TRAINING THE MEDICAL WORKFORCE 2006 AND BEYOND
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# CONTENTS

**FOREWORD** VII

**EXECUTIVE SUMMARY** IX

1. **INTRODUCTION: THE HEALTH CARE ENVIRONMENT IN 2005** 1
   - Organisation of health care 1
   - Health care challenges 1
   - Workforce pressures 3
   - Stakeholders in health care 5

2. **MEDICAL EDUCATION AND TRAINING AS A CONTINUUM** 8
   - Overview 8
   - Undergraduate education 9
   - Postgraduate years 1 and 2 11
   - International medical graduates 12
   - Apprenticeship learning 12
   - Stimulus for change 14
   - Competency-based training 17
   - Funding of undergraduate and postgraduate medical training 19
   - Cost of medical education and training 20
   - Post-entry clinical training 21

3. **INNOVATIVE SOLUTIONS IN TRAINING AND HEALTH CARE PROVISION** 24
   - Generalist versus sub-specialist medicine 24
   - Primary health care with a rural focus 30
   - A case study of rural/provincial health care 32
   - Chronic care management 33
   - Aged care 34

4. **THE NEED FOR CHANGE: CONCLUSIONS AND RECOMMENDATIONS** 35
   - The main problem areas 35
   - An overall action plan 36
   - Short-term solutions: circuit breakers and co-ordination in context 39
   - Principles and programme design to govern medical education and training 44
   - Recommendations 45

**APPENDICES**
- Appendix 1: Roundtable Membership 47
- Appendix 2: A Consumer Perspective 48
- Appendix 3: Current Education and Training in New Zealand 49
- Appendix 4: Reform of Medical Training in the United Kingdom 53
- Appendix 5: DHBNZ Workforce Development 56
- Appendix 6: Doctors in Training Workforce Roundtable Terms of Reference 57
FOREWORD

In October 2004 the Minister of Health established a Doctors in Training Workforce Roundtable (the Roundtable)¹ to address issues relating to:

- the clinical training of doctors
- the relationship of training with undergraduate medical education
- the environment that supports the development of a trained workforce.

The Roundtable’s prime purpose is to facilitate the training of doctors, in the numbers and of the type required, who are highly motivated, well prepared and committed to practise in New Zealand. In determining the key issues we have identified some ‘circuit breakers’ – things that could be done differently – which could be implemented immediately to alleviate areas of pressure. These are highlighted in section 4. However, more fundamental change will require engagement with the education sector at both undergraduate and postgraduate levels and the involvement of many stakeholders, as identified in the action plan in section 4.

This systematic approach was supported by the previous Minister of Health when she attended a meeting of the Roundtable on 2 August 2005 and encouraged us to take an independent look at current processes and how these need to change. The key message from the Minister at the meeting was that the status quo is unacceptable, and that she was looking for real solutions within the existing system without the need for major structural change, reinforcing the reason why she established this high-level group to consider these issues.

The Roundtable is well aware that there is complementary work under way by the Health Workforce Advisory Committee (HWAC) and District Health Boards New Zealand (DHBNZ) on medical workforce issues. All three groups have worked together so that the Minister of Health can be assured of non-conflicting advice that will lead to the greatest likelihood of positive change. To this end, most matters relating to industrial issues (employment agreements) have been referred to DHBNZ’s Resident Medical Officer (RMO) Strategy Group.²

The Roundtable also acknowledges the work of the HWAC’s Medical Reference Group, and has used the findings from their consultation document Fit for Purpose and for Practice (2005a), which they made available, to enhance the discussions and findings of this report. The Roundtable is confident that, if the recommendations in this report are adopted by the Minister of Health, and, in some cases, in conjunction with the Minister of Education, change can occur expeditiously.

Glenys Baldick
Chair of the Roundtable

¹ The membership of the Roundtable is given in Appendix 1 and the Terms of Reference in Appendix 6.
² The membership is given in Appendix 5.
EXECUTIVE SUMMARY

The Roundtable set about the task of finding solutions to problems relating to the work and professional development of doctors in training by:

- considering what the community and patients need in terms of service delivery, and the workforce implications of this
- identifying problems with the status quo, and the key stakeholders
- considering the training process, from undergraduate to specialist level
- questioning whether the ‘apprenticeship’ model still works, and exploring the use of other models of learning
- identifying new roles
- acknowledging the complexity of the task and the different perspectives of the key stakeholders.

The Roundtable identified five main problem areas:

- the application of the educational model to medical training, and the split of responsibilities for education and training between education and health
- the length of time to train a doctor for professional practice, and the continuity and content of the clinical training component at each stage of learning
- changes in service delivery due to higher levels of acuity in hospitals and shorter lengths of stay, the implications of industrial agreements, and the conflicting pressures of service delivery and training, which have collectively put the traditional apprenticeship model of learning under stress
- whether the right type of doctor is being trained to deliver services in the future environment, with changing demographics and a greater emphasis on primary and community health care
- the implications of the collective agreement with the New Zealand Resident Doctors’ Association.

This report discusses the problems, and seeks to provide solutions and an action plan for implementation. The main recommendations arising from this report are that:

(a) medical education and clinical training is recognised as a continuous learning process, from the first year of undergraduate education to registration as a medical practitioner and beyond

(b) the current arrangements for medical education and training be rationalised and co-ordinated to ensure that the split of funding between education and health is not detrimental to the continuum of learning

(c) education and training of medical practitioners be responsive to the health needs of the community.
To achieve recommendations (a), (b) and (c), we further recommend that:

(d) to achieve gains in the short term and to start the change process, the circuit breakers set out in section 4 are introduced as a matter of urgency

(e) the Ministry of Health:

(i) establish and maintain better links between those involved in the education and training of medical practitioners (Ministry of Education, Tertiary Education Commission, Clinical Training Agency, medical colleges, universities and district health boards) to ensure that:

- a co-ordinated approach is taken to the continuum of medical training from undergraduate level to the different levels of registration for medical practice
- the requirements of the Medical Council of New Zealand are met
- education and training programmes take account of the needs of the health sector in the delivery of medical services

(ii) review, as its first joint task with the other stakeholders, the current provision and funding of undergraduate medical education and its links to prevocational clinical training, giving particular consideration to:

- the role of the trainee intern year
- reviewing the second prevocational year and facilitating recognition of prior learning in subsequent vocational programmes
- providing more resources to assist training in primary care settings, rural areas, and emergency departments

(iii) contract an appropriate body to critically appraise how the traditional apprenticeship training model could be enhanced within the current service delivery environment (eg, by introducing more competency-based training components and the use of providers of health services outside the public hospitals)

(f) District Health Boards New Zealand’s Workforce Development Group be supported and appropriately funded to provide input to the providers of medical education and training on the demand for, and role of, medical practitioners in the future, in both community and hospital settings

(g) District Health Boards New Zealand’s Resident Medical Officer Strategy Group continue to work with the New Zealand Resident Doctors’ Association through the implications of, and the administrative problems associated with, the Collective Agreement with the New Zealand Resident Doctors’ Association

(h) any recommendations for long-term solutions from District Health Boards New Zealand’s Resident Medical Officer Strategy Group take account of the recommendations of the Doctors in Training Workforce Roundtable.
1. INTRODUCTION: THE HEALTH CARE ENVIRONMENT IN 2005

Organisation of health care
The organisation of health care provision in New Zealand has undergone major change over the last two decades, but now has a population-focused and directed approach. Currently, 21 District Health Boards (DHBs) are responsible for the health of the populations they serve. In order to do this, DHBs assess local health care needs, agree priorities for health care provision in line with national priorities and expectations as defined by the Minister of Health and fund health care services. Funding is done both directly through their own provider divisions and indirectly through primary health care services delivered through primary health and other non-governmental organisations.

Although much hospital-based care is delivered directly to local populations through the district base or tertiary hospitals, some services are evolving into regionally based and supported services, which may include the provision of outreach clinics in neighbouring districts, joint inter-district appointments and the rational provision of service components at appropriate sites.

There has been a significant shift in the delivery of health care services from hospital to community care with the attendant need for greater management of chronic conditions in the community and the shortening of the length of hospital stays. In addition, many more procedures can now be done in general practice, outpatients or hospital ambulatory settings.

Health care challenges
In common with other developed countries, New Zealand is facing some important health care challenges which are already affecting the ability to provide effective health care, which will continue to do so into the foreseeable future.

Demographic forecasts
New Zealand’s changing demography will affect the nature and provision of health services required in the future. In 2001, 11.9 percent of the population was aged over 65; this is expected to increase to 13.6 percent by 2011 and 17.6 percent by 2021 (NZIER 2004). Not only will there be greater numbers of older people, they will also be living longer, although disparities will still exist between Māori and non-Māori. In 2002, life expectancies at birth for Māori were 69.0 years for males and 73.2 years for females compared with 77.2 for non-Māori males and 81.9 for non-Māori females (Statistics New Zealand 2004). These demographic forecasts foreshadow increasing demands for the management of chronic conditions and degenerative diseases. In some regions, such as Bay of Plenty, these demographic changes have already occurred.
Inequalities of health must also be addressed, together with the need to reduce and prevent the consequences of lifestyle, particularly obesity and smoking-related conditions.

New Zealand has a highly dispersed population, and many rural communities continue to experience greater difficulty in accessing both primary and secondary services than many urban communities. A particular concern is the relatively poor health status of rural communities, and especially Māori, living in remote and rural regions (Waikato DHB 2004). Some innovations, including outreach services, telehealth and air ambulance services, are helping to address these problems, but the overall provision of health care to remote communities remains an important focus for attention.

Changes in service delivery
At the same time, the way in which services are provided is changing, as more health care is undertaken in the community or on a short-stay or outpatient basis in hospitals. As throughput and acuity increase within hospitals, the ability of both undergraduates and postgraduates to see a patient through an episode of illness in one location diminishes. This demands a review of training processes and opportunities.

Throughout New Zealand, hospital infrastructure is being upgraded, with major new capital assets being developed in many DHBs over the next 10 years. Other DHBs, including Auckland, Canterbury and Waitemata have recently completed sizeable building programmes. Looking forward to health care delivery over the next few decades, many – if not all – of their new buildings have been designed in the expectation of quite important departures from current ways of working, particularly anticipating a dramatic increase in the delivery of health care in ambulatory, rather than inpatient, settings. This is likely to affect training models as more opportunities for learning will be concentrated in outpatient clinics, which are at present infrequently attended by more junior team members whose focus is on ward work.

Changing roles
Experience has shown that, at least for some conditions, a collaborative model of care is the most effective (Asch et al 2005).

Internationally, more attention is being paid to utilising skilled health practitioners most effectively, with the introduction into the health care team of other workers such as technicians, health care assistants and support workers to assist with some specific tasks traditionally done solely by regulated health practitioners. For example, the United States of America has used physician assistants for some time and the United Kingdom is now piloting the involvement of surgical care practitioners (Royal College of Surgeons of England 2005).
In New Zealand new roles for existing professional groups are also developing, such as the rural nurse specialist and the nurse practitioner. While the net cost-benefits of these developments still require evaluation, there is no doubt that their introduction will affect both the nature of, and the opportunities for, training of modern medical practitioners.

**Role of the doctor**

To decide what is important to include within medical training, what skills and competencies are crucial and, indeed, what can/could be devolved or shared with other health care workers, the defining characteristics of a doctor must be considered.

Perhaps the key attributes of a medical practitioner is the extensive body of knowledge that allows an individual practitioner to exercise clinical judgement, make a diagnosis and institute a management plan, often done in the face of a level of uncertainty and considerable complexity. Alongside the diagnostic and therapeutic skills, is the range of technical skills that the doctor must not only know how to do, but, even more importantly, when to do. While this body of knowledge will continue to be expanded and modified throughout a professional career, entry to independent practice as a specialist in any branch of medicine requires the considerable breadth and depth of current medical training.

Underpinning this, key knowledge, skills, attitudes and behaviours are acquired, integrated and applied in the work setting through medical education and training. In *Good Medical Practice: A guide for doctors*, the Medical Council of New Zealand has set out the domains of competence expected of a doctor. These are clinical expertise, communication, collaboration, management, scholarship (lifelong learning, teaching and research) and professionalism (MCNZ 2004). These are the skills and competencies mirrored in the training programmes developed by many of the Australasian medical colleges.

This core and defining role must be taken into account when considering the continuum of medical training and how the role of a doctor interfaces with those of other health care professionals. The interface with other professionals also requires doctors to develop leadership and team working skills.

**Workforce pressures**

Like most developed countries, New Zealand faces urgent and serious challenges in workforce demands.

The demographic pattern of senior doctors in some DHBs and in some specialities shows real cause for concern. In at least one DHB, for example, 25 percent of the senior medical workforce is expected to retire within five years. Male specialists dominate the senior medical workforce, particularly in the older age groups, and some DHBs employ no female specialists at all.
Among junior medical staff, 51 percent of house officers in 2003 were women (MCNZ 2005). Importantly, the average age of resident medical officers (RMOs) is now 33 years (NZRDA 2003), which necessarily affects career and training choices as female doctors balance professional and family demands. Work–life balance is becoming an important factor among medical staff of both genders. Different ways of working and the ability to tailor positions to individual practitioner’s needs and preferences will therefore become increasingly important, both among junior and senior medical practitioners. If there are not female consultants in hospital practice and in general practice who are good role models to inspire young women to consider the different vocations as a viable career choice, the country risks limiting the pool from which new specialist trainees are selected and failing to make the best use of a limited and expensive resource.

There is a need to attract and retain vocationally trained doctors in the public health system to provide high quality service and high quality learning. Economic pressures and workforce needs are likely to require initiatives to encourage senior staff to continue working in the public system – at least in some flexible way – beyond 65 years. This may offer new or additional opportunities in postgraduate education and training, where now the contribution of the most experienced practitioners is lost at retirement.

