

Vaccinate for Fun



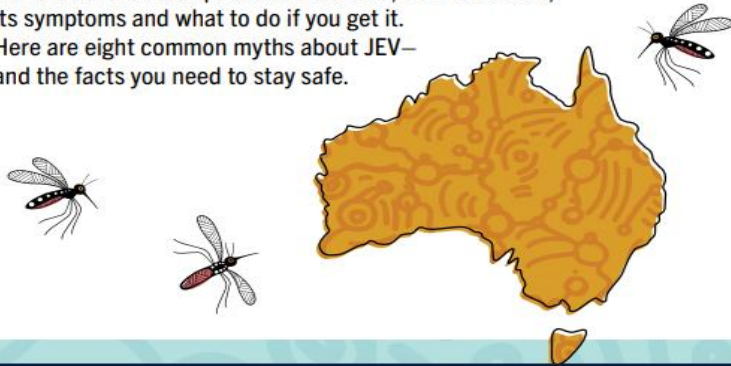


KNOW THE FACTS ABOUT JEV AND STAY SAFE



Help keep our mob from getting really sick by knowing these eight truths about Japanese Encephalitis Virus, or JEV.

Mozzies aren't just annoying, they can also pass on harmful viruses to humans, like JEV. It can be a nasty illness, so it's important that we know as much as possible about JEV, how to avoid it, its symptoms and what to do if you get it. Here are eight common myths about JEV—and the facts you need to stay safe.



KNOW THE FACTS ABOUT JEV AND STAY SAFE



MYTH: Even if I get JEV, it's not that serious.



THE TRUTH:

To be clear, JEV can make you really sick and even be life-threatening. The term encephalitis essentially means the swelling of the brain caused by an infection or an allergic reaction. So, it's something we all want to give a miss if possible.

Some of the symptoms include:

- Headaches
- Fever
- Vomiting

More severe cases can include:

- Neck stiffness
- Tremors
- Convulsions (especially in children)
- Disorientation
- Coma
- Paralysis

As of 6 July 2022, there are 39 human cases of JEV across Australia—and, unfortunately, 5 people have died.

Symptoms usually take 5–15 days to develop after being bitten by a moszkie with JEV. If you, or someone you know, starts to show symptoms of JEV, get medical attention right away because severe cases could require a hospital stay and close observation.

MYTH: I don't live near a piggery or a waterway, so I'm not really at risk.



THE TRUTH:

It's true that if you live near a piggery or waterway like a river or lake, there's a higher chance you'll be exposed to moszies infected with JEV. But there's still a risk if you live anywhere there are moszies—which is pretty much everywhere in Australia. For a long time, JEV was only found rarely in the Torres Strait and Cape York areas of the Top End, but now it can be found in many parts of the country.

MYTH: People can get JEV from animals like pigs, birds and even other people.



THE TRUTH:

The only way people can get JEV is by getting bitten by a moszkie infected with the virus. Moszies can get it by biting infected animals with JEV, like domestic or feral pigs, wading birds like herons and egrets, and other kinds of birds. Other animals, like horses, can also get JEV from moszies and get really sick, but they can't pass it on to people. A person infected with JEV can't pass it on to other people, or other animals—even moszies!

MYTH: You can get JEV by eating infected pork or bird meat.



THE TRUTH:

This isn't true. The only way people can get JEV is by getting bitten by a moszkie infected with it.



MYTH: JEV is from Japan.



THE TRUTH:

Japanese Encephalitis Virus gets its name because it was first found in Japan more than 100 years ago, but no one really knows where it started and it's been all over parts of Asia for a long time.

- Know the facts about JEV and stay safe fact sheet (health.gov.au)





Bite prevention

Your best protection against mosquitoes and the diseases they carry is to avoid mosquito bites.

Know how to prevent bites – Spray up, Cover up!



Mosquito reduction

Reducing the number of mosquitoes around you can prevent mosquito bites.

Reduce the number of mosquitoes around your home or business at least once a week – Screen up, Clean up!



