

DISCUSSION PAPER

Medical Training Board

Integrated and Co-ordinated
Medical Training



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Introduction

This Medical Training Board discussion paper focuses on the continuum of medical education, but is closely linked with the Training Board's other discussion papers, *The Future of the Medical Workforce* and *The Curriculum Framework*.

An integrated education and training system must be able to adapt to the inevitable pressures that changes in health care will cause. This is not to negate the significant and high quality contributions made by many stakeholders in the current education and training system but to emphasise that significantly greater benefit could be obtained if these current strengths were built upon.

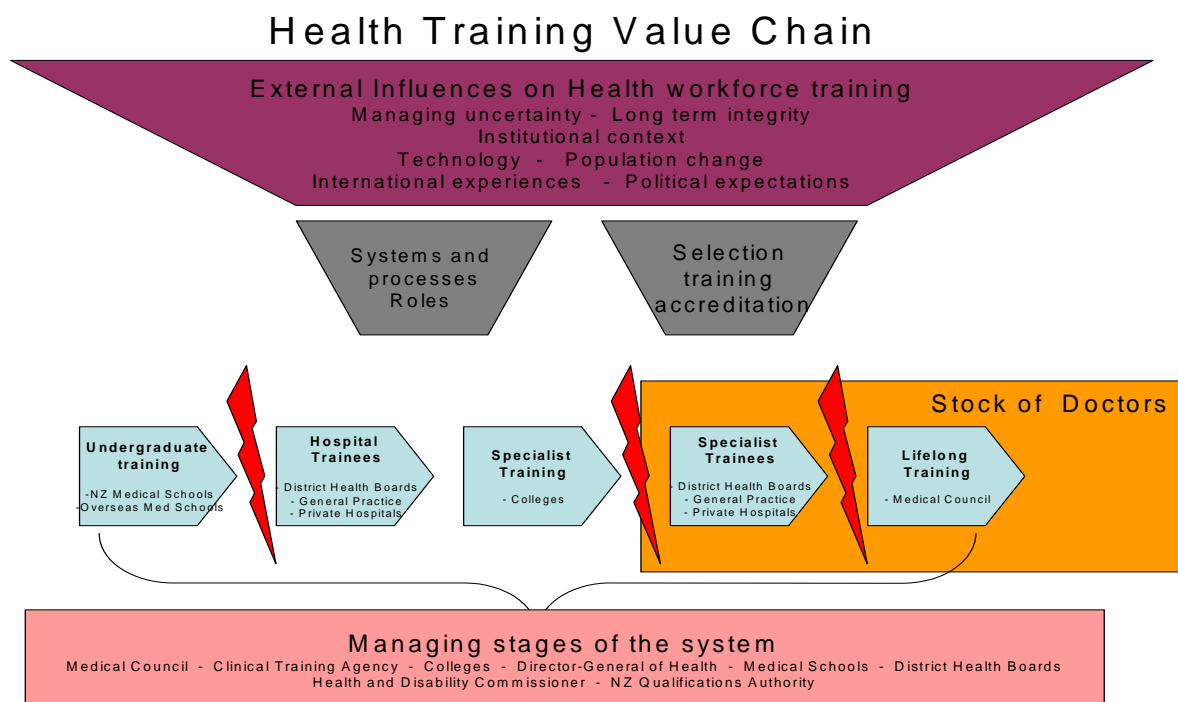
The continuum of learning

An integrated education and training system would aim to respond to the continuum of learning experienced by doctors and those aiming to become doctors. This continuum is illustrated below. There are a number of key components within the continuum:

- undergraduate medical education leading to the award of a medical degree and facilitating limited registration with the Medical Council of New Zealand;
- early postgraduate education providing a platform for subsequent training and facilitating general registration with the Medical Council of New Zealand;
- vocational training; and
- continuing professional development.

Each of these components must, if the system is to function optimally, articulate with adjacent and subsequent components.

Figure 1: Health training value chain



Embedding and integrating medical education, training and research across the health care system

Medical education and training begins the day a student is selected for entry into their first medical degree and ends the day they retire from clinical practice. The complexity and life-long nature of medical education and training, together with New Zealand's small population and geographical remoteness, speak to the need to ensure the coordination and integration of education and training with health care delivery.

The strengths and key outcomes of an integrated system might be seen in:

- the production of a stable, predictable demography of trained specialists;
- meeting the critical mass of medical service required by each field of medical practice;
- local and national balance between the numbers of trainees and trainers;
- an appropriate balance between junior and senior trainees where numbers are decided by the overall needs of the system rather than as reactionary pressure to acute issues;
- training outcomes and accreditation through common way points; and
- commonality of entry points into vocational training.

