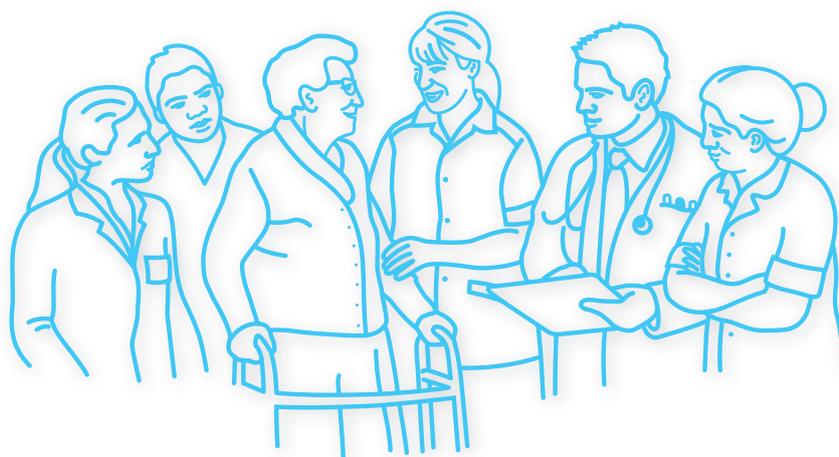




HEALTH QUALITY & SAFETY  
COMMISSION NEW ZEALAND  
*Kupu Taurangi Hauora o Aotearoa*



# A Window on the Quality of New Zealand's Health Care



**2018**



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## Abbreviations

|           |  |
|-----------|--|
| ACC       | Accident Compensation Corporation                      |
| ANZCA     | Australian and New Zealand College of Anaesthetists    |
| BDSH      | bullying, discrimination and sexual harassment         |
| COPD      | chronic obstructive pulmonary disease                  |
| DALYs     | disability-adjusted life years                         |
| DHB       | district health boards                                 |
| DVT/PE    | deep vein thrombosis leading to pulmonary embolism     |
| FTEs      | full-time equivalents                                  |
| GDP       | gross domestic product                                 |
| GP        | general practitioner                                   |
| NZDep2013 | New Zealand index of deprivation                       |
| OECD      | Organisation for Economic Co-operation and Development |
| PDSA      | plan-do-study-act                                      |
| PPP       | purchasing power parity                                |
| RACS      | Royal Australasian College of Surgeons                 |
| SAB       | <i>Staphylococcus aureus</i> bacteraemia               |
| SLMF      | System Level Measures Framework                        |
| SSIs      | surgical site infections                               |
| TAS       | Technical Advisory Services                            |

# Executive summary

New Zealand's health system achieves remarkable things every day. Ultimate outcomes supported by health care – reduced death and disability – are continuing to improve at a rate comparable to similar countries, even though New Zealand has been spending increasingly less than many other countries on health care.

This year's edition of the Health Quality & Safety Commission's *A Window on the Quality of New Zealand's Health Care (Window)* 'shines the light' beyond ultimate outcomes to look at where the system is performing less well and where possible system weaknesses may put future performance at risk. 'Shining the light' aims to start the thinking and discussion needed to lead to change.

Chapter 1 considers measures of equity, safety, patient experience and effectiveness.

## Equity

- Disparity and inequality in the health status of patient groups in New Zealand can be compounded by poor health care or, alternatively, countered by high-quality care that effectively meets specific needs.
- This year's *Window* highlights inequities across ethnic, age and socioeconomic groups in terms of treatments, patient experience, access to services, and outcomes. The findings suggest New Zealand's health care system needs to perform better at each stage of the patient journey, to deliver more equitable health outcomes.

## Safety

- With regard to safety, this *Window* shows New Zealand is performing well internationally in areas of specific harm. Continued improvements are evident in safe practice and patient outcomes, through quality improvement approaches, in most areas where the Commission focuses its efforts (ie, falls prevention, surgical site infections for hip and knee operations, deep vein thrombosis and pulmonary embolism).
- Many more issues of patient harm remain to be tackled, most notably, those related to delays and clinical management processes.

## Patient experience

- Patient experience is an important component of high-quality care. Both the Commission's inpatient experience and primary care patient experience surveys show generally positive, consistent results over time.
- However, inequities across groups can be seen, and more work is needed on providing patients with information on their medication, particularly in relation to side effects.
- The picture is mixed for interactions with other parts of the health care system, suggesting system integration and the patient journey need more focus. Variation exists across different providers, suggesting room for improvement.

## Effectiveness

- A high-quality system will provide the most effective treatment at the right time and in the right place, organised around the patient and their condition.
- While New Zealand compares well internationally for measures of effectiveness, variation exists across the country, suggesting effective treatment and coordination are not universal. No single district health board provides the best or worst care across all conditions and patient groups.

Chapter 2 highlights the need for further development in our approach to anticipating emerging issues within the health care system, so we can act more quickly to prevent potential harm.

The importance of social determinants of health mean that poverty, social inequity, poor housing and other challenges beyond the immediate control of health systems affect the services we need to provide. Similarly, the wellbeing of the health workforce is itself important for ensuring a high-performing system.



Chapter 2 considers 'soft' intelligence alongside hard data, and highlights the need to sift through various signals that may be 'just noise' to identify those that matter. Financial pressures, the health and wellbeing of the workforce, and changing patterns of adverse events and consumer complaints are covered.

### **Financial**

- The increasing gap between expenditure on the New Zealand health care system and those of similar countries is highlighted. Continuing district health board deficits are also raised.
- Too much focus on delivering specific results can inadvertently cause the deprioritisation of other important work or investment required to strengthen the system or improve the patient journey.

### **Workforce**

- The health and wellbeing of the health workforce is discussed. Even though the health workforce is increasing over time, staff shortages and wellbeing concerns are being raised within the sector. Sickness absenteeism and, the opposite, presenteeism (working through illness) are considered.
- Of particular concern is the evidence that bullying is widespread in the New Zealand health care system. This is not unique to health care, but bullying is destructive to culture and affects both the physical and psychological wellbeing of staff and their ability to provide high-quality and safe patient care.

### **Safety**

- Increasing numbers of adverse events reports and consumer complaints about harm relating to complex cross-organisational boundary and system issues (ie, clinical management processes and delays) are discussed. These challenges will require different approaches to resolve them.

The overall impression from these two chapters is of a system adept at responding to individual quality issues with effective, focused initiatives. Yet, as a system, it has made less progress in tackling long-standing 'wicked' or complex problems, such as continuing inequity in access, treatment and outcomes, and unwarranted variation in treatment. The system's inability to address these issues matters. We cannot continue with our current approaches and ignore our lack of progress in these important areas.

Some of the challenges outlined in chapter 2 were not so visible four years ago. We are now seeing issues that do not lend themselves to the sort of targeted methods and single-organisation approaches widely used in recent years. New approaches are needed, grounded in co-design with consumers and the health workforce.

As well as continuing quality improvement and further strengthening safety culture, chapter 3 suggests two new approaches that may help address emerging challenges while also improving the overall quality of services and our system. These are:

- building on existing approaches to encourage focused monitoring of service quality
- developing a mechanism for spotting and addressing potential problems early.

If we are truly to achieve equitable and excellent health outcomes for all New Zealanders, it is essential that a whole-of-system approach is adopted.

# Introduction

Welcome to the fourth edition of the Health Quality & Safety Commission's (the Commission's) report *A Window on the Quality of New Zealand's Health Care (Window)*.

This *Window* focuses mostly on the quality of health services delivered rather than population health, broader measures of system capability, sustainability, workforce or productivity. Health outcomes depend on all of these issues, including factors such as poverty, housing, employment and education, just as much as they do on ensuring all New Zealanders have timely access to effective and safe health services. As our approach to reporting on the quality and safety of health care evolves, the *Window* is necessarily expanding to consider wider issues, opportunities and flags for deeper analysis and attention.

As in previous editions, chapter 1 uses a modification of the US Institute of Medicine's (now the National Academy of Medicine's) dimensions of quality. The chapter concentrates on the value, equity, safety, patient experience and effectiveness of delivered health services to provide structure.

Chapter 2 draws on the wider work of Charles Vincent and others who are encouraging a broader approach to the measurement and monitoring of safety in health care. We focus on 'anticipating' early warnings for system safety and sustainability in New Zealand.

Chapter 3 suggests two new approaches that may help address the ongoing and emerging challenges highlighted in this *Window*, while improving relationships, the overall quality of services and our system. These are:

- building on existing approaches to encourage focused monitoring of service quality
- developing a mechanism for spotting and addressing potential problems early.

(Unless otherwise stated, the source for figures and tables in this *Window* is the Health Quality & Safety Commission.)





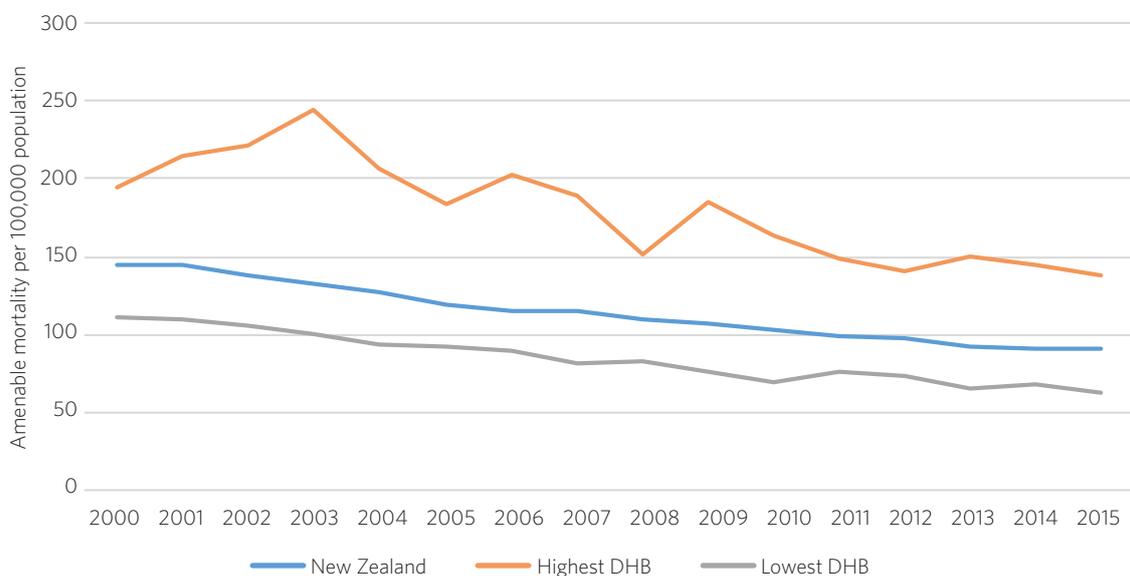
# 1 Where are we now?

## A high-level view – outcomes and value for money

Measures of the ultimate outcomes of care, such as deaths from treatable conditions, life expectancy and loss of quality of life, continue to show improvement in New Zealand at rates in line with other similar countries.

Deaths from conditions that can be improved by health care continue to reduce for all parts of the country (see Figure 1). However, a two-fold variation exists between the district health boards (DHBs) with the highest and lowest rates of these premature deaths.

**Figure 1: Mortality from conditions amenable to health care per 100,000 population aged 0-74, New Zealand, 2000-15** (source: Ministry of Health)



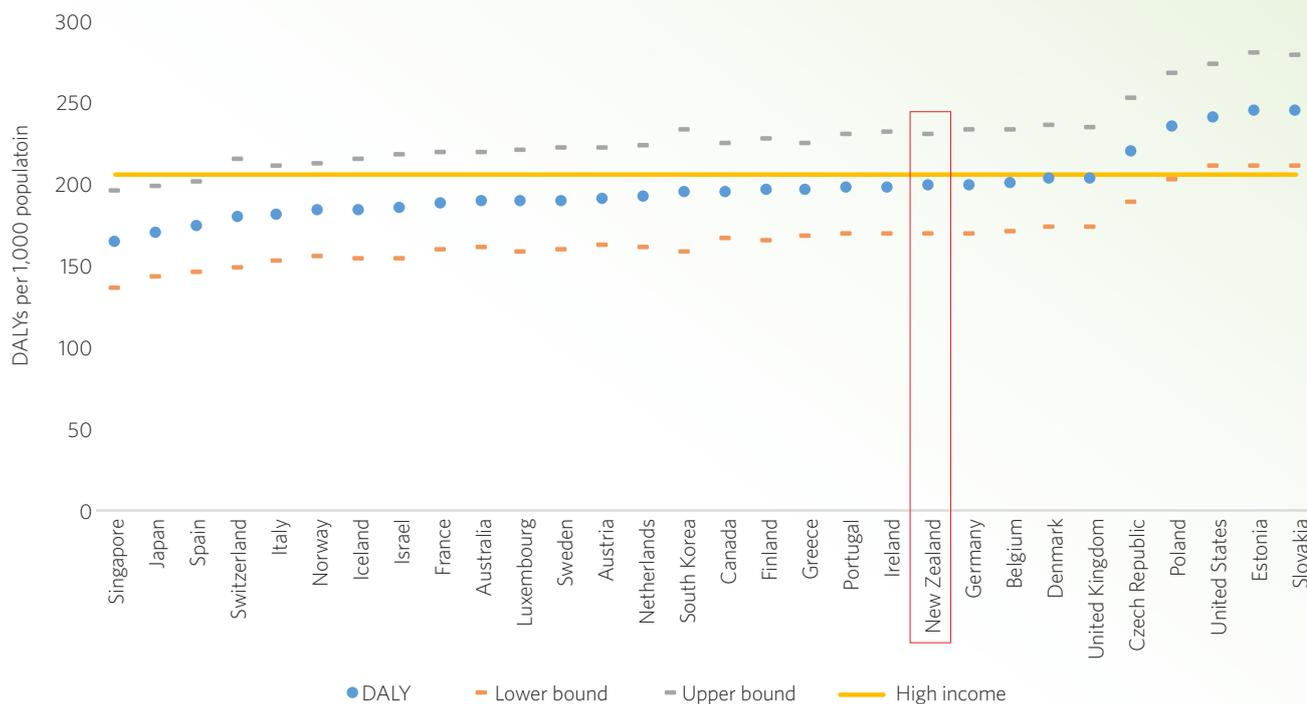
### Box 1: Measuring ultimate outcomes of care

**Amenable mortality** measures the number of premature deaths from diseases that effective and timely health care might have prevented.

**Disability-adjusted life years (DALYs)** measure the gap between a population's current state of health and that of an ideal population where everyone experiences long lives free of illness or disability. DALYs provide a means of considering quality of life, as well as length. A DALY lost is a year of healthy life lost to New Zealanders. Therefore a reduction in DALYs lost represents an improvement in outcome.

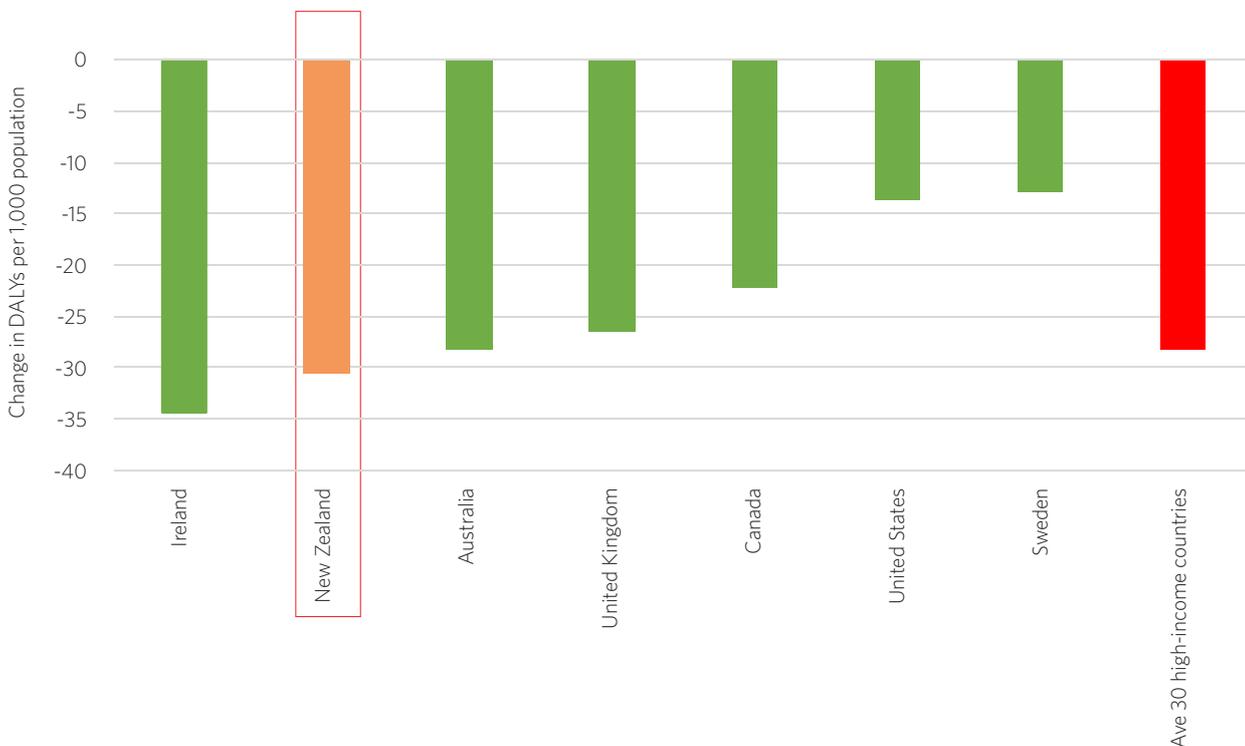
Ultimate outcomes of care in New Zealand are similar to those in other developed nations and are improving at a similar, if not faster, rate. Figure 2 shows that DALYs lost in New Zealand are very similar to most other developed countries. Figure 2 compares New Zealand with 30 high-income (Organisation for Economic Co-operation and Development (OECD)) countries. International comparisons after this graph, unless otherwise stated, use a smaller group of comparable countries (Australia, Canada, Ireland, Sweden, United Kingdom and United States of America).

**Figure 2: Age-standardised disability-adjusted life years (DALYs) lost per 1,000 population, high-income countries, 2016** (source: University of Washington)



Since 2000, the rate of per-capita DALYs lost has fallen slightly more in New Zealand than in the average of the high-income countries, in line with the trend observed in previous *Windows* (Figure 3).

