booster for people aged 5 and over. The Novavax vaccine may only be used in the United Kingdom for those aged 18 and over

⁴ Stock, Sara J. et al (2022) "Pregnancy outcomes after SARS-CoV-2 infection in periods dominated by delta and omicron variants in Scotland: a population-based cohort study" in The Lancet 10(12): www.sciencedirect.com/science/article/pii/S2213260022003605 - accessed 3 April 2023.

⁵ Engjom HM, et al (2022) "Severity of maternal SARS-CoV-2 infection and perinatal outcomes of women admitted to hospital during the omicron variant dominant period" in BMJ Medicine 1(1): bmjmedicine.bmj.com/content/1/1/e000190 – accessed 3 April 2023

⁶ www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/pregnancy.html - accessed 3 April 2023

⁷ www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html - accessed 3 April 2023

⁸ www.health.gov.au/our-work/covid-19-vaccines/who-can-get-vaccinated/pregnant-women - accessed 3 April 2023

⁹ www.gov.uk/government/publications/covid-19-vaccination-women-of-childbearing-age-currently-pregnant-planning-a-pregnancy-or-breastfeeding/covid-19-vaccination-a-guide-on-pregnancy-and-breastfeeding - accessed 3 April 2023

in exceptional circumstances, when there is no clinically suitable COVID-19 vaccine available.¹⁰

20. On 28 March 2023, SAGE made recommendations regarding high, medium and low priority groups in regard to COVID-19 vaccination. Pregnant people are considered in the high priority group and are recommended an additional booster 6 to 12 months after the last dose.
21. SAGE also indicated that “vaccinating pregnant persons – including with an additional dose if more than 6 months have passed since the last dose – protects both them and the foetus, while helping to reduce the likelihood of hospitalisation of infants for COVID-19.”¹¹
22. International immunisation advisory groups generally do not appear to differ in their recommendations based on pregnancy status.

Equity

23. Equity recognises that different people with various levels of advantage require different approaches and resources to achieve equitable health outcomes. Overall, Māori, Pacific and Tāngata whaikaha peoples are impacted more by communicable diseases, as well as the social and economic consequences of serious illness.
24. There are equity implications for pregnant people in the 16 to 29 years age group particularly for Māori, Pacific and Tāngata whaikaha peoples. Māori and Pacific peoples have their pēpi at younger ages than non-Māori/Pacific, and that requiring a prescription for any medicine has equity implications for those unable to access primary healthcare or in living in rural areas.
25. There is higher risk of complications for both māmā and pēpi, particularly if māmā is infected with COVID-19.
26. We are committed to achieving equitable outcomes for Māori, Pacific and Tāngata whaikaha peoples. Whānau-based approaches, alongside the provision of accessible vaccination services and communications, will provide an opportunity to improve delivery and uptake of the COVID-19 vaccine among Māori, Pacific and Tāngata whaikaha peoples as well as uptake of the wider National Immunisation Schedule.

Implementation and roll out

27. The Programme in Te Whatu Ora is planning for the vaccination rollout to pregnant people aged 16 years and over (currently 30 years and over) as soon as is practicable after a decision has been made.

Financial and Supply Implications

28. There are no financial or supply implications to expand eligibility to this pregnant people aged 16 years and over (currently 30 years and over).

¹⁰ <https://www.gov.uk/government/news/jcvi-publishes-advice-on-covid-19-vaccines-for-autumn-booster-programme> - accessed 3 April 2023

¹¹ www.who.int/news/item/28-03-2023-sage-updates-covid-19-vaccination-guidance - accessed 3 April 2023

Next steps

29. If you agree to the recommendations in this briefing, officials will progress implementation plans.

ENDS.

PROACTIVELY RELEASED

Appendix 1 - Booster eligibility addendum: COVID-19 Vaccine Technical Advisory Group (CV TAG) recommendations

[Attached separately]

PROACTIVELY RELEASED

Minister's Notes

PROACTIVELY RELEASED

Memo

Booster eligibility addendum: COVID-19 Vaccine Technical Advisory Group (CV TAG) recommendations

Date: 24 March 2023

To: Dr Diana Sarfati, Director-General of Health, Te Tumu Whakarae mō te Hauora

Copy to: Dr Andrew Old, Deputy Director-General, Public Health Agency, Te Pou Hauora Tūmatanui

Dr Nick Chamberlain, National Director, National Public Health Service, Te Whatu Ora

Dr Nicholas Jones, Director of Public Health, Public Health Agency, Te Pou Hauora Tūmatanui

Astrid Koornneef, Director, National Immunisation Programme, Te Whatu Ora

Alison Cossar, Manager, Public Health Policy & Regulation, Public Health Agency, Te Pou Hauora Tūmatanui

