

# Vaccinator Foundation Course Standards

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This publication is intended to support education sessions provided at Vaccinator Education Courses and should be used in conjunction with other evidence-based immunisation publications.

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## Introduction

The Vaccinator Foundation Course Standards set the minimum education requirements which underpin safe vaccination practice in New Zealand, ensuring equity and consistency in national course delivery. The principles of Te Tiriti O Waitangi underpin our kaupapa. We will continue to work with our partners including the Ministry of Health, Hāpai Te Hauora and Moana Research to ensure that vaccinator course content and delivery reflect current New Zealand evidence and resources to support and achieve equity for New Zealanders.

Vaccinator foundation courses introduce the skills and knowledge health professionals need to vaccinate safely within their area of practice. All vaccinators, including pharmacist vaccinators, also require the knowledge to discuss immunisation in a wider context with their clients. Workplace experience is required to ensure that vaccinators can competently provide vaccination services, prior to undertaking a clinical assessment. Following authorisation, the vaccinator is permitted to deliver vaccines on the National Immunisation Schedule and any other programmes authorised by the medical officer of health. Pharmacist vaccinators (including Registered Pharmacist Interns) are able to administer specific reclassified vaccines.

Facilitation of vaccinator foundation courses integrates best practice principles for adult learners. A range of opportunities for learning are incorporated into each course. This includes identifying and supporting individual learning needs in order to meet the course learning outcomes.

The vaccinator foundation courses are aligned with:

- Appendix 3 Immunisation standards for vaccinators and guidelines for organisations offering immunisation services,
- Appendix 4 Authorisation of vaccinators and criteria for pharmacist vaccinators, current [Immunisation Handbook](#) (Ministry of Health - the Ministry), and
- *Whakamaua Māori Health Action Plan 2020-2025, to achieve whānau ora (healthy families) and pae ora (healthy futures)* (Ministry of Health).

## Criteria for vaccinators

- Approval of authorised vaccinators currently sits with the regional medical officers of health under the Medicine Regulations 1984 clause 44A. The requirements are outlined in the current Immunisation Handbook
- Pharmacist vaccinators are required to complete the process outlined in the Immunisation Handbook
- Enrolled nurses can complete the vaccinator foundation course and are eligible to apply for authorisation, however this is dependent on local medical officer of health approval

- Note: Vaccinators who are not prescribers, pharmacist vaccinators, or authorised vaccinators require a prescription or standing order prior to administering vaccines (see [Standing Order Guidelines](#), the Ministry of Health)
- The local immunisation coordinator or public health unit provides guidance for the process and requirements for authorisation
- Maintaining authorised vaccinator status, or pharmacist vaccinator status (every two years and prior to expiry), is the responsibility of the individual
- Requirements for reauthorisation as a vaccinator (Medicine Regulations 1984 clause 44A) are obtained from the local public/population health unit or the medical officer of health
- Note: a current Resuscitation certificate is required covering the skills outlined in Appendix 4.2 of the Immunisation Handbook
- It is recommended that all vaccinators hold personal professional indemnity insurance

## Vaccinator Foundation Courses (VFC)

The course consists of 20 hours theory. There are two learning options:

- A flexible learning option includes pre-reading, 14 hours online self-study, a three- to four-hour tutorial and an online open-book assessment
- A two-day option includes pre-reading, two study days and an online open-book assessment.

### Course registration

Registration for all IMAC courses occurs through the Immunisation Advisory Centre learning management system <https://lms.immune.org.nz>.

Course dates and start times are set by each Regional Immunisation Advisor, based on local requirements and are published in the IMAC course flyer, usually in early December the year before.

### Resources

- Health Promotion Agency and the Ministry - [Health Ed](#) resources
- IMAC [written resources](#) and [influenza resources](#)
- Ministry of Health [Immunisation resources](#) and [Immunisation handbook](#)
- [Ministry of Health](#) Māori Health Action Plan 2020-2025
- [Medsafe](#) vaccine data sheets
- [PHARMAC](#) website vaccine resources
- [CARM](#) reporting form - New Zealand Pharmacovigilance Centre
- [World Health Organization](#) vaccine and immunisation resources
- [World Health Organization](#) immunisation schedules by country
- [Centers for Disease Control and Prevention](#) vaccine and immunisation resources

## Course objective

To provide participants with the foundation knowledge and skills required to provide high quality, safe and effective delivery of New Zealand National Immunisation Schedule vaccines across the lifespan. Participants will understand the processes and systems which underpin vaccinator practice as outlined in the Immunisation Handbook and meet the minimum educational requirements for maintaining their status as a vaccinator.

