



This publication is part of an ongoing series of ASMS research updates

Demographic and attitudinal change in the New Zealand specialist workforce

Three concurrent trends in the specialist workforce will impact on the capacity to meet New Zealand's growing health needs and require a rethink in the way immediate specialist workforce planning is approached. They are:

- the growing proportion of females in the specialist workforce¹
- attitudinal changes about the importance of work-life balance²
- the aging of the specialist workforce.²

While many specialists continue to work long hours, each of these trends is contributing to a growing number of specialists working part-time, thereby reducing the average number of hours worked per specialist. Similar trends are occurring internationally, which adds a further challenge to New Zealand's workforce planners given this country's high dependency on international medical graduates (IMGs).

The shift towards gender balance in the specialist workforce

Medical Council data show that in 2014 women comprised 31% of the specialist workforce, compared with 19% in 2000. Gender statistics for practising registrars indicate the proportion of female specialists will continue to increase. In 2014, 50% of registrars were female.

Internationally, female doctors tend to work fewer hours, on average, than their male counterparts. In New Zealand, this is indicated in Medical Council workforce survey data which show female doctors work (ie, paid work) on average 40.1 hours per week compared with 46.1 hours for males, due in part to a greater proportion of women working part-time. In 2014 (the latest data available) 37% of female specialists worked part-time (less than 40 hours per week), compared with 14% of their male colleagues.³ This has particular implications for public hospitals which depend on them to a far greater extent than, for example, general practice or private practice, on acute after-hours call rosters.

In addition, career breaks are more frequently taken by female doctors. In a survey of National Health Service (NHS) and university doctors in the United Kingdom (UK), 10% of male respondents had taken a career break, compared with 58% of female respondents. Time out for family reasons is the most common factor.⁴

In Britain, in a study following up past cohorts for 15 years after graduating, taking into account the part-time factor and career breaks, women on average provided a 60% full-time equivalent doctor, compared with 80% for men.⁵



There is also evidence that female doctors tend to have lower activity rates, as measured by the number of patients seen, than their male counterparts. Much of it comes from North America, where doctors are paid primarily by fee-for-service so reported lower activity rates suggest an element of individual choice. However, a study of salaried NHS hospital consultants' activity rates has also found women, on average, have lower rates than men, after accounting for age, specialty and hospital trust. The reasons for this were unclear, though the researchers suggested: "The result could reflect women taking more time with each patient, having different communication styles and perhaps being more meticulous, comprehensive and holistic in their care."^{6 7}

This was supported in analysis of 26 studies of the gender effects of medical communication, which found: "Female physicians engage in communication that more broadly relates to the larger life context of patients' conditions by addressing psychosocial issues through related questioning and counselling, greater use of emotional talk, more positive talk, and more active enlistment of patient input."⁷

These elements, taken together, are considered central to patient centred care approaches, which have been shown to result in improved patient outcomes, improved safety, quality and cost effectiveness, as well as levels of patient and staff satisfaction. The difficulty for doctors to find time for genuine patient centred care, due to workload pressures, is commonly cited in the literature as a major barrier to its delivery.^{8 9}