Andrew Oliver, Senior Therapeutics Group Manager, Pharmac

Louise Karageorge, Group Manager, Intelligence Knowledge and Surveillance, Public Health Agency, Te Pou Hauora Tūmatanui

From: Dr Ian Town, Chief Science Advisor, Te Tumu Whakarae mō te Hauora

For your: Information

Purpose of report

1. To clarify the recommendations of the COVID-19 Vaccine Technical Advisory Group (CV TAG) regarding eligibility of additional COVID-19 vaccine doses for individuals aged 16 to 29, as related to the previous CV TAG memo dated 10 February 2023, "*Update on Intervals and Booster Eligibility: COVID-19 Vaccine Technical Advisory Group (CV TAG) recommendations*"

Background and context

2. On 10 February 2023, CV TAG advised that "In a pre-winter vaccination programme, the groups recommended (i.e., actively encouraged) to receive a second booster dose should be expanded to include those eligible for free influenza vaccine in Aotearoa New Zealand. This is with the exception of the childhood age groups and pregnant people under the age of 30 that are part of free influenza vaccine eligibility".
3. CV TAG also recommended that everyone aged 30 years and over should be **eligible** to receive a second booster dose.

4. CV TAG advised that “The benefits of a second booster dose for people under the age of 30 years, who are otherwise healthy, are less certain. People in this group are encouraged to discuss their health needs and risks (e.g., risk of myocarditis or pericarditis) and benefits of a second booster dose with their health care provider”.
5. This memo is an **addendum** to the advice issued on 10 February 2023 in the CV TAG Memo ‘*Update on Intervals and Booster Eligibility*’ to further clarify recommendations, particularly for additional doses (doses after the first booster dose) in people under the age of 30 years, as these were previously unclear. The National Immunisation Programme, along with the Immunisation Advisory Centre, have requested additional guidance from CV TAG on this matter.

Recommendations

6. CV TAG notes:

- a. Hospitalisation rates for COVID-19 in Māori and Pacific peoples aged 50-60 years are broadly similar to the hospitalisation rates in 60-70-year-olds of other ethnicities (see [Appendix 1](#) which reproduces Table 1 from the 10 February 2023 memo).

7. CV TAG recommends:

- a. Simplifying who is considered “at risk” **in those aged 16 years and over**, by expanding the “at risk” group to include those eligible for government funded influenza vaccination (see [Appendix 2](#)) with the exceptions stated below. However, those previously considered “at risk” in previous CV TAG advice should also be included in the expanded criteria (see [Appendix 3](#) and [Appendix 4](#)).
- b. As part of the above, the booster eligibility recommendations, as outlined on 10 February 2023, should be clarified to include 16- to 29-year-olds who fall under the following groups as **eligible for additional doses of the COVID-19 vaccine**:
 - Those who are eligible for a government funded influenza vaccination other than those eligible only because of workplace-related schemes (see further detail on pregnancy in **7.d**). For completeness, the relevant eligibility criteria are included in [Appendix 2](#).
 - Those who have another condition that places them at risk of severe COVID-19, in line with previously issued CV TAG advice (see [Appendix 3](#)). It should be noted that most of these are covered by the influenza criteria above, with the exceptions being those severely under- or over-weight and those with conditions similar to those listed in [Appendix 3](#), where their clinician considers them to be at high risk of severe COVID-19.
 - Those who are residents of disability care facilities, in line with previously issued CV TAG advice issued on 22 June 2022 in the CV TAG Memo ‘*Fourth dose update (second booster)*’.

Individuals in these groups with more severe conditions or multiple comorbidities should particularly consider an additional dose.

- c. Booking systems should allow for individuals to schedule their vaccination from 3 months after infection **without requiring a prescription**. This aligns with the original recommendation made on 10 February 2023 that additional doses “should be administered from 6 months after the previous dose of COVID-19 vaccine, and from 6

months after a SARS-CoV-2 infection, with flexibility for the dose to be given from 3 months after a SARS-CoV-2 infection”.

- d. Slight modifications be made to the previous memo in relation to pregnant people. Pregnant people aged 16 years and over should be **eligible** for additional doses. Pregnant people who additionally have further comorbidities putting them at risk of severe COVID-19, should particularly consider an additional dose. For pregnant people, **Comirnaty** (the Pfizer vaccine) is the **preferred vaccine**. Safety data in pregnancy are scarce for Nuvaxovid (the Novavax vaccine) and those pregnant people who are unable or do not wish to receive Pfizer Comirnaty should discuss with their healthcare provider if Nuvaxovid might be suitable for them.
- e. Māori and Pacific peoples aged 50 years and over should be **recommended** to receive an additional dose due to being at a similar risk of severe COVID-19 disease as 60-70 year olds in the “European and other” group (COVID-19 vaccine starts to be recommended to all individuals from 65 years, see [Appendix 4](#)). Māori and Pacific peoples over the age of 30 will be, as for all ethnicities, eligible for additional doses.

