New Zealand College of Public Health Medicine Training Curriculum

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Introduction

What is Public Health Medicine?

Public health medicine is concerned with the health and care of population and population groups. It involves the assessment of population health and health care needs, the development of policy and strategy, the promotion of health and health equity, the control and prevention of disease, and the organisation of health and health related services.

Training in Public Health Medicine

The Training Programme is designed to provide the opportunity, structure and guidance for a registrar to develop the knowledge, skills and professional attributes required to practise as a Public Health Medicine Specialist (PHMS).

When the registrar has successfully completed all requirements of the Training Programme, they are eligible to apply for Fellowship of the New Zealand College of Public Health Medicine (NZCPHM, or College). The registrar may then apply to the Medical Council of New Zealand for vocational registration in Public Health Medicine, enabling them to practise independently as a specialist in this scope of medicine.

Eligibility for the Training Programme

In order to enter the Training Programme, the applicant must be a medical practitioner registered in the general scope (or vocational scope in another specialty) with the Medical Council of New Zealand; have at least two years' postgraduate medical experience; and hold New Zealand permanent residency or citizenship. Details of how to apply can be found on the College website. Applicants with prior experience or previous postgraduate study in public health may apply for credit towards training under the College's Recognition of Prior Learning policy.

Structure of the Training Programme

The Training Programme has two stages:

- Basic Training (16 months/69 weeks Full Time Equivalent (FTE)) involves studying towards a College approved Master of Public Health degree as well as other training activities.
- Advanced Training (29 months/126 weeks FTE) requires the registrar to be employed in a series of accredited Workplace Training Sites.

The Training Programme is accredited by the Medical Council of New Zealand and, to maintain accreditation, it must demonstrate that it meets the quality standards expected of a training programme for a medical speciality.

The Curriculum

The Training Programme Curriculum (Curriculum) provides a framework within which registrars, supervisors and external professional bodies can understand the knowledge, skills and professional attributes required of a Public Health Medicine Specialist. The Curriculum details the level of competence that a registrar is expected to reach by the end of their public health medicine training. It also provides guidance regarding ways to develop and demonstrate attainment of the knowledge, skills and professional attributes for public health medicine practice, and assists registrars in planning and addressing their training needs and choice of workplace.

The Curriculum defines and describes:

- The profile of a graduate of the training programme
- Models of learning and educational strategies that help define the learning pathway
- The principles that underpin the training programme

- The training framework
- The learning opportunities available to a registrar
- How a registrar will be supported in their training
- How a registrar will be assessed

The Graduate Profile

A graduate of the New Zealand College of Public Health Medicine training programme is entitled to describe themselves as a Public Health Medicine Specialist, and is expected to:

Have the knowledge and skills required for practice as Public Health Medicine Specialist in New Zealand, including being able to

- understand public health concepts and issues
- collect data and use information/data relevant to public health
- communicate effectively
- plan and deliver analyses of public health issues
- respond appropriately to public health issues including advising, taking action and evaluating outcomes
- build relationships with communities and organisations
- manage self and others
- lead and influence effectively

Behave professionally and demonstrate the values of the College through

- Behaving honestly, ethically, and in a culturally safe manner
- Advocating to improve public health and reduce public health inequities in Aotearoa New Zealand
- Working in partnership with Māori
- Undertaking training and continuing professional development to ensure the safety and effectiveness of their practice
- Supporting colleagues and multidisciplinary teams personally and professionally
- Seeking to use evidence as the basis of their practice
- Seeking sustainable processes and outcomes
- Working with vulnerable communities
- Recognition of New Zealand's status as a Pacific Nation

Be able to practice in a variety of public health work settings

Common roles undertaken by Public Health Medicine Specialists include

- *Medical Officer of Health:* The Medical Officer of Health works as part of a team alongside other public health professionals to protect and promote the health of that community. This role includes regulatory functions and is based in a Public Health Unit within a District Health Board.
- *Other Public Health Unit roles:* these roles may include working in areas such as information and analysis, 'health in all policies' and health promotion.
- *Strategy, Funding and Planning:* these roles are based within District Health Boards and are focussed on needs assessment, population health input to DHB plans and processes, prioritisation and allocative decision making.
- *Advisory:* Public Health Medicine Specialists work in a variety of advisory roles, including providing advice on regulatory and health policies, service development and planning of programmes.
- *Leadership and Management:* These are roles within the health sector that focus on population-based services and personal health treatment services. Public Health Medicine Specialists lead Ministry of Health programmes, provide advice to communities on ways to improve health outcomes, protect populations from environmental and biological hazards, and assess populations' needs for health services.
- *Academic Public Health:* These research and teaching roles require a high level of academic expertise, and training for them usually includes a doctorate.

Models of Learning

The Curriculum uses the following models of learning:

Miller's Triangle of staged attainment of learning outcomes[1,2,3]

In every step the underlying level is the building block for the next level:

- *Knows*: The knowledge required to be able to fulfill future tasks.
- *Knows how*: Whether the registrar knows how to use the knowledge.
- *Shows how*: The registrar is able to show that he/she can perform in a simulated environment (based on his/her knowledge).
- *Does:* Acting independently in the complex situation in an everyday context.

The last step demands thorough analysis of how to incorporate a skill into an everyday situation and still being able to reflect on it as a learning experience.

Kolb's process of experiential learning as a learning cycle identifies the importance of experiences and reflection in learning:[4]

- *Concrete experience*: something the registrar sees or does.
- *Reflective observation*: the registrar reviews the event or experience in his/her mind and explores what happened and what he/she and others felt about it.
- *Abstract conceptualization*: develop an understanding of what happened by seeking more information and forming new ideas.
- *Active experimentation*: takes place when the registrar tries out the new ideas, which result from earlier experience and reflection.
- *Concrete experience*: adopting the new ideas into practice, starting the learning cycle again.

Spiral learning is a process in which educational concepts, knowledge and skills are presented in a recurrent manner, so that proficiency and integration are progressively fostered and tested in the development of understanding and practical competence. Spiral learning aids the development of professional reasoning.[5]

Critical, structured reflection is an essential part of learning and professional development. The act of reflection on work and activities can guide the registrar towards discovering, exploring, and evaluating relationships between what he/she has learnt through academic studies and his/her experience in the workplace. The registrar is encouraged to reflect on his/her work during supervisory meetings and in written reports.

Registrars are also encouraged to learn with their peers. ***Peer Support*** provides an informal mechanism for offering intangible and practical support when requested or when the need for support is perceived. Peer Support can also take the form of self-directed registrar groups to meet and work together as a peer group. A peer group provides members with the opportunity to take part in a process of review during which they are assisted to reflect on and analyse their own performance, informed by the views of their peers.

[1] The Faculty of Public Health of the Royal Colleges of Physicians of the United Kingdom. Public Health Training Curriculum - 2007. London: UKFPH, 2007.

[2] Norcini JJ. Work based assessment. BMJ. 2003;326(7392):753-5.

[3] Miller GE. The assessment of clinical skills/competence/performance. Acad Med, 1990;65(9 Suppl):S63-7.

[4] Kolb D. Experiential Learning: experience as the course of learning and development. Englewood Cliffs, New Jersey: Prentice Hall; 1984.

[5] Burill J. et al. An Introduction to Practice Education. Making Practice Based Learning Work Project. School of Health Sciences, University of Liverpool: Liverpool; 2004.