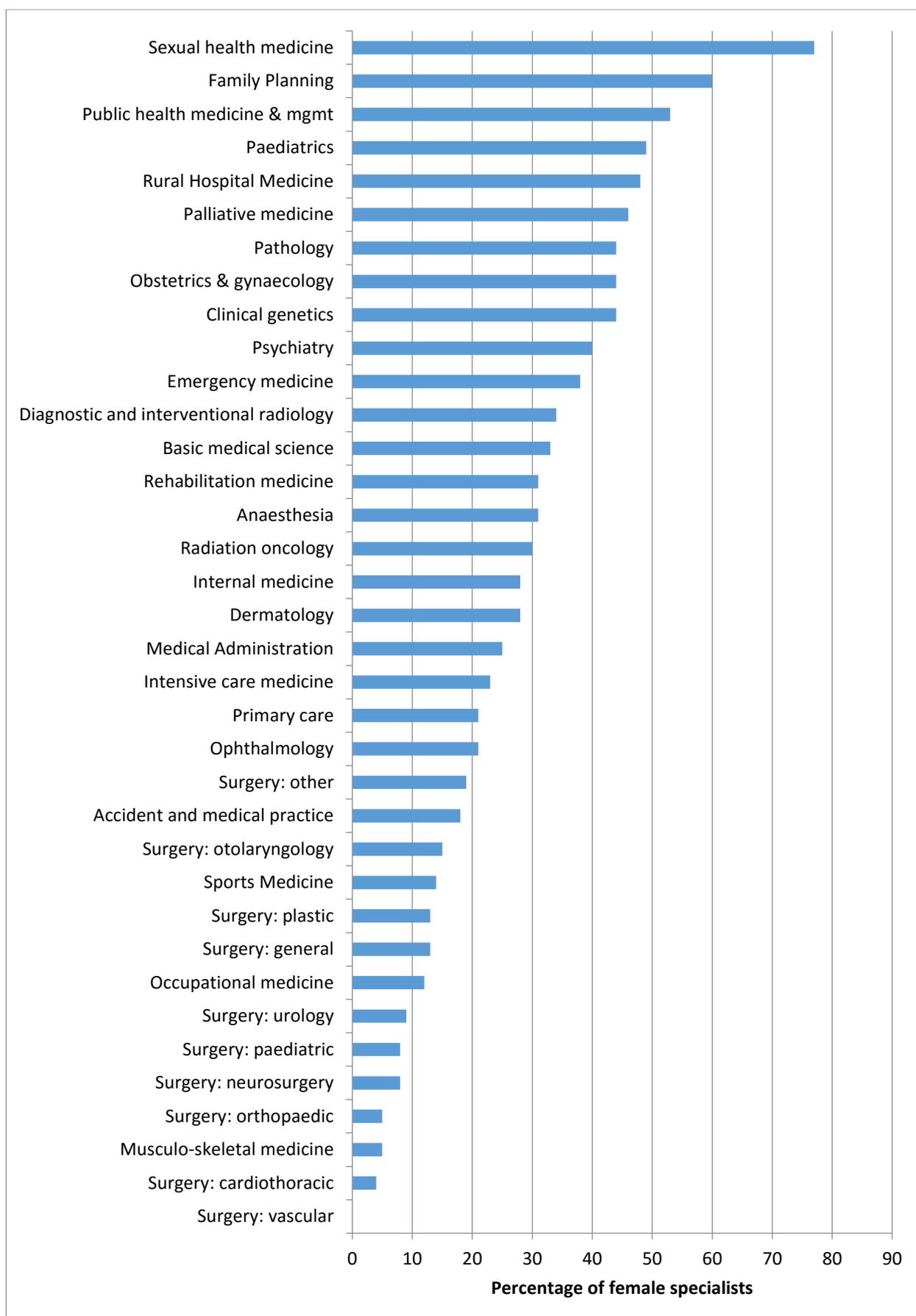
The growth in the number of women in medicine, coinciding with increasing health needs and increasing funding pressures, has sparked much debate overseas about the effects on health service 'productivity', generally measured by patient volumes. However, the importance of ensuring quality time for communicating with patients raises the question as to the relevance of crude productivity measurements, such as patient volumes, as opposed to considering quality of care and patient outcomes.¹⁰

The rate of 'feminisation' of the medical workforce internationally has so far occurred more in specialties where the clinical workload is relatively more 'plannable', such as general practice, public health, paediatrics and psychiatry, or in specialties with relatively greater orientation towards interaction with people, such as obstetrics and gynaecology.^{5 11 12 13}

In New Zealand, female specialists outnumber males in public health medicine and the smaller specialties of family planning, and sexual health medicine. Female specialists make up close to half of the workforce in paediatrics, rural hospital medicine and palliative medicine. On the other hand, they comprise a relatively small proportion of the surgical specialties (Figure 1).

The picture will change, however, as more women enter the specialist workforce from the current vocational training programmes. In 2014 females made up close to half of registrars in emergency medicine, anaesthesia, internal medicine and diagnostic radiology; and they outnumbered males in:

- psychiatry (52 percent)
- general practice (60 percent)
- pathology (61 percent)
- paediatrics (73 percent)
- obstetrics and gynaecology (84 percent).



