2020 Immunisation Update

Prepared and presented by

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Objectives

- **ANI minimum core education requirements**
- **The National and NSW schedules and changes**
- **Current vaccine preventable disease activity**
- **Catch-up immunisation**
- **Adolescent and adult vaccination**
- **Other changes for 2020**

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Minimum core education requirements for Authorised Nurse Immunisers

1. NSW Immunisation Authority for Registered Nurses and Midwives
2. Vaccine Storage and management
3. Vaccine administration

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Minimum core education requirements for Authorised Nurse Immunisers

4. NSW Immunisation Schedule
5. Current situation/issues update

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Other required learning:

4. NSW Immunisation Schedule
   - Current immunisation schedules - new vaccines/schedule changes
   - NSW schedule versus National Immunisation Program Schedule
   - Catch-up vaccination – minimum ages, minimum intervals
   - School vaccination program schedule and accessing vaccination records
   - Maternal influenza and pertussis vaccination
   - Neonatal hepatitis B vaccination program
   - Health care worker - requirements for staff and students
5. Current situation/issues update
   - Current vaccine preventable disease of concern and epidemiology
   - Any other issues/concerns
   - Contacting the local public health unit
   - Useful resources

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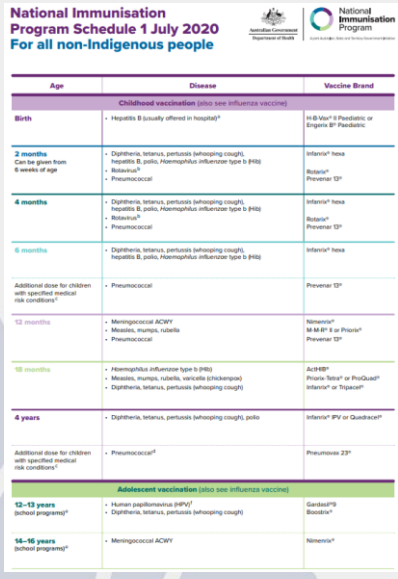
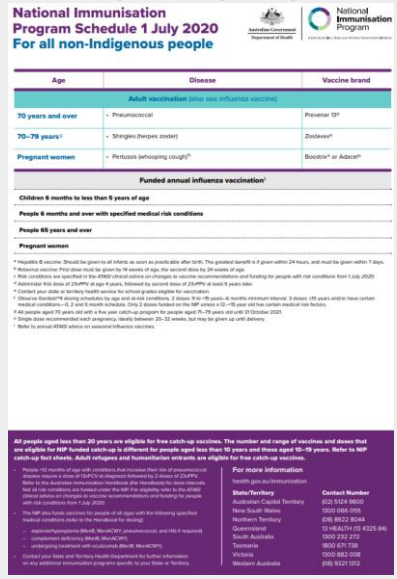
The National Immunisation Program (NIP)



National Immunisation Program Schedule 1 July 2020
For all non-Indigenous people

Age	Disease	Vaccine Brand
Childhood vaccination (also see influenza vaccine)		
Birth	• Hepatitis B (usually offered in hospital)[a]	H-B-Vax® II Paediatric or Engerix-B® Paediatric
2 months Can be given from 6 weeks of age	• Diphtheria, tetanus, pertussis (whooping cough), hepatitis B, polio, *Haemophilus influenzae* type b (Hib) • Rotavirus[b] • Pneumococcal	Infanrix® hexa Rotarix® Prevenar 13®
4 months	• Diphtheria, tetanus, pertussis (whooping cough), hepatitis B, polio, *Haemophilus influenzae* type b (Hib) • Rotavirus[b] • Pneumococcal	Infanrix® hexa Rotarix® Prevenar 13®
6 months	• Diphtheria, tetanus, pertussis (whooping cough), hepatitis B, polio, *Haemophilus influenzae* type b (Hib)	Infanrix® hexa
Additional dose for children with specified medical risk conditions[c]	• Pneumococcal	Prevenar 13®
12 months	• Meningococcal ACWY • Measles, mumps, rubella • Pneumococcal	Nimenrix® M-M-R® II or Priorix® Prevenar 13®
18 months	• *Haemophilus influenzae* type b (Hib) • Measles, mumps, rubella, varicella (chickenpox) • Diphtheria, tetanus, pertussis (whooping cough)	Act-Hib® Priorix-Tetra® or ProQuad® Infanrix® or Tripacel®
4 years	• Diphtheria, tetanus, pertussis (whooping cough), polio	Infanrix® IPV or Quadracel®
Additional dose for children with specified medical risk conditions[c]	• Pneumococcal[d]	Pneumovax 23®
Adolescent vaccination (also see influenza vaccine)		
12–13 years (school programs)[e]	• Human papillomavirus (HPV)[f] • Diphtheria, tetanus, pertussis (whooping cough)	Gardasil®9 Boostrix®
14–16 years (school programs)[e]	• Meningococcal ACWY	Nimenrix®



National Immunisation Program Schedule 1 July 2020
For all non-Indigenous people

Age	Disease	Vaccine brand
Adult vaccination (also see influenza vaccine)		
70 years and over	• Pneumococcal	Prevenar 13®
70–79 years[i]	• Shingles (herpes zoster)	Zostavax®
Pregnant women	• Pertussis (whooping cough)[h]	Boostrix® or Adacel®
Funded annual influenza vaccination[j]		
Children 6 months to less than 5 years of age		
People 6 months and over with specified medical risk conditions		
People 65 years and over		
Pregnant women		

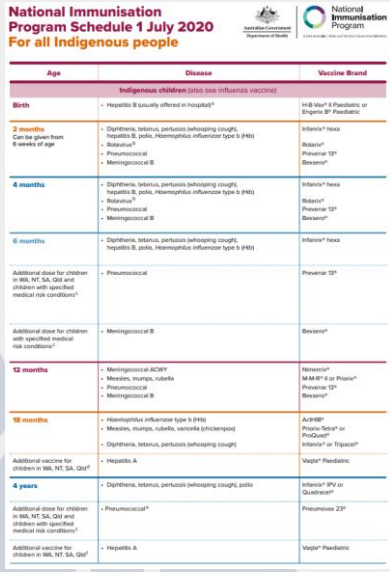
All people aged less than 20 years are eligible for free catch-up vaccines. The number and range of vaccines and doses that are eligible for NIP funded catch-up is different for people aged less than 10 years and those aged 10–19 years. Refer to NIP catch-up fact sheets. Adult refugees and humanitarian entrants are eligible for free catch-up vaccines.

For more information
health.gov.au/immunisation

State/Territory	Contact Number
Australian Capital Territory	(02) 5124 9800
New South Wales	1300 066 055
Northern Territory	(08) 8922 8044
Queensland	13 HEALTH (13 4325 84)
South Australia	1800 232 272
Tasmania	1800 671 738
Victoria	1300 882 008
Western Australia	(08) 9321 1312

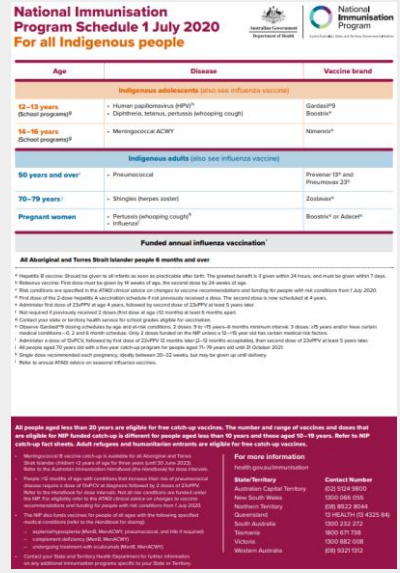
https://www.health.gov.au/resources/publications/national-immunisation-program-schedule-for-all-non-indigenous-people

The National Immunisation Program (NIP)



National Immunisation Program Schedule 1 July 2020
For all Indigenous people

Age	Disease	Vaccine Brand
Indigenous children (also see influenza vaccine)		
Birth	• Hepatitis B (usually offered in hospital)[a]	HB Vax® II Paediatric or Engerix B® Paediatric
2 months Can be given from 6 weeks of age	• Diphtheria, tetanus, pertussis (whooping cough), hepatitis B, polio, *Haemophilus influenzae* type b (Hib) • Rotavirus[b] • Pneumococcal • Meningococcal B	Infanrix® hexa Rotarix® Prevenar 13® Bexsero®
4 months	• Diphtheria, tetanus, pertussis (whooping cough), hepatitis B, polio, *Haemophilus influenzae* type b (Hib) • Rotavirus[b] • Pneumococcal • Meningococcal B	Infanrix® hexa Rotarix® Prevenar 13® Bexsero®
6 months	• Diphtheria, tetanus, pertussis (whooping cough), hepatitis B, polio, *Haemophilus influenzae* type b (Hib)	Infanrix® hexa
Additional dose for children in WA, NT, SA, Qld and children with specified medical risk conditions[c]	• Pneumococcal	Prevenar 13®
Additional dose for children with specified medical risk conditions[d]	• Meningococcal B	Bexsero®
12 months	• Meningococcal ACWY • Measles, mumps, rubella • Pneumococcal • Meningococcal B	Nimenrix® M-M-R® II or Priorix® Prevenar 13® Bexsero®
18 months	• *Haemophilus influenzae* type b (Hib) • Measles, mumps, rubella, varicella (chickenpox) • Diphtheria, tetanus, pertussis (whooping cough)	Act-HIB® Priorix-Tetra® or ProQuad® Infanrix® or Tripacel®
Additional vaccine for children in WA, NT, SA, Qld[e]	• Hepatitis A	Vaqta® Paediatric
4 years	• Diphtheria, tetanus, pertussis (whooping cough), polio	Infanrix® IPV or Quadracel®
Additional dose for children in WA, NT, SA, Qld and children with specified medical risk conditions[c]	• Pneumococcal[e]	Pneumovax 23®
Additional vaccine for children in WA, NT, SA, Qld[e]	• Hepatitis A	Vaqta® Paediatric



National Immunisation Program Schedule 1 July 2020
For all Indigenous people

Age	Disease	Vaccine brand
Indigenous adolescents (also see influenza vaccine)		
12–13 years (School programs)[g]	• Human papillomavirus (HPV)[h] • Diphtheria, tetanus, pertussis (whooping cough)	Gardasil®9 Boostrix®
14–16 years (School programs)[g]	• Meningococcal ACWY	Nimenrix®
Indigenous adults (also see influenza vaccine)		
50 years and over[i]	• Pneumococcal	Prevenar 13® and Pneumovax 23®
70–79 years[i]	• Shingles (herpes zoster)	Zostavax®
Pregnant women	• Pertussis (whooping cough)[k] • Influenza[l]	Boostrix® or Adacel®
Funded annual influenza vaccination[l]		
All Aboriginal and Torres Strait Islander people 6 months and over		

All people aged less than 20 years are eligible for free catch-up vaccines. The number and range of vaccines and doses that are eligible for NIP funded catch-up is different for people aged less than 10 years and those aged 10–19 years. Refer to NIP catch-up fact sheets. Adult refugees and humanitarian entrants are eligible for free catch-up vaccines.

For more information
health.gov.au/immunisation

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https://www.health.gov.au/resources/publications/national-immunisation-program-schedule-for-all-aboriginal-and-torres-strait-islander-people

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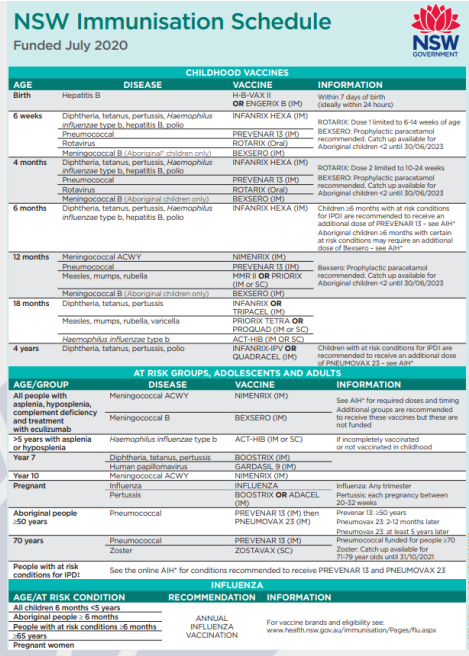

NSW Immunisation Schedule
Funded July 2020

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[1] 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 IPDI 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*
12 months	Meningococcal ACWY	NIMENRIX (IM)	Bexsero: Prophylactic paracetamol recommended. Catch up available for Aboriginal children <2 until 30/06/2023
	Pneumococcal	PREVENAR 13 (IM)	
	Measles, mumps, rubella	MMR II **OR** PRIORIX (IM or SC)	
	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 IPDI are recommended to receive an additional dose of PNEUMOVAX 23 – see AIH*

AT RISK GROUPS, ADOLESCENTS AND ADULTS

AGE/GROUP	DISEASE	VACCINE	INFORMATION
All people with asplenia, hyposplenia, complement deficiency and treatment with eculizumab	Meningococcal ACWY	NIMENRIX (IM)	See AIH* for required doses and timing Additional groups are recommended to receive these vaccines but these are not funded
	Meningococcal B	BEXSERO (IM)	
>5 years with asplenia or hyposplenia	*Haemophilus influenzae* type b	ACT-HIB (IM or SC)	If incompletely vaccinated or not vaccinated in childhood
Year 7	Diphtheria, tetanus, pertussis	BOOSTRIX (IM)	
	Human papillomavirus	GARDASIL 9 (IM)	
Year 10	Meningococcal ACWY	NIMENRIX (IM)	
Pregnant	Influenza	INFLUENZA	Influenza: Any trimester
	Pertussis	BOOSTRIX **OR** ADACEL (IM)	Pertussis: each pregnancy between 20-32 weeks
Aboriginal people ≥50 years	Pneumococcal	PREVENAR 13 (IM) then PNEUMOVAX 23 (IM)	Prevenar 13: ≥50 years Pneumovax 23: 2-12 months later Pneumovax 23: at least 5 years later
70 years	Pneumococcal	PREVENAR 13 (IM)	Pneumococcal funded for people ≥70
	Zoster	ZOSTAVAX (SC)	Zoster: Catch up available for 71-79 year olds until 31/10/2021
People with at risk conditions for IPDI	See the online AIH* for conditions recommended to receive PREVENAR 13 and PNEUMOVAX 23		

INFLUENZA

AGE/AT RISK CONDITION	RECOMMENDATION	INFORMATION
All children 6 months <5 years Aboriginal people ≥ 6 months People with at risk conditions ≥6 months ≥65 years Pregnant women	ANNUAL INFLUENZA VACCINATION	For vaccine brands and eligibility see: www.health.nsw.gov.au/immunisation/Pages/flu.aspx

The NSW Immunisation Schedule

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https://www.health.nsw.gov.au/Publications/nsw-immunisation-schedule.pdf

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Additional Commonwealth funded vaccines

- Ongoing catch-up for 10-19 y.o.