Expectations of the Training Programme

The following points describe the general principles of the College's approach to ensuring that graduating registrars are competent to practice as Public Health Medicine Specialists. The College acknowledges that registrars are adult learners and that the experience of training in public health medicine will be different for each participant.

- Registrars are expected to actively uphold the principles of te Tiriti o Waitangi.
- Throughout their training, registrars are expected to plan and organise opportunities to develop the underpinning knowledge, core skills and professional attributes required by the training framework, and to demonstrate these through a variety of work activities and achievements.
- Upon entry into advanced training, registrars are likely to need a considerable degree of support and supervision in carrying out activities that develop the core skills. As registrars progress through advanced training, they should become increasingly able to perform the core skills, require less support and supervision, and be able to undertake increasingly complex tasks and projects.
- It is expected that registrars will demonstrate the professional attributes in each workplace, with growing confidence.
- As they approach the end of training, registrars are expected to demonstrate integration of the required knowledge, core skills and professional attributes, in preparation for being able to practice public health medicine independently.

The Training Framework

Introduction to the framework

The College's training framework consists of three areas, as follows:

Knowledge
Have a broad understanding of public health concepts and issues
Core skills
Ability to collect and use information/data relevant to the public health question or situation
Ability to communicate effectively for public health practice
Ability to plan and deliver effective analyses of public health issues
Ability to advise on public health issues affecting different population groups
Ability to advise on the optimal public health response to specific health issues
Ability to take public health action and evaluate the outcome
Ability to build relationships with communities and organisations and practise in a culturally safe manner
Professional Attributes
Behave in ways appropriate to the profession and the specialty of public health medicine

The first component of the Training Framework is *'knowledge*' whereby registrars are expected to have a broad understanding of public health concepts and issues. This is achieved through a combination of undertaking a Master of Public Health (MPH) during Basic Training and attending other workshops and courses during the entire training programme.

The second component of the Training Framework is *'core skills'*. These are the skills that underpin public health medicine practice and are transferable to any public health medicine context or work. Advanced training builds on the knowledge and skills acquired in basic training, and 'learning on the job' facilitates the development of the majority of core skills. Advanced registrars are expected to attain competence in the seven core skills with increasing independence so that by the end of training they are able to practise as Public Health Medicine Specialists.

The final component of the Training Framework is '*professional attributes'*. Throughout the training programme, registrars are expected to develop their abilities and maintain their commitment to good professional practice in public health.

Competencies for Public Health Medicine Practice

This training framework draws on the College's Public Health Medicine Competencies[6], which are a detailed description of Public Health Medicine Specialist attributes and activities, designed to reflect the scope of practice of Public Health Medicine in New Zealand. There is a total of 116 Competencies, which are grouped into 15 broad areas:

1. Professional development and self-management competencies
2. Communication, leadership and teamwork competencies
3. Culturally safe practice
4. Māori health and te Tiriti o Waitangi competencies
5. Ethnic minority health competencies
6. Public health information and critical appraisal competencies

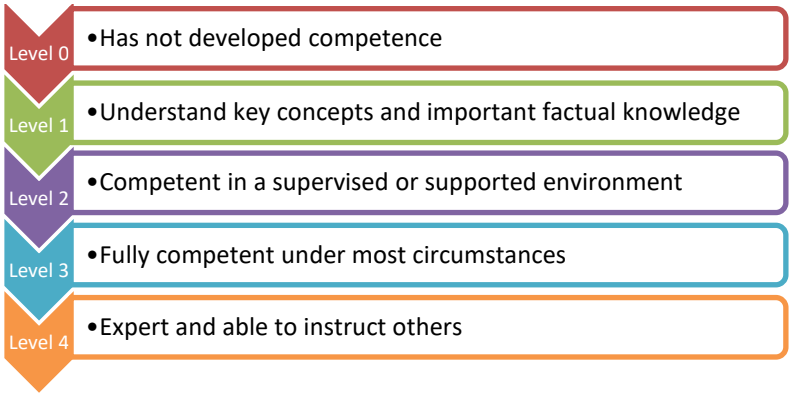
[6] See Appendix 1.

7. Public health research and teaching competencies
8. Health care and public health programme evaluation competencies
9. Policy analysis, development and planning competencies
10. Health promotion and community development competencies
11. Health protection and risk management competencies
12. Infectious disease prevention and control competencies
13. Chronic disease, mental illness and injury prevention competencies
14. Health sector development competencies
15. Organisational management competencies

Registrars are expected to gain an understanding of the key concepts and important factual knowledge for the Competencies during their training. Of the 116 Competencies, 19 describe the professional attributes that are required in public health medicine practice and a further 41 reflect the most common contexts in which registrars will be expected to apply their skills.

Levels of Competence

The Competency framework includes five stages of competence development, ranging from 0 – 4 as shown below:



Levels of Competence

These levels are not distinct, separable steps. Rather, they indicate the continuum along which registrars' development of competence progresses during their training. At the end of training registrars are expected to be able to practice as independent Public Health Medicine Specialists, which means that they will need to be fully competent under most circumstances in the core skills and attributes. 'Most circumstances' indicates that, although they are fully competent, a newly graduated PHMS may need to seek input from others when undertaking work in an area that is new to them to ensure that they apply their knowledge, skills and professional attributes to the best effect.

Required knowledge, skills and attributes

Knowledge

The scope of knowledge is defined by the Competencies, and by the end of training registrars are expected to understand key concepts and important factual knowledge that underpin the Competencies. Much of the required knowledge will be acquired during the Master of Public Health, and this will be complemented by College-led training, Registrar-led training, as well as any additional training opportunities.

Core Skills

The Competencies that are associated with the core skills indicate ways in which they can be applied. In order to address the College's commitment to reducing health disparities between Māori and non-Māori Competencies 4.1 and 4.2 are compulsory; in addition, Competency 3.1 is also compulsory. This reflects the expectation that registrars will routinely consider the implications of te Tiriti o Waitangi in their public health practice and the development of their own cultural safety. Registrars should be familiar with the Medical Council's requirement for cultural safety, and their position on how doctors can support the achievement of best health outcomes for Māori health equity.[7] [8]Registrars will routinely have the opportunity to demonstrate core skills in different contexts with increasing levels of independence throughout their training. Registrars are expected to:

- Demonstrate each core skill through a range of applications
- Demonstrate each core skill in their work in each full year of advanced training
- Demonstrate the core skill at a level appropriate to their stage in the training programme, that is, demonstrate a decreasing requirement for supervision and an ability to apply the skills to increasingly complex and less structured work.

This means that the application of aspects of some core skills will inevitably be demonstrated with less well-developed competence than others, depending on when during a registrar's training he/she has the opportunity to work in particular contexts. Towards the end of a registrar's last workplace attachment, he/she should be demonstrating each core skill with a high degree of independence.

Demonstration of competence in the core skills includes records of workplace activities and achievements during advanced training, and assessments undertaken.

Professional Attributes

It is expected that, as registered medical practitioners, registrars will already have a good level of understanding and practice of the majority of the professional attributes required of them as Public Health Medicine Specialists. Registrars are expected to be familiar with the Medical Council's publication 'Good Medical Practice'.[9]

During training registrars will develop their professionalism, such that they are fully competent by the end of their training. Progress will be documented by workplace supervisors on a quarterly basis, complemented by quarterly registrar reflection and evidence of developing competence in this area.