Radical revision of hours of work internationally has resulted in an unprecedented demand for medical staff: for example, Britain reported recruiting an extra 8000 doctors in 2004 alone (DH 2004), along with 11,200 more nurses and 3000 more allied health professionals and estimates have been published showing one million more healthcare workers will be needed in the USA in the next 15 years, including 200,000 doctors (Cooper 2004).

The various countries affected are responding differently. The USA and Australia generally seem to be planning to buy their way out of the current and future workforce shortages by attracting medical practitioners from overseas (although Australia has increased the number of its medical schools and has a goal of national self-sufficiency). The UK, on the other hand, driven by the twin engines of training redesign towards the Australasian model and working hours restrictions, has opened several new medical schools in the last decade and is also beginning to review how clinical staff work.

In this environment, New Zealand faces hard decisions and change will take considerable negotiation to achieve – not least because the medical profession responsibly tends to conservatism for reasons of patient safety. There is a need for both more senior doctors and new ways of delivering care. In the present international marketplace for health care workers, forcing change inappropriately risks unintended consequences. Nevertheless, New Zealand must explore these issues and particularly the implications for, and flow-on effects on, medical training.
**Stakeholders in health care**

The perspectives of the diverse stakeholders are different, underlining the complexity of the challenges faced in designing a system for the appropriate training of the medical profession within a service delivery environment.

**Consumers**

The primary stakeholders in health care are of course the people of New Zealand, who require fair access to high quality health care appropriately provided and resourced. Increasingly, patients expect to be involved in decisions about their own health and may have accessed various sources of information prior to consulting a professional. A consumer’s perspective of the qualities of a good doctor is contained in Appendix 2 (Federation of Women’s Health Councils Aotearoa New Zealand). These include:

- High level of medical competence – good up-to-date medical knowledge and diagnostic skills, sound technique for medical procedures and awareness of limitations.

**Employers**

DHBs, as direct employers of public hospital-based specialist staff and most trainees, and as funders of the majority of primary care provision, have a strong interest in being able to attract and retain well and appropriately trained clinicians who are responsive to the New Zealand culture and environment. The primary focus of the provider arms of the DHBs, as reflected in the accountabilities required of their management by government, is currently the provision of services with the training of the medical workforce is their secondary focus.

Patients spend shorter times in hospital and are generally sicker while they are there. For medical staff, this increases pressure on ward rounds that become quickly routine business rounds, without time to teach (CEO, District Health Board).

**Trainers**

Universities, as the main teachers of medical undergraduates, aim to provide a research-based education and are responsible for providing the pluripotent medical graduate who can develop a career in any clinical direction of interest. Universities also have the responsibility of growing the next generation of medical academics and researchers.

Both universities have a strong interest in medical workforce development and in addition to undergraduate education play a significant role in medical postgraduate education and are motivated to work constructively with Government in medical workforce development (Otago University Faculty of Medicine).
The medical colleges are the primary standards setters for postgraduate specialty practice and, through the diploma examination system, provide a means of verifying postgraduate training to a specified level. Many, but not all, of the colleges are Australasian in representation, which may create challenges for New Zealand where the needs and provision of services may follow a different model. Several other organisations also provide training, and sometimes set standards, for skills and attributes of postgraduates (eg, the New Zealand Resuscitation Council, Advanced Paediatric Life Support).

Every hospital in Australia and New Zealand training physicians has a director of physician training. This person coordinates, organises and directs training (Clinical Director, Waitemata DHB).

Vocationally registered practitioners, including Senior Medical Officers (SMOs) and general practitioners, play the key role in the apprenticeship model of training, where the junior practitioner observes, practises and gradually acquires the competencies of the senior practitioner. In the current environment, there is increasing pressure on these doctors to balance service delivery requirements with training expectations.

Supervisors and clinical teachers need training on education and teaching (Submission on Fit for Purpose and for Practice).

Non-medical staff also contribute to the training of doctors, especially in teamwork.

Working in a hospital as a nurse means a constant and at times unrecognised contribution to the training of junior medical staff from trainee interns through to registrars. It is, as always, a team approach to get the patients well, with all disciplines learning from each other (Clinical Nurse Specialist, Capital & Coast DHB).

**Trainees**

Trainees are being educated during a time of change. Key areas of change include the way services are being provided, the way medical education is being delivered, the perceived hostility of the medico-legal environment, and the impact of student debt.

Industrial issues such as limitations on working hours, the desire for a work-life balance, requirements for vocational training and relationships with other professional groups are all areas in a state of flux. Advancing technology and how this technology is utilised and financed will also continue to influence medical practice into the future.

Trainees want access to quality teaching and mentorship with flexibility. This flexibility takes a number of forms ... modular portable programmes, recognition of prior learning and work-life balance. Training should be an integral part of the job not just something to fit in if there is time (Resident Medical Officer).
Regulators

As the national registration body, the Medical Council of New Zealand is accountable for ensuring the practitioners registered to practise in New Zealand have reached a safe and acceptable standard and are maintaining and developing their competence as their careers progress. It is assisted in this endeavour by the universities, hospitals and general practices accredited for intern training, and the medical colleges.

In association with the Australian Medical Council, the Council accredits Australian and New Zealand medical schools and the training and continuing professional development (CPD) programmes of the Australasian medical colleges. The Council also accredits the training and CPD programmes of New Zealand only vocational branches. Regulations and standards may also be set or may evolve externally or internally by other bodies (e.g., International Liaison Committee on Resuscitation, New Zealand Resuscitation Council and the Health and Disability Commissioner).

... to protect the health and safety of members of the public by providing for mechanisms to ensure that health practitioners are competent and fit to practise their profession (Principal purpose, Health Practitioners Competence Assurance Act 2003).

Funders

The funders of medical education and training are the Tertiary Education Commission (education sector) and the Clinical Training Agency (health sector). The medical colleges and the DHBs also contribute substantially (though indirectly) to the costs of training. All wish to see value for money from the funds invested in the training of the medical workforce.

The Tertiary Education Strategy is a five-year blueprint for a more collaborative and co-operative tertiary system that contributes to New Zealand’s national goals and is closely connected to enterprise and local communities (Tertiary Education Commission).

To facilitate development of a health and disability workforce which can meet the future requirements of health and disability services in New Zealand (Vision Statement, Clinical Training Agency).
2. MEDICAL EDUCATION AND TRAINING AS A CONTINUUM

Overview

Medical training is a continuum – from the first days in medical school through a lifetime of academic learning, refining skills and developing a deeper understanding of the human condition in the service of the patient. Having acquired a basic scientific and professional knowledge and the fundamental practical skills during the undergraduate years, the trainee doctor embarks on an intensive period of postgraduate education, training and skills acquisition that will fit him or her for a lifetime of professional practice. This is augmented by CPD once registration in a vocational scope of practice is achieved.

Undergraduate medical education in New Zealand spans six years and is provided through two universities, Auckland and Otago, with clinical teaching provided in clinical schools in Auckland, Hamilton, Wellington, Christchurch, Dunedin, in several provincial hospitals, and in general practice environments. Medical education and training does not, of course, finish with graduation; the first postgraduate or intern year is a transitional year into professional practice, recognised with provisional registration in a general scope of practice with the Medical Council and marked by ongoing supervision, an obligatory educational programme and regular assessments provided to the Council. Once registration in a general scope of practice has been achieved, subsequent pre-vocational training years allow new doctors to increase their experience and explore specialties of interest before deciding on future career pathways.

Once a doctor has decided on an area of interest, the next hurdle is to complete the relevant postgraduate training, recognised by Fellowship of the relevant medical college. Many may then spend a period training overseas before returning to a career position in general practice, a hospital or community-based specialty. The continuum of medical training is summarised in Table 1.

Table 1: The continuum of medical training

<table>
<thead>
<tr>
<th>Undergraduate education</th>
<th>PGY1</th>
<th>PGY2 / SHO</th>
<th>Vocational training</th>
<th>Lifelong learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years 1–5</td>
<td>Year 7 Intern year with registration in a general scope of practice on completion</td>
<td>Year 8 (often extended to several years)</td>
<td>Lasting at least three years (general practice) or up to eight (hospital specialty training plus advanced subspecialty experience)</td>
<td>Vocationally trained doctors</td>
</tr>
<tr>
<td>Year 6 – trainee intern year</td>
<td></td>
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</tr>
</tbody>
</table>

Notes: PGY1 = postgraduate year 1; PGY2 = postgraduate year 2; SHO = Senior House Officer.

More detail of course and programme content in New Zealand can be found in Appendix 3 and proposals for reforming medical education and training in the United Kingdom are outlined in Appendix 4.
Undergraduate education

Selection

Both the Universities of Auckland and Otago select the majority of their medical students from a pool of undergraduates who have satisfactorily completed a generic first year university programme. Selection into other health professional courses is made from the same pool of students.

The universities select on the basis of academic achievement, psychometric testing and, for Auckland, an interview. Preferential access schemes operate at both universities for students from Māori, Pacific and rural backgrounds.

Length and content of programme

Although superficially the New Zealand six-year programme may seem long by international standards, New Zealand students enter the university system at a younger age (often as young as 17) compared with many other countries. In contrast, UK students can be almost 20 years old when they start their five-year undergraduate programme, having left school at 18 and often completing a ‘gap year’ before entering university.

Future medical students undertake an initial year at university studying health sciences. Both the New Zealand universities with medical schools believe this has advantages because it allows students a year to make a positive decision to study medicine rather than, say, merely fulfilling the aspirations of their parents or school teachers. It also encourages interaction with students who will be future colleagues in other health professions. The system also enables students from less academically supportive high schools to catch up with their peers and makes a career choice in medicine a real choice for these students. (This group includes many Māori and Pacific students.)

The universities both accept a smaller number of graduate entrants and a few students who have been in the workforce for some years but who are deemed to have special attributes that will benefit the profession. These more mature students bring balance and greater life experience to the medical school classes, but in the case of the latter group, may need some time to transition to university life and academic expectations.

The first two years at medical school introduce the scientific principles underpinning the practice of medicine, while in the fourth and fifth years there is a greater emphasis on acquiring clinical skills with much teaching being conducted in a clinical setting. Throughout the undergraduate programmes there is vertical integration of teaching including early clinical contact and clinical skills acquisition, self-directed learning, case-based learning, evidence-based medicine, Hauora Māori, professional development, including ethics, research methodology and critical appraisal, and population health.
The sixth or trainee intern year is unique to New Zealand. This allows for a supervised transition experience between being a medical student and becoming an intern. For this to be successful, it is necessary for trainee interns to be included in the therapeutic team, acquire a range of technical procedural skills and demonstrate satisfactory performance in the workplace. It is during this year that newly acquired knowledge, clinical skills and professional behaviour and attitudes are reinforced. This is of value in the first postgraduate or intern year and is envied by other overseas medical schools. In addition, it is important to understand that trainee interns are being prepared for lifelong learning to equip them to work as medical practitioners in a very wide range of careers.

However, various factors have changed the way trainee interns work in New Zealand hospitals. Previously, the trainee intern shared responsibility for the patient load with the intern of the team, but now the trainee intern takes a much more observational role. This removal of responsibility has limited the practical preparation value of this year for the initial postgraduate year. A number of trainee interns feel ready to accept more responsibility than they are given in the current clinical environment.

Contributing factors to the changed environment are:

- the risk averse approach of many DHBs, which limits what the trainee intern is permitted to do
- the reduced length of in-patient stay and high service workloads, which result in reduced time for training and restricts the development of the trainee intern/consultant relationship
- the admission of patients through emergency departments which, combined with new conditions of service for junior medical staff, means there may be fewer opportunities for trainee interns to see and help manage acutely ill patients.

Submissions to the Medical Reference Group’s consultation document (HWAC 2005b) generally agreed that there should be earlier exposure to clinical content, greater exposure to rural health and primary health care, and an increased focus on health promotion and population-based health care in the undergraduate curriculum. It was noted that increasing clinical content would require more teaching and supervisory resources, and the development of more rural and primary care placements would have to be resourced.
Postgraduate years 1 and 2

The length and content of the undergraduate programme has implications for the first two years of postgraduate clinical training. There is currently no specification for clinical training during the second postgraduate year, other than one recently developed by the Clinical Training Agency (CTA) for rural rotations (CTA 2000), although the CTA has prepared a draft specification for training in this year (CTA 2005).

It could be argued that this year unnecessarily lengthens the time to vocational training. The arguments put forward for retaining the second year of postgraduate training include:

- many doctors use this time to experience different specialties as they decide which career paths to pursue
- even doctors who have decided on their career specialties may wish to spend some time in specialties complementary to their chosen paths
- breadth of medical experience and training can only enhance any doctor’s practice
- some health delivery services rely on this pool of second year graduates to provide hospital services.

The Roundtable notes that the last argument assumes that service delivery patterns will remain the same and is, therefore, a very weak argument for retaining PGY2.

One area that has not yet been addressed widely among DHBs is the credentialing of junior medical staff. Any individual doctor’s experience and skills may vary widely, particularly during the house officer years, because exposure to training opportunities may vary between institutions and even between runs. Some means of recording the acquisition of practical skills, such as a ‘skills passport’ or ‘personal training portfolio’, would facilitate a doctor’s orientation into a new post or a new hospital and help to ensure that the educational and training aspects of each post were maximised.

One of the particular concerns raised about the current arrangements is that, unless a doctor in training is registered in a particular training programme, the medical colleges do not generally give prior credit in later vocational training for experience gained in PGY2. Someone who has not yet decided which vocational training programme to enter will not get credit for experience in this year, nor for any generic skills that apply to all vocational programmes. The career aspirations and choices of medical students and those in their first three years of postgraduation training are extremely flexible with approximately one-quarter to one-half changing career choice (Zarkovic et al 2005).
International medical graduates

While New Zealand is a net importer of overseas-trained doctors, it is critical that there is a smooth transition to practice in New Zealand.