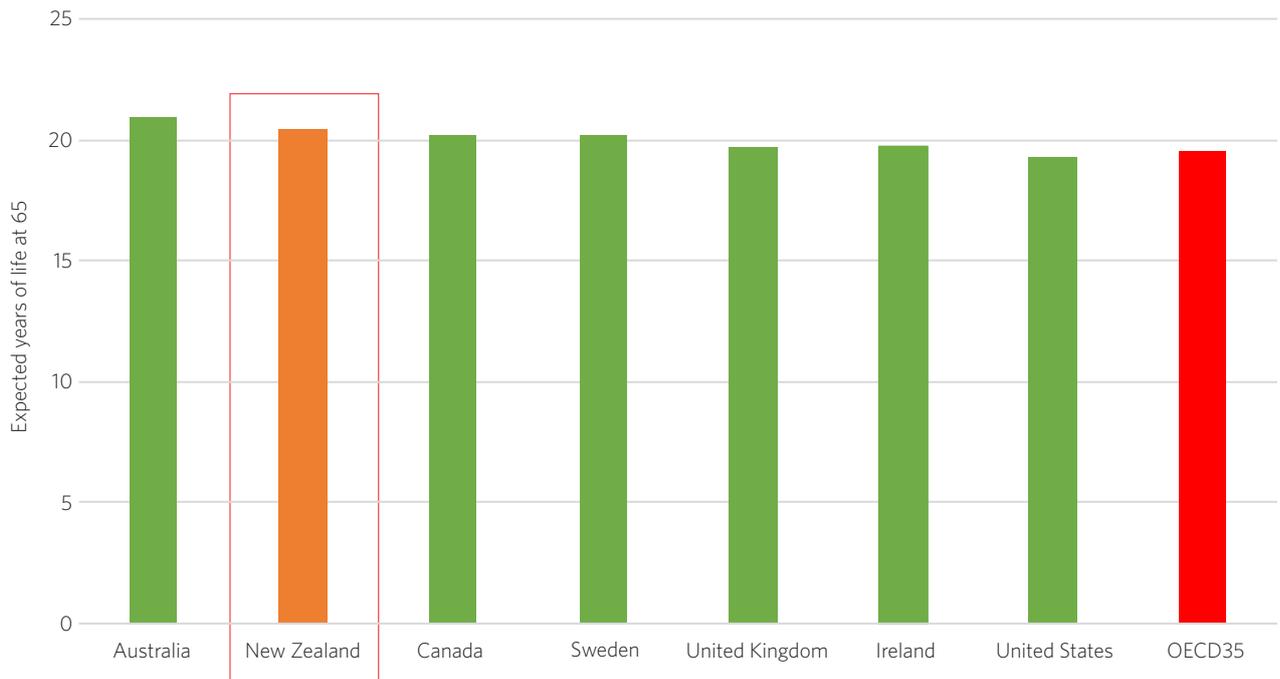
**Figure 3: Change in age-standardised disability-adjusted life years (DALYs) per 1,000 population, high-income countries, 2000-16** (source: University of Washington)



New Zealanders aged 65 can expect to live 20 more years. Again, this puts New Zealand close to comparable high-income countries and very close to the average of the 35 countries in the OECD (Figure 4).

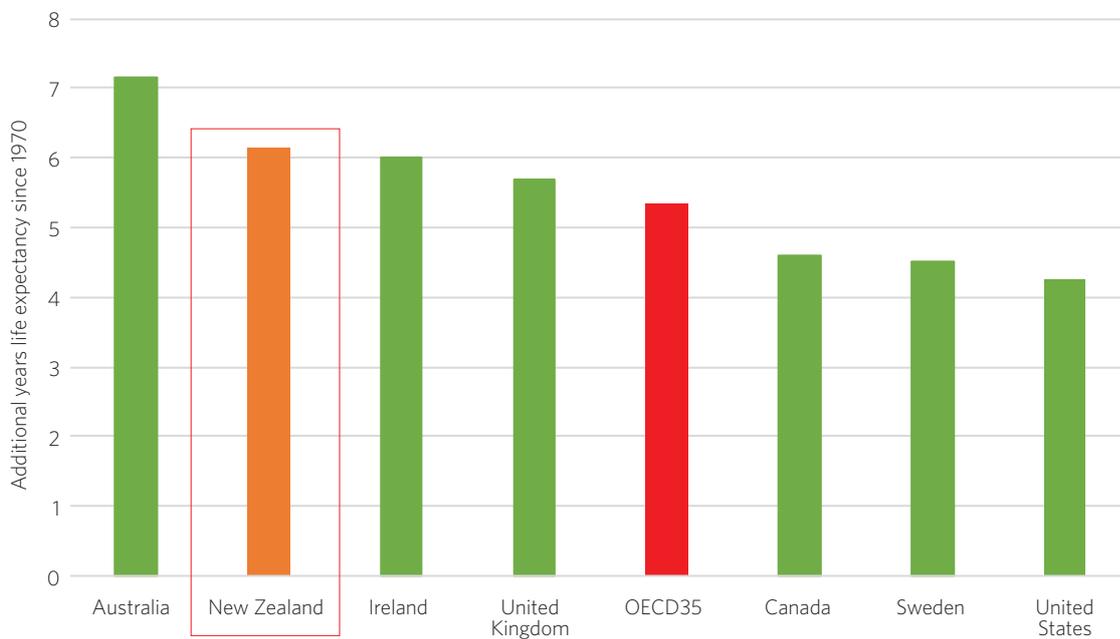


Figure 4: Life expectancy at 65, by OECD country, 2015 (source: OECD)



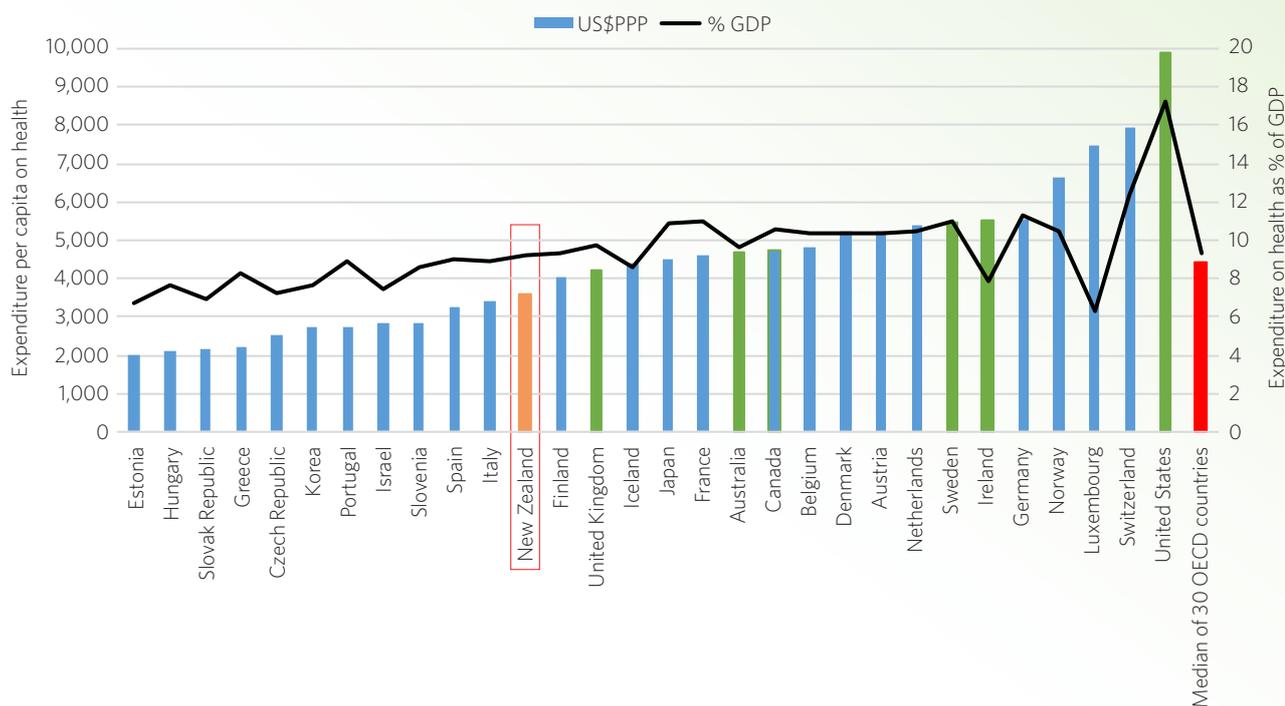
Life expectancy at 65 has improved by just over six years since 1970, slightly above the average improvement of the OECD nations (Figure 5).

Figure 5: Change in life expectancy at 65, by OECD country, 1970–2015 (source: OECD)



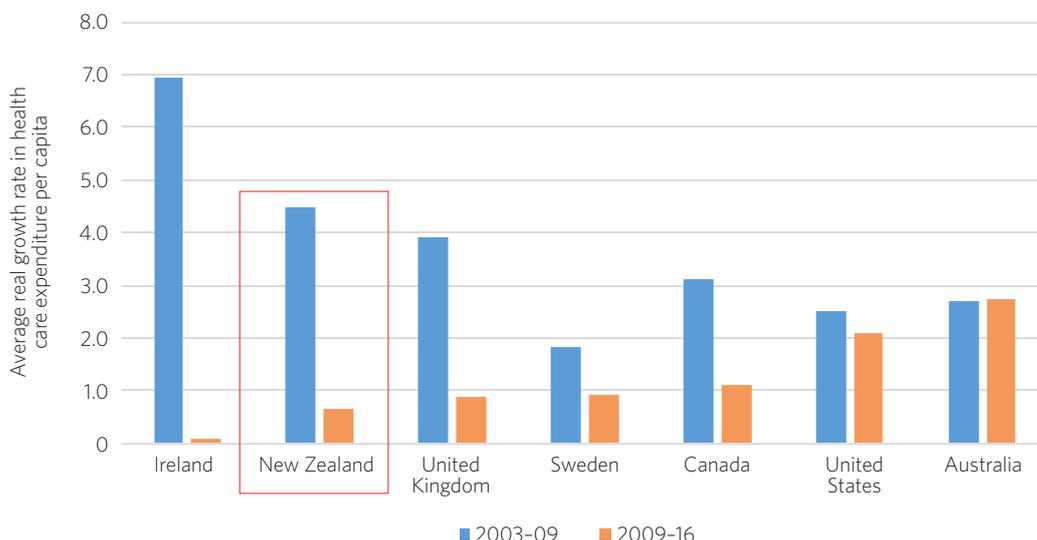
New Zealand has had lower expenditure on its health care system than most comparable countries for many years, both as total expenditure per person and as a percentage of gross domestic product (GDP). Figure 6 presents the most recent data (expenditure per head in bars, percentage GDP as a line) for 30 high-income countries. The comparator group is coloured green in this graph. New Zealand consistently has not only lower per-head expenditure, but also a smaller share of national income spent on health care than similar countries. This is potentially important. For example, matching the Australian share of national income spent on health would add US\$700 million to New Zealand’s health expenditure.

**Figure 6: Expenditure on health care per head, US\$ purchasing power parity (PPP), by OECD country, 2016**  
(source: OECD)



Since 2009, the growth in New Zealand's expenditure on health care has slowed notably, both in comparison with 2003–09 and with similar countries (Figure 7).

**Figure 7: Annual average growth rate in per-capita health expenditure, real terms, by OECD country, 2003–09 and 2009–16 (or nearest year)** (source: OECD)

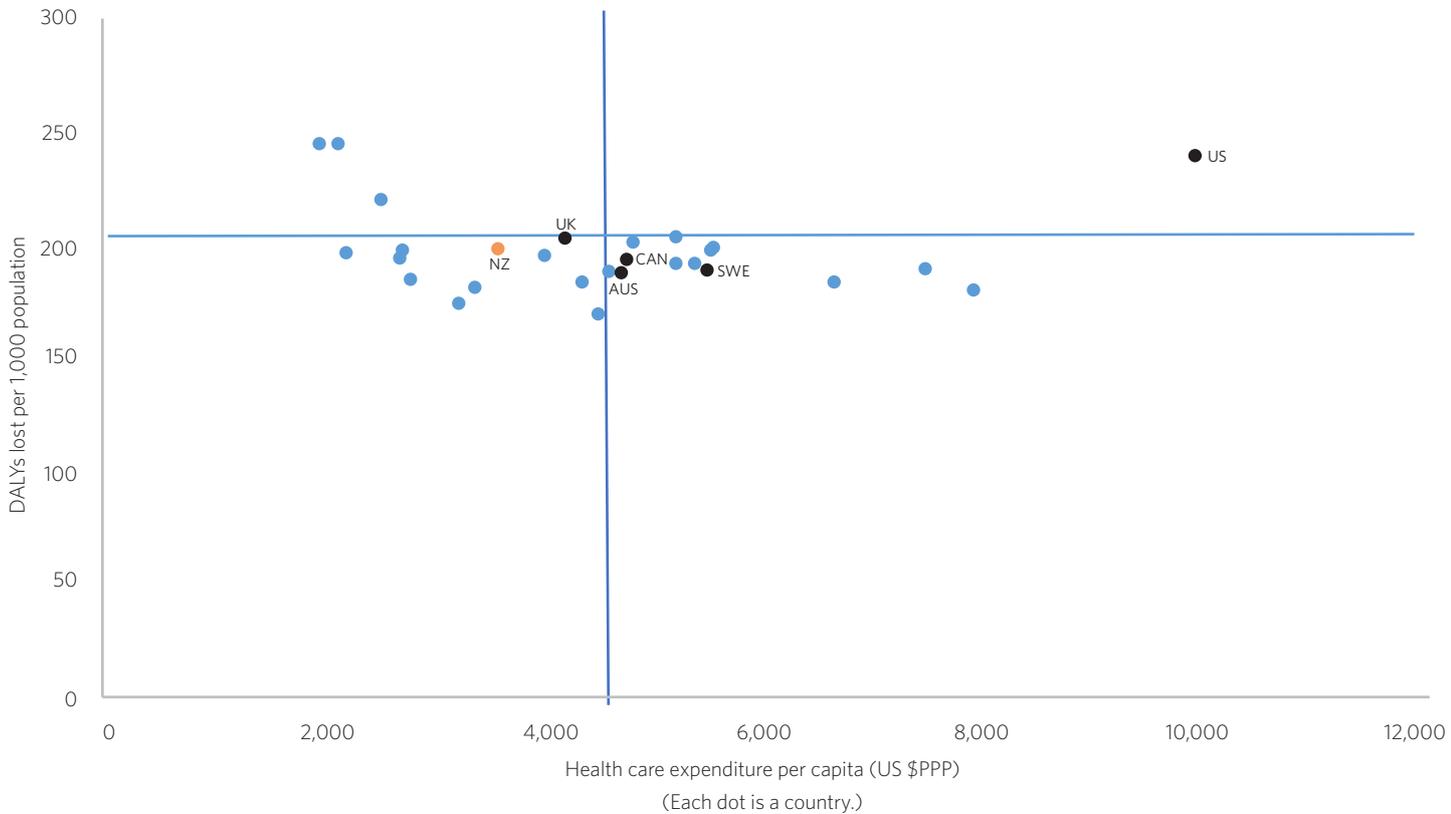


So, New Zealand (the orange dot in Figure 8) remains in the low-cost, low-DALY loss quadrant of 30 high-income countries. This result is slightly ambiguous. It can be taken to mean that New Zealand is performing as well as similar nations, despite spending less money, or that it is failing to achieve some of the best health outcomes in the world by not spending relatively small amounts more on its health services.<sup>1</sup> Regardless, the potential effect of long periods of flat expenditure in the face of a population with increasing health needs warrants further consideration, which is given in chapter 2.

<sup>1</sup> The value to New Zealand's society of this investment is potentially substantial. The Accident Compensation Corporation (ACC) has estimated the value of an avoided DALY using a method that, for 2015 prices, would give a value of around \$180,000. Were New Zealand to reduce its DALY per-capita rate to that of Australia (that is, a reduction of around 10 DALYs per 1,000 population), New Zealand would have roughly a further 47,000 years of healthy life each year, worth around \$8.5 billion under the ACC estimation.



Figure 8: Expenditure on health care per head, US\$ purchasing power parity (PPP), 2016, versus age-standardised disability-adjusted life years (DALYs) lost per 1,000 population, 2016, high-income countries (sources: OECD; University of Washington)

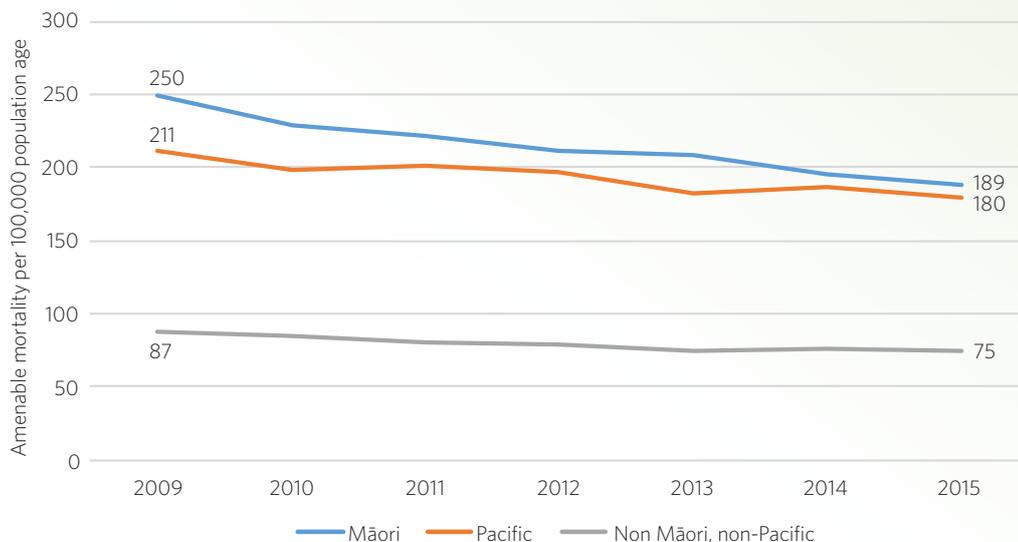


All of the measures reported in chapter 1 (and in previous editions of the *Window*) cover what has occurred in the past. At best, the data is six months to a year old. A lot can change in that time, and pressures on a system can take several years to show up in results. While these 'lagging' indicators are useful and important, we need to do two things to understand the current position. First, we need to examine these indicators in greater depth. We do this in the rest of chapter 1. Second, we need to supplement them with more prospective measures ('leading indicators') to see where the system might be heading. This is discussed in chapter 2.

The first 'lagging indicator' is health outcomes for different groups of people. As shown in Figure 1, mortality from conditions we can treat varies around the country. Figure 9 shows, for different ethnic groups, this distinction is even more stark.