• Dtpa	• Hep B
• Polio	• HPV (age dependent)
• MMR	• Meningococcal (age dependent)
• Varicella	

- Ongoing catch-up for refugees and humanitarian entrants aged 20 years and over.

• Dtpa	• Hep B
• Polio	• Varicella
• MMR	

https://www.health.nsw.gov.au/immunisation/Pages/gp_catchup.aspx

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Additional NSW funded vaccines

- Hepatitis B

- Aboriginal people	- Men who have sex with men
- Household contacts	- Injecting drug users
- Immunocompromised	- Sex workers
- People with HIV or Hep C	- Clients of sexual health clinics

- HPV
  - Refugees 20 – 26 years of age
- MMR
  - Unvaccinated people born during or after 1966
  - Rubella seronegative post natal women
- Rabies Post Exposure Prophylaxis

https://www.health.nsw.gov.au/immunisation/Pages/gp_catchup.aspx

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Schedule FAQs

Who are entitled to the free catch-up vaccines?

- Eligibility for free vaccines under the NIP is linked to eligibility for Medicare benefits. Must be:
  - an Australian citizen
  - a New Zealand citizen
  - an Australian permanent resident
  - applying for permanent residency
  - covered by a ministerial order.

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AUSTRALIAN NIP CHANGES

- Which diseases do the changes affect?
  - Pneumococcal
  - Meningococcal B
  - Meningococcal ACWY
  - Haemophilus influenzae type b (HIB)
  - Hepatitis A - ONLY Aboriginal children in NT, WA, SA and QLD

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Pneumococcal

- Pneumococcal (Prevenar 13 and Pneumovax 23)
  - ✓ At risk groups – all ages,
  - ✓ Aboriginal people ≥ 50 years of age (without at risk conditions),
  - ✓ Non-Aboriginal people ≥ 70 years of age (without at risk conditions),
  - ✓ Aboriginal children ONLY in NT, WA, SA and QLD

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At Risk Groups

- Category A and Category B lists replaced with single list of risk conditions.
- All listed conditions are recommended to receive pneumococcal vaccination - only funded for some.
- Pneumovax 23 now limited to 2 lifetime doses.

Table 1. Updated list of risk conditions for pneumococcal vaccine recommendations and their eligibility for funding under the National Immunisation Program (NIP)

Risk condition	Eligibility for NIP funding	
	<5 years of age	≥5 years of age
Previous episode of invasive pneumococcal disease	✓	✓
Functional or anatomical asplenia, including		
– sickle cell disease or other haemoglobinopathies	✓	✓
– congenital or acquired asplenia (for example, splenectomy) or hyposplenia	✓	✓
Immunocompromising conditions, including		
– congenital or acquired immune deficiency, including symptomatic IgG subclass or isolated IgA deficiency	✓	✓
– haematological malignancies	✓	✓
– solid organ transplant	✓	✓
– haematopoietic stem cell transplant	✓	✓
– HIV infection	✓	✓
– immunosuppressive therapy, where sufficient immune reconstitution for vaccine response is expected; this includes those with underlying conditions requiring but not yet receiving immunosuppressive therapy		
– non-haematological malignancies receiving chemotherapy or radiotherapy (currently or anticipated)		
Proven or presumptive cerebrospinal fluid (CSF) leak, including		
– cochlear implants	✓	✓
– intracranial shunts	✓	✓
Chronic respiratory disease, including		
– suppurative lung disease, bronchiectasis and cystic fibrosis	✓	✓
– chronic lung disease in preterm infants	✓	✓
– chronic obstructive pulmonary disease (COPD) and chronic emphysema		
– severe asthma (defined as requiring frequent hospital visits or the use of multiple medications)		
– interstitial and fibrotic lung disease		
Chronic renal disease		
– relapsing or persistent nephrotic syndrome	✓	✓
– chronic renal impairment – eGFR <30 mL/min (stage 4 or 5 disease)	✓*	✓*
Cardiac disease, including		
– congenital heart disease	✓	
– coronary artery disease	✓	
– heart failure	✓	
Children born less than 28 weeks gestation	✓	
Trisomy 21	✓	
Chronic liver disease, including		
– chronic hepatitis		
– cirrhosis		
– biliary atresia		
Diabetes		
Smoking (current or in the immediate past)		
Harmful use of alcohol (defined as consuming on average ≥60 g of alcohol (6 Australian standard drinks) per day for males and ≥40 g of alcohol (4 Australian standard drinks) per day for females)		

** Funded under the NIP for eGFR <15 mL/min only (including patients on dialysis).*
Individual conditions listed beneath or those that are similar based on clinical judgment.

Note: *All children and adults with above conditions are recommended to receive additional pneumococcal vaccine doses however, they are only funded under the NIP for those with the shaded conditions.*

All information in this fact sheet is correct as at June 2020. REPORT all vaccinations to the Australian Immunisation Register (AIR).

State and territory health department contact numbers:
NSW 1300 066 055
1800 232 272
TAS 1800 671 738
1300 882 008
WA 08 9321 1312
QLD Contact your local Public Health Unit

Australian Government Department of Health
National Immunisation Program
A joint Australian, State and Territory Government Initiative

https://www.health.gov.au/resources/publications/national-immunisation-program-pneumococcal-vaccination-schedule-from-1-july-2020-clinical-decision-tree-for-vaccination-providers

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Children ≤ 12 months with at risk conditions

Does not affect the routine childhood pneumococcal schedule

- For children with risk conditions:
  - ✓ Additional dose of Prevenar 13 at 6 months (or at diagnosis if diagnosed 6-11 months of age)
  - ✓ Then receive Pneumovax 23 at 4 years of age
  - ✓ Additional dose Pneumovax 23 least 5 years later

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Anyone > 12 months with at risk conditions

- ✓ Receive Prevenar 13 at diagnosis.
- ✓ Then receive Pneumovax 23: 2-12 months later or ≥ 4 y.o. (whichever is later)
- ✓ Additional dose of Pneumovax 23 at least 5 years later

Catch up tables available in the online handbook

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Aboriginal people ≥ 50 years of age (without risk factors)

- ✓ Prevenar 13 at ≥ 50 years of age
- ✓ Pneumovax 23: 2-12 months later
- ✓ Final dose Pneumovax 23: minimum 5 years later

If they have previously received Pneumovax 23:

- ✓ Still give Prevenar 13 - wait 12 months after Pneumovax 23

If second dose required: Give final dose Pneumovax 23: 12 months after Prevenar 13 or 5 years after previous dose of Pneumovax 23 (whichever is later)

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All individuals ≥ 70 years of age (without risk factors)

Pneumovax 23 at 65 years is no longer recommended or funded

- ✓ Prevenar 13 at ≥ 70 years of age
- ✓ No time limited catch up
- ✓ Anyone ≥ 70 years of age on 1 July 2020 are eligible for a single funded dose of Prevenar 13.
- ✓ If they already had Pneumovax 23 at 65, should still receive Prevenar 13 - leave 12 months between doses

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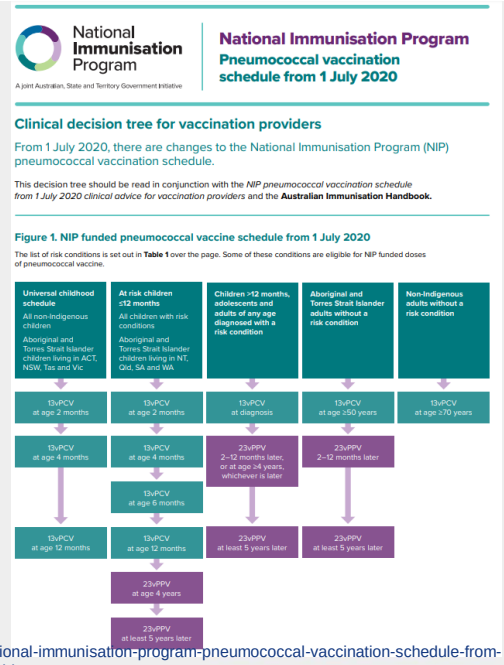
National Immunisation Program
A joint Australian, State and Territory Government initiative

National Immunisation Program
Pneumococcal vaccination schedule from 1 July 2020

Clinical decision tree for vaccination providers

From 1 July 2020, there are changes to the National Immunisation Program (NIP) pneumococcal vaccination schedule.

This decision tree should be read in conjunction with the *NIP pneumococcal vaccination schedule from 1 July 2020 clinical advice for vaccination providers* and the **Australian Immunisation Handbook.**

Figure 1. NIP funded pneumococcal vaccine schedule from 1 July 2020

The list of risk conditions is set out in **Table 1** over the page. Some of these conditions are eligible for NIP funded doses of pneumococcal vaccine.

https://www.health.gov.au/resources/publications/national-immunisation-program-pneumococcal-vaccination-schedule-from-1-july-2020-clinical-decision-tree-for-vaccination-providers

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Schedule FAQs

What immunisation should a patient who turned 70 on 15 July, 2020 receive?

- Influenza (≥ 65 years vaccine)
- Pneumococcal (Prevenar 13)
- Zoster (Zostavax)

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Meningococcal

- Meningococcal B (Bexsero)
  - ✓ Aboriginal children
  - ✓ Certain at risk groups

Not recommended for NIP listing for anyone else due to uncertainties regarding the magnitude of clinical effectiveness and lack of herd protective effects.

- Meningococcal ACWY (Nimenrix)
  - ✓ Certain at risk groups

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Meningococcal B - Aboriginal children

- Bexsero (MenB) - now included on the routine childhood schedule for Aboriginal children at 6 weeks, 4 months and 12 months
- Catch up funded for children < 2 years of age until 30 June 2023
- Prophylactic paracetamol recommended prior and post vaccination
- Not required to receive family benefits i.e. No Jab, No Pay/Play
- Additional dose (age dependent) for those with:
  - Asplenia or hyposplenia
  - Complement deficiency
  - Treatment with eculizumab
  - HIV
  - Haematopoietic stem cell transplant

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Meningococcal B - At risk groups

- At risk conditions that are now funded to receive MenB (Bexsero) vaccine:
  - Asplenia
  - Hyposplenia
  - Complement deficiency
  - Treatment with Eculizumab
- See online Australian Immunisation Handbook for age appropriate courses
- Still recommended for people with HIV and Haematopoietic stem cell transplant but not funded under the NIP (unless Aboriginal children < 2 years of age).

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Meningococcal ACWY - Nimenrix

- At risk conditions that are now funded to receive Meningococcal ACWY (Nimenrix) vaccine:
  - Asplenia
  - Hyposplenia
  - Complement deficiency
  - Treatment with Eculizumab
- See online Australian Immunisation Handbook for age appropriate courses
- Those in these categories with ongoing risk are eligible for boosters - advice in the online AIH

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Haemophilus influenzae type b

- A single dose of Act-HIB funded for people > 5 years of age with:
  - Asplenia
  - Hyposplenia

✓ Single Hib dose is required if the person was not vaccinated in infancy or was incompletely vaccinated.

✓ Booster doses of Hib vaccine are not required

- Still recommended for people who receive haematopoietic stem cell transplants but not funded under the NIP

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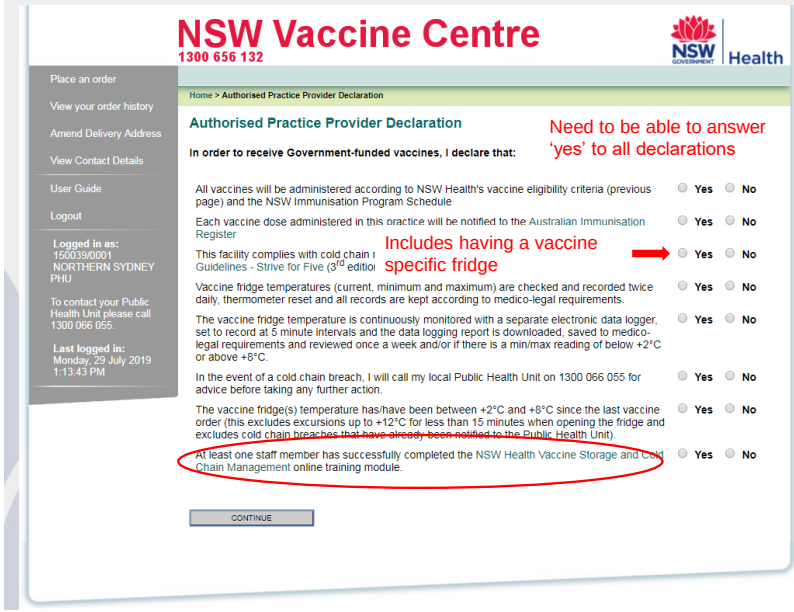
Cold chain and vaccine storage



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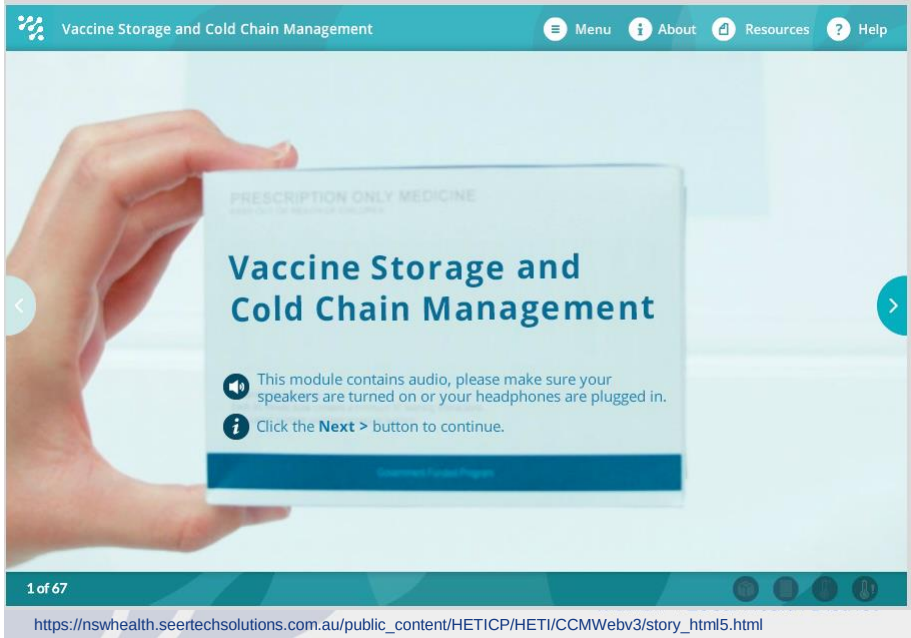

https://nswhealth.seertechsolutions.com.au/public_content/HETICP/HETI/CCMWebv3/story_html5.html

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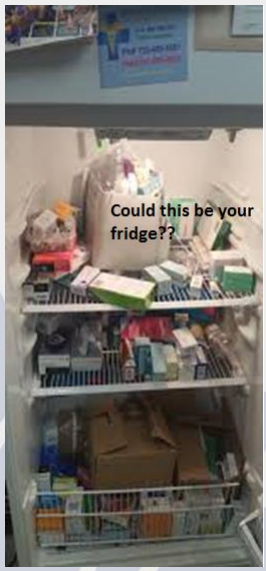
Vaccine storage



- Use trays and uncovered containers to organise boxes
- Position with enough space between them to allow air flow
- Do not overstock – order only what is needed for the month
- Don’t transport vaccines between vaccine account locations
- Do not remove from original packaging - UV sensitive

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Schedule FAQs

A mother bought her 5 week and 6 day old baby in for their 6 week vaccinations. Can you give them early?

