A Nurse Education and Training Board for New Zealand

Report to the Minister of Health: An evaluation of the need for a Nurse Education and Training Board for the oversight of nursing education and training in New Zealand

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29 June 2009

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A. The Committee on Strategic Oversight for Nursing Education

Terms of reference

The Committee on Strategic Oversight for Nursing Education was established by the Minister of Health in March 2009 to explore whether a formal Education and Training Board would add value in overseeing and improving the leadership and responsiveness of nurse education in New Zealand. The Committee was established by the Minister to ensure the nursing profession has access to strategic education and development opportunities comparable to those now established for medicine through the Medical Training Board.

The Committee of Len Cook[1] was to report to the Minister of Health in June 2009, after consultation mainly focused on New Zealand's nurse organisations and nurse leaders.

The review process

Some 20 meetings and several less formal discussions were held with nurse leaders, educators and others in the health service. These discussions were essential to the review, adding insights that underpin the conclusions of the report. Every group was unstintingly helpful, and they often added leads for further thought. The Tertiary Education Commission (TEC), District Health Boards New Zealand (DHBNZ), Ministry of Health and Statistics New Zealand gave invaluable assistance in obtaining the statistics used in this report.

In carrying out this review, I was most ably supported by Christine Andrews (Senior Policy Analyst – Nursing, Ministry of Health), Robert Heyes, (Principal Technical Specialist, Ministry of Health), and Kerry-Ann Adlam (Director of Nursing, Taranaki District Health Board). I am most grateful to those who later reviewed parts of this report during its preparation, after being interviewed.

This review provides an assessment of the ways that we could better make decisions about the appropriate number and mix of types of nurses we need each year, to inform and provide a national focus to their education and training. Such decisions are of vital importance to our health, health services and nursing. This is not a review of any aspect of the nature of nursing as a profession.

There have been many initiatives that further the development of the nursing workforce, and in more recent years District Health Board initiatives have paid particular attention to developing information about the nursing workforce, structured pathways for building up the clinical experience of newly registered nurses, and increasing the share of nurses who are Maori or from Pacific communities. This review has not enumerated these initiatives, nor have any initiatives been evaluated for endorsement or criticism. Many of the comments received have

[1] Len Cook was Government Statistician in New Zealand from 1992 to 2000, then National Statistician of the United Kingdom from 2000 to 2005.

sought to build on initiatives that already exist, or have been a stimulus for a more fundamental challenging of existing received wisdom.

B. Summary of findings and recommendations

New Zealand competes against the world to retain the nurses we train. Because we have tended to train fewer nurses each year than there is work for, New Zealand DHBs also recruit nurses from overseas, in addition to those that seek to come here. Since 2004, the Nursing Council of New Zealand has registered more overseas trained nurses than newly educated New Zealand nursing graduates. To some degree, the flow of overseas trained nurses can more quickly react to unplanned demands. Many overseas nurses work in roles and areas where New Zealand has failed for some time to develop staff with the required interests and skills. In doing this, the age distribution of the nurse workforce in New Zealand is being significantly changed, with downstream consequences for recruitment in later years. We have not been well enough organised in looking ahead at where national needs are not being met, or to give a lead to individual tertiary education providers and to local DHBs to consider national needs as well as those locally. The committee has had access to work now in hand[2] among DHBs that will strengthen the basis for this in the future. The varied collaboration we have locally is a weak substitute for a nationally shared view of the issues we face and preferred options to resolve them. Many of the opportunities in the future require collaboration among health professionals, and nursing too needs to be more effective in establishing clear paths. Nursing, like most of the health sector, is clearly capable of developing thoughtful strategies, but then mobilising to achieve change effectively can be rather difficult, most particularly in change that involves joint action among professions.

We face a considerable shift in the mix of health care demands, as people live longer, in particular the nature of the conditions people have, their acuity and persistence. There will be a larger group of people who place quite massive demands on health services. Because we know a lot more about the causes of poor health, and have seen huge advances in treatments and diagnostic capability, we can also influence health outcomes much more now than was previously possible, and to a greater extent than we can ever afford. We do not know how all these influences will come together, leaving us with a need to prepare for many eventualities. Nurses work in many areas of practice, with only a half now being based in hospitals, a significant change from 25 years ago when six out of seven nurses worked there.

The central focus of more recent initiatives in health services, structures and systems, is to ensure that we can achieve the scope and scale of services for all New Zealanders that our national income leads us to expect.

Almost universally, nurses met during the last three months endorsed the general idea of a Nurse Education and Training Board, as a critical vehicle for advancing the leadership of nurse education and workforce development. A good many placed considerable value on the consequential benefit of a regularly organised leadership forum among medical, nurse, midwifery and allied health bodies involved in education and development of professional health workers, to confront and advance matters which needed collective understanding to proceed at a reasonable speed. An end point of collaboration in this form would be the establishment of a health education and training authority.

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[2] CURRENT STATUS OF THE NATIONAL REGULATED NURSING WORKFORCE, (draft copy) DHBNZ June 2009

Many of the nurse leaders interviewed expressed very strong concern about the limited analysis of the long term demands on nurse numbers of New Zealand's health services, and had a variety of concerns about preparedness to meet these demands. In particular, not only the age distribution of the current nurse work force, but the significant reduction in younger trained nurses will have serious consequences for our ability to maintain even the current level of New Zealand-trained nurses in the health service. Concern about the age distribution of nurses is more significant when looking at the age distribution of nurse educators. We have already reached high levels of overseas trained nurses, in particular nearly one quarter of nurses have been trained overseas, and of nurses aged under 45 years, three of every ten have been trained overseas.

Overseas trained nurses have a different age distribution to those that graduated in New Zealand, as they have tended to be recruited as New Zealand graduate numbers became insufficient to meet demands, although at correspondingly later ages. As the early post war baby boom cohort of nurses retires, the retirement will then start of overseas nurses now in the largest age group, between 35 and 45 years. Their concentration in particular roles and places will continue to exacerbate the impact of the ageing of the total nurse work force.

We already see that the needs of people, as they live longer than ever before, have led to a compounding of the number with multiple chronic conditions, so much so that demands on health services are unlikely to be met within New Zealand's national income without either significantly increasing inequalities of access or changing how our health services operate. Nurses will play a critical part in any such inevitable change, and in extending the options we have for the overall nature of our heath service. Over the past twenty years the nursing workforce has changed in size, place of work, skills and qualifications ethnicity and national origin. With further change expected of the nurse workforce over the next two decades, more effective leadership at a national level will be needed to ensure that the many forces for change are responded to in a coherent manner that reinforces their fit with the longer-term needs of the health service. While the analysis in this report is mainly focused on Registered Nurses, it is expected that a Nurse Education and Training Board would have that responsibility for all nurses.

Fundamental to bringing about significant change will be:

- A need to consider how to affirm the place and significance of nursing among the population in each age group, as a significant career choice
- A need to understand and give attention to the current attrition rates across the seventeen tertiary institutions that grant degrees in nursing, and the retention of registered nurses in the health service.
- A need to consider the service wide consequences of the accumulated decisions each education institution makes every year about the size of its student intake
- A need to ensure that the availability of clinical placements does not limit nurse education
- A need to systematically arrange for the development of the leadership capacity of those in each birth cohort with the most aptitude for wider health service leadership, at an appropriate time during their career

The New Zealand health service is highly decentralised, and once performance goals are set and financial allocations have been made, there is little basis for nation-wide direction or leadership of decisions about the health workforce. Training is not included in the performance goals of DHBs.

Tertiary education operates in similar ways. More recently, we have seen a long overdue recognition that all parts of the health service share many common concerns about the nature of the leadership and management of the future health workforce. A strong focus on the development of the future medical workforce led to the workforce taskforce chaired by Dr Robert Logan, which in early 2007 recommended the setting up of the Medical Training Board. Len Cook has been the Chair of the Medical Training Board since it began in November 2007.

Recommendations

It is recommended to the Minister of Health that he:

1. Notes that in considering proposals from the current reviews of the health system and health workforce, there would be considerable benefits in building up high level governance of the system we have for nurse education and training.

2. Notes the high level of commitment among nursing groups that were consulted as requested about a nurse education and training body

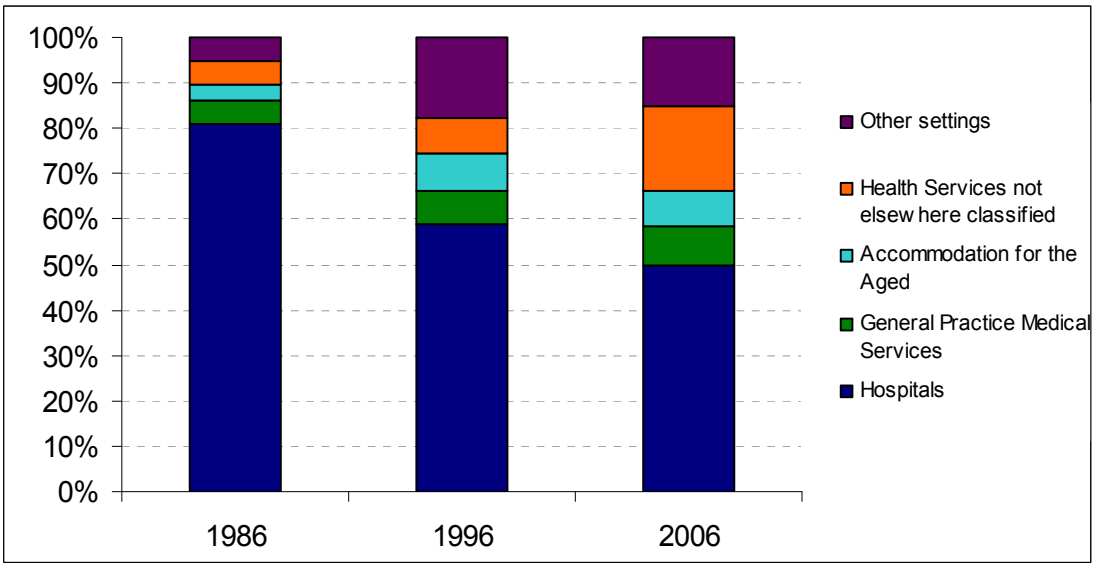
3. Notes the need to bring health professionals together more effectively in the oversight of the whole health workforce, in training and in the establishment of roles and evolution of skills needed for the treatment and care of New Zealanders

C. The Place of Nurses in the Health service

Nurses work wherever health care and prevention exists

Nurses lead the care of patients and the delivery of health services through young to old in public institutions, private organisations, community organisations and the home. Across these places, the structures that nurses work in vary considerably. Nurses may work autonomously, without a support structure, as part of teams within structured work groups, or some in between arrangement. We have few studies of the way in which the work of nurses has evolved, and the extent to which education and training is relevant for the demands placed on nurses across so many different settings.

Chart 1: Where nurses work in the New Zealand health service, 1986 to 2006



Source: Statistics New Zealand, 1986, 1996, 2006 Census of Population and Dwellings

We have seen considerable change not only in the scale and nature of the demands of people in New Zealand for health services, but the health system in New Zealand has undergone three major transformations in the last two decades. These transformations have either stimulated or followed shifts in the demands placed on nurses, and they have not always increased the capacity of nurses or other health professionals to meet peoples' needs for health services. Nurses have had to adapt as the health system itself has evolved. As hospital stays have reduced, from a mean stay of seven days in the mid 1990s to around three days now, the acuity of patients in hospital has increased considerably. Over this period, in general, health practitioners have become more specialised, perhaps doctors more so than nurses and allied health professionals, while the share of patients with multiple chronic conditions has increased. Some 40 percent of acute patients are people with multiple chronic conditions, a large minority of who are usually resident in some form of aged care institution. Nurses working with people with acute conditions fill an increasingly complex role. We have little measure of the impact of the increased acuity on the demands we place on health services, and as a consequence we are less able to anticipate further shifts in workforce needs.