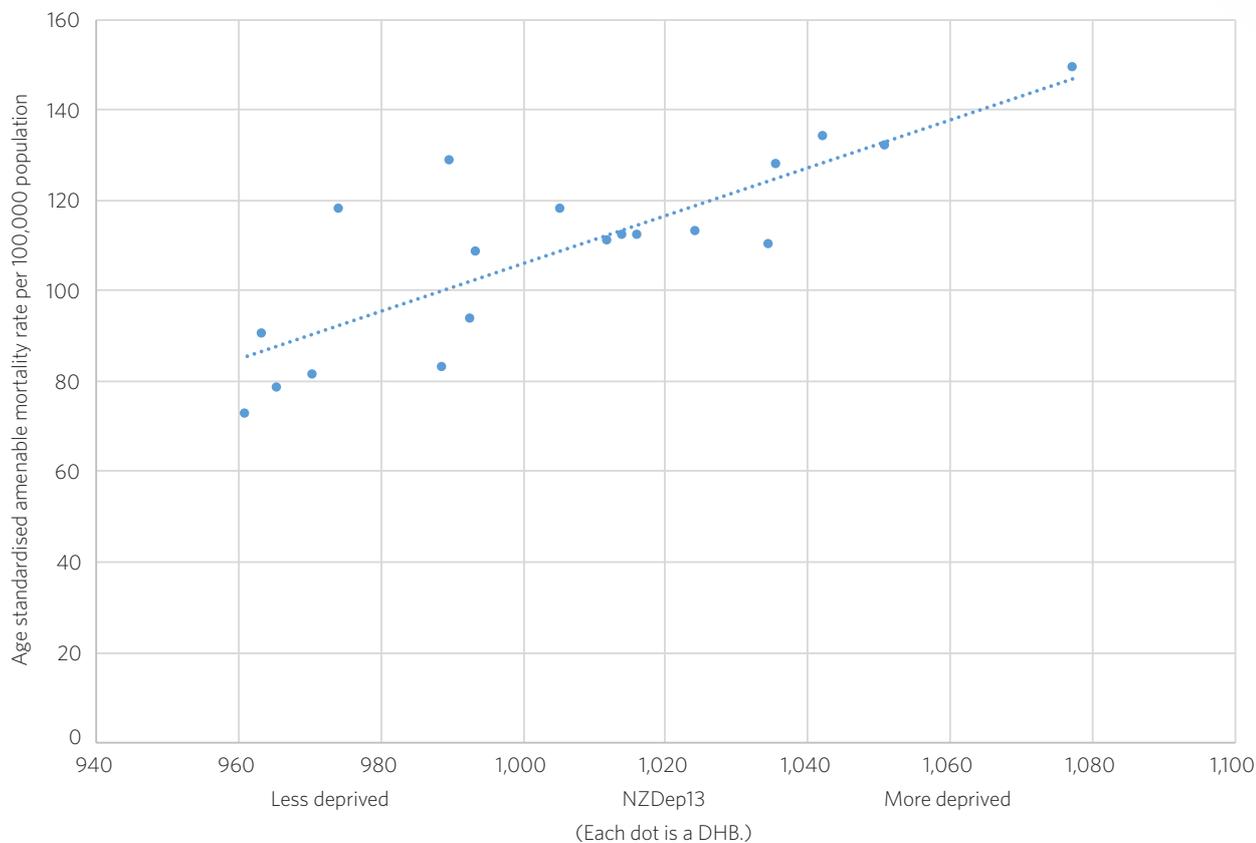


**Figure 9: Mortality from conditions amenable to health care per 100,000 population aged 0-74, by ethnic group, New Zealand, 2009-15 (source: Ministry of Health)**



Similarly, Figure 10 shows that a strong relationship exists between the mortality rate for these conditions in individual DHBs and the local levels of deprivation ( $r^2 = .68$ ). In broad terms, for every 10 points that deprivation increases on the NZDep2013 index of deprivation scale, a further five people per 100,000 population die from treatable diseases.

**Figure 10: Mortality from conditions amenable to health care per 100,000 population aged 0-74, by DHB, New Zealand, 2010-14 (source: Ministry of Health), compared with NZDep2013<sup>2</sup> by DHB (source: University of Otago)**



2 NZDep2013, calculated by the School of Public Health at the University of Otago, is an index of deprivation of local areas that includes: people aged below 65 with no access to the internet at home; people aged 18-64 receiving a means-tested benefit; people living in equivalised households with income below an income threshold; people aged 18-64 unemployed; people aged 18-64 without any qualifications; people not living in their own home; people aged over 65 living in a single parent family; people living in equivalised households below a bedroom occupancy threshold; and people with no access to a car. For the purposes of Figure 10, the weighted mean of NZDep2013 scores for area units within each DHB are used. Further details of the NZDep2013 scores are available from [www.otago.ac.nz/wellington/otago069929.pdf](http://www.otago.ac.nz/wellington/otago069929.pdf) (accessed 14 May 2018).



The pattern of worse outcomes and experiences for deprived populations is especially notable for children. The recent report of the Child and Youth Mortality Review Committee notes that children living in deprived areas are three times more likely to die than those in the most affluent areas.<sup>3</sup> Similarly, the New Zealand Child and Youth Epidemiology Service shows that children living in areas in the most deprived quintile are three times as likely to be admitted to hospital for respiratory and infectious diseases.<sup>4</sup>

Every previous *Window* has noted that New Zealand's health care system struggles to provide high-quality services to all New Zealanders, and that outcomes for some groups of people are not as good as for others. The effects of deprivation are clear, but the solutions will require measures beyond those that involve direct investment in health services.

## Equity

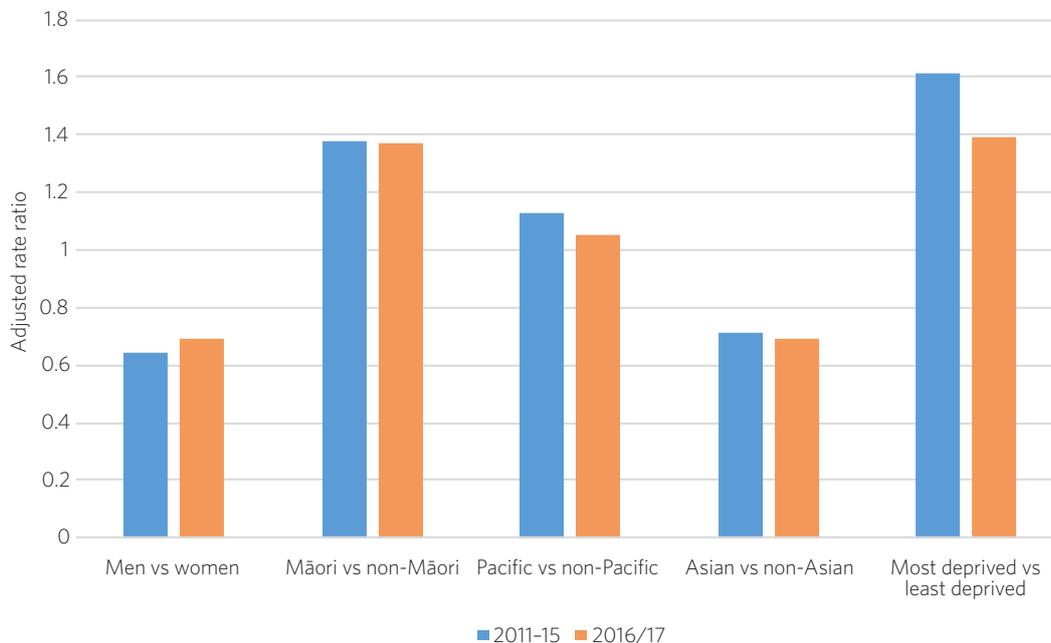
The pattern of worse outcomes for some groups is reflective of inequity for Māori and Pacific peoples and those living with greater socioeconomic deprivation. These groups are more likely to have greater health needs and to find it difficult to access care. They are less likely to get the best care, even when they do access it, and are less likely to find care a positive experience.

Previous *Windows* have highlighted issues of ethnic inequity. Inequity can also be seen across socioeconomic status, age, gender and rurality. This section considers types of inequity among different population groups. Concerning examples are evident for all groups.

### Inequity of access

Cost barriers to accessing primary care affect Māori, younger and more deprived populations disproportionately and have done so consistently for the past five years, despite changes in public health funding to reduce these barriers (Figure 11). For example, the figure shows that Māori are 1.4 times more likely than non-Māori to identify cost barriers to accessing primary health care.

**Figure 11: Adjusted rate ratio of respondents identifying cost barriers to accessing primary care (second mentioned group = 1.0), New Zealand, 2011-15 and 2016/17 (source: Ministry of Health health survey)**

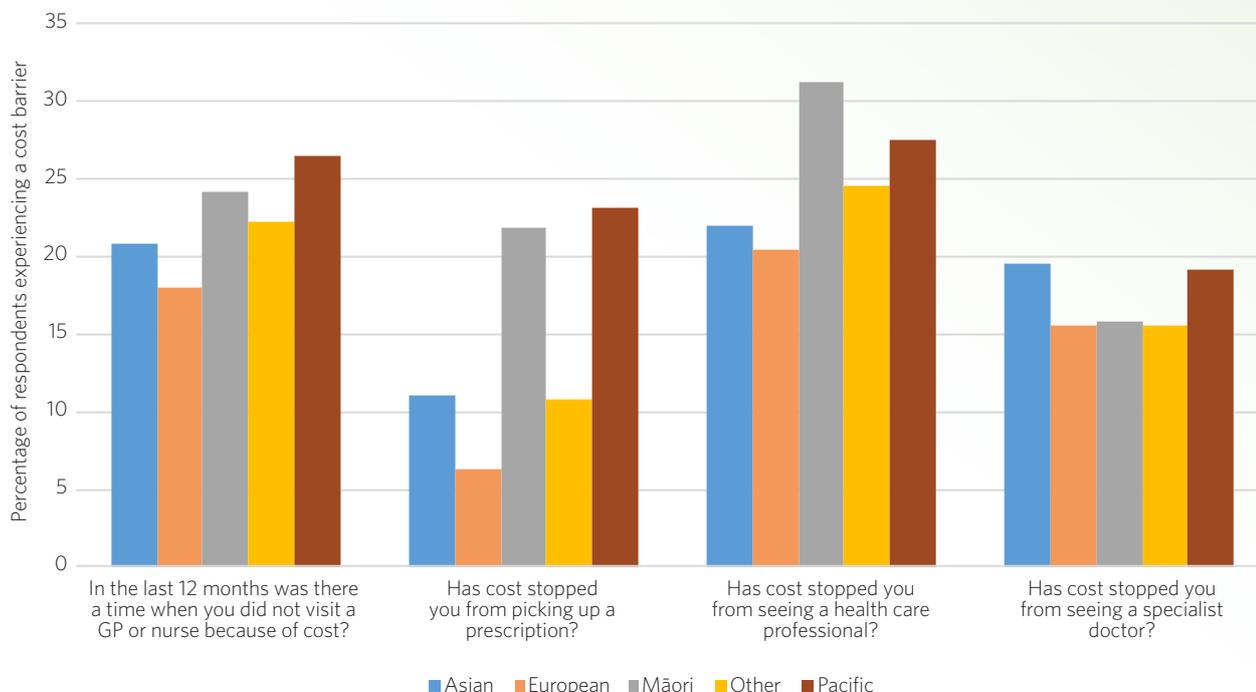


3 Health Quality & Safety Commission. 2018. *Child and Youth Mortality Review Committee 13th data report 2012-2016*, figure 1.5. Wellington: Health Quality & Safety Commission. URL: [www.hqsc.govt.nz/assets/CYMRC/Publications/CYMRC-13th-data-report-FINAL-Apr-2018.pdf](http://www.hqsc.govt.nz/assets/CYMRC/Publications/CYMRC-13th-data-report-FINAL-Apr-2018.pdf) (accessed 14 May 2018).

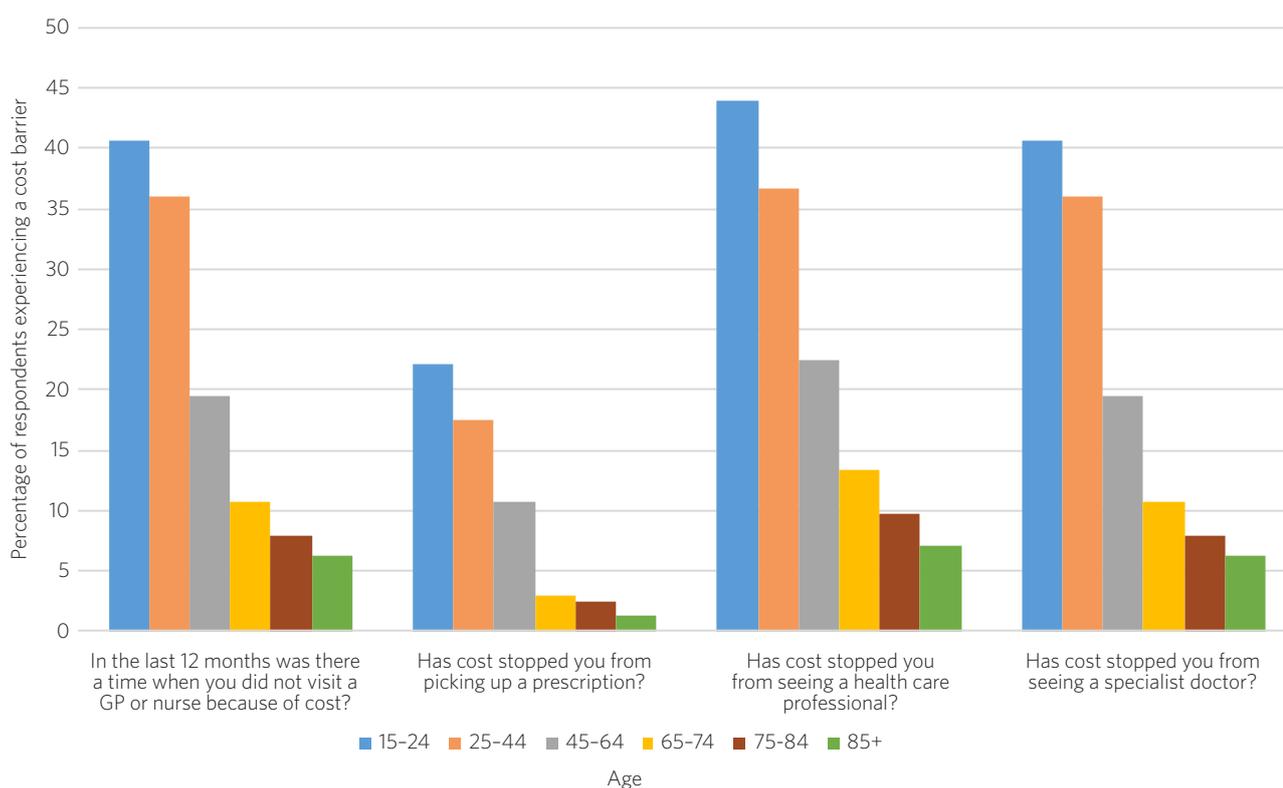
4 New Zealand Child and Youth Epidemiology Service. 2017. *Child Poverty Monitor: Technical Report*, figure 39. Dunedin: New Zealand Child and Youth Epidemiology Service. URL: <http://nzchildren.co.nz/#Hospitalisations> (accessed 14 May 2018).

Even if we restrict this question to people who have at some point been able to access services, the pattern holds for ethnic groups (Figure 12) and can also be seen, even more starkly, for age groups (Figure 13). Younger people in need of health care are much more likely to experience cost barriers to accessing care. For Figures 12 and 13, lower percentages reflect lower reported access barriers due to cost. Therefore, lower percentages are better.

**Figure 12: Percentage of respondents reporting cost barriers to access in the primary care patient experience survey, by ethnic group, New Zealand, November 2017**



**Figure 13: Percentage of respondents reporting cost barriers to access in the primary care patient experience survey, by age group, New Zealand, November 2017**





Cost barriers are also related to socioeconomic status. Figure 14, reproduced from the Commonwealth Fund's biennial review of developed world health systems, shows that people with lower incomes are typically 10–20 percent more likely to report cost barriers to accessing care in New Zealand. For obtaining out-of-hours care or long waits for specialist appointments, New Zealand's results show the greatest disparity among all 11 countries reported on.<sup>5</sup> In Figure 14, lower scores reflect less inequity.

**Figure 14: Disparity in access to care between above and below average income respondents, 2016**  
(source: Commonwealth Fund, *Mirror, Mirror*)



### Inequity of treatment

Thirteen questions in the primary care patient experience survey relate to operation of the health care system in treating people, ensuring different parts of the system work well together to coordinate care for a patient. Results for different ethnic and age groups are telling. When compared with European respondents, both Māori and 'Other' respondents reported a worse experience of coordination of care on a range of dimensions (Table 1).

**Table 1: Number of questions where respondents from Asian, Māori, Other and Pacific peoples ethnic groups gave significantly different responses about coordination of care than respondents from the European ethnic group, primary care patient experience survey, New Zealand, November 2017**

| Ethnic group    | More positive | Less positive |
|-----------------|---------------|---------------|
| Asian           | 0/13          | 0/13          |
| Māori           | 0/13          | 3/13          |
| Other           | 0/13          | 7/13          |
| Pacific peoples | 1/13          | 1/13          |

This disparity is even more pronounced for age groups (Table 2). People below 65 years of age reported poorer coordination of care than those aged 65 and over.

<sup>5</sup> The group comprises: Australia, Canada, France, Germany, Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom and United States of America.

Table 2: Number of questions where different age groups gave significantly more or less positive responses about coordination of care than the overall rate, primary care patient experience survey, New Zealand, November 2017

| Age group (years) | More positive | Less positive |
|-------------------|---------------|---------------|
| 15-24             | 0/13          | 8/13          |
| 25-44             | 0/13          | 13/13         |
| 45-64             | 0/13          | 5/13          |
| 65-74             | 12/13         | 0/13          |
| 75-84             | 10/13         | 0/13          |
| 85+               | 7/13          | 0/13          |

### Inequity of experience

The primary care patient experience survey provides a similar picture for questions about experience of care, which concentrate on quality of communication and meeting of physical and emotional needs (Table 3). We noted in last year's *Window* that the hospital inpatient survey showed questions about experience of care were reported more negatively by Māori. The same result holds for the primary care patient experience survey.