- No. Never bring the 6 week vaccinations forward.
- The vaccines are registered for use from 6 weeks of age, no earlier.

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Vaccine Preventable Diseases

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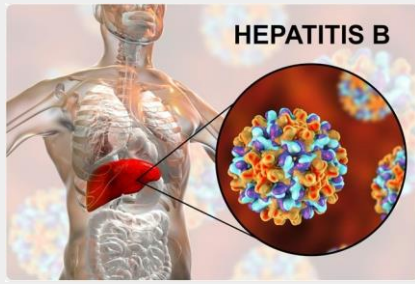

- Causes significant worldwide morbidity and mortality
- > 350 million people worldwide with chronic infection
- Infected more than a third of the world's population
- More than one million deaths worldwide every year
- Over 2000 new cases annually in NSW
- ~ 230,000 with chronic infection in Au

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Immunisation control strategy

- Birth dose offered to all neonates - 95% in NSLHD.
- Given within the first seven days of life (preferably within 24 hours).
- **Cannot be caught up**
- Protects against vertical (mother to baby) and horizontal transmission (others to baby).
- Primes B cell memory in readiness for next 3 doses given at 6 weeks, 4 months & 6 months.
- 1st, 2nd and 3rd doses given at 6 weeks, 4 months and 6 months as per the schedule - 96.5% @ 12 months in NSLHD.

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HBsAg positive mothers

- Babies given immunoglobulin within 12 hours of birth + vaccine - 100% in NSLHD.
- 1st, 2nd and 3rd doses are given as per the schedule.
- Follow-up of mothers and babies by PHU
  - timeliness of vaccination
  - HBsAg and anti-HBs checked 3 – 12 months after Hep B course is completed (not before 9/12 of age – due to birth dose of HBIG).

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Importance of early protection against Hep B

	Infected as adults	Infected as infants
Symptoms	30 - 50% symptomatic	Usually asymptomatic
Recovery	Most recover without treatment	Usually persistent
Likelihood of chronic infection	5 – 10%	90% in infants 30% in children

- Children infected at birth:
  - More likely to develop chronic infection.
  - More likely to develop advanced liver disease.

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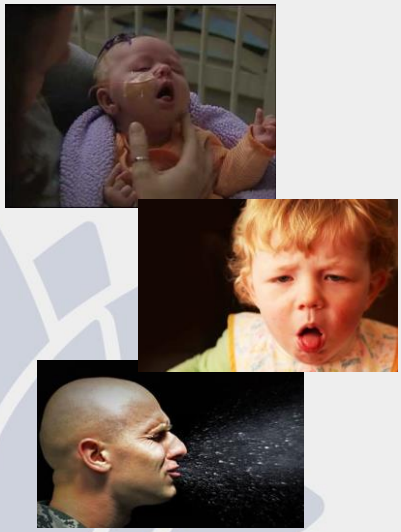
Pertussis (whooping cough)



- Bacterial respiratory infection caused by Bordetella pertussis.
- Infectious for 3 weeks after symptom onset or 5 days ABs.
- Rates peak every 3 - 4 years in Australia.
- Infants < 6 months old at greatest risk.
- Under recognised in adults and older children.

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Immunisation control strategies

- Primary DTPa :
  - 6 weeks
  - 4 months
  - 6 months
- Booster DTPa:
  - 18 months
  - 4 years
  - Adolescence
- Maternal dTpa
- Vaccination 10 yearly for adults at risk

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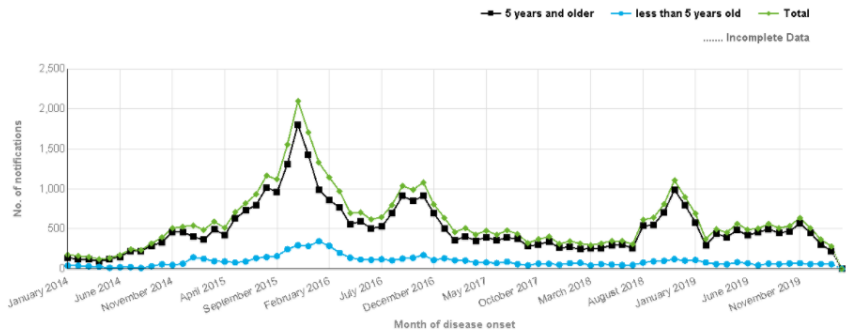
Pertussis Notifications in NSW

Pertussis notifications in NSW residents, by month of disease onset and age group. January 2014 to March 2020.



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https://www.health.nsw.gov.au/Infectious/Pages/data.aspx

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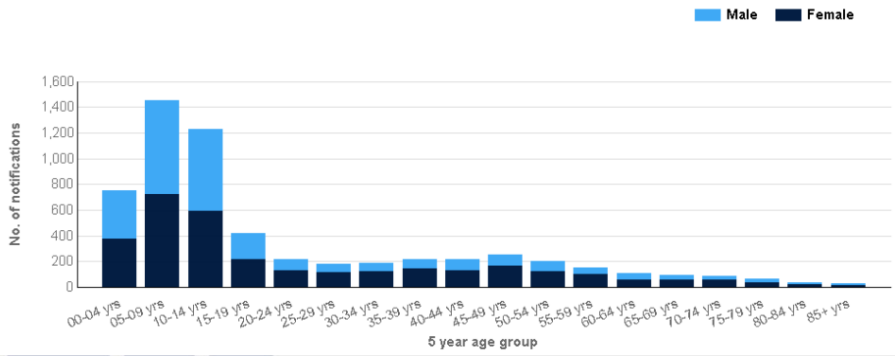
Pertussis notifications by age and gender

Pertussis notifications in NSW residents, by five year age group and gender. March 2019 to February 2020



https://www.health.nsw.gov.au/Infectious/Pages/data.aspx

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Measles

- Highly contagious viral illness.
- Common complications: otitis media, pneumonia and bronchitis.
- Severe complications occurs in 1-3/1000 children and can be fatal.
- Estimated to cause 2.6 million deaths a year before the vaccine
- 142 000 measles deaths globally in 2018, mostly in children < 5 yrs.

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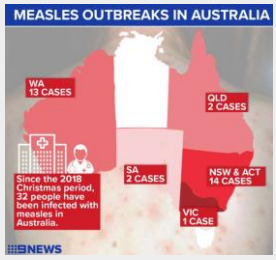

Measles in Australia

- Australia measles free since 2014.
- Almost all cases seen are imported from overseas.
- Children aged < 12 months and Australians in their 20's – early 50's at greater risk.
- 2019 – 59 cases in NSW
- Increase in cases due to global and neighbouring outbreaks.
- 2020 – 11 cases in NSW Jan/Feb

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Immunisation control strategies

<u>Almost entirely preventable with 2 doses of vaccine</u>.

- Two funded doses MMR vaccination:
  - From 12 months on NIP
  - All unvaccinated people born during or after 1966
  - Rubella seronegative post natal women
- Early vaccination from 6 months of age in special circumstances
- 93.71% of 2 y.o. are vaccinated for measles in Australia

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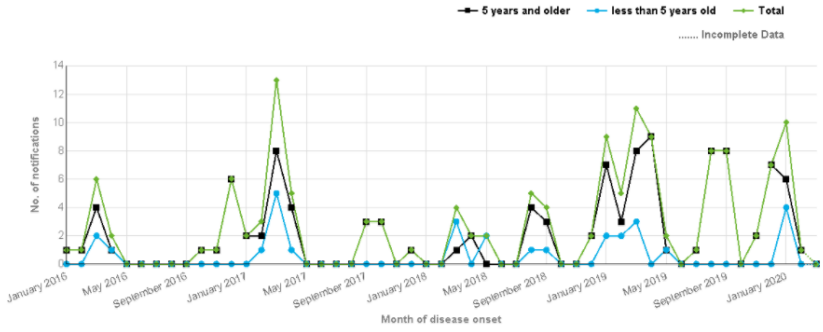
Measles notifications in NSW

Measles notifications in NSW residents, by month of disease onset and age group. January 2016 to March 2020.



https://www.health.nsw.gov.au/Infectious/Pages/data.aspx

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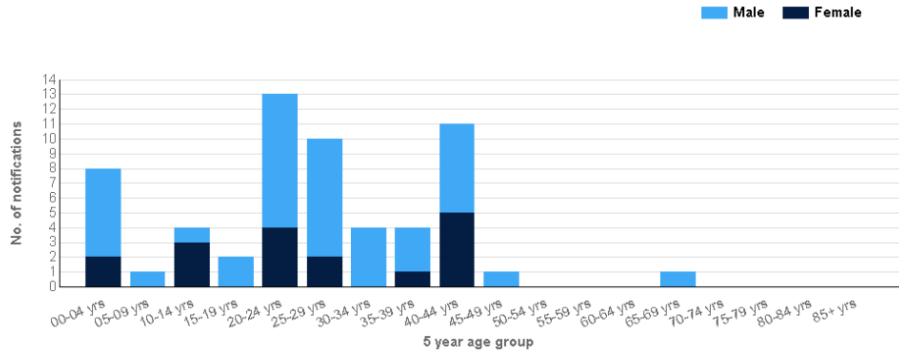
Measles notifications by age and gender

Measles notifications in NSW residents, by five year age group and gender. March 2019 to February 2020



https://www.health.nsw.gov.au/Infectious/Pages/data.aspx

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Global situation

- Globally ~ 300% increase in 2019.
- All regions of the world experienced sustained rises in cases.
- Samoa in a state of emergency at the beginning of 2020 due to an outbreak – over 5000 cases and 80 deaths
- Concurrent outbreaks in NZ, Tonga, American Samoa and Fiji
- In 2019 WHO estimates only 86% children have received the first dose of measles vaccine and 69% the second.

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Schedule FAQs

How soon before the 12 month milestone can MMR be administered?

- Only bring forward in special circumstances i.e. travel, outbreak management.
- Now registered from 6 months of age (needs repeating).
- Can be administered from 11 months without repeating.
- If administered before 11 months of age, repeat at 12 months of age.

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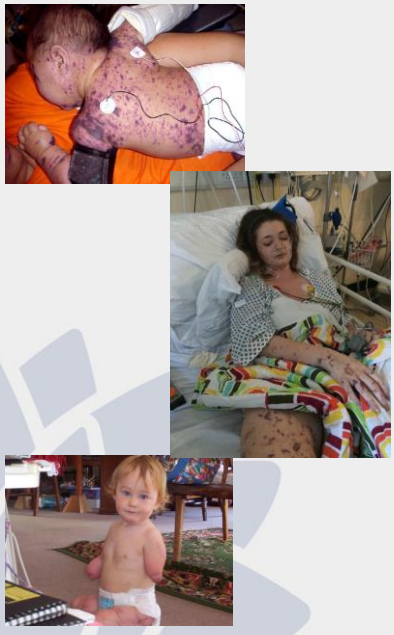

Meningococcal Disease

- Bacterial infection caused by meningococcus bacteria
- Highest incidence in < 2 years and 15-19 years
- 13 serogroups, disease most commonly due to A, B, C, W & Y
- Men B and W - most dominant strains in Australia
- Men B - most common in children (case fatality 5%)
- Men W – widespread across all age groups (case fatality 9.3%)

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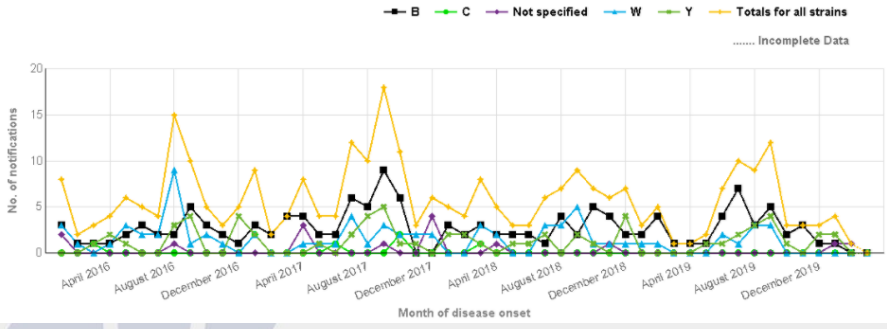
Meningococcal notifications in NSW

Meningococcal disease (B, C, Not specified, W, Y) notifications in NSW residents, by month of disease onset. January 2016 to March 2020.