## Overall learning outcomes

At the end of the course participants will be able to:

- Access and utilise the [Immunisation Handbook](#)
- Locate and use resources including the Vaccination Education Manual and recommended websites
- Access and use the [National Standards for Vaccine Storage and Transportation for Immunisation Providers 2017 \(2<sup>nd</sup> Edition\)](#)
- Meet the requirements for vaccination practice as outlined in the “Immunisation standards for vaccinators and guidelines for organisations offering immunisation services (Appendix 3 of the Immunisation Handbook)
- Access immunisation resources for parents and caregivers
- Work with whānau to achieve whānau ora, alongside mauri ora

## Prerequisites

- Current Annual Practising Certificate
- Knowledge and familiarity with the current Immunisation Handbook
  - Introduction
  - General immunisation principles
  - Processes for safe immunisation
  - Appendices
    - Immunisation standards for vaccinators and guidelines for organisations offering immunisation services
    - Authorisation of vaccinators and criteria for pharmacist vaccinators

## Course revision

The IMAC Education Quality Review Group annually reviews the national education material to ensure it remains current, which includes updating the online course options, the tutorial PowerPoint presentations, the teaching materials and resources provided for further reading including the Vaccinator Manual, and the assessment questions.

## Course assessment procedures

### Open-book assessment

The course assessment is open book. The core resource or 'open book' is the Immunisation Handbook which may be used to assist participants. Not all answers will be found in this but will have been covered during the course. The assessment consists of multichoice questions and is completed online. There are two compulsory sections. The first section covers vaccine safety and the second, general immunisation questions. A pass mark of 80% in both sections is required. If the participant fails to pass, a reassessment is possible. Ideally, the open-book assessment should be completed in the week following the Vaccinator Foundation Course.

### Clinical assessment

Following completion of the Vaccinator Foundation Course and passing the open-book assessment, all participants are encouraged to undertake a clinical assessment to demonstrate clinical competency. This is usually done after the participant has undertaken supervised vaccinator practice. A clinical assessment is required to meet the criteria of an authorised, or pharmacist vaccinator. The local medical officer of health nominates a qualified assessor/s to undertake the clinical assessment in their area. The participant is responsible for arranging the assessment including finding suitable vaccinees and negotiating a convenient time. Any vaccine given prior to completing the vaccinator process requires either a prescription or standing order to cover their administration.

The clinical assessment form is in the Vaccination Education Manual for participants to review. The assessment will be based on the Immunisation standards for vaccinators found in Appendices 3 and 4 of the Immunisation Handbook. An appropriate CPR certificate is required for the clinical assessment (see [New Zealand Resuscitation Council](#) and Appendix 4 of the Immunisation Handbook).

The assessor will complete the clinical assessment, usually in the participant's clinical environment, for a minimum of two persons' separate vaccination events, as relevant to the vaccinator's area of practice. For early childhood vaccinators at least one vaccination event will include a child aged under two years with a vaccination given in the vastus lateralis.

Follow successful completion of the clinical assessment those applying for authorisation should complete the required paperwork and submit it to the medical officer of health for approval. For pharmacist vaccinators details of their course attendance and clinical assessment should be shared with the Pharmaceutical Society of New Zealand.

## Two-day VFC course - unit timing guide

Unit	Topic	Minimum timings
1	Vaccine preventable diseases	60 minutes
2	Legislation, standards and authorisation	30 minutes
3	The immune system Video - Cold War (optional)	60 minutes 20 minutes
4	National Immunisation Schedule vaccines across the lifespan	60 minutes
5	Types and composition of vaccines	60 minutes
6	Vaccine safety	60 minutes
7	Storage and handling of vaccines	60 minutes
8	Informed consent and communication	60 minutes
9	Vaccine administration	120 minutes
10	Improving immunisation coverage – including immunisation catch-ups	75 minutes
Following the course, the online assessment is completed in the participants own time.		