Where a registrar's level of competence in the professional attributes is not at a level appropriate to their stage of training, this will be identified in quarterly review meetings and a plan for remediation drawn up by the registrar in consultation with the Training Programme Supervisor (TPS)[10]. Progress will be monitored by the TPS, including meeting more frequently than quarterly, and through other additional means if deemed necessary by the Training Programme Director (TPD)[11] in consultation with the TPS.

[7] Medical Council of New Zealand, Statement on cultural safety. 2019, MCNZ: Wellington

[8] Medical Council of New Zealand, He Ara Hauora Māori: A Pathway to Māori Health Equity. 2019, MCNZ: Wellington

[9] Medical Council of New Zealand, Good Medical Practice. 2013, MCNZ: Wellington

[10] Each registrar is allocated to a TPS who provides ongoing supervision throughout the training programme.

[11] The TPD provides national professional leadership and oversight of the training programme.

Training Framework

Component	Requirements	Competencies
KNOWLEDGE		
Have a broad understanding of public health concepts and issues	Understand key concepts and important factual knowledge The ongoing process of learning will occur through a range of opportunities including the MPH.	All competencies (see Appendix 1)
CORE SKILLS		**Note: The Competencies provide examples of different applications of the core skills**
Ability to collect and use information/data relevant to the PH question or situation	Demonstrate the core skill through a range of applications Demonstrate the core skill in each full year of advanced training Success in the MPH may demonstrate most of these information/ data collection skills in a supported or supervised environment	6.3 Ability to store and swiftly access essential public health information 6.4 Ability to conduct effective literature reviews 6.5 Ability to critically assess published literature and other evidence 6.6 Ability to use suitable information sources to describe the health of populations
Ability to communicate effectively for public health practice	Demonstrate the core skill through a range of applications Demonstrate the core skill in each full year of advanced training Activities contributing to demonstration of this Core Skill include the summative assessments: Assessed Written Report, Direct Observation - Oral Presentation/Chairing a Meeting and the Examination	2.8 Ability to communicate effectively using written and electronic media 2.9 Ability to communicate effectively through oral discussion and presentations 2.10 Ability to communicate effectively using the mass media

Ability to plan and deliver effective analyses of public health issues	Demonstrate the core skill through a range of applications Demonstrate the core skill in each full year of advanced training In addition, Competency 4.1 should be demonstrated in each full year of training, at a level appropriate to the year of training	4.1 Ability to analyse public health issues from a Tiriti o Waitangi perspective 7.1 Ability to design and conduct effective research studies 9.2 Ability to conduct health needs assessments to inform policy 11.2 Ability to analyse surveillance data to support the management of environmental health risks 12.2 Ability to analyse surveillance data to support prevention and control of infectious diseases 13.3 Ability to analyse surveillance data to support the management of chronic diseases, mental illness and injury
Ability to advise on public health issues affecting population groups	Demonstrate the core skill through a range of applications Demonstrate the core skill in each full year of advanced training In addition, Competency 4.2 should be demonstrated in each full year of training, at a level appropriate to the year of training	4.2 Ability to advise on the public health issues affecting Māori 6.11 Ability to advise on major public health determinants and inequalities 6.12 Ability to advise on the public health issues affecting age and gender groups
Ability to advise on the optimal public health response to specific health issues	Demonstrate the core skill through a range of applications Demonstrate the core skill in each full year of advanced training	10.1 Ability to apply a health promotion approach to analysing public health problems 11.1 Ability to advise on the public health management of environmental health risks 12.1 Ability to advise on the public health management of infectious diseases 13.1 Ability to advise on the public health management of chronic diseases, mental illness and injury 13.2 Ability to advise on the determinants of chronic disease, mental illness and injury and their public health management 14.1 Ability to promote a population health approach within the health and disability care sector 15.1 Ability to apply effective management principles to public health and other relevant organisations

Ability to take public health action and evaluate the outcome	Demonstrate the core skill through a range of applications Demonstrate the core skill in each full year of advanced training	6.2 Ability to rapidly assess and respond to urgent public health questions 6.7 Ability to analyse and communicate the risk of adverse events in a meaningful way 6.9 Ability to design and evaluate disease and hazard surveillance systems 6.10 Ability to design and evaluate screening programmes 8.1 Ability to evaluate health services and public health programmes 9.1 Ability to develop and influence policy to improve public health and reduce inequalities 10.2 Ability to develop health promotion programmes in response to public health problems 11.3 Ability to use regulatory measures to protect and promote health 11.7 Ability to manage public health emergencies (arising from natural disasters or environmental means)
Ability to build relationships with communities and organisations and practise in a culturally safe manner	Demonstrate the core skill through a range of applications Demonstrate the core skill in each full year of advanced training	3.2 Ability to communicate effectively with people of other cultures 3.4 Ability to plan, analyse, research, and evaluate public health issues in a culturally competent manner, in order to achieve health equity 3.5 Ability to develop and implement policy, proposals and programmes from a culturally cognisant perspective 3.6 Ability and commitment to establish effective cross-cultural partnerships to achieve improved public health outcomes 3.7 Ability to contribute effectively to culturally diverse teams 4.3 Ability and commitment to work in partnership with Māori 10.3 Ability and commitment to enable individual and community participation in health promotion
PROFESSIONAL ATTRIBUTES		
Behave in ways appropriate to the profession and the specialty	Difficulties in achieving the professional attributes will be identified via 'exception reporting' complemented by Multi-Source Feedback, one in each full year of training. In addition, Competency 3.1 should be demonstrated in each full year of training,	1.1 Ability and commitment to manage one's own training and continuing professional development 1.2 Ability to establish and maintain career direction and motivation 1.3 Ability to manage time and workload to achieve organisational and professional goals 1.4 Ability to optimise one's personal health

	at a level appropriate to the year of training 1.10 is demonstrated by maintaining a CORE Immediate certificate	1.5 Ability and commitment to practise in a safe manner 1.6 Ability and commitment to work in an ethically sound manner 1.7 Ability and commitment to advocate for timely effective action in response to important threats to public health 1.8 Ability and commitment to practise in a manner that promotes a sustainable physical and social environment 1.9 Ability and commitment to use evidence as the basis for public health practice 1.10 Ability to provide effective first aid in emergency situations 2.1 Ability and commitment to establish highly effective working relationships with colleagues 2.2 Ability to lead and influence effectively 2.3 Ability and commitment to contribute effectively to multidisciplinary teams 2.4 Ability to contribute effectively to organisational processes 2.5 Ability to support the professional development of colleagues and more junior staff 2.6 Ability to manage projects effectively 2.7 Ability and commitment to consult effectively with others in a range of settings 3.1 Ability and commitment to manage one's own development of culturally safe practice 3.3 Ability and commitment to identify and act on cultural bias within health care services and other organisations

Learning Opportunities

Learning opportunities, that is all the activities that stimulate learning for a registrar, utilise two broad types of educational strategies:

- ***Academic learning,*** including courses, conferences, workshops, and self-directed learning. The academic learning strategy is best for developing "knows" and "knows how".
- ***Workplace-based learning*** is learning that is integrated in current work processes and practices and makes use of existing resources. Workplace-based learning has been the predominant strategy for medical learning and is the most important educational strategy for professional skill development and "shows how" and "does".[12]

There are two stages to the Training Programme: the first stage, Basic Training, is academic learning whereas Advanced Training is predominantly workplace-based learning.