https://www.health.nsw.gov.au/Infectious/Pages/data.aspx

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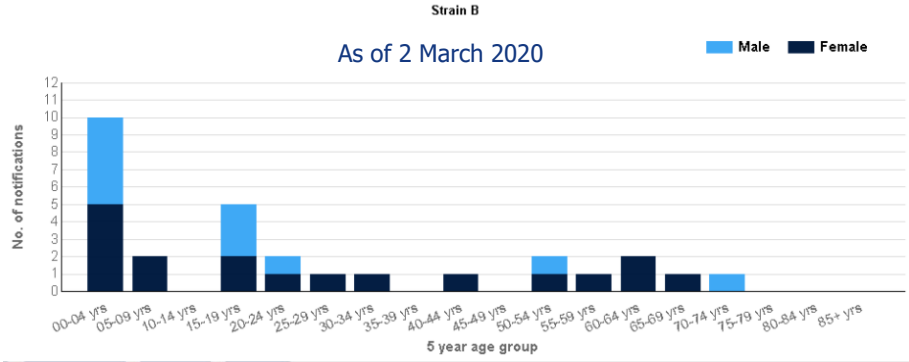
Meningococcal B by age and gender



https://www.health.nsw.gov.au/Infectious/Pages/data.aspx

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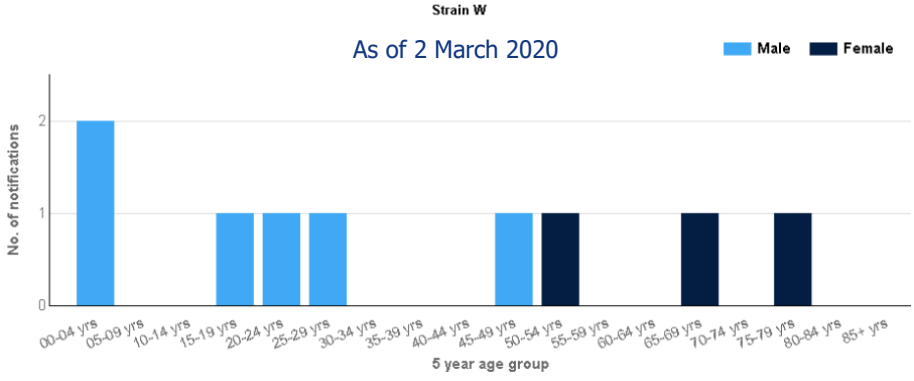
Meningococcal W by age and gender



https://www.health.nsw.gov.au/Infectious/Pages/data.aspx

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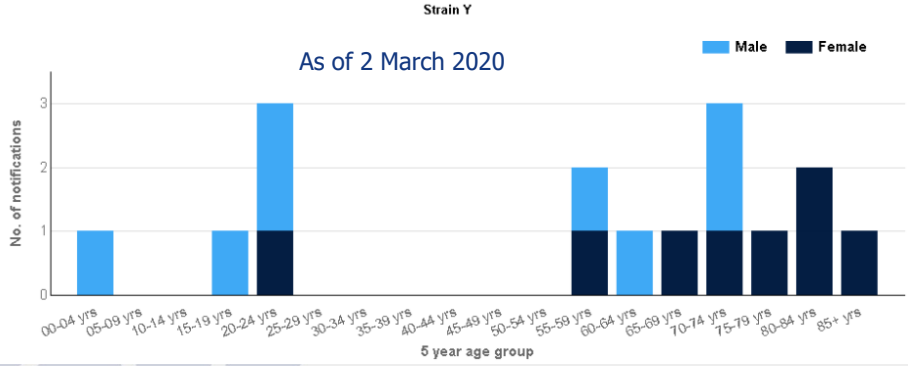
Meningococcal Y by age and gender



https://www.health.nsw.gov.au/Infectious/Pages/data.aspx

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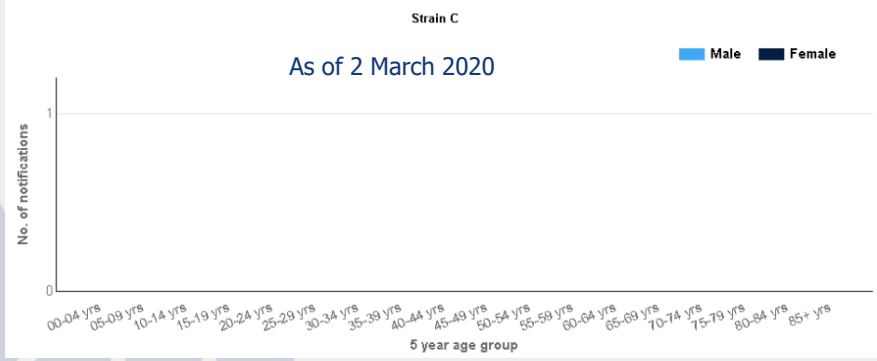

https://www.health.nsw.gov.au/Infectious/Pages/data.aspx

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Immunisation control strategies

- 2003 – 2018: Men CCV at 12 months
- From 2017: 4vMenCV in adolescent program
- 1 July 2018: 4vMenCV at 12 months
- 1 July 2020: Men B (MenBCV) added for Aboriginal children < 2 and risk medical conditions.

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Men ACWY vaccination – funded groups

Funded for:

- Children at 12 months of age
- Catch-up of children < 10 years of age who haven't received a MenCCV vaccine.
- Adolescents 15 - 19 years of age.

NeisVac-C (MenCCV) – used in catch-up for children 10 - 14 years of age.

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Schedule FAQs

How soon before the 12 month milestone can Nimenrix be given without needing to repeated?

- Only bring forward in special circumstances i.e. travel, outbreak management.
- Can be administered from 11 months of age with no further doses required.
- If given before 11 months of age, further dose of meningococcal will be required at 12 months of age or 8 weeks since last 4vMenCV, whichever is greater.

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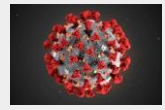
COVID-19



- Viral infection caused by a new strain of coronavirus.
- Spread from person to person via infected respiratory droplets.
- Still much to learn - epidemiological and clinical investigations ongoing.
- Australia: 15,582 cases, 176 deaths
  - ~ 1.4% crude case fatality rate
- Globally: > 17,000,000 cases, > 669,000 deaths
  - ~ 4.1% crude case fatality rate

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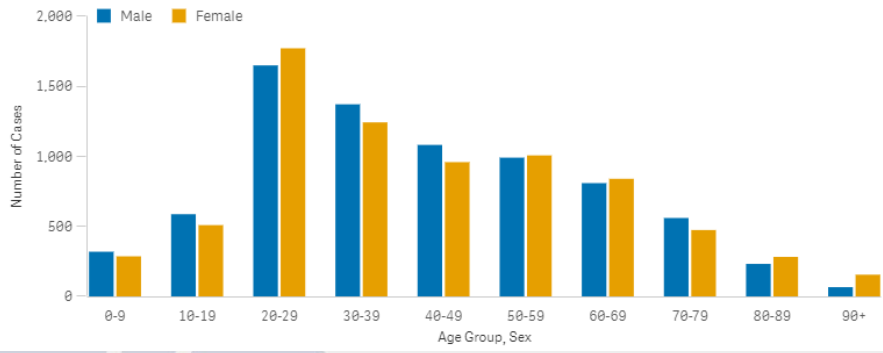
COVID-19 cases by age group and sex

This graph shows the number of confirmed COVID-19 cases for males and females by age group since 22 January 2020.

Source: NNDSS data 29/7/2020



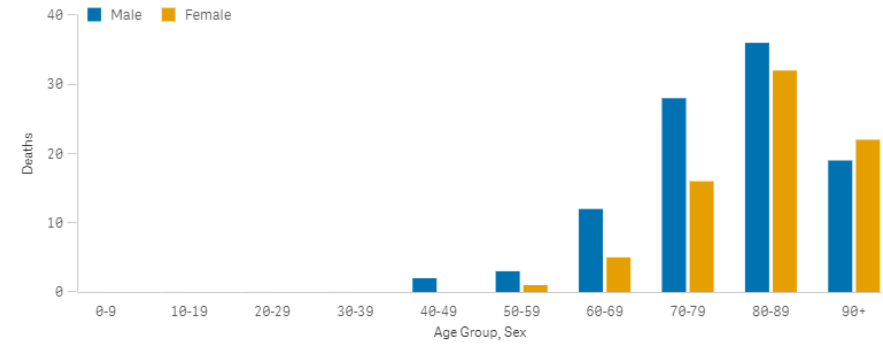
https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/coronavirus-covid-19-current-situation-and-case-numbers

56

COVID-19 deaths by age group and sex

This graph shows the number of COVID-19 deaths for males and females by age group since 22 January 2020.

Source: NNDSS data 29/07/2020



https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/coronavirus-covid-19-current-situation-and-case-numbers

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COVID-19 vaccine progress

- Twenty-four vaccine candidates currently in clinical evaluation.
- Four vaccines currently in Phase 3 trials:
  - Sinovac
  - Wuhan Institute of Biological Products/Sinopharm
  - Beijing Institute of Biological Products/Sinopharm
  - University of Oxford/AstraZeneca
- Several promising candidates in other Phase trials
- Many more in pre-clinical trials

https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines

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Sinovac

- Inactivated vaccine known as CoronaVac
- 2 dose regime given 14 days apart has induced neutralizing antibodies
- Detailed results not yet available however initial results show a promising safety profile
- Phase 3 trials beginning in Brazil
- ? When it is likely to be ready

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Beijing & Wuhan Institute of Biological Products/Sinopharm

- Two inactivated vaccines in development
- Not much information available – not yet published
- Claiming high levels of neutralising antibodies following a 2 dose regime.
- One of the vaccines began Phase 3 trials in United Arab Emirates in June
- ? When either is likely to be ready however employees of state owned companies in China are already receiving them.

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University of Oxford/AstraZeneca

- Non-replicating Viral Vector known as AZD1222
- Contains genetic code of coronovirus protein spikes
- Triggers a strong immune response – both neutralizing antibodies and T-cells
- Recently gone to Phase 3 trials in Brazil and South Africa.
- Possibly ready by late this year if passes trials.

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Influenza

- Viral illness caused by influenza A or B virus.
- Highest rates in under 5 year olds and 80 years and over.
- Causes significant annual morbidity and mortality in Australians > 50 yrs.
- Total of 310,011 laboratory confirmed cases in Au in 2019.
- Over 800 influenza-associated deaths in 2019 (median age 86 yrs)
- Australia - ~ 0.1% crude case fatality rate (vs. ~1.4% for COVID).

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Immunisation control strategies

- Recommended for everyone over 6 months of age
- Free influenza vaccination for high risk groups:
  - ≥ 6 months to < 5 year olds
  - ≥ 65 years of age
  - Pregnant women at any stage of pregnancy
  - Aboriginal & Torres Strait Islanders
  - Aged ≥ 6 months with high risk conditions
- ≥ 65 year old high dose formulations

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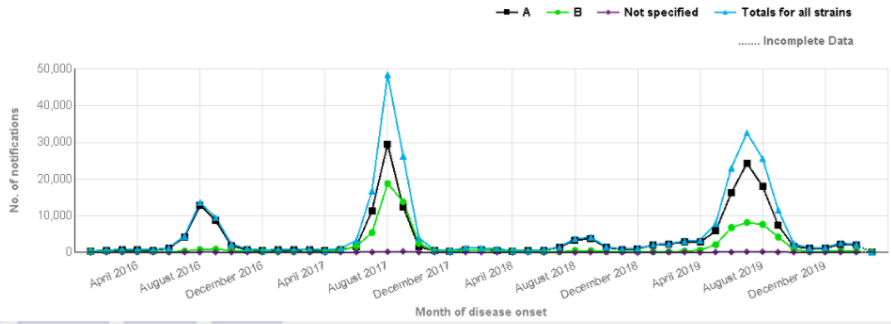
Influenza notifications

Influenza (A, B, Not specified) notifications in NSW residents, by month of disease onset. January 2016 to March 2020.



https://www.health.nsw.gov.au/Infectious/Pages/data.aspx

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No. of +ve influenza laboratory tests NSW

Figure 2: Percent of laboratory tests positive for influenza A and influenza B (combined) reported by NSW sentinel laboratories, 1 January – 5 July 2020 (red line), compared with the 5 previous years

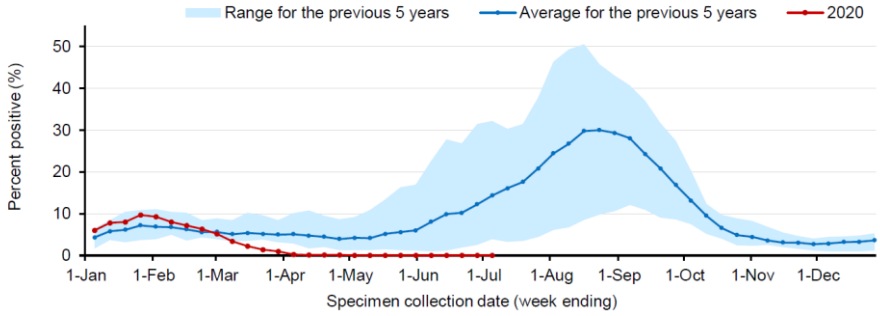

Table 3: Reported influenza outbreaks in NSW institutions, January 2014 to 5 July 2020.

Year	2014	2015	2016	2017	2018	2019	2020*
No. of outbreaks	122	103	252	543	42	383	15

Notes: * Year to date.
Source: Notifiable Conditions Information Management System, accessed 8 July 2020

https://www.health.nsw.gov.au/Infectious/Influenza/Pages/reports.aspx

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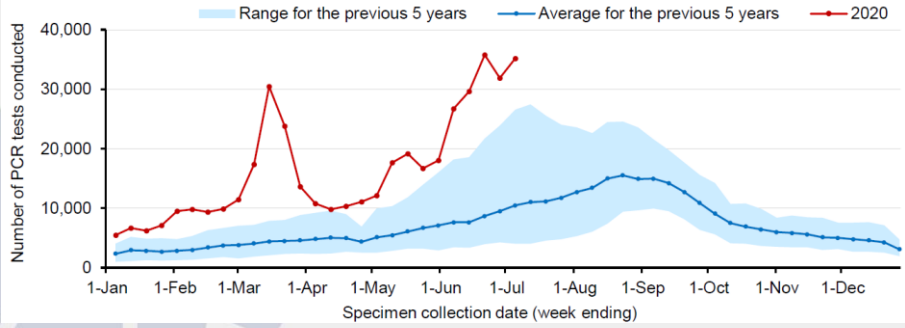
No. of influenza laboratory tests NSW

Figure 1: Number of influenza tests conducted at sentinel NSW laboratories per week, 1 January – 5 July 2020 (red line), compared with the 5 previous years



https://www.health.nsw.gov.au/Infectious/Influenza/Pages/reports.aspx

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2020 Influenza Vaccines

- **Quadrivalent Influenza Vaccines (QIVs):**
- an A/Brisbane/02/2018 (H1N1)pdm09-like virus
- an A/South Australia/34/2019 (H3N2)-like virus
- a B/Washington/02/2019-like (B/Victoria lineage) virus
- a B/Phuket/3073/2013-like (B/Yamagata lineage) virus

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Timing of vaccination

- Recommended before the onset of influenza season.
- Peak influenza period in Au usually June to September.
- Optimal protection in the first 3 - 4 months but good for the whole season.
- Revaccination in the same season is not recommended, but not contraindicated – only one funded vaccine pp.!
- Never too late to vaccinate - offer as long as influenza is circulating and a valid(unexpired) vaccine is available.