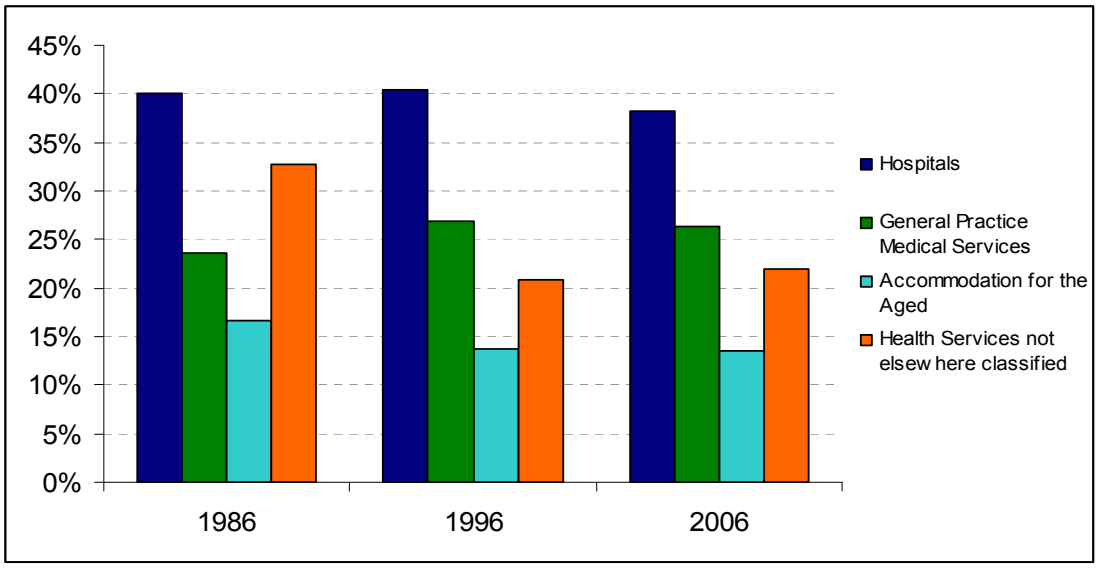
The Director-General of Health needs to develop a regular assessment of how DHBs identify and meet their collective obligations for training of health professionals, and should require the DHBs to provide each year to whatever new governance body is established, their collective strategies for raising the retention rates of nurses in the New Zealand health service

Whether they work as a Plunket nurse, in a ward of a major hospital, mental health nurse or as a specialist practice nurse in a medical centre, nurses are most often the constant element in the care and oversight of the variety of conditions and treatments faced by patients, the culmination of which may regularly require other support services. A stable nurse service is fundamental to both the resilience and the managed adaptability of the health service.

Nurses in the health work force

DHBNZ reports that the total regulated active nursing workforce working in nursing in New Zealand is now 40,616. Nurses make up approximately half of the registered health professionals in DHBs, and are just under 40 percent of the hospital workforce. Whereas until the mid 1980s, some 80 percent of nurses worked in a hospital setting, this share has continually fallen over the last two decades, so that now about half of all nurses in the health sector work in hospitals. Other major places where nurses increasingly work are in general practice, primary care and in the community sector, where there are generally fewer support structures for nurses in the field. In primary care, nurses comprise some 22 percent of the total paid primary care workforce of approximately 29,000.

Chart 2: Trends in the significance of nurses in the health workforce

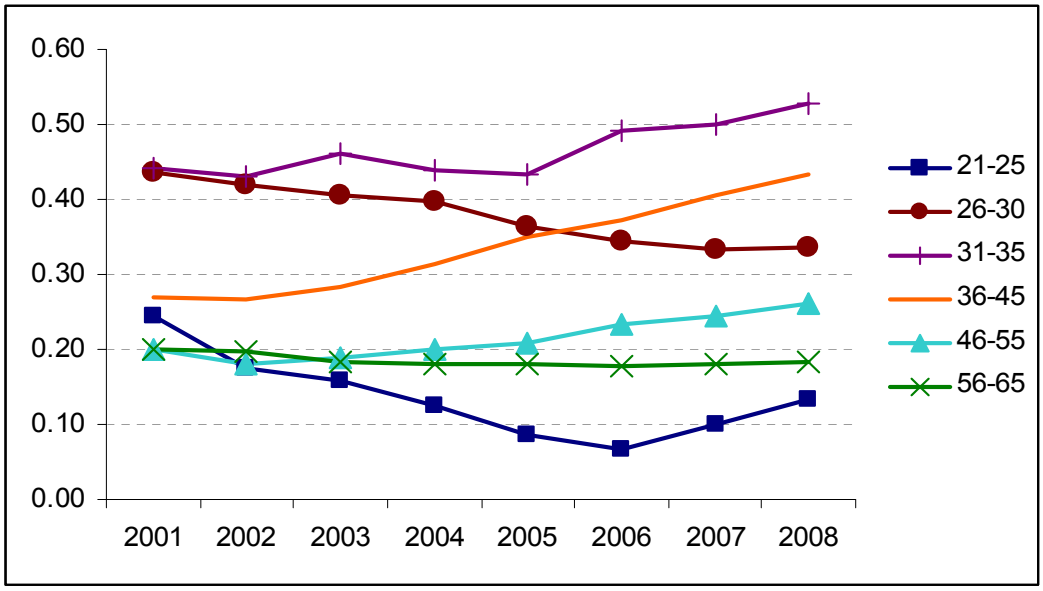


Source: Statistics New Zealand, 1986, 1996, 2006 Census of Population and Dwellings

Nursing has long held a significant place in the occupational expectations of women. There has more recently been a huge shift in the composition of the younger nurse workforce. Although some of this shift reflects deliberate efforts to recruit older students into nursing, it also suggests

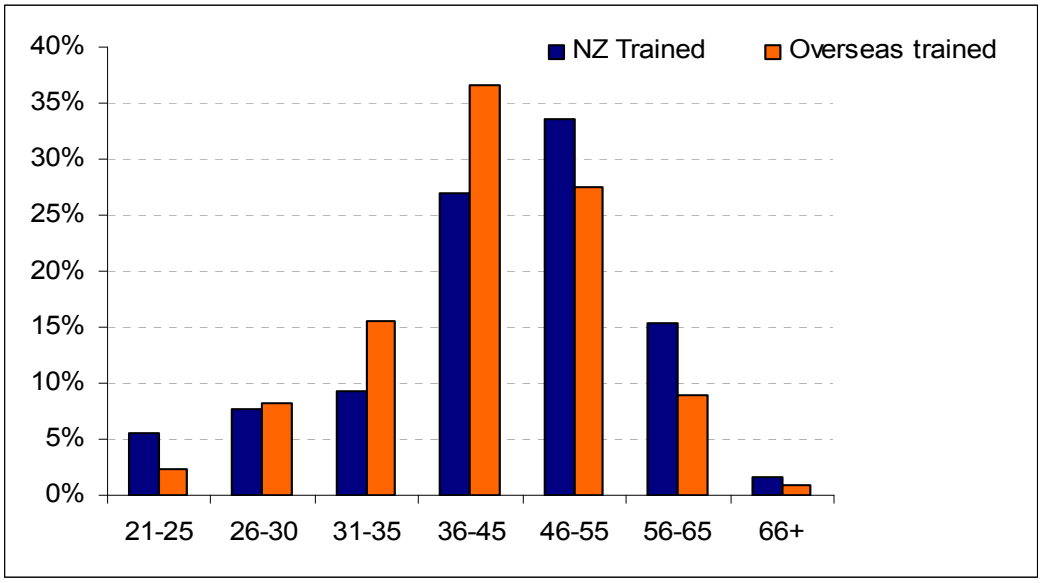
that in the last 10-15 years New Zealand women do not now see nursing in the same light as did earlier birth cohorts. If this shift is not addressed by some mix of policy, managerial and operational initiatives, there will be a significant decline in the resilience of the nurse workforce, as the capacity to educate future cohorts with the necessary academic and clinical competence may well decline at a time when we expect to have more being trained. Nurse numbers fell from 1986 to 1996 by some five percent, and in the decade since 1996 they increased by nearly 18 percent. The number of nurses in employment over this same time has risen from over 36,300 in 2002 to 40,600 in 2008. The increase in the share of registered nurses who are currently in the workforce has been attributed to the pay adjustment several years ago. Over the last decade, the mean age of the nurse population has risen, with the share of New Zealand trained nurses aged under 35 years at its lowest ever level. The age composition of the nurse workforce is now a matter of serious concern, as the capacity to influence the number of New Zealand trained nurses through traditional means has been seriously eroded. These concerns have been apparent for some time, yet there seem to be insufficient national levers to influence change and reinforce the mix of localised initiatives.

Chart 3: Ratio of overseas trained to NZ trained nurses by age, 2001 to 2008



Source: Health Workforce Information Programme, Nursing Council Registration Database
Note: an upward slope indicates more overseas trained nurses relative to the NZ trained

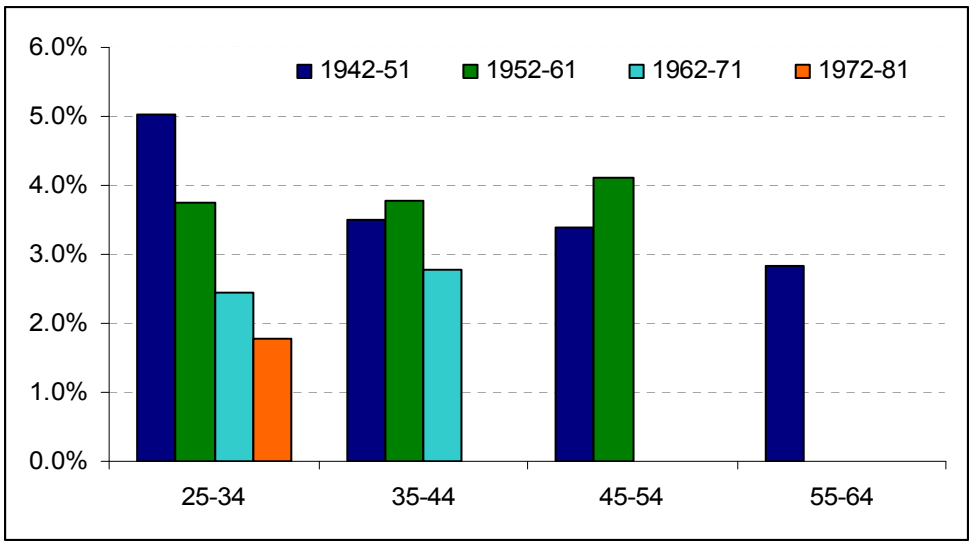
Chart 4: Comparison of age distribution in 2008 of NZ trained and overseas trained nurses



Source: Health Workforce Information Programme, Nursing Council Registration Database
Note: excludes nurses younger than 21 years and nurses whose age is unknown

Nursing and teaching are two professions that employ many people, mainly women, where recruitment and retention can have profound long term effects. There are over 30,000 women teachers in New Zealand, leaving nursing with some 40,000 as the largest single occupation employing women, and the largest professionally trained workforce in the country. The significance of nursing as a key occupation for New Zealand women has been on the wane for nearly two decades, as can be seen in the analysis of the age of nurses as reported in the five yearly census of population. Teaching has not experienced this decline. Whereas in teaching, there have been regular national campaigns to encourage people into teaching, for nursing there have been no national campaigns. Local initiatives such as the Inzone bus and local DHB programmes cannot substitute for this.