Source: MCNZ Medical Workforce Survey 2014, MCNZ 2016.

Figure 1: Proportion of female specialists by specialty, 2014

The gender shift is already evident in the younger age groups of the specialist workforce. Of those aged under 40, 47% are female.

The continuing inflow of IMGs may also add to the increasing 'feminisation' of the specialist workforce, given 43% of the current IMG specialist workforce are women. The increasing numbers of women entering the medical workforce internationally may well see this figure rise over time.

These trends mean the projected specialist headcount required to ensure a viable and secure workforce will need to be adjusted upwards to achieve the same number of full-time equivalents.

As the Royal College of Physicians (RCP) in England states: "The research reveals that although the proportion of women will increase substantially across all the specialties over the next 10 years, the full implications ... have not been adequately recognised or acknowledged." The RCP has called for more analysis of the trends to enable more sophisticated workforce planning.⁵

There is mounting evidence, in fact, that while women have tended to opt for more flexibility in the hours they work – whether by choice or necessity – the desire for greater work-life balance is growing more generally.^{14 15}

Work-life balance

There is much discussion in the literature about the growing importance of balance between work and the rest of life among the 'millennials' but there is growing evidence that work-life balance is equally important across the generations, if for different reasons.

A review of international research on work-life interaction among the general workforce summarised that in the early stages of family formation, and for workers with school aged children, work and family demands tend to be at their peak. For mid-career and older workers, work-life pressures may not decrease but rather change focus, with many combining parenting of teenage children with elder care (the 'sandwich generation'), especially women. Many workers from the 'baby boomer' and older generations prefer to enter into retirement via part-time work and 'downshifting' into lower pressure, more flexible jobs. A failure to address the work-life needs and preferences of older workers is likely to speed up their transition to retirement. "In reality, there are likely to be similarities and differences in work-life needs across the life course."^{14 16}

The importance of work-life balance across all age groups in the medical workforce is illustrated in a survey of Australian and New Zealand hospital doctors which found 81% of respondents want a better work-life balance by having more flexible working arrangements.¹⁵

Flexible work is considered to be more than access to leave and flexible working hours. Workplace flexibility includes flexible:

- working hours (reduced hours, compressed working weeks, split shifts, autonomy in start and finish times)
- working places (working from home, working from another location, use of technology to work on the move)
- working practices (purchased leave, phased retirement, job-sharing, annualised hours).¹⁷

While flexible working arrangements are more common for females than males, the survey found the desire for work-life flexibility is similar for both. Further, the survey found the desire for flexible arrangements is not only strong among the new generation of doctors but also among their senior colleagues, with 69% of resident medical officers wanting more work-life flexibility, against 73% of senior salaried doctors.

The survey found that the most common reasons why doctors want flexible arrangements include time with families and friends, caring for children, and reducing work-related stress. Survey respondents also cited cultural and institutional factors, staff shortages and rigid rostering as some of the major barriers to flexible working arrangements.

Despite the barriers, MCNZ medical workforce survey data reflect a shift towards more work-life balance in the New Zealand specialist workforce through the growth in part-time work (for both women and men), though the growth has slowed in recent years, with 15.6% of specialists working under 40 hours per week in 2001, rising to 19.8% in 2007 and to 21.0% in 2014.

The trends vary when broken down by broad age groups, however. While specialists aged 60 and over had the largest proportion of the workforce working less than 40 hours per week in 2014 (32%), this had reduced since 2001 (44.6%). At the same time, the proportion of mid-to-late-career specialists (aged 40-59) working part-time in 2014 has overtaken the proportion of 'new generation' part-timers in the under-40 age group.

