ATAGI 2021 annual statement on immunisation

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# About ATAGI

The [Australian Technical Advisory Group on Immunisation (ATAGI)](https://www.health.gov.au/committees-and-groups/australian-technical-advisory-group-on-immunisation-atagi) advises the Minister for Health on the National Immunisation Program and other immunisation issues.

ATAGI’s vision is to protect the Australian population from vaccine-preventable diseases (VPDs). This is shown in [ATAGI’s strategic intent](https://www.health.gov.au/resources/publications/atagi-strategic-intent).

ATAGI’s purpose is to provide evidence-based advice to the Minister for Health and other key policymakers on:

immunisation policies

immunisation programs

future research priorities.

This includes identifying and prioritising gaps in the immunisation landscape to improve:

the impact of immunisation programs

confidence in immunisation programs, as well as the vaccines used in the programs

equity in access to, and outcomes of, immunisation programs.

ATAGI also develops and publishes the [Australian Immunisation Handbook](https://immunisationhandbook.health.gov.au/).

The ATAGI 2021 Annual Statement on Immunisation is the first publication in this series. It highlights the key successes, trends and challenges in the use of vaccines and control of VPDs in Australia in 2020. It also signals ATAGI’s priority actions for addressing key issues for 2021 and beyond.

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# Summary

In 2020, many immunisation issues were shaped by the COVID-19 pandemic. COVID‑19 control measures contributed to lower rates of many vaccine-preventable diseases (VPDs) in Australia. Preparation also began for Australia’s COVID‑19 immunisation program, which will start in 2021.

## Key successes in immunisation in 2020

The rates of many VPDs were much lower than usual. This included influenza, measles, meningococcal disease, pneumococcal disease and pertussis. Control measures for COVID-19 (such as border closures, physical distancing and hand hygiene) have likely contributed to this.

A record high number of Australians had a seasonal influenza vaccine.

Australia’s National Immunisation Program (NIP) was expanded to include more vaccines and doses for people at higher risk of disease.

Australians kept having their routine immunisations. Immunisation coverage was high even during COVID‑19 restrictions.

The Australian Immunisation Handbook (the Handbook) had several updates to recommendations. This included important updates to the chapters on pneumococcal disease and zoster (shingles). The new catch-up calculator and Handbook app also improved functionality.

## Key challenges and priorities for immunisation in Australia in 2021 and beyond

Implementing a national COVID‑19 immunisation program, monitoring safety and effectiveness of COVID‑19 vaccines, and evaluating the COVID‑19 immunisation program.

Maintaining community confidence in the NIP and the national COVID‑19 immunisation program.

Maintaining routine vaccination under the NIP to protect against VPDs, especially if Australia has more outbreaks of COVID‑19 that disrupt the way society functions.

Maintaining successful control or elimination of some VPDs, especially if international travel restrictions are lifted.

Ensuring vaccine safety, particularly for live vaccines such as Zostavax (shingles vaccine).

Ensuring equitable access to NIP-funded vaccines for people at risk of disease.

Closing the gap in the incidence of VPDs in Aboriginal and Torres Strait Islander populations.

# Immunisation issues in Australia in 2020

## Prevention and control of vaccine-preventable diseases

Rates of many VPDs were lower in 2020, especially those that spread by the respiratory route. Control measures for COVID‑19 (such as border closures, physical distancing and hand hygiene) have likely contributed to this. Disruption to usual health care systems and practices may have also contributed to lower VPD notifications.

### Influenza

Much lower disease rates throughout 2020 compared with previous years.

Much lower rate of influenza-associated hospitalisations compared with the previous 5 years.

No notable increase in cases during the usual peak winter season.

Influenza was uncommon in 2020. This made it difficult to assess the effectiveness of influenza vaccines.

More details are in the [national 2020 influenza season summary](https://www1.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-ozflu-flucurr.htm) and a study on the [impact of COVID‑19 on influenza circulation](https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2020.25.47.2001847).

### Measles

91% decrease in measles notifications in 2020 compared with 2019.

No cases reported since February 2020.

Measles cases in Australia are acquired overseas or linked to overseas travel. The decrease in cases is the result of border closures from March 2020.

### Meningococcal disease

90 notifications of invasive meningococcal disease in 2020, which was much lower than in 2019 (207 notifications) and lower than the 5-year mean.

### Pneumococcal disease

48% decrease in notifications of invasive pneumococcal disease in 2020 compared with 2019.

Notifications were 41% lower than the 5-year mean.

### Pertussis

71% decrease in notifications in 2020 compared with 2019.