Chart 5: Females reporting occupation as nurse as a percentage of the population in age group, for given birth cohort, 1942-51 to 1972-81



Source: Statistics New Zealand, 1986, 1996, 2006 Census of Population and Dwellings

Nursing is the largest occupation women take on. The consequences of being a large share of the health workforce, means that nurses most often bear the brunt of financial pressures on DHBs and on other health services. This can affect nurses by

- Necessitating a change in employment or vocation
- Influencing the advice given to local nurse education universities or polytechnics on the current demand for nurses
- Determining the share of each graduate cohort that has local employment opportunities, on graduation.
- Amplifying the fluctuations in job opportunities when nurses seek to change jobs, return to nursing, or seek promotion

The number, place and composition of the nurse workforce in New Zealand has undergone one of the most marked transformations over the last two decades of any key workforce that continues to have considerable relevance to New Zealand. Nursing will continue to experience a high rate of change, although we remain uncertain about the future level of need for nurses, the mix of skills they will have and the roles they will fulfil. Factors which are most critical to the future resilience of the nurse work force include:

- The means of influencing the flow, ethnicity and age of those who seek entry into the Bachelor of Nursing (BN) courses
- Increasing the retention of nursing students during degree studies
- The capacity to find positions for nurses during training and immediately after graduation
- The age distribution of the current nurse work force
- The retention or return of registered nurses to nurse occupations
- The age distribution of the nurse education workforce

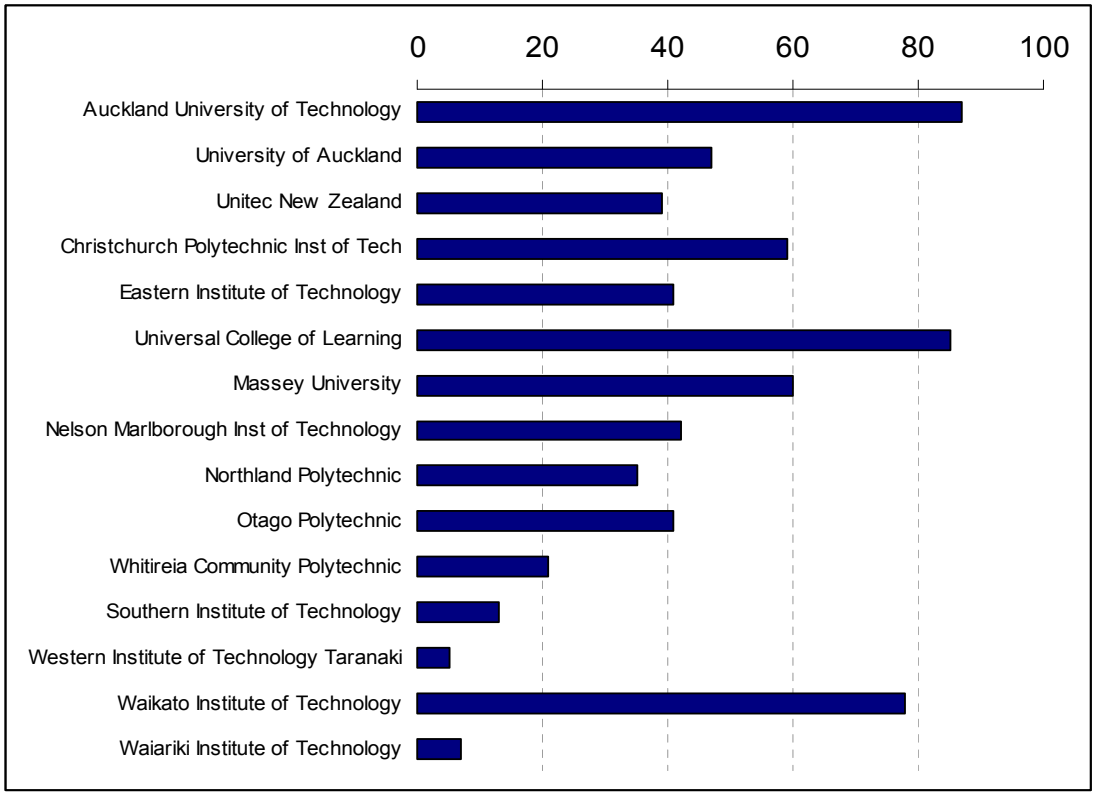
D. The Education and Training of Nurses

The first degree education that nurses receive is in a university or polytechnic. Depending on the educational institution, nursing may be contained in a wider health sciences school, placed among social sciences, or operate in isolation. There is no common pattern in these arrangements. At the University of Auckland, the School of Nursing brings together medical, nursing and some other health professionals, while at the University of Otago, the health sciences school does not teach nursing at undergraduate level at all. Seventeen universities and polytechnics award an undergraduate degree in nursing through twenty different institutions and educational programmes in nursing, thirteen of which award post graduate degrees.

The engagement of universities and polytechnics with health services is usually with nearby DHBs. While no study has been carried out of these relationships, it is understood that they vary considerably. Even where they work at their best, the balancing of supply and demand for nurses is inevitably short term, and reflects the DHB capacity to employ nurses once graduated, and the university or polytechnic capacity to obtain applications at a sufficient level. This local balancing of supply and demand is independent of any organised study of national trends, potential shortfalls or surpluses elsewhere, or national targets. It can create great uncertainty as DHB budget balances fluctuate, and necessitates nurses being highly mobile if they are to be employed as nurses when they need to be.

The relationship between such an accumulation of independently managed local activities and a mix of national expectations may develop more effectively with both educators and practitioners contributing to their oversight. Without this, the more specific needs of the nurse workforce often get omitted, for example the needs of mental health, of Maori and Pacific Island communities. There is little capacity to balance long term benefits with current costs, as each institution in the system is accountable for the year on year viability of its finances, and few levers to make this happen at a national level.

Chart 6: Education provider student intake of Bachelor of Nursing first year students, 2008



Source: Ministry of Education
Note: this is a student headcount

The return an individual gets from obtaining nursing qualifications would be determined by their national and international employability. Given the high loss rate from nursing, it is possible that nurses perceive benefits from having the opportunity of other employment because of the value placed by other employers on the mix of aptitudes and skills that nurses typically bring.

The lower than usual return in the rewards from nursing from making an investment in nursing qualifications may also lead to a greater sensitivity to salary change of the number of former nurses available for re-engagement as nurses. Work on improving retention would need to evaluate how far the return on investment from nurse education is influenced by factors unique to nursing.

The Nurse Education system

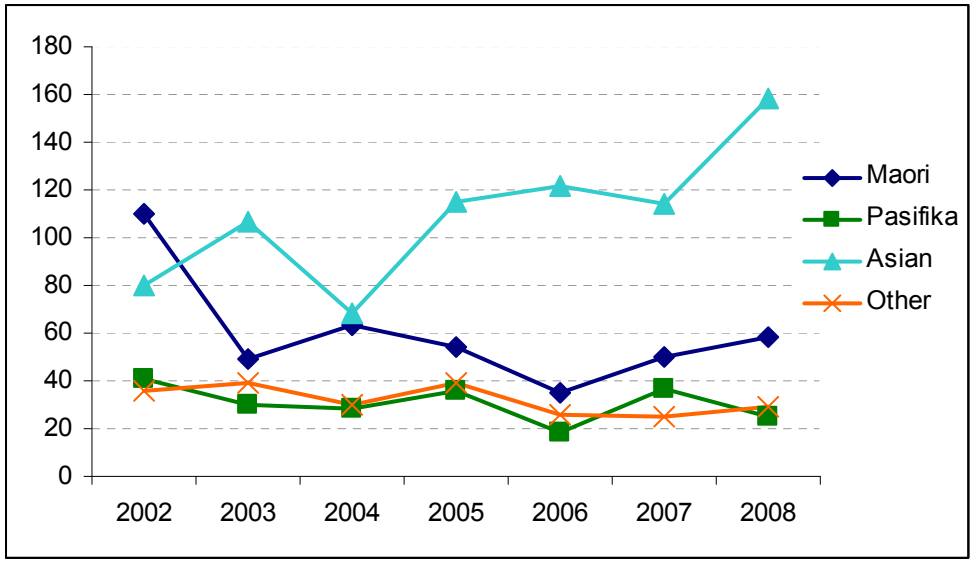
Nurse education is initially aimed at achieving registration as a Nurse by the Nursing Council of New Zealand, with the national and international recognition of fitness to practice that this brings. Now, the usual path in New Zealand for this has been to graduate with a Bachelor of Nursing (or similarly named) degree at one of 17 accredited institutions in New Zealand. There are a large number of tertiary institutions delivering the same outcome – a degree and consequent accreditation after examination as a Registered Nurse. Many of the courses have few students.

There are many advantages in having some diversity in the delivery of the educational programme, but we might wish to periodically assess:

- Are the outcomes consistent amongst the 17 different tertiary institutions, and does any such variability influence the overall quality of education?
- What is needed to increase collaboration in the form of programmes provided at each institution? Would one national programme provide consistent outcomes?
- What could national leadership do to further the capacity and reach of successful innovative ways of educating and mentoring students that have improved outcomes for Maori and Pacific island students?
- How far does the number trained in local tertiary institutions usually fit with local needs?

Along with the completion of a degree, and success in employment, one of the most critical stages in the development of the future nursing workforce is the willingness of people now to apply for acceptance into training. The last twenty years has seen a huge decline in the share of New Zealand women entering nurse training, although the effect of this on the nurse workforce has been offset by the increase over the past decade in the recruitment of overseas trained nurses. Overseas trained nurses are generally older than new trainees, and to this extent the reliance on overseas nurses will eventually exacerbate the long run fragility of the age composition of the nurse work force. In 2006, nursing was at a post war peak as a preferred occupation for women aged between 45 and 54 years, with just over four percent of the women born during the 1950s stating their occupation as nurse. In their twenties, this cohort had just over one in fourteen women enter nursing, although only half of these remained in nursing after ten years. This cohort had the highest rates of marriage and fertility seen in New Zealand, some 85 percent becoming mothers by the time they were aged 25. In starkest contradiction to this, we see now the lowest ever share of women 15-24 years working as nurses.

Chart 7: Ethnicity of Bachelor of Nursing first year entrants 2002 to 2008



Source: Ministry of Education
Note: excludes NZ European

Annually, applications to enter nursing education used to imply a long run average of four to five percent of all women born becoming nurses at some stage of their lives.

The selection criteria for acceptance into a nurse undergraduate degree course vary around New Zealand. In most courses there is little culling of applicants, and usually it is understood anecdotally that there may have been overall perhaps eleven or twelve applications per every ten entrants to BN training. The main exception to this is the BN course at Auckland University, which each year received some 700 applications across all health sciences that include nursing as a choice, in order to select 100 first year undergraduate positions. The independent management of information about applications by each institution, and their reluctance to share this makes it difficult to identify and distil trends, and share good practice. It reduces the capacity to effectively understand how much different generations seek careers in nursing.

Nationally, the average annual number of enrolments in undergraduate nurse programmes is over 1500, but the later completion of a degree and nurse registration is affected by high attrition rates. These vary across education centres and years. Some schools have 45 percent attrition, with a national attrition rate in the order of 20 to 25 percent. The attrition rates are higher for Maori and Pacific Island enrolments, as well as older students. Evaluation of attrition rates and what is associated with the high variation across institutes would identify good practice that could be shared, and supported nationally. It may also reflect differences across the country in the quality of the education nurse undergraduates have received at school.

One recent initiative of fundamental importance has been the Nurse Entry to Practice (NETP) Programme. This programme of structured clinical experience has been introduced in 2006 to provide nurses with a structured and managed introduction to working as a nurse. Entry into NETP follows immediately the completion of an undergraduate degree, and acceptance for registration as a nurse, In 2009, this course covered two thirds of all BN graduates of 2008. In Scotland, the NETP programme equivalent called “Flying Start” is a web based programme. DHBs are funded for the provision of clinical placements by the Clinical Training Agency, and the availability of the placements requires strong collaboration.

The entry into employment of nurses once registered has a high degree of variability. The generally poor monitoring of vacancies gives little understanding of pressures emerging on health employers, and the consequent volatility in employment is increasingly reflected in a shift in the balance between the recruitment of overseas nurses rather than longer term investment in the education of New Zealand nurses.

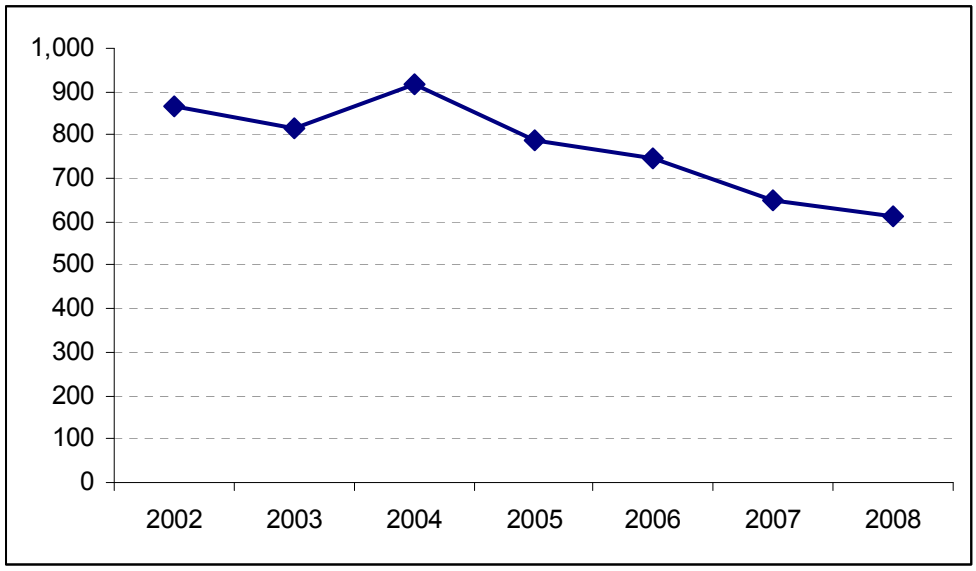
Post-graduate education and post-entry clinical nurse training

Nursing provides an extensive range of post registration education and training, including level 7 speciality programmes, and Masters and Doctoral programmes. A large number and growing share of nurses seek and obtain such qualifications. Such training is supported in a variable way by DHBs, and there is some that is paid for by nurses themselves.