## Two-day VFC - example of a programme (individual courses will vary)

Day One		Unit
09:00	Welcome, introductions and housekeeping	
09:30	Vaccine preventable diseases	1
<b>10:30</b>	<b>Break</b>	
10:45	The immune system	3
12:00	National Immunisation Schedule vaccines across the lifespan	4
<b>13:15</b>	<b>Lunch break</b>	
14:00	Types and composition of vaccines	5
<b>15:00</b>	<b>Break</b>	
15:15	Storage and handling of vaccines	7
16:15	Legislation, standards and authorisation	2
16:45	Questions and answers	
<b>17:00</b>	<b>Close</b>	

Day Two		Unit
09:00	Welcome and review	
09:15	Improving immunisation coverage	10
10:00	Catch-up schedules	10
<b>10.45</b>	<b>Break</b>	
11:00	Vaccine safety	6
12:00	Informed consent and communication	8
<b>13:00</b>	<b>Lunch break</b>	
13:45	Vaccine administration theory	9
14:15	Vaccine administration practical	9
<b>15:15</b>	<b>Break</b>	
15:30	Assessment preparation	
16:00	Questions and evaluation	
<b>16:30</b>	<b>Close</b>	

Order will depend on speaker availability and facilitator preference.



## Flexible Learning VFC - example of a programme

Time	Topic	Unit
09:00	Introduction and housekeeping	
09:10	VPD activity/conversation	1
09:20	Communication - informed consent	8, 10
09:50	Vaccine administration <ul style="list-style-type: none"> <li>- Preparing to vaccinate</li> <li>- Pre-vaccine screening / activity</li> <li>- Vaccine admin theory</li> </ul>	6, 7, 9, 10
<b>10:50</b>	<b>Break</b>	
11:00	Vaccine administration practical	9
12:00	Next steps - Legislation, standards and authorisation, assessment	2
12:15	Questions	
<b>12:30</b>	<b>Close</b>	

## **Unit 1: Vaccine preventable diseases**

### **Purpose**

To provide an overview of vaccine preventable diseases, associated complications and long-term outcomes, and the historical impact of immunisation, to inform immunisation communication.

### **Learning outcomes**

At the end of this session participants will be able to:

- Describe vaccine preventable diseases and their complications
- Briefly describe the global burden of vaccine preventable diseases and the impact of immunisation
- Identify the process of notification of vaccine preventable diseases
- Describe the epidemiology of recent outbreaks of vaccine preventable diseases in New Zealand
- Adapt knowledge of vaccine preventable diseases for informed consent and to support immunisation communication to reduce inequities in disease burden

### **Recommended content**

- History of vaccines and immunisation
- Epidemiology, clinical features and complications of vaccine preventable diseases in New Zealand
- Notifiable vaccine preventable diseases in New Zealand
- Disease patterns and the control of recent outbreaks in New Zealand

## Unit 2: Legislation, standards and authorisation

### Purpose

To provide an overview of legislation, standards and regulation for vaccinators.

### Learning outcomes

At the end of this session participants will be able to:

- Identify the relevant acts and regulations and how they impact on immunisation practice
- Explain the responsibilities of vaccinators in reference to the Medicines Regulations 1984 to outline the legal role and responsibilities of vaccinators
- Locate and be familiar with Appendices 3 and 4 in the Immunisation Handbook
- Outline the requirements for administration of prescription medicines, including the need for prescriptions, or standing orders
- Describe initial authorisation and reauthorisation as a vaccinator at the local level, or the process for pharmacist vaccinators
- Identify the range of vaccines administered under authorised, or pharmacist vaccinator status

### Recommended content

- Relevant acts and legislation for vaccinators and how they pertain to immunisation
- Documents required for practice under these acts, eg, prescription, or standing orders if not authorised
- View the Immunisation standards and requirements for authorisation for all vaccinators in the Immunisation Handbook (Appendices 3 and 4)
- The process required for application for authorisation and reauthorisation (local variation)

## Unit 3: The immune system

### Purpose

To provide a review of the immune system and the immune response to vaccines, for immunisation communication.

### Learning outcomes

At the end of this session participants will be able to:

- Demonstrate knowledge of the structure and function of the immune system
- Describe the specific immune response to a vaccine antigen and the generation of immune memory
- Describe the role of memory cells after vaccination
- Relate the infant immune response to the timing of the immunisation schedule
- Distinguish between individual and community immunity and their impact on population health
- List factors that affect the immune response to vaccines
- Explain how protection from some vaccine preventable diseases can be reduced by waning immunity
- Adapt knowledge of the immune system for use in immunisation communication

### Recommended content

- Revision of the immune system (non-specific and specific immunity, active and passive immunity)
- Revision of chemicals (antigen, antibody) and types of leucocytes, antigen-presenting cells, lymphocytes and memory cells
- Immune response to vaccines, and factors affecting the response
- Primary and secondary immune responses, and immune memory
- Duration of immunity following infection and vaccination, including waning immunity
- Infant immune response, role of maternal antibody and breast milk
- The concept of community immunity
- Consideration of how the immune system underpins/relates to other units, eg, NIS, vaccine types, vaccine safety, communication and vaccine administration

## **Unit 4: National Immunisation Schedule vaccines across the lifespan**

### **Purpose**

To provide an outline of the New Zealand National Immunisation Schedule vaccines, vaccines for special groups and vaccines available for purchase to ensure protection throughout life.