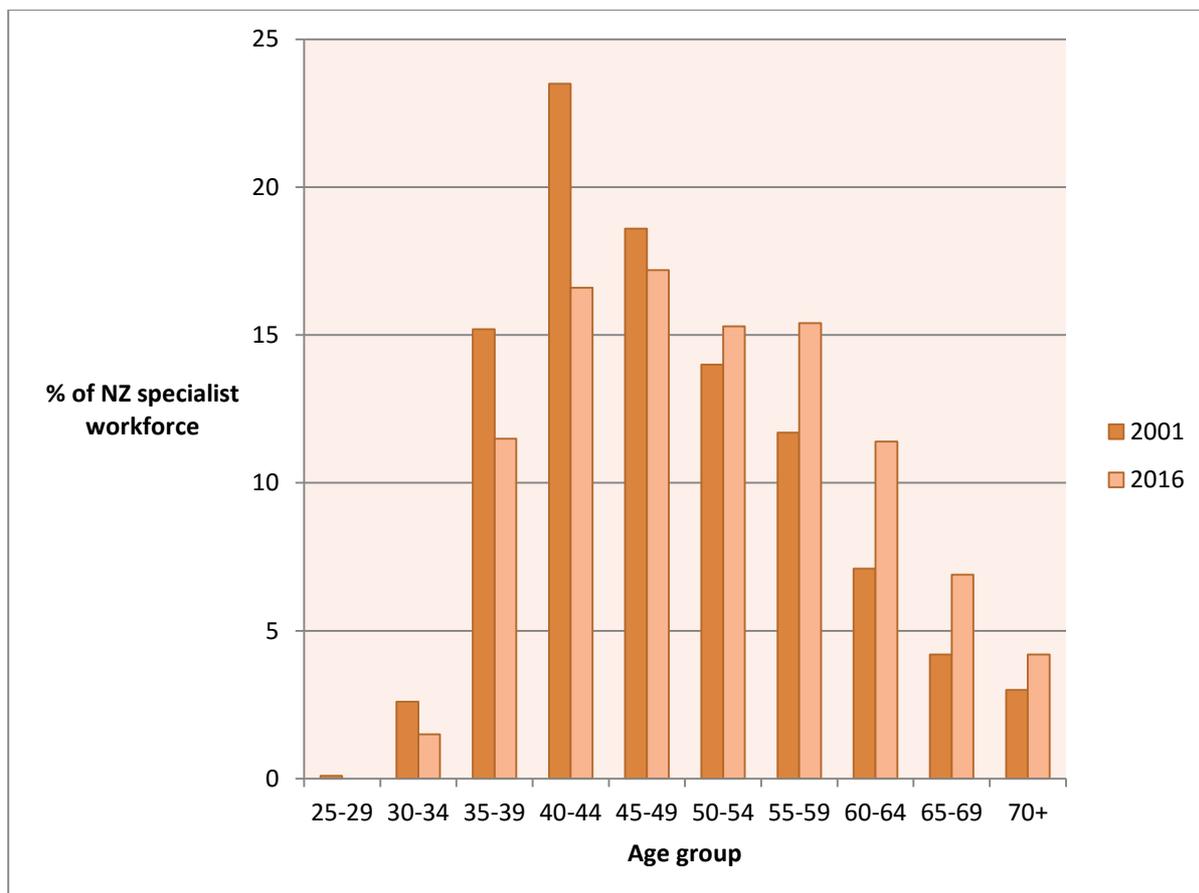
More analysis is needed to understand the reasons for these variations, particularly the recorded decrease in the proportion of specialists working part-time in the older age group. A key question is whether more older specialists are continuing to work full-time by choice – which runs counter to surveys indicating doctors prefer to reduce their work hours as they approach retirement^{18 19} – or whether they are encountering barriers to part-time work such as those indicated above.

A 2009 study examining the levels and sources of satisfaction and dissatisfaction among New Zealand specialists found high levels of both satisfaction and dissatisfaction in the public sector. Key sources of satisfaction were opportunities for further education, 'interesting work' and professional development, and income security. On the other hand, key sources of dissatisfaction were generally stress-related: workload pressures, 'mentally demanding work', managerial interference and inflexible work schedules.²⁰ More recent studies on 'presenteeism' and fatigue in the specialist workforce, and the implementation of clinical leadership, indicate these sources of dissatisfaction – which correspond to the identified barriers to flexible work arrangements – have not been addressed.^{21 22 23}

The aging specialist workforce

In 2001 14% of the total (public and private) specialist workforce was aged 60 or over; by 2016 this had grown to more than 22% (Figure 2) and according to Ministry of Health workforce modelling is projected to be more than a quarter of the workforce by 2021.^{1 24}