While the core nursing degree is directly relevant to nursing practice, and is essential for it, post graduate nursing qualifications might still be better linked to roles, employment structures or financial reward systems.

The more recent trends in post graduate degrees suggest a need for some concern at the numbers enrolling, and the capacity to influence the continual ageing of the nurse workforce that we currently experiencing.

Chart 8: Total enrolments on masters level nursing courses, 2002 to 2008



Source: Ministry of Education
Note: this is a student headcount

The match of post graduate nursing qualifications to nursing practice and recognition structures seems quite loose.

Employment pathways as a senior nurse do not reflect the post graduate nurse qualifications that are held or are being undertaken by an increasing share of the nurse workforce. The linkages between post graduate qualifications and vocational pathways in nurse practice, or remuneration are not well determined. The many nurses undertaking masters preparation in a clinical area of interest to them may not be doing so in an area supported by service requirements in their region or employment organisation. The Ministry of Health did a stock-take in 2008 of cancer and palliative care nursing that showed just only 19 percent of the nurses they surveyed (649) had post graduate qualifications. That report judged this to be a "low" figure for the uptake of post graduate qualifications. Alongside this, a recent NZNO study showed that nurses on average in NZ are better educated and qualified than in the UK[3]. There are very limited funded career pathways for advanced practice roles unlike those that exist for vocational training for doctors. Some of this may reflect the inadequacy of the ongoing engagement between the DHB system as a whole, and the nurse education

[3] Holding Up: the first biennial NZNO Employment Survey , March 2009

institutions as a community in matching employment needs to education options, as they evolve. Given the size of New Zealand, among health professions the balance between specialisation and generalist skills will remain an active tension. The response of nursing to this will not be completely independent of what happens in medicine. This not only affects training of nurses in higher level roles, but for support and assistant roles as well. As noted above, the nature of defined vocational pathways identified for nursing in part determines the fit between clinical practice and education. There needs to be a greater understanding of the existing links with service delivery in terms of anticipating medium and longer term workforce/skills requirements. This may never be a fully satisfactory means of establishing a New Zealand-wide resolution of this.

Maori and Pacific Island nurses in the health workforce

Maori generally live in areas that are less well served by doctors, and so have a higher reliance on nurse led services, as an alternative to admission to hospital. Maori are more likely than other New Zealanders to face multiple chronic conditions in later life. A predisposition to conditions such as diabetes brings not only a lower life expectancy, but high morbidity in many other health conditions where we are now much more aware of the potential of primary care and population focused initiatives to reduce their prevalence.

Over the past three decades health services have sought to recognise elements of Maori custom, in ways now have less risk of being ignored. Strengthening the Maori health workforce is critical to sustaining this recognition, just as it will be more likely to bring about equitable access to health services in places and among communities where access is poor. A clear place for Maori leadership in the evolution and integrity of ways of providing health services would lead us to highlight ways that health services can recognise their distinct world view and deliver in accordance with it. Fundamental to this is a regular injection of newly qualified Maori nurse graduates, at a significantly greater level than has occurred in the past two decades.

The share of nurses who are Maori is now seven percent, much lower now than twenty years ago. This low share has already stimulated a number of initiatives to increase Maori in nursing. Relationships with secondary schools have been used to highlight the nature of nursing as a career, and increase applicant numbers. Mentoring schemes for Maori students have reduced the attrition rate significantly in some courses, while pre-entry courses to provide education that has been missing from high school teaching, particularly in science has also contributed to lowering attrition. Over the past decade, approximately ten percent of Maori women under 25 have continued to enrol in nurse degree programmes. Over this time, the share of women aged over 25 years who have been first year enrolments has declined severely, from around 70 per year to not even a quarter that number in the most recent years. Undoubtedly this decline has stimulated the more recent initiatives at MIT and at Whitireia, to focus intently on wider influences on the attrition of older students, and these programmes have immense importance in assessing our capacity to reverse this shift. *Even if successful specific Maori and Pacific initiatives were to be widely applied, the generally poorer access by Maori and Pacific children to secondary education at the standard presumed essential for entry to BN studies will not be fully countered without initiatives within the education sector to ensure as a relevant preliminary that all schools can offer relevant teaching in science and mathematics.*

Where the place of learning is located is an important influence on the share of Maori who seek nurse education. Local teaching attracts the population of the region, and Maori are a higher than average share of the population in Northland, Tairawhiti, Counties Manukau, and Lakes. The existence of educational institutions in such places outside of the main centres is significant for Maori. Similarly is the capacity to adopt a "staircase" approach to education, so that lower level courses dovetail into higher level programmes, with full recognition of prior learning. It is understood anecdotally that in the past about one half of Maori and Pacific Island enrolled nurses ended up as registered nurses. For Maori, the education pathway is critical to manage the risk that Maori get blocked in at the lower end of training.

The Maori nursing workforce has a smaller share of older nurses, and at each older age group the share declines. This may well mean that the age distribution will remain younger for some time, but this will depend on the capacity to retain in nursing nurses once trained This will seriously challenge not only the capacity to maintain the number of Maori nurses at the current level, but will place in jeopardy the capacity to return the share of nurses who are Maori to past levels. Without specifically targeted initiatives, not only in recruitment but also retention, it is unlikely that Maori will be a similar share of the nurse population as they are in the population overall. *Specific initiatives that focus on both increasing the share of nurses who are Maori, and on retaining those who have been trained, need to be are underpinned by initiatives that heighten the significance of nursing generally as an occupation, otherwise their impact will have less impact.* There is a need for particular consideration as to how Maori will be recognised in the Nurse Education and Training Board

Maori nurses often work in isolation in community services. This can increase significantly the demands placed on them, and this may affect retention rates at vulnerable times during their career.

E. Meeting the demand now for Nurses

Recognising the current demand for Nurses

There has been inadequate capacity for building up a good understanding of the drivers of the future New Zealand-wide level demand for nurses. This has limited the potential for national oversight and cohesion in the planning of educational institutes. It also reduces the information base available to governance bodies including the Tertiary Education Commission and the Ministries of Education and Health when they have a need to challenge the strategic implications of locally made tactical decisions that have been unconstrained by any common national reference point. There is only now developing a regular, systematised process for maintaining any such New Zealand-wide understanding, through the work of DHBNZ. Indeed, the competitiveness among institutions, both DHBs and tertiary education providers, has led to some obscuring of information about current trends, and reluctance to exchange insights and experiences. The lack of national oversight has a variety of consequences, in particular:

- Nurse education will not be as immediately responsive to delivery needs as overseas recruitment without strong service provider links with educators at local and New Zealand-wide levels
- The national training of nurses has usually been below long term needs, as recruitment overseas is more immediately responsive, and generates fewer commitments past the current financial year.
- The high costs of recruitment and a high turnover of overseas trained nurses raise the long term costs of the nursing workforce
- Clinical training capacity may limit the size of future nurse intakes, reducing the capacity to “catch up”
- The limited capacity to rebuild a stable age distribution in the nurse workforce after any period of under-provision may well be poorly understood
- The number of nursing students from communities including Maori and Pacific Islands will not get close to national needs without national oversight and national support of initiatives
- Nurse training in specialist fields has not lead to stable flows of newly trained nurses
- The longer term implications of ad hoc solutions may be recognised only belatedly

Significant trends, constraints and risks

Age distribution

The age distribution of New Zealand nurses is now markedly older than in the past, as a consequence of:

- The large cohort of nurses recruited in the 1960s and 1970s are reaching retirement age

- The managing of a reduction in nurse numbers during the 1990s by significantly reducing enrolment in nurse education has left a significant void in the size of the age cohort that is under 35 years, and some return to earlier lower levels of nurse numbers aged between 35 and 45 years.

- While the recruitment of overseas trained nurses has enabled the number of nurses to grow even with near static enrolment in nurse education over the last decade, their older ages compared to new graduates means that during the next decade, they too will expand the numbers retiring compared to those being trained.

- The nurse educator work force faces even greater problems of ensuring its replacement over the next decade.

These problems are not common to New Zealand. In the United States, the United Kingdom and Australia similar issues exist, which is why these places also remain as attractive places for New Zealand trained nurses to work, often quite soon after receiving registration in New Zealand. Buchan and Calman[4] noted

- High-income countries are also reporting nursing shortages. In a recent report on health systems, the OECD highlighted that, "There are increasing concerns about nursing shortages in many OECD countries". The OECD noted: "Nursing shortages are an important policy concern in part because numerous studies have found an association between higher nurse staffing ratios and reduced patient mortality, lower rates of medical complications and other desired outcomes. Nursing shortages are expected to worsen as the current workforce ages"

- Some recent examples of OECD country assessments of nursing shortages include Canada, where the shortfall of nurses was quantified at around 78,000 nurses by 2011, and Australia, which projects a shortage of 40,000 nurses by 2010. HOPE, the standing committee of hospital employers in the European Community, has also recently reported on nursing shortages in many European countries.

- Many high-income countries in Europe, North America, and elsewhere are facing a demographic "double whammy" – they have an ageing nursing workforce caring for increasing numbers of elderly. For these countries, the pressing challenge will be how to replace the many nurses who will retire over the next decade. Some of these countries face shortages due to marked reductions in the numbers of nurses they trained in the 1990s as well as reduced numbers entering the nursing profession today. Attractive alternative career opportunities are now available to the young women who have been the traditional recruits into the profession.

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[4] **The Global Shortage of Registered Nurses: An Overview of Issues and Actions,** ***Burdett Trust for Nursing*** *Developed by* James Buchan and Lynn Calman

Buchan and Calman identified four components of a policy framework to address nursing shortages that are highlighted in their 2004 international survey:

- Workforce Planning
- Recruitment and Retention
- Deployment and Performance
- Utilisation and Skill Mix

Measuring vacancies and shortages

It is difficult to develop consistently applied measures of vacancies for nurses. Some of this reflects the operational nature of responses to vacancies in the health sector, in that one way or another, through stretching cover by another person, locum arrangements or otherwise managing, services continue in some form. DHBs have released measures of vacancies based on systematic approaches, and these enable us to regularly assess gaps in availability of nurses. The effective analysis of these measures is needed to inform the long term evolution of skills and roles, both across professions and within them.

Balancing DHB financial arrangements and graduate flows

Nurses are some 40 percent of the workforce in DHBs across New Zealand. As the financial fortunes and pressures on DHBs vary, one of the more immediate impacts is on the nurse workforce. Inevitably, from the short term perspective of any individual DHB, it is simplest in the short run to limit the recruitment of new graduates, as there are no industrial considerations, the saving is immediate, and the loss of more experienced staff is avoided. From the point of view of the newly graduated nurse, the need to recover the cost of training is at its highest, as is the need for experience. The new graduate will have achieved nurse registration, and for most they will have reached the peak in their qualifications. The market for nurses is international, and for nurses as with all New Zealanders, looking elsewhere increasingly involves an overseas job. Even now there are nurses trained in localities who will not find jobs in their local DHB, although training numbers at the time of enrolment in a nurse programme would have been set to meet expected needs of the DHB. While this will always be a difficult match, more can be done to ensure that the DHB system as a whole becomes the preferred employer of each new graduate, particularly as over the next few years the annual financial fortunes of even the most financially viable DHBs will fluctuate significantly. *Given the comparatively small size of current BN graduating cohorts, compared to our need for nurses over the next decade, some DHB wide focus on retention is needed.*

Balancing the volatility in demand for nurses with the inherent stability of nurse education processes

The education of a nurse takes three years to graduation and registration, with the NETP programme year then providing a structured introduction to practice, and further experience to support being fully effective in most work areas. Positions for the NETP programme now involve almost all new registered nurses. The limits on the number of new graduate placements at this stage are financial, although in the medium term the capacity to increase the number of enrolments for nurse education will be constrained by the willingness of

nurses now in practice to enter educational institutions to become nurse educators. At present, educational pay levels are not comparable with practice incomes, and the variability in student numbers over the past decade has reduced the viability of some nurse programmes. More significantly, across the 17 tertiary institutions as a whole, there seems insufficient attention to the retirement profile of the nurse educator workforce. DHBs are accountable individually for how they manage the financial implications of the volatility in demand for nurses that they face, yet it is unlikely that all DHBs face the same pressures. The education system will never have the immediacy of response to the demands that DHBs place on the supply of nurses, yet in the medium term the inability to train the required share of each cohort of students in nursing exacerbates the longer term instability of the nurse workforce. Individually, DHBs can freeload on collective actions taken in the short term to increase the certainty of the future nurse workforce, unless there are processes to inform such balancing, and justify the judgments that underpin it. In the near future, with more nurses returning to work, as well as people returning from Australia, some alleviation of demand pressures will not avoid having to think now about the long run structural instability of the New Zealand nursing workforce.