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ATAGI clinical advice for immunisation providers

Table 1. Seasonal influenza vaccines registered and available for use in Australia in 2020, by age

Vaccine / Registered age group	FluQuadri 0.50 mL (Sanofi)	Vaxigrip Tetra 0.50 mL (Sanofi)	Fluarix Tetra 0.50 mL (GSK)	Afluria Quad 0.50 mL (Seqirus)	Influvac Tetra 0.50 mL (Mylan)	Fluad Quad 0.50 mL (Seqirus)
6 to 35 months (<3 years)	✓	✓	✓*	x	x	x
≥3 to <5 years	✓	✓	✓*	x	✓	x
≥5 to <65 years	✓*	✓*	✓*	✓*	✓	x
≥65 years	✓	✓	✓	✓	✓	✓†

Ticks indicate age at which a vaccine is registered and available. Shaded boxes represent funding under the NIP.
* Funding only for Aboriginal and Torres Strait Islander people, pregnant women and people who have certain medical conditions.
† Adjuvanted QIV preferred over standard QIVs.

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https://www.health.gov.au/sites/default/files/documents/2020/03/atagi-advice-on-seasonal-influenza-vaccines-in-2020.pdf

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Breakdown of influenza vaccines reported to AIR 1 Mar – 15 Jul 2020

	Total	Age			Indigenous		Provider type			Off label*
		<5	5-64 years	65 years+	Yes	No	GP	Pharmacy	Other	
NSW	2,691,351	209,307	1,598,619	883,425	80,664	2,610,687	2,179,950	266,092	245,309	696

2.99 million funded doses delivered as of 6 July

- Over half a million doses not recorded on AIR

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Schedule FAQs

Parents are taking their 3 month old baby overseas, can you give the 4 month vaccines early?

- Yes but only bring forward in special circumstances i.e. travel, outbreak management.
- Need to be mindful of minimum intervals
- Need to ensure Rotarix age limits are adhered to
- Generally AIR will consider vaccines given earlier than 28 days before they're due as invalid.

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Calculating a Catch-up plan

***The Australian Immunisation Handbook* states:**

- For incomplete or overdue vaccinations, build on the previous documented dose. Do not start again.
- If more than one vaccine is overdue, 1 dose of each vaccine should be given at the first catch-up visit.
- A catch-up schedule may require multiple vaccinations. Give all due vaccines at the *same* visit – do not defer.

https://immunisationhandbook.health.gov.au/

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Product information vs. Handbook recommendations

- Sometimes ATAGI recommendations in the Handbook may differ from product information.
- These differences may be recommendations that are in addition to or instead of those listed in the PI.
- Variations from the PI are detailed in each relevant disease chapter under the section 'Variations from product information'.
- *Where a variation exists, the ATAGI recommendation should be considered best practice.*

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Minimum Dose Intervals for catch-up

- 4 weeks between live vaccines
- 4 weeks between vaccines with the same antigens
- Pneumococcal
  - 1 month between doses if < 12 months of age
  - 2 months if ≥ 12 months of age
  - Hib
  - 1 month between primary doses
  - 2 months for booster dose

https://immunisationhandbook.health.gov.au/

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Minimum Dose Intervals cont.

- Hepatitis B
  - 4 weeks between dose 1 and 2
  - 8 weeks between dose 2 and 3
  - 16 weeks between dose 1 and 3
- Final primary dose (Dose 3) in infants not before 24 weeks of age
- Monovalent vaccine optimal intervals - 0, 1 and 6 months

https://immunisationhandbook.health.gov.au/

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Acceptable overseas variation for Hepatitis B

- Dose B: Birth dose
  +
- Dose 1: 1 – 2 months of age
  +
- Dose 2: 6 – 18 months of age

Alternate acceptable adolescent Hepatitis B

- For ages 11 – 15 years
  - X 2 adult formulation monovalent hepatitis B vaccines 4 months apart

https://immunisationhandbook.health.gov.au/

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Vaccine age limits when catching up

- **Birth Hepatitis B** is not caught up past 7 days of age
- **Paediatric Hepatitis B** vaccine up to 19 years of age
- **Adult Hepatitis B** vaccine formulations ≥ 20 years of age (apart from 2 dose adolescent regimen)
- **Boostrix and Adacel** formulations - ≥ 10 years of age
- **Infanrix and Tripacel** formulations - < 10 years of age
- **Priorix Tetra and Proquad** (MMR and Varicella) - up to the 14th birthday

https://immunisationhandbook.health.gov.au/

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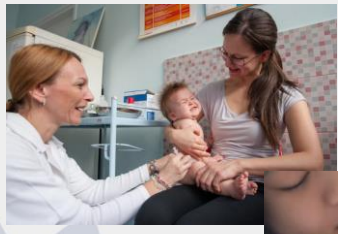
Catch-up tools for children < 10 years of age



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NSLHD Catch-up education tool

Calculating catch-up vaccination requirements for <10 year olds.

Table 1 sets out the vaccines which are recommended for children under 10 years of age and the doses required for their current age. Use Table 1 in conjunction with *Table 2: GP/Practice Nurse catch-up vaccination plan* to calculate what vaccines are required.

Table 1: Standard Vaccination Catch-up Recommendations for children aged <10 years.

(adapted from The Australian Immunisation Handbook 10th edition [updated online])

Vaccine	Current age								Minimum dose interval between dose 1 and 2	Minimum dose interval between dose 2 and 3	Minimum dose interval between dose 3 and 4	Minimum dose interval between dose 4 and 5
	6 weeks to <4 months	4 to <6 months	6 to <12 months	12 to 18 months	>18 months to <4 years		4 years to <10 years					
					Born before 1 Oct 2014	Born after[1] 1 Oct 2014	Born before 1 Oct 2014	Born after[1] 1 Oct 2014				
	Doses required											
DTPa	1	2	3	3	3	4	4[2]	5	4 weeks	4 weeks	6 months	6 months
Poliomyelitis (IPV)	1	2	3	3	3	3	4[3]	4[3]	4 weeks	4 weeks	4 weeks	Not required
Hepatitis B[4] (excl. birth dose)	1	2	3	3	3	3	3	3	1 month[5]	2 - 3 months[5]	Not required	Not required
MMR[6]	if given at <11 months of age the 1st dose should be repeated at 12 months of age.			1	2	2	2	2	4 weeks	Not required	Not required	Not required
MenCCV/4vMenCV	if given at <11 months of age a booster dose is required at 12 months of age or 8 weeks after last dose, whichever is later.			1	1	1	1	1	Not required	Not required	Not required	Not required
Varicella[6]	if given at <12 months of age, the dose should be repeated, preferably at 18 months of age.				1	1	1	1	Not required	Not required	Not required	Not required
Rotavirus	***Age limits apply - see Handbook Table 4.17.1***			**NO CATCH-UP**								
Haemophilus influenza type B (Hib) – No catch-up > 5 years.	**See Handbook Table 2.1.8 for Hib catch-up schedule** [7]								Recommended interval between primary doses is 4 weeks. Booster doses are given >12 months or 8 weeks after the last dose, whichever is later.			
Pneumococcal (PCV) - No catch-up > 5 years for healthy kids.	**See Handbook Table 2.1.9 & 2.1.11 for PCV catch-up schedule** [7]								Recommended interval between doses is 4 weeks if aged <12 months and 8 weeks if ≥12 months.			

[1] All children born after 1 October 2014 are required to have had an 18 month booster dose of DTPa vaccine.

[2] Some children may have received 4 doses of DTPa by 18 months of age, especially if arrived from overseas. These children will require a 5th dose of DTPa after 4 years of age.

[3] A booster dose of IPV is recommended at 4 years of age. If the 4th dose was given before 3.5 years of age, it should be repeated. If 3rd dose of IPV is given after 4 years of age, a 4th dose is *not required*.

[4] Acceptable alternate overseas schedule: Monovalent Hep B vaccine at birth, 1-2 months and 6-18 months of age if given overseas.

[5] MINIMUM interval between dose 1 and 3, is 4 months. MINIMUM interval between dose 2 and 3 is 2 months (however, the optimum schedule is 0, 1 & 6 months). The MINIMUM age for dose 3 is 24 weeks.

[6] MMRV is not recommended for use as the 1st dose of MMR containing vaccine in children aged <4yrs. **ANY live vaccines can be given on the same day, if not there must be a minimum interval of 4 weeks.**

[7] Required doses vary depending on age at presentation and age when vaccine received; therefore tables must be referred to for each new catch-up.

Updated September 2018

https://www.nslhd.health.nsw.gov.au/HealthInformation/PublicHealthUnit/Pages/Immunisation.aspx

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Catch-up Worksheet

Table 2: GP/Practice Nurse catch-up vaccination plan

Practice Name: _____

Contact Person: _____

Ph: _____ Fax: _____

Instructions: Use this form in conjunction with Table 1. Complete all sections below, working from left to right columns.

If you would like your calculations checked either fax or email this form to:
Fax: 9482 1650 Email: NSLHD-PHUHornsby@health.nsw.gov.au

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PATIENT'S NAME: _____ DOB: __/__/____ Current age: _____ (years) _____ (months) _____ (weeks) MEDICARE NO: _____ (__)

Today's Date: _____

Vaccine Antigens	Date(s) all doses given *(complete all relevant dates)*	Age when dose was given**	No. VALID** doses given (circle one)	No. doses required at current age (see Table 1)	No. further doses required (circle one)
Diphtheria Tetanus Pertussis (DT only vaccines are not valid for the purposes of determining catch-up)			None One Two Three Four Five	One Two Three Four Five	None One Two Three Four Five
Poliomyelitis (IPV or OPV) Booster dose recommended at 4 years of age. If the 4th dose was given before 3.5 years of age, it should be repeated.			None One Two Three Four Five	One Two Three Four	None One Two Three Four
Hepatitis B **Administered overseas?*:** yes / no	Birth:	N/A	*(excl. birth dose)* None One Two Three	One Two Three	None One Two Three
MMR (NOT including measles only vaccine)			None One Two	None One Two	None One Two
Meningococcal C (MenCCV/4vMenCV) Conjugate only. Polysaccharide (4vMenPV) vaccine is not counted as a valid dose.			None One Two Three	None One	None One
Varicella			None One Two	None One	None One
Haemophilus Influenzae (Hib) (Only required if < 5 years old)			None One Two Three Four	See Handbook Table 2.1.8	None One Two Three
Pneumococcal (PCV) (Only required if < 5 years old – unless underlying medical risks)			None One Two Three Four	See Handbook Table 2.1.9 and 2.1.11	None One Two Three

Australian NIP vaccine formulations for catch-up in children <10 years of age

Choose the vaccine with the least amount of additional antigens.

DTPa containing vaccines
- Infanrix Hexa (DTPa + Polio + Hib + HepB)
- Infanrix/Tripacel (DTPa only)
- Infanrix IPV (DTPa + Polio)
- Quadracel (DTPa + Polio)

NB: Boostrix and Adacel brands are not registered for use ≤10 yrs of age.

MMR combination vaccines
- MMRII or Priorix (MMR only)
- Priorix Tetra or Proquad (MMRV) - **not for dose 1 MMR**

NB: MMRV brands are not registered for use ≥14 yrs of age.

Meningococcal vaccines
- Nimenrix* (4cMenCV)
- Menitorix (MenCCV+Hib) - for Hib catch-up only if Act-HIB unavailable

NB: * This is the only funded 4vMenCV for catch-up in <10 yrs of age.

Monovalent vaccines
- Engerix-B or H-B-Vaxll paediatric formulations (Hep B only)
- Varivax or Varilrix (varicella only)
- IPOL (Polio only)
- Prevenar 13 (PCV only)
- Act-HIB (Hib only)

CATCH-UP PLAN
Check minimum dose intervals between each dose as per Table 1.

Give all the vaccines that are due now – do not defer.

Visit 1 give now:

Visit 2 (Min___months later) give:

Visit 3 (Min____months later) give:

Visit 4 (Min____months later) give:

* Monovalent Hep B vaccine at birth, 1-2 months and 6-18 months of age is an acceptable alternative overseas Hep B schedule.
**Ensure minimum intervals have been observed as per Table 1.

Updated September 2018

OFFICE USE ONLY: Checked by _____ **(NSPHU Immunisation Team) Date:**__/__/____

https://www.nslhd.health.nsw.gov.au/HealthInformation/PublicHealthUnit/Pages/Immunisation.aspx

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Australian Immunisation Handbook Catch-up Calculator

- First release of the National Immunisation Catch-up Calculator (NICC)
- Only for < 10 years of age in this version
- Developed by the Australian Government Department of Health
- Available from the Australian Government Department of Health Australian Immunisation Handbook website.
- Replaces the immunisation calculator hosted on the South Australian Department of Health website

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https://immunisationhandbook.health.gov.au/catch-up-calculator/calculator

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Australian Government
Department of Health

Australian Immunisation Handbook

Version 1.02 (11 February 2020)

Catch-up schedule

Note: If the person does not present on the date/s recommended in this catch-up schedule, a new calculation should be undertaken at each visit to ensure that minimum intervals between antigen doses are met and the recommended schedule remains current.

This is a catch-up schedule. Once the person has caught up, they may need more recommended NIP vaccines in the future.

John Doe

Date of birth: 16/07/2018
Gender: Male
Aboriginal or Torres Strait Islander: No
Immunisation record(s) viewed: Birth record
Prescription immunosuppressive medication: No
State: NSW
Date created: 29 July 2020
Age: 2 years, 13 days

Vaccination history

Person has not received any immunisations to date.