Table 3: Number of questions where respondents from the Asian, Māori, Other and Pacific peoples ethnic groups gave significantly different responses about experience of care than respondents from the European ethnic group, primary care patient experience survey, New Zealand, November 2017

| Ethnic group    | More positive | Less positive |
|-----------------|---------------|---------------|
| Asian           | 0/20          | 5/20          |
| Māori           | 0/20          | 8/20          |
| Other           | 0/20          | 5/20          |
| Pacific peoples | 1/20          | 5/20          |

Again, a pattern is evident of younger people reporting less positive experiences than older people, with 65 years marking a clear cut-off point (Table 4).

Table 4: Number of questions where different age groups gave more or less positive responses about experience of care than the overall rate, primary care patient experience survey, New Zealand, November 2017

| Age group (years) | More positive | Less positive |
|-------------------|---------------|---------------|
| 15-24             | 0/20          | 15/20         |
| 25-44             | 0/20          | 17/20         |
| 45-64             | 0/20          | 4/20          |
| 65-74             | 18/20         | 0/20          |
| 75-84             | 14/20         | 1/20          |
| 85+               | 8/20          | 0/20          |

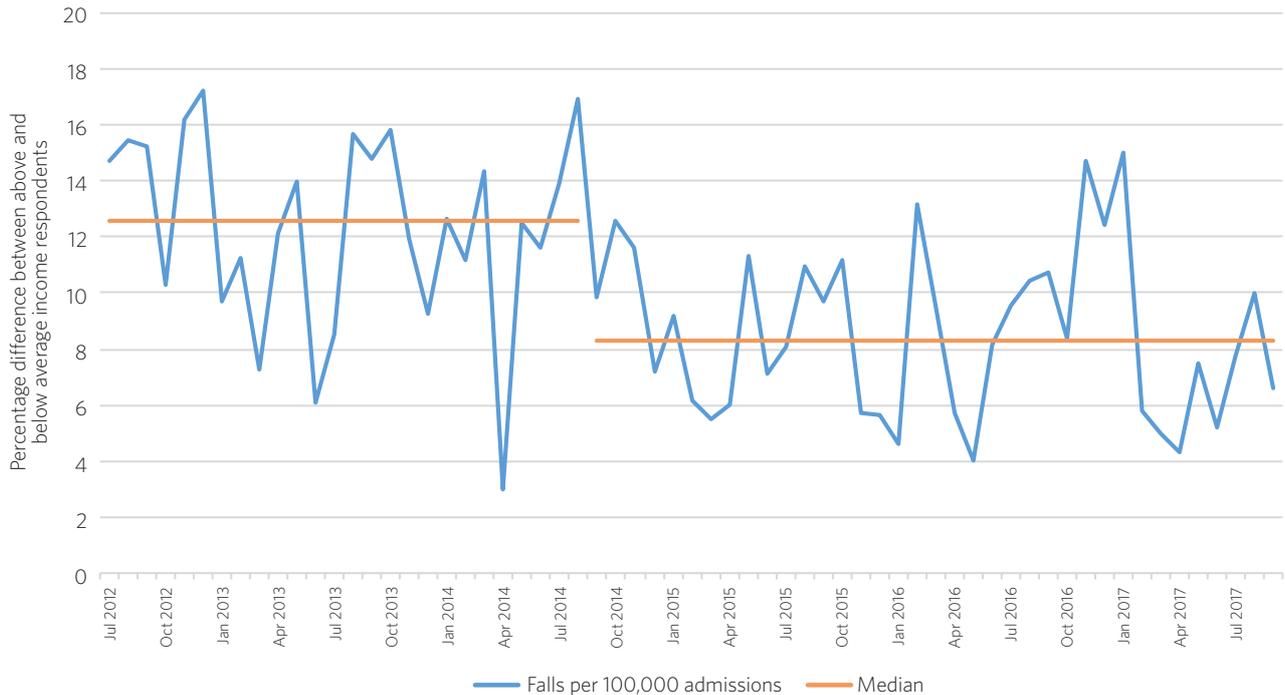


## Safety

The Commission has worked with the sector to introduce national quality improvement programmes that address identified areas of patient harm where improvement is needed. When a national quality improvement programme is under way, we generally see patterns of reduced patient harm that have persisted, suggesting good – and effective – practice has become embedded.

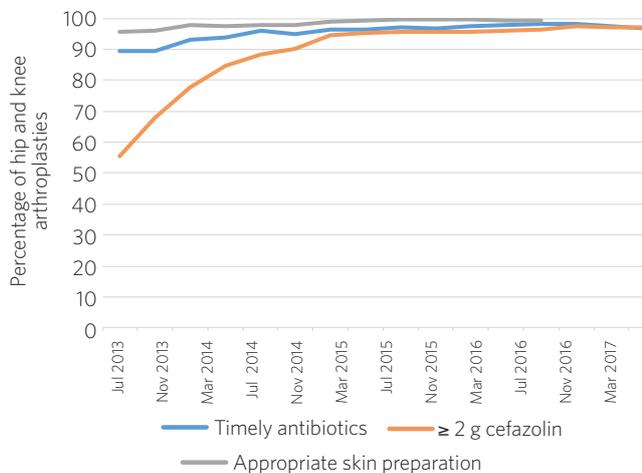
Since the introduction of the Commission’s reducing harm from falls programme in 2012, rates for falls in hospital resulting in a fractured hip (known as a fractured neck of femur) reduced by 30–40 percent in 2014 and have stayed down (Figure 15).<sup>6,7</sup>

**Figure 15: In-hospital falls leading to a fractured neck of femur in people aged 15 and over, by month, New Zealand, 2012–17**



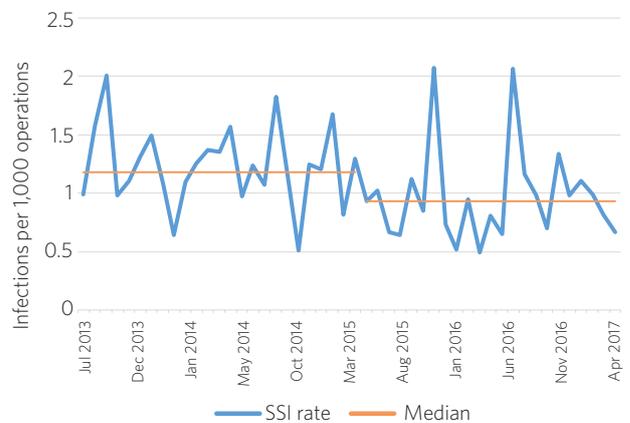
Thanks to the spread of good practice in avoiding wound infections after hip and knee operations since 2014...

**Figure 16: Hip and knee operations where good practice in antibiotic prophylaxis and skin preparation was followed, by quarter, New Zealand, 2013–17**



... rates for surgical site infections (SSIs) reduced in 2015 and have stayed down.

**Figure 17: SSIs for hip and knee operations, by month, New Zealand, 2013–17**

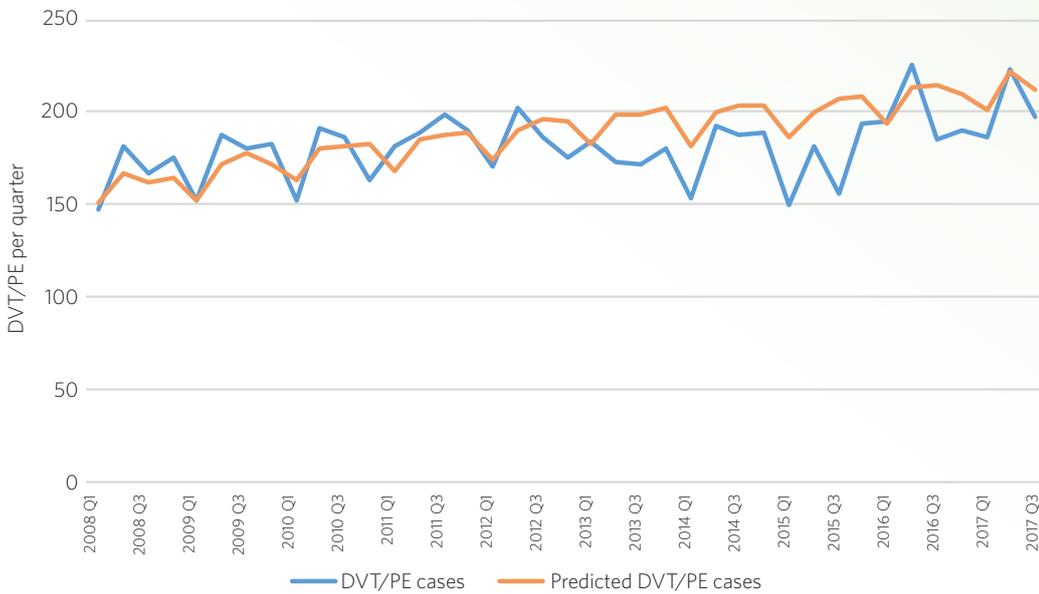


6 Jones S, Blake S, Hamblin R, et al. 2016. Reducing harm from falls. *New Zealand Medical Journal* 129(1446): 89–103.

7 Healey F. 2016. Falls prevention as everyday heroism. *New Zealand Medical Journal* 129(1446): 14–16.

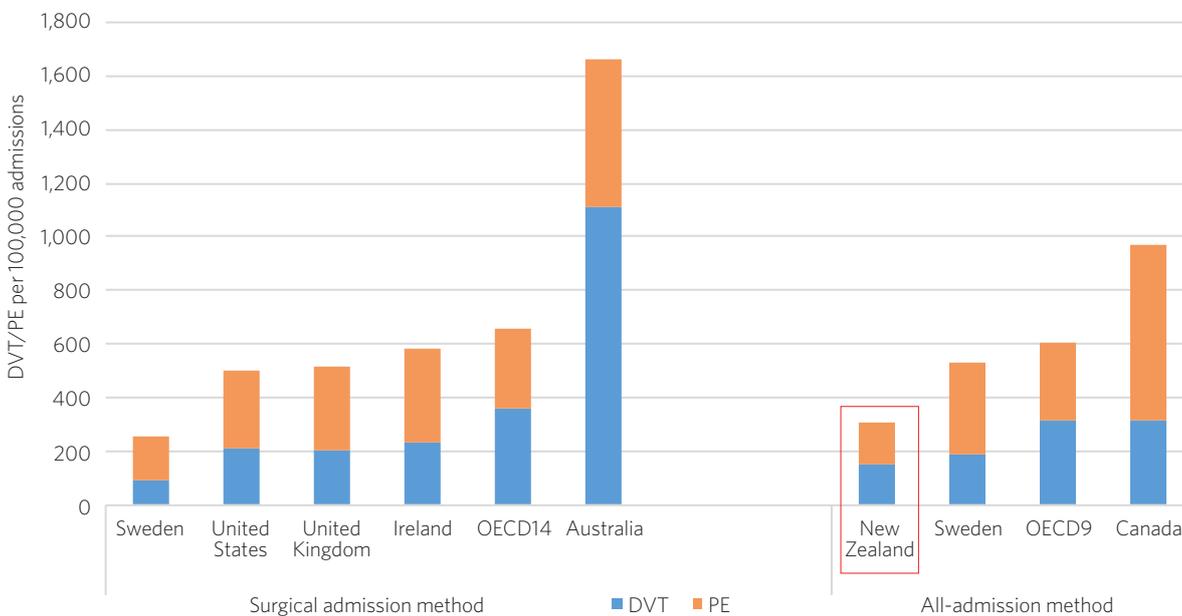
Postoperative deep vein thrombosis leading to pulmonary embolism (DVT/PE) is an avoidable and often fatal complication following surgery. Since 2013, rates for DVT/PE have remained statistically significantly lower than we would have predicted, with 16 out of 18 quarters having had fewer postoperative DVT/PEs, based on historic rates. This is shown by the blue line being consistently lower than the orange line in Figure 18.

**Figure 18: Postoperative DVT/PE, actual and predicted based on underlying patient risk, by quarter, New Zealand, 2008-17**



... and New Zealand's rates of DVT/PE appear to be low by international standards (Figure 19).

**Figure 19: Postoperative DVT/PE, hip and knee surgeries, by OECD country, 2015 (source: OECD)<sup>8</sup>**

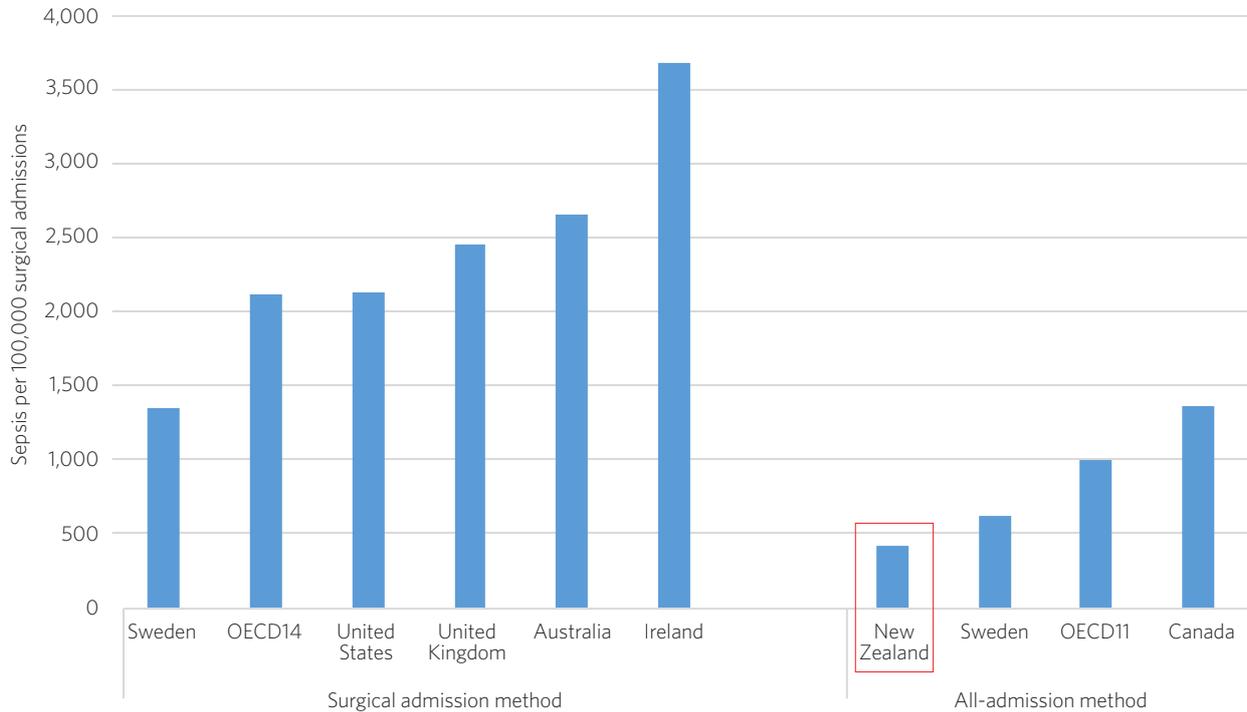


<sup>8</sup> Reflecting the differences in the way that countries collect data, the OECD provides two methods for calculating the postoperative complications shown in Figures 19 and 20, which are not comparable to each other. The all-admission method is considered more accurate, because it allows re-admissions with the complication to be included in the numerator. Sweden calculates using both methods, which provides very different results. Full details can be found in the OECD *Health at Glance 2017*. URL: [https://read.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2017\\_health\\_glance-2017-en#page118](https://read.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2017_health_glance-2017-en#page118) (accessed 14 May 2018).



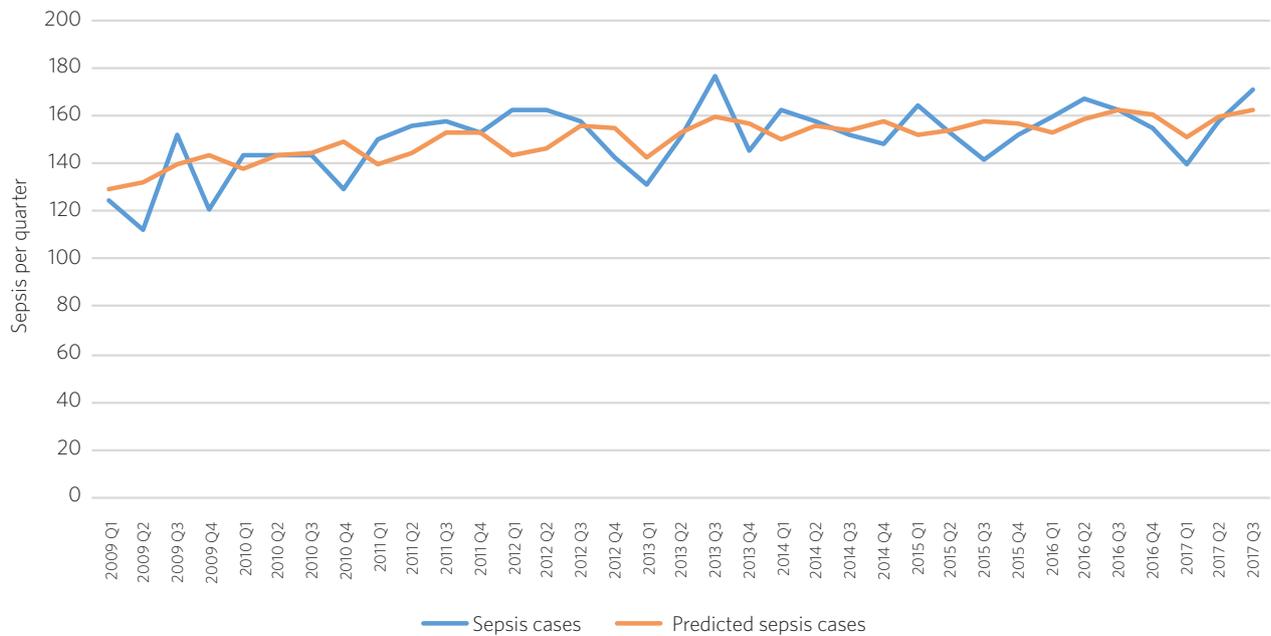
Instances of postoperative sepsis in New Zealand are also low by international standards...