Developing roles in Nursing

The development of new skills and roles across health professionals may be somewhat constrained by some industrial agreements, and more particularly by the licensing processes that result from self regulation. The development of coherent pathways across roles has long been important in nursing, as the large share of people that enter the profession start with greatly differing backgrounds and understandings of their own abilities and aptitude. Given the size of New Zealand, there is a need for a locally relevant balance between the adoption of skills and roles that are well proven elsewhere, and the wider application of locally valued approaches. This is particularly so for Maori and Pacific initiatives. The capacity to explore, evaluate, accept and implement change in roles seems unnecessarily fraught in nursing, particularly where the skills and roles overlap with other professions, particularly medicine. *A body that can bring together the wider community of health professionals to engage on the evolution of roles as skills develop may well significantly increase the current limited capacity to trigger progress in these difficult issues.*

F. Future demand for Nurses in New Zealand

The nature of the general uncertainty about the size and mix of the nurse work force

There is considerable uncertainty about the size of the nurse workforce we will need in the long term. The nature of second tier nurse roles as they evolve will be just one consideration in managing this uncertainty. Similarly, the extent to which in New Zealand nurses can adopt roles that rely on skills that are elsewhere held by nurses, such as nurse anaesthetists, but which in New Zealand remain as medical roles only. It may well be that rigidities we now have in roles across the health services are unsupportable in the longer term. Over the last decade the increase in health resources reduced pressures that would otherwise necessitate challenging any rigidity in roles. The coming decade will undoubtedly see a very much lower capacity to retain many longstanding rigidities that ultimately affect the productivity, reach and responsiveness of the health service as a whole.

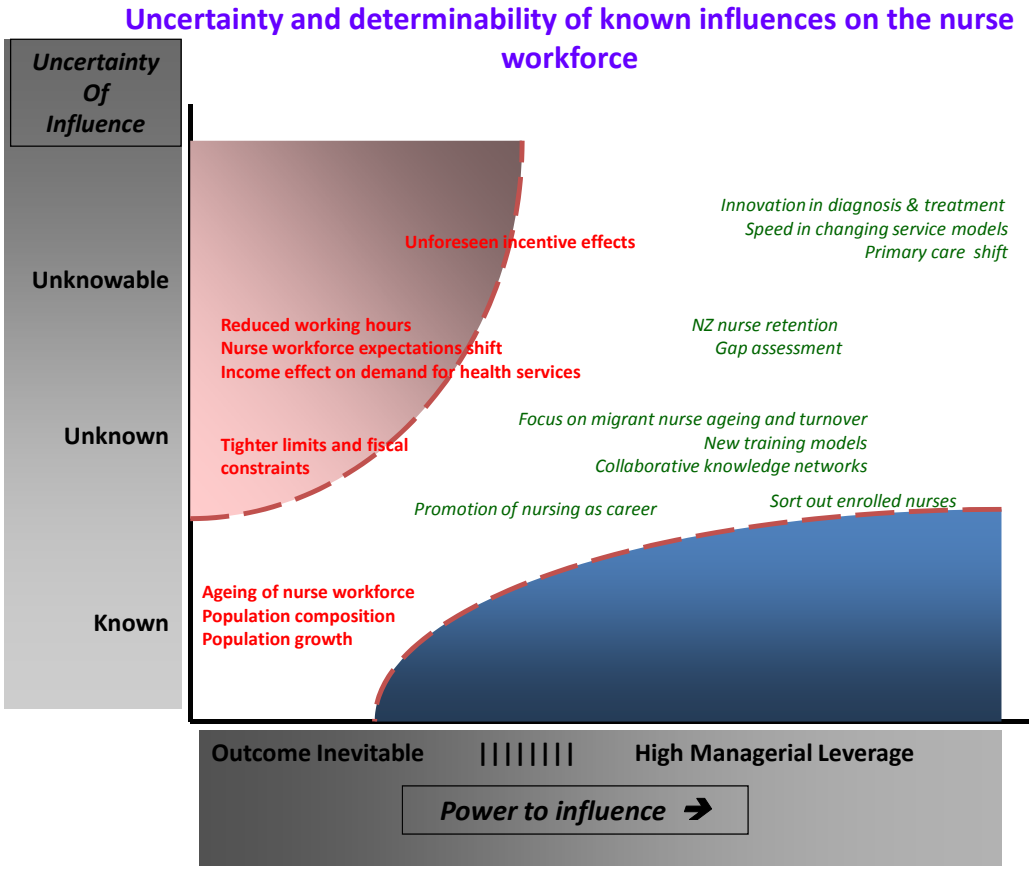
We expect the trend of the past two decades, for nurses to increasingly work outside of hospital settings, to continue. This trend will be better managed the more the increasing share of nurses who will work autonomously retain good collegial support, and are able to develop clinical competences in a supportive environment.

Concern about the large number of New Zealand trained nurses who work overseas must leave us with some concern about the working life in New Zealand of those who enter nursing. Retention rates may be lowered because of the many other employment opportunities available to experienced nurses, as their mix of relationship, technical and organisational skills are highly valued elsewhere as well as in nursing. Influencing the retention rates of nurses will be difficult, and necessitates a richer understanding than we have now of why people enter nursing, and how that has changed with each new generation of nurses. *We will be unable to introduce the leadership we need to influence the number of people entering nurse education in New Zealand without a deeper understanding of the different attitudes to nursing of each generation of young people.*

An exercise to project the need for nurses over the next twenty years would be more effective if it were preceded by a study of the nurse work force over the next five years, in the context of its capacity to provide a platform for sustaining and most likely increasing nurse numbers by 2030. Such a study would analyse the existing career pathway to educate, develop and advance the early career of the new nurse, and find measures of attrition and leakages, as well as shifting attributes such as working week preferences. We need assess the vulnerability that the age distribution of migrant nurses brings. Despite the fact of having an historically small share of nurses aged under 35 years, some 30 percent of nurses now under 45 years are overseas trained.

The projected demand for health services

The demand for health services in New Zealand over the next four decades has been projected by the Ministry of Health, in collaboration with the New Zealand Treasury. The impact of both population growth and increased longevity on demand has been assessed, taking into account the shifting prevalence of health conditions that have an impact on health services. The projection model has also taken into account the comparatively large impact of increased wealth creation on the demand for health services, given the clear relationship between income levels and the share of income spent on health. We have little ability to estimate in advance how much of this last effect will influence the nurse workforce, as much of this in the past has been linked to increased use of pharmaceuticals, intensive surgical interventions, and higher incomes of health professionals. We have not estimated the implications for nurse numbers, but recognise that on the basis of simple extrapolation of demographic trends that we will eventually conclude that we will most likely need to have somewhere between 10,000 and 25,000 additional nurses above what we have now will be needed in 20 years time. In the more immediate future, we face the possibility that actions we take now will have a greater influence than usual on the number of New Zealand trained nurses working in 2030 and 2040. The DHBNZ Nursing and Midwifery Strategy group is working with the CTA, the Ministry of Health and other bodies to develop estimates of future demand. Such estimates are long overdue, and the current initiative will enable a more serious assessment of strategies which must now have some urgency because of the demographic profile of the current nurse workforce. This work would enable a Nurse Education and Training Board to start with a well informed understanding of the place of training in responding to the imperatives we face.



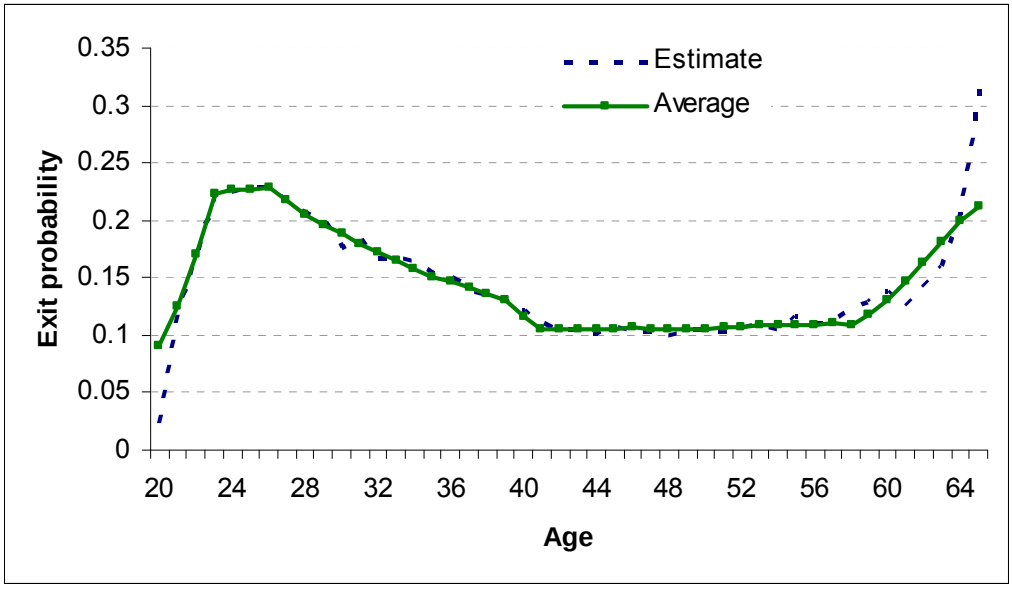
Contribution to changed demand for nurses between 2009 and 2030	Influence
Strong increase (>5,000)	Population growth Increased Longevity Increased Wealth of New Zealanders One-off effect of the retirement of nurses concentrated in the baby boomer cohorts
Moderate increase (>5,000)	Epidemiological influences Increase in range of skills applied by nurses Reduced working hours/working life as nurse
Moderate decrease (<5,000)	Reform of health services organisation around New Zealand Adaptability in relating roles and skills
Significant decrease (<10,000)	Nurse assistants and related roles

Influencing the future working life of nurses

Many roles in nursing have a demanding, physical side and older nurses can find themselves less able to do the full mix of activities long expected of them. Many roles are immensely stressful, and this limits the capacity to have a long career. Given that only six percent of men are nurses, then the birth and upbringing of children more often break the career of nurses. Increasingly, nurses are the main breadwinner in families.

The nurse workforce fluctuates at high cost to nurses, particularly in the many parts of the country where employment options in the same field may be few.

Chart 9: Nursing workforce exit rates by age groups



Source: Health Workforce Information Programme
Note: this modelling is a work in progress, these are not final estimates

Nurses have experienced a significant change in roles in relationship to managers and other health professionals over the past two decades, often with a high degree of adhockery in the direction of change, and rarely with any consistency across health service as a whole.