Vaccinations due

Due immediately

29 July 2020
Diphtheria, Tetanus, Pertussis
Hepatitis B
Haemophilus Influenzae Type B
Meningococcal ACWY
Measles, Mumps, Rubella
Pneumococcal
Polio

(Page 1 of 2)

Next appointment

26 August 2020
Diphtheria, Tetanus, Pertussis
Hepatitis B
Measles, Mumps, Rubella
Polio
Varicella

Future appointment(s)

23 September 2020
Diphtheria, Tetanus, Pertussis
Polio

18 November 2020
Hepatitis B

23 March 2021
Diphtheria, Tetanus, Pertussis

16 July 2022
Diphtheria, Tetanus, Pertussis
Polio

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Catch-up tools for people over 10 years of age

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National Immunisation Program

A joint Australian, State and Territory Government initiative

National Immunisation Program

Free catch-up vaccines for all individuals aged 10 to 19 years

Table 1: Nationally funded catch-up vaccines for children aged 10–19 years

Antigen	Total doses needed	Minimal interval between doses	Notes
Diphtheria, tetanus	3 doses	Between doses 1 and 2: 4 weeks Between doses 2 and 3: 4 weeks	People should receive 1 of the doses as dTpa-containing vaccine and complete the course with dT. This dose would also provide the catch-up dose for pertussis. If dT is not available, use dTpa or dTpa-IPV for all 3 primary doses.
Pertussis	1 dose	Not required	People ≥10 years of age who did not receive all the pertussis vaccine doses recommended before the age of 10 years only need 1 dose to be considered up to date. This is regardless of the number of previous doses they received before the age of 10 years. A booster dose of pertussis-containing vaccine is routinely recommended for all adolescents aged 11–13 years. Take this into account when planning catch-up for pertussis.
Poliomyelitis	3 doses	Between doses 1 and 2: 4 weeks Between doses 2 and 3: 4 weeks	None
Measles, mumps and rubella	2 doses	4 weeks	None
Hepatitis B Note the age groups overlap and this is an either/or, not both	3 paediatric doses aged 10–19 years	Between doses 1 and 2: 1 month Between doses 2 and 3: 2 months	Minimum interval between dose 1 a
	2 adult doses aged 11–15 years only	4 months	None
Meningococcal	1 dose of meningococcal C vaccine aged 10-14 years	Not required	None
	1 dose of meningococcal ACWY vaccine aged 15-19 years	Not required	None
Varicella	At least 1 dose if aged <14 years	Between doses 1 and 2: 4 weeks (if 2nd dose is given)	Recommended for all non-immune people. People aged <14 years are recommended to receive at least 1 and preferably 2 doses (only one dose is funded). Children aged under 14 years can receive MMRV.
	2 doses if aged ≥14 years	4 weeks	2 doses are recommended for all non-immune people aged ≥14 years. MMRV is not recommended for use in people ≥14 years of age.
Human papillomavirus	2 doses if started at 9–14 years of age	6 months	If there is an interval of <5 months between doses 1 and 2, a 3rd dose is needed at least 12 weeks after the 2nd dose. (Note only two doses are funded). If there is an interval of <6 months but ≥5 months between doses 1 and 2, a 3rd dose is not needed. People who are immunocompromised need a 3-dose schedule, regardless of age when they start vaccination.
	3 doses if started at ≥15 years of age	Between doses 1 and 2: 4 weeks Between doses 2 and 3: 12 weeks	Minimum interval between dose 1 and dose 3 is 5 months. (Note only two doses are funded).

https://www.health.gov.au/resources/publications/free-catch-up-vaccines-for-10-to-19-year-olds-fact-sheet

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National Immunisation Program

A joint Australian, State and Territory Government initiative

National Immunisation Program

Free catch-up vaccines for refugees and other humanitarian entrants aged 20 years and over

Table 1: Nationally funded catch-up vaccines for refugees and other humanitarian entrants aged 20 years and over

Antigen	Total doses needed	Minimal interval between doses	Notes
Diphtheria, tetanus	3 doses	Between doses 1 and 2: 4 weeks Between doses 2 and 3: 4 weeks	People should receive 1 of the doses as dTpa-containing vaccine to provide the catch-up dose for pertussis. The course can be completed with dT. If dT is not available, use dTpa or dTpa-IPV for all 3 primary doses.
Pertussis	1 dose	Not required	People ≥10 years of age who did not receive all the pertussis vaccine doses recommended before the age of 10 years only need 1 dose to be considered up to date. This is regardless of the number of previous doses they received before the age of 10 years.
Poliomyelitis	3 doses	Between doses 1 and 2: 4 weeks Between doses 2 and 3: 4 weeks	None
Measles, mumps and rubella	2 doses	4 weeks	None
Hepatitis B Aged ≥20 years	3 adult doses	Between doses 1 and 2: 1 month Between doses 2 and 3: 2 months	Minimum interval between dose 1 and dose 3 is 4 months.
Varicella	2 doses	4 weeks	MMRV is not recommended for use in people ≥14 years of age.

https://www.health.gov.au/resources/publications/free-catch-up-vaccines-for-refugees-and-humanitarian-entrants-aged-20-years-and-over-fact-sheet

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NSPHU Catch-up recommendation info.

Standard Vaccination Catch-up Recommendations for people over 10 years of age (adapted from the Australian Immunisation Handbook (available online)).

Antigen		Doses required	Min. interval b/w dose 1 and 2	Min. interval b/w dose 2 and 3	Notes
Diptheria, tetanus, pertussis (dTpa)		3 doses	4 weeks	4 weeks	One dose should be given as dTpa (or dTpa-IPV if polio is also needed) and the course completed with dT. If dT is not available, use dTpa or dTpa-IPV for all 3 primary doses. A booster dose of dTpa is offered in Year 7. Take this into account when planning catch-up for pertussis.
Poliomyelitis (IPV)		3 doses	4 weeks	4 weeks	None.
Hepatitis B	10-19 years^	3 paediatric doses	1 month	2 – 3* months	^ The age groups overlap and this is an either/or, not both. * MINIMUM interval b/w dose 1 & 3 is 4 months (however, optimum schedule is 0, 1 & 6 months). ǂ This is not funded, unless the patient falls into the risk group for a funded vaccine (refer to: https://www.health.nsw.gov.au/immunisation/Pages/gp_catchup.aspx).
	11-15 years^	2 adult doses	4 months	Not required	
	≥20 yearsǂ	3 adult doses	1 month	2 – 3* months	
Measles, mumps, rubella (MMR)		2 doses	4 weeks	Not required	MMR vaccines are free for everyone in NSW born during or after 1966 or for vaccination of rubella seronegative post natal women.
MenCCV/ 4vMenCV	10 -14 years	1 dose of men C	Not required	Not required	Recommendations are for healthy individuals. Refer to the Australian Immunisation Handbook for recommendations for people with medical conditions that increase their risk of invasive meningococcal disease (Vaccines are not funded).
	15-19 years	1 dose of men ACWY	Not required	Not required	
Varicella	<14 years	1 dose	Not required	Not required	People aged <14 years should preferably receive 2 doses (only one dose is funded). People aged ≥14 years are recommended to receive 2 doses (two doses are funded from 14-19 years of age). MMRV is not recommended for use in people ≥14 years of age.
	≥14 years	2 doses	4 weeks	Not required	
Human papillomavirus (HPV)	9-14 years	2 doses	6 months*	Not required	* If there is an interval of <5 months between doses 1 and 2, a 3rd dose is needed at least 12 weeks after the 2nd dose. (Only two doses are funded). ª MINIMUM interval b/w dose 1 and dose 3 is 5 months. (Only two doses are funded). Immunocompromised people need a 3-dose schedule, regardless of age. HPV vaccination is funded in NSW for refugees (females and males) 20-26 years of age. HPV vaccination is not registered for men ≥27 years of age and women ≥46 years of age.
	≥15 years	3 doses	4 weeks	12 - 16ª weeks	

https://www.nslhd.health.nsw.gov.au/HealthInformation/PublicHealthUnit/Pages/Immunisation.aspx

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Schedule FAQs

Can I bring the 18 month vaccines forward?

- MMRV can be given early, in special circumstances.
- Hib and DTPa are booster doses and should not be bought forward.

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Adolescents

2020 High School Program

- **Year 7**
  - dTpa
  - HPV x 2 doses (6 month interval)
- **Year 8** – Catch-up HPV
- **Year 10** – Men ACWY
- **Intensive English Centers** as above +
  - Polio
  - HBV
  - MMR
  - Varicella

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HPV recommendations

- Gardasil 9 – 9vHPV
- Age at commencement of course:
  - 11 – 14 years: 2 doses, 6 months apart (ideally within 12 months).
  - ≥ 15 years: 3 doses @ 0, 2 and 6 months.
- Immunocompromised: 3 doses @ 0, 2 and 6 months (funded)
- 2 doses are funded for non-immunocompromised, 3rd dose otherwise on script

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High school vaccination records

Vaccines offered in the school program since 2003 - no records are available prior to 2003.

Human Papillomavirus vaccine offered to: • Female students in Years 10, 11 & 12 in **2007** • Female students in Years 7, 8, 9 & 10 in **2008** • All female students in Year 7 from **2009**	 • Male students in Year 9 in **2013** and **2014** • All male students in Year 7 from **2013** • All Year 7 students from **2013**
Diphtheria/Tetanus/Pertussis vaccine offered to: • all high school students in **2004** • all Year 10 students from **2009 - 2012** • all Year 7 students in **2005** & from **2010**	**Meningococcal ACWY** vaccine offered to: • Year 11 & 12 students in **2017** • Year 10 & 11 students in **2018** • all Year 10 students from **2019**
Hepatitis B vaccine offered to: • all Year 7 students only **2004 - 2013**	**Chickenpox (Varicella)** vaccine offered to: • all Year 7 students only **2006 - 2017**
Measles/Mumps/Rubella vaccine offered to: • Year 9 & 10 in some schools in **2014** • Year 11 & 12 students in **2015**	**Meningococcal C** vaccine offered to: • all High School students in **2003 & 2004** • all Primary School students in **2004**

To access high school records:

- Now uploaded to AIR within a week of receipt of vaccination.
- Includes historical records dating back to 2004.
- Providers and individuals access records directly from AIR.

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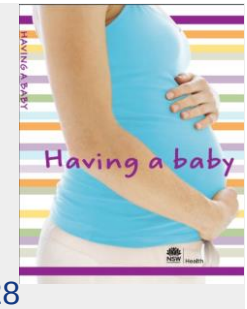
Vaccination of pregnant women



Maternal pertussis vaccination

- Recommended at 20 – 32 weeks (ideally 28 weeks) each pregnancy, including those that are closely spaced.
- If the vaccine has not been given by 32 weeks gestation, give any time up to delivery.
- If vaccination does not occur prior to delivery, antenatal administration is recommended.

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Why we do antenatal pertussis vaccination

- Direct passive protection of the newborn by transplacental transfer of high levels of pertussis antibodies.
- High levels of maternal antibodies give temporary protection to the baby until they complete their vaccinations.
- Reduces significant pertussis associated morbidity in infants, particularly < 3 months of age.
- Less effective at preventing mild disease.

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https://www.researchgate.net/publication/323476368_Effectiveness_of_maternal_pertussis_vaccination_in_preventing_infection_and_disease_in_infants_The_NSW_Public_Health_Network_case-control_study

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How successful has it been?

- More effective in reducing the risk of pertussis in young infants than any previous strategies.
- Prior to the introduction in NSW ~ 1 death/year in infants aged < 2 months.
- Since the introduction of the vaccine in 2015:
  - ✓ there has been a decrease in cases in children < 6 months (> 200 in 2015, compared to < 100 in 2018).
  - ✓ there have been no deaths in infants in NSW.

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https://www.health.nsw.gov.au/Infectious/Reports/Publications/cdwr/2019/cdwr-week10-2019.pdf

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Influenza in pregnancy

- Can be life threatening for pregnant women and their baby.
- Changes in immune, heart and lung functions increases the likelihood of severe illness.
- At a higher risk of hospitalisation and death.
- Severe influenza illness increases the chance of premature birth and low birth weight.

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Why we do antenatal influenza vaccination

- Protects the mother against influenza and complications resulting from it.
- Protects newborns and babies aged < 6 months - more likely to be hospitalised with influenza than any other age group.
- Estimated to reduce the risk of influenza in this age group by approximately 50%.

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https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5791002/

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Vaccination timing

- Give any time during pregnancy (as early as possible).
- Best given before the onset of the flu season (usually begins in April and peaks August).
- Optimal timing mid-April onwards
- Protection expected to last for the season (optimal in the first 3 – 4 months following vaccination)
- Can be given twice during pregnancy if spanning two seasons.
- Can be given at the same time as the antenatal pertussis vaccine (but don't wait).

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https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/pertussis-whooping-cough

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Schedule FAQs

Can you still give 4 years immunisation as early as 3.5 years?

No.

- Changed since the introduction of the 18 month booster dose in 2016.
- Now recommended at 4 years of age only.

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Adults

HALO Principle

Health – medical condition/s that may put them at risk

Age – older people at higher risk of certain diseases, targeting of groups

Lifestyle – travel, aged care etc

Occupation – type of employment

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NCIRS National Centre for Immunisation Research and Surveillance

Immunisation recommendations for Non-Indigenous Australians without risk factors for vaccine-preventable diseases

This table is a summary of vaccine recommendations from the Australian Immunisation Handbook for non-Indigenous Australians based on age and pregnancy status.

Shaded cells represent vaccinations funded under the National Immunisation Program (NIP).[a] Brackets indicate that these vaccines are only recommended for a population sub-group. More detail is provided in the corresponding footnote(s).

Disease/vaccine antigen	Abbrev.	Age									Pregnancy status	
		At birth	2 months[b]	4 months	6 months	12 months	18 months	4 years	Adolescents	Adults	During pregnancy	Post-partum
Hepatitis B	HepB	✓	✓*	✓*	✓*	(✓)[c]						
Diphtheria, tetanus, pertussis	DTPa/dTpa		✓*	✓*	✓*		✓	✓[f]	✓ 12–13 years[d]	✓ 65 years[d]	✓[e]	(✓)[e]
Poliomyelitis	IPV		✓*	✓*	✓*			✓[f]				
Haemophilus influenzae type b	Hib		✓*	✓*	✓*		✓					
Pneumococcal	13vPCV		✓	✓	check for medical risk conditions	✓				✓ ≥70 years		
	23vPPV							Check for medical risk conditions				
Rotavirus			✓	✓								
Measles, mumps, rubella	MMR					✓	✓[g,f]			(✓)[g]		(✓)[h]
Varicella	VV						✓[g]		✓[h]	(✓)[h]		
Meningococcal serogroup B	MenB		✓[i]					(Refer to footnote i)	✓ 15–19 years[i]	(Refer to footnote i)		
Meningococcal serogroup ACWY	MenACWY		✓[j]			✓[j]		(Refer to footnote j)	✓ 15–19 years; NIP school program dose at 14–16 years[j]	(Refer to footnote j)		
Influenza (annual)	QIV				✓[k]				(Refer to footnote k)	✓ ≥65 years[k]	✓	
Human papillomavirus	HPV								✓ 12–13 years[l]			
Herpes zoster	HZ									✓ ≥70 years[m]		

Last updated 1 July 2020

http://ncirs.org.au/sites/default/files/2020-06/NCIRS%20Immunisation%20schedule%20for%20non-Indigenous%20people_1%20July%202020_Final.pdf

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People with Occupational Risk





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Policy Directive

NSW GOVERNMENT

Occupational Assessment, Screening and Vaccination Against Specified Infectious Diseases

Summary	Framework for the assessment, screening and vaccination of healthcare worker, students and other personnel to minimise the risk of transmission of diseases.
Document type	Policy Directive
Document number	PD2020_017
Publication date	27 May 2020
Author branch	Health Protection NSW
Branch contact	(02) 9391 9195
Replaces	PD2020_016
Review date	27 May 2025
Policy manual	Not applicable
File number	H20/55149
Status	Active
Functional group	Personnel/Workforce - Employment Screening, Occupational Health and Safety Population Health - Communicable Diseases, Health Promotion, Infection Control
Applies to	Ministry of Health, Public Health Units, Local Health Districts, Board Governed Statutory Health Corporations, Chief Executive Governed Statutory Health Corporations, Specialty Network Governed Statutory Health Corporations, Affiliated Health Organisations, NSW Health Pathology, Public Health System Support Division, Cancer Institute, Government Medical Officers, Community Health Centres, NSW Ambulance Service, Dental Schools and Clinics, Public Hospitals
Distributed to	Ministry of Health, Public Health System, Government Medical Officers, NSW Ambulance Service
Audience	All Clinical Staff

POLICY UPDATES

https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2020_017.pdf

Healthcare worker vaccination

- Diptheria, Tetanus & Pertussis
- Hepatitis B
- Measles, Mumps & Rubella
- Varicella
- Influenza
- Tuberculosis

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Revisions

2018

- New Category A High Risk included
- Mandatory influenza vaccination for Category A High Risk
- Recommendations for termination of staff who refuse to comply
- Hepatitis B vaccination statutory declaration

2020

- Removed the requirement that students are assessed for TB compliance within 4 months of their first clinical placement
- Mandatory influenza vaccination requirements for workers in Multi-Purpose Services and State Government ACF
- Enhanced TB control measures introduced
- Inclusion of additional documents that can be used to demonstrate compliance

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https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2020_017.pdf

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Appendix 4 Checklist: Evidence required from Category A Applicants

Workers, new recruits, other clinical personnel and students should take this checklist (and relevant sections of this policy directive referred to in this checklist) to their immunisation provider and discuss their screening and vaccination requirements.