Basic Training

The focus of Basic Training is developing the knowledge base for public health medicine specialist practice. The primary learning opportunities come through undertaking postgraduate level papers and a dissertation. Other learning opportunities include College-led training days, registrar-led training days, and seminars offered by the universities. All these are important for establishing connections within the public health networks, including with other registrars and PHMS.

Basic Training requires the registrar to undertake a formal university qualification. The courses approved for this purpose are the Master of Public Health (MPH) degrees offered by the University of Auckland and the University of Otago. The time allocated for completion of Basic Training is 16 months (69 weeks) FTE. A registrar must undertake twelve papers plus a dissertation in order to obtain an MPH.

Other than in the circumstance where an MPH paper is only offered after 16 months FTE, Basic Training, including the submission of the dissertation to the University for marking, must be fully completed before Advanced Training is commenced.

Prescribed MPH Papers

Registrars are required to take certain prescribed papers to ensure they cover the subject areas most relevant to the practice of Public Health Medicine. The prescribed papers differ between the Universities of Auckland and Otago, reflecting the different structure of the courses at each of the universities. Registrars are expected to undertake College prescribed MPH papers prior to optional papers, where the university timetable allows.

University of Auckland

The University of Auckland requires the registrar to enrol for direct entry into the MPH programme. DPH and MPH courses are measured in points.

The College prescribes the following papers at the University of Auckland:

- POPLHLTH 706 Statistics in Health Science
- POPLHLTH 725 Environmental Health
- POPLHLTH 733 Health Promotion Theory and Models
- MAORIHTH 701 Foundations of Māori Health
- POPLHLTH 760 Principles of Public Health
- POPLHLTH 708 Epidemiology

[12] Billet S. Learning in the Workplace: Strategies for Effective Practice. Allen and Unwin: Crows Nest, NSW; 2001.

- POPLHLTH 726 Health Protection
- POPLHLTH 776 Public Health in Practice

Plus either one of

- POPLHLTH 701 Research Methods in Health **or** POPLHLTH 767 Health Services Research Methods

and either one or both of:

- POPLHLTH 718 Health and Public Policy **and / or** POPLHLTH 719 Health Economics

Optional recommended papers are:

- POPLHLTH 709 Evidence for Best Practice
- HLTHMGT 721 Health Management
- POPLHLTH 739 Introduction to Pacific Health
- POPLHLTH 734 Health Promotion Strategies
- POPLHLTH 722 Organisation of Health Systems
- POPLHLTH 704 Qualitative Health Research
- POPLHLTH 707 Statistics in Health Science 2
- POPLHLTH 715 Global Public Health
- POPLHLTH 717 Health and Society
- POPLHLTH 732 Population Youth Health
- POPLHLTH 737 Alcohol, Tobacco and Other Drug Studies
- POPLHLTH 763 Human Vaccinology
- POPLHLTH 765 Nutrition Interventions in Public Health
- MAORIHTH 706 Māori Health Policy and Practice
- MAORIHTH 709 Transformational Research for Māori Health
- MAORIHTH 710 Kaupapa Māori Theory
- MAORIHTH 711 Special Topic: Māori Quantitative Methods

University of Otago

The University of Otago requires the completion of a Diploma of Public Health (DPH) to gain entry to the MPH programme.

The College prescribes the following papers at the University of Otago:

- PUBH 711 Principles in Epidemiology
- PUBH 712 Foundations of Hauora Māori
- PUBH 713 Society, Health and Promotion
- PUBH 714 Public Policy and Health Systems
- PUBH 733 Environment and Health
- PUBH 725 Applied Biostatistics 1 Fundamentals
- PUBH 734 Health Protection
- PUBH 732 Using Epidemiology in Public Health Practice

Plus either one of

- PUBH744 Healthy Public Policy **or** PUBH735 The Economics of Health Policy Decision Making

and one of:

- PUBH721 Methods for Epidemiological Research **or** PUBH723 Survey Methods **or** PUBH724 Introduction to Qualitative Research Methods.

Recommended Optional papers:

- PUBH 726 Applied Biostatistics 2 – Regression Methods
- PUBH 736 Economic Evaluation
- PUBH 737 Public Health Law and Public Health Ethics
- PUBH 738 Global Health Law and Global Health Ethics
- PUBH 739 An introduction to key aspects of, and approaches to, Pacific public health
- PUBH 741 Hauora Māori – Policy, Practice and Research
- PUBH 742 International Health Systems
- PUBH 743 Health Promotion Programme Planning and Evaluation

Dissertation Requirements

A registrar must undertake his/her dissertation in the university's department of Public Health.

The proposed research topic and approach to the dissertation must meet university and Training Programme requirements.

If the university has any prerequisite papers for the dissertation the registrar should ensure these are met. Due to the nature of the dissertation it is strongly recommended that registrars take at least one research paper before the commencement of the dissertation process.

Assessment of the completed dissertation is undertaken by the university. The Training Programme has no separate assessment process.

The College has a document outlining the dissertation process requirements and registrars should make themselves familiar with this process; this is available on the website.

Advanced Training

Advanced Training builds on the knowledge acquired in Basic Training. The focus of Advanced Training is development of the core skills and professional attributes for public health medicine predominantly through workplace-based learning experiences. This stage of training is 29 months (126 weeks) FTE in duration.

Learning opportunities in Advanced Training primarily come from workplace-based learning in Workplace Training Sites. There are a range of workplaces that regularly employ registrars, including:

- Public Health Units of District Health Boards (compulsory training placement),
- Planning and Funding Units of District Health Boards
- The Ministry of Health
- The Department of Public Health, University of Otago
- The School of Population Health, University of Auckland
- Non-Governmental Organisations including Primary Health Organisations

In order to develop the range of core skills, registrars should seek a variety of workplace-based experiences. Workplace Training Sites are required to participate in an accreditation process which requires the site to demonstrate that it complies with a defined set of quality standards set by the College.

Registrars are required to:

- work with his/her TPS to plan workplace training placements during Advanced Training as part of core skill development planning;
- work in at least three different workplaces during Advanced Training;
- undertake a placement within a District Health Board Public Health Unit during Advanced training. Six months FTE is the minimum requirement for this placement and it is strongly advised that it is undertaken in the first year of Advanced training; and
- make his/her own employment arrangements with the Workplace Training Site.

In addition to workplace-based experience, registrars in Advanced Training are required to attend College-led training. Registrars are also encouraged to attend courses, workshops and conferences provided by the workplace.

Self-directed learning is an important part of learning during both Basic and Advanced Training. Registrars are also encouraged to form study groups, in particular for preparation for the Examination and pieces of work submitted as Assessed Written Reports.

Registrars may choose to commence a PhD in their final year of Advanced Training provided they can demonstrate their PhD thesis topic is suitable for Public Health Medicine training and will contribute to the completion of core skills and professional attributes. In some instances, PhD study may be recognised as an advanced training placement, provided that at least two other training placements have been competed, and that the registrar has completed all required training programme competencies and skills except for those that can be gained in an academic environment.

Training Programme Roles

Registrars are expected to be the drivers of their own learning and competence development. They are required to plan and organise the evidence required for documentation of progress and demonstration of competence in the core skills. They are also responsible for identifying gaps in competence development and ensuring that these gaps are addressed with guidance from their supervisors.

The ***Training Programme Supervisor*** is a Fellow of the College with at least 4 years' experience as a PHMS registered in the vocational scope of Public Health Medicine with the Medical Council of NZ; and is responsible for the overall supervision of a registrar in the Training Programme. Supervision is an integral part of facilitating learning for a registrar, particularly in aiding reflection and competency development.