Some international medical graduates who pass the Medical Council’s New Zealand registration examination (NZREX) and gain provisional registration in a general scope nevertheless encounter problems as interns. Difficulties include communication problems, the need to work in a team, time management, adapting to the New Zealand health system and the higher levels of practical skills required. This can result in many demands being put on intern supervisors. Dealing with individual problems can be very resource intensive (sometimes, for example, the intern requires ‘buddying’ for a period). In some instances this has resulted in some DHBs being reluctant to employ such doctors. Most NZREX graduates eventually do reach the standard required for registration in a general scope but may take longer than 12 months to get there. NZREX graduates are permanent New Zealand residents but receive no CTA training funding unlike New Zealand and Australian interns.

The Medical Council has advocated for CTA funding for the NZREX intern year for some time, so that they get the requisite support, and for a ready to work programme.

The CTA has contracted Auckland DHB to pilot a ready to work programme for international doctors, which will be evaluated by the Medical Council on behalf of the CTA.

Apprenticeship learning

The training format for doctors has — for centuries — been one of an apprenticeship; working with a series of experienced and advanced practitioners, and developing decision-making skills along the way.

In this model, the junior practitioner observes, practises and gradually acquires the competencies of the senior practitioner through graded supervision and experience. The senior practitioner delegates increasing responsibility and independence to the apprentice, according to the individual’s progress and abilities.

This way of developing future professionals is, however, predicated on there being a close relationship between trainer and trainee which is maintained over an extended period (at least several months). During the attachment, both members of the relationship share in, and follow, the overall care of a defined group of patients. Typically, during the transition between new graduate and independent practitioner, an apprentice may have worked with some 30 or more specialists and an equal number of more advanced trainees, with whom a similar (but lesser) apprenticeship relationship can also exist. A senior practitioner may have an apprenticeship relationship with 50 or more specialist
trainees (and considerably more junior trainees) over their professional career. Following this pattern, knowledge, skills, attitudes and behaviours are passed between generations of practitioners.

Of strategic importance in the 21st century is the dependence of this model on the expert to recognise, accept and adapt to the high speed changes occurring in the delivery of health care and to transmit these to each apprentice. There is now a significant difference between the trainer’s experiences when they were training and those of the trainees, as factors such as ageing, ethnicity, urbanity, isolation from family support and resource imbalance must now be incorporated into daily clinical practice. This puts senior doctors under considerable pressure as they seek to balance service delivery with training requirements in the new environment. Whatever the mode of learning, there is a significant time investment from the trainer.

Advantages
As we have seen, this model has sustained the profession for centuries and has a number of advantages. For example, it:

• provides individualised supervision, training and career development for young doctors in their formative years
• allows the trainee to learn the arts and nuances of diagnosis, unusual presentations, management decisions, coping with uncertainty, taking responsibility, and leading teams
• recognises that different practitioners progress at different rates and can accommodate this, in that responsibilities are tailored to the knowledge and clinical standard of each apprentice
• allows trainees to get to know a variety of clinical approaches, attitudes and values, and anecdotal evidence suggests influential clinical leaders typically affect their trainees’ practice of medicine in subtle ways in the long term
• allows trainers to also benefit from these relationships, in the short term, by being able to delegate some cases and procedures to able apprentices and, in the longer term, through ongoing clinical debate and discussion
• delivers a better quality of service because of the dynamic relationship between the trainer and trainee.

Disadvantages
The apprenticeship model does have some limitations, however.

• Some trainers, though they may be excellent practitioners, do not make good trainers, or may have difficulty in adapting to environments that are significantly different to the ones in which they trained.
• In the most traditional format, apprenticeship training had no objective evaluation at the end of training, and progress depended largely on vacancies occurring at the next level, which ultimately resulted in a specialist appointment. The success of training depended on the considerable length of time devoted to that training, which could at times stretch to 10 postgraduate years or more. This has not been the situation in New Zealand.

• Several colleges are making ongoing improvements and modernising assessment processes. New Zealand moved some time ago to recognise the end of training with an exit examination in some specialties or a time and supervision report-based requirement in others. However, this does not wholly avoid some subjectivity, and there may not be the capacity to run the exams in a timely way, thus creating bottlenecks.

• There is the risk of personality clashes, the difficulty of constantly renewing of apprenticeship relationships as trainees move on and the expectation of a substantial investment of working time as each team typically works together throughout the week, including on-call. While this may be demanding for the specialist concerned, the apprentice is typically faced not only with service demands but also with academic study over and above their clinical commitments to satisfy the exacting demands of the medical college’s postgraduate assessments.

Stimulus for change

Much of the organisation of the delivery of health care, particularly in hospitals, is based on an 18th century model that, in some areas at least, no longer totally fits the demands or expectations of today. Many specialties, on the other hand, have appropriately incorporated 20th and 21st century approaches in their training and expectations.

Changes to patterns of clinical care

The environment in which medical training is undertaken has been going through some important changes.

• The average length of stay in hospital fell by 50 percent between 1988/89 and 2003/04, from an average of 6.6 days to 3.2 days (Ministry of Health 2004).

• The level of acuity of patients admitted to hospital has increased with a shift of less complex cases to day-case and outpatient settings (Ministry of Health 2004).

• More can be done technologically and pharmaceutically in hospital.

• Service delivery has become more fragmented in hospitals. Clinical disciplines have developed further into sub-specialty areas, working hours and rosters now reflect safer occupational practices and recognition of the importance of work-life balance is accepted in medical circles. However, this has also resulted in the traditional team (or ‘firm’) working pattern being much
less common, which, in turn, affects training opportunities using an apprenticeship model.

Consequently, those patients who are treated in hospitals stay for a shorter length of time and the overall clinical need of the case load is often higher. These changes have had significant implications for staffing arrangements and training opportunities. For many doctors in training, their main work experience comes more from acute, non-elective admissions or ward work and less from theatres, clinics or elective work.

Other changes to patterns of clinical care include the following.

- Resources of all types are clearly limited, resulting in attention being paid to getting the best value for money, which, in turn, is changing the case-mix seen in public hospitals. Some common conditions are rarely seen or treated in public hospitals, yet contribute to a significant amount of morbidity in the community.
- More health services are delivered in the community, including those for some complex or chronic health conditions.
- Different health care professionals are becoming involved with, or have taken over, specific areas of practice compared with the traditional approach.
- Primary health care and delivery of services by community teams is becoming more important, with implications for general practice.
- More emphasis is placed on preventive and public health issues.
- In some areas, provision of some services is exclusively through private providers, by non-governmental organisations or in joint ventures between public and private ownership. This offers the opportunity to involve a wider range of institutions in postgraduate medical training.
- Demographic changes such as the ageing of the population have increased the demand for, and changed the nature of, health services.

**Workforce changes**

In the last five years, there has been a 2 percent increase in resident medical officer full-time equivalents at a national level (Child 2005). Canterbury DHB witnessed an increase from 250 to 325 in the two years from 2000 to 2002. In Auckland, the medical registrar regional programme increased from 79 to 159 registrars in the 10 years between 1994 and 2004. Because medical school graduates and immigration have increased only marginally over this time, the demand has subsequently outstripped the supply of doctors in training, creating vacancies in rosters (Child 2005). Much of this increase has been a reaction to service demands and industrial employment agreements, with little apparent national medical workforce planning.
This has implications not only for the numbers of doctors required, but also for training opportunities in specialties. Without a nationally co-ordinated, expert strategic overview of clinical and service development, medical workforce development has been largely left to individual employers. Workforce development cannot proceed independently of overall health care planning, particularly where the organisation and delivery of specialist health care depends on appropriate inter-district referrals. Small specialties typically suffer in such circumstances because satisfactory advanced training may require clinical experience that can only be obtained through linked posts in regional or national rotations.

DHBs have an increasing difficulty maintaining staffing because PGY2 RMOs and medical officers who are not committed to training programmes frequently resign from salaried positions. They are then hired back as locums to fill the consequent vacancies at higher locum rates of pay.

The experience of a young doctor entering postgraduate training now cannot be compared with the working conditions of a trainee doctor in the late 1970s, who was probably male, worked 100 hours per week with home support provided by a spouse, had no student debt and saw between 10 and 15 newly admitted patients per day on a 1:3 roster. In 2005, trainee doctors are as likely to be female, work an average of 55 hours per week, usually have a large student debt, may see between 15 and 20 newly admitted patients per day on a 1:5 roster, and seek a better balance between work and leisure activities.

Medical students and trainee doctors may no longer receive satisfactory exposure to initial acute clinical presentations to the health care setting. It is now quite possible for an intern to spend three months on an A category surgical run, as defined by the Medical Council, but not go to theatre or do any acute admissions within the emergency department. There is evidence that in New Zealand and overseas, new graduates are not necessarily equipped to be able to deal effectively with medical emergencies (Weller et al 2004; Clayton et al 2005).

Other changes
There has also been a shift in the clinical and administrative responsibilities within hospital teams, particularly in the non-interventional specialties. For example, whereas interns used to gain considerable knowledge and understanding of people and their diseases when clerking acute patients as they presented, registrars now frequently undertake the initial assessment and diagnostic work, while interns implement the decisions (and sometimes conduct the procedures). This inevitably affects the practical and experiential learning experience trainee interns and doctors in training have in hospitals (Coster 2005) and may, in turn, delay the acquisition of clinical maturity necessary for safe clinical decision-making, the increased responsibility of promotion, and success in postgraduate examinations.
At the same time, the close relationships that were integral to the apprenticeship system are no longer common, particularly in the non-interventional specialties, where one specialist (or registrar) may work with up to nine different trainee doctors in a week. Term allocations remain relatively short (often three months below registrar level and six months at registrar level), making relationships harder to establish. Yet delegating responsibility appropriately is predicated on a confident assessment of a trainee doctor’s individual knowledge, skills and abilities.

Fortunately, the advent of quite sophisticated models and training techniques has allowed medical education and training to incorporate these into training programmes to a greater or lesser extent (eg, logbooks, simulator-based training, prescriptive curricula, specific projects, criteria-referenced training, supervisor training and calibrating of examiners). International interest in modernising medical careers has also encouraged standards setters (usually the medical colleges) and other interested parties to re-examine the way in which, particularly, postgraduate medical training is undertaken. This in turn has led to attempts at critical evaluation of the standards achieved, through skills-based learning in environments outside service delivery (particularly skills laboratories) (Weller et al 2003).

These considerations – together with the fundamental nature of the profession being founded on personal relationships between patients and doctors and the need to embed and develop professional values, standards and culture – suggest that medical training should develop into an amalgam of the apprenticeship model and competency-based training.

**Competency-based training**

Competency-based training involves the development of a logbook or portfolio of competencies that are assessed and credentialed at a determined level of expertise. This could involve, for example:

- volume of cases
- volume of procedures
- simulator model training
- patient model training.

Apprenticeship training obviously includes some aspects of this such as:

- supervision before solo performance
- escalating responsibility in operative surgery, undertaking more complex operative procedures as the programme progresses.
Advantages of competency-based training

The strength of competency-based training is that it is based on objective standards that can be defined and tested, and that are reproducible and relatively easily documented. Examples of core competencies-based training include resuscitation (eg, New Zealand Resuscitation Council, Certificate of Resuscitation and Emergency Care, Advanced Cardiac, Paediatric and Trauma Life Support and Emergency Management of Surgical Trauma) and basic procedures (eg, intravenous cannulation, lumbar puncture). Advanced specialty training includes anaesthetic simulator models, and even virtual reality surgical simulators.

This planned and graded approach is also more compatible with the need for flexible ways of working and learning inherent in modern health care, and allows learners to practise applying theoretical knowledge in a safe environment. Simulation training, in particular, also facilitates team working skills and encourages trainees to approach problems in a systematic way (Weller 2004).

The introduction of the objective, structured clinical examinations (OSCE) in the 1970s recognises the strengths of this approach and its application to testing clinical standards.

The range of competency training has increased beyond just technical or procedural skills to those more generic to medical as well as surgical disciplines. Specific training modules have been developed by colleges, universities and other institutions to address the teaching of evidence-based learning, skills in diagnostic technique, communication, supervision, mentoring, examining and teaching itself.

Disadvantages

Establishing competency-based training requires considerable resources in developing and testing robust and effective modules, and in training the trainers to use them successfully. Some competencies, for example, judgement in complex situations and leadership, are very difficult to measure objectively.

Competency in a controlled environment, such as a skills laboratory or an OSCE, while an enormous objective advance, is still a compartmentalised test and does not necessarily measure all the factors that may operate simultaneously in a clinical situation. Thus competency at performing a specific procedure or managing a clinical situation does not necessarily equate with performance in the broader practice of medicine. Such measures and tests therefore can only provide a part of the assessment of clinical competency and need to be supplemented with other forms of assessment.

It has been shown that case specificity (ie, performance with one patient-related problem) does not reliably predict performance with subsequent problems (Smee 2003). This means performance must be sampled across a number of cases or situations for a reliable measure of performance.
OSCEs in particular tend to rely on thoroughness, evaluated by task-specific checklists. However, with increasing expertise, thoroughness becomes less relevant. Some of these skill-based methods of assessment are also expensive to resource and administer and may not be easily transportable to every location.

Competencies acquired through simulator training are not comprehensively retained without ongoing exposure and some techniques are associated with greater loss of acquired skills than others (Stefanidis et al 2005).

Assessment of a trainee’s progress towards acceptance as a specialist must cover both the required skills and knowledge of the application of those skills. There is evidence these do not necessarily develop at the same rate, motor skills typically developing earlier in training than the knowledge (Sivarajan et al 1984) and judgement necessary for the application of those skills.

Internationally, a wide range of assessment tools is being developed and evaluated, including patient surveys, patient management problems, peer review and peer evaluation. These are used not only during medical training but also increasingly throughout a clinical career as components of annual appraisals and regular credentialing. There may be some advantages in considering how these may be applied during the training years as well as afterwards.