There are an unknown number of nurses who have completed training and still hold, or have held nurse registration, and who could re-enter the nursing workforce. Recent increases in pay levels have seen a return to nursing of older nurses, and a continued growth in the share of nurses who now work part-time. New Zealand seems to have an unusually large share of nurses who work part-time, about which we have mainly anecdotal based understandings. *A change in the terms of employment of registered nurses will have a huge impact on projections of the number of new BN graduates that might be needed in New Zealand, and this needs to be researched as a matter of some priority on a national basis.*

Managing the contribution of overseas trained nurses in New Zealand

Overseas trained nurses play a significant role in meeting the need for nurses in New Zealand. Some particular ways they have been used include:

- Enabling health services to continue in areas where vulnerabilities have the least visibility (e.g. intellectually disabled services) or where anticipating needs at a time of major change was poor
- Enabling short term replacements for nurses as they retire from cohorts that have employed an unusually large number of nurses, in particular the post war baby-boomers

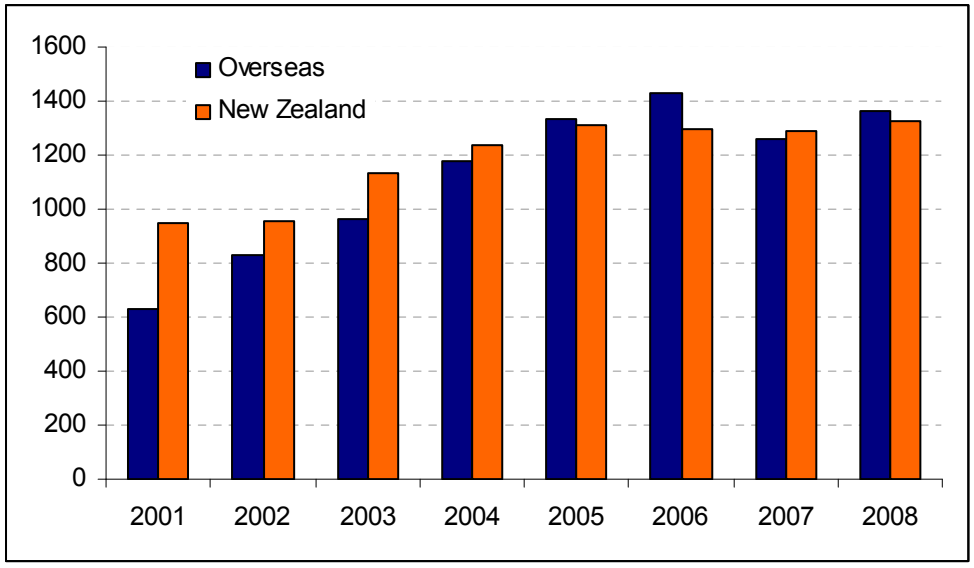
- Meeting short term fluctuations in demand where population change far exceeds the more even annual graduate flow. This has been of major significance to the Auckland DHBs, as a consequence of comparatively large immigrant swings in migrant flows.

- Providing professional resources when major one–off increases in health institutions or services occur (recently proposed theatre increase, primary care)

The short term responsiveness of the supply of overseas trained nurses has diluted the commitment to meeting long term labour force needs from the education of New Zealand men and women. Recruitment of overseas trained nurses has undoubtedly contributed to lessen the momentum to develop the Maori and Pacific nurse work force, and most importantly led to a more fragile age distribution in the nurse population, which now makes more critical the need to examine the existing levels of New Zealand men and women seeking to enter nursing. New Zealand has the highest level of its registered nurses who work in New Zealand and who are foreign trained, and the level of 23 percent in 2004 compared to 8 percent for both the UK and Ireland[5].

In three of the past four years, registrations for overseas trained nurses have exceeded the number of first time registrations of New Zealand trained nurses.

Chart 10: Comparison of Annual Registrations of New Zealand Trained and Overseas Trained Nurses



Source: HWIP, Nursing Council
Note: these are all registrations from 2001 through 2008 regardless of where and when they started working.

[5] Trends In International Nurse Migration (by Linda H. Aiken, James Buchan, Julie Sochalski, Barbara Nichols and Mary Powell) was published in Health Affairs, Vol. 23, Number 3, June 2004

Influencing the place of nursing as a preferred profession of New Zealand men and women

If we compare the teaching and nursing work force, they are both very large occupations, which have traditionally been lifetime vocations for many. Both occupations face huge discrepancies between where they are needed to work, and where they will work once trained. Maori and Pacific teachers make up a significantly larger share of the teacher population, but both nursing and primary teaching have comparatively few males.

The devolution of the responsibility for recruiting teachers has not changed the longstanding involvement of the Ministry of Education in the promotion of teaching as a career. No such comparable activity exists for nurses, yet the fact that nursing has experienced an extra-ordinary fall off in interest from younger people has been obvious for well over a decade.

It is unlikely that initiatives to increase the share of nurses who are Maori, or Pacific nurses, will be fully effective unless there are broadly based initiatives to quite significantly change the interest in nursing as career among young New Zealanders. *An exercise to raise interest in nursing as a career would need to be based on sound research of attitudes of different cohorts to nursing, and what underpins the satisfaction nurses now obtain from the practice of their profession.*

G. Leadership of the nurse education system

Nursing leadership structures

There are a comparatively large number of diverse institutions involved in nurse education. There are many alternative approaches to the system we have, ranging from retaining the current high degree of institutional independence, to having a high degree of collaboration, such as in developing nationally applicable programmes for some courses. For some groups such as Maori nurses, the opportunity to develop locally relevant ways is well supported by the current diversity, but then it appears that as in the health service, it is almost impossible to implement system wide change where that is well justified.

Nurse leadership exists through the Nursing Council of New Zealand. There is leadership through the College of Nurses Aotearoa, the Nurse Education in the Tertiary Sector (NETS), the Nurse Executives of New Zealand (NENZ), and the NZ Nurses Organisation which also has a number of professional nursing sections. There is a network of the District Health Board Directors of Nursing. Other relevant organisations include those focused on Maori, such as the NZNO group Te Rununga, and Te Rau Matatini, and Pacific nursing groups.

Nurses in practice operate within management structures that give varied recognition to the professional leadership of nurses. In all DHBs, there is now a Director of Nursing, as is the case in many large community and private sector organisations, such as Plunket and Pegasus Health. The DHB Directors of Nursing fit into a great variety of places in DHB management structures. Most do not have significant budget authority, or report direct to the DHB Chief Executive. The DON network has met regularly since 2007, and the Nurse Executive group has existed in various forms since it began as the Chief Nurses of New Zealand in 1984. In its current form it meets three times a year, has a cross sector professional leader membership and has a regional network. This forum has the strategic objectives of practice leadership, future workforce and practice effectiveness. As with all other collective groups in the health sector, the Directors of Nursing as a group draws authority and decision-making capacity solely from the impact of individual Directors of Nursing, as there is no distinct group mandate. Apart from the Nursing Council of New Zealand, there is no nation-wide body of nurse leaders that could give effect to system-wide decisions, were they within its brief.

NENZ and NETS have a working group that meets three times a year, on shared issues. A number of joint statements have been prepared in recent years by the Nurse Executives of New Zealand, and the Nurse Education in the Tertiary Sector (NETS) network (e.g. *"Work Ready Graduate", "Clinical Practice Experience for Undergraduate Nursing", "Development of the Regulated and Unregulated Workforce: Creating a Consistent National Learning Framework").* These highlight the importance of collaboration in bringing sufficient authority to commonly agreed approaches on matters that can shift the integrity of the nurse education system as a whole. They would generate a strong momentum at the start of any more formalised collaborative arrangements.

There are not regular forums that have a nation-wide decision-making authority that bring together both those who lead the provision of nurse education, and those who lead the

services that nurses enable. Given the diversity of perspectives that quite naturally pervade individuals who hold leadership roles, a number of significant choices about the education and training of nurses exist. While the existence of well articulated but divergent views on the place of nurses and their education undoubtedly reflects well on the vibrancy of thinking about the future of the profession, the ongoing lack of resolution is seen elsewhere in our fragmented national health service, most generally in the inability to influence nationally how things are done, regardless of the level of agreement in doing so.

Leadership issues

There is naturally a mix of views on what will make up the nurse of the future. Such differences can impede progress in a system such as we have in New Zealand where there are few ways of developing a consensus for action in the face of diverse views, so that decisions risk being made by default, slowing innovation and making change more erratic than it need be. Establishing common pathways is critical in nursing, and the necessary cohesiveness across programmes is fraught without a clear "world view" of the system we are moving towards.

The Nursing Council of New Zealand is a critical anchor for the nurse education system, in its requirements for registration, and statement of curricula that result in BN graduates from all education institutions being most likely to meet Nurse Registration requirements. This places huge expectations on those institutions to retain a degree of diversity, innovation and challenge while what they teach that is consistent with rigid national expectations.

Where those in nurse practice and in nurse education are able to have joint appointments (e.g. University of Auckland), there is undoubtedly a strengthening of linkages between the tertiary education system and the health services it prepares people for. The intangible and tangible benefits of such linkages can be huge, as they vastly increase the level of interactions that raise the responsiveness of the education institutions to how practice is changing. They also increase the capacity to introduce scientific study of nurse practices and health services that can have considerable impact over the next two decades of change.

There needs to be some system wide leadership of development initiatives for future nurse leaders. Nurses make up a significant number of the leadership and management positions in health. Currently there is no formal structure for identifying and preparing for these types of roles. There needs to be a process for education and practice organisations to identify individuals with leadership/management potential and provide opportunities to develop these skills through managed education and career opportunities. A similar system runs in the United Kingdom National Health Service. The experiences of the New Zealand public sector in investing in early leadership development confirm that there are successful models working in New Zealand, and the ideas behind them may well fit the health sector. A recent study by Dr Jocelyn Peach[6] highlighted the disparate and continually changing position on nurse leaders across the New Zealand DHB system, and the lack of coherent approaches to advance the leadership capability of those with aptitude and experience at almost all levels, as well as the most senior.

[6] **The Experience of New Zealand Senior Nurses in Leadership Positions in Health Provider Organisations 2007** ***An opinion study of Nurse Executives of New Zealand members*** Dr Jocelyn Peach, 2007

The Ministerial Taskforce on Nursing in 1998

Barriers to releasing the potential of nursing and strategies to address these were identified and published in the Report of the Ministerial Taskforce on Nursing in 1998. Implementation of such a comprehensive array of proposals from a review of this sort is unlikely to be achieved as intended unless there is the capacity to persist with the system wide focus such reviews often involve. These task force proposals have been variously adopted, by and large without the impact intended at the time. The summary by nurse educators of its key conclusions focused on:

- Including nursing leadership in management structures and decision making
- Strengthening collaborative nursing input to policy making
- Developing consistent processes for measuring the work of nursing and for resourcing nursing services
- Preparation of nurses for top level management and leadership in clinical practice
- Profiling nursing/nurse led initiatives and encouraging a wider range of provider organisations
- Clinical career planning for nurses
- Better links between education and health service providers

A similar taskforce today might repeat many of these conclusions.

Why structured collaboration is necessary

Perhaps the most vital achievement of any whole of system body in the New Zealand health system of 2009 is to establish some momentum on obtaining resolution to a good number of festering issues where inaction has slowed progress in nurse education more generally. The evolution of nurse roles as skills change, the tie up between gaining post-graduate qualifications and receiving workplace recognition and advancement, and the development of clinical places for training are among such issues raised with this committee.

While the local connections between DHBs and local tertiary institutions are often very good, at a national level there needs to be an ongoing process by which the market expectations and workforce plans of DHBs overall, are matched against the accumulated plans of tertiary educators in nursing. Given that the linkage between the demand for nurses in New Zealand, and the supply of New Zealand trained nurse graduates is now quite loose, it is even more critical that national oversight of nurse training exists to enable judgments about the long run sustainability of the nurse work force. Bottom up planning at the local DHB/Tertiary Institute level needs increasingly to be tempered by leadership and decision making at a system wide level, as local demands for nurses by DHBs may be simultaneously affected by resource constraints, the severity of which, necessitates short term adjustments that add up to change that is unsustainable at a national level. The accumulation of these decisions at a national level can result in inconsistencies in how short and long term benefits

are compared. They usually ignore the relative scale of local and national capacities to manage change, and the considerable differences in the capacity of single institutions to influence system change compared to national organisations. Some actions are only viable at a national level, such as a national campaign to promote nursing, and some concerns such as the needs of local Maori and Pacific communities can be submerged at a local level through paucity of information and constrained voices, in a way that is less likely nationally. DHBNZ strategy groups have been building a capacity to bring national leadership the DHB wide initiatives, and cohesiveness to strategic thinking about health workforce issues. The DHBNZ Future Workforce Group and the Workforce Strategy Groups are in the process of establishing the wider strategic context for Nurse education and would enable a Nurse Education and Training Board to focus on its more specific role, with a high degree of cohesiveness with related health service initiatives.

The NETP programme development in clinical training for BN graduates typifies the scale of access to clinical experiences that nurses need in their education. The vital importance of linking education and training with service delivery may lead to a need to include students in the model of care. Not only innovation in this important area, but the sustaining and scaling up of existing opportunities would be greatly advanced by much more unified views between education and delivery about clinical placements. As in other fields of health education, there is a continued tension between theory and practice. We need to find constructive ways of ensuring that not only are nurse educators able to be periodically challenged in how this balance is established, but also that across the many participants in the tertiary education service nurse leaders are exchanging good practice and sharing innovation. The recent collaboration between Massey, Auckland, and Otago on developing a single curriculum on long term care management is a good example of this happening now. A common approach to innovation is essential, as many initiatives in one field of health may have systemic consequences (nurse assistants/enrolled nurses), and the capacity to engage collaboratively and constructively with other health sector education and training bodies would be strengthened by this board.

