

Welcome to the RNZCGP digest. The digest contains a selection of recent New Zealand and overseas journal articles and other publications that might be of interest to general practice and to those working in the primary care sector. Some of the articles are available in full at the links provided. Others require an online subscription. Click on any of the bullet points below to go to a section of interest.



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Health workforce



Developing health care workforces for uncertain futures

Author: Gorman D.

The uncertainty of the future health environment makes traditional approaches to workforce planning difficult. Des Gorman of Health Workforce New Zealand suggests that New Zealand's experience may offer a model for rethinking workforce planning to truly meet health care needs. This article outlines the approaches taken to health care workforce planning in New Zealand. These include:

- adopting a version of the Institute for Healthcare Improvement Triple Aim initiative as the core planning template, and rejecting any proposed models of care not aligned to this initiative;
- basing workforce planning on a sequential hierarchy of identifying health need, agreeing on appropriate models of care and consequent service configurations, and only then developing integrated workforce, capital, and IT solutions;
- basing health care planning on service aggregates, e.g. care of ageing populations and mental health, rather than on professions or craft groupings, such as geriatrics and psychiatry;
- advocating for generalist scopes of practice for health care workers whose training is slow and expensive, and advocating for flexibility in the deployment of all workers to fill the need for more general health care workers.
- Identifying consistent findings in cross-sectional analyses of workforce forecasts and incorporating the findings into plans, e.g. the supply of GPs was inadequate to meet the projected need for almost all possible future clinical scenarios, so investment in GP training was increased.

Reference: Acad Med. 2015 Apr;90(4):400–3. doi: 10.1097/ACM.0000000000000644.

Quality improvement



Is HealthPathways effective? An online survey of hospital clinicians, general practitioners and practice nurses

Authors: McGeoch G, McGeoch P, Shand B.

HealthPathways, a website providing localised best practice guidance, is used routinely by most GPs in Canterbury. This study sought to determine health care professionals' perceptions of HealthPathways. Responses to an online survey were obtained from 249 GPs, 72 practice nurses, and 43 hospital clinicians.

Forty-seven percent of GP respondents visited the website regularly (6–15 times/week), and a further 33% accessed it more frequently. The majority of GPs (88%) acknowledged that the website had contributed to the increase in community-based health care services. Ninety percent felt the website had improved the care they provided. The website was considered to have improved relationships with patients (31% of respondents), and working relationships with hospital clinicians (57%). However, 53% of respondents considered that HealthPathways had increased the time spent with each patient, and 58% preferred to make decisions based on their knowledge of patients rather than obtaining advice from structured decision support. In addition, the majority of hospital clinicians (87%) considered the website had contributed to better patient management in primary care, and had improved the referral and follow-up of patients.

The authors conclude that HealthPathways has achieved a high level of acceptance in primary and secondary care, and acted as a valuable change management tool in increasing health care integration in Canterbury.

Reference: N Z Med J. 2015 Jan 30;128(1408):36–46.



Approved CME activity

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Quality improvement



FREE

The impact of primary care on emergency department presentation and hospital admission with pneumonia: a case-control study of preschool-aged children**Authors:** Emery DP, Milne T, Gilchrist CA, et al.

This New Zealand study examined the quality of primary care received by preschool-aged children with community-acquired pneumonia, and identified primary care factors associated with emergency department (ED) presentation and hospital admission.

Three groups of children were enrolled: children presenting to the ED with pneumonia and either admitted (326), or discharged home (179), and well-neighbourhood controls (351). The authors interviewed parents and primary care staff, and reviewed clinical records. The study found that children were more likely to present to ED with pneumonia if they did not have a usual GP, their GP worked 20 hours per week or less, or their GP's practice lacked an immunisation recall system. Lower parent ratings for continuity, communication, and overall satisfaction of primary care increased the likelihood of an ED presentation. There was a higher likelihood of admission to hospital when antibiotics were prescribed in primary care. Where children did not have a usual GP or self-referred to the ED, then hospital admission was less likely.