Health Workforce New Zealand (HWNZ) acknowledges medical workforce aging trends in its report *Health of the Health Workforce 2015*, but notes that medical workforce aging is an international trend and New Zealand's is relatively younger than many other OECD countries. However, New Zealand's aging medical workforce will have an impact on future specialist requirements in several ways.²⁵



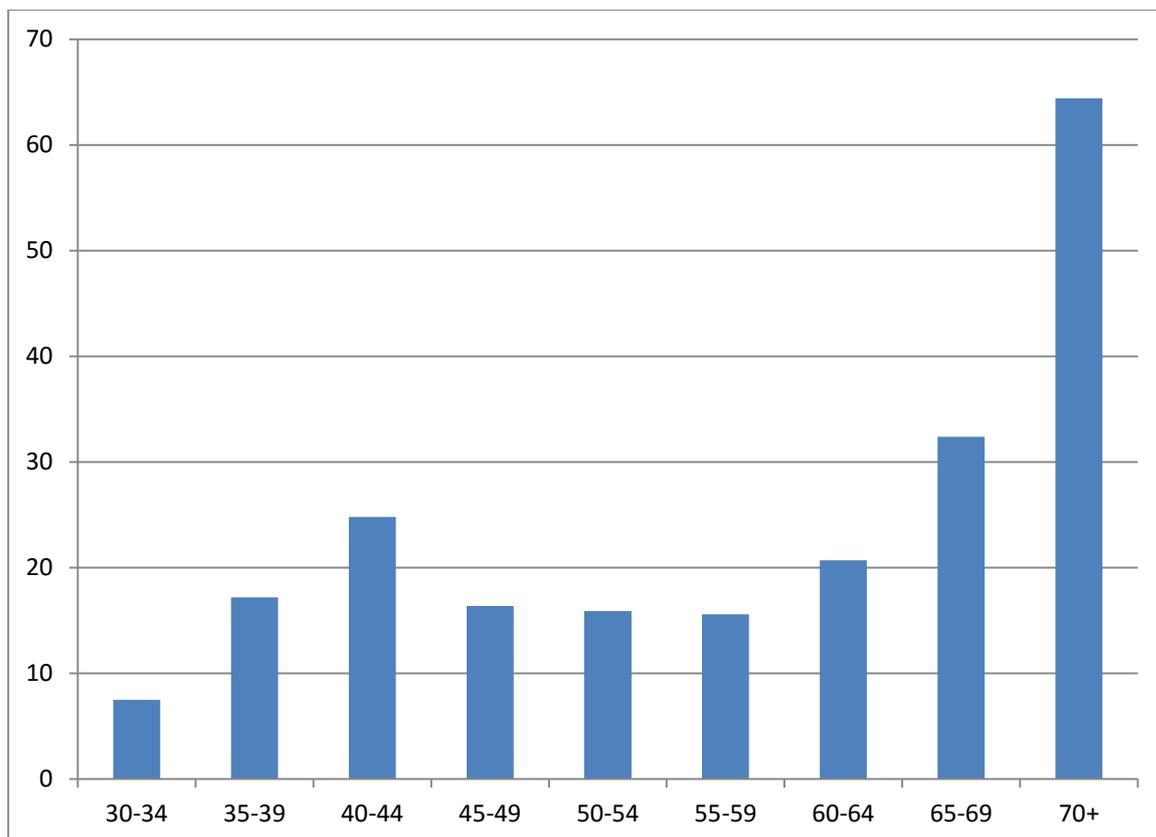
Source: MCNZ Medical Workforce Survey Data 2001, and Ministry of Health data (from the Medical Register) 2016.