**Funding of undergraduate and postgraduate medical training**

**Number of funded places**

In recent years the percentage of medical school capacity filled by overseas full fee-paying students has ranged from 9 percent to 16 percent. Currently, 45 percent of resident medical officers are overseas trained. As at 30 June 2004, 35 percent of doctors in New Zealand with general registration and 37 percent of vocationally registered doctors gained their primary qualifications overseas (MCNZ 2004). New Zealand is a greater net importer of overseas trained doctors than many other countries (Mullen 2005). Consideration should be given to New Zealand becoming net self-sufficient for medical graduates.

For many years, there has been a cap on the number of government-funded places available for tertiary students entering medical undergraduate degree programmes. In 1998, the Government removed the cap on funded places, based on the principle that ‘the money follows the student’, in all tertiary education courses, except for places in four specialist programmes: medicine, dentistry, veterinary science and large animal science.

The cap on medical programmes was set at 285 funded places in 1981 and was raised by 40 places in 2004; the additional places being made available to students from a rural background. As well as the high cost of the programmes, other arguments in favour of the cap in the past have been:
• the cap limits the cost to government of funding a specialist programme
• the programme provides education and training in a specialist profession where the skills of surplus doctors are not readily transferable to other jobs
• the graduating students need to be accommodated in a limited number of clinical placements in the health sector
• producing an unlimited supply of doctors may put pressure on health expenditure as they subsequently establish practices and are eligible for government-funded health services.

However, lifting the cap on the number of funded places on medical programmes would increase the supply of New Zealand-trained doctors and decrease the reliance on overseas-trained resident medical officers. Any increase could be limited in the short term to filling the current capacity within the universities which is taken up by overseas students, by allowing the places to be filled by New Zealand students, preferably, from an equity point of view, funded by the government, or by full fee-paying students. This would increase the number of New Zealand students without the need for expansion or structural change within the medical schools. The Roundtable notes that many other countries accept domestic full fee-paying students.

A study undertaken for the Organisation for Economic Co-operation and Development of policies that affect the number of practising physicians (OECD 2004) shows that 12 of the 19 countries studied have some sort of control on entry to medical schools, in some cases only recently adopted. The countries that have not controlled medical school intake centrally appear to have a much higher growth rate of physician density than those with a controlled intake.

Australia is currently significantly increasing the number of available places in undergraduate medical programmes through expansion of existing programmes and opening at least eight new medical schools. This is already affecting recruitment and retention of staff in New Zealand institutions.

**Cost of medical education and training**

In 2004, the Tertiary Education Commission and the Ministry of Health undertook a joint project (Tertiary Education Commission 2004) to provide an insight into:

• the nature, volume and mix of the tertiary education sector’s delivery of health sector qualifications, and related post-entry clinical training
• how these qualifications are funded by various government agencies, students and others.

In relation to medicine, the analysis, based on 2002 data, showed that:

• $121.0 million per annum was spent on medical education and clinical training by the Government, of which $43 million was met by the TEC on undergraduate and postgraduate education, $62.9 million by the CTA on
clinical training and an estimated $15 million on clinical training indirectly by DHBs

- the cost of undergraduate education, in terms of equivalent full-time students (EFTS) funding was $199,000 per student of which 71 percent was met by the Government and 29 percent by the student

- of the total annual cost of tertiary education of approximately $1,900 million, around 2.3 percent was spent on medical education.

The cost of the 40 additional funded places in 2004 added $5 million per annum in EFTS funding and an additional $4.8 million per annum has been budgeted to meet the cost of clinical training as the graduates enter the health system.

The figures represent what is paid for education and training and do not represent costs, which particularly for health care providers, can be very much higher (an estimated $15 million contributed by the DHBs has been included). They also do not take into account the ‘pro-bono’ work of vocationally trained medical practitioners, who conduct training, supervision and assessment in their own time. The increasing demands of service and educational standards may in the future mean fewer doctors are willing to participate in these activities unless additional resources are made available to them.

The relatively low level of funding, compared, for example, with the UK, greatly limits opportunities to train in alternative environments.

The concept of ‘compression’ funding to enable the universities to move from a six-year degree to a five-year degree without financial penalty was raised with the Ministers of Education and Health by the previous deans of the medical schools but the proposal was not proceeded with. The concept of funding for medical school ‘output’ rather than process is supported by the Medical Council of New Zealand (HWAC 2005a).

The former Minister of Health has already recognised some of the issues raised about undergraduate medical education in relation to, for example, training in rural areas and the disparity between the salaries of medical academic staff and DHB medical practitioners. In June 2005, she approached the Minister of Education to instigate a review of the EFTS funding level for medical courses.

**Post-entry clinical training**

The Clinical Training Agency (CTA) was established in 1994 in order to channel what was in effect a compensatory payment to the then Crown Health Enterprises for additional costs incurred in delivering medical training.

In the initial years, the core work of the CTA included specifying training specifications, setting price, negotiating and managing contracts and evaluating programmes. It also worked on improving the value obtained for the funds expended, identifying what the funds were being directed to (i.e., the
programmes and eventually the trainees who were being subsidised) and then withdrawing funds in some circumstances (KPMG 1999).

More recently, the CTA has moved into providing funding for the post-entry training of other health professions, for example nursing and pharmacy, but the majority of funds is still allocated to the training of the medical profession (for which it was established). The comments of the Roundtable relate to medical training.

Funding of postgraduate medical training is currently perceived to be somewhat uneven and opaque, with some posts receiving CTA funding while identical positions in the same DHB do not. There is a mismatch between the service and training requirements and what is currently funded by the CTA.

Until the sector is forthcoming with a nationally agreed view of their future workforce needs, the CTA will fund on the basis of the information currently available to it. Steps are being taken towards developing a national view. The CTA is a member of the DHBNZ Workforce Development Group and has contributed to the development of a national workforce information system in terms of both human and cash resources.

Currently, the CTA performs three key operational activities in order to function as an intelligent funder. These activities are:

- some limited strategic analysis and development
- fund management of around $100 million per year
- contract management.

Integral to all three activities is the development of training programme specifications, for example, the Nurse Entry to Practice (NETP) and specifications for medical officers.

The CTA is facing operational issues including constrained contract management, challenging contract areas, cost of training exceeding price, insufficient information and the requirement to fund a proliferation of ad hoc programmes that now have the agency stretched. The CTA has recently completed a review of its activities and is seeking a rationalised mandate that provides for a renewed focus on medical and nursing training programmes.

One difficulty that the CTA faces is the lack of an appropriate decision making process for, for example, resolving the question of a training programme for medical officers. This could be resolved by the appointment of an advisory board. It had a similar board when it was first established in 1994.

The Roundtable considers that the role and effectiveness of the CTA would be enhanced by the appointment of an advisory board comprising the Ministry of Health and stakeholder representatives to advise on specifications for the training of medical practitioners and to provide advice in relation to the CTA's
Terms of Reference. The CTA could also convene expert advisory groups from time to time to address particular issues.
3. INNOVATIVE SOLUTIONS IN TRAINING AND HEALTH CARE PROVISION

New Zealand has a nationally agreed and statutorily required health care strategy, the New Zealand Health Strategy (Minister of Health 2000) which, together with the New Zealand Primary Health Care Strategy (Minister of Health 2001), sets the platform for the development of health services in the future. In line with these strategies, primary health care has undergone a significant change of emphasis, with more care provided in the community and more emphasis placed on prevention and the management of chronic conditions. Also, in recent years, hospital-based services have focused largely on acute admissions with shorter lengths of stay.

These changes have led to a change in the skill mix required to deliver the care, but change in health care delivery settings have not been reflected in a change in settings for training. This is a major obstacle to achieving a medical workforce that best meets health needs.

With a small, unevenly spread population, New Zealand faces some particular health care delivery needs. Areas of socioeconomic deprivation are particularly concentrated in rural areas, which in turn are relatively poorly provided with locally based health professionals. Outside the tertiary centres, the clinical need is mainly for skills across the breadth of the various disciplines, including GPs in the community and general physicians, paediatricians and surgeons in hospitals. Sub-specialty skills should ideally be concentrated in centres where referrals guarantee an adequate throughput to maintain both individual sub-specialty skills and those of their clinical teams.

The Roundtable supports innovative solutions to these issues.

Generalist versus sub-specialist medicine

Generalist training

It is a widely held view that generalist skills at an appropriate level should be recognised as desirable for all doctors. Such skills need to be supported by training programmes that fit clinicians to this type of service provision. Generalist skills are also the central tenet of general practice and high quality opportunities for training in these skills need to be retained and enhanced.

The Roundtable places high value on the core skills of the generalist, particularly in smaller hospitals providing a wide range of core services and in remote and rural areas. These core skills:

- are central to assuring holistic care of the patient, particularly as individual case complexity increases
- bring the necessary flexibility to respond to changing demands
• increase the scope for movement between specialities

• support the recognition of different roles in intermediate care (Scottish Executive Department of Health 2002).

Education and training resources are too precious to allow uncoordinated and reactive development, locally and nationally.

Initial postgraduate training is guided and determined by the requirements of the postgraduate examinations for fellowship of the specialist medical colleges. Most are trans-Tasman in their constitution and membership, but the balance of influence often tends towards Australia and its rather different professional needs. One contrasting example, where the needs of both countries are being addressed effectively, is in paediatrics, where the appointment of more general paediatricians to the board of examiners has redressed the sub-specialist/generalist balance of the examination board and therefore of the diploma’s focus.

Driven at least in part by rising public expectations and the perception of greater accountabilities, many young doctors and even undergraduates see sub-specialised practice as an ideal career path. However, New Zealand has much less need for such widespread hospital sub-specialisation than countries with larger populations and different funding models, and must consider ways of valuing, encouraging and inspiring generalist career decisions without delay.

This could include additional emphasis upon general practice and provincial exposure during undergraduate training, the development of regional rotations within every discipline to expose all specialist trainees to both tertiary and provincial practice, and increasing opportunities for interns to include a run in general practice as part of their general scope of practice registration requirements.

Overall, the concept of generalism (as distinct from sub-specialties) in the hospital workforce needs valuing and promoting. The majority of physicians, for example, will undertake general medicine as either their primary or secondary role. This will require demonstrating competence in general medicine at an advanced training level and not just undergraduate or basic training level. Similarly, most surgeons working in provincial centres will provide general surgical services as well as perhaps provide care in a speciality interest area. New Zealand training arrangements and professional recognition should facilitate the career choice of a general training with a speciality interest in each of the major disciplines.
**General medicine**

The increasing trend to sub-specialisation has seen a decline in general medicine during the period from the mid-1960s to the mid-1980s in New Zealand.

Yet general medicine – and general surgery and general paediatrics – are essential to the provision of health care in many parts of New Zealand, where most of the population is served by smaller local hospitals, supported by the five regional centres. In these hospitals, groups of specialists skilled in caring for ‘all comers’ as well as each holding a complementary sub-specialist interest has led to a satisfying career for the individual and a practical model of service coverage for the population. The balance between the generalist and the sub-specialist, which has tipped too far towards the sub-specialist, needs to be restored.

In seeking to reverse the trend away from general medicine, the Internal Medicine Society of Australia and New Zealand produced a booklet on the role of general medicine in service delivery, in which the problem is summed up as follows:

General physicians have a breadth and depth of knowledge and experience which makes them ideally suited to providing high quality specialist services across a spectrum of health and illness, which is not limited by the boundaries of medical subspecialties. The practice of general medicine, however, is at risk of disappearing from public and private practice alike. The reasons for the decline of general medicine are many and complex, and include matters relating to remuneration, changes in technology and hospital practice lifestyle issues, and loss of academic departments of general medicine and general physician role models (IMSANZ 2000).

At the annual scientific meeting of the RACP held in Wellington in May 2005, Dr John Henley suggested that the following factors were protecting the role of general medicine in New Zealand to a greater extent than in Australia:

- more sympathetic hospital administration, recognising the cost effectiveness of general medicine
- more sympathetic specialist colleges recognising the role of general medicine
- more sympathetic college administration, maintaining support throughout training
- fewer isolated ‘rural’ hospitals
- dual training to support the ‘general physician’ with a specialist interest
- strong senior physician input
- university support for the general medicine model.
While these are encouraging trends, more needs to be done to promote and attract young doctors in training to these ‘general’ specialist career paths.

In September 2005, the Internal Medicine Society of Australia and New Zealand released a position paper, *Restoring the balance: An action plan for ensuring the equitable delivery of consultant services in General Medicine in Australia and New Zealand 2005–2008*.

However, the need for generalist training is not confined to medicine. General surgeons, ideally with a specialist interest, are also of considerable benefit to the community, yet in this case, the requirements for specialist recognition make this model hard to achieve. For example, recognition of sub-specialty skills in tandem with general surgery as a specialisation is often very difficult if not impossible – yet provincial centres need SMOs with just this pattern of complementary skills in surgery every bit as much as does medicine.

The Roundtable believes that a whole system approach is needed to ensure that, across the country, the balance between sub-specialty and general services and training is maintained. It supports generalist training and the role of general medicine, while, at the same time, recognising the benefits of sub-specialty interest training. A general plus sub-specialty interest model is of value in medical, paediatric and surgical disciplines.

**Medical officers**

In late 2004, the CTA drafted a specification for a proposed training programme for medical officers, which was then submitted to the Medical Council of New Zealand for comment. After receiving favourable comment in early 2005, the CTA circulated the draft specification, with an accompanying questionnaire, (CTA 2004) to the wider sector for consultation.

The feedback from the sector indicated there are three types of clinicians that could be covered by the draft specification:

- medical officers working as rural hospital generalists in rural hospitals, some of whom are also rural GPs
- medical officers working in vocational branches of medicine without registration in the relevant vocational scopes of practice
- medical officers working as hospital generalists for 24-hour coverage, essentially replacing junior staff (shortages of trainee doctors and changed accountability requirements have led DHBs to consider using medical officers in this capacity, although this third category may be more notional at present, than real).
Although responses from DHBs welcomed the attention for this group of practitioners, and were supportive of the need for defined training and CME expectations, the details contained in the proposal were not unanimously supported.

