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Respiratory infection in risk groups: drivers of undervaccination and potential solutions for change

10:40

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Respiratory Infection in Risk Groups: Drivers of Under Vaccination and Potential Solutions for Change

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Declaration of Conflict of Interest

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Grant support and membership on advisory councils for

- Sanofi
- CSL Seqirus

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Learning Objectives

By the end of this presentation, participants will be able to:

Identify key drivers of under vaccination in at-risk groups affected by respiratory infections, including social, behavioral, and systemic barriers.

Understand the public health consequences of under vaccination among vulnerable populations, including increased morbidity, mortality, and healthcare burden.

Explore practical and evidence-based strategies to improve vaccine uptake in high-risk groups.

Risk Groups

Those who are most at risk of complications from a respiratory infection are:

- Young children (under 5 years)
- Aboriginal and Torres Strait Islander (First Nations) people
- People with certain chronic health conditions, such as:
  - Asthma
  - Chronic obstructive pulmonary disease (COPD)
  - Heart failure
  - Type 2 diabetes
- Adults with weakened immune systems

Vaccine Uptake

Influenza Vaccine

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Table 7: Influenza vaccine coverage*†‡ by age group and jurisdiction, Australia, 1 March to 18 May 2025

	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Total
Age groups									
6 months to <5 years	23.8	12.1	12.5	9.0	12.5	11.6	13.1	7.2	11.3
5–14 years	14.0	8.0	4.7	7.6	8.5	7.8	8.3	5.6	7.7
15–49 years	20.5	12.5	11.0	11.6	15.3	14.5	14.2	8.6	12.3
50–64 years	30.8	20.7	15.4	21.3	24.8	25.6	22.5	15.8	20.6
≥ 65 years	47.4	40.2	24.0	43.1	48.0	44.9	42.0	37.4	40.5
All ages (6 months and over)	26.2	19.3	12.9	19.0	23.7	23.2	20.4	14.9	18.9
Aboriginal and Torres Strait Islander populations									
6 months to <5 years	13.6	7.2	9.6	5.0	6.6	8.9	7.7	4.9	6.5
5–14 years	8.3	5.8	5.8	5.0	6.1	6.6	5.2	4.1	5.3
15–49 years	15.4	10.0	10.6	8.2	10.6	11.2	10.5	6.3	9.0
50–64 years	28.2	23.3	19.4	20.2	23.6	27.3	22.0	15.4	20.7
≥ 65 years	47.9	41.4	26.0	40.4	44.0	44.5	42.4	31.2	38.3
All ages (6 months and over)	17.7	13.2	12.0	10.9	13.6	15.5	13.7	8.4	11.7

Source: Australian Immunisation Register (AIR) as at 18 May 2025
* Influenza vaccine coverage uses the AIR population as the denominator. Coverage data in these tables may differ slightly from coverage estimates in other reports due to differences in calculation methodologies and/or different data download dates.
† Age is calculated based on the person's age as at 1 July of the reporting year.
‡ Jurisdiction is based on the state or territory in which a vaccine was administered and may differ from a person's residential. Population denominator data used to calculate influenza vaccine coverage are based on an individual's residential address as recorded on Medicare.

Influenza Vaccine

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Snapshot of the latest 2025 influenza vaccination coverage* data in Australia

All persons

	ACT	NSW	Vic	Qld	SA	WA	Tas	NT	AUS
6 mo–<5 yrs	32.8	16.1	18.8	12.1	16.7	12.3	17.0	17.1	15.9
5–<15 yrs	18.2	9.9	11.2	9.3	10.6	9.3	10.3	6.6	10.2
15–<50 yrs	26.4	15.5	18.4	13.9	18.7	12.5	18.4	14.3	16.0
50–<65 yrs	37.0	24.6	27.7	25.1	29.5	22.2	31.7	18.5	25.9
≥65 yrs	59.7	51.2	54.6	53.4	59.9	50.3	59.0	28.3	53.2

** Year-to-date (YTD) coverage calculated using vaccinations given 1 March–31 May 2025 (inclusive). AIR data as at 1 June 2025.*

Coverage data in these tables may differ slightly from estimates published elsewhere due to differences in calculation methodologies and/or the AIR data being used in the calculation having been downloaded on different dates.