## National immunisation policy and practice

### Australian COVID‑19 Vaccination Policy

The [Australian COVID‑19 Vaccination Policy](https://www.health.gov.au/resources/publications/covid-19-vaccination-australian-covid-19-vaccination-policy) was published in November 2020 and last updated in February 2021. It outlines the approach to providing COVID‑19 vaccines in Australia. The policy describes the shared and separate responsibilities of the Australian Government and state and territory governments, as well as other key stakeholders in the [COVID‑19 vaccine rollout strategy](https://www.health.gov.au/resources/publications/covid-19-vaccination-australias-covid-19-vaccine-national-roll-out-strategy).

On 22 February 2021, the first doses of COVID-19 vaccines were made available for frontline health care workers, quarantine and border workers, and aged care and disability care residents and workers. [Comirnaty (Pfizer/ BioNTech)](https://www.health.gov.au/initiatives-and-programs/covid-19-vaccines/learn-about-covid-19-vaccines/about-the-pfizerbiontech-covid-19-vaccine) and [Oxford/AstraZeneca](https://www.health.gov.au/initiatives-and-programs/covid-19-vaccines/learn-about-covid-19-vaccines/about-the-astrazeneca-covid-19-vaccine) COVID-19 vaccines are now being administered nationally.

**Changes to the National Immunisation Program**

An important achievement in 2020 was the expansion of the NIP to:

make some vaccines more readily available

further improve protection for people at higher risk of some diseases.

Changes included:

[influenza](https://www.health.gov.au/resources/publications/atagi-advice-on-seasonal-influenza-vaccines-in-2020) vaccine for all children aged 6 months to 5 years

[pneumococcal vaccines](https://www.health.gov.au/resources/publications/atagi-clinical-advice-on-changes-to-recommendations-for-pneumococcal-vaccines-from-1-july-2020) for people with increased risk of disease, as well as changes to use these vaccines more effectively in people with medical conditions

[meningococcal vaccines](https://www.health.gov.au/resources/publications/atagi-clinical-advice-on-changes-to-recommendations-for-meningococcal-vaccines-from-1-july-2020) for people with certain medical conditions, and meningococcal B vaccine for [Aboriginal and Torres Strait Islander children](https://www.health.gov.au/resources/publications/atagi-clinical-advice-on-vaccination-recommendations-for-aboriginal-and-torres-strait-islander-people-from-1-july-2020)

[*Haemophilus influenzae* type b (Hib) vaccine](https://www.health.gov.au/resources/publications/atagi-clinical-advice-on-vaccination-recommendations-for-people-with-risk-conditions-from-1-july-2020) for people with risk conditions for this disease.

The impact of these changes should be measured in future evaluations. This will inform any further changes to the NIP to prevent these diseases.

### Immunisation coverage

#### Influenza

A record high number of 17.6 million influenza vaccine doses were distributed for use in Australia in 2020.

The Australian Immunisation Register (AIR) showed that:

the number of influenza vaccine doses was higher in all age groups in 2020 than in previous years. This may be because of strong public health messaging for people to receive influenza vaccine during the COVID‑19 pandemic

32.5% of the population (8.6 million people) had received an influenza vaccine by 31 July 2020, compared with 25.2% at the same time in 2019

42.6% of children under 5 years old had received an influenza vaccine by 31 July 2020, compared with 38.2% at the same time in 2019. Influenza vaccine was also free for children under 5 years old for the first time in 2020.

The actual number of doses given is likely to be higher than this because the AIR does not currently reflect all doses given.

#### Other National Immunisation Program vaccines

COVID‑19 control measures have not substantially affected the [coverage of routine NIP vaccines in children](https://www.ncirs.org.au/little-impact-covid-19-pandemic-routine-childhood-vaccination-australia). Even in Victoria, which had the longest and strictest COVID‑19 restrictions in Australia, there was no impact on coverage rates in children.

### Important changes to the Australian Immunisation Handbook

[Pneumococcal disease chapter](https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/pneumococcal-disease) had major updates. There are new recommendations for older adults, people with risk conditions, and Aboriginal and Torres Strait Islander people. The list of [risk conditions for pneumococcal disease](https://immunisationhandbook.health.gov.au/resources/handbook-tables/list-risk-conditions-for-pneumococcal-disease) was also updated.

[Zoster chapter](https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/zoster-herpes-zoster) was updated to help providers decide whether to give the live zoster vaccine (Zostavax) to people who are immunocompromised or on immunosuppressive therapy. There is also new [guidance on pre-vaccination screening](https://immunisationhandbook.health.gov.au/resources/handbook-tables/table-live-shingles-vaccine-zostavax-screening-for-contraindications) and when it is safe to give live zoster vaccine to people on immunosuppressive therapy.