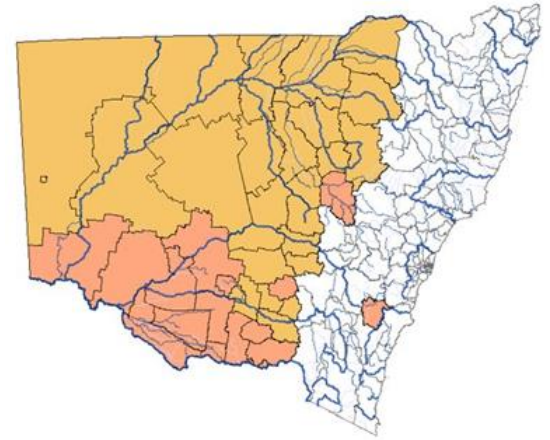
Vaccination

Most mosquito-borne diseases found in NSW don't have vaccines so it is important to protect yourself against mosquito bites.

Japanese encephalitis virus (JEV) is the only vaccine-preventable mosquito-borne disease in NSW.

[Mosquito borne diseases \(nsw.gov.au\)](http://nsw.gov.au)

Japanese Encephalitis – Vaccine preventable



Japanese Encephalitis vaccine is now recommended for a broader group of people:

People aged 2 months or older who live or routinely work-in any of the below Local Government Areas (Table 1) **AND**:

- Spend significant time outdoors (four hours per day), for unavoidable work, recreation, education, or other essential activities, **OR**
- Are living in temporary or flood damaged accommodation (e.g. camps, tents, dwellings exposed to the external environment) that place them at increased risk of exposure to mosquitoes, **OR**
- Are engaged in the prolonged outdoor recovery efforts (clean up) of stagnant waters following floods

NSW Health also continues to **recommend and offer free** vaccination for people who live in any part of NSW and:

- work, live, or are visiting a:
 - piggery, including farm workers and their families (including children aged 2 months and older) living at the piggery, pig transport workers, veterinarians (including veterinary students and nurses) and others involved in the care of pigs.
 - pork abattoir or pork rendering plant.
- work directly with mosquitoes through their surveillance (field or laboratory based) or control and management, and indirectly through management of vertebrate mosquito-borne disease surveillance systems (e.g. sentinel animals) such as:
 - environmental health officers and workers (urban and remote)
 - entomologists

Japanese Encephalitis



JEV: identified first part of last century

recognised in horses and humans in late 1800s



1924: large outbreak in Japan



1935: virus isolated, shown to cause encephalitis in mammals



Vaccine preventable disease

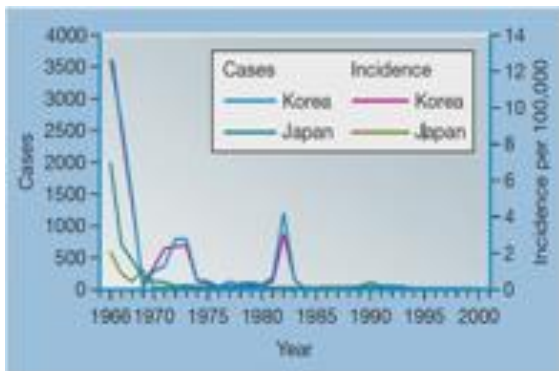


Figure 33.2. Reported Japanese encephalitis cases and incidence, Japan and Korea, 1966-2000. (Data from World Health Organization reports.)

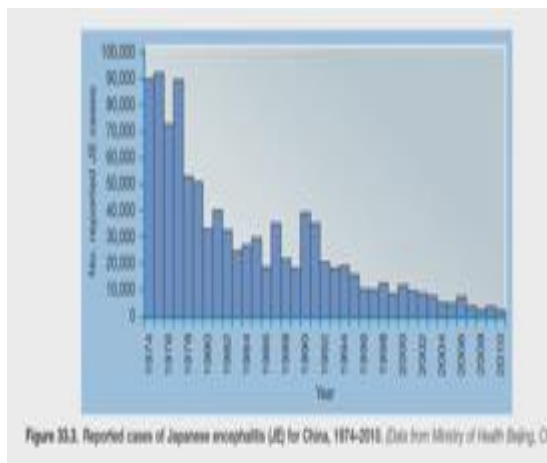


Figure 33.1. Reported cases of Japanese encephalitis (JE) for China, 1974-2016. (Data from Ministry of Health Beijing, China)