NCIRS National Centre for Immunisation Research and Surveillance Australia

Influenza Vaccine

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Influenza Report Card

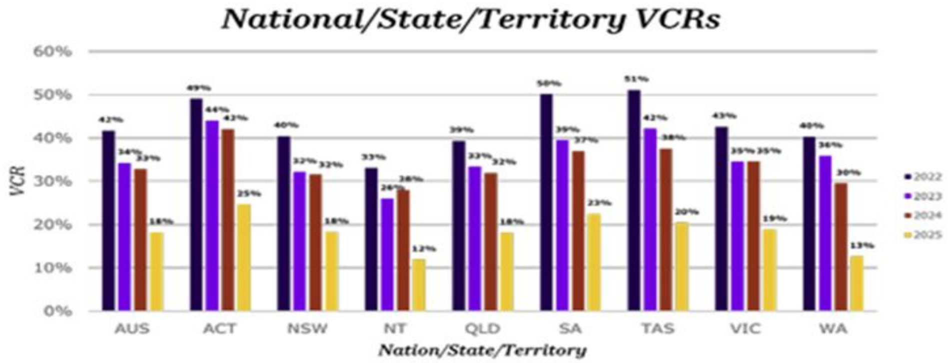
Edition #2 May 2025

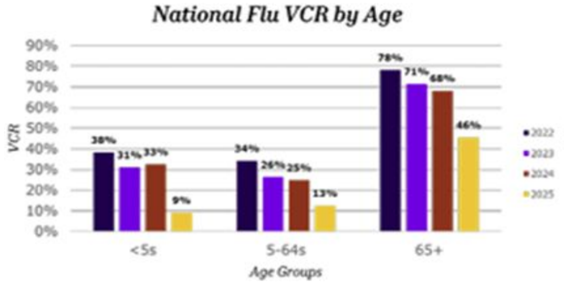
Influenza vaccination in Australia

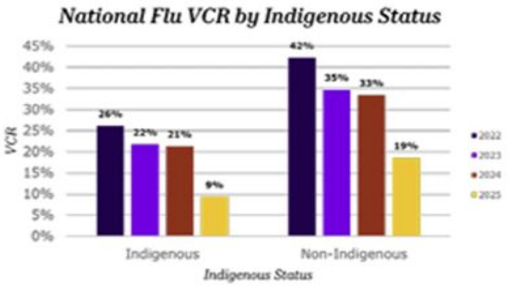
	2020[6,7]	2021[7,8]	2022[11]	2023[9]	2024[10]	2025[11] (up to 11 May)
Number of vaccinations	15,606,000	8,720,316	11,057,387	9,300,129	8,622,627	5,025,832
Vaccination coverage rate (VCR)*	60%	34%	42%	35%	32%	18%

** VCR – vaccination coverage rate is estimated percentage of people in Australia who received an influenza vaccine that year. The VCR calculation is as follows: number of vaccinations[6] divided by population[5], multiplied by 100. For example, 8,720,316 / 25,738,142 x 100 = 34% in 2021.*

Influenza vaccination rates (VCR) by jurisdiction, age group & Indigenous status[6-11]







*2025 data up until 11/5/2025

Covid19 Vaccine

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Table 5: COVID-19 vaccine coverage*†‡ by age group and jurisdiction, Australia, 13 May 2024 to 18 May 2025

Age group	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Total
Past 12 months (13 May 2024 to 18 May 2025)									
18–64 years	9.7	3.9	2.1	4.1	4.4	8.0	4.9	3.9	4.4
65–74 years	43.7	22.9	14.2	22.7	25.2	36.0	25.1	23.7	24.3
≥ 75 years	61.6	37.6	26.0	37.1	39.3	53.1	39.2	39.4	39.2
All ages (18 years and over)	17.0	9.6	4.1	9.5	11.2	17.5	10.5	9.4	10.2
Past 6 months (18 November 2024 to 18 May 2025)									
18–64 years	5.5	2.0	1.0	2.3	2.4	4.6	2.6	2.0	2.4
65–74 years	31.5	15.0	8.1	15.3	17.4	25.6	16.8	15.3	16.2
≥ 75 years	47.1	26.5	16.2	26.7	28.5	40.5	28.0	27.5	28.0
All ages (18 years and over)	11.2	6.1	2.2	6.2	7.4	12.0	6.7	5.9	6.6

Source: Australian Immunisation Register (AIR) as at 18 May 2025

* COVID-19 vaccine coverage uses the Australian Bureau of Statistics June 2023 Estimated Resident Population (ERP) as denominator.