[Hepatitis A chapter](https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/hepatitis-a) was updated. There is a new recommendation for Aboriginal and Torres Strait Islander children in some states and territories.

[Vaccination for special risk groups chapter](https://immunisationhandbook.health.gov.au/vaccination-for-special-risk-groups) was updated in line with changes to disease chapters.

[Online catch-up calculator](https://immunisationhandbook.health.gov.au/catch-up-calculator/calculator) was released. This helps immunisation providers plan catch-up schedules for NIP vaccines for children under 10 years old.

[Handbook mobile app](https://immunisationhandbook.health.gov.au/about-the-handbook/mobile-app) was released. This allows providers to access up-to-date Handbook content on their smartphone or tablet, even when offline.

### Mandatory reporting to the Australian Immunisation Register

In February 2021, the [Australian Immunisation Register Amendment (Reporting) Act 2021](https://www.legislation.gov.au/Details/C2021A00001) came into force. This Act makes it mandatory for all immunisation providers to report all administered doses of vaccines to the AIR.

This change will help to ensure that everyone has a complete record of the vaccines they have throughout their life. This is important to inform individual vaccination decisions, as well as national management of VPD outbreaks.

This change will apply to all immunisation providers, including pharmacists. Pharmacists have had a growing role in providing vaccinations in recent years. This improves access to vaccination and expands the workforce of immunisation providers. However, a study in 2020 found that many pharmacists were [not reporting vaccinations to the AIR](https://www.ncirs.org.au/pharmacies-giving-more-vaccines-real-number-unknown).

### ‘No Jab, No Pay’ policy

The Australian Government’s ‘No Jab, No Pay’ policy was introduced in 2016. It aims to increase immunisation coverage in children. Children must be fully immunised before a family can receive family assistance payments from the government.

A study in 2020 found that the ‘No Jab, No Pay’ policy and associated program improvements have helped to [increase catch-up vaccination](https://onlinelibrary.wiley.com/doi/full/10.5694/mja2.50780), particularly in families of lower socioeconomic status.

## New vaccines

Several new vaccines were registered with Australia’s Therapeutic Goods Administration (TGA) in 2020.

| Vaccine brand name | Description | Protects against | Registered for use in ages |
| --- | --- | --- | --- |
| Fluzone High-Dose Quadrivalent | Inactivated quadrivalent influenza vaccine | Influenza | ≥65 years |
| Flucelvax Quad | Quadrivalent influenza vaccine (surface antigen, inactivated) | Influenza | ≥9 years |
| MenQuadfi | Meningococcal ACWY tetanus toxoid conjugate vaccine | Meningococcal disease | ≥12 months |

ATAGI monitors new vaccines for their potential to be included on the NIP. Vaccines recommended for the NIP need to show benefits for the Australian population or high-risk groups. They also need to be cost-effective.

## Vaccine safety

The TGA has overall responsibility for vaccine safety surveillance in Australia. Vaccine safety surveillance is conducted in 2 ways:

Passive surveillance is where people who have been vaccinated and/or their carers can [report any vaccine side effects](https://www.tga.gov.au/reporting-problems) they have experienced. Reports can be made directly to the TGA or through a health care provider.

Active surveillance is where people who have been vaccinated and/or their carers are contacted directly and asked if they have experienced any vaccine side effects. The current active vaccine safety surveillance is known as the [AusVaxSafety system](https://www.ausvaxsafety.org.au/).

ATAGI continues to work closely with the TGA to advise on and promote the safe use of all vaccines, including COVID‑19 vaccines.

### Safe use of Zostavax

Zostavax is a vaccine that protects older Australians from shingles (herpes zoster) and its complications.

In July 2020, the TGA published a [safety advisory about Zostavax](https://www.tga.gov.au/alert/zostavax-vaccine-0) because of a serious adverse event. Another [TGA safety advisory](https://www.tga.gov.au/alert/zostavax-vaccine-1) and a [safety alert from the Chief Medical Officer](https://www.allergy.org.au/about-ascia/info-updates/safety-alert-zostavax-vaccine-not-to-be-used-in-people-with-compromised-immune-function) were published in December 2020 after another serious adverse event.

As a result of these adverse events, ATAGI updated the [zoster chapter](https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/zoster-herpes-zoster) in the Handbook, and added the [zoster screening tool](https://immunisationhandbook.health.gov.au/resources/handbook-tables/table-live-shingles-vaccine-zostavax-screening-for-contraindications) to the Handbook website, to support providers to use Zostavax safely. Providers should advise people to see a doctor as soon as possible if they develop a chickenpox-like rash after receiving Zostavax.