The authors conclude that accessible and continuous primary care is associated with a decreased likelihood of preschool-aged children with pneumonia presenting to the ED and an increased likelihood of hospital admission, which implied more appropriate referrals.

Reference: NPJ Prim Care Respir Med. 2015 Feb 5;25:14113. doi: 10.1038/npjpcrm.2014.113.

Clinical issues

**Managing patients with multimorbidity in primary care****Authors:** Wallace E, Salisbury C, Guthrie B, et al.

This UK article reviews multimorbidity, commonly defined as two or more chronic medical conditions in an individual. Patients with multimorbidity have a high treatment burden in terms of understanding and self-managing conditions, attending multiple appointments, and managing complex drug regimens. The authors identify areas where GPs experience difficulties in caring for patients with multimorbidity. These include:

- disorganisation and fragmentation of care;
- inadequacy of current disease-specific guidelines which rarely deal with comorbidity. An individual recommendation may be rational and evidence based, but the sum of all recommendations for individual patients is not;
- delivering patient-centred care;
- shared decision making;
- the sense of professional isolation in managing patients with multimorbidity.

Potential solutions to address challenges in managing the patients include:

- developing guidelines that address more common clusters of chronic conditions;
- targeting function, not disease;
- having multidisciplinary input through referrals to relevant disciplines;
- stopping drugs that are not indicated;
- running specific multimorbidity clinics that address a common cluster of conditions;
- placing realistic treatment goals at the centre of the consultation.

Reference: BMJ 2015;350:h176.

Medicines

**Variation in the pharmaceutical costs of New Zealand general practices: a national database linkage study****Authors:** Tomlin AM, Gillies TD, Tilyard MW, et al.

Variation in health care treatments between general practices may be a marker of inequality and reduced care quality. This study investigated variation in medicine costs across all New Zealand general practices using data from the Pharmaceutical Collections (records of publicly subsidised medicines dispensed in community pharmacies) from 2008 to 2011, and the PHO Enrolment Collection (records of registered patients) for 2011.

There were considerable differences in prescribing costs per patient across age, ethnicity, deprivation, and therapeutic groups, but not by gender. Medicines for the treatment of infections and nervous system disorders were the most used and had a substantial variation in prescribing rates among practices (from less than 20% to greater than 60%). High-cost outlier practices did not necessarily have prescribing costs that could be reduced; practices with more morbid patients, especially chronic conditions, were more likely to have higher prescription costs.

The authors advance reasons why general practices might have higher than expected prescription costs. Medicines with little therapeutic benefit might be inappropriately prescribed, GPs may view their role in terms of service provision with prescribing as part of the service, and patients with special needs may require expensive treatment. The authors conclude that practices with consistently higher than expected costs across most patient demographics and therapeutic drug groups may be better candidates for interventions to reduce pharmaceutical expenditure.

Reference: J Public Health 2015. doi:10.1093/pubmed/fdu116.

Health technology



Can patients use test results effectively if they have direct access?

Authors: O’Kane M, Freedman D, Zikmund-Fisher BJ.

In this ‘Head to Head’, O’Kane and Freedman argue that patients welcome direct access to test results and that they improve clinical visits. In opposition, Zikmund-Fisher says that data are currently presented in ways that make it meaningless for most patients.

The ‘yes’ arguments include:

- Increased patient engagement may continue to improve decision making and care.
- Patients, particularly those with chronic diseases, value access to test results.
- Direct access may improve the doctor–patient relationship, and increase satisfaction with care. It better prepares patients for clinic visits, and results in more efficient consultations.
- There is little evidence to support concerns that an unwelcome result or misinterpretation of findings could cause patient anxiety.
- Patients who have been prepared by their doctor are more satisfied and less likely to seek advice from family and friends or the internet.
- It might provide an additional safety net where patients can raise concerns about abnormal results.