Figure 2: Percentage of total (public & private) New Zealand specialist workforce by age groups, 2001 & 2016

While many OECD countries have a higher proportion of older specialists than New Zealand, most OECD countries also have a higher number of specialists per head of population to cushion the effects of an aging workforce. New Zealand’s relatively low numbers of specialists internationally reflects prolonged specialist workforce shortages, as recognised by HWNZ.²⁵

While the workforce is growing, the growth rate has been insufficient to catch up with New Zealand’s increasing needs owing to the growing and aging population. (The population of those aged 65+ has increased by an estimated 24% since 2009/10.²⁶) Workforce growth rates will come under further pressure over the coming years as the number of specialists retiring from the workforce will increase, requiring a corresponding increase in the number entering the workforce. However, specialist workforce modelling by the Ministry of Health, projecting workforce numbers based on recent trends, suggests the net growth rate of the specialist workforce will decline so that by 2021 the total workforce (private and public) will be less than 1.4 specialists per 1000 population, which will keep New Zealand well below the OECD average and is likely to exacerbate current workforce shortages.

Furthermore, specialists, on average, reduce their hours of work as they grow older. Medical Council workforce survey data show 15.6% of specialists aged 55-59 worked part-time (less than 40 hours per week). This doubled to 32.4% for those aged 65-69, and doubled again, to 64.4%, for those aged 70+ (Figure 3).



Source: MCNZ Medical Workforce Survey Data, 2014, MCNZ 2016.

Figure 3: Proportion of specialists working part-time (less than 40hrs/week) by age group, 2014

Third, the aging specialist workforce in many countries is leading to increasing use of IMGs to fill the gaps opened up by retirements, and is therefore creating an increasingly competitive market for doctors. Over recent years most OECD countries have increased their numbers of IMGs, including Australia, Canada, the United Kingdom and the United States. The latter alone saw an increase of 14.5% in the four years 2010-2014. New Zealand's heavy reliance on IMGs (among OECD countries only Israel is more dependent) makes it especially vulnerable in this respect.

A recent European report notes: the aging health workforce is leading to an 'upcoming massive replacement need, even with gradually growing workforce sizes'.²⁷

A survey of the future career plans of a cohort of NHS senior doctors (who had gained their initial qualification 27 years earlier) found 75% of respondents hoped for a change in their current employment arrangements, with the most commonly desired change being a reduction in work hours. Half of the respondents intended definitely (17%) or probably (33%) to work in the NHS to their normal retirement age. Of the other half, the main factors given for considering early retirement were family reasons and wanting more time for leisure, a desire to maintain good health, excessive pressure of work, and disillusionment with management and NHS changes. Reduced workload or shorter hours were the top potential inducement to stay until normal retirement age, with fewer changes to the NHS and less bureaucracy ranking second.¹⁸

Recent research by the ASMS into retirement intentions of district health board-employed senior doctors – shortly to be published – aims to explore whether similar 'push' and 'pull' factors apply in the New Zealand context.

There is broad agreement in the literature that policy responses are needed to encourage retention as senior doctors grow older. Suggested strategies, some of which are already in place in some countries, include various aspects of work flexibility, such as more flexible scheduling of shifts, limiting on call, interventions to reduce stress, integrating more permanent-to-temporary employment opportunities where workers can work on an 'as needed' basis, expanding options for phased retirement, and increasing the opportunities for part-time or job-sharing placements.^{28 29 18 30}

Medical colleges are among those who have raised concerns about looming retirements and how they could exacerbate current workforce shortages.

A report prepared for Health Workforce New Zealand (HWNZ) in 2011 notes there is limited discussion in New Zealand on how to influence and if possible delay the retirement age of doctors and urges that: "Increasing focus on strategies to retain doctors in medicine is needed now."³⁰

Conclusion

Pressures on recruitment and retention of specialists in New Zealand and internationally are increasing due to demographic and attitudinal changes in the specialist workforce, in addition to increasing workloads from growing and aging populations.

Three key areas of change – the increasing proportion of women in the specialist workforce, increasing desire for more work-life balance in both genders, and the aging of the workforce – all signal a growing need for more flexible work arrangements, particularly more part-time work opportunities. This in turn requires higher headcounts of specialists. Because these changes are happening internationally, competition for specialists will increase.

Strategies are urgently needed to attract and retain specialists by creating working conditions that establish DHBs as employers of choice, and established New Zealand as a country of choice.