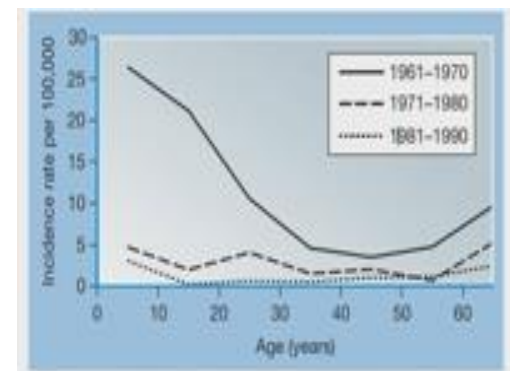


Figure 33.10. Age-specific incidence of Japanese encephalitis, Nanshi District, Shanghai, by decade. (Data from Z. Y. Xu, personal communication.)

4 Classes

- Inactivated (JE-Vax)
- Live attenuated made & used in Ch
- Inactivated JEspect
- Live Imojev



Recommended Immunization Schedule for children aged 0 to 15 years. Hanoi French Hospital

Age	At Birth	2 mo	3 mo	4 mo	6 mo	12 mo	15 mo	18 mo	19-23 mo	2-3 yrs	4-6 yrs	7-8 yrs	9-12 yrs	13-15 yrs
Recommended Vaccine														
Tuberculosis	X													
Hepatitis B	X	X	X					X						
Diphtheria, Tetanus & acellular Pertussis (DTaP)		X	X	X				X			X			
Inactivated Poliovirus		X	X	X				X						
Hemophilus Influenzae type b		X	X	X				X						
Rotavirus		Rotarix		2 dose series with minimum 1 month interval										
		Rotateq		3 dose series with minimum 1 month interval										
Pneumococcal conjugate		6wks - 6mo: first 3 doses at 1 month interval and fourth dose at least 6 months after third dose 7mo - 11mo: 2 doses at least 1 month interval; third dose is recommended after the 1st birthday, separated from the second dose by at least 2 months. 12mo - 5 yrs: 2 dose series at least 2 months apart												
Influenza		< 9 years: first 2 doses with 1 month interval and then 1 dose every year. ≥ 9 years: Administer 1 dose every year.												
Japan B Encephalitis		The first 2 doses at 1-4 weeks interval												
Measles, Mumps, Rubella		X												
Varicella (Chicken pox)		X												
Hepatitis A (pediatric)		2 dose series with minimum 6 month interval												
Menigooccal	B+C	2 dose series with 6-8 weeks interval												
	A+C	First vaccination single dose Booster: 1 dose every three years												
Typhoid Fever		The first single dose. Re-vaccination: 1 dose every two years												
Human Papillomavirus	Cevarix													
	Gardasil	3 doses series: 0-1-6 months from 10 years of age 3 doses series: 0-2-6 months												

JEspect (also Ixiaro)



JEspect is an inactivated vaccine

- Women who are pregnant or breastfeeding
- immunocompromised people
- infants aged ≥ 2 months



Doses and schedule:

- JEspect is given as **two injections** 28 days apart **by intramuscular injection**. The dose required depends on the age of the person:
 - Infants and children aged ≥ 2 months to < 3 years should receive 2 doses, each **0.25 mL**, 28 days apart
 - Children aged ≥ 3 years and adults should receive 2 doses, each **0.5 mL**, 28 days apart

Short Supply - only order as required

Variation from product information



- The Australian Product Information for JEspect currently states that this vaccine is for use in people aged ≥ 18 years.
- However, ATAGI recommends that children and adolescents aged ≥ 2 months to < 18 years can receive this vaccine.