The ‘no’ arguments are based around the need to increase the usability of the results rather than merely providing test values and standard ranges:

- Most patients cannot yet effectively use data – this requires patients to translate raw test results into actionable knowledge.

- Patients need more than numbers – the ability of people to identify which results fall outside the reference range when provided with the standard tabular format is poor. Even where patients identify results as out of range, they often cannot fully interpret their meaning.
- If patients are burdened with having to work out the meaning of test results as well as being responsible to act based on the information, then doctors are responsible for making data as meaningful as possible.
- Patient interaction with test results needs improving, e.g. by visual displays and cues to clarify whether changes are clinically important, or by framing test results with multiple meaningful reference points.

Reference: BMJ 2015;350:h673

Health technology



Too much technology

Author: Hoffman BM.

Medical technology has been a driving force in the growth of expenditure on health in OECD countries. Reasons for the pervasive use of technology in health care include:

- the supply of technology is driving demand;
- technologies are widely used without evidence of their effectiveness, safety and efficiency; and
- technology is used strategically to attract specialists and patients.

One of the major drivers is technology itself: there is a technological imperative, pushing technological innovation beyond health care needs and its original goals. Technology directs and structures our knowledge of disease. For example, our knowledge of myocardial infarction is now more based on measurement of troponin in the blood than on electrical activity in the heart.

Implications of pervasive technology include:

- enhanced leaps of belief, i.e. unwarranted enthusiasm among professionals, hyped beliefs and demands among patients, and unrealistic expectations;
- detecting cases that would otherwise not have caused symptoms or death – i.e. overdiagnosis, which subsequently leads to overtreatment;
- increased diagnostic activity generates incidental findings, many of which do not reduce symptoms or death;
- increased health anxiety as a result of an increased awareness of health problems and disease prevalence;

Medico-legal and ethical issues

- increased cost;
- reduced value, as more people are overdiagnosed and overtreated when the predictive value of diagnostic tests is low.

The authors conclude that we must get rid of truisms – e.g. more, new, and advanced is better – and acknowledge responsibility for medical technology. Patients also need to be better informed about the uncertainties in benefits and risks of technologies.

Reference: BMJ 2015;350:h705.



Enduring and emerging challenges of informed consent

Author: Grady C.

This US article examines the challenges of informed consent in light of contemporary developments in health care and clinical research. The author considered three particular aspects:

1. Changing models of health care and research: With learning models that hybridise patient care with research and evidence, it may be asked how closely consent for these activities should resemble a research model for informed consent (which is more tightly regulated and detailed). Some have argued that 'research-like' written informed consent may be ethically unnecessary and overly burdensome for learning activities.
2. Advanced technologies: Advanced technologies and expanded research opportunities generate complex and uncertain information. Providing this information can be further complicated by low prevailing rates of science and health literacy in patients.
3. Changing demographics: The US population is becoming older and more ethnically diverse. There is a need for respectful, effective, and efficient methods to ascertain whether a person has the capacity to consent, and make decisions. Assessing the reasoning capacities of individuals from different cultural backgrounds can be challenging.

The author concludes that respecting and promoting the informed choices of patients and research participants is of paramount importance, despite the challenges of varied and changing contexts.

Comment: In New Zealand, the legal rights underpinning the process of informed consent – the rights to effective communication, to be fully informed, and to give informed consent – are set out in the Code of Health and Disability Services Consumers' Rights (Rights 5, 6 and 7).

Reference: N Engl J Med. 2015 Feb 26;372(9):855–62.
doi:10.1056/NEJMr1411250.