The TPS provides support and guidance to the registrar in identifying gaps in competence development and planning to address the gaps. The TPS, on the basis of the evidence provided by the registrar, will advise the registrar and the College of the registrar's progress in the training programme.

The role of the TPS includes providing high quality supervision through:

- assisting registrars with the development of training plans, including identifying suitable workplace training sites and additional training opportunities
- assessing learning needs and monitoring progress through regular discussions with registrars and other supervisors
- encouraging reflection and providing constructive feedback
- assisting registrars with resolution of any training-related concerns

The ***Workplace Supervisor*** (WPS) is responsible for the professional supervision of a registrar in a specific workplace and for confirming their activities and documented evidence.

The role of the WPS includes providing high quality training through:

- assisting registrars with the development of workplace training plan
- facilitating work experience

- meeting with the registrar regularly and reviewing his/her work programme
- validate Activity Log entries from the relevant workplace
- monitoring progress and encouraging reflection
- providing structured feedback on oral presentations and chairing of meetings
- reporting on registrar progress quarterly

In most workplaces the WPS will be employed by the same organisation ('on-site WPS'), but when an appropriately qualified person is not available in the workplace an off-site WPS will be required. An off-site WPS should provide this role to no more than two registrars at any one time.

The ***Training Programme Director*** provides leadership of the programme and the professional medical context for the Training Programme. He/she works closely with the College staff, the Chair of the Education and Training Committee and the Training Programme Supervisors to ensure delivery of a high quality training programme.

Other roles in the Training Programme include:

- A ***Workplace Trainer*** (WPT) is responsible for supervising a specific piece of work for a Registrar. A Workplace Trainer may be a Fellow of the College, but this is not a requirement. In some cases the WPS may also be the trainer for a particular piece of work.
- A ***Mentor*** is a Fellow of the College and provides impartial and confidential encouragement and support, including career advice for a registrar. A Mentor has no supervisory or assessment role. A registrar makes his/her own arrangements with a Mentor. More than one mentoring relationship may be needed to meet different needs at different stages of training. The Mentor relationship may change (no more frequently than once per year) but may be the same person for the duration of training.[13] There is no requirement for the Mentor to be local to the registrar; virtual meetings are acceptable.

  For information about the mentoring process the Australasian College for Emergency Medicine, ACEM, handbook "Mentoring: A Guide for Emergency Doctors" and online modules are recommended. These are publicly available and appropriate for all specialties.
- An ***Assessor*** is a Fellow of the College with at least 2 years' experience as a PHMS registered in the vocational scope of Public Health Medicine and has expertise in the area being assessed. Assessors provide written assessment of the quality of 'Assessed Written Reports'.

[13] McKimm J, Jollie C, Hatter M. Mentoring: Theory and Practice. London: Imperial College School of Medicine; 2007.

Documentation

The following documentation is used to monitor the registrar's progress in the Training Programme:

Workplace Plan

The purpose of this form is to plan the training experience at each individual worksite. At the commencement of the placement the registrar and WPS meet to discuss the various training opportunities that both the registrar needs, and that the worksite can offer, to enable the registrar to develop the core skills. Ideally, the TPS is also present at this meeting, either in person or by teleconference. The workplace plan should be reviewed by the registrar and WPS on a regular basis and brought to each quarterly meeting with the TPS.

Activity Log (AL)

The Activity Log is an Excel workbook that the registrar completes in a concise manner as they progress through the Training Programme, documenting projects, work and training activities carried out. Each quarter, the WPS and registrar meet to discuss the list of activities for that quarter and the WPS confirms that the activities were carried out and contributed to skill development as described. The Activity Log is provided to the TPS prior to the quarterly review meeting. The workbook includes sheets that show activities 'sorted' by core skill; the TPS will check these prior to the quarterly meeting in order to inform discussions about progress in each core skill area.

Quarterly Report (QR)

At the quarterly meeting, the TPS and registrar will discuss the activities carried out over the last quarter, including any issues or problems arising in the workplace, progress in each core skill area, and professional attributes especially if any concerns were identified by the WPS. The QR form that is forwarded to the College includes a checklist of professional attributes where the WPS identifies any areas of concern and a brief comment by the registrar and TPS on the professional attributes and progress in each core skill area.

Training Summaries

The training summary, submitted to the TPS immediately after training time and all required assessments are complete, provides an overview of the registrar's demonstration of each core skill and a brief summary by the registrar, with commentary from the TPS and TPD. The training summary will also include a record of the registrar's professional attributes drawn from the quarterly exception reporting and the Multi-Source Feedback exercises.

An interim version of the training summary will be discussed at a meeting at approximately 20 months/87 weeks of advanced training, and provided to the College along with the 20 months/87 weeks QR form, which will note any plans to address skill gaps.

Assessment

Basic Training

In Basic Training, assessment is undertaken via the following:

- DPH/MPH University assessments

Grade Requirements

The minimum acceptable grade for individual DPH/MPH papers is B+, with the exception that one B grade (not B-) will be allowed.

If a grade lower than a B, or a second B grade, is awarded the registrar will be required to retake the relevant paper without a study grant and at their own expense. In the meantime, the registrar may continue in the training programme. The re-taken paper must be passed with a grade of at least B+.

If a further grade that does not meet College requirements (i.e. a B grade or lower) is awarded, the registrar will be required to exit the training programme. Exceptions to this will be considered on an individual basis by the Assessment Panel following a recommendation from the Training Programme Director (TPD). The panel will make a recommendation to the Chair of the Education and Training Committee who will make the final decision.

The above requirements apply to papers only and do not apply to the dissertation; the minimum acceptable grade for the dissertation is a B (not B-). If a grade lower than a B is awarded, the registrar will be required to exit the training programme. Exceptions to this will be considered on an individual basis by the Assessment Panel following a recommendation from the TPD. The panel will make a recommendation to the Chair of the Education and Training Committee who will make the final decision.

Advanced Training

In Advanced Training the assessment tools include:

- Direct observation of oral presentation
- Direct observation of chairing of meeting
- Assessed written reports
- Multi-source feedback
- Examination

Formative assessments of oral presentations and chairing of meetings

Registrars are required to complete at least one Direct Observation of Oral Presentation assessment and one Direct Observation of Chairing a Meeting assessment per training year of Advanced Training. These are formative assessments, i.e. there is no requirement to 'pass', but the date of the assessment and the nature of the feedback should be noted on the Activity Log. Assessment and feedback on presentations and chairing meetings should be undertaken by a Workplace Supervisor or another Fellow. A template for feedback is available from the College.

Registrars are expected to gain experience in delivering oral presentations to a variety of audiences, and in chairing meetings of different types (i.e. formal and informal; complex and straightforward; large and small) and to record them in their Activity Log. While there is not a requirement to seek formal feedback on all presentations and meeting chairing, registrars are encouraged to seek feedback, for example using the feedback template, from a suitable person each time they present or chair. Presentations and chairing experiences should also be discussed and commented on in Quarterly Reports and Training Summaries.

By undertaking formative assessments of both oral presentations and chairing of meetings, the core skill 'Ability to communicate effectively for public health practice' (in particular, the demonstration of Competency 2.9 'Ability to communicate effectively through oral discussion and presentation') is

assessed. To a lesser extent, other core skills may also be assessed, depending on the content of presentation or the meeting.