vaccines

Imojev

chimeric vaccine



<https://en.wiktionary.org/wiki/chimera>





vaccines

Imojev

chimeric vaccine

uses yellow fever vaccine backbone

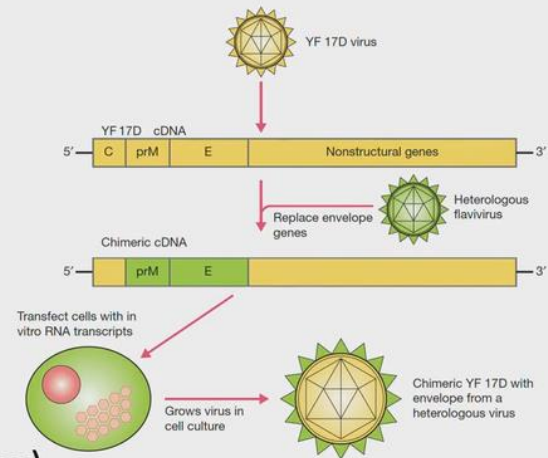
SA 14-14-2 (prM and E genes)

live attenuated (does not transmit to mosquitoes)

1 dose IMI

≥9 months of age

timing of other live virus vaccines



<https://www.elsevier.com/books/plotkins-vaccines/9780323357616>

Imojev vaccine preparation



- Imojev requires reconstitution
- It presents as one dose of freeze-dried white to creamy-white vaccine powder and one dose of clear diluent in separate vials with one syringe and two needles, one for preparation and one for injection.

Step 1

- Imojev comes in a vial with lyophilised powder in a monodose vial with separate diluent.
- Store at +2°C to +8°C. Do not freeze. Protect from light.

Step 2

- Add the entire contents of the diluent container to the vial and shake until the powder completely dissolves.

Step 3

- After reconstitution, the vaccine should be a colourless to amber suspension.

The reconstituted vaccine should be administered within one hour.

Imojev vaccine



- Imojev is a **live** attenuated vaccine. This means it contains a weakened version of the live JE virus.

Doses and schedule

- Imojev is given as a single dose via subcutaneous injection.
- Recommended for use in people aged ≥ 9 months.



Image courtesy of Sanofi

Imojev vaccine: important considerations



- People who can become pregnant should avoid pregnancy for 28 days after Imojev vaccination.
- Do not give Imojev within 6 weeks of treatment with immunoglobulins or immunoglobulin-containing blood products. Imojev should be delayed until 3 months after these treatments.
- Imojev can be co-administered (given on the same day) as other live vaccines such as MMR and yellow fever. Give in separate limbs if possible, or if this is not possible, separate sites by at least 2.5 cm.
- If Imojev or other live vaccines are not co-administered, they should be given at least 4 weeks apart. You must check if a person has recently received any live vaccines before administering Imojev, and delay vaccination if required.



vaccine issues

availability/production/expense

limited production

long lead times

ethical issues: Australia diverting stock from other countries

future: intradermal use to conserve vaccine? <https://www.mdpi.com/2414-6366/7/6/85>

how best to use?

130K doses Imojev, JEspect

distribution based on individuals at risk

use of vaccine at a wider population level

addition to the National Immunisation Program



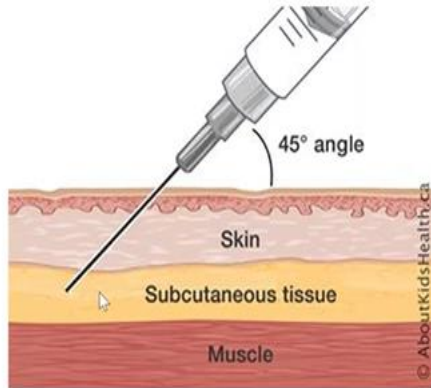
Health

Hunter New England
Local Health Network



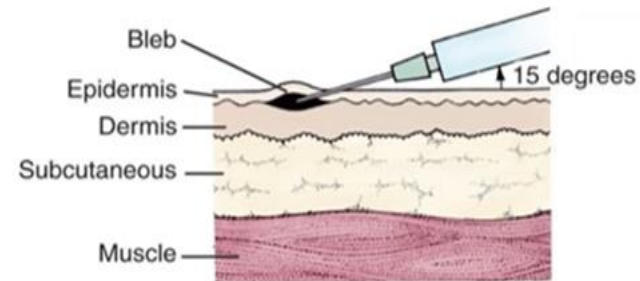
Subcutaneous administration

- 0.5mL, 2 doses 28 days apart
- Dose used in clinical trials
- More safety data known
- Recommended for post-exposure prophylaxis



Intradermal administration

- 0.1mL, 2 doses 28 days apart (dose saving)
- Similar immunogenicity
- More local reaction expected
- Recommended for pre-exposure prophylaxis only and in individuals who do not have severe immunocompromise



Adverse Events



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National Adverse Events Following Immunisation (AEFI) reporting form

Last updated: 22 February 2021

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Suspected adverse events that occur after having a vaccination can be reported to the TGA. These reports provide important information for the TGA's safety monitoring program.