Responses to the draft specification from the medical colleges ranged from cautious support to an indication that the grade was not appropriate to the college’s specialty. The colleges that expressed the latter view were the Joint Faculty of Intensive Care Medicine, Royal College of Pathologists of Australasia and the Royal Australian and New Zealand College of Ophthalmologists. Another concern expressed by the colleges was the risk of establishing a class of ‘orphan’ clinicians who do not belong to a professional body. There was a clear view (supported by the DHBs) that the medical officer training should not be at the sub-specialty level.

The Roundtable acknowledges the work already undertaken in regard to this group by the Medical Council of New Zealand, the CTA and others and supports the continuation of this work. This would involve better quantification of the group and its characteristics (eg, type of practice, gender, location and age, the reasons why medical officers make the choice not to enter vocational training) and a summary of the work undertaken to date.

The Medical Council does not regard a training specification as encouraging people to take this path rather than vocational training, but instead ensuring medical officers are competent to work in areas in which they do (this can also be achieved through credentialing) and potentially enhancing professional satisfaction. The reality is that it is unlikely that this group of non-vocationally registered doctors will ever disappear. Historically, there was a view that that would happen with the introduction of the Medical Practitioners Act 1996 and the requirement for oversight (now termed a collegial relationship) unless vocationally registered. This did not happen. Medical officers are also not supervised in the formal sense of supervision, as are interns, and overseas-trained doctors in their first year in New Zealand. As general registrants, they must have a collegial relationship with a vocationally registered doctor in the branch of medicine in which they are practising.

One of the problems with the recently distributed draft specification is that it attempts to capture all medical officers in one specification.

A need has been expressed to recognise and develop pathways for this group of practitioners but concern has also been expressed about the implications of a non-vocational career pathway. A practical way forward might be to convene a working group involving all interested parties to review the work that has been undertaken to date, identify the different characteristics of each group of medical officers and develop appropriate educational and CPD pathways.
The Roundtable recommends a consolidation of the work already undertaken in respect of the medical officer workforce, involving medical officers, their vocationally registered supervisors and the DHBs. Once this has been completed, the Roundtable supports the CTA facilitating a meeting of the interested parties, including colleges, employers, MCNZ and medical officers to develop appropriate pathways.

Hospital at night

Christchurch Hospital has recognised the challenge presented by a reduction in hours worked for the provision of acute hospital services, especially at night and at weekends. In the UK, a joint statement from the Academy of Royal Colleges, the British Medical Association and the Joint Consultants Committee of the National Health Service expressed the challenge clearly:

New models of working are required to deal with the need to provide appropriate medical cover in acute hospitals where previously there were multiple tiers of resident junior doctors in multiple separate specialties (Canterbury DHB 2005).

The team at Christchurch Hospital has commented that:

New Zealand’s failure to respond appropriately to the 1985 M10 determination makes the need for new models of working in acute hospitals equally necessary here. Experience has demonstrated that attempts to achieve roster compliance by inflating staff numbers threatens the apprenticeship model of training and has implications for patient safety as staff ratios become unbalanced, shifting the workload onto senior staff.

To identify the competencies required of a night team, to gain information about the volumes of tasks requiring completion out of hours, and to assess the level of teamwork that currently exists, Christchurch Hospital undertook a study to obtain accurate data about medical activity on the night shift between 11 pm and 8 am. The main findings of the study were as follows.

• In the absence of leadership, the RMOs were not working as a team and consequently some were on a treadmill while others were inactive.
• RMO tasks were largely generic not specialty specific.
• There was no routine handover from the afternoon or day shifts and the level of hospital medical staffing did not reflect the activity levels over the time period studied.
• There was an urgent need for a review of the appropriate use of pagers.
• A third of admissions were to general medicine and basic medical activities (including admitting, reviewing, and prescribing drugs and fluids for patients admitted under all specialties) represented the majority of the night workload.
• Medical registrars had reduced some of the traditional multiple clerking.
• The workload and its distribution over time were remarkably similar to that found at the 17 pilot sites in the UK where out-of-hours medical teams are under trial.

They concluded that the data should be used to plan an out-of-hours medical team. That is:

... a group of individuals who work together to produce products or deliver services for which they are mutually accountable. Team members share goals and are mutually held accountable for meeting them, they are interdependent in their accomplishment and they affect the results through their interactions with one another. Because the team is held collectively accountable, the work of integrating with one another is included among the responsibilities of each other.

The ‘Hospital at Night’ concept may be transferable to some of the very large hospitals in New Zealand, but many provincial hospitals effectively work that way already, with only one or two RMOs on duty overnight outside of obstetrics and gynaecology, paediatrics, the intensive care unit and the emergency department.

The Roundtable supports the innovative approach of Canterbury District Health Board and recommends that, where appropriate, it be considered in other areas.

Primary health care with a rural focus

Undergraduate rural training
The term ‘rural’ in New Zealand means non-metropolitan and embraces a wide range of health care facilities including provincial hospitals and large general practices.

Both the University of Auckland and the University of Otago have recognised the concerns over medical workforce shortages in rural hospitals and rural general practice and are committed to doing their part to solve this problem. Evidence from overseas suggests that it is a combination of selection of students from a rural background and a positive training experience in a rural environment that is most likely to attract and retain doctors in rural practice.

In recognition of this, in 2002 the Government approved an increase of 40 places in the number of funded places in medical undergraduate courses, the places to be allocated to students from a rural background. Both universities admitted their first 20 students through what became known as the Rural Origin Medical Preferential Entry (ROMPE) scheme in 2003 and have developed initiatives to ensure students have some rural experience in their training. The rural experiences are received enthusiastically by students but,
because of lack of funding (the additional places attracted the same level of EFTS funding as other medical places) have been limited in scope.

Both Otago and Auckland believe they need to be able to offer selected students, principally those admitted through the ROMPE scheme, a comprehensive rural immersion programme for the fifth year (middle clinical year) of their programme. Students would cover the same curriculum as other students and develop the same core competencies but would do this in a rural environment through a combination of experience in rural hospitals and rural general practice.

In 2003, the Auckland and Otago Universities made a joint application to the Tertiary Education Commission in the form of a Capability Development Initiative, for funding from the e-Learning Collaborative Development Fund. The application covered a proposal to develop a pilot for a 12-week training programme that would be delivered in rural areas and regional hospitals, involving medical, nursing and pharmacy students in a multidisciplinary environment. The application was declined by the Commission.

Postgraduate general practice
The Medical Council of New Zealand is preparing a discussion document for consultation on a general practice run in the intern year as a requirement for registration in a general scope of practice.

The Royal New Zealand College of General Practitioners, at the request of the Medical Council, recently developed a proposal for the delivery of general practice rotations in the intern year. The CTA has opted to encourage the development of such runs through the DHBNZ Workforce Development Group and to look at the issue in its review of general practitioner training in 2006.

Vocational training programme for rural general practice
In a report prepared for the CTA in 2003, Farry and Tucker (2004) identified the need for a dedicated rural general practice vocational training programme:

Rural general practice is based on a unique body of knowledge and skills. The discipline is generalist in nature but often extends into the scopes of practice of the specialist. For example, a city-based general practitioner (GP) is unlikely to be expected to administer thrombolytic drugs to a patient with a myocardial infarction, insert an intercostals tube, or bag ventilate a patient on a long ambulance transfer (whereas the rural GP may be called upon to do so).

The report includes a proposed curriculum for vocational training in rural general practice.
The Rural Medical Training Reference Group (RMTRG) has recently developed this proposal for the CTA.

The Roundtable supports more resources for training in general practice in primary care settings, targeting rural areas and an inter-professional approach. The work in these three areas should be endorsed and addressed in the work streams arising from the recommendations contained in this report, if adopted.

A case study of rural/provincial health care

The structure of DHBs and the lack of incentives for neighbouring boards to provide comprehensive clinical coverage across geographic boundaries leads to less than optimal use of resources in some rural and provincial areas.

A number of challenges on the West Coast of the South Island, for example, have required innovative solutions in the provision of health care.

The area is isolated, has rugged terrain spanning a distance of 600 km from Karamea to Haast (the same distance as Auckland to Wellington) and is separated geographically from the nearest DHB in Christchurch by the Southern Alps. Weather conditions are often adverse, requiring an element of self-sufficiency within the West Coast DHB to enable access to health services for the resident population of 30,000.

Within the above scenario the West Coast DHB has introduced a number of changes, which enable it to provide health services differently from the traditional model. These include:

- the development of nurse specialist roles – nurses working in remote areas, such as Haast, without doctor backup and using developed clinical protocols
- over 50 percent of GPs in salaried employment with the West Coast DHB
- employing ‘medical officers’ within the West Coast DHB rural hospitals
- developing information systems to the extent that resident patient records are accessible electronically throughout the West Coast DHB area
- contracting consultants from other DHBs and the private sector to perform some elective surgery and outpatient services
- individualising employment contracts for consultants (eg, generous CME)
- establishing a relationship with Otago University to provide undergraduate rural training.

All the above are having a positive influence on recruitment within the West Coast and have enabled the West Coast DHB to achieve contracted volumes on target and to have the overall highest patient satisfaction record of all DHBs.
The Roundtable commends the innovative approach taken by the West Coast DHB to find local solutions to local needs. The Roundtable recommends that the Ministry of Health collate examples of innovation and co-operation that could be used by other DHBs.

**Chronic care management**

The Ministry of Health is unequivocal in its message that chronic or long-term conditions are the major health burden for New Zealand both now and into the foreseeable future. This position has wide international support.

These conditions are the leading cause of preventable morbidity, mortality, and unequal health outcomes in New Zealand and the source of some 70 percent of health expenditure (National Advisory Committee on Health and Disability 2005). Chronic or long-term conditions include diabetes and cardiovascular disease (CVD), cancers, respiratory conditions, mental health conditions such as anxiety and depression, and arthritis. Cardiovascular disease and type-2 diabetes offer high-yield opportunities in our attempts to reduce inequalities.

The New Zealand Health Strategy (Minister of Health 2000) identifies both diabetes and cardiovascular disease, and their associated key risk factors, among its 13 Priority Population Health Objectives. The New Zealand Primary Health Care Strategy (Minister of Health 2001) lays the groundwork for success in preventing and better managing type-2 diabetes and cardiovascular disease in primary care/community settings. DHBs, through and in conjunction with primary health organisations, are engaging to varying degrees with the challenge of shifting the focus to preventing and better managing these conditions. This necessary change in emphasis calls for a comparable change in the clinical practice (and public health) domains.

Chronic care strategies and programmes are well advanced, in place, or under development throughout the country. For example, Counties Manukau DHB has a long-established programme of chronic care management, aspects of which are shared among all four northern DHBs. Each of those DHBs also has individual strategies and programmes for addressing cardiovascular disease and diabetes, chronic obstructive pulmonary disease, oral health, cancer etc. Such strategies, a response to the New Zealand Health Strategy and expressed in DHB accountability documents, are now widespread.

The Roundtable supports the introduction of chronic care strategies and programmes to improve health status and reduce subsequent demands on hospital beds and other health services. Training opportunities exist in aged and chronic care facilities, for example, medical students could visit with chronic care teams and interns could participate with nurse practitioners and general practitioners.
Aged care

In December 2004, the Ministry of Health released a discussion document prepared by the New Zealand Institute of Economic Research (NZIER 2004) entitled *Ageing New Zealand and Health and Disability Services – Demand Projections and Workforce Implications, 2001–2021*. The document highlights the considerable changes that will be needed in the delivery of health care to meet the challenges of a significantly older population by 2011 and even more so by 2021. In particular, the document emphasises the need for more practitioners, pharmacists and nurses as well as medical practitioners, to be trained in elder health and chronic disease conditions.

One of the objectives of the Guideline for Specialist Health Services for Older People published jointly by DHBNZ, ACC and the Ministry of Health is to build inter-professional teams to improve systems and processes for specialist health services for older people.

The Roundtable recognises the challenge presented in the NZIER report on the implications of an ageing population for the health workforce and recommends that an action plan be developed to meet this challenge as part of DHBNZ’s work on the future health workforce.
4.  THE NEED FOR CHANGE: CONCLUSIONS AND RECOMMENDATIONS

The Roundtable concludes that there does need to be change so that medical education and clinical training form a continuum from the first days of medical school through a lifetime of academic learning and acquisition of skills and are responsive to the service delivery needs of the health sector.

The main problem areas

Five main problem areas were identified.

1.  Education and health split of funding

Given that medical education and training form a continuum, the current split of funding between education and health and the lack of co-ordination between the two sectors is inappropriate; learning cannot take place in an environment that is separated from service delivery and research.

2.  Integration across the continuum of learning

Questions were raised about the overall length and content of the undergraduate programme and the subsequent first two years of pre-vocational training. Several issues were identified as follows.

- The role of the trainee intern year has been devalued. The goals and outcomes of that year need to be well matched to the needs of the medical workforce and the role of the trainee intern needs national definition so that expectations for both students and district health boards are clear and agreed across the country.

- The lack of specificity around, and the value of, the second prevocational year and recognition of prior learning in subsequent vocational training programmes.

- The need for more training in primary care settings, rural areas and emergency departments.

3.  Stress on the apprenticeship model

The changes in service delivery in hospitals over the past 20 years (eg, reduced length of stay and higher levels of acuity, and the way industrial agreements are interpreted and implemented) have put stress on the traditional apprenticeship training model of learning. The stresses are on both the learner and the teacher. The model could be enhanced by the introduction of more competency based training components in the clinical training programme and by increasing the numbers of and retaining senior medical staff.
4. Changing needs

Changes in service delivery and future demographic changes have led to a need to reassess the type of medical practitioner that will be required to meet the needs of the population in the future. The education system will need to be responsive to these changes. For example, there will be a greater need for GPs, rural practitioners, general medical and surgical specialists.

5. Relationships between employers and employees

The Roundtable’s Terms of Reference specifically exclude consideration of structures and processes whereby employers and employees negotiate employment agreements for resident medical officers and specialist staff. However, some issues were raised relating to the relationships between employers and residents doctors and to the administration of the Collective Agreement with the New Zealand Resident Doctors’ Association that constrain the effective training of doctors and the delivery of services. These issues are being addressed by DHBNZ’s RMO Project Strategy Group.