† COVID-19 vaccination uptake and coverage are influenced by changes in COVID-19 vaccine recommendations and eligibility criteria. For this reason, caution should be used when comparing coverage rates in the current 12 month period to previous 12 month periods.

‡ Jurisdiction is based on the state or territory in which a vaccine was administered and may differ from a person's residential. Population denominator data used to calculate COVID-19 vaccine coverage are based on an individual's residential address.

RSV Vaccine

Table 8: Nirsevimab (Beyfortus) coverage*†‡ by age group and jurisdiction, Australia, 3 February to 18 May 2025

Age group	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Total
Infants (aged < 8 months)	10.1	7.8	28.8	37.4	15.1	14.3	6.2	20.1	15.5
Young children (aged ≥ 8 to 24 months)	0.9	0.2	0.3	0.1	0.5	0.7	0.2	0.3	0.3
All ages (0 to 24 months)	3.8	2.6	9.5	11.4	4.9	4.8	2.1	6.3	4.9

Source: Australian Immunisation Register (AIR) as at 18 May 2025

* Reporting of RSV monoclonal antibodies to the AIR is not compulsory; therefore, coverage estimates are likely to be underestimated.

† Age is calculated based on the person's age as at 1 July of the reporting year.

‡ Jurisdiction is based on the state or territory in which nirsevimab was administered and may differ from a person's residential. Population denominator data used to calculate nirsevimab coverage are based on an individual's residential address as recorded on Medicare.

News from the lab Measles Rubella

Falling childhood vaccinations concern virologists in Australia

Diseases like measles and rubella could roar back as vaccine protection slips.

27 May 2025 • 3 min read • by Priya Joi Republish this article

Understanding the Public Health Consequences of Under Vaccination Among Vulnerable Populations

Under-vaccination among vulnerable populations poses serious public health risks, exacerbating health disparities and undermining efforts to control infectious diseases:

- Increased Risk of Disease Outbreaks
- Elevated Morbidity and Mortality
- Strain on Healthcare Systems
- Amplification of Health Inequities
- Threat to Public Health Goals
- Economic and Social Consequences
- Ethical and Legal Challenges

Drivers of Under Vaccination in Risk Groups

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National Vaccination Insights Project (Vaccine Barriers Assessment Tool (VBAT)) – **Childhood** Respiratory Vaccines

Acceptance barriers to vaccination are psychological and social factors that prevent individuals from choosing to vaccinate:

- **Emotional Distress**: Some parents feel anxious or distressed when thinking about vaccinating their child, which can lead to avoidance.
- **Low Prioritization**: Some parents do not prioritize vaccination appointments over other commitments, leading to delays or missed vaccinations.
- **Misinformation & Trust Issues**: A lack of trust in healthcare providers or misinformation about vaccine safety and effectiveness can discourage vaccination. Vaccine hesitancy. Vaccine fatigue.
- **Social Influence**: If family members or close friends do not support vaccination, individuals may be less likely to vaccinate.