A completed AEFI form can be submitted to the TGA via:

Email	adr_reports@tga.gov.au
Fax	+61 2 6232 8392
Mail	Therapeutic Goods Administration PO Box 100 Woden ACT 2606 Australia

For general privacy information, see [Privacy](#).

Supporting documents

- [National Adverse Events Following Immunisation \(AEFI\) reporting form](#) [Word, 261.6 KB]
- [National Adverse Events Following Immunisation \(AEFI\) reporting form](#) [PDF, 187.09 KB]



TGA use only

Date report received:

Notification ID:

This form, when completed, will be classified as 'For official use only'.

For guidance on how your information will be treated by the TGA see: Treatment of information provided to the TGA at <https://www.tga.gov.au/treatment-of-information-provided-tga>.

National Adverse Events Following Immunisation (AEFI) reporting form

Vaccinated person's details

Personal Details

Surname		First Name	
Sex	<input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Other/unknown	Age/DOB	
Street Address			
Suburb	Postcode	State	
Phone:		Email:	
Name of Parent/Guardian (if relevant)			
Indigenous Status: is the person of Aboriginal or Torres Strait Islander origin?		<input type="checkbox"/> Aboriginal <input type="checkbox"/> Torres Strait Island <input type="checkbox"/> Both	
		<input type="checkbox"/> No <input type="checkbox"/> Prefer not to say	
What is the ethnicity of the person?			

Personal Details

Was the vaccinated person pregnant at the time of vaccination?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Has the vaccinated person ever been diagnosed with COVID-19?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Does the vaccinated person have any allergies (please provide details)	
Has the vaccinated person had previous reactions to vaccinations?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Past medical history: (please provide details of any medical history including details of previous vaccination reactions)	



Primary vaccination course recommendations

COVID-19 vaccination is recommended for all people aged 5 years or older to protect against COVID-19.

Booster dose recommendations

A single COVID-19 vaccine booster dose is recommended for all people aged 16 years and older who completed their primary course 3 or more months ago.

A second booster dose (that is a 4th dose) is recommended for people in the following groups, 3 months after the first booster dose:

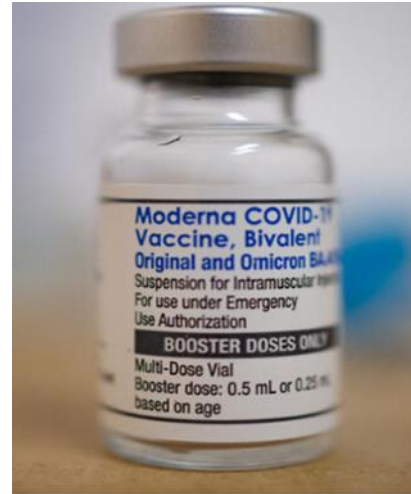
- people 50 years or older
- residents aged 16 years and older of an aged care or disability care facility
- people aged 16 years and older who have complex, chronic, or severe medical conditions that increase their risk of severe illness from COVID-19
- people aged 16 years and older with disability with significant or complex health needs, or multiple comorbidities that increase the risk of poor outcome from COVID-19.

Second booster permissive for 30-49 years if beneficial

Bivalent Covid vaccines



- Original / Omicron BA.1
- Booster only
- 3 month interval
- For >18 year olds



HNE Covid vaccine 4th dose rates



COVID vaccination fourth dose coverage by Local Health District and Age group, people aged 50 years and over, NSW 21 November 2022

Local Health District	Age group (years)	Dose 4		
		Count	Population	Per cent
Hunter New England	50-59	28,288	118,140	23.9
	60-69	59,655	115,412	51.7
	70-79	70,455	86,051	81.9
	80-84	21,079	24,243	86.9
	85+	20,083	23,234	86.4
	65+	146,619	188,789	77.7
	50+	199,560	367,080	54.4

COVID vaccination fourth dose coverage by Local Health District and Age group, Indigenous people aged 50 years and over, NSW 21 November 2022

Local Health District	Age group (years)	Dose 4		
		Count	Population	Per cent
Hunter New England	50-59	1,030	5,331	19.3
	60-69	1,468	3,814	38.5
	70-79	1,120	1,948	57.5
	80-84	251	415	60.5
	85+	134	285	47.0
	50+	4,003	11,793	33.9
	16+	4,837	39,163	12.4





Decision aid (5–15 years): Should I get the COVID-19 vaccine for my child?