8. Recommendations for 16- to 29-year-olds are summarised in [Appendix 4](#), along with those for other age groups.

9. CV TAG will continue to monitor all relevant information and will update their recommendations as further evidence becomes available.

Ian G Town

Dr Ian Town
**Chief Science Advisor and
Chair of the COVID-19 Vaccine Technical Advisory Group**

In addition to the recommendations provided above, it is recommended that you:

1.	Note	The contents of this memo is an addendum to the prior CV TAG Memo 'Update on Intervals and Booster Eligibility: COVID-19 Vaccine Technical Advisory Group (CV TAG) recommendations' to provide clarification on further COVID-19 booster doses for 16- to 29-year-olds.	Noted ✓
2..	Agree	That this memo (version sent to you on 24 March 2023 by the Chief Science Advisor) will be assessed for proactive release three weeks after you sign, below. Release will not occur prior to government decision (and public announcement thereof) on the recommendations that CV TAG have provided in this memo. Prior to release, the memo will undergo processes undertaken for an Official Information Act release, <u>Ministers' Offices</u> will be informed, and the Director General's Office will be required to sign off on the final release.	Yes/No

↳ Ensure Minister is fully aware please!

Director General Comments:

Signature 

Date: 25/3/23

Dr Diana Safarti

Te Tumu Whakarae mō te Hauora

Director-General of Health

PROACTIVELY RELEASED

Appendix 1

Table 1 in CV TAG Memo issued on 10 February 2023 'Update on Intervals and Booster Eligibility: COVID-19 Vaccine Technical Advisory Group (CV TAG) recommendations:

Hospitalisation admission* rates for COVID-19 per 100, 000 of population in Q3 & Q4 2022* (Source: Intel & Analytics, MoH, 2023)

Age	Māori		Pacific		Asian		European / Other		Total	
	N	Rate; 95% CI	N	Rate; 95% CI	N	Rate; 95% CI	N	Rate; 95% CI	N	Rate; 95% CI
0–9	64	41.3; 32.4–52.8	36	58.7; 42.3–81.3	74	63.7; 50.7–80	136	48.7; 41.2–57.6	310	50.7; 45.3–56.6
10–19	26	16.6; 11.3–24.4	18	25.7; 16.2–40.7	12	12.7; 7.2–22.4	80	22.6; 18.2–28.2	136	20.2; 17.1–23.9
20–29	59	44; 34.1–56.8	38	50.1; 36.5–68.9	45	33.4; 25–44.8	154	40.1; 34.3–47	296	40.6; 36.3–45.5
30–39	65	60.5; 47.5–77.2	49	80; 60.4–105.8	63	31.4; 24.5–40.2	202	48.9; 42.6–56.1	379	48.4; 43.8–53.6
40–49	94	109; 89.1–133.4	63	129.3; 101–165.5	58	45.5; 35.1–58.8	221	55.8; 48.9–63.6	436	66.2; 60.3–72.7
50–59	158	188.1; 160.9–219.8	99	235.7; 193.6–287	68	82.2; 64.8–104.3	464	100.7; 92–110.3	789	117.9; 109.9–126.4
60–69	255	422.9; 374.2–478	111	401.7; 333.6–483.6	101	155.8; 128.2–189.4	910	213.5; 200.1–227.8	1377	237.8; 225.6–250.7
70–79	204	773.3; 674.4–886.5	138	971.5; 822.8–1146.8	134	418.4; 353.3–495.4	1584	496; 472.2–521	2060	525.5; 503.4–548.7
80–89	114	1476.5; 1230.3–1771.1	76	1649.3; 1319.2–2060.3	124	1080.1; 906.5–1286.6	1948	1262; 1207.5–1318.9	2262	1269.6; 1218.6–1322.6
90+	14	1430; 848.7–2399.9	12	1863.4; 1061.2–3252	23	1393.9; 928–2088.9	746	1936.1; 1803.2–2078.5	795	1901.7; 1775.1–2037.1
* Excluding hospital admissions lasting less than 6 hours										

Appendix 2

COVID-19 vaccine relevant eligibility criteria for free seasonal influenza vaccination

Funded influenza vaccine is available each year for people who meet the criteria set by PHARMAC. The relevant eligibility criteria for additional doses of COVID-19 vaccine (that is, those criteria that relate to health conditions, rather than age or employment) are for those who:

- have any of the following cardiovascular diseases:
 - ischaemic heart disease, or
 - congestive heart failure, or
 - rheumatic heart disease, or
 - congenital heart disease, or
 - cerebrovascular disease; or
- have either of the following chronic respiratory diseases:
 - asthma, if on a regular preventative therapy, or
 - other chronic respiratory disease with impaired lung function; or
- have diabetes; or
- have chronic renal disease; or
- have any cancer, excluding basal and squamous skin cancers if not invasive; or
- have any of the following other conditions:
 - autoimmune disease, or
 - immune suppression or immune deficiency, or
 - HIV, or
 - transplant recipient, or
 - neuromuscular or CNS disease/disorder, or
 - haemoglobinopathies, or
 - children on long-term aspirin, or
 - have a cochlear implant, or
 - errors of metabolism at risk of major metabolic decompensation, or
 - pre and post-splenectomy, or
 - Down syndrome, or
- are pregnant¹
- have any of the following serious mental health conditions:
 - schizophrenia, or
 - major depressive disorder, or
 - bipolar disorder, or
 - schizoaffective disorder, or
- are currently accessing secondary or tertiary mental health and addiction services.

Unless also meeting the previous criteria, the following conditions are excluded from funding:

- asthma not requiring regular preventative therapy
 - hypertension and/or dyslipidaemia without evidence of end-organ disease
-

¹ See specific CV TAG guidance for pregnant people in recommendations, above.

Appendix 3

Clinical criteria in support of eligibility for additional doses

People in these groups are likely to have an ongoing increased risk of severe COVID-19 even after primary vaccination. These examples are not exhaustive, and providers may include individuals with conditions similar to those listed below, based on clinical judgment.

Category	Examples
Immunocompromising conditions	People with HIV
Cancer	Non-haematological cancer including those diagnosed within the past 5 years or on chemotherapy, radiotherapy, immunotherapy or targeted anti-cancer therapy (active treatment or recently completed) or with advanced disease regardless of treatment. Survivors of childhood cancer.
Chronic inflammatory conditions requiring medical treatment with disease modifying anti-rheumatic drugs (DMARDs) or immune-suppressive or immunomodulatory therapies.	Systemic lupus erythematosus, rheumatoid arthritis, Crohn's disease, ulcerative colitis, and similar who are being treated.
Chronic lung disease	Chronic obstructive pulmonary disease, cystic fibrosis, interstitial lung disease and severe asthma (defined as requiring frequent hospital visits or the use of multiple medications).
Chronic liver disease	Cirrhosis, autoimmune hepatitis, non-alcoholic fatty liver disease, alcoholic liver disease.
Severe chronic kidney disease (stage 4 or 5)	
Chronic neurological disease	Stroke, neurodegenerative disease (e.g., dementia, motor neurone disease, Parkinson's disease), myasthenia gravis, multiple sclerosis, cerebral palsy, myopathies, paralytic syndromes, epilepsy.
Diabetes mellitus requiring medication	
Chronic cardiac disease	Ischaemic heart disease, valvular heart disease, congestive cardiac failure, cardiomyopathies, poorly controlled hypertension, pulmonary hypertension, complex congenital heart disease.
People with disability with significant or complex health needs or multiple comorbidities which increase the risk of poor outcomes from COVID-19	Particularly those with trisomy 21 (Down Syndrome) or complex multi-system disorders.
Severe obesity with BMI ≥ 40 kg/m ²	
Severe underweight with BMI < 16.5 kg/m ²	

Appendix 4

COVID-19 vaccine recommendations

Age Band		Primary Course	First Booster	Additional Doses
< 5 years	healthy			
	at risk ¹			
5 - 11 years	healthy			
	at risk ²			
12 - 15 years	healthy			
	at risk ³		Severely immunocompromised only	
16 - 17 years	healthy			
	at risk ⁴			
18 - 29 years	healthy			
	at risk ⁴			
30 - 49 years	healthy			
	at risk ⁴			
50 - 64 years	healthy			
	Māori & Pacific peoples at risk ⁴			
≥ 65 years	healthy			
	at risk			

recommended

eligible, i.e. individuals can consider

not eligible, i.e. not available in the programme but can be administered with prescription

¹ Severely immunocompromised, or complex and/or multiple health conditions increasing risk of severe disease from COVID-19 (following the Starship Child Health table of underlying comorbidities)

² Children with high-risk pre-existing conditions, Māori and Pacific children should be prioritised (for details see [CV TAG memo](#))

³ People with severe immunocompromised conditions

⁴ At-risk groups include those at high risk of severe COVID-19 **and/or** eligible for flu vaccine because of a health condition (see Appendix 1 and 2) **or** residents of an aged- or disability facility. For **16- to 29-year-olds**, at-risk groups are eligible rather than recommended to receive an additional dose. However, those in this age group with more severe conditions or multiple comorbidities should particularly consider an additional dose.

Note: All **pregnant people 16 years of age and over** are eligible for additional doses, however, those with comorbidities should particularly consider an additional dose.