Acceptable evidence of protection includes a written record of vaccination signed, dated and stamped by the medical practitioner/nurse immuniser on the NSW Health vaccination record card for health care workers and students and/or serological confirmation of protection, and/or other evidence, as specified in this table. An air transcript is also acceptable evidence of vaccination.

Diseases	Vaccination Evidence	Serology Evidence	Other Acceptable Evidence	Comments
Diphtheria, Tetanus & Pertussis	One adult dose of dTpa vaccine within the last 10 years	N/A. Serology will not be accepted	NIL	• dTpa booster is required 10-yearly • DO NOT use ADT vaccine
Hepatitis B	History of age-appropriate hepatitis B vaccination course	**AND** Anti-HBs ≥ 10mIU/mL	**OR** Documented evidence of anti-HBc, indicating past hepatitis B infection, or HBsAg+	• A completed *Hepatitis B Vaccination Declaration* (Appendix 9) are acceptable if all attempts fail to obtain the vaccination record. The assessor must be satisfied that a reliable history has been provided and the risks of providing a false declaration or providing a verbal vaccination history based on recall must be explained • Positive HBcAb and/or HBsAg result indicate compliance with this policy • A further specialist assessment is required for HBsAg+ workers who perform Exposure Prone Procedures
Measles, Mumps & Rubella (MMR)	2 doses of MMR vaccine at least one month apart	**OR** Positive IgG for measles, mumps and rubella (Rubella immunity is provided as a numerical value with immunity status as per lab report)	**OR** Birth date before 1966	• Two doses of MMR vaccine, given at least 4 weeks apart, should be accepted as compliance with this policy. • Do not compare the numeric levels reported from different laboratories. The interpretation of the result given in the laboratory's report must be

https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2020_017.pdf

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				followed i.e. the report may include additional clinical advice e.g. consideration of a booster vaccination for low levels of rubella IgG detected. • DO NOT use MMRV vaccine (not licensed for use in persons ≥ 14 years). If a dose of MMRV vaccine is inadvertently given to an older person, this dose does not need to be repeated • Serology is not required following completion of a documented two dose MMR course. • Those born before 1966 do not require serology
Varicella	2 doses of varicella vaccine at least one month apart (or evidence of 1 dose if the person was vaccinated before 14 years of age).	OR Positive IgG for varicella	Australian Immunisation Register (AIR) History Statement that records natural immunity to chickenpox	• Evidence of one dose of varicella vaccine is sufficient in persons vaccinated before 14 years of age; two doses administered at least one month apart is required when aged 14 years or more when vaccinated. • DO NOT use MMRV vaccine (not licensed for use in persons ≥ 14 years) • Evidence of one dose of Zostavax in persons vaccinated over 50 years of age
Influenza	One dose of current southern hemisphere seasonal influenza vaccine by 1 June each year	N/A Serology will not be accepted	NIL	• Influenza vaccination is required annually for workers in Category A High Risk positions, as specified in Appendix 1 *Risk Categorisation Guidelines* (see Section 4) • Influenza vaccination is strongly recommended for all workers, other clinical personnel in Category A positions and for all students.
Tuberculosis	N/A	Refer to Section 3.5	Refer to Section 3.5	• Refer to Section 1.2 *Key Definitions* • Refer to Section 3 *TB Assessment and Screening*

https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2020_017.pdf

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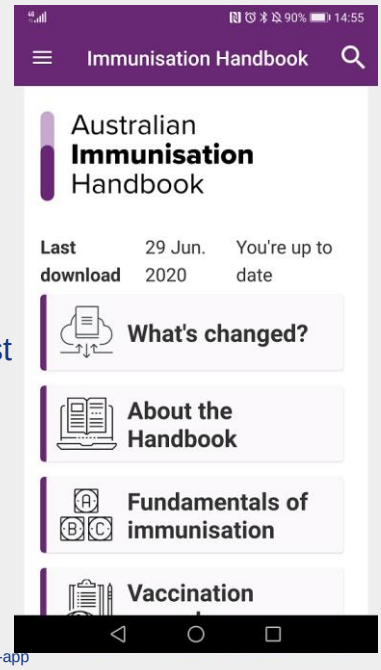
Australian Immunisation Handbook App.

- Australian Immunisation Handbook (AIH) is now available as a mobile application.
- All content is accessible on most mobile devices, such as smart phones or tablets.
- Enables access to the AIH content - even when you do not have access to the Internet.



https://immunisationhandbook.health.gov.au/about-the-handbook/mobile-app

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Sharing Knowledge About Immunisation (SKAI) - eLearning module

- 90 minute learning module for healthcare professionals
- Assists with avoiding extended or confrontational interactions.
- Provides information to help address parents' questions or concerns.
- Recommendation for structuring vaccination consultations.
- Tips from experienced clinicians.

http://www.ncirs.org.au/health-professionals/skai-supporting-health-professionals

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Northern Sydney Local Health District

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Vaccine Supply by Pharmacists in NSW

- In NSW appropriately trained pharmacists are authorised to supply and administer without a prescription:
  - Privately funded MMR, dTpa from 16 years of age
  - Privately funded influenza vaccines from 10 years of age
- Federal government has agreed to expand this authority to allow access to NIP funded vaccines - pending State and Territory approval
- Want access to all NIP vaccines with the exception of early childhood vaccines

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NCIRS report – Review of pharmacist vaccination

- "Review of pharmacist vaccination reporting to the Australian Immunisation Register" - released May 2020.
- Influenza vaccine the most commonly administered vaccine.
- Greatest uptake of pharmacist vaccination in regional areas and in 50–64 years.
- Highlights the expanding role of pharmacists in providing vaccinations.
- Identifies gaps in reporting to the Australian Immunisation Register (AIR).
- Of the over 2 million influenza vaccinations reportedly given by pharmacists in 2019, only a quarter were recorded on AIR.

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Local Health District

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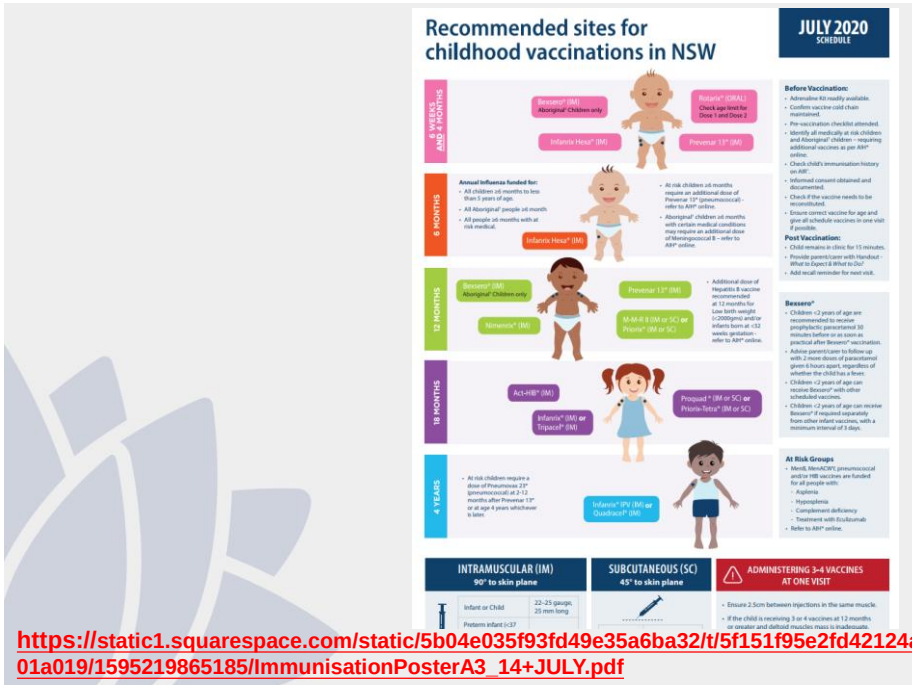

https://static1.squarespace.com/static/5b04e035f93fd49e35a6ba32/t/5f151f95e2fd42124a01a019/1595219865185/ImmunisationPosterA3_14+JULY.pdf

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http://www.ncirs.org.au/

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NCIRS specialist immunisation services resources

New South Wales

Advice line	Health professionals are encouraged to contact their local PHU as their first point of contact. **Tel:** 1300 066 055 **Further support:** NSW Immunisation Specialist Service (NSWISS) **Tel:** 1800 NSWISS (1800 679 477) 9 am - 5 pm (Mon-Fri)
Clinics	**The Children's Hospital at Westmead:** • Specialist Immunisation Clinic • Telehealth consultations • 1800 679 477 **Sydney Children's Hospital Randwick:** • Specialist Immunisation Clinic - (02) 9382 1470 **John Hunter Hospital** • Children's Specialist Clinics (Paediatric Immunologist accepts referrals) - (02) 4921 3670
Adverse events reporting	A suspected AEFI in NSW should be reported by contacting your local Public Health Unit (PHU). Your PHU will complete the National Adverse Events Following Immunisation (AEFI) Reporting Form and forward it to the NSW Health Immunisation Unit for forwarding to the Therapeutic Goods Administration (TGA). **Tel:** 1300 066 055

http://www.ncirs.org.au/health-professionals/specialist-immunisation-services

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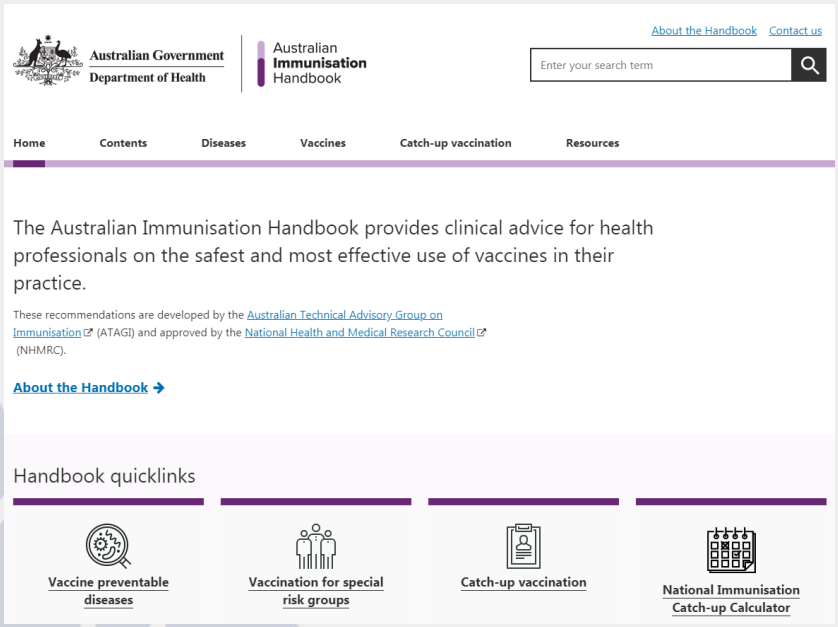

https://immunisationhandbook.health.gov.au

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Australian College of Nursing 'Immunisation for Health Practitioners'

Mode of delivery: Distance education – on line with tutor support

Workload/CPD hrs: Self placed - equivalent to 120 hrs CPD

CPD subject fee: $970 (non members) $873 (members)

CPD enrolment: Monthly

Pre-requisites:

1. Hold a qualification leading to registration recognised by the relevant National Board
2. General registration as a nurse, midwife, paramedic, pharmacist with the relevant National Board

- Successful completion of this course is a requirement for authorisation to administer vaccination without the direction of a medical officer within NSW.

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https://www.acn.edu.au/education/immunisation/immunisation-for-health-practitioners

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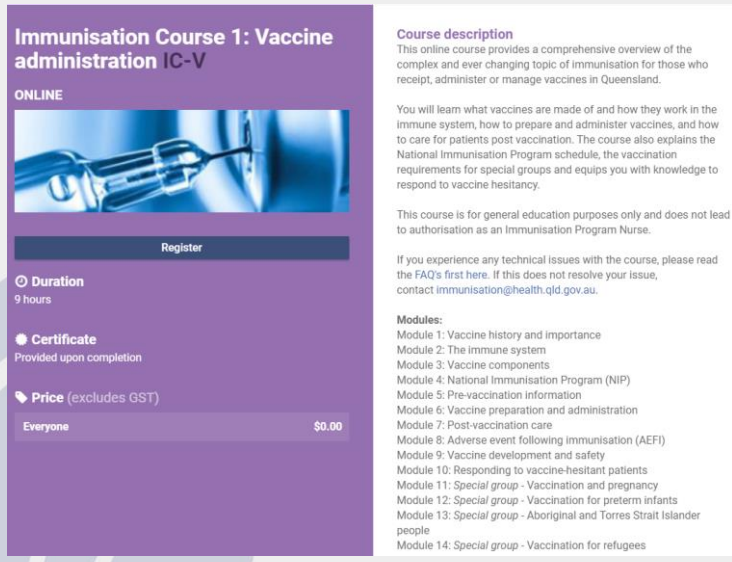
Qld Health Online Immunisation Courses



Immunisation Course 1: Vaccine administration IC-V

ONLINE

Register

Duration
9 hours

Certificate
Provided upon completion

Price (excludes GST)

Everyone	$0.00

Course description

This online course provides a comprehensive overview of the complex and ever changing topic of immunisation for those who receipt, administer or manage vaccines in Queensland.