An overall action plan

The Roundtable recommends the following overall action plan to implement the necessary changes. These are long-term solutions for problems in the continuum of medical education and training. The next subsection discusses some short-term solutions, or ‘circuit breakers’, which could be instituted immediately.

Note that the Roundtable is mindful that some of the suggested solutions will involve either additional funding or reprioritisation of existing funding in both Vote: Health and Vote: Education but has not sought at this stage to provide detailed costings.
### Problem 1 – Education and health split of funding

**Problem 1**

Education and training of medical practitioners is a continuum from undergraduate level to registration as a medical practitioner. The split in funding between education and health disrupts the continuum, learning is separated from service delivery and research, salaries of teachers/trainers are split between two professional associations (Association of Salaried Medical Specialists and Association of University staff) and academic salaries are less than DHB salaries.

**Objectives**

- To remove the barriers between the education and health sectors.
- To ensure continuity with no duplications during the training process.

**Stakeholders**

Trainees, universities, medical colleges, Ministry of Education, Tertiary Education Commission, Ministry of Health, Medical Council, DHBs.

**Possible solutions**

- Reconsider the split in funding between education and health; or improve linkages between the sectors.
- Address the salary differentials between education sector and health sector staff.
- Appointment of an advisory board comprising Ministry of Health and other stakeholders to advise the CTA and link to undergraduate medical education.
- Incentivise DHBs to provide training by introducing more appropriate funding arrangements.

**Responsibilities**

Ministry of Health to establish and maintain better links between those involved in the education and training of medical practitioners: Ministry of Education, Tertiary Education Commission, CTA, medical colleges, universities and DHBs.

### Problem 2 – Integration across the continuum of learning

**Problem 2**

The overall length and content of the undergraduate programme and subsequent first two years of postgraduate training are an issue. The trainee intern year is not providing graduating students with the work experience that they need to be ready for work when they take up intern positions. There especially needs to be more training in primary care settings and in rural areas. There also needs to be more recognition of prior learning in subsequent vocational training programmes. There are no ready for work programmes or funded intern training for international medical graduates (NZREX graduates).

**Objectives**

- To ensure that medical graduates are work ready.
- To introduce more training in primary care and rural settings.
- To ensure that credit is given for prior learning in subsequent vocational training programmes.

**Stakeholders**

Trainees, universities, medical colleges, Medical Council, DHBs, CTA.

**Possible solutions**

- More primary care placements.
- Review and update restrictions on the role of the trainee intern.
- Strengthen and broaden personal learning portfolio commencing at undergraduate level.
- Evaluate the ready-for-work pilot programme for international medical graduates.

**Responsibilities**

The Ministry of Health to review with the other stakeholders the current provision and funding of undergraduate medical education and its links to prevocational clinical training: and, as part of the process, invite the medical colleges to report back on proposals for the recognition of prior learning.
### Problem 3 – Stress on the apprenticeship model

**Problem 3**
The higher level of acuity in hospitals, shorter length of stay and pressure to deliver services puts the apprenticeship model under stress. There are implications from industrial agreements not leaving time for training and shortage of runs for PGY1. The funding for training gets lost in DHBs’ overall budgets.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>To ensure that post entry clinical training has a better fit with current service delivery.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholders</td>
<td>Trainees, DHBs, medical colleges, Medical Council, CTA, universities, RDA.</td>
</tr>
</tbody>
</table>

**Possible solutions**
- Support moves to more competency-based training, while retaining good features of the apprenticeship model.
- Establish access to skills laboratories for all DHBs not just tertiary hospitals.
- Consider the distribution and availability of vocationally trained doctors to provide training.
- Use smaller secondary care hospitals for trainee interns.
- Make more runs accreditable.
- Look at restrictions on night rostering.
- Portability of training – recognise prior learning.
- For older patients, shift from an acute care model to a model of ongoing care.
- Move some beds to another location, eg, more in residential care facilities (wellness model) and train more nurses to treat chronic care patients out of hospital.
- Explore opportunities for training in private hospitals.
- Increase staff numbers.
- Look at new ways doing things (eg, Canterbury Hospital at Night project).

| Responsibilities | The Ministry of Health to contract an appropriate body to critically appraise how the traditional apprenticeship model could be enhanced within the current service delivery model by, for example, the introduction of more competency-based training components and the use of providers of health services outside the public hospitals. |

### Problem 4 – Changing needs

**Problem 4**
We are not training the right sort of medical practitioner or enough who are New Zealand trained; training is too hospital based and too focused on subspecialties; and there are too many overseas medical students and overseas trained doctors filling house officer and registrar positions.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>To ensure the supply of an appropriately trained medical workforce in a variety of settings.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholders</td>
<td>DHBs, medical colleges, Medical Council, trainees, Clinical Training Agency, universities.</td>
</tr>
</tbody>
</table>

**Possible solutions**
- Make more runs in primary care settings.
- Confirm value of generalist training – it should be a positive experience.
- Review ways to enhance the role of general medicine and general surgery.
- Institute more rural training – support the interdisciplinary rural undergraduate training proposal; support the CTA proposal for vocational training in rural general practice.
- Clarify role of medical officer.
- Raise the cap on the numbers of funded places in undergraduate medical programmes.

| Responsibilities | DHBNZ’s Workforce Development Group to provide input on the demand for and role of medical practitioners in the future in both community and hospital settings to providers of education and training; the Colleges of Physicians and Surgeons to respond to the request for more generalists. |
Problem 5 – Relationships between employers and employees

<table>
<thead>
<tr>
<th>Problem 5</th>
<th>The implications of the collective agreement with the RDA; different interpretation of terms and conditions across DHBs; not enough doctors to comply with the terms of the contract; not the same number as is needed to deliver services; sub-specialty runs not sustainable; conditions impact negatively on SMOs and on postgraduate training; implications of student debt, impact of locum casualisation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>To have an employment agreement for resident medical officers that facilitates the training of doctors in the delivery of health services.</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>RMOs, DHBs, Medical Council, medical colleges.</td>
</tr>
<tr>
<td>Possible solutions</td>
<td>Support DHBNZ RMO Working Group in working through the administrative problems associated with the industrial agreement.</td>
</tr>
<tr>
<td>Responsibilities</td>
<td>DHBNZ RMO Working Group.</td>
</tr>
</tbody>
</table>

Short-term solutions: circuit breakers and co-ordination in context

At the first meeting of the Roundtable in December 2004 there was enthusiasm to identify some short-term issues that could be resolved quickly. The term ‘circuit breaker’ was used frequently and was defined by the Roundtable as ‘doing things differently’. The Minister of Health, when attending the August 2005 meeting, encouraged the Roundtable to take an independent look at all processes and how things needed to change over time.

As is evident from the previous discussion, some fundamental issues need to be addressed to ensure that New Zealand is training an appropriate medical workforce, and this will take time. However, it is also evident that some measures could be introduced in the short-term which would act as circuit breakers to start the change process. Some relate to the training of doctors, some relate to the way services are delivered, and some to the co-ordination between the education and health sectors.

The Roundtable recommends that they be considered for implementation as a matter of urgency.

Training

The Roundtable recommends:

- addressing the significant salary gap, estimated to be in the range of $30,000–$60,000, between university health professional staff involved in medical education and health professionals employed by DHBs to deliver health services to resolve the problems of recruitment and retention within academic medicine
- developing repatriation programmes to encourage New Zealand trained doctors to return to fill positions in areas of need, including medical academics and provincial hospital general physicians and surgeons
• lifting the cap on the number of funded places in undergraduate medical training to allow the capacity in the universities’ faculties of medicine, which is currently filled by international fee-paying students, to be taken up by New Zealand students

• encouraging medical schools and their host DHBs to redefine the role of trainee interns to provide graded clinical responsibility preparatory to PGY1

• including, and appropriately resourcing, placements in rural primary care settings in the undergraduate medical programme

• introducing a personal learning portfolio for doctors in training commencing at trainee intern year and continuing through the postgraduate years of training to ensure portability of training

• medical colleges recognising prior learning, particularly that acquired in PGY2, in subsequent vocational training programmes

• considering the establishment of intern (PGY1) positions in urban and rural primary care settings and the relationship with accreditation of more hospital training positions

• exposing medical students to models of chronic care management

• establishing a funded pathway to enable a smooth transition for overseas trained doctors to enter the New Zealand medical workforce

• funding an intern year for overseas trained doctors who have passed the New Zealand Registration Examination

• considering appropriate pathways for medical officers

• the Minister of Health requiring DHBs to recognise the training of medical practitioners for the national good as an essential part of the Workforce Action Plans that are included in their District Annual Plans

• developing and expanding the role of non-government funded health care providers, including non-government organisations

• establishing regional medical education units that will liaise with the universities, medical colleges and the Medical Council to:
  – co-ordinate clinical access for medical undergraduates
  – provide supervision and mentorship for prevocational training during the intern and early postgraduate years
  – ensure administrative support for college vocational training and continuing professional development programmes
  – help establish and maintain clinical skills laboratories and modules.
Service delivery
The Roundtable, while undertaking its business, uncovered many areas of innovation, some of which have been identified in section 3. It became easy to see that the various innovative projects that ‘did things differently’ could have a major impact if replicated nationally.

This observation has also become apparent to the DHBNZ RMO Strategy Group who are looking at collating these projects and making them available sector-wide. Examples include:

- the introduction of the ‘hospital at night’ out of hour’s medical team approach in major hospitals
- introduction of chronic care case management strategies and programmes to improve health status and demands on hospital beds and other services
- promotion of the use of rural nurse specialists to deliver services in rural and provincial areas
- involving DHBs in reviewing the tasks and functions that doctors in training undertake in some areas and whether they are deployed in areas in which their involvement is not necessary (eg, pre-assessment clinics).

There are doubtless many more good ideas within the sector, some of which could be applied or adapted in other districts. The Roundtable strongly supports the national collation and publication by the Ministry of Health of examples of innovation to both stimulate further innovative problem solving and facilitate tailored local adoption, where appropriate.

Co-ordination
There are existing organisations involved in the supply of and demand for medical practitioners, and a brief description of three of them is given in the following pages. More emphasis on and perhaps extension of the models used by these organisations could greatly improve co-ordination between undergraduate and post-entry education and training and their responsiveness to the needs of the health sector.

Northern Clinical Training Network
The Roundtable recommends extending the model and concepts of the Northern Clinical Training Network (NCTN) to other regions, similar in concept to shared service agencies.

The NCTN exists to support and facilitate employment and training for RMOs. It provides a range of services to stakeholders, including:

- for employers – administration of recruitment, selection and placement of RMOs, analysis and reporting of regional trends, information provision for funding
• for regional training bodies – evaluations, training surveys, secretarial and administrative support, education videoconferencing
• for RMOs – information on training opportunities, job applications, certificates of service, expense reimbursements.

It has been suggested that the model of the NCTN could be extended and developed to provide organisations that carry out these functions across the country. The NCTN brings together many of the groups that currently have a key stakeholder interest in postgraduate employment and training. An expanded role, which considered not only operational issues but also key strategic issues, would meet many of the needs for a co-ordinated approach to medical training in New Zealand. The ability to rapidly link operational issues with short-, medium- and long-term strategic goals would be a very significant step forward in the development of solutions for medical training.

If such entities were to be established, they would be able to take a view of training needs, reflect the overall demands upon the system and ensure that, wherever possible, a co-ordinated approach is taken to many of the issues facing medical training. The success of the national PGY1 matching scheme (ACE) administered by NCTN is a indication that such a body can achieve improved training and employment outcomes.

Clinical Training Agency
The Roundtable recommends enhancing the work of the Clinical Training Agency and improving links to undergraduate education by appointing an advisory board comprising the Ministry of Health and other stakeholder representatives to advise on specifications for the training of medical and other practitioners and on whether the CTA’s Terms of Reference are still appropriate.

DHBNZ Workforce Development Group
The Roundtable recommends recognising and supporting the medical workforce development work already underway by DHBNZ to provide input into mechanisms to ensure that there is an appropriately educated and trained medical workforce to meet future needs.

DHBS, shortly after establishment, were aware of the need to have a more co-ordinated approach to workforce development and in response established the DHBNZ’s Workforce Development Group. Their work has included:

• the development of a sector-wide workforce action plan, to be supported by individual plans of each of the DHBs to reflect their local needs
• the development of a Future Workforce 2005–2010 project
• the establishment of six sub-committees (medical, nursing, two relating to allied health, corporate management and the unregulated health workforce) to address particular issues in those professions
• the establishment of a group to examine the implications of, and the administrative problems associated with, the Collective Agreement with the New Zealand Resident Doctors’ Association
• the development of a Health Workforce Information Programme.

The functions and membership of the Workforce Development Group are contained in Appendix 5.

Figure 1 provides an overview of the stakeholders involved in health education and training and the delivery of health services.

**Figure 1: Stakeholders' linkages**
Principles and programme design to govern medical education and training

The Roundtable agreed the following principles and recommendations for programme design to underpin medical education and training and recommends that they be taken into account in any redesign of the current education and training arrangements.

Principles

- There is a need for national agreement on what health care services are going to look like in the future, including how sub-specialty services are configured and how access is provided equitably.
- Co-operation is required between employers and educators to encourage and facilitate training opportunities that include exposure to the full range of health care provision.
- The product of the training programme should be a high-quality, well-trained and competent doctor who can deliver the care and treatment patients need in the appropriate environment and in multi-disciplinary teams.
- Programmes should be broadly based and as far as possible reflect New Zealand’s needs.
- A clear structure is necessary to encourage and support the development of academic, research and teaching skills and to support those who opt for an academic career.