Health service delivery in the education and training framework

The health care environment is critical to the delivery of education and training to the next generation of medical practitioners. Throughout the education and training continuum, students and trainees will be placed for some or all of their educational experience within health care providers.

In this light the service context of medical training determines both its form and how it fits with forms of service provision. The educational and training framework, if it is to optimally deliver the next generation of medical professionals, must:

- recognise the critical importance of sustained and continued availability of care and treatment for patients;
- provide a defined series of experiences where consultants, trainees and patients overlap;
- ensure a commonality in training obligations across trainers;
- optimise relevant clinical experience through rotation and opportunistic placement in situations of high interaction;
- manage engagement in activity unrelated to expanding or affirming clinical competence;
- share training with other health professionals, where appropriate and educationally beneficial; and
- ensure that education and training is delivered across all domains of health care delivery: tertiary hospitals, secondary hospitals, regional base hospitals, community health settings and general practice, private health providers, non-government organisations, and overseas.

There is also a very significant contribution made by trainees to the health service, in the way in which they support and deliver those services. The presence of students and trainees within the system supports and encourages innovation, challenge, enquiry, technology, research methods, quality and learning culture.

Education framework: outcomes, assessments, curriculum

The delivery of an integrated educational and training system will require the educational framework to be constructed to allow each component to build upon and articulate with other aspects of the system.

An educational framework must start with an understanding of what the desired characteristics of the student/trainee will be, on completion. These characteristics can be described in terms of objectives or outcomes: objectives representing what the programme will deliver to the student/trainee and outcomes representing what the student/trainee will be able to do on completion of the programme.

Having defined the objectives/outcomes the next step would be to design an assessment framework through which it can be reliably and robustly assessed whether the student/trainee meets the required standards.

A curriculum will be needed that can ensure a match between desired outcomes and assessments.

There are many different approaches to describing outcomes, carrying out assessments, and designing a curriculum. There is little evidence that one particular approach is inherently superior to another, but there is good evidence that outcomes, assessments, and curriculum must align.

It is the opinion of the Medical Training Board that while many aspects of individual components are of a high standard, the linkages between each are not as clear as is desirable. In particular, better definition of outcomes, assessments and curriculum for the period of early postgraduate education is required. A joint working party between the Medical Council of New Zealand and the Medical Training Board was established with the purpose of producing a revised and enhanced draft specification for this component of training.

This working party proposes that there should be:

- the establishment of “waypoints” where, once achieved, the levels of competencies, responsibilities, accountabilities and supervision requirements change;
- the waypoints could eventually be suitable points for the granting of qualifications, change of status of registration, approval to proceed to the next phase of training, and/or to work in defined scopes of practice;
- a set of competencies should be met in order to proceed to the next waypoint and finally to be recognised as competent to enter a vocational training programme;
- the competencies should involve the acquisition of knowledge and skills in clinical sciences, communications and professional skills; and
- an appropriate assessment system should determine who has achieved the competencies to progress to the next phase of practice.

Medical education and training has its roots firmly within an apprenticeship model. The impact of the changing demands of health care, patient expectations and the ever-increasing volume of scientific knowledge have resulted in a system of health care delivery that can no longer support a training system so dependent upon such a model.

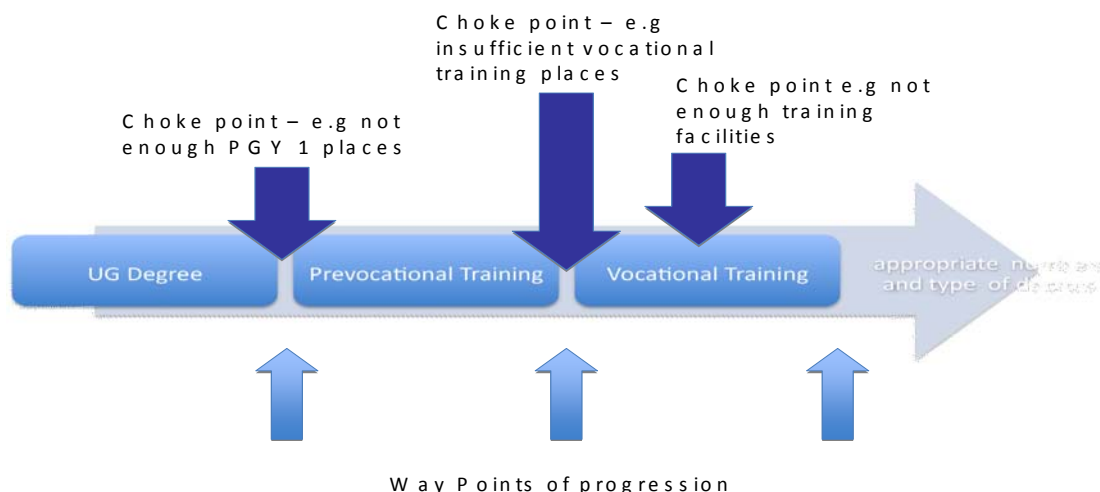
It is important, however, that the education and training system adopts the best aspects of several models of medical training.