Quite naturally, even in a country of just 4.2 million people, nurse leaders and other health leaders have quite diverse aspirations that have vastly differing implications for the development of nurse education. A Nurse Education and Training Board would be one vehicle for effectively channelling this diversity into some commonality of expectations that can shape the path of nurse education, ensuring its relevance for an uncertain diversity of future needs. In this, such a board would not replace existing networks, but would seek to extend their capacity to contribute.

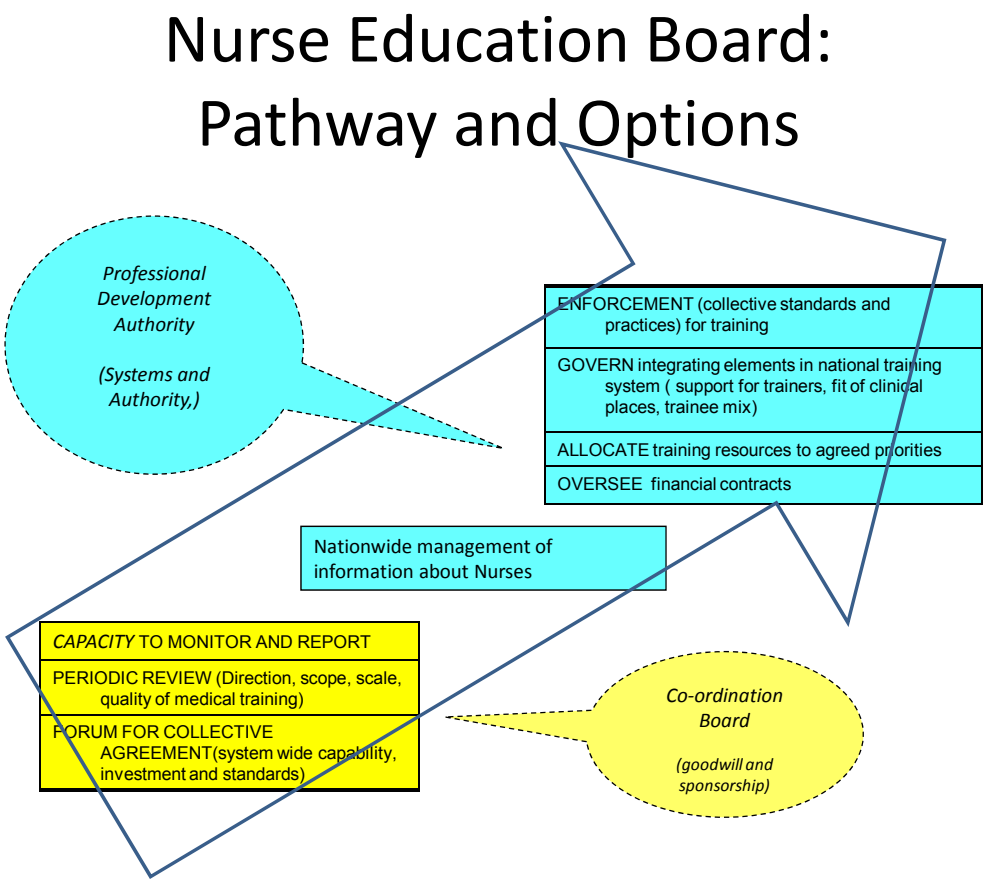
The funder/provider split in public sector management has been further complicated by the limited reach of existing collaborative bodies in nurse education and in the practice of nursing. Opportunity rarely exists for all parties to engage in reaching deliberations on how resources are allocated to particular fields or levels of education and training, and consequently there is a strong perception that resources could be applied in better ways.

The enrolment of students into nurse education courses, their later success and eventual recruitment are seen as critical stages in the building up of the nurse workforce. In the micro-management of these processes by individual DHBs, universities and tertiary institutes, quite inadequate attention has been given to influencing the attitude and expectations of each cohort of girls and boys into seeing nursing as their career. A strategic

approach to the place of nursing as a significant career could be modelled on what is done for teaching. Investigating this could be one of the initial projects for the proposed board.

A proposal for structured collaboration across the nursing workforce

A standing body of leading nurses involved in the practice of nursing and the education of nurses would have a major role in giving leadership to the system we have for educating nurses now in New Zealand. As a professional development board, it needs to have the authority to review and challenge the priority given to the allocation of resources across individual education and development programmes as done by the CTA at present, as well as the authority to develop, monitor and report on the application of common practices. Along with the Ministry of Health, DHBNZ and the Nursing Council of New Zealand, the new board needs the authority to have access to statistical information from all relevant sources, and the capacity to compile new health service-wide measures where relevant. This would usually be done in collaboration with these other bodies. In addition, the board will need to be able to fulfil the following roles:



Directing the overall relevance of nurse education

- To provide insight into what we need to know to oversee and manage the nurse education system as a whole, rather than just its many components.

- To report on issues of nurse education that would increase the effectiveness and relevance of nurse education, and the quality of the nurse workforce, and to advise on necessary actions
- To highlight common approaches that increase the quality of nurse education
- Oversee initiatives to increase the share of nurses who are Maori or Pacific, and the way in which nurse education gives all nurses the capacity function well in all cultural settings

Oversee resource allocation

- To match the resources available for nurse education to the priorities identified by the board given the situation in DHBs and any particular direction of Ministers
- Oversee financial contracts let by the CTA or its equivalent, and advise on shifts in need

Monitoring and reporting

- Monitor the trends in the nurse workforce and report regularly on number of new registered nurses needed to sustain services over the next two decades
- To monitor those parts of the nurse education system that most determine its capacity to meet the needs of the public

Oversee integration of education and practice

- Strengthen the linkages between post graduate nurse education and vocational pathways for nurses
- Oversee the pathways across nurse education programmes, from the various entry points, roles and scopes of practice that exist at the time
- To collaborate with the Medical Training Board and the training bodies of other health professionals, in the advancement of the education and training of the future health workforce

The proposed Nurse Education and Training Board would meet monthly.

The work of the board would be supported by the Ministry of Health. The Director-General of Health would be an advisory member.

The members of the board would be appointed by the Minister of Health, for their individual capacity to contribute to the functioning of the board. The number of members would be ten to twelve.

Those areas where it would be necessary for the board to have considerable competence among its members that would include:

- Nursing practice in a variety of settings in particular, both hospitals and primary care
- Nursing practice in a variety of different specialties,
- Involvement in the health of Maori and Pacific communities
- Teaching and mentoring of nurses in the New Zealand education system
- Leading change in the public sector
- Management of the health system in New Zealand
- A current student in nurse education

The board would have an annual budget to support projects it initiated and meeting costs.

Strengthening collaboration across the various health workforces

There are many matters of importance to nursing that involve other health professions. There are insufficient forums for addressing issues that can be both complex and intensely debated within and across professions, yet these are the issues that will increase the adaptability of health services, and stretch the accessibility of services across regions and population groups that usually miss out when rationing of resources becomes necessary.

There are large potential benefits from interdisciplinary collaboration in many issues that affect nurses. These include:

- Roles, clinical placements, skill evolution, common training, coherence of training pathways, interdependence of skill/role shifts
- Enhancement of existing networks
- Developing an evolutionary approach to managing the Interdependence of roles
- Look at the coherence of workforce trends across the health service and the indirect impact of workforce issues in particular fields
- Impact of shift in medical student intake from 2015, compared to that for nurse. By 2015, there will be approximately two new nurses for every new doctor entering practice in New Zealand. Currently there are about five nurses for every doctor in New Zealand

The logical endpoint of cross professional collaboration would be a health education and training authority.

H. The Terms of Reference set by the Minister of Health

COMMITTEE ON STRATEGIC OVERSIGHT FOR NURSING EDUCATION

Objective

The Committee on Strategic Oversight for Nursing Education is established by the Minister of Health in March 2009 to explore whether a formal body, such as a Training Board, is required to oversee and improve the education of nurses in New Zealand.

The Committee is established in response to the Minister's desire to ensure the nursing profession has access to strategic education and development opportunities comparable to those now established for medicine through the Medical Training Board.

Accountability

The Committee is established by, and accountable to, the Minister of Health.

Functions

The function of the Committee is to explore whether the New Zealand nursing profession would benefit from a formal body or structure to provide strategic oversight to nursing education.

In undertaking this task and identify education needs, the Committee will consult widely within the nursing profession including, but not limited to, the following groups and agencies.

- New Zealand Nurses Organisation
- College of Nurses Aotearoa
- Nurse Executives of New Zealand
- District health board Directors of Nursing
- Nursing Council of New Zealand
- DHBNZ Nursing and Midwifery Workforce Strategy Group
- Council of Maori Nurses
- Nurse Educators in the Tertiary Sector
- Clinical Training Agency, Ministry of Health
- Private Surgical Hospitals Association
- Tertiary Education Commission.

Reporting requirements

The Committee will report its findings and recommendations to the Minister of Health within three months of commencing the work. The Committee will brief the Minister on progress with the work as required.

Membership

The Committee will be comprised of Mr Len Cook.

Servicing the Committee

The Ministry of Health's Nursing Team and Strategic Workforce Development Unit will provide administrative, analytical and policy support to the Committee in undertaking the task.

Terms and conditions

The Committee is appointed for the duration of the task and will stand down when the final report is presented to the Minister of Health. The term of the Committee may be extended by the Minister if follow up work is required.

The Minister may add members to the Committee if required for successful completion of the task. Any additional members must be notified to the House of Representatives.

Mr Cook, and any future member, may at any time resign from the Committee by advising the Minister in writing. The Minister may terminate the membership of Mr Cook, or any subsequent additional members, for inability to perform the functions of office, neglect of duty, or misconduct, proved to the satisfaction of the Minister.

Conflicts of interest

Mr Cook, or any subsequent additional member of the Committee, must perform their functions in good faith, honestly and impartially and avoid situations that might compromise their integrity or otherwise lead to conflicts of interest.

I. Statistical Appendix

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Table 1: Where nurses work, 2001 to 2008

	2001	2002	2003	2004	2005	2006	2007	2008
Primary	4,784	4,489	4,689	5,027	5,501	5,660	5,970	6,118
Secondary & Tertiary	29,915	29,279	29,332	30,375	31,110	30,241	30,586	31,352
Other	2,653	2,578	2,676	2,936	3,247	3,045	3,067	3,146
Total	37,352	36,346	36,697	38,338	39,858	38,946	39,623	40,616

Source: Health Workforce Information Programme, APC Nursing Workforce Survey

Table 2: Overseas trained nurses by age, 2001 to 2008

	2001	2002	2003	2004	2005	2006	2007	2008
Unknown	5	2	2	3	3	2	3	3
Under 21	1	2	.	1	.	.	.	.
21-25	204	143	129	110	82	63	104	142
26-30	751	621	554	534	501	433	429	494
31-35	876	840	943	947	971	969	930	941
36-45	1579	1524	1613	1772	1999	1990	2113	2225
46-55	862	852	962	1107	1243	1412	1528	1674
56-65	267	290	316	358	418	432	484	540
66+	19	25	31	35	37	34	44	55
Total	4558	4295	4548	4863	5251	5333	5632	6071

Source: Health Workforce Information Programme, Nursing Council Registration Database
Note: total excludes nurses younger than 21 years and nurses whose age is unknown

Table 3: New Zealand trained nurses by age, 2001 to 2008

	2001	2002	2003	2004	2005	2006	2007	2008
Unknown	9	6	9	4	4	1	1	4
Under 21	4	8	8	28	11	7	7	3
21-25	830	811	819	877	960	942	1043	1062
26-30	1723	1479	1365	1348	1379	1262	1286	1469
31-35	1982	1950	2041	2154	2235	1970	1864	1780
36-45	5889	5697	5676	5650	5721	5347	5225	5147
46-55	4332	4729	5069	5547	5956	6062	6229	6415
56-65	1338	1462	1717	1968	2313	2436	2670	2932
66+	68	84	109	144	203	204	242	302
Total	16162	16212	16796	17688	18767	18223	18559	19107

Source: Health Workforce Information Programme, Nursing Council Registration Database
Note: total excludes nurses younger than 21 years and nurses whose age is unknown

Table 4: Female nurses as a percentage of the population by birth cohort, 1912-21 to 1972-81