Programme design

Postgraduate medical training should:

- be organised in structured programmes (usually a series of co-ordinated placements) with progress monitored against clear criteria and in line with published curricula
- be managed to ensure that trainees are able to complete them in the minimum necessary time
- be linked to explicit career pathways and explicit career goals
- be supported by strong educational skills with suitable training provided for specialist staff working with trainees
- ensure that individual professional responsibilities match an individual’s skills and knowledge at each stage of training in a progressive manner
- include counselling and career advice throughout training.
Recommendations

The Roundtable recommends that:

(a) medical education and clinical training is recognised as a continuous learning process, from the first year of undergraduate education to registration as a medical practitioner and beyond

(b) the current arrangements for medical education and training be rationalised and co-ordinated to ensure that the split of funding between education and health is not detrimental to the continuum of learning

(c) education and training of medical practitioners be responsive to the health needs of the community.

To achieve recommendations (a), (b) and (c), we further recommend that:

(d) to achieve gains in the short term and to start the change process, the circuit breakers set out in section 4 are introduced as a matter of urgency

(e) the Ministry of Health:

(i) establish and maintain better links between those involved in the education and training of medical practitioners (Ministry of Education, Tertiary Education Commission, Clinical Training Agency, medical colleges, universities and district health boards) to ensure that:
   • a co-ordinated approach is taken to the continuum of medical training from undergraduate level to the different levels of registration for medical practice
   • the requirements of the Medical Council of New Zealand are met
   • education and training programmes take account of the needs of the health sector in the delivery of medical services.

(ii) review, as its first joint task with the other stakeholders, the current provision and funding of undergraduate medical education and its links to prevocational clinical training, giving particular consideration to:
   • the role of the trainee intern year
   • reviewing the second prevocational year and facilitating recognition of prior learning in subsequent vocational programmes
   • providing more resources to assist training in primary care settings, rural areas, and emergency departments.

(iii) contract an appropriate body to critically appraise how the traditional apprenticeship training model could be enhanced within the current service delivery environment (eg, by introducing more competency-based training components and the use of providers of health services outside the public hospitals)
(f) District Health Boards New Zealand’s Workforce Development Group be supported and appropriately funded to provide input to the providers of medical education and training on the demand for, and role of, medical practitioners in the future, in both community and hospital settings.

(g) District Health Boards New Zealand’s Resident Medical Officer Strategy Group continue to work with the New Zealand Resident Doctors’ Association through the implications of, and the administrative problems associated with, the Collective Agreement with the New Zealand Resident Doctors’ Association.

(h) any recommendations for long-term solutions from District Health Boards New Zealand’s Resident Medical Officer Strategy Group take account of the recommendations of the Doctors in Training Workforce Roundtable.
APPENDIX 1: ROUNDTABLE MEMBERSHIP

In 2004 the Minister wrote to all organisations listed as members of the Roundtable inviting each of them to nominate a representative. The following nominations were accepted and make up the membership of the Roundtable:

- Glenys Baldick (Chair)
- Dr Pim Allen – Chief Medical Advisor, Waikato District Health Board
- Dr Ross Boswell – Chairman of the New Zealand Medical Association
- Dr Jeff Brown – President of the Association of Salaried Medical Specialists
- Taima Campbell – Member of the Health Workforce Advisory Committee and its Māori sub-committee (resigned June 2005)
- Jesse Gale – President of the New Zealand Medical Students Association
- Professor Keith Grimwood – Council of Medical Colleges
- Professor Linda Holloway – Pro-Vice-Chancellor and Head of the Division of Health Sciences, University of Otago
- Kristine Kilkelly – Director of Human Resources at Capital and Coast District Health Board
- Professor Iain Martin – Dean of the Faculty of Medical and Health Sciences, Auckland University (from September 2005)
- Dr Richard Pole – Chair of the Doctors in Training Council of the New Zealand Medical Association
- Dr Karen Poutasi – Director-General of Health
- Dr Deborah Read – Medical Council of New Zealand
- Brian Rousseau – Chief Executive Officer, Otago District Health Board
- Dr George Salmond – Member of the Health Workforce Advisory Committee and Chair of its Medical Reference Group
- Professor Peter Smith – Dean of the Faculty of Medical and Health Sciences, University of Auckland (until September 2005)
- Dr Nichola Wilson – Resident Medical Officer, Tauranga Hospital (from June 2005).

The New Zealand Resident Doctors’ Association was invited to participate in the Roundtable but chose instead to work with District Health Boards New Zealand’s RMO Strategy Group, whose work is complementary to the work of the Roundtable.
APPENDIX 2: A CONSUMER PERSPECTIVE

In preparing its report, the Roundtable was conscious that the primary focus of health care delivery should be the needs of the patients. It sought a perspective from consumers of health services from the Federation of Women’s Health Councils Aotearoa New Zealand.

Consumer perspective

The qualities of a good doctor from a consumer perspective are:

- high level of medical competence – good up-to-date medical knowledge and diagnostic skills, sound technique for medical procedures and awareness of limitations (the doctor doesn’t feel the need to pretend to know everything)
- high professional standards, eg, awareness of boundaries, confidentiality, public/private conflicts of interest
- discusses all suitable treatments with patient; gives choices/options; says what he/she is proposing to do, taking you through it so you know what to expect
- human relation skills – good listener, empathetic, people skills, able to be understood, shows a caring attitude
- an holistic approach – focus on wellness and maintaining healthy lifestyles, realises that there are ways other than medical to promote health and healing.

Training to achieve the above:

- early training could involve role modelling with consumer observation/critique [could involve consumer health organisations] as well as professional clinical comment
- while it is recognised that most training occurs in the hospital or a general practice it is becoming increasingly important to also expose the trainee doctor to a variety of settings, eg,
  - consumer and community driven models of health services provision
  - community mental health
  - alongside a public health nurse; or a rural nurse practice
  - mobile services (waka hauora)
  - disability and aged care settings
- remember: not every health problem has a medical solution
- it is also important to learn from the start that good practice involves teamwork – not just in the professional setting. For example, for GP home visits different rules apply where the practitioner is a ‘guest’ and they must treat the patient in a partnership manner and be non-judgmental and respectful of that person’s living arrangements.

Finally, the Federation reminds all health practitioners of the guiding document: Code of Health and Disability Consumers’ Rights.

Federation of Women’s Health Councils Aotearoa New Zealand
APPENDIX 3: CURRENT EDUCATION AND TRAINING IN NEW ZEALAND

Undergraduate education

New Zealand has two universities that provide undergraduate medical education: the University of Otago, with clinical schools in Dunedin, Christchurch and Wellington; and the University of Auckland with clinical schools in Auckland and Hamilton.

University of Otago

The course is informed by current thinking in educational theory and practice. Attempts are made to facilitate learning that satisfies the following criteria:

- **Integrated** – in years 2 and 3 the biomedical sciences have been horizontally integrated into system-based modules. In the earlier years there are two specific integrating modules, the System Integration and Patient Doctor and Society. Vertical integration is achieved through a number of threads that run throughout the course (e.g., clinical skills, pathology and Māori health).

- **Case-based** – where possible a case-based approach is adopted. This is particularly evident in Systems Integration in years 2 and 3 and in the clinical years.

- **Student centred** – small group sessions are run, allowing students the opportunity to discuss/explore material in depth. Aspects of the course, such as, the elective and various projects, also allow students to pursue areas of interest.

- **Clinically-based** – year 2 students have community/patient contact through the Early Community Contact week. In the later years the students spend most of their time in the wards, clinics and the clinical community setting.

- **Systematic** – the course is driven by objectives/outcomes. Where possible these are vertically and horizontally integrated.

In years 2 and 3 the students have the opportunity through laboratory, small group and lecture sessions as well as independent learning time to develop the core basic principles and concepts that underpin clinical medicine.

The clinical years, years 4 to 6, rely heavily on student exposure to patients in a number of clinical settings. Clinical attachments include: medicine and surgery (and associated disciplines), general practice, rural practice, obstetrics and gynaecology, paediatrics, psychiatry and public health.
The medical programme at the University of Auckland Medical School is developing in accordance with an outcomes-based curriculum strategy. New graduate learning outcomes have led to the establishment of four domains around which the curriculum is based:

- acquisition and application of medical knowledge
- professional, clinical and research skills
- hauora Māori
- population and community based practice.

Teaching within these four domains is developed vertically through phase one (years 1 to 3), phase two (years 4 to 5) and phase three (year 6 or trainee intern). A greater focus on the early introduction of clinical teaching into phase one has been adopted, and students are taught the clinical methods course at the end of phase one before entering clinical medicine attachments in phases two and three.

There is a greater emphasis on self-directed learning, with students able to access a greater range of learning technologies. All students have general practice attachments (year 4 – four weeks, year 5 – two weeks, year 6 – six weeks) of which a total of five weeks are in rural general practice.

The trainee intern year, a New Zealand innovation, provides for a supervised transition experience between fifth year and internship, during which trainee interns take increasing clinical responsibility in a supervised environment (Coster 2005).

Postgraduate Year 1 (intern)

In Good Medical Practice, the Medical Council (MCNZ 2004) sets out the domains of competence expected of a doctor. These are:

- clinical expertise
- communication
- collaboration
- management
- scholarship
- professionalism.

Not all the aspects of each domain apply at all stages of a doctor’s development. During the first postgraduate year the intern has provisional registration in the general scope of practice. The intern year focuses on the integration and application of attitudes, knowledge and skills in the New Zealand work environment and builds on undergraduate experience. New skills to be gained in this year are interpersonal, personal and professional skills such as
working in a team, time management, knowing one’s limitations and when to ask for assistance.

To gain registration in a general scope of practice, interns must:

- complete at least four runs – one category A medical and one category A surgical run, and two category A or B (or C if NZREX graduates) medical or surgical runs
- complete three satisfactory consecutive runs immediately prior to registration in the general scope at least two of which must be in a different discipline
- work for 46 weeks
- be certified in advanced cardiac life support (ACLS) within the preceding three years
- be recommended for registration in the general scope by the intern supervisor.

The most important features of intern learning are how to use academic knowledge to deliver medical care in the health delivery team, how all providers interact in their roles, and how to apply their knowledge in a clinical setting.

Clinical placements:

- occur in clinical settings such as wards, outpatients clinics, theatre or general practice
- should be arranged so that interns are able to attend orientation programmes, training sessions and relevant clinical meetings
- should include tutorials on procedures and skills, staff rounds, postgraduate meetings, clinicopathological and radiology sessions, mortality and morbidity audits, quality assurance programmes, and other programmes such as clinical discussions and programmes on bicultural and multicultural issues related to the practice of medicine
- require interns to take part in these learning activities for a minimum of two hours per week
- require a significant period of contact between the intern and the supervising consultant in a clinical setting, for a minimum of twice a week.

Postgraduate year 2 (PGY2)

Training in PGY2 is currently unspecified except for rural placements in the second postgraduate year of training (CTA 2000). The CTA has produced a draft generic specification for PGY2 (CTA 2005).

Training occurs in a rural general practice approved for training by the Medical Council and learning takes place in clinical and community settings.
Learning is on an apprenticeship basis, and much learning is by example. It requires good role modelling by the supervisor and active participation by the trainee, with constructive feedback given to the trainee. It is essentially a ‘hands-on’ placement where the trainee is expected to contribute to the work of the practice.

Vocational training

Doctors in training will decide which medical specialty that they pursue as their medical career and enter the relevant vocational training programme of the respective medical colleges. This will last for at least three years in the case of general practice, and up to eight years for hospital specialty training plus advanced specialty training.

Lifelong learning

Doctors will continue to learn and acquire skills throughout their careers in the practice of medicine. The Health Practitioners Competence Assurance Act 2003 requires the Medical Council of New Zealand to ensure that practising doctors maintain their level of competence within their scope of practice throughout their career.

Professional colleges and societies have maintenance of professional standards (MOPS) or continuing professional development (CPD) programmes, which are approved by the Medical Council for recertification. CPD programmes must include peer review, clinical audit, cultural competence (under development) and educational conferences/courses. All doctors are required to participate in CPD activities to practise in New Zealand. Doctors registered within the general scope (except for RMOs working in rotating supervised runs or in vocational training) must also have a collegial relationship with a doctor registered within a similar vocational scope or be credentialed by a DHB or hospital credentialing committee (MCNZ 2005).
APPENDIX 4: REFORM OF MEDICAL TRAINING IN THE UNITED KINGDOM

The General Medical Council’s guidance on Good Medical Practice (2001) underpins the education of doctors throughout their training and careers.

Undergraduate learning

Formal courses at medical schools lasting five years (or four years for graduate entrants). Recommendations on undergraduate medical education are contained in Tomorrow’s Doctors (General Medical Council 2003). In relation to clinical and practical skills, graduates must be able to:

- take and record a patient’s history, including their family history
- perform a full physical examination, and a mental-state examination
- interpret the findings from the history, the physical examination, and the mental-state examination
- interpret the results of commonly used investigations
- make clinical decisions based on the evidence they have gathered
- assess a patient’s problems and form plans to investigate and manage these, involving patients in the planning process
- work out drug dosage and record the outcome accurately
- write safe prescriptions for different types of drugs
- carry out the following procedures involving veins
  - venepuncture
  - inserting a cannula into peripheral veins
  - giving intravenous injections
- give intramuscular and subcutaneous injections
- carry out arterial blood sampling
- perform suturing
- demonstrate competence in cardiopulmonary resuscitation and advanced life-support skills
- carry out basic respiratory function tests
- administer oxygen therapy
- use a nebuliser correctly
- insert a nasogastric tube
- perform bladder catheterisation.
Postgraduate Years 1 and 2

In August 2004, the Department of Health published a consultation document *Unfinished Business: Proposals for the Reform of the Senior House Officer Grade*. In April 2004, the four UK Health Departments published *Modernising Medical Careers: The next steps: The future shape of foundation, specialist and general practice training programmes*. The report stated:

The apprenticeship model, long the bedrock of our training in the past remains important but now needs to be set within efficiently managed, quality assured training Programmes compatible with the Working Time Directive.

It went on to recommend that, after graduating, doctors should undertake a Foundation Programme to achieve a set of pre-defined, published competencies and outcomes within a two-year timeframe. ‘Competencies’ means observed behaviours, skills and attributes with assessment essentially based in the workplace. Movement through the programme is progressive, assessed and seamless.