**Figure 20: Postoperative sepsis, abdominal surgeries, by OECD country, 2015 (source: OECD)**



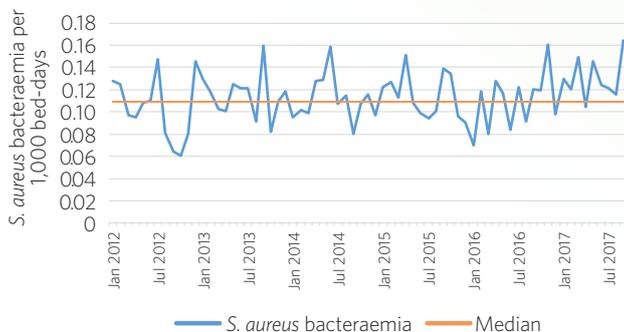
... although with postoperative sepsis, we do not see the same lower trend of observed versus predicted instances as with DVT/PE (in Figure 18) (Figure 21).

**Figure 21: Postoperative sepsis, actual and predicted based on underlying patient risk, by quarter, New Zealand, 2009-17**



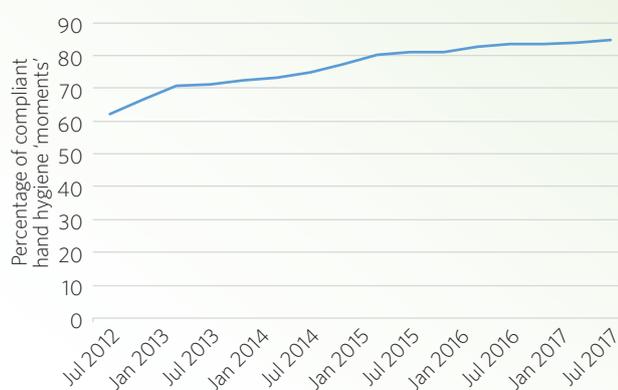
Similarly, no reduction has occurred in healthcare-associated *Staphylococcus aureus* infections in New Zealand...

**Figure 22: *Staphylococcus aureus* bacteraemia rate per 1,000 bed-days, by month, New Zealand, 2012-17**



...despite five years of ever-increasing compliance, with good hand hygiene practice being recorded in audits.

**Figure 23: Hospital hand hygiene compliance rate (%), New Zealand, 2012-17**



Recent research has questioned the extent to which good hand hygiene affects rates of *Staphylococcus aureus* bacteraemia (SAB).

The drivers of SAB rates are complex and similar to those of *S. aureus* disease in general. These drivers are established in the community and relate to the social, environmental and economic determinants of health (relative deprivation, overcrowding, poor nutrition, diabetes and obesity, for example).

Limitations exist in the rigour of studies that have evaluated whether hand hygiene correlates directly with SAB reduction. Confounding factors, such as infection prevention interventions introduced at the same time as a hand hygiene initiative, may make it difficult to determine how much impact was due to improvement in practice. A randomised controlled trial would provide the most robust study design to determine cause and effect. However, it would be problematic to carry out this type of study because of methodological and ethical concerns. Similarly, hand hygiene data based on observational audits may be subject to confounding factors.

The Commission is reviewing options for future approaches to achieving reductions in rates of SAB.

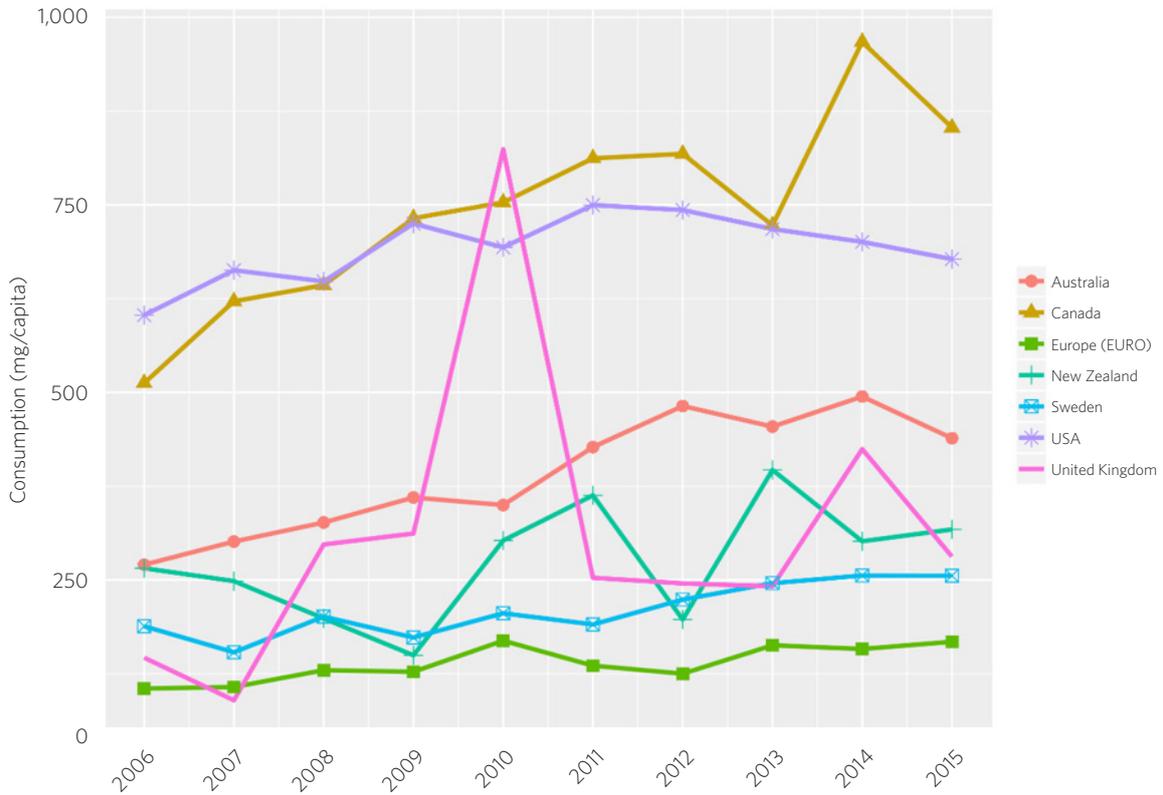
In addition to specific quality improvement programmes, the Commission monitors numerous aspects of patient safety through its Atlas of Healthcare Variation. One aspect of recent concern is the use of opioids.

Opioids are an important part of managing many types of pain, but overprescribing is associated with many direct and indirect problems. New Zealand's opioid consumption, though increasing since around 2009, is lower than similar countries but greater than the European average (Figure 24).



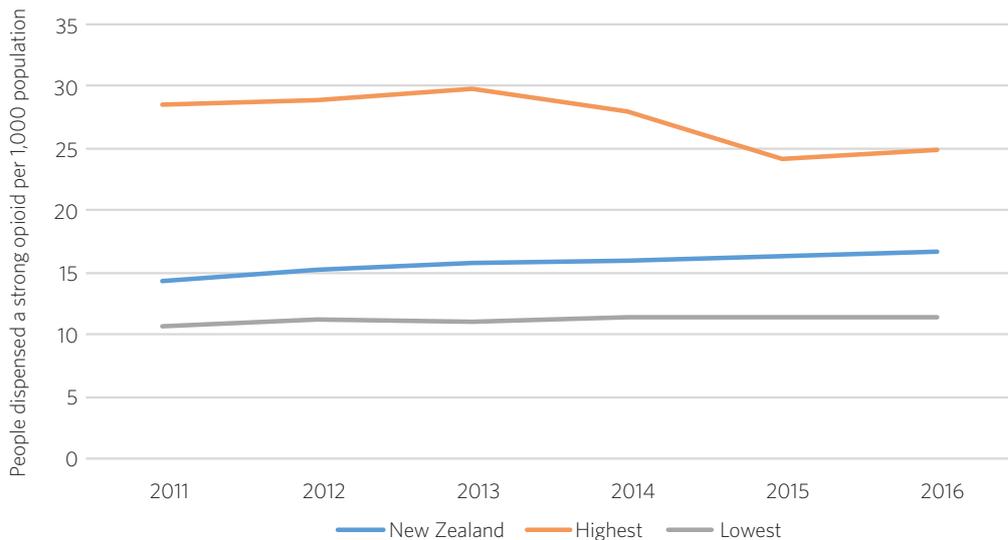


**Figure 24: Total opioid consumption (morphine equivalence mg/capita), 2006-15** (sources: Pain & Policy Studies Group, University of Wisconsin; International Narcotics Control Board; World Health Organization)



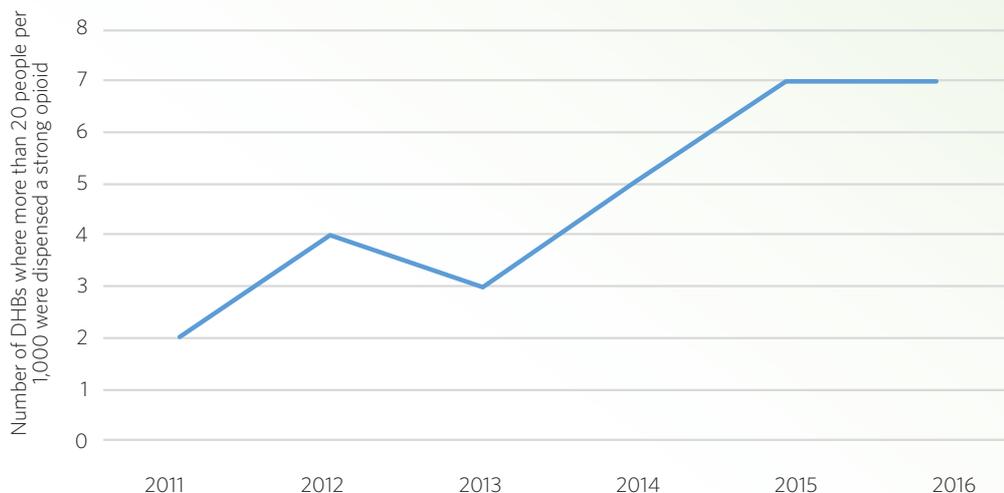
Although the number of New Zealanders being dispensed a strong opioid continues to increase, the highest rates in the country have reduced a little (as the orange line on Figure 25 shows)...

**Figure 25: People dispensed a strong opioid per 1,000 population, highest and lowest DHBs, New Zealand, 2011-16**



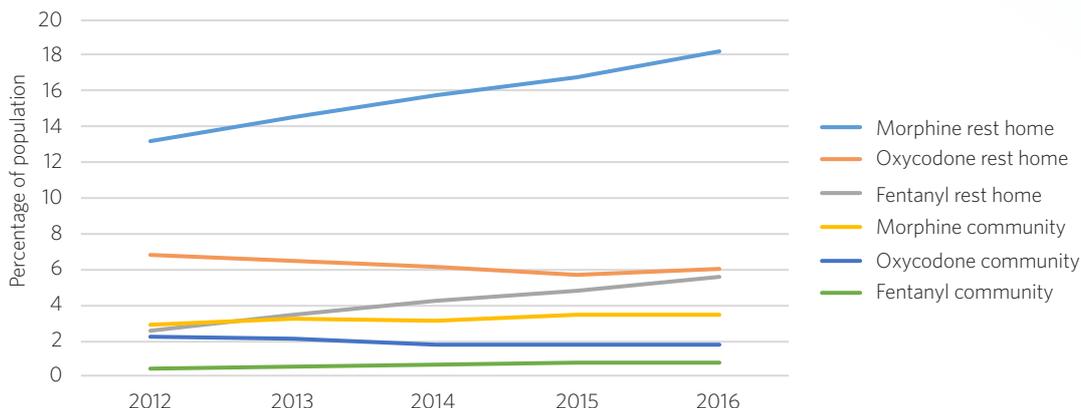
... but more DHBs have high dispensing rates. They are no longer outliers, because the number of DHBs with more than 20 people per 1,000 dispensed a strong opioid has nearly quadrupled in five years (see Figure 26)...

**Figure 26: Number of DHBs where more than 20 people per 1,000 were dispensed a strong opioid, New Zealand, 2011-16**



... and different patterns of dispensing seem to be emerging, including increased prescribing of morphine and fentanyl in rest homes (see Figure 27).

**Figure 27: Dispensing of strong opioids by site of residence, New Zealand, 2012-16**



In general, where the Commission has a quality improvement programme focused on a specific aspect of patient safety, improvements are seen in safe practice and patient outcomes. Many more issues of patient safety can, however, be tackled through national programmes.

## Patient experience

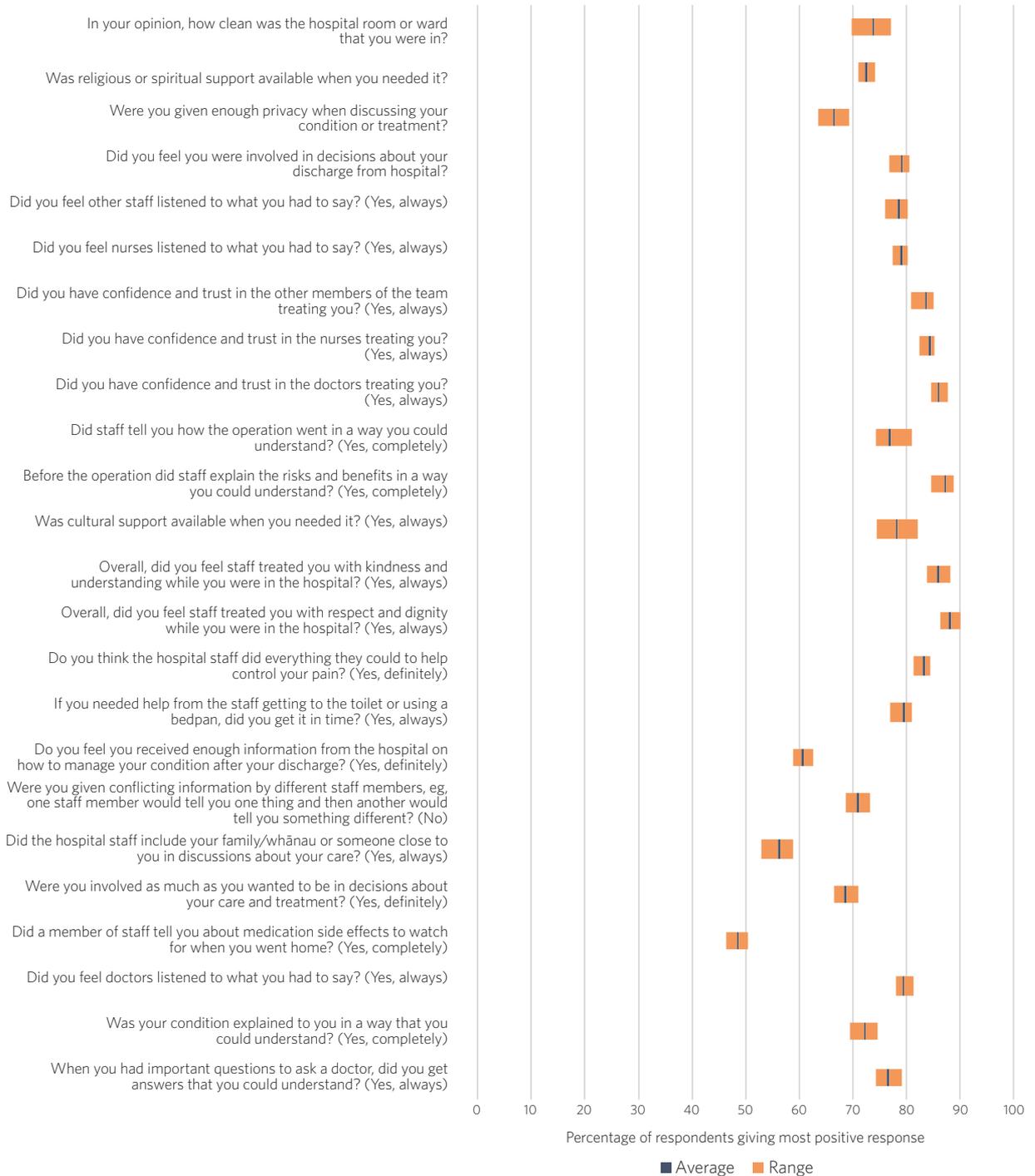
Patient experience is an important part of quality of care. Providing a better experience, developing partnerships with patients, and patient and family/whānau-centred care are linked to improved health, clinical, satisfaction and financial outcomes.<sup>9</sup> To monitor this, the Commission conducts an inpatient experience survey and a primary care patient experience survey.

Results for the inpatient experience survey have been remarkably consistent over three-and-a-half years, as shown in Figure 28, which provides data for the whole country. The orange bars show the range of average national scores over the 14 iterations of the survey undertaken.

<sup>9</sup> Balik B, Conway J, Zipperer L, et al. 2011. *Achieving an Exceptional Patient and Family Experience of Inpatient Hospital Care*. IHI Innovation Series white paper. Cambridge, MA: Institute for Healthcare Improvement. URL: [www.ihl.org/resources/Pages/IHIWhitePapers/AchievingExceptionalPatientFamilyExperienceInpatientHospitalCareWhitePaper.aspx](http://www.ihl.org/resources/Pages/IHIWhitePapers/AchievingExceptionalPatientFamilyExperienceInpatientHospitalCareWhitePaper.aspx) (accessed March 2018).



**Figure 28: Variation in proportion of respondents giving the most positive response over time, inpatient experience survey, New Zealand, August 2014 to November 2017**



Over that time, however, the variation between the best- and worst-scoring DHBs has been much greater, suggesting improvement is possible in at least some parts of the country (Figure 29). The orange bars in Figure 29 show the inter-DHB range of average results.

**Figure 29: Variation in proportion of respondents giving the most positive response between DHBs, inpatient experience survey, New Zealand, average August 2014 to November 2017**



Because considerable variation exists between DHBs, we should be able to see improvement for these questions in some areas over time.

The variation in the proportion of respondents agreeing that the hospital in which they were treated was 'very clean' is striking and concerning. This has potential links with control of infection, and other jurisdictions have seen significant improvement in this measure when concerted efforts have been made.



The consistent low scores for information about medication side effects hold over time and between DHBs, and are mirrored for primary care (see Figure 31). The Commission responded by commissioning research into how this could be, and in some cases has been, addressed. A range of potential approaches could do this, including improving discharge documentation and targeting medications with common or serious side effects.<sup>10</sup>

Both issues raise the question, however, of how best can we get improvement in responses to the survey results. This is an issue reflected on by the Commission's Director of Partners in Care below.

### **Drowning in data: Let's focus on some action**

*by Chris Walsh, Director, Partners in Care, Health Quality & Safety Commission*

With over three years of data from the patient experience surveys in DHB inpatient services, we can be pretty sure of a few things. One, the lower-scoring areas haven't shifted nationally. Two, the variation in these scores between the best- and worst-scoring DHBs is wide. Three, this is a worry.

Why? Because good patient experience equates with better health outcomes, and because mediocrity is not good enough.