Drivers of Under Vaccination in Risk Groups

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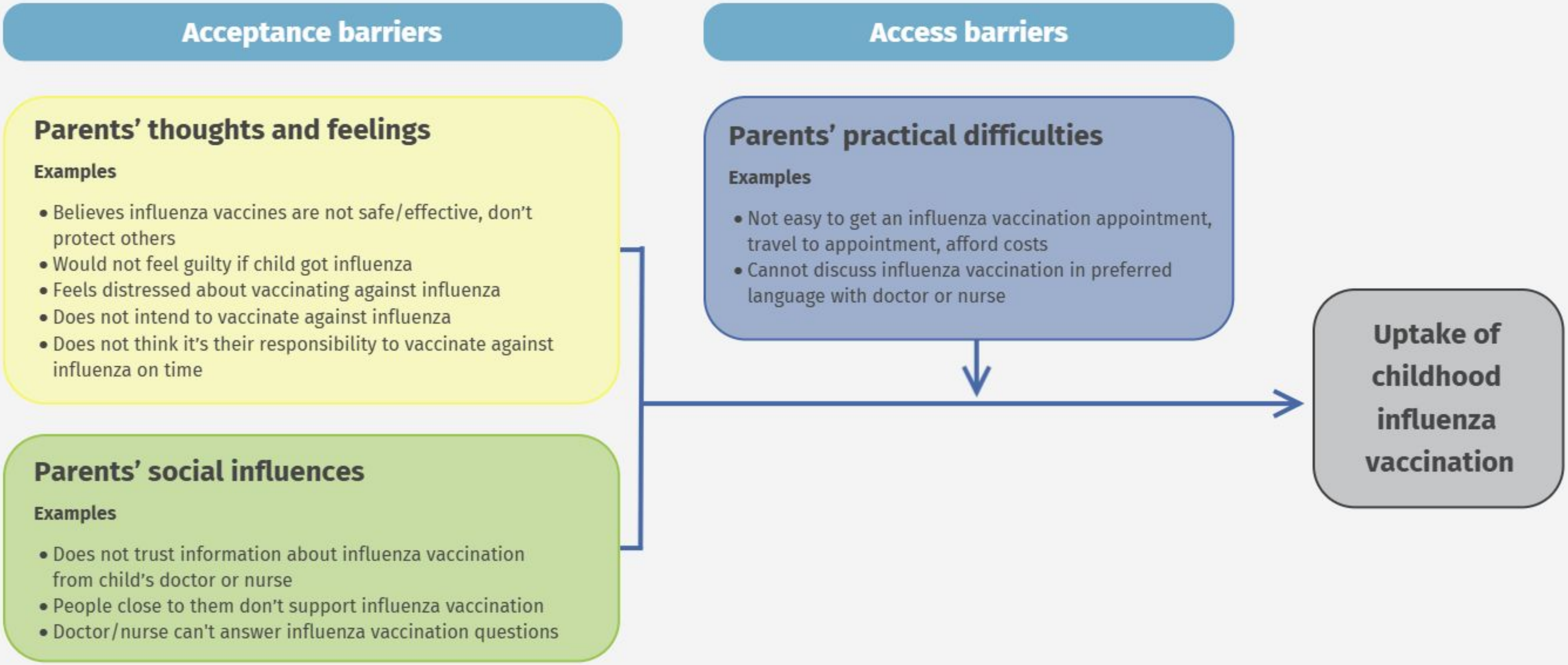
Access barriers to vaccination involve logistical/practical challenges:

- **Cost**: Even though respiratory vaccines are free for risk group populations, consultation and travel costs can be an issue.
- **Appointment availability or accessibility**: Difficulty in securing appointments, and regional access issues contribute to under-vaccination.
- **Language difficulties**: Lack of interpreters.

Acceptance and access barriers to childhood influenza vaccination, as measured by the VBAT*



* For more information on the development and validation of the VBAT, see Kaufman J, Tuckerman J, Bonner C, et al. Development and validation of the Vaccine Barriers Assessment Tool for identifying drivers of under-vaccination in children under five years in Australia. Human Vaccines & Immunotherapeutics 2024;20:2359623.

Drivers of Under Vaccination in Risk Groups

National Vaccination Insights Project (Behavioural and Social Drivers (BeSD) of vaccination survey) – **Adult** Influenza Vaccine

Summarised key findings from the survey:

- **Flu vaccination intention vs action:** 84.1% of adults ≥65 years of age said they wanted to get a flu vaccine – however, the latest 2024 flu vaccination coverage data show only 60.5% of people in this age group were vaccinated, revealing a dramatic gap between intention and action.

- **Familiarity with flu vaccination:** Adults who received a flu vaccine in the last two years were 10.4x more likely to want a flu vaccine than adults who did not receive a flu vaccine in the last two years.

- **Personal responsibility:** Adults who felt they had a responsibility to get a flu vaccine were 4.1x more likely to want a flu vaccine than adults who did not feel this responsibility.

Drivers of Under Vaccination in Risk Groups

- **Personal protection**: Adults who believed the flu vaccine offered them personal protection were 2.7x more likely to want a flu vaccine than adults who did not have this belief.

- **Family and friends**: Adults who believed close family and friends wanted them to get a flu vaccine were 2.4x more likely to want a flu vaccine than adults who did not have this belief.

- **Healthcare professional (HCP) recommendation**: Adults who received a recommendation from an HCP to get a flu vaccine in the last two years were 1.7x more likely to want a flu vaccine than adults who did not receive a recommendation from an HCP.