These assessments also provide the opportunity for various professional attributes to be demonstrated, such as 'Ability and commitment to use evidence as the basis for public health practice' and 'Ability and commitment to establish highly effective working relationships with colleagues'.

It should be noted that the requirement for registrars to complete at least one Oral Presentation and at least one Chairing a Meeting assessment per training year applies to both full time and part time registrars. It is important for registrars to gain as much experience as possible in these two activities over the course of their training: the requirement to undertake one formative assessment of each activity per year is the absolute minimum and registrars should aim to practise these activities and seek feedback in every workplace.

Assessed Written Report (AWR)

Academic writing is formally assessed within the Master of Public Health degree. However, it is important for other writing styles such as writing for business, government or the voluntary sector to be formally assessed, as these audiences are fundamental to public health medicine work.

Many reports written for public health practice have contributions from a number of different people. In the case of registrars, the trainer is likely to provide input into the final version of the document. However, for the purpose of the AWR the version submitted must be largely the work of the registrar, as it is the registrar's writing skills that the AWR is intended to assess. If a registrar contributes a section or chapter to a larger report, only the part written by the registrar is required to be submitted (although the larger document can be provided for context, if appropriate).

When submitting the AWR the registrar will be required to declare the amount and nature of the input provided by supervisors or others, and this declaration must be signed off by the person who was the main supervisor for the piece of work. If someone other than the registrar edited the document in order to make it acceptable (e.g. for the client or for publishing) after the registrar had completed the work, then the document submitted must be the pre-edited version. If the registrar is unclear about these authorship requirements in relation to a specific AWR, they must discuss this with their TPS before submitting the AWR.

It is expected that when a registrar is nearing the end of their training, they will submit an AWR in its final form, which has very largely been written by them, i.e. by the end of training, revision and editing by others should not be necessary.

By undertaking Assessed Written Reports, the core skill 'Ability to communicate effectively for public health practice' (in particular the demonstration of Competency 2.8 'Ability to communicate effectively using written and electronic media') is assessed. Depending on the topic of the AWR, a variety of opportunities is provided for registrars to demonstrate a range of other core skills.

Several professional attributes are also likely to be demonstrated in the course of undertaking this assessment, such as 'Ability to manage time and workload to achieve organisational and professional goals'; 'Ability to use evidence as the basis for public health practice'; and 'Ability and commitment to consult effectively with others in a range of settings'.

The requirements for this assessment are as follows:

- Registrars must submit three pieces of written work undertaken during Advanced Training.
- Each AWR must be accompanied by a reflective commentary.
- The word count for an AWR should be between 3,000-10,000 words. A registrar who is writing an AWR that is likely to exceed 10,000 words should discuss this in advance of submission with their TPS to agree a suitable word length for the report.
- Of the three AWRs to be submitted, the first is formative and the second and third are summative.

- It is important that submission of the three AWRs is spread over the period of Advanced Training. The final AWR should provide evidence of several core skills at the level appropriate to an emerging specialist, and therefore should be submitted close to completion of training time.
- Submission deadlines:
  - First AWR by 10 months/43 weeks (FTE) of Advanced Training
  - Second by 18 months/78 weeks (FTE) of Advanced Training
  - Third (final) between 25 and 27 months/109 and 117 weeks (FTE) of Advanced Training
- If required, extensions should be negotiated with, and approved by, the TPS; this should be done prior to the due date. If the AWR is not submitted within the agreed time frame the AWR will not be marked and the registrar referred to the Assessment Panel.
- Each AWR should relate to a different area of public health medicine. Note this does not mean that only one AWR may be submitted per placement.

  When marked, if the summative AWR does not meet expectations, then the registrar will not be allowed to re-work that same document for resubmission; a new report must be submitted (a 'resit'). The deadline for submission of a resit will be the next AWR milestone i.e. a fail grade at 18 months (FTE) will mean that two AWRs must be submitted by 27 months (FTE). Registrars are however encouraged to submit a resit before the next timeframe.

  If a registrar has only passed one summative AWR by the end of their training time the registrar will be allowed a further 10 months (unfunded) to submit their final AWR. Note these are calendar months, i.e. the time frame is not extended for part time registrars. If, 12 months after the end of their training time two summative AWR assessments have not been passed, the registrar will be required to exit the training programme.

  If a registrar has not passed any AWRs by the end of their training time they will be required to exit the training programme.

Each AWR is assessed by two College approved assessors who agree on the final grade to be awarded.

Multisource Feedback (MSF)

Throughout the training programme, registrars are expected to develop their competence in the core skills and professional attributes, and progress is reviewed quarterly by the WPS and TPS. The Multi-Source Feedback (MSF) widens the pool of people providing feedback to the registrar and enables this feedback to be given anonymously.

The registrar's work colleagues evaluate the performance and professional behaviour of the registrar using defined criteria. The registrar also completes the assessment, for comparison.

Registrars are required to participate in at least two formative MSF assessments, one in each training year, during the course of Advanced Training. If the second MSF indicates the need for further development of professional attributes, a further MSF may be helpful to demonstrate an appropriate level of performance, to support the final training summary. The two MSF assessments should be undertaken in different workplaces. The Training Programme Supervisor discusses the results of each MSF with the registrar and agreed areas for improvement are documented.

Examination

Registrars are required to sit and pass an oral examination conducted by College appointed examiners. The exam is generally taken no earlier than five months FTE prior to completion of training time.

One of the five key principles of the training programme is that, *"as they approach the end of training, registrars are expected to demonstrate integration of the required knowledge, core skills*

and professional attributes, in preparation for being able to practice public health medicine independently". The exam provides the opportunity for the registrar to demonstrate this integration in a formal setting and is assessed by examiners who have minimal familiarity with the registrar, thereby providing an independent assessment.

The exam also assesses the ability of the registrar to verbally articulate their knowledge and understanding in a coherent manner, and in the challenging context of exam conditions. It provides a stimulus for the registrar to revise their knowledge base and the methods and frameworks for implementation of the core skills. The exam conditions also provide reliability that the answers given are the registrar's alone.

Exam Domains

Domains for the examination align to the core curriculum competency areas. Examples of areas that may be examined include:[14]

Communication / Leadership / Teamwork	NZ Health System and Policy Analysis, Development and Planning	Organisational Management / Health Management
Environmental Health	Māori Health / Te Tiriti o Waitangi application to health	Screening
International Public Health	Culturally Safe Practice	Chronic Disease, Mental Illness, and Injury Prevention
Health Promotion and Community Development	Epidemiology / Critical Appraisal	Health Sector Development
Health Care and Public Health Programme Evaluation	Health Research / Ethics	Health and related Information
Communicable Disease Control	Health Inequities	Current and Emerging Issues in Population and Public Health

Transition Arrangements

The changes to DPH/ MPH grades requirements will apply only to registrars entering the training programme from the 2016 intake onwards.

The requirement to submit one formative and two summative AWRs, and meet the AWR submission dates will apply to all registrars entering advanced training from 1 March 2016 onwards.

Registrars who have completed less than 12 months FTE Advanced Training at 1 March 2016 will be required to meet the 27 month submission date only. Registrars who have completed 12 months or more (FTE) of Advanced Training at 1 March 2016 will have no new submission dates imposed.

All registrars in Advanced Training at 1 March 2016 will be required to submit three summative AWRs, unless they are able to submit one AWR by 10 months FTE advanced training in which case it will be assessed as a formative AWR and only two summative AWRs will be required.