You will learn what vaccines are made of and how they work in the immune system, how to prepare and administer vaccines, and how to care for patients post vaccination. The course also explains the National Immunisation Program schedule, the vaccination requirements for special groups and equips you with knowledge to respond to vaccine hesitancy.

This course is for general education purposes only and does not lead to authorisation as an Immunisation Program Nurse.

If you experience any technical issues with the course, please read the FAQ's first here. If this does not resolve your issue, contact immunisation@health.qld.gov.au.

Modules:
Module 1: Vaccine history and importance
Module 2: The immune system
Module 3: Vaccine components
Module 4: National Immunisation Program (NIP)
Module 5: Pre-vaccination information
Module 6: Vaccine preparation and administration
Module 7: Post-vaccination care
Module 8: Adverse event following immunisation (AEFI)
Module 9: Vaccine development and safety
Module 10: Responding to vaccine-hesitant patients
Module 11: *Special group* - Vaccination and pregnancy
Module 12: *Special group* - Vaccination for preterm infants
Module 13: *Special group* - Aboriginal and Torres Strait Islander people
Module 14: *Special group* - Vaccination for refugees

https://central.csds.qld.edu.au/central/courses/415

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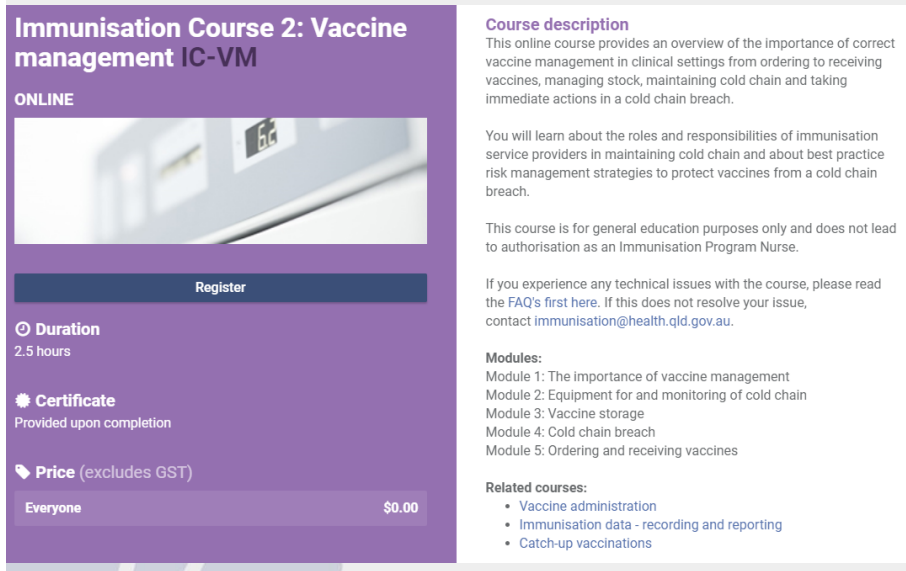
Qld Health Online Immunisation Courses



Immunisation Course 2: Vaccine management IC-VM

ONLINE

Register

Duration
2.5 hours

Certificate
Provided upon completion

Price (excludes GST)

Everyone	$0.00

Course description

This online course provides an overview of the importance of correct vaccine management in clinical settings from ordering to receiving vaccines, managing stock, maintaining cold chain and taking immediate actions in a cold chain breach.

You will learn about the roles and responsibilities of immunisation service providers in maintaining cold chain and about best practice risk management strategies to protect vaccines from a cold chain breach.

This course is for general education purposes only and does not lead to authorisation as an Immunisation Program Nurse.

If you experience any technical issues with the course, please read the FAQ's first here. If this does not resolve your issue, contact immunisation@health.qld.gov.au.

Modules:
Module 1: The importance of vaccine management
Module 2: Equipment for and monitoring of cold chain
Module 3: Vaccine storage
Module 4: Cold chain breach
Module 5: Ordering and receiving vaccines

Related courses:
- Vaccine administration
- Immunisation data - recording and reporting
- Catch-up vaccinations

https://central.csds.qld.edu.au/central/courses/420

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Qld Health Online Immunisation Courses

Immunisation Course 3: Immunisation data – recording and reporting IC-ID

ONLINE

Register

Duration
1.5 hours

Certificate
Provided upon completion

Price (excludes GST)

QLD Health	$0.00

Course description
This online course provides an overview of the importance of recording and reporting immunisation data to the Australian Immunisation Register (AIR).

You will learn how you can access AIR to check immunisation records, how to report a medical exemption to immunisation to AIR and how to communicate with the register.

The course also explains the steps to reporting immunisation data in a consistent and accurate way and the documentation requirements post vaccination.

This course is for general education purposes only and does not lead to authorisation as an Immunisation Program Nurse.

If you experience any technical issues with the course, please read the FAQ's first here. If this does not resolve your issue, contact immunisation@health.qld.gov.au.

Modules
Module 1: Recording immunisation data
Module 2: Reporting immunisation data to the Australian Immunisation Register (AIR)

Related courses:
- Vaccine administration
- Vaccine management
- Catch-up vaccinations

https://central.csds.qld.edu.au/central/courses/424

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Qld Health Online Immunisation Courses

Immunisation Course 4: Catch-up vaccinations IC-CV

ONLINE

Register

Duration
1.5 hours

Certificate
Provided upon completion

Price (excludes GST)

QLD Health	$0.00

Course description
This online course provides an overview of the importance of up-to-date immunisations, the objectives of catch-up vaccinations and how the national due and overdue rules for immunisation are used by the Australian Immunisation Register (AIR) to determine an individual's immunisation status.

You will learn about the national due and overdue rules for immunisation and the steps to planning catch-up vaccinations.

This course is for general education purposes only and does not lead to authorisation as an Immunisation Program Nurse.

If you experience any technical issues with the course, please read the FAQ's first here. If this does not resolve your issue, contact immunisation@health.qld.gov.au.

Modules

Module 1: Catch-up vaccinations
Module 2: National due and overdue rules

Related courses:
- Vaccine administration
- Vaccine management
- Immunisation data – recording and reporting

Completion requirements
This course offers different pathways for clinical staff, administrative

https://central.csds.qld.edu.au/central/courses/425

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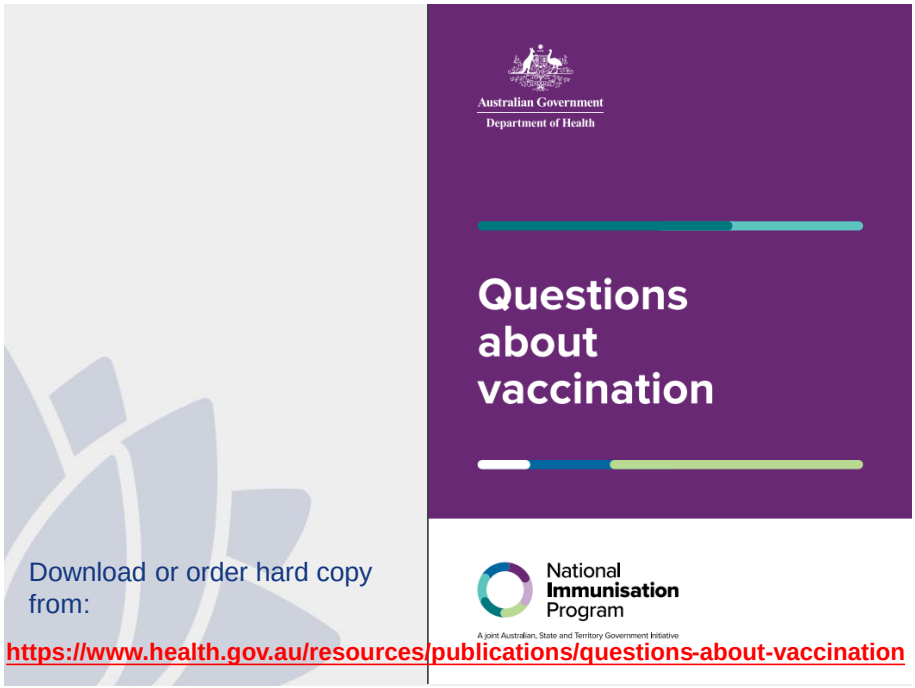

Download or order hard copy from:

https://www.health.gov.au/resources/publications/questions-about-vaccination

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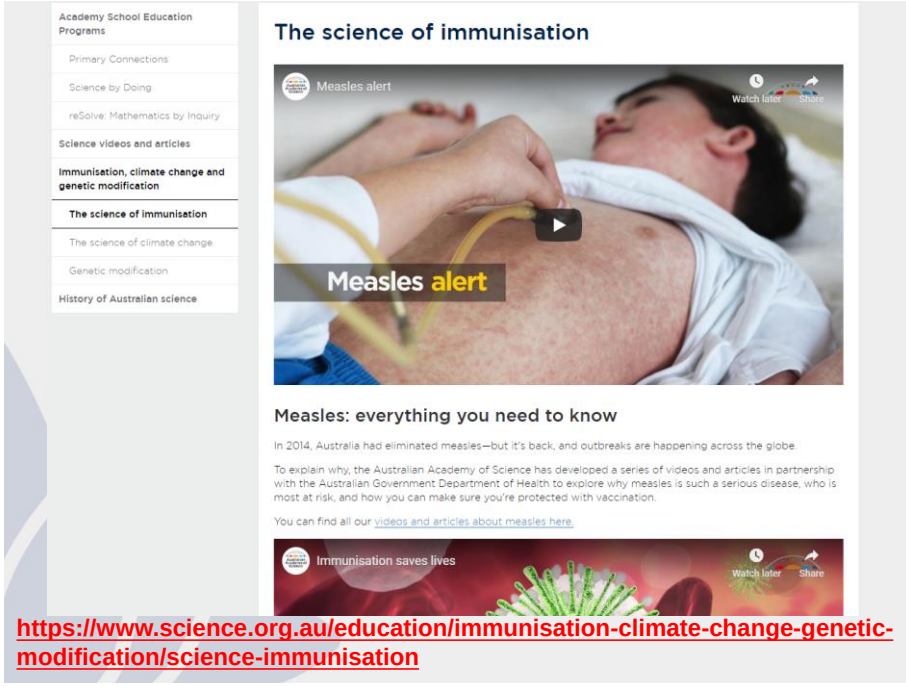

https://www.science.org.au/education/immunisation-climate-change-genetic-modification/science-immunisation

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https://www.science.org.au/files/userfiles/learning/documents/immunisation/immunisation-2016-low-res.pdf

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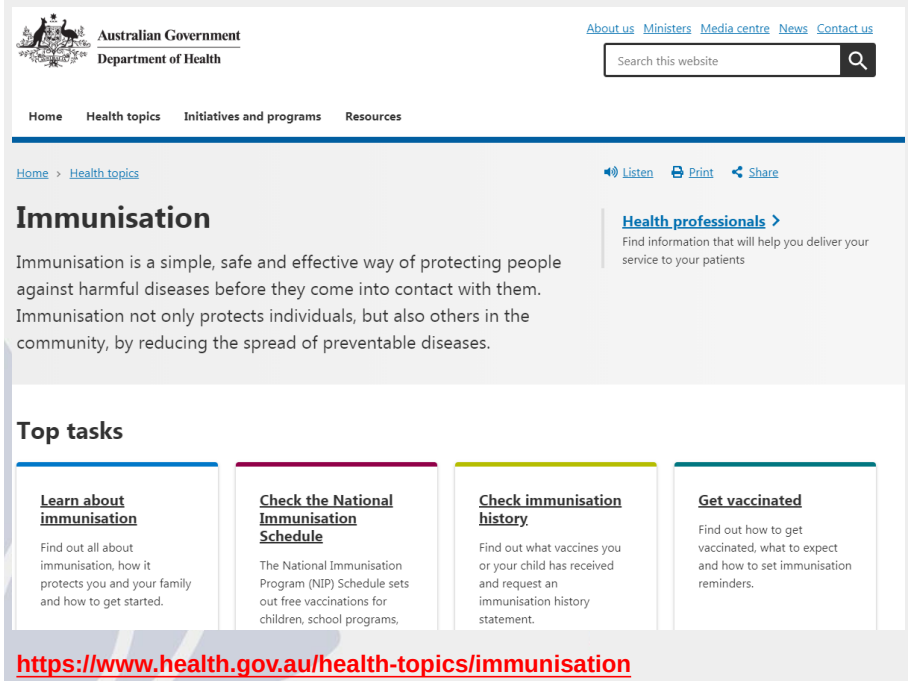

https://www.health.gov.au/health-topics/immunisation

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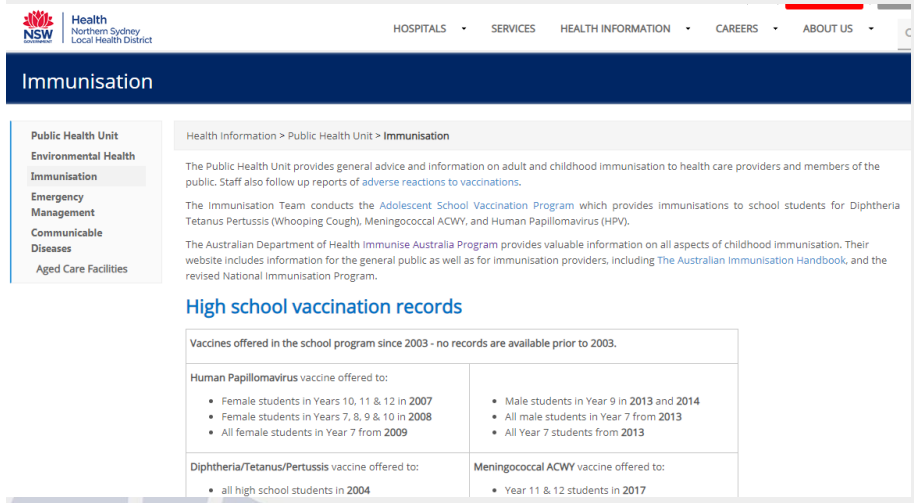
NSLHD PHU Website



http://www.nslhd.health.nsw.gov.au/HealthInformation/PublicHealthUnit/Pages/Immunisation.aspx

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