- **Community protection**: Adults who believed the flu vaccine offered the community protection were 1.6x more likely to want a flu vaccine than adults who did not have this belief.

- **Personal health**: Adults who believed the flu vaccine was important for personal health were 1.5x more likely to

Drivers of Under Vaccination in Risk Groups

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- **Chronic health conditions**: Adults with chronic illnesses – defined in the survey as obesity, diabetes, lung disease, high blood pressure and other long-term conditions – were 1.5x more likely to want a flu vaccine than adults without chronic conditions.

- **Community leaders**: Adults who believed community leaders wanted them to get a flu vaccine were nearly 1.5x more likely to want a flu vaccine than adults who did not have this belief.

- **Increasing age:** The likelihood of adults wanting a flu vaccine increased by 2% with every one-year increase in age.

Practical and Evidence-Based Strategies to Improve Vaccine Uptake in High-Risk Groups

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Community Engagement & Education

Improving Access and Convenience

Healthcare Provider Strategies

Community Engagement & Education

Tailored Messaging: Address specific concerns of different communities, such as cultural or religious beliefs.

Trusted Messengers: Utilise healthcare providers, community leaders, and influencers to promote vaccination.

Multilingual & Accessible Information: Ensure vaccine information is available in multiple languages and formats

Improving Access and Convenience

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01

Home Visits & Mobile Clinics: Bringing vaccines directly to underserved populations has shown effectiveness.

02

Flexible Scheduling: Offering evening and weekend appointments increases accessibility.

03

Reminder Systems: Text messages and phone calls help ensure follow-ups. MyGov reminders. Childcare and aged care targeting initiatives.

Healthcare Provider Strategies

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Strong Provider Recommendations: Clear, transparent confident vaccine recommendations from healthcare providers.

Nurses/Pharmacists: To administer vaccines without direct physician orders.

Provider Incentives: Encouraging healthcare providers to prioritize vaccinations through policy incentives to reduce cost to patient.

Summary table of interventions with some evidence of effectiveness

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From: Interventions to increase vaccination in vulnerable groups: rapid overview of reviews

Intensity	Increase demand	Increase access	Provider-focused
High	**Home visits** Home visits for communication/education[a] Home visits to communicate as highest intensity[a] component of escalating intervention [a] Educational message in home visits by medical students[b] **Advocacy** Pharmacists or community volunteers advocating for vaccination[b] Community lay educators [b] **Education** Short educational sessions[b] Information in ESL classes[b]	**Home visits** Home visits to vaccinate[a] **Additional/different services or staff** Additional clinics as part of a multicomponent intervention[b] Pharmacist initiated vaccination programmes[b] Delivery of vaccination by lay healthcare workers[c] **Partnership and outreach** Community partnership as part of a multicomponent intervention[b] Routine or general clinic visits used to vaccinate as part of a multicomponent intervention[b]	**Facilitators** Facilitator visits to health care practices (range of interventions delivered)[a] **Education** Educational sessions for providers[c]
Medium	**Telephone calls to communicate or educate** Telephone reminders to attend or book appointments[a] Telephone calls from lay healthcare workers [a] Telephone calls as part of multicomponent [a] intervention (targeted calls or intermediate stage of escalating intervention) [a] Telephone calls to adolescents plus parents versus parents only [a] Telephone education as part of multicomponent intervention [c]	**Routine/general clinic appointments to vaccinate** Using routine visits to clinics or healthcare providers to vaccinate as part of a multicomponent intervention [b]	**Case management** Case management as part of multicomponent intervention [b]
Low	**Postal communication to communicate or educate** Letters or postcards to communicate/educate [a] Letters or postcard reminders to attend or book appointments [a] Personalised letters versus generic ones [b] Letters in appropriate community language [b] Postcards using accessible language [b] **Emails to communicate or educate** Individually tailored emails [b] **Text messages to communicate/educate** Text messages to communicate/educate [a] Single or multiple text message reminders to attend or book appointments [a] Text and postal communications s as part of multicomponent interventions [b] Text message appointment reminders versus postal reminders [b] Text messages with educational component or interactivity versus other text messages [c] **Written material given in person** Pamphlets given in person [b] Redesigned immunisation cards [b] Pictorial information used at home visit [b] Distributing information with promotional T-shirts [c] Printed educational material including flyers [c] **Mass media** Use of mass media including in community language [b] **Video material** Home-delivered DVDs [c]		**Use of technology systems** Personalised electronic health records[a] Centralised reminder/recall systems for vaccination instead of local practice-based systems[a] Computerised reminders to vaccinate[b] **Prompts, orders or instructions to vaccinate** Reminders to physicians to vaccinate[a] **Information or incentives** Academic detailing or benchmarking physicians (peer comparisons) including clinic posters presenting vaccination rates [b] Payments to physicians[b]