### Influenza vaccines

[AusVaxSafety data](http://ausvaxsafety.org.au/safety-data) show that 2020 seasonal influenza vaccines were very safe. The safety survey in 2020 had289,513 people participants, with 94.5% reporting no adverse events.

# Challenges and priorities for immunisation in Australia in 2021 and beyond

## Key challenges for prevention and control of vaccine-preventable diseases through immunisation

### For COVID‑19

* Implementing a national COVID‑19 immunisation program. Specific challenges will include:
* immunising a large part of the Australian population
* ensuring that only safe and effective vaccines are used
* using multiple vaccines in the program
* involving a range of immunisation providers in different settings

delivering the program in a short timeframe.

Ensuring confidence in the COVID‑19 immunisation program through effective communication strategies.

In conjunction with the TGA, continue the ongoing monitoring of safety and effectiveness for each vaccine used in the Australian COVID‑19 immunisation program, including among specific subpopulations, using a robust and functional system.

Ensuring preparedness to respond to any safety signals or issues that arise from use of COVID‑19 vaccines.

Evaluating the COVID‑19 immunisation program .

### For other vaccine-preventable diseases

Maintaining a strong NIP in Australia in the face of changing epidemiology of VPDs. COVID‑19 control measures may also disrupt immunisation programs.

Monitoring the changing epidemiology of measles, polio, diphtheria and other VPDs in the Western Pacific region due to disrupted immunisation programs.

Preventing a surge in VPDs in Australia and our region when international travel restrictions are lifted.

Increasing uptake of vaccines for population groups with a higher risk of some VPDs, and ensuring a reliable data system that captures this.

Maintaining community confidence in Australia’s NIP through effective communication strategies.

## ATAGI’s priority actions for 2021

### COVID‑19 immunisation program

Advise on strategies to implement a safe and effective national COVID‑19 immunisation program, with public confidence and equitable access for priority populations. This is a key action to improve control of COVID‑19 in 2021 and beyond.

Advise on the ongoing evaluation of the COVID‑19 immunisation program, and any issues with data and information sources on disease, vaccination uptake and vaccine safety. This will enable program monitoring and evaluation.

### Routine vaccination in Australia and our region

Advise on how to maintain on-time vaccinations according to the NIP schedule for all Australians in a COVID-safe way. This is essential to protect individuals and the community from VPDs.

Advise on how to maintain a high proportion of the Australian population being vaccinated against influenza. This will reduce the risk of serious influenza-related disease, especially during the COVID‑19 pandemic.

Advise on how to prevent a potential surge in measles, diphtheria and polio in Australia as international travel restrictions are relaxed. COVID‑19 has disrupted immunisation programs in many countries, and there is a risk of reintroducing these VPDs into Australia.

* Advise on immunisation policies that enable equitable access to NIP-funded vaccines for population groups with increased risks of some VPDs, as well as reliable systems to capture uptake in these groups. Priorities for consideration are:
* hepatitis B vaccination for non-immune Aboriginal and Torres Strait Islander adults
* pneumococcal vaccination for younger Aboriginal and Torres Strait Islander adults (age <50 years)
* expansion of eligible medical risk conditions for receiving NIP-funded influenza vaccines

catch-up measles vaccination for non-immune people born since 1966.

Scope new influenza and pneumococcal vaccines on the horizon for potential NIP consideration. The vaccines must show benefits to the Australian population or high-risk population groups, and be cost-effective.

### Vaccine safety

Advise on and promote the safe use of all vaccines, including live vaccines such as Zostavax, and COVID‑19 vaccines.

Advise on and promote support to immunisation providers on the safe and appropriate use of live vaccines, especially the live zoster vaccine (Zostavax).

### Monitoring and evaluation

Advise on the need to set up an end-to-end system that can track and record every dose of distributed and administered vaccines in national and state immunisation programs. This will improve vaccine allocation, minimise wastage and help the assessment of vaccine effectiveness.

Advise on the need to evaluate existing immunisation programs, such as for zoster and influenza.

### Evidence-based advice

Strengthen the evaluation of evidence by using GRADE (Grading of Recommendations, Assessment, Development and Evaluations – a framework for making recommendations about best clinical practice that are informed by evidence). Continue publishing evidence-based immunisation recommendations through the [Handbook](https://immunisationhandbook.health.gov.au/).

Continue to monitor the development of new vaccines that may be considered for the NIP. These may include pneumococcal vaccines that cover more serotypes, and vaccines against respiratory syncytial virus and group A Streptococcus.