The lower-scoring areas are around communication about medication, how patients can manage their condition when they leave hospital and how families/whānau or someone close is involved in discussions about the patient's care.

All are critical to patient health and wellbeing.

What's to be done? Let's have a nationally based approach.

The national falls and infection prevention and control programmes have resulted in fewer falls and infections.

Maybe it's time to refresh our approach to targets and consider how this could be used to improve patient experience.

We first reported results from the primary care patient experience survey in December 2017.<sup>11</sup> Since then, uptake of the survey has increased considerably, with over half of all practices now undertaking it once a quarter. The most recent available quarter results are reported in this section.

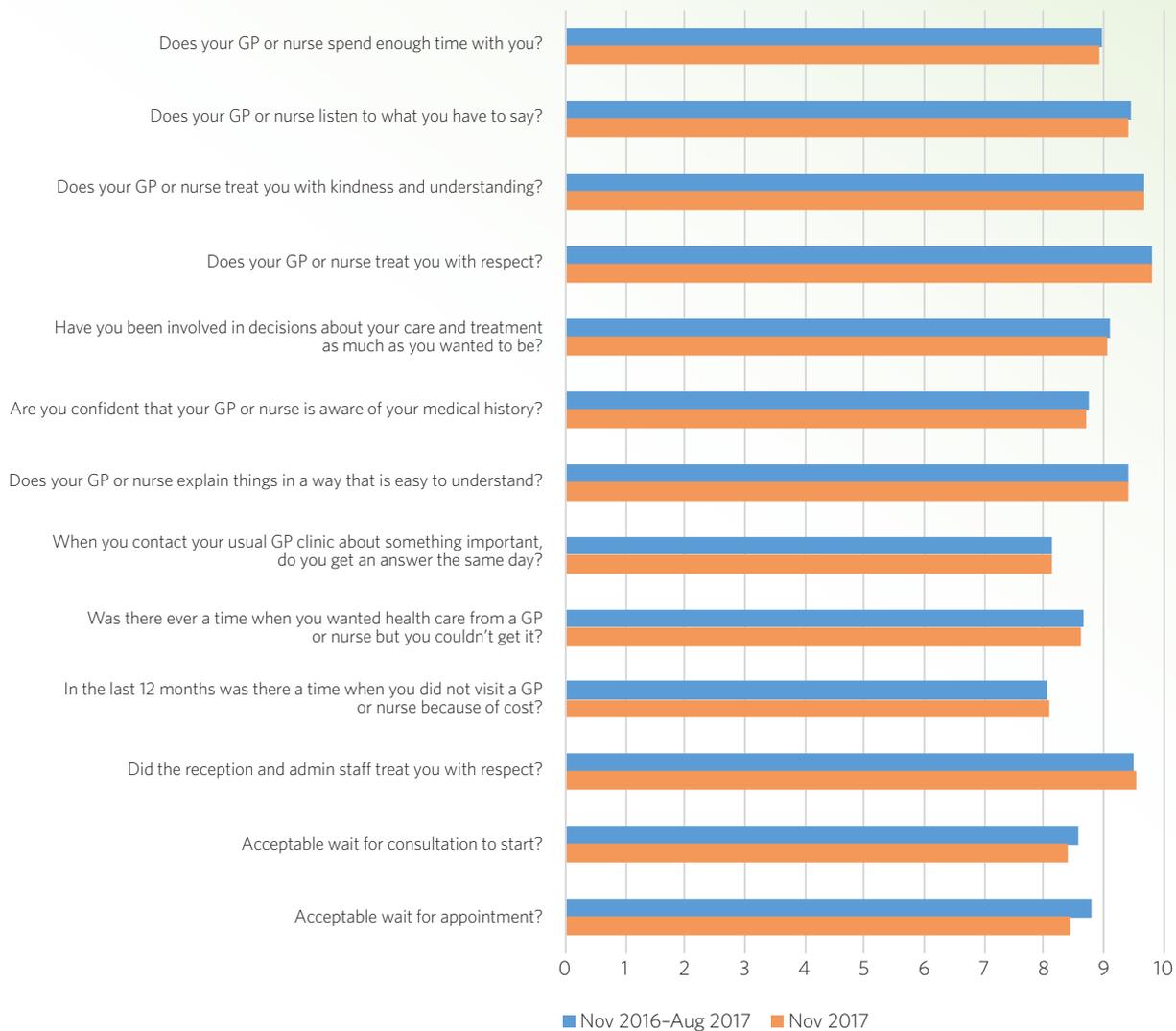
Despite the dramatic increase in uptake and much more widespread use of the survey, the responses have been remarkably consistent at a national level from the year 1 results reported in December 2017 (Figure 30; orange new and blue old).

Responses from the general practitioner (GP) surgeries are generally positive, for example, more than 85 percent of respondents felt wait times at the GP were acceptable. Even more positive results were evident for respect and kindness.

10 Health Quality & Safety Commission. 2017. *Raising the bar on the national patient experience survey: Report findings and recommendations*. Wellington: Health Quality & Safety Commission. URL: [www.hqsc.govt.nz/assets/Consumer-Engagement/Publications/Raising\\_the\\_bar\\_on\\_the\\_National\\_Patient\\_Experience\\_Survey\\_-\\_May\\_2017.pdf](http://www.hqsc.govt.nz/assets/Consumer-Engagement/Publications/Raising_the_bar_on_the_National_Patient_Experience_Survey_-_May_2017.pdf) (accessed 22 May 2018).

11 Health Quality & Safety Commission. 2017. *Primary care patient experience survey: Results from the first year of pilots*. Wellington: Health Quality & Safety Commission. URL: [www.hqsc.govt.nz/assets/Health-Quality-Evaluation/PR/Primary\\_care\\_experience\\_survey\\_report\\_Dec\\_2017\\_final.pdf](http://www.hqsc.govt.nz/assets/Health-Quality-Evaluation/PR/Primary_care_experience_survey_report_Dec_2017_final.pdf) (accessed 26 April 2018).

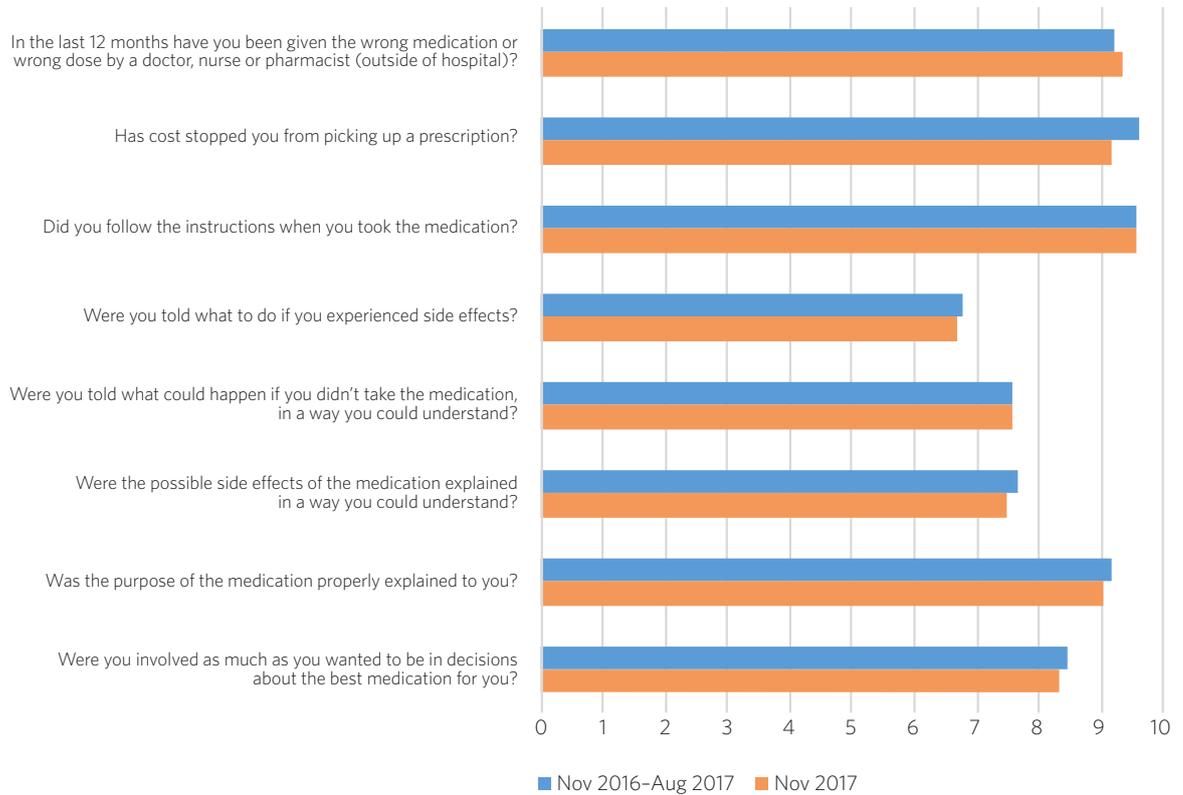
Figure 30: Average score out of 10 for questions about care in the GP practice, primary care patient experience survey, New Zealand, November 2016 to August 2017 compared with November 2017



However, results for medication are less positive. As first reported last year, around 8 percent of respondents noted some error in their medication (Figure 31).



Figure 31: Average score out of 10 for questions about medication, primary care patient experience survey, New Zealand, November 2016 to August 2017 compared with November 2017



The Commission is committed to ensuring patient experience is part of its measurement of health care quality and safety, because the evidence shows that patient experience is a good indicator of the quality of health services.

## Effectiveness

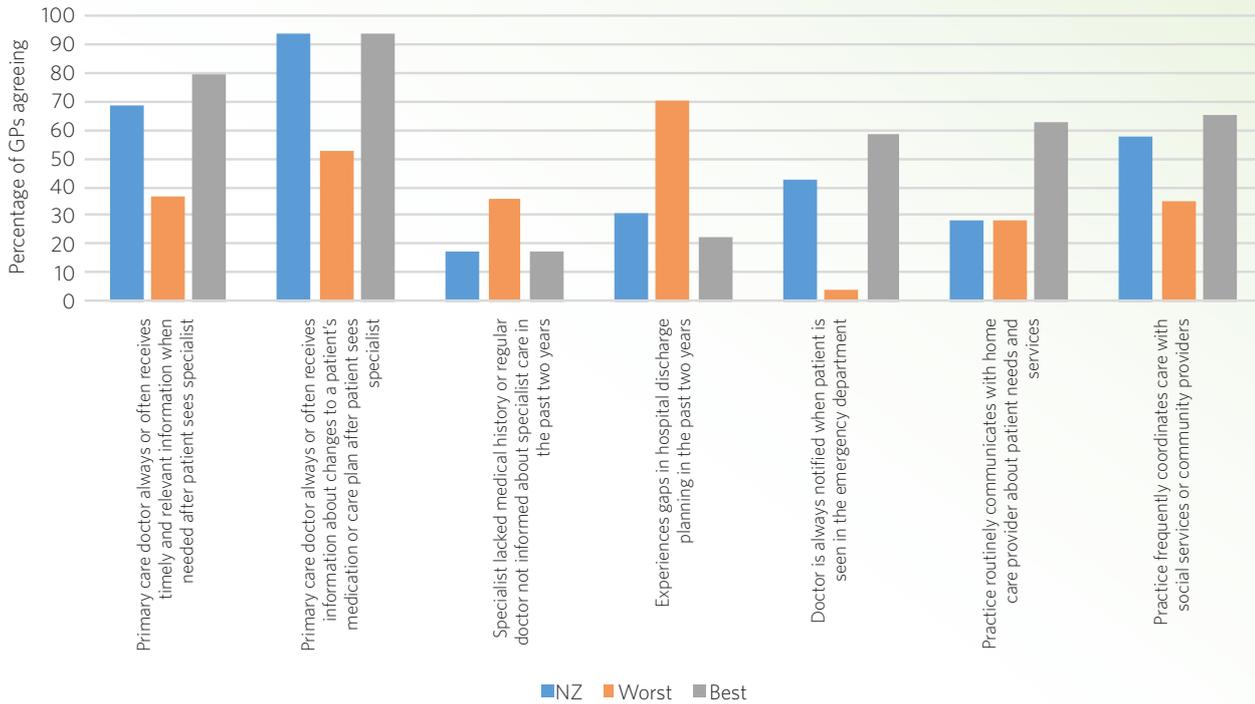
A high-quality health care system will provide the most effective treatment at the right time and in the right place. To review this, we can look at the ultimate outcomes of care, how well different health services are organised around the patient, and whether or not the right treatments are provided for individual conditions.

### Care organised around the patient

A Commonwealth Fund survey of New Zealand GPs found that, while coordination of different parts of New Zealand's health care system tended to be better than similar countries, room for improvement remained (Figure 32).<sup>12</sup>

12 Schneider C, Sarnak D, Squires D, et al. (nd). *Mirror, Mirror 2017*. New York: The Commonwealth Fund. URL: [www.commonwealthfund.org/publications/fund-reports/2017/jul/mirror-mirror-international-comparisons-2017](http://www.commonwealthfund.org/publications/fund-reports/2017/jul/mirror-mirror-international-comparisons-2017) (accessed 26 April 2018).

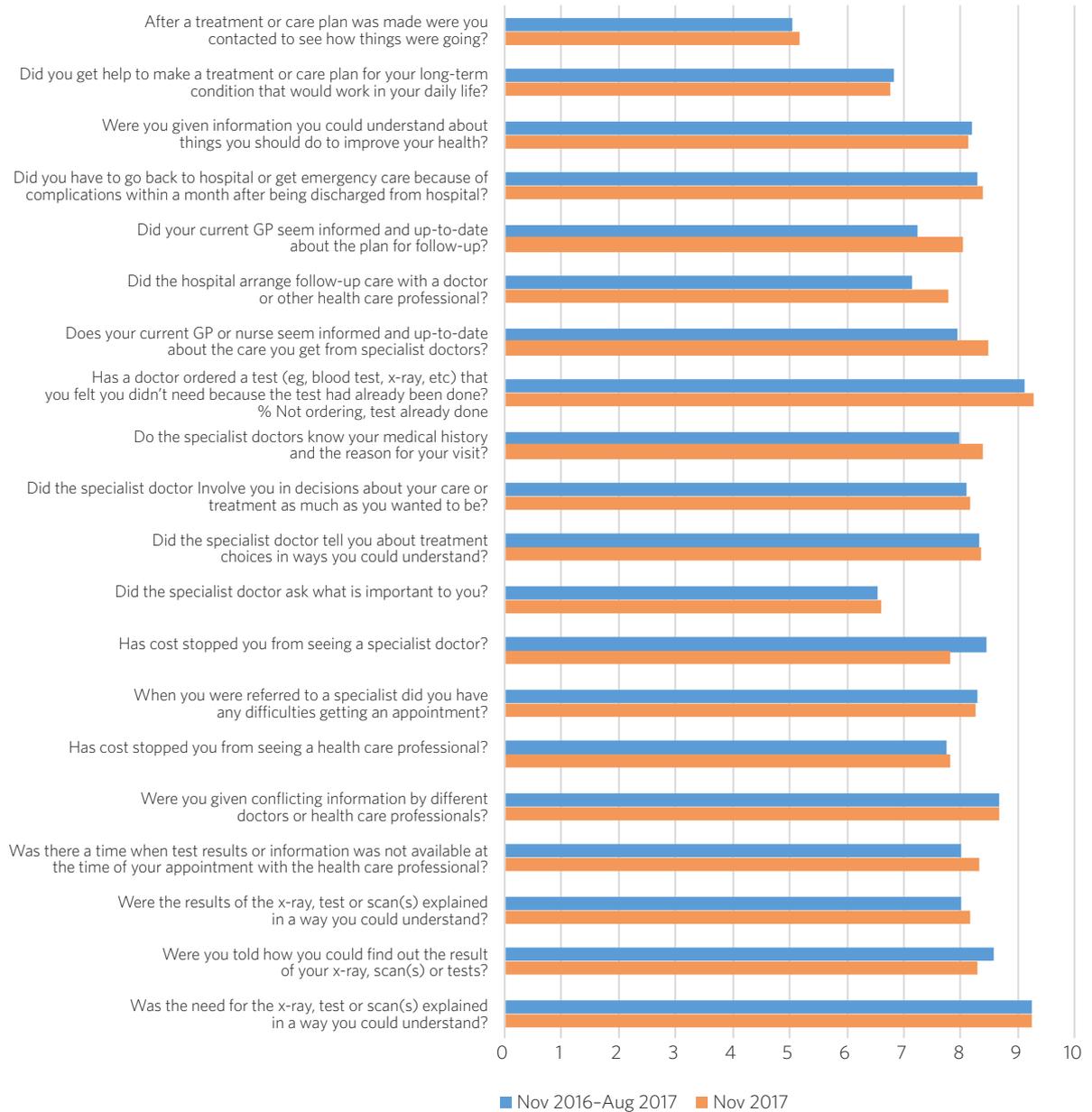
Figure 32: GP responses to queries about coordination of patient care across 11 countries, 2015 (percentage answering question with most positive answer) (source: Commonwealth Fund, *Mirror Mirror*)



The primary care patient experience survey asks a range of similar questions to the Commonwealth Fund survey. The results are broadly similar from the patient point of view (Figure 33).