### **Learning outcomes**

At the end of this session participants will be able to:

- Describe the National Immunisation schedule, timing of events, vaccines included at each event
- Identify the rationale for differing intervals between doses of the same vaccine or other vaccines
- Identify medical conditions that extend the eligibility for funded vaccines for special groups and high-risk populations
- Outline the vaccines available for purchase including recommendations for certain high-risk occupations

### **Recommended content**

- The vaccines on the National Immunisation Schedule, their timing and spacing, and vaccines available for purchase
- Rationale for development of the National Immunisation Schedule
- Eligibility for special group immunisations
- Overview of vaccines available for purchase and recommendations around their use

## Unit 5: Types and composition of vaccines

### Purpose

To provide an outline of the types of vaccines including composition and regulation of vaccine licensure and safety.

### Learning outcomes

At the end of this session participants will be able to:

- Describe a brief overview of vaccine manufacture
- Describe the process of licensure and regulation of vaccines and the role of Medsafe
- Outline the different classification (types) of vaccines
- Identify the function of vaccine components
- Identify factors that compromise vaccine stability

### Recommended content

- Overview of vaccine manufacture
- Vaccine regulation in New Zealand and the role of Medsafe
- Features of types of vaccines (live/attenuated, killed/inactivated, toxoid and subunit; single vs. multiple antigens; combination vaccines)
- Vaccine components and rationale for their use
- Adapt knowledge of vaccine composition for immunisation communication

## Unit 6: Vaccine safety

### Purpose

To provide an overview of the management of vaccine responses and adverse events following immunisation (AEFI), and the contribution to global surveillance of vaccine safety.

### Learning outcomes

At the end of this session participants will be able to:

- State the essential components of pre-vaccination screening including true contraindications
- Describe the underlying mechanisms of the World Health Organization AEFI definitions
- Describe the outcomes of global vaccine surveillance on local immunisation practice
- Describe common expected responses to National Immunisation Schedule vaccines
- Distinguish between adverse events and adverse reactions
- Distinguish between faint, anaphylaxis and hypotonic-hyporesponsive episode (HHE)
- Outline the process of reporting an AEFI to the Centre for Adverse Reaction Monitoring (CARM)
- State the equipment required and emergency management of anaphylaxis
- Describe strategies for prevention of vaccine errors

### Recommended content

- Pre-vaccination screening - true contraindications and specific contraindications
- AEFI causality assessment (product, quality, immunisation error, anxiety and coincidental event)
- Expected responses to vaccines
- Identification and management of anaphylaxis
- Safety equipment required for management of anaphylaxis (importance of accessibility and checking of equipment)
- Identification, management and documentation of AEFI and reporting to CARM
- Vaccine safety surveillance - national and global examples of impact on immunisation programmes

## Unit 7: Storage and handling of vaccines

### Purpose

To outline the standards for the correct storage and transport of vaccines, along with provider evidence demonstrating this.

### Learning outcomes

At the end of this session participants will be able to:

- Define the vaccine cold chain, including why vaccines must be stored in the cold chain
- Describe the key elements that support the integrity of the cold chain
- Identify the management process in the event of a cold chain breach, including the process for disposal of vaccines if an excursion occurred
- Access the National Standards for Vaccine Storage and Transportation for Immunisation Providers (2<sup>nd</sup> Edition)
- Demonstrate an awareness of the Cold Chain Accreditation and the provider cold chain policy

### Recommended content

- Purpose of, and key steps in, the maintaining the cold chain
- Vaccine storage requirements (provider and off-site) including temperature control and monitoring, prevention of light exposure, packaging, fridge stock rotation and air circulation
- Vaccine transport requirements for any vaccination site
- Data logger, temperature monitoring and data interpretation
- Define cold chain breach criteria and actions when vaccines are compromised
- Refrigerator maintenance requirements (weekly, monthly, six-monthly and annually)
- Introduce the Cold Chain Accreditation process and the provider cold chain policy requirement
- Procedure for accepting vaccines and stock control



## Unit 8: Informed consent and communication

### Purpose

To outline evidence-based strategies and resources to provide appropriate immunisation communication to support informed consent and increase vaccine acceptance.