This decision aid is designed to help you decide whether COVID-19 vaccination is right for your child. In five simple steps, it will give you the information you need about the virus and the vaccine, and help you think about what the risks and benefits of vaccination mean for your family.



<https://ncirs.org.au/covid-19-decision-aid-for-children>



Meningococcal Disease – Bexsero Vaccine



Meningococcal Septicaemia (MenB) - Charlotte's story

Five year old Charlotte Nott developed septicaemia through type B meningococcal disease infection

How common is it?

Between 2011 and 2015, there were 966 notifications of meningococcal disease, with 101 (10%) of these reported in Aboriginal and Torres Strait Islander people.



Notification rates in Aboriginal and Torres Strait Islander people, compared with other people, were 2.4 times higher overall, 4.3 times higher for children aged less than 5 years, and 5.5 times higher for children aged 5-14 years.



Bexsero (and childhood vaccines & tetanus)



NSW Immunisation Schedule

Funded October 2021



Childhood vaccines			
Age	Disease	Vaccine	Information
Birth	Hepatitis B	H-B-VAX II OR ENGERIX B (IM)	Within 7 days of birth (ideally within 24 hours)
6 weeks	Diphtheria, tetanus, pertussis, Haemophilus influenzae type b, hepatitis B, polio	INFANRIX HEXA (IM)	ROTARIX: Dose 1 limited to 6-14 weeks of age BEXSERO: Prophylactic paracetamol recommended. Catch up available for Aboriginal children <2 until 30/06/2023
	Pneumococcal	PREVENAR 13 (IM)	
	Rotavirus	ROTARIX (Oral)	
	Meningococcal B (Aboriginal children only)	BEXSERO (IM)	
4 months	Diphtheria, tetanus, pertussis, Haemophilus influenzae type b, hepatitis B, polio	INFANRIX HEXA (IM)	ROTARIX: Dose 2 limited to 10-24 weeks BEXSERO: Prophylactic paracetamol recommended. Catch up available for Aboriginal children <2 until 30/06/2023
	Pneumococcal	PREVENAR 13 (IM)	
	Rotavirus	ROTARIX (Oral)	
	Meningococcal B (Aboriginal children only)	BEXSERO (IM)	
6 months	Diphtheria, tetanus, pertussis, Haemophilus influenzae type b, hepatitis B, polio	INFANRIX HEXA (IM)	Children ≥6 months with at risk conditions for IPD† are recommended to receive an additional dose of PREVENAR 13 - see AIH* Aboriginal children ≥6 months with certain at risk conditions may require an additional dose of Bexsero - see AIH*
	Meningococcal ACWY	NIMENRIX (IM)	
12 months	Pneumococcal	PREVENAR 23 (IM)	Bexsero: Prophylactic paracetamol recommended. Catch up available for Aboriginal children <2 until 30/06/2023
	Measles, mumps, rubella	MMR II OR PRIORIX (IM or SC)	
	Meningococcal B (Aboriginal children only)	BEXSERO (IM)	
	Meningococcal B (Aboriginal children only)	BEXSERO (IM)	
18 months	Diphtheria, tetanus, pertussis	INFANRIX OR TRIPACEL (IM)	
	Measles, mumps, rubella, varicella	PRIORIX TETRA OR PROQUAD (IM or SC)	
	Haemophilus influenzae type b	ACT-HIB (IM OR SC)	
4 years	Diphtheria, tetanus, pertussis, polio	INFANRIX-IPV OR QUADRACEL (IM)	Children with at risk conditions for IPD† are recommended to receive an additional dose of PNEUMOVAX 23 - see AIH*





The Australian Immunisation Register and the transition to Web Services

▲ What are web services?