Curriculum-based programmes will be developed which deliver an agreed set of competencies over two years, as follows:

- **Year 1**: a series of placements to achieve the outcomes required for full registration with the General Medical Council.
- **Year 2**: a further series of placements which rotate trainees through a spectrum of basic practical clinical experience with the express aim of developing the trainee progressively to the point where they are ready to enter specialist or general practice training programmes.
- Trainees will be mainly, but not exclusively, based in acute care settings, including mental health and general practice settings, to facilitate the acquisition of competence in managing acutely ill patients.
- This will cover diagnosis and treatment, communications, decision making, prioritisation and teamworking, which must be captured in generic competencies.
- There will be opportunities to acquire knowledge of other settings, disciplines and specialties through placements, outreach experience and project work.
- The programme will foster a better understanding of medicine more broadly and in particular a better insight into the relationship between primary and secondary care, with a greater number of experiences in, and consequently a better knowledge of, general practice.

In January 2005, following a detailed review of pre-registration house officer (PRHO) training, the General Medical Council produced *The New Doctor: Recommendations on general clinical training*. The main purpose of the document is to ensure that by July 2007 both trainers and PRHOs will be aware of the competencies that will become necessary to be eligible for full registration. The following competencies must be included in all training programmes:
• the scientific basis of practice and treatment
• diagnosis and treatment
• clinical and procedural skills
• communication skills
• teaching and learning skills
• personal and professional skills
• the changing patterns of health care
• legal and ethical issues
• disability and rehabilitation
• the health of the public
• the individual in today’s society.

The recommendations contain processes for supervising and assessing PRHOs. Those who successfully complete the training must be signed up by their University or their postgraduate dean (or other person the university authorise to sign on their behalf) before registration is granted.

Specialist and general practice training programmes

*Unfinished Business* proposed a two-tier training programme comprising:
• a basic specialist training programme
• a higher specialist training programme.

*Modernising Medical Careers,* however, moved to a system that sees the progressive acquisition of basic and specialist competencies in a single programme, concluding with the granting of a Certificate of Completion of Training (CCT).

Career counselling would be available to all trainees during the foundation programme, which will direct them to the specialist programme to which they are most suited. Progress will be achieved through the acquisition of competencies and the knowledge underpinning them. Programmes will be time-limited, based on a reasonable expectation of the time that should be taken to complete them, with opportunity to move to other preferred or more suitable specialities. There will also be an exit route from specialist training programmes into non-consultant career grades.

Having achieved all the competencies in the required way, trainees will be eligible for the award of a CCT.
APPENDIX 5: DHBNZ WORKFORCE DEVELOPMENT

Workforce Development Group
The Workforce Development Group (WDG) leads development of DHBs’ collective workforce strategy and co-ordinates collaborative workforce activity. Within this functions include:

- development of recommended priorities on workforce development
- co-ordination of relationships with key stakeholders
- assessment of risks, issues and opportunities pertaining to the health workforce
- undertaking a work programme and initiatives that add value to DHB and wider sector workforce development and planning
- oversight and support of Workforce Strategy Groups.

WDG has lead development of two overarching documents to guide DHB workforce activity at DHB, regional and national levels:

- Workforce Action Plan (May 2003)
- Future Workforce (August 2005).

Membership

- DHB CEOs (2)
- Senior managers/corporate (2)
- Regional human resource manager representation (4)
- Chief Medical Officers (2)
- Director of Nursing (1)
- Māori health workforce representation (1)
- Pacific health workforce representation (1)
- Ministry and CTA representation (2).

Resident Medical Officers (RMO) Strategy Group
The role of the RMO Strategy Group is to lead development of the RMO workforce in the context of DHB’s overall direction for the health workforce. The RMO Strategy Group is working with the New Zealand Resident Doctors’ Association to take an holistic approach to the development and employment of RMOs as a key health sector resource.

Membership

- Lead CEOs (2)
- Senior managers
- Human resource/employment relations practitioners
- Senior professional advisors.
APPENDIX 6: DOCTORS IN TRAINING WORKFORCE ROUNDTABLE TERMS OF REFERENCE

1. Objective
The Doctors in Training Workforce Roundtable (the Roundtable) is established by the Minister of Health to provide the Minister with agreed solutions to short-term issues relating to the work and professional development of doctors in training.

The prime purpose is to facilitate the training of doctors, in the numbers and of the type required, who are highly motivated, well prepared and committed to practice in New Zealand.

2. The issues
The Roundtable will address the following issues:
- sustainability of the current preparation of medical practitioners
- recruitment and retention
- deployment
- career guidance and vocational training
- incentives and career development
- a supportive workplace environment.

In addressing these issues the Roundtable will consider:
- the central focus on patient care
- safety and quality of patient care
- effectiveness and efficiency in the use of human resources
- objectives for training and links to service delivery
- hours of work, work/life balance, and vocational guidance
- communication, team work, service and workforce design and staffing arrangements
- the designation, accreditation, funding and allocation of training posts
- the use of incentives and other means to facilitate the career development and retention of doctors in training in New Zealand, in both the short and longer term.

The Roundtable may also identify issues that are more appropriately progressed through the work of the Health Workforce Advisory Committee (HWAC) or its Medical Reference Group (MRG).
3. **Membership**

The Roundtable will comprise leaders and decision-makers directly involved in medical education and/or the delivery of medical services and include representatives from:

- District Health Boards (a Chief Executive, a Human Resources practitioner, a Chief Medical Advisor)
- Health Workforce Advisory Committee and the Medical Reference Group
- Council of Medical Colleges
- the medical schools
- Medical Council of New Zealand
- New Zealand Medical Association
- Association of Salaried Medical Specialists
- New Zealand Medical Students Association
- Ministry of Health.

4. **Timeframe**

The Roundtable will provide a full report on its activities and achievements to the Minister of Health within one year of its establishment.

5. **Working arrangements**

The Roundtable is distinct from the structures and processes whereby employers and employees negotiate employment contracts for resident medical officers and specialist staff.

An independent Chair will be appointed by the Minister of Health.

Secretarial and administrative support will be provided by the Ministry of Health.

The Roundtable will draw on:

- evidence gathered by the HWAC and its MRG in its role of developing an independent, expert and strategic view of the medical workforce in the context of the health workforce as a whole
- the knowledge and experience of other interested parties
- any other evidence of relevance provided to the Roundtable.

At times the Roundtable may find it convenient to work in subgroups and to co-opt expert outside assistance.
REFERENCES


KPMG. 1999. *Future Directions for the CTA: A review for the Health Funding Authority.* Wellington: Health Funding Authority.


## Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td><strong>Broad selection criteria</strong></td>
<td>The process of selecting candidates based on what they are able to bring with them and contribute, such as life and communication skills, their values and cultural strengths.</td>
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<tr>
<td><strong>Clinical Training Agency (CTA)</strong></td>
<td>A unit within the Ministry of Health that funds post entry clinical training in order to facilitate the development of the health and disability workforce.</td>
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<tr>
<td><strong>Community</strong></td>
<td>A collective of people identified by their common values and mutual concern for the development and wellbeing of their group or geographical area.</td>
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<td><strong>Community-based health</strong></td>
<td>Health services delivered in the community.</td>
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<tr>
<td><strong>Competencies</strong></td>
<td>The attitudes, skills, knowledge and behaviour held by health practitioners and support workers to perform particular functions.</td>
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<tr>
<td><strong>Continuity of care</strong></td>
<td>People are able to access needed services at the right time, in the right place and from the right people.</td>
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<tr>
<td><strong>District Health Boards (DHBs)</strong></td>
<td>District health boards are funders and providers of publicly funded services of a specific geographic area. Twenty-one DHBs were established under the New Zealand Public Health and Disability Act 2000.</td>
</tr>
<tr>
<td><strong>District Health Boards of New Zealand (DHBNZ)</strong></td>
<td>An organisation that represents all DHBs.</td>
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<tr>
<td><strong>Domestic student</strong></td>
<td>Students who are New Zealand or Australian citizens, or permanent residents of New Zealand.</td>
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<tr>
<td><strong>Health Practitioners Competence Assurance Act 2003</strong></td>
<td>Legislation designed to protect the health and safety of the New Zealand public by ensuring that health practitioners are competent and fit to practise within their scope of practice.</td>
</tr>
<tr>
<td><strong>Hours worked</strong></td>
<td>The Medical Council of New Zealand defines hours worked as the combined total hours worked per week across all worksites as self-reported by the respondent and includes only that part of on-call time that is worked.</td>
</tr>
<tr>
<td><strong>House officer</strong></td>
<td>Medical graduates employed in hospital environments in the first or second postgraduate years. Senior house officers are in their third or subsequent postgraduate year.</td>
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<tr>
<td>Term</td>
<td>Description</td>
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<tr>
<td>Integrated health service delivery</td>
<td>An integrated approach to health and disability support services that is responsive to people’s varied and changing needs. Providers co-ordinate their services, working closely with the person and, where appropriate, with their family, whānau and carers to provide services that appear seamless to recipients. For Māori operating within a framework of whānau ora, this means placing the whānau at the centre of health care and support for Māori.</td>
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<tr>
<td>Interdisciplinary</td>
<td>An approach in which individuals from two or more professions work collaboratively to improve health outcomes. The approach emphasises the connectivity, alignment and collaboration between primary, secondary and tertiary health care services.</td>
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<tr>
<td>International student</td>
<td>A student from overseas, studying in New Zealand on a student permit.</td>
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<tr>
<td>Medical Council of New Zealand (MCNZ)</td>
<td>The Medical Council registers doctors to practise medicine within their scopes of practice in New Zealand.</td>
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<tr>
<td>Medical Officers</td>
<td>Posts targeted at those who have sufficient training to act in a senior role but lack formal completion of training that would allow vocational registration as a specialist (Southerndoctor.net).</td>
</tr>
<tr>
<td>Models of care</td>
<td>An approach for developing service delivery around particular patient needs (eg, developing service components required by individuals with diabetes).</td>
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<tr>
<td>The ‘new’ professionalism</td>
<td>An approach to professionalism centred on the idea of serving the public good. The ‘new’ professionalism is characterised by reflective practice, interdependent decision-making, teamwork, collective learning, responsibility and accountability, and engagement with the community.</td>
</tr>
<tr>
<td>New Zealand Health Strategy</td>
<td>An overall framework for the health sector, with the aim of directing health services at those areas that will ensure the greatest benefits for our population, and focusing in particular on tackling inequalities in health.</td>
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<tr>
<td>Non-government organisations (NGOs)</td>
<td>Encompasses community or voluntary organisations; Māori, iwi and hapū organisations; and for-profit organisations where government organisations contract with them for delivery of outputs.</td>
</tr>
</tbody>
</table>
Nurse practitioners  Experts in their field who use advanced knowledge and skills within their specialist scope of practice. Nurse practitioners are educated through a clinically focused Masters degree programme and must meet the competencies set out by the Nursing Council of New Zealand. These include being able to articulate and advance the scope of their nursing practice, showing expert practice and working collaboratively with other disciplines as well as across settings. Competencies also include demonstration of leadership and consultancy in nursing, active development and influence on policy and nursing practice. Nurse practitioners may or may not choose to be nurse prescribers (Nursing Council of New Zealand 2001).

Overseas trained doctors (OTDs)  Doctors who obtained their primary medical qualification in a country other than New Zealand. Excludes temporary doctors.

Population health  The health of groups, families and communities. Locality, biological criteria such as age or gender, social criteria, such as socioeconomic status, or cultural criteria such as whānau may define population.

Primary health care  Essential health care based on practical, scientifically sound, culturally appropriate and socially acceptable methods. It is universally accessible to people in their communities, involves community participation, is integral to, and a central function of, the country’s health system, and is the first level of contact with the health system.

Primary/secondary interface  The connection between primary and secondary health care. Better communication and teamwork between primary and secondary health care ensures that the knowledge and skills of both are applied to each patient’s care in the most effective way.

Primary Health Organisations (PHOs)  Local, not-for-profit provider organisations funded by DHBs to provide primary health care services for an enrolled population.

Professional colleges  Organisations that are authorised to register vocationally qualified medical practitioners.

Registrar  The term strictly refers to a pay scale. Most practitioners employed on this scale are undergoing postgraduate specialist training in posts approved by the vocational colleges.

Resident medical officer (RMO)  A term that covers house officers and registrars. Doctors in training.

Scopes of practice  Health services that a practitioner is qualified and competent to offer, the parameters within which these services can be offered and a time period for review.

Secondary health care services  Specialist services that patients access when their needs are unable to be met by primary health care services. Typically provided in a hospital setting.
<table>
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<tr>
<th><strong>Skill-mix</strong></th>
<th>The mix of health workers from the same professional cluster, the mix of health workers from a variety of professional or occupational groups, the combination of skills available at a specific time and the combinations of activities that comprise each role (Buchan et al 2004; Sibbald 2004).</th>
</tr>
</thead>
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<tr>
<td><strong>Team</strong></td>
<td>A team of health practitioners from different disciplinary backgrounds who demonstrate generic competency in interpersonal skills, cultural and ethical skills, adaptability, feasibility, outcome thinking, problem-solving and consensus decision-making in relation to best health practice.</td>
</tr>
<tr>
<td><strong>Teamwork</strong></td>
<td>Different disciplines working together to address shared problems. All members of the health care team, as well as the patient and carers being involved in the decision-making processes. Communication is the key to good teamwork.</td>
</tr>
<tr>
<td><strong>Vocational registration</strong></td>
<td>A general practitioner or specialist who has met the criteria for vocational registration with the Medical Council of New Zealand, including completion of the requirements of the relevant college or professional association.</td>
</tr>
<tr>
<td><strong>Workforce development</strong></td>
<td>Any initiative that influences entry to and exit from the health and disability sectors, education, training, skills, attitudes, rewards and the associated infrastructure.</td>
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