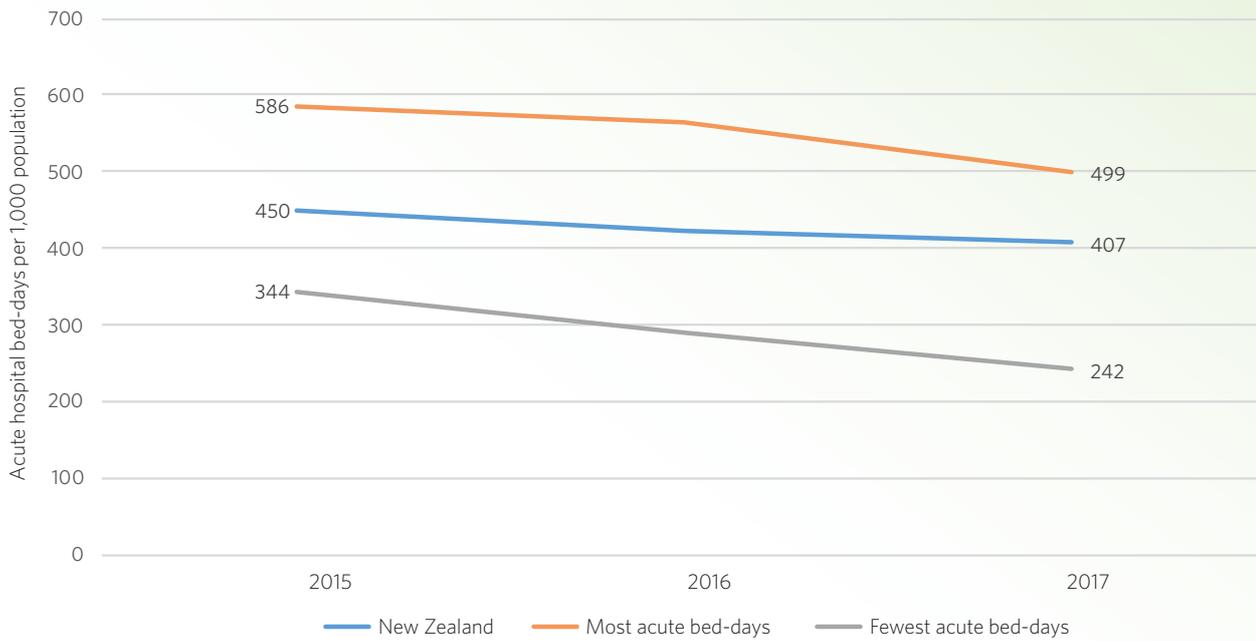
**Figure 33: Average score out of 10 for questions about interactions with other parts of the health system, primary care patient experience survey, New Zealand, November 2016 to August 2017 compared with November 2017**



The consequences of better coordination should be reduced acute hospital bed-days, emergencies avoided and people being able to leave hospital more quickly because follow-up care is in place. Use of a System Level Measures Framework has encouraged many improvement programmes around the country designed to reduce acute hospital bed-days.<sup>13</sup> Encouragingly, improvements are evident, although they are not consistent across the country (Figure 34).

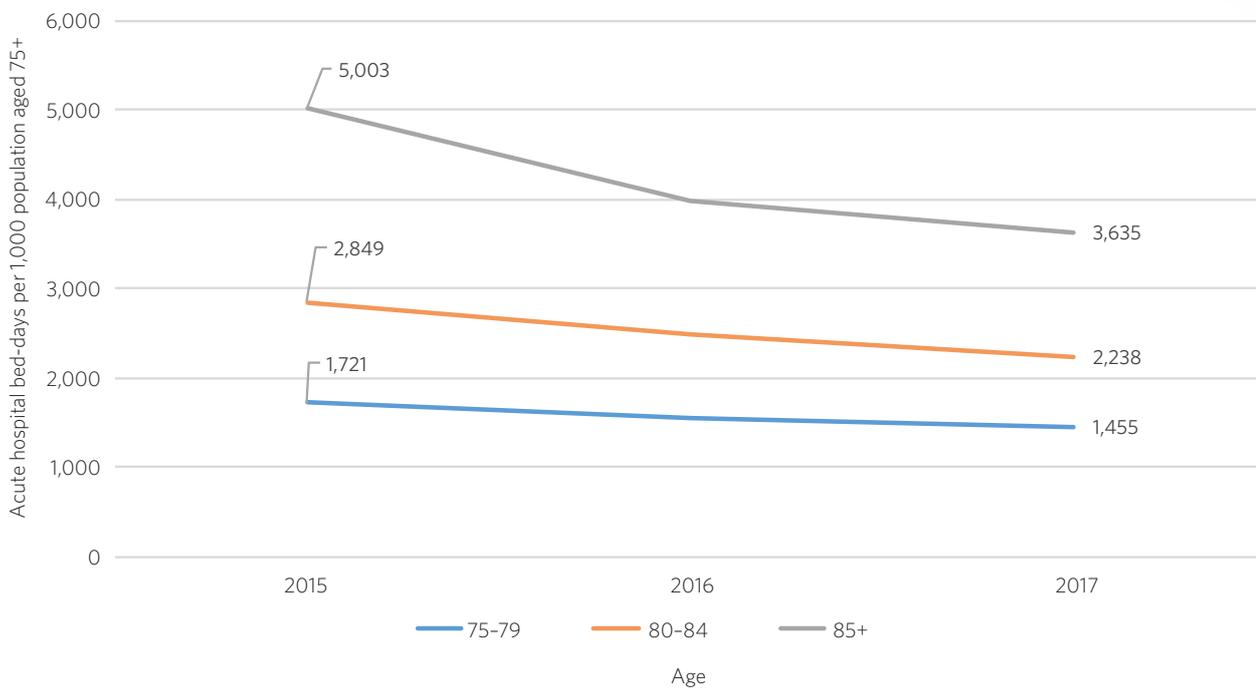
13 Ministry of Health. 2017. Nationwide Service Framework Library: System Level Measures Framework. Wellington: Ministry of Health. URLs: <https://nsfl.health.govt.nz/dhb-planning-package/system-level-measures-framework> and <https://nsfl.health.govt.nz/dhb-planning-package/system-level-measures-framework/data-support-system-level-measures/acute> (accessed 18 May 2018).

Figure 34: Acute hospital bed-days per 1,000 population, New Zealand and highest and lowest DHBs, 2015-17



Eighty percent of this improvement can be attributed to reductions in acute hospital bed-days for people aged 75 and over (Figure 35).

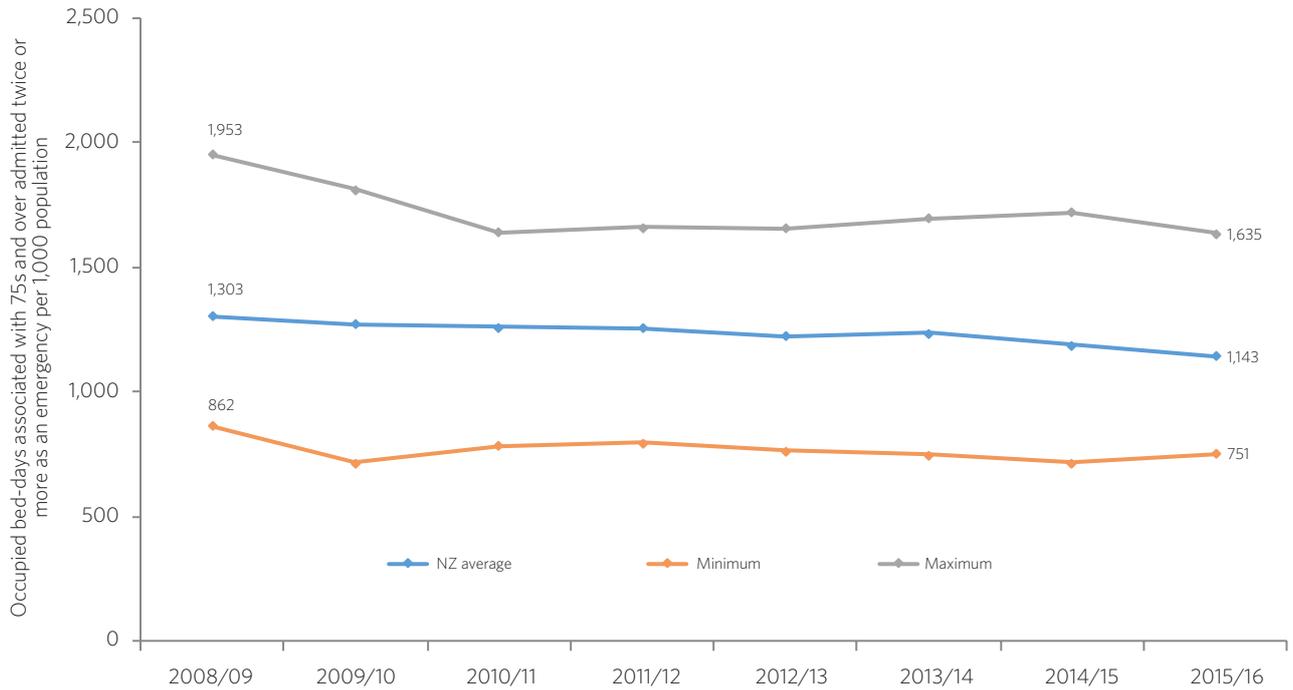
Figure 35: Acute hospital bed-days per 1,000 population aged 75 and over, New Zealand, 2015-17



The reduction in acute bed-days occupied by older people is driven by an ongoing reduction in older people admitted more than once as an emergency, which is a marker of services not being well coordinated (although, again, variation is widespread around the country) (Figure 36).

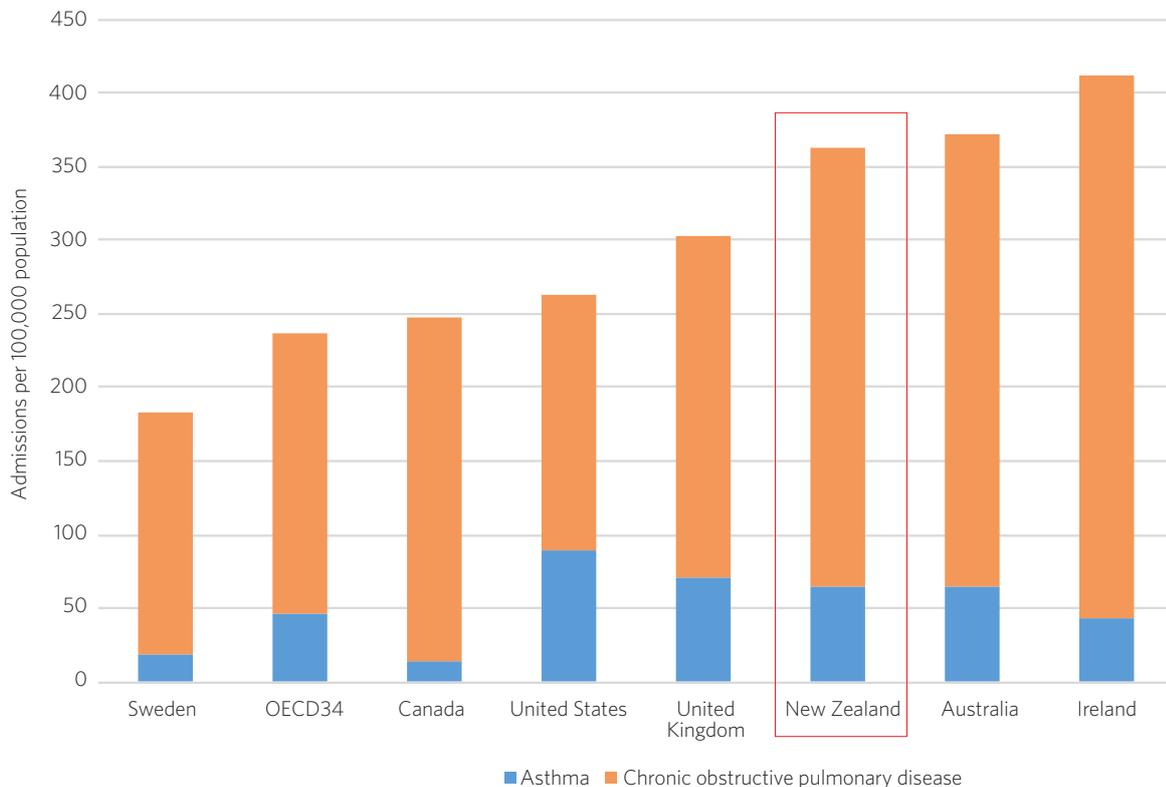


**Figure 36: Occupied bed-days associated with those aged 75 and over admitted twice or more as an emergency per 1,000 population, New Zealand and highest and lowest DHBs, 2008/09–2015/16**



When looking at acute hospital bed-days associated with potentially preventable admissions, New Zealand’s position is mixed. For asthma, and particularly chronic obstructive pulmonary disease, New Zealand’s admission rates are high compared with other countries, as defined by the OECD (Figure 37).

**Figure 37: Hospital admissions for asthma and chronic obstructive pulmonary disease per 100,000 population admission, OECD average and selected countries, 2015 (source: OECD)**



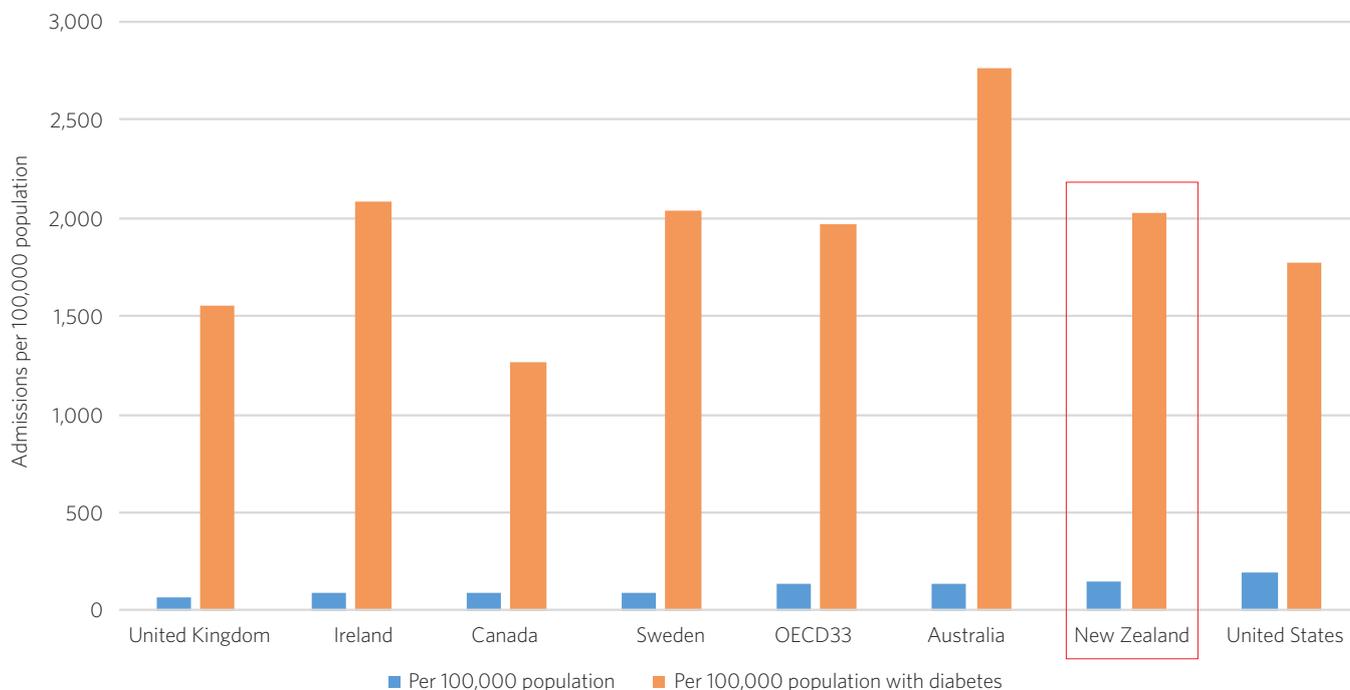
In contrast, admissions for congestive heart failure are more typical by international standards (Figure 38).

**Figure 38: Hospital admissions for congestive heart failure, per 100,000 population, OECD average and selected countries, 2015** (source: OECD)



For diabetes, New Zealand’s relatively high admission rate reflects the prevalence of diabetes in the community. However, effective community-based prevention and early treatment would reduce the need for in-hospital disease management.

**Figure 39: Hospital admissions for diabetes per 100,000 population, and per 100,000 population with diabetes, OECD average and selected countries, 2015** (source: OECD)



To conclude, New Zealand has a relatively unified health care system, and this may be reflected in it appearing to be quite well coordinated compared with other health systems. Bed-days taken up by emergency admissions, which may be a result of failing to coordinate care well, have fallen by 12 percent since 2015. However, this is not uniform around the country or between conditions, and the capacity to improve still exists.



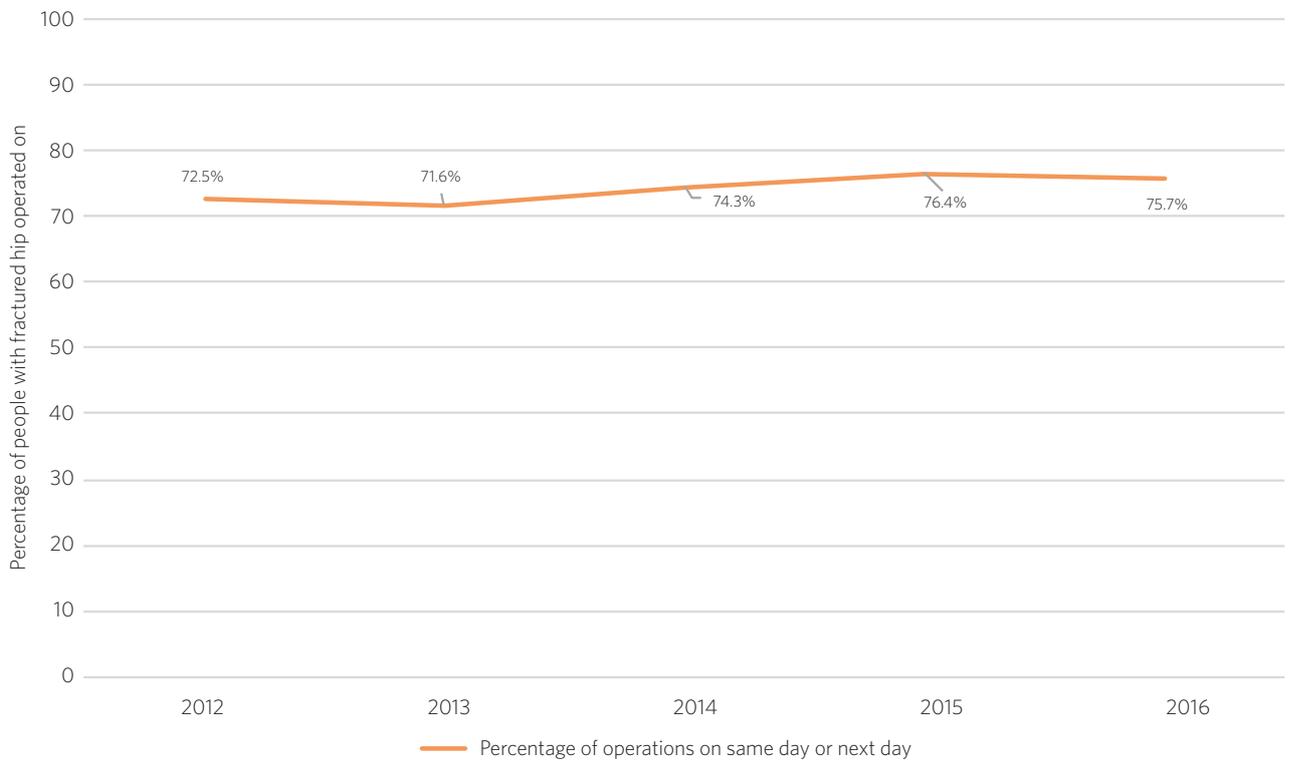
## Doing the right thing

Looking at services in further detail, we can measure how widely good practice in the treatment of specific diseases has been adopted in New Zealand. The Atlas of Healthcare Variation now covers around 20 different diseases and patient groups, and shows a consistent pattern of variation that cannot be explained by patient needs and preferences. In this *Window*, we consider two examples: treatment of patients who break their hips and care of people with bowel cancer.