- *Experiential learning*: the system must recognise that clinical experience is a very important aspect of medical training. While individual outcomes and competencies can be defined, it is only through experience that these can be placed in context.
- *Defined competencies*: it is recognised that important key competencies can and should be defined. The strengths of a competency based framework must be balanced against the tendency for such models to encourage simplistic views of the skills required for clinical practice. Many of the skills most valued in clinical practice, such as critical thinking and problem evaluation, are very difficult to define in terms of set competencies.
- *Curriculum design*: the curriculum must recognise that medical practice requires an appreciable level of scientific and clinical knowledge.
- *A balanced and mixed assessment portfolio*: the assessment portfolio must consider aspects of knowledge, skills and competencies, professional attitudes and how all three are integrated in measures of clinical performance.

National and regional coordination in training

The complexities of the health care system and the importance of delivering the right medical workforce for New Zealand speak strongly to the need for clear and coherent national coordination. It is all too easy for changes, made with the best intention, to produce adverse impacts elsewhere in the training continuum. Planning needs to take place to ensure that “choke points” within the training system are identified and managed. This is illustrated in Figure 2 below.

Figure 2: Choke points within the health training system



The medical training system must recognise and facilitate the integration of education and training into new models of health care delivery such as the promotion of regional and national clinical networks, the emphasis on primary care, and recognition of the increasing role of the private health sector.

To meet these needs, one option is for a national medical training body to be established. Such a body might involve perhaps four regional centres, ideally cross-coordinated with networks of clinical service provision based on regions each with a population of 800,000 to 1,200,000, such as Northland/Auckland, Midland/Waikato, Lower North Island, and South Island.

A nationally-based medical training body would allow the affirmation of good models developed within the system to drive system-wide change. There are many very good practices across the continuum of education and training and the system must learn from many of the current players. In addition a national training body would:

1. reduce the extent to which a multiplicity of employers creates difficulties in optimising the delivery of medical education;
2. counter the effects of fragmentation of services in smaller specialities (e.g. neurosurgery);
3. plan adaptation of training through experiential learning to the impact of changing working hours and hospital team structure on continuity and trainee/consultant relationships;
4. strengthen the ability to recognise the current knowledge and skills of trainees; and
5. facilitate a rational and system-wide approach for the consideration and development of new roles.

Quality aspects of medical education and training

The New Zealand system of medical education and training has a strong reputation for the delivery of high quality medical graduates, trainees and vocationally registered practitioners. Any developments to the system must at a minimum maintain this quality but ideally should enhance the quality and consistency of the New Zealand medical workforce. The education and training system must ensure that quality is a key factor at all stages of the education and training continuum, including the:

- selection of trainees;
- training programmes;
- accreditation of programmes, individual trainers, training providers, individual trainees and new specialists, and new roles;
- training environment;
- output; and
- quality context of the health care environment.

International issues

In developing a national integrated and coordinated system of medical training it has to be acknowledged that medical practice is very heavily globalised and that international issues will impact upon the system in a number of key areas.

- *Joint Australia and New Zealand colleges:* with the exception of the College of General Practitioners and College of Dermatologists, all of the colleges involved in vocational training are joint Australia and New Zealand organisations.
- *Australian Medical Council (AMC) Accreditation:* although the Medical Council of New Zealand ultimately accredits the two New Zealand medical programmes, the accreditation process is in common with Australia and is run through the AMC.
- *Overseas training of New Zealand doctors:* a significant number of New Zealand medical graduates receive some or all of their training overseas.
- *International medical graduates:* make up a very significant proportion of the current workforce and lateral entry of international medical graduates into the education and training

system must be planned and facilitated. Even with a move towards greater self-sufficiency for medical practitioners this will remain a key issue as it seems likely that at least 20 to 25 percent of the workforce will be international medical graduates for at least the next 50 years.