Web services is a technology that is available over the internet. It enables two- way communication between two devices on a network which means they can talk to each other securely and share data and services.

Why is the Australian Immunisation Register (AIR) transitioning to web services?

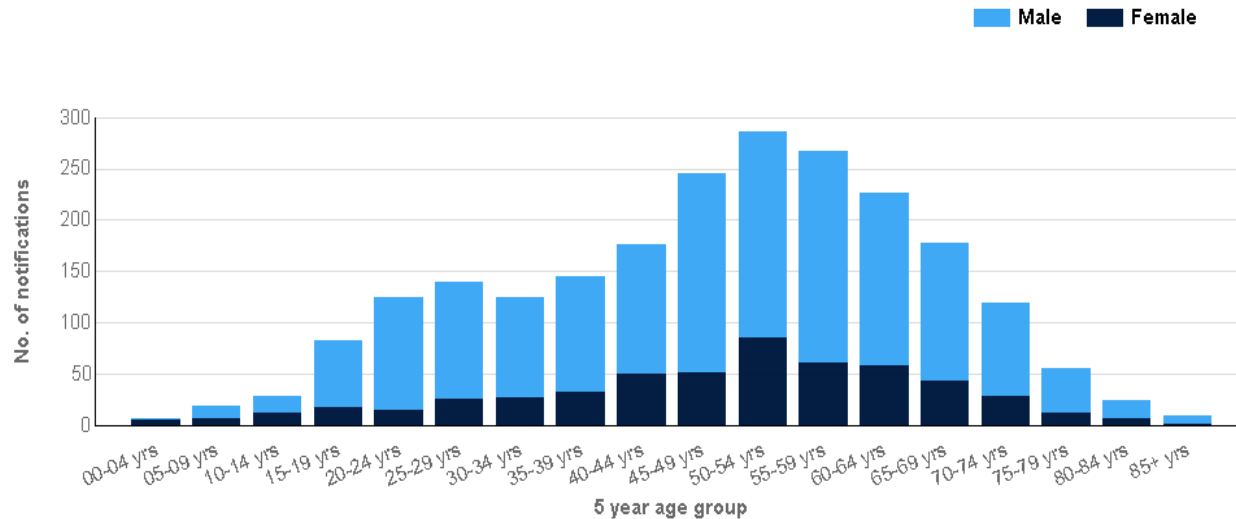
Services Australia, which manages AIR has moved to use web services; previously adaptor technology was used. Web services ensures that the digital channels:

- are secure and stable, now and into the future
- meet current technology standards
- are easier to update and improve

Q fever notifications in NSW residents



Q fever notifications in NSW residents, by five year age group and gender. October 2011 to September 2022





Monkeypox Pictures: Patient Shares Images, Describes Intense Pain

[Visit](#)

NSW - Far West

City/suburb	Vaccination centre/clinic	For booking support
Broken Hill	Make a booking at Broken Hill NSW Health Monkeypox Vaccination Centre ↗	(08) 8080 1100
Far West (Mobile Clinic)	For bookings outside of Broken Hill, contact Broken Hill Community Health Centre on (08) 8080 1100.	(08) 8080 1100

NSW - Hunter New England

City/suburb	Vaccination centre/clinic	For booking support
Tamworth	Make a booking at Tamworth NSW Health Monkeypox Vaccination Clinic ↗	(02) 6764 8080
Wallsend	Make a booking at Wallsend NSW Health Monkeypox Vaccination Centre ↗	1800 570 575



Search for HNE Immunisation

Immunisation

Immunisation for Prevention and Protection

Immunisation is one of the most effective and cost-efficient public health measures for the control of vaccine-preventable diseases.

Hunter New England Population Health provides support & information to providers and the general community about immunisation, including travel vaccinations, to ensure our population has the opportunity to receive all recommended vaccines.

Immunisation Information

Aboriginal and Torres Strait Islander people →	Education →	Free Immunisation Clinics →
Information for Health Professionals →	School Vaccinations →	To the Point Newsletters →

[Immunisation | HNE Health \(nsw.gov.au\)](https://nsw.gov.au/immunisation)