### Fractured hip

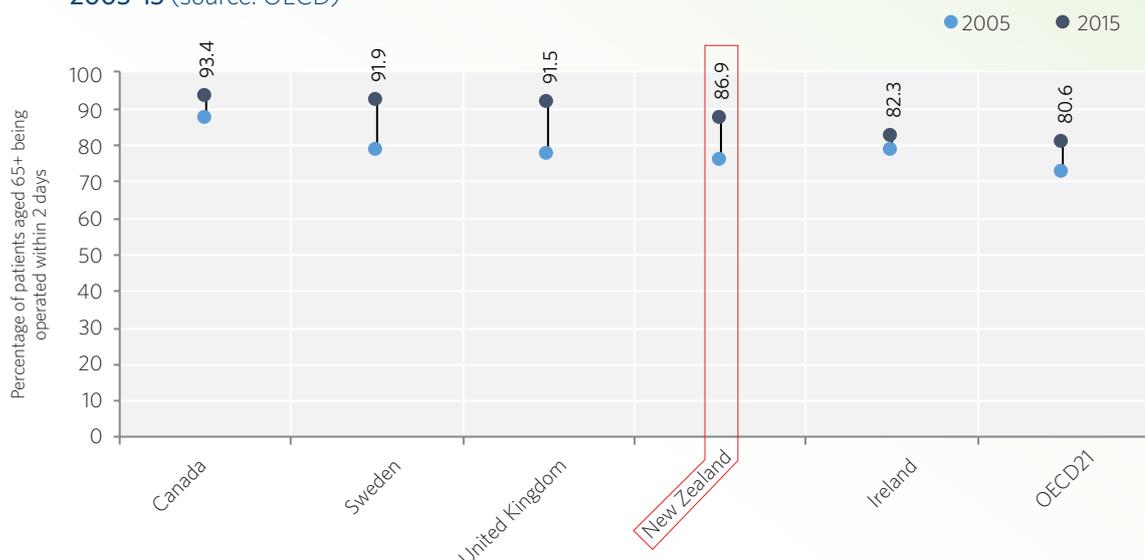
Around three-quarters of New Zealanders with a fractured hip have surgery on the day of admission or the day after, a timing associated with better outcomes. This has remained fairly consistent over the past five years (Figure 40).

**Figure 40: Percentage of people with hip fracture operated on, on the day of admission or the day following, New Zealand, 2012-16** (source: Live stronger for longer)



Using the OECD's slightly different measure of operation on the day of admission or the next two days, New Zealand is reasonably typical of developed countries, and some improvement has occurred since 2005 (Figure 41).

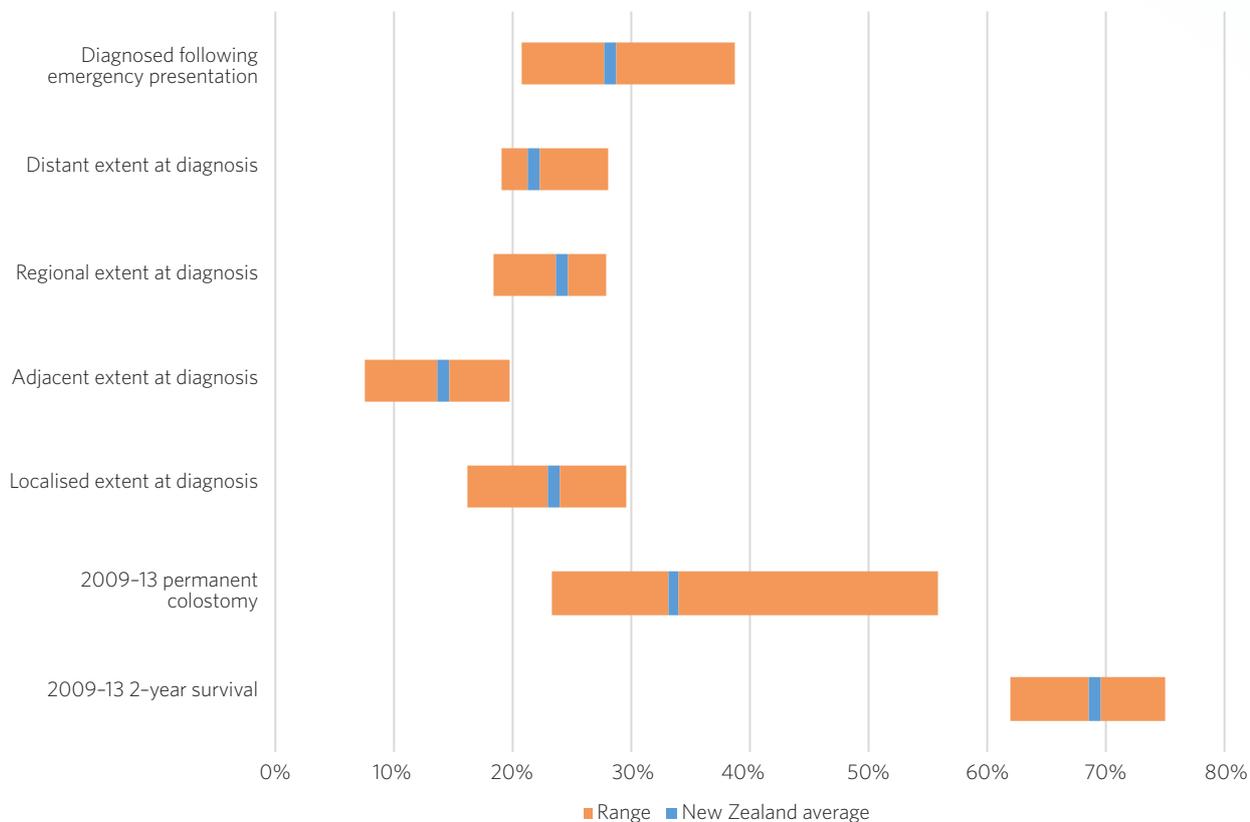
**Figure 41: Percentage of people with hip fracture operated on within 0-2 days of admission, by OECD country, 2005-15 (source: OECD)**



### Bowel cancer

With bowel cancer, wide variation occurs between DHBs in when and where the cancer is identified and in the ultimate outcomes for patients (Figure 42).

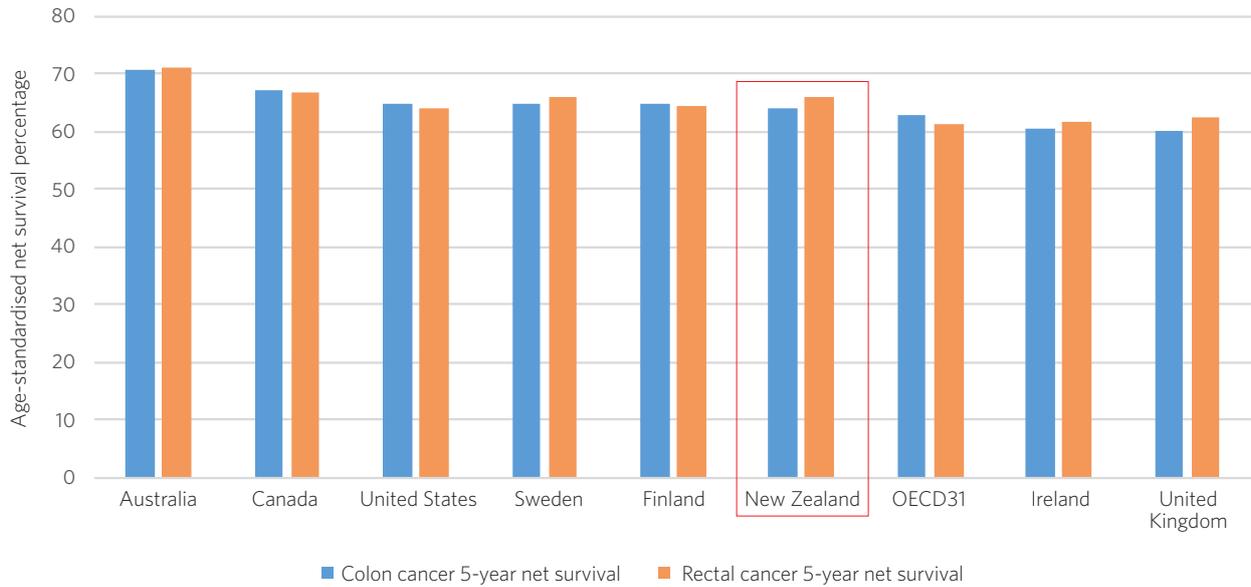
**Figure 42: Inter-DHB ranges in the percentage of people with a diagnosis of bowel cancer by diagnosis location and extent and outcomes, New Zealand, 2009-13**



However, internationally, New Zealand is fairly typical, with a comparable five-year survival rate (Figure 43). On the other hand, we have fallen quite a long way behind Australia, and most New Zealanders would expect comparable outcomes with our nearest neighbour. Understanding these differences is complex. Potential drivers include how aggressively treatment is pursued for older populations, and the size of disadvantaged groups in the whole population.



Figure 43: Colon and rectal cancer five-year net survival, OECD average and selected countries, 2010-14  
(source: OECD)



Most conditions would show a similar pattern. In general, patients in New Zealand receive the right treatment, and New Zealand's record is broadly in line with similar countries. The degree of variation between regions in New Zealand, however, shows that the right treatment is not universal, and some services are less likely to provide the right care and get such good outcomes. Further, the Atlas of Healthcare Variation shows there is no consistency in this pattern. No DHB is uniformly providing the best care or less good care across all patient groups.

## 2 Future safety of the system

Chapter 1 suggests New Zealand has a health system that is functioning reasonably well in comparison with other developed countries, but with some areas where improvement is still required. However, as this report has consistently identified since 2015, New Zealand faces issues of inequity and unwarranted variation in the provision of health care. Our health system's inability to address these issues matters. We cannot continue with current approaches and ignore the lack of progress in these important areas. We need to look for solutions, and although not all are to be found within health services, some are.

This is the first time the *Window* has looked both forward, towards future prospects, and backward at results achieved. Health systems are dynamic and can change quite rapidly. Because the most recent outcome data available is routinely 6–18 months out of date, usual *Window* results indicate how the system was performing at that time, rather than how it is performing now or will in the future. More 'leading indicators' are essential to fairly reflect the current situation and help to proactively avoid future harm. Leading indicators can point to areas of strain, even while lagging indicators remain robust.

The tension between looking forward and back is reflected in emerging new approaches to safety in health care, which emphasise the importance of proactive identification of problems (anticipation) and early system responses to resolve them.<sup>14, 15, 16, 17</sup> It is crucial to understand the past, but we also need to look to the future.

Developing more anticipatory safety capability should be a strategic goal for departments, organisations and systems.<sup>18</sup> (p 29)

The dominant public narrative in New Zealand describes a health system under increasing pressure – even a casual observer of relevant media coverage would agree. How accurate is this story? It is not an exceptional one on an international level. To some extent, a similar narrative has surrounded nearly all developed nations' health systems for at least 30 years, and this seems unlikely to change soon. In this context, it is important to consider available leading indicators as to whether the pressures on New Zealand's health system are as serious as is implied. Succumbing to hyperbole is unwise, but so too is assuming any negative coverage is simply routine 'background noise'.

### How do we look to the future?

Strengthening our ability to anticipate future issues for the health care system in New Zealand involves drawing on a wider range of techniques, tools and information than those we use when considering the past. As well as risk registers and other traditional organisational monitoring tools, peer review reports, service reviews, financial information, whistle-blowing, human resources, workforce information and formal investigations can all provide useful intelligence to help us anticipate and respond early to problems.<sup>19</sup> Both formal and informal information can be valuable, including what we think of as 'soft' intelligence, alongside robust data. Even informal conversations can be helpful for understanding emerging harm.<sup>20</sup>

Broadening our sources of information outside of health care alone can be useful for anticipating future issues. For example, major events taking place in a city can affect public transport demands, which may lead to access issues for those expected at appointments. Weather forecasting can also provide helpful early warning mechanisms. A large weather event may cause harm, creating subsequent higher demand for acute and emergency services. Obviously deprivation, particularly child poverty, is very important in this

14 Vincent CA, Aylin P, Franklin BD, et al. 2008. Is health care getting safer? *BMJ* 337: 1205–07.

15 Francis R. 2013. *Independent Inquiry into care provided by Mid Staffordshire NHS Foundation Trust January 2005–March 2009*. London: Department of Health.

16 Vincent C, Burnett S, Carthey J. 2013. *The Measurement and Monitoring of Safety*. London: The Health Foundation. URL: [www.health.org.uk/sites/health/files/TheMeasurementAndMonitoringOfSafety\\_fullversion.pdf](http://www.health.org.uk/sites/health/files/TheMeasurementAndMonitoringOfSafety_fullversion.pdf) (accessed 26 April 2018).

17 Machi L, Pietkainen E, Reiman T, et al. 2011. *Patient Safety Management: Available models and systems*. Finland: VTT.

18 The Health Foundation. 2016. *A Framework for Measuring and Monitoring Safety: A practical guide to using a new framework for measuring and monitoring safety in the NHS*. London: The Health Foundation.

19 OPM and wdid. 2017. *Measurement and Monitoring of Safety Framework e-Guide: Better questions, better care*. Bradford: The UK Improvement Alliance.

20 Waring J, Bishop S. 2010. "Water cooler" Learning: Knowledge sharing at the clinical "backstage" and its contribution to patient safety. *Journal of Health Organization and Management* 24(4): 325–42.



context. Social factors, such as family violence, crime, diet, exercise, smoking and excessive consumption of alcohol or drugs, can have a huge impact on health outcomes.<sup>21</sup>

Effectively anticipating issues involves sifting through various signals, which may or may not be important, to focus on those most likely to indicate a developing problem. Emerging safety issues can go unnoticed in busy health organisations and systems. Barriers to attending to warnings include the busy reality of work at the front line of health care, the profusion of information transmitted and received, and the challenge of distinguishing real signals from 'noise'. We need organised and systematic approaches to isolate and detect safety signals, so we can respond to the ones that are most important and accurate, enabling us to prevent emerging harm.<sup>22, 23</sup>

Chapter 1 shows that, in general, the New Zealand health care system appears to have been performing well. But we are not achieving equitable outcomes for all. We need to ask, what evidence do we have that our system will continue to perform as well as it does? Are early warning signals evident that we should be concerned about for the New Zealand health care system?

In this chapter, we have drawn on multiple sources of information to help us understand emerging and growing concerns. We use information from the OECD, Ministry of Health, Auditor-General, Health and Disability Commission, workforce unions, Central Technical Advisory Service (TAS), medical colleges (including the Royal Australasian College of Surgeons (RACS) and the Australian and New Zealand College of Anaesthetists (ANZCA)), and the Commission's own adverse events learning programme and culture survey work.

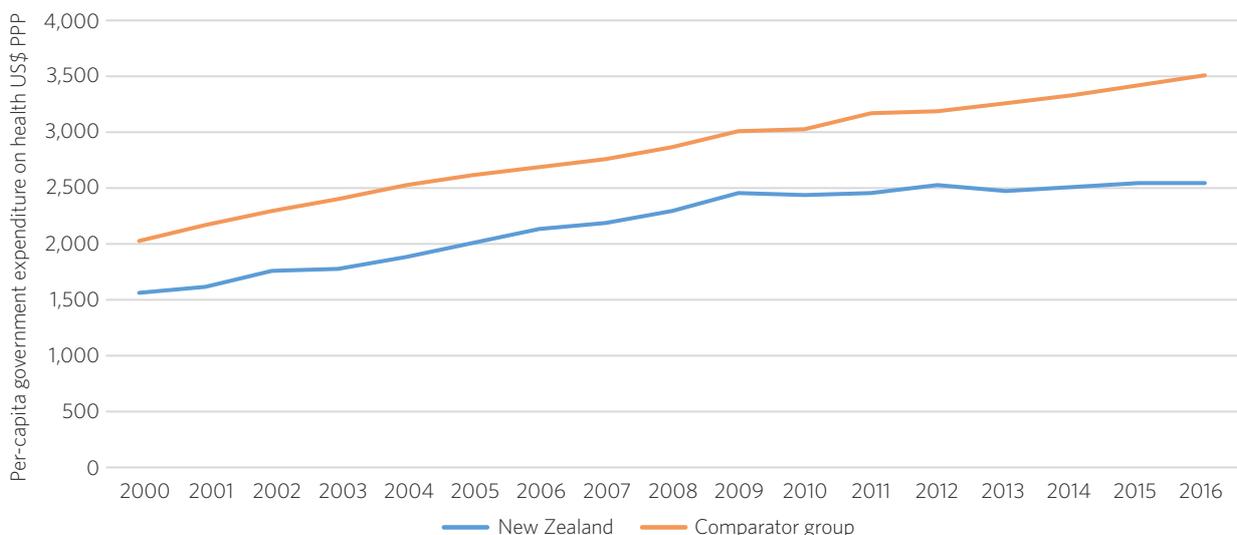
## What are the possible 'early warning signals' that raise concern?

We are aware of areas of challenge within our health system, including financial pressure, workforce health and wellbeing, and changing patterns of safety that will need new approaches to resolve.

### Financial pressures

A tightening fiscal environment, combined with an increasing number of DHBs in deficit, should be seen as an early warning signal for possible future quality, safety and sustainability issues. Prior to the 2018 budget, no real increase in funding had occurred for the health system for nearly 10 years. Following the global financial crisis, a long-term trend of growth in health spending came to a halt in New Zealand, as it did in countries in Western Europe and the rest of the English-speaking world. For most other countries, this constraint eased from 2011 onwards, but evidence shows this did not happen in New Zealand (see Figure 44). During this time, the population has increased and aged, so health care needs have increased in complexity. In this context, the allocation of additional funding to the health sector announced in the 2018 Budget will be welcomed.

**Figure 44: Per-capita government expenditure on health US\$ purchasing power parity (PPP), 2010 constant prices** (source: OECD)