[14] This list is not exhaustive and examination questions may be drawn from any relevant area in public health medicine.

Assessment Panel

The Assessment Panel monitors the progress of registrars in the Training Programme, who have been referred to the Panel by the Training Programme Director, whose progress have been less than satisfactory. In such cases the Panel makes recommendations to the Chair of the Education and Training Committee with respect to:

1) when additional or differing training requirements should be imposed
2) when an individual registrar should be required to take interrupted training or exit the training programme due to unsatisfactory progress, or other issues with progression of training
3) approving the amount of Accredited Training Time for registrars where performance issues have been raised
4) any special conditions for individual registrars who have met the eligibility requirements and wish to sit the exam.

The Training Programme Director annually approves the amount of accredited training time for each registrar where no problems in training have arisen.

Remediation

A registrar will normally complete Basic Training in 16 months (69 weeks) FTE and Advanced Training in 29 months (126 weeks) FTE. Rarely, some registrars will progress more slowly and will need additional assistance. Remediation will be tailored to the individual and to the particular milestone or learning outcome causing difficulty. The principles of remediation are:

- the early identification of difficulty and the particular support needed
- focused support to address identified need, with
- regular monitoring and feedback to avoid surprises, and
- appropriate evidence of progress which supports all decisions taken[15]

Completion of Training

In order to successfully complete training, registrars are required to

- successfully complete a MPH within the period required by the College
- successfully complete a minimum of 29 months (126 weeks) FTE Advanced Training through the satisfactory completion of:
    - formative assessments
    - summative assessments
    - all required documentation including the Interim and Final Training Summary; and
    - demonstrate the Core Skills and Professional Attributes to the required standard.

At the end of Advanced Training, the College's Assessment Panel will make a judgement as to whether the registrar is capable of practising independently as a PHMS. This judgement is based on:

- the registrar's demonstration of each individual core skill and professional attribute
- the integrated performance of the knowledge, core skills and professional attributes
- the registrar's reflection on their achievements
- successful completion of the required assessments.

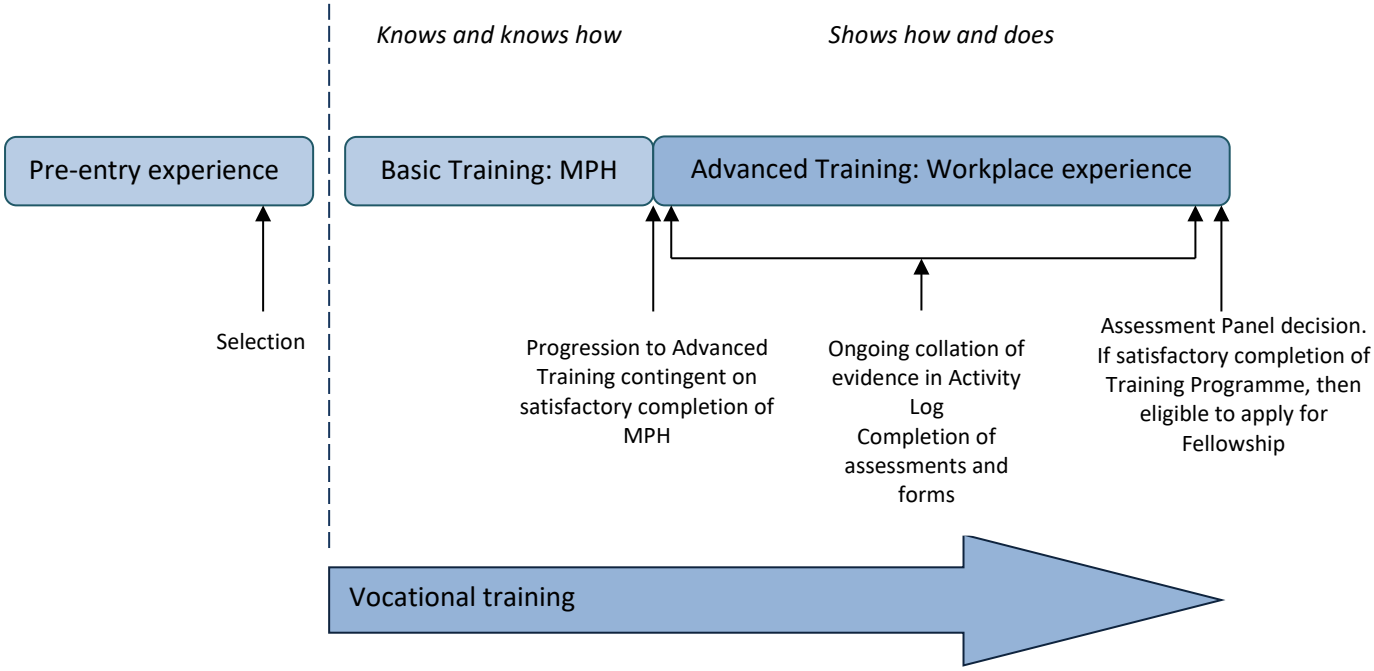
[15] The UK's Faculty of Public Health. Assessment. London: Faculty of Public Health; 2010. Available from: http://www.fph.org.uk/assessment

If the College deems the registrar to be competent to practise as a public health medicine specialist, a 'Completion of Training' certificate is awarded. Should the College decide that the registrar is not capable of practicing independently, remedial action may be offered.

On completion of training, registrars join the College's professional development programme and continue to develop and maintain their competence.

Irrespective of whether the Training Programme is undertaken full time or part time, all registrars must achieve all the core skills and demonstrate the professional attributes, and pass all summative assessments within ten years in order to be able to apply for Fellowship and vocational registration in the scope of public health medicine with the Medical Council of New Zealand. Registrars who are unable to complete the requirements of the Training Programme within the ten-year period are not eligible to continue in training.

Diagram showing Pathway through the Training Programme



Reconsideration and Review Processes

The College Reconsideration and Review Process is relevant to key decisions and recommendations made by the College in relation to Public Health Medicine Registrars.

Curriculum Development and Review

This Curriculum was agreed through a process led by the College Education Committee and approved by the NZCPHM Council in November 2009. It underwent review in 2014 when the training framework was introduced and in 2015 when the assessments were amended.

The Training Programme will continue to undergo regular review by the College in order to ensure that the programme remains fit for purpose. Minor changes (clarification and updating) will be undertaken by the Training Programme Director in consultation with College staff and the Chair of the Education and Training Committee. Major changes will be carefully managed using transition arrangements approved by the Education and Training Committee and the College Council so that registrars are not disadvantaged in any way. Revised policies and processes will be made available on the College website in advance of the period to which they refer, and registrars affected will be notified in writing.