References

1. Medical Council of New Zealand. Medical Workforce Surveys.
2. State Services Commission. Work-Life Balance: A Resource for the State Services. Wellington: SSC, 2005.
3. Medical Council of New Zealand. Medical Workforce Survey 2014. Wellington: MCNZ, 2016.
4. Holdcroft A, Goodyear H, Fabre C, et al. Career Breaks for NHS And University Doctors: An Analysis of the WAM Database: Medical Women's Federation, 2013.
5. Royal College of Physicians (RCP). Women and Medicine: The Future. Summary of Findings from RCP Research, 2009.
6. Bloor K, Freemantle N, Maynard A. Gender and Variation in Activity Rates of Hospital Consultants. *JR Soc Med* 2008;101:27-33.
7. Debra L, Roter PH, et al. Physician Gender Effects in Medical Communication: A Meta-Analytic Review. *AMA* 2002;288(6):756-64.
8. Keene L. Why is Patient Centred Care so Important? . Path to Patient Centred Care. Wellington: ASMS, 2016. http://www.asms.org.nz/wp-content/uploads/2016/07/Why-is-patient-centred-care-so-important-issue-2_165838.4.pdf
9. Keene L. The Time Barrier. Path to Patient Centred Care. Wellington: ASMS, 2016. http://www.asms.org.nz/wp-content/uploads/2016/09/The-time-barrier-issue-3_166514.1.pdf
10. Fleming N. Women Doctors 'less productive than males'. *The Telegraph* 25 January 2008.
11. Harris MG, Gavel PH, Young JR. Factors Influencing the Choice of Specialty of Australian Medical Graduates. *MJA* 2005;183(6)
12. Peckham C. Medscape Physician Compensation Report, 2016.
13. Weizblit N, Noble J, Baerlocher M. The Feminisation of Canadian Medicine and its Impact Upon Doctor Productivity. *Medical Education* 2009;43:442–48.
14. N Skinner JC. Work-Life Balance and Family Friendly Policies. *Australia and New Zealand School Of Government* 2013(4)
15. Australian Medical Association (AMA). AMA Flexibility Survey, 19 June - 30 July 2007, 2005.
16. Nicholson PJ, Mayho G, et al. Ageing and the Workplace: A Report from the BMA Occupational Medicine Committee: British Medical Association (BMA), 2016.
17. Australian Medical Association (AMA). Flexibility in Medical Work and Training Practices 2005. Revised 2015. AMA Position Statement. 2015
18. Taylor K, Lambert T, Goldacre M. Future Career Plans of a Cohort of Senior Doctors Working in the National Health Service. *JR Soc Med* 2008;101:182–90.
19. RNZCGP. RNZCGP Membership Surveys, 2014, 2015.
20. Ashton T, Brown PM, et al. Sources of Satisfaction and Dissatisfaction Among Specialists Within the Public and Private Health Sectors. *NZMJ* 2013;126(1383)
21. Chambers C. Superheroes don't take sick leave. Health Dialogue: Association of Salaried Medical Specialists (ASMS), 2015. http://www.asms.org.nz/wp-content/uploads/2015/11/Presenteeism_A5-Final-for-Print_164753.pdf

22. Chambers C, Frampton C. 'Tired, worn-out and uncertain:' Burnout in New Zealand public hospital senior medical workforce. *Health Dialogue*, 2016. http://www.asms.org.nz/wp-content/uploads/2016/08/Tired-worn-out-and-uncertain-burnout-report_166328.pdf
23. Gauld RS, Horsburgh S, Brown J. The Clinical Governance Development Index: Results from a New Zealand Study. *BMJ Qual Saf* 2011 doi: doi:10.1136/bmjqs.2011.051482
24. Ministry of Health. Medical workforce modelling. Wellington, 2016.
25. Health Workforce New Zealand (HWNZ). Health of the Health Workforce 2015, 2016.
26. Statistic NZ. Population Estimates: Statistics NZ, 2016.
27. European Commission. Mobility of health professionals: Final Report Summary, 2016.
28. Organisation for Economic Cooperation and Development (OECD). The Looming Crisis In The Health Workforce: How Can OECD Countries Respond? , 2008.
29. Harrington L, Heidkamp M. The Aging Workforce: Challenges for the Health Care Industry Workforce. In Brief: NTAR Leadership Centre, 2013.
30. Ineson S. Retention of doctors in their 'third age'. A report for HWNZ, 2011.