### Learning outcomes

At the end of this session participants will be able to:

- Describe the informed consent process, including who can provide consent and how it relates to vaccination
- Demonstrate client-centred communication for immunisation conversations, including when responding to the vaccine-hesitant client
- Describe robust strategies to overcome immunisation barriers and to support vaccine acceptance
- Offer culturally appropriate environment and resources that support pae ora, whānau ora, mauri ora and wai ora
- Describe effective strategies for decliners and non-responders, including offering appropriate information
- Meet professional documentation standards for the consent process

### Recommended content

- Review the essential elements for informed consent (Rights 1, 5–7 of Code of Health and Disability Services Consumers' Rights 1996)
- Review acts and legislation that underpin consent for vaccination and data collection (National Immunisation Register/Solution)
- Requirement of documentation of immunisation consent for each immunisation event
- Consent for older children - the issues of and assessing competency to consent (Gillick) and the role of the health professional in decision-making
- Barriers to consent and dealing with declines
- Resources for tailoring conversation and communication to address common immunisation concerns, eg, vaccine safety, multiple injections, how vaccines work, vaccine misconceptions, natural immunity versus vaccine immunity, why vaccines are necessary, vaccine myths
- Content will reflect the Ministry of Health direction to improve health outcomes and reduce inequities through Whakamaua Māori Health Action Plan 2020-2025

## Unit 9: Vaccine administration

### Purpose

To outline and demonstrate administration of vaccinations in New Zealand according to best practice standards.

### Learning outcomes

At the end of this session participants will be able to:

- Apply key concepts for the safe preparation of vaccines and management of the vaccination event – including pre-vaccination screening
- Identify the correct route, site, and positioning of limbs when administering vaccines
- Instruct the caregiver to position and hold baby appropriately for vaccination
- Outline the best practice requirements for the safe administration of vaccines
- Identify techniques that help to provide a calm vaccination experience
- Identify the correct method for disposal of vaccines and associated equipment
- Access suitable resources for vaccinees to support post-vaccination advice
- Describe the professional documentation requirements for vaccine administration

### Recommended content

- Review pre-vaccination screening assessment
- Suitable environment for optimal vaccine delivery
- Preparation of vaccines including reconstitution if required
- Safe and appropriate holding and distraction techniques for all vaccinees
- Location and rationale for injection site(s), angle of insertion, speed of administration, needle gauge(s) and length(s)
- Best practice techniques for vaccine administration, including oral vaccines, for all ages, and pain mitigation
- Safe and appropriate disposal of vaccines and associated equipment
- Post-vaccination advice and resources provided
- Documentation of vaccination event

## Unit 10: Improving immunisation coverage

### Purpose

To outline a range of evidence-based strategies to achieve, maintain and increase immunisation rates to prevent vaccine preventable diseases.

### Learning outcomes

At the end of this session participants will be able to:

- Explain the importance of immunisation coverage and timeliness
- Describe the role of the National Immunisation Register/Solution
- Describe opportunistic vaccination or referral to Outreach Immunisation Services (OIS) to support immunisation coverage
- Identify current Ministry strategies to reduce immunisation inequity and increase coverage
- Describe strategies for mana tangata in immunisation coverage for Māori
- Demonstrate an awareness of specific targets for immunisation programmes
- Describe the principles in the Immunisation Handbook on how to approach a catch-up immunisation plan

### Recommended content

- Immunisation goals in New Zealand (including pēpi/infants, hapu wāhine/pregnant women and influenza for over 65s)
- The National Immunisation Register/Solution - coverage rates, transfer of data between providers, timeliness, targeting groups with low rates, status queries
- Current New Zealand coverage statistics (including what is hidden by averages)
- Content reflecting the Ministry direction to improve health outcomes and reduce inequities through Whakamaui Māori Health Action Plan 2020–2025
- Discussion of factors that affect immunisation coverage (including equity, social determinants of health)
- Client and provider-based strategies: Lead Maternity Carer, pre-call, recall, OIS, catch-ups, opportunistic immunisation, late clinics, electronic messaging, all with focus for all healthcare staff, and education for parents and providers
- Local and national strategies: local services, iwi, and church groups, health promotion, national goals, immunisation champions
- Strategies to improve immunisation coverage for groups at risk of vaccine preventable diseases (including Māori and Pacific, deprived socioeconomic groups, migrants, mobile groups)
- Strategies to improve immunisation coverage for special groups (including hapu wāhine/pregnant women, severely immunocompromised, pēpi/babies of mothers who are hepatitis B positive, those without a spleen)
- Use scenarios to plan catch-up immunisations