FLU NEWS

Immunisation Section, Communicable Disease Control Branch

Government of South Australia
SA Health

28 May 2025

FLU NEWS 2025 **Issue 11**

This newsletter provides news and updates for the 2025 Influenza Immunisation Program.

For updated program information and resources visit: www.sahealth.sa.gov.au/flu

Please distribute to all immunisation providers in your workplace to help keep staff up to date.

Key Messages

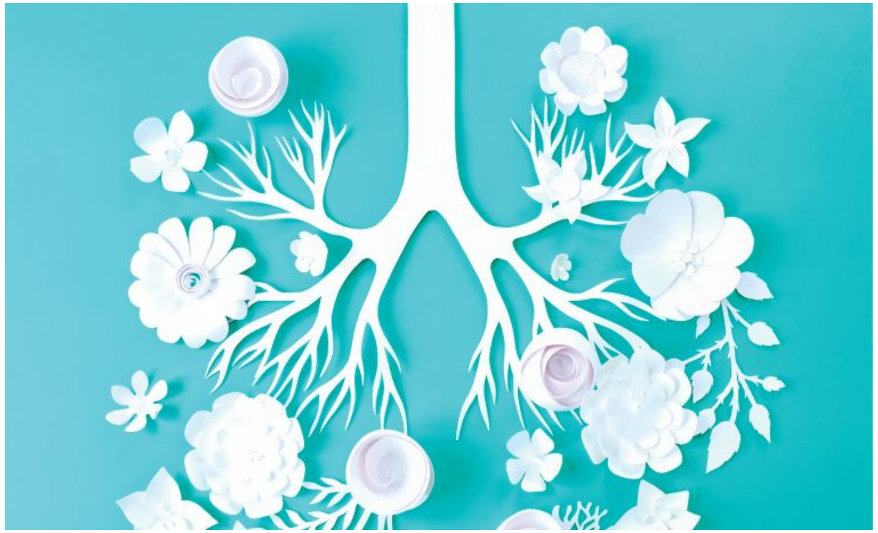
- There was a significant rise in reported influenza cases last week.
- Parents and carers of children enrolled in Early Childhood Education Centres are being sent messages to raise awareness about the flu vaccine for young children. This includes a letter from the Chief Public Health Officer highlighting that influenza can be serious, even for healthy children.
- Please support families seeking appointments for flu vaccination for their children and remember to incorporate the flu vaccine into other NIP childhood vaccination schedule points from 6 months of age.
- Annual influenza vaccination is the most important measure to prevent influenza disease and complications.
- Vaccinations must be recorded on the Australian Immunisation Register (AIR).

Summary

- **Identified key drivers of under vaccination** in at-risk groups affected by respiratory infections.

- **Understand the public health consequences** of under vaccination among vulnerable populations, including increased morbidity, mortality, and healthcare burden.

- **Explore practical and evidence-based strategies** to improve vaccine uptake in high-risk groups.



*"Vaccination is the most effective tool we have for preventing diseases and saving lives. It is a testament to the power of science and human ingenuity." – **Dr. Tedros Adhanom Ghebreyesus**, Director-General of the World Health Organization.*

References

- National Vaccination Insights project | NCIRS
- Home - Asthma Australia | The nation’s peak consumer body
- Australian Respiratory Surveillance Report - 5 May to 18 May 2025
- RACGP - Respiratory conditions
- Immunisation coverage data and reports | NCIRS
- Interventions to increase vaccination in vulnerable groups: rapid overview of reviews | BMC Public Health | Full Text
- The public health crisis of under immunisation: a global plan of action - The Lancet Infectious Diseases
- Factors contributing to vaccine hesitancy and reduced vaccine confidence in rural underserved populations | Humanities and Social Sciences Communications

Q & A

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