Public health

**Reflections on the evolving role of Infection Services in New Zealand****Authors:** Arnold BJ, Blackmore TK.

This editorial examines the evolving practice of infectious diseases services in New Zealand. The authors note the successes of New Zealand's childhood vaccination programme, which includes the introduction of the childhood hepatitis B vaccination, the MenZB™ meningococcal vaccination, and the recent addition of the pneumococcal vaccine. HIV infection is now a model of chronic disease management with many aspects of HIV care in the domain of general practice. The incidence of acute rheumatic fever has risen, with rates more than doubling between 2005 and 2013, and disproportionately affecting Māori and Pacific peoples.

Many quality improvement initiatives, reporting systems, and infection prevention services are targeted at minimising preventable infection within New Zealand. Examples include the national hand-hygiene programme, and surveillance and prevention of central line-associated bacteraemia and surgical site infections. One of the biggest demands on clinical infection services has been infections from elective surgeries for hip and knee arthroplasty (infection rate is approximately 1.3%).

The authors note that New Zealand's relative isolation might allow us to avoid or contain some of the diseases of international significance. However, New Zealand does not have a national response team with all the tools required to identify and manage highly contagious diseases with minimal disruption to routine services. The authors conclude that New Zealand still needs to address the old principles of household crowding, hygiene, and general health.

Reference: N Z Med J. 2015 Mar 13;128(1410):9–12.

Access to care



FREE

Patients' engagement in primary care: powerlessness and compounding jeopardy. A qualitative study**Authors:** Sheridan NF, Kenealy T, Kidd JD, et al.

Chronic disease and poverty amongst elderly, ethnic minorities represents a challenge for primary health care. The authors sought to understand what patients – who experience the interactive effects of chronic disease, age, race and poverty – want from GPs. Forty-two in-depth interviews were conducted with participants living in Auckland.

The results showed an outward acceptance of health care that belied an underlying dissatisfaction with low engagement. Participants reported being upset at how they were spoken to, and feeling unheard or disregarded. Decision making was more difficult when patients received inconsistent information from individual clinicians over time or from different clinicians. Also, participants wanted information conveyed in a way that indicated GPs understood them in the context of their lives. Many participants wanted a greater role in self-management, and most wanted GPs to talk openly about future uncertainties and about dying.

The authors conclude that to achieve the ideal engaged relationship that patients desire, clinicians should be guided by their patients' perceptions of need, not by assumptions of similarity and their own beliefs about illness and clinical management.

Reference: Health Expect. 2015 Feb;18(1):32–43. doi: 10.1111/hex.12006.

Access to care

**Extending opening hours in general practice won't improve access for patients most in need****Author:** Ford JA.

Doctoral research fellow John Ford provides a personal view on extending opening hours as a way to improve access to general practice in the UK. Extended and weekend opening might allow patients to see their GP at a more convenient time, leading to more preventive and community care. However, the author argues that any solution should aim to meet need, not create demand. Patients who need health care the most (such as older people and those with mental health problems) are often the ones who find it difficult to access health care.

Initiatives aimed at improving access have included:

- walk-in centres, usually seven days a week, without the need to book;
- polyclinics, which offer many different services at a 'one-stop shop', including urgent care and extended opening;
- the pay-for-performance system where practices are paid incentives to undertake peer review of urgent care data and improve access accordingly under the Quality and Outcomes Framework;
- electronic booking of appointments;
- the Prime Minister's Challenge Fund, providing £50m to fund 20 pilot schemes to improve access to primary care.

The author states that walk-in centres are more likely to be accessed by affluent, well-educated men, and less so by ethnic minorities. Furthermore, walk-in centres have not had any marked effect on attendance at emergency departments, out-of-hours services, or on GPs' workload.

The author concludes that improving access involves more than simply extending opening hours. Targeted approaches should be aimed at those who need health care the most. Such policies might include more community resources to allow older people to be safely discharged from hospital during weekends, extending case management coverage, better translation services, social workers in primary care, extended appointments for older people with multimorbidity, regular walk-in clinics, and financial incentives for primary care workers to register patients from vulnerable groups.

Reference: BMJ 2015;350:h1373

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