	Birth decade							
New Zealand born female nurses as a percentage of the population								
Age	**1912-21**	**1922-31**	**1932-41**	**1942-51**	**1952-61**	**1962-71**	**1972-81**	**1972-81**
15-24					7.6%	1.8%	0.8%	0.4%
25-34				5.0%	3.8%	2.4%	1.8%	
35-44			4.3%	3.5%	3.8%	2.8%		
45-54		3.9%	3.2%	3.4%	4.1%			
55-64	3.9%	1.3%	1.8%	2.8%				
Number of New Zealand born female nurses by age by birth cohort								
Age	**1912-21**	**1922-31**	**1932-41**	**1942-51**	**1952-61**	**1962-71**	**1972-81**	**1982-91**
15-24					10065	4698	1815	906
25-34				3870	8193	5499	3339	
35-44			3054	5985	7881	6090		
45-54		2337	3873	5397	8199			
55-64	1068	1461	1962	4239				
NZ born population totals								
Age	**1912-21**	**1922-31**	**1932-41**	**1942-51**	**1952-61**	**1962-71**	**1972-81**	**1982-91**
15-24					133209	256083	217995	206523
25-34				76953	218385	225183	187905	
35-44			70803	171282	208776	220122		
45-54		60624	119331	159009	198915			
55-64	27072	112839	108255	149634				

Source: Statistics New Zealand, 1986, 1996, 2006 Census of Population and Dwellings

Table 5: Education provider student intake of Bachelor of Nursing first year students, 2002 to 2008 and associated DHB nursing workforce in 2008

	2002	2003	2004	2005	2006	2007	2008	DHB
Auckland University of Technology	99	45	35	42	69	72	87	30,951
University of Auckland	29	45	42	32	39	45	47	30,951
Unitec New Zealand	52	43	35	38	35	44	39	30,951
Christchurch Polytechnic Inst of Tech	69	62	48	52	48	56	59	13,196
Eastern Institute of Technology	19	14	19	48	27	38	41	4,105
Universal College of Learning	138	138	122	88	113	93	85	6,522
Manukau Institute of Technology	60	48	39	31	1	0	0	30,951
Massey University	47	62	39	36	59	82	60	14,978
Nelson Marlborough Inst of Technology	31	29	32	24	16	25	42	3,623
Northland Polytechnic	47	25	28	22	19	16	35	3,744
Otago Polytechnic	43	41	38	32	17	24	41	4,473
Whitireia Community Polytechnic	28	24	7	25	24	32	21	10,979
Southern Institute of Technology	32	29	21	11	19	22	13	2,302
Western Institute of Technology Taranaki	33	18	17	10	8	4	5	2,646
Waikato Institute of Technology	91	56	61	55	29	34	78	8,939
Waiariki Institute of Technology	21	16	40	7	15	19	7	7,240
Total	839	695	623	553	538	606	660	

Source: Ministry of Education
Note: this is a student headcount

Table 6: Age distribution of Bachelor of Nursing first year entrants 2002 to 2008

	2002	2003	2004	2005	2006	2007	2008
Under 18	49	37	43	33	13	25	36
18-19	289	276	242	249	280	322	365
20-24	71	81	64	57	80	78	79
25-39	234	169	144	120	98	116	116
40+	197	132	129	93	66	66	65
	840	695	622	552	537	607	661
	2002	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Under 18	6%	5%	7%	6%	2%	4%	5%
18-19	34%	40%	39%	45%	52%	53%	55%
20-24	8%	12%	10%	10%	15%	13%	12%
25-39	28%	24%	23%	22%	18%	19%	18%
40+	23%	19%	21%	17%	12%	11%	10%

Source: Ministry of Education

Table 7: Age distribution of New Zealand born nurses 1986, 1996 and 2006

	1986	1996	2006
15-24 Years	4896	1926	963
25-34 Years	8805	5910	3564
35-44 Years	6216	8421	6531
45-54 Years	4038	5568	8751
55-64 Years	1569	2034	4407
65 Years and Over	99	93	669
Total	25626	23955	24891

Source: Statistics New Zealand, 1986, 1996, 2006 Census of Population and Dwellings

Table 8: Educational Institutions and Nursing Programmes

Institute	Nurse Assistant	Bachelors	Honours	Post Grad Certificate	Post Grad Diploma	Masters	Doctorate
Auckland University of Technology		●	●	●	●	●	●
Massey University Palmerston North		●	●	●	●	●	●
Massey University Wellington		●	●	●	●	●	●
University of Auckland		●	●	●	●	●	●
Victoria University of Wellington		●		●	●	●	●
Christchurch School of Medicine				●	●	●	●
Massey University Albany			●	●	●	●	●
Chch Polytechnic Institute of Technology	●	●		●	●	●	
Eastern Institute of Technology		●		●	●	●	
Otago Polytechnic		●	●	●	●	●	
Unitec Institute of Technology		●		●	●	●	
Universal College of Learning		●		●	●	●	
Waikato Institute of Technology		●		●	●	●	
Western Institute of Technology at Taranaki		●					
Manukau Institute of Technology		●					
Nelson Marlborough Institute of Technology		●					
NorthTec		●					
Southland Institute of Technology		●		●	●		
Waiariki Institute of Technology		●					
Whitireia Community Polytechnic		●		●			

Source: National Association of Nurse Education in the Tertiary Sector (NETS)

Table 9: Nursing numbers by occupation (specialty) 2001 to 2008

	2001	2002	2003	2004	2005	2006	2007	2008
Emergency and Acute Care	4,973	4,909	5,029	5,193	5,351	5,507	5,629	5,936
Long-term Care	10,959	10,333	10,385	10,803	11,117	10,871	10,826	10,829
Child Health and Neonatology	1,992	1,960	1,975	2,047	2,229	2,174	2,221	2,310
Primary Care	3,506	3,598	3,694	3,975	4,232	4,349	4,582	4,734
Medical and Palliative Care	3,761	3,567	3,655	3,823	4,169	4,225	4,297	4,373
Education & Research, Policy, and Management	2,234	2,178	2,304	2,551	2,707	2,802	2,856	2,912
Midwifery, Obstetrics and Maternity	376	341	362	508	949	650	631	656
Public Health	566	543	529	556	784	508	484	510
Surgical	4,170	3,870	3,900	4,013	4,179	4,199	4,384	4,470
Other/Unknown	4,815	5,047	4,864	4,869	4,141	3,661	3,713	3,886
Total	37,352	36,346	36,697	38,338	39,858	38,946	39,623	40,616

Source: Health Workforce Information Programme, Nursing Council of New Zealand
Note: Includes only nurses working in nursing

Table 10: Nursing numbers by employer type 2001 to 2008

	2001	2002	2003	2004	2005	2006	2007	2008
District Health Board	20,137	19,968	20,773	21,846	23,085	22,756	23,229	23,977
Private Hospital	3,889	3,467	3,448	3,599	3,518	3,441	3,443	3,421
Primary/Community Provider	3,321	3,309	3,558	3,829	4,336	4,547	4,837	4,935
Rest Home/Residential Provider	3,648	3,398	3,580	3,782	3,967	3,843	3,828	3,793
Nursing Agency	838	668	633	616	541	477	433	389
Self Employed	351	302	311	435	470	382	366	370
Maori/Pacific Health Provider	686	366	389	461	472	461	487	509
Educational Institution	745	707	736	840	827	802	794	782
Government Agency	292	333	336	304	386	365	374	400
Other/Unknown	3,445	3,828	2,933	2,626	2,256	1,872	1,832	2,040
Total	37,352	36,346	36,697	38,338	39,858	38,946	39,623	40,616

Source: Health Workforce Information Programme, Nursing Council of New Zealand
Note: Includes only nurses working in nursing

Table 11: proportion of nurses working under 35 hours per week

		Under 0.8 FTE	Over 0.8 FTE
		%	%
Female	**2001**	52.6	47.4
	2002	52.5	47.5
	2003	52.0	48.0
	2004	53.0	47.0
	2005	53.0	47.0
	2006	53.1	47.0
	2007	53.2	46.8
	2008	52.9	47.1
Male	**2001**	16.4	83.6
	2002	17.0	83.0
	2003	16.0	84.1
	2004	16.5	83.5
	2005	17.4	82.6
	2006	17.4	82.6
	2007	18.9	81.1
	2008	18.3	81.7
Total	**2001**	50.2	49.9
	2002	50.2	49.8
	2003	49.6	50.4
	2004	50.6	49.5
	2005	50.6	49.4
	2006	50.7	49.3
	2007	50.9	49.1
	2008	50.5	49.5

Source: Health Workforce Information Programme, Nursing Council of New Zealand
Note: Includes only nurses working in nursing

Table 12: Ethnicity of the nursing workforce by years worked, 2008

	Unknown	Less than 12	1 - 5 years	6 - 10 years	11 - 15 years	Over 15 years
NZ European	26	781	2,997	3,021	3,354	18,425
Other European	7	98	646	790	905	3,886
Maori	1	129	546	447	374	1,371
Pasifika	1	67	221	176	183	650
Asian	12	341	853	609	611	1,082
Other	32	132	457	409	440	1,514
Total*	79	1,548	5,720	5,452	5,867	26,928

Source: Health Workforce Information Programme, Nursing Council of New Zealand
Note: Includes only nurses working in nursing. Includes multiple ethnicities.

Table 13: Nurses subsequent qualifications by first qualification

First Qualification		Subsequent Qualifications									
		Pre-Registration Qualifications				Post-Registration Qualifications			Other Qualifications		
		Hospital Based Programme	Diploma	Post-Graduate Certificate /Diploma	No Subsequent Qualification	Bachelors Degree	Post-Graduate Degree	No Subsequent Qualification	Unknown	Other	No Subsequent Qualification
Pre-Registration Qualifications	Hospital Based Programme	1,000	661	16	15,799	540	26	.	.	26	.
	Diploma	30	34	13	9,923	191	13	.	.	2	.
	Post-Graduate Certificate/Diploma	1	1	.	13	5	.	.	.	1	.
	Bachelors Degree	14	11	20	11,091	28	8	.	.	11	.
Post-Registration Qualifications	Post-Graduate Degree	2	2	.	.	2	2	9	.	2	.
Other Qualifications	Unknown	41	23	1	.	40	3	.	1	10	196
	Other	23	13	4	.	51	1	.	.	65	823

Source: Health Workforce Information Programme, Nursing Council of New Zealand
Note: Includes only nurses working in nursing. Some nurses hold multiple subsequent qualifications, total is more than 100% of the workforce.

Table 14: Nursing vacancies (FTE)

	Midwifery	District and Primary Health	Medical	Mental Health	Paediatrics	Surgical, Theatre, Intensive Care and	Total excl. Senior /Midwife	Total
Auckland								
Bay of Plenty	3.9	2.2	4.9	6.0	0.7	12.6	30.3	30.3
Canterbury	6.6		34.8	33.0	11.9	30.1	34.6	115.5
Capital Coast								
Counties Manukau	27.3	0.0	16.2	21.0	11.4	33.8		107.9
Hawkes Bay	7.0	0.0	0.0	0.0	0.0	3.0	4.0	14.0
Health South Canterbury	1.0	1.4	0.0	1.0	1.0	1.8	177.5	6.2
Hutt Valley		1.0	9.1			3.6		13.7
Lakes	4.2	0.6	5.9	2.0	0.0	7.0	19.5	27.1
Midcentral	5.9		17.3	6.1	0.0	3.2	51.2	55.6
Nelson Marlborough								
Northland	8.2	1.3	18.8	11.0	1.4	25.3	5.1	71.2
Otago	1.5	2.4	15.7	17.1	3.4		44.2	46.1
Southland		0.0	1.9	2.8	0.0	1.6		6.3
Tairawhiti								
Taranaki	6.1		5.4	1.8	4.3	4.8		25.1
Waikato	5.0	5.0	10.0	10.0	0.0	10.0	35.0	40.0
Wairarapa	1.6	0.0	0.0	0.0	0.0	1.8	3.4	8.8
Waitemata	21.9	0.0	32.3	51.7	3.0	20.3	120.0	129.8
Wanganui	4.5	0.0	1.0	4.0	0.0	0.8	7.9	12.4
West Coast	1.4	2.1	5.8	6.1	2.7	6.9	37.6	66.2
TOTAL	106.0	16.1	179.0	173.5	39.8	166.7	570.3	776.1

Source: Health Workforce Information Programme, Nursing Council of New Zealand