Appendix 1

New Zealand College of Public Health Medicine Competencies

1. Professional development and self-management competencies

	Competency
1.1	Ability and commitment to manage one's own training and continuing professional development
1.2	Ability to establish and maintain career direction and motivation
1.3	Ability to manage time and workload to achieve organisational and professional goals
1.4	Ability to optimise one's personal health
1.5	Ability and commitment to practise in a safe manner
1.6	Ability and commitment to work in an ethically sound manner
1.7	Ability and commitment to advocate for timely effective action in response to important threats to public health
1.8	Ability and commitment to practise in a manner that promotes a sustainable physical and social environment
1.9	Ability and commitment to use evidence as the basis for public health practice
1.10	Ability to provide effective first aid in emergency situations

2. Communication, leadership and teamwork competencies

	Competency
2.1	Ability and commitment to establish highly effective working relationships with colleagues
2.2	Ability to lead and influence effectively
2.3	Ability and commitment to contribute effectively to multidisciplinary teams
2.4	Ability to contribute effectively to organisational processes
2.5	Ability to support the professional development of colleagues and more junior staff
2.6	Ability to manage projects effectively
2.7	Ability and commitment to consult effectively with others in a range of settings
2.8	Ability to communicate effectively using written and electronic media
2.9	Ability to communicate effectively through oral discussion and presentations
2.10	Ability to communicate effectively using the mass media

3. Culturally safe practice competencies

Competency	
3.1	Ability and commitment to manage one's own development of culturally safe practice
3.2	Ability to communicate effectively with people of other cultures
3.3	Ability and commitment to identify and act on cultural bias within health care services and other organisations
3.4	Ability to plan, analyse, research, and evaluate public health issues, in a culturally competent manner, in order to achieve health equity
3.5	Ability to develop and implement policy, proposals and programmes from a culturally cognisant perspective
3.6	Ability and commitment to establish effective cross-cultural partnerships to achieve improved public health outcomes
3.7	Ability to contribute effectively to culturally diverse teams

Note that *culture* includes ethnicity, gender, age, disability, sexual orientation, religious and spiritual beliefs, socioeconomic status, occupation, geographic region and lifestyle.

4. Māori health and te Tiriti o Waitangi competencies

Competency	
4.1	Ability to analyse public health issues from a Tiriti o Waitangi perspective
4.2	Ability to advise on the public health issues affecting Māori
4.3	Ability and commitment to work in partnership with Māori

5. Ethnic minority health competencies

Competency	
5.1	Ability to advise on the public health issues affecting ethnic minorities in New Zealand
5.2	Ability to work in partnership with ethnic minorities

6. Public health information and critical appraisal competencies

Competency	
6.1	Ability to plan and deliver effective analyses of public health issues
6.2	Ability to rapidly assess and respond to urgent public health questions
6.3	Ability to store and swiftly access essential public health information
6.4	Ability to conduct effective literature reviews
6.5	Ability to critically assess published literature and other evidence
6.6	Ability to use suitable information sources to describe the health of populations

6.7	Ability to analyse and communicate the risk of adverse events in a meaningful way
6.8	Ability to advise on health and public health information systems
6.9	Ability to design and evaluate disease and hazard surveillance systems
6.10	Ability to design and evaluate screening programmes
6.11	Ability to advise on major public health determinants and inequalities
6.12	Ability to advise on the public health issues affecting age and gender groups
6.13	Ability to advise on the optimal public health response to specific health issues
6.14	Ability to advise on the implications of international events for public health

7. Public health research and teaching competencies

Competency	
7.1	Ability to design and conduct effective research studies
7.2	Ability to design sound observational epidemiological studies
7.3	Ability to advise on trials to measure the effectiveness of interventions
7.4	Ability to design and manage data collection for studies
7.5	Ability to perform suitable epidemiological analyses
7.6	Ability to analyse and interpret the spatial distribution of health related events
7.7	Ability to analyse alternative disease prevention and control strategies in a quantitative manner
7.8	Ability to use qualitative methods to investigate public health issues
7.9	Ability to teach effectively
7.10	Ability to support an effective research base for public health

8. Health care and public health programme evaluation competencies

Competency	
8.1	Ability to evaluate health services and public health programmes
8.2	Ability to implement the results of evaluations to improve health services and public health programmes
8.3	Ability to evaluate health technologies and interventions
8.4	Ability to monitor access to and use of health technologies and interventions

9. Policy analysis, development and planning competencies

Competency	
9.1	Ability to develop and influence policy to improve public health and reduce inequalities
9.2	Ability to conduct health needs assessments to inform policy
9.3	Ability to conduct health impact assessments
9.4	Ability to conduct priority setting processes to inform policy
9.5	Ability to develop and use goals, targets and indicators
9.6	Ability to manage policy implementation effectively
9.7	Ability to analyse policy and proposals from an economic perspective
9.8	Ability to analyse policy and proposals from an equity perspective
9.9	Ability to analyse policy and proposals from an ethical perspective

10. Health promotion and community development competencies

Competency	
10.1	Ability to apply a health promotion approach to analysing public health problems
10.2	Ability to develop health promotion programmes in response to public health problems
10.3	Ability and commitment to enable individual and community participation in health promotion
10.4	Ability to establish effective partnerships and inter-sectoral action to achieve improved public health outcomes
10.5	Ability to advocate for action to respond to public health problems
10.6	Ability to advise on development of health educational material

11. Health protection and risk management competencies

Competency	
11.1	Ability to advise on the public health management of environmental health risks
11.2	Ability to analyse surveillance data to support the management of environmental health risks
11.3	Ability to use regulatory measures to protect and promote health
11.4	Ability to use regional and local planning processes to protect and promote health
11.5	Ability to advise on protecting and promoting health in important settings
11.6	Ability to work with other agencies to manage imported hazards
11.7	Ability to manage public health emergencies (arising from natural disasters or environmental means)

11.8	Ability to investigate and manage clusters of non-infectious disease cases
11.9	Ability to conduct environmental health risk assessments
11.10	Ability to manage environmental health risks
11.11	Ability to communicate environmental health risk information effectively to the public and other groups

12. Infectious disease prevention and control competencies

Competency	
12.1	Ability to advise on the public health management of infectious diseases
12.2	Ability to analyse surveillance data to support prevention and control of infectious diseases
12.3	Ability to manage infectious disease control measures
12.4	Ability to investigate and manage infectious disease outbreaks
12.5	Ability to develop and implement effective inter-sectoral strategies for prevention of infectious diseases

13. Chronic disease, mental illness and injury prevention competencies

Competency	
13.1	Ability to advise on the public health management of chronic diseases, mental illness and injury
13.2	Ability to advise on the determinants of chronic disease, mental illness and injury and their public health management
13.3	Ability to analyse surveillance data to support the management of chronic diseases, mental illness and injury
13.4	Ability to advise on the public health response to alcohol, tobacco and other drugs
13.5	Ability to advise on the public health implications of genetic factors and technologies
13.6	Ability to develop and implement effective inter-sectoral strategies for prevention of chronic diseases, mental illness

14. Health sector development competencies

Competency	
14.1	Ability to promote a population health approach within the health and disability care sector
14.2	Ability to influence clinical staff to adopt a population health approach
14.3	Ability to produce and implement best practice guidelines for the clinical and public health sectors practice

14.4	Ability to advise on optimal development and operation of the primary health care sector
14.5	Ability to advise on optimal development and operation of secondary and tertiary health services
14.6	Ability to plan developments or changes to health services
14.7	Ability to advise on health service needs of rural and remote areas
14.8	Ability to advise on health sector workforce planning
14.9	Ability to manage contracting processes for purchase or provision of services
14.10	Ability to develop and implement quality improvement programmes for health services
14.11	Ability to investigate and manage serious adverse events and complaints about health services, programmes, and practitioners
14.12	Ability to advise on strategies to address disability

15. Organisational management competencies

Competency	
15.1	Ability to apply effective management principles to public health and other relevant organisations
15.2	Ability to advise on organisational governance issues
15.3	Ability to facilitate strategic and business planning
15.4	Ability to manage staff
15.5	Ability to manage budgets
15.6	Ability to manage organisational changes
15.7	Ability to manage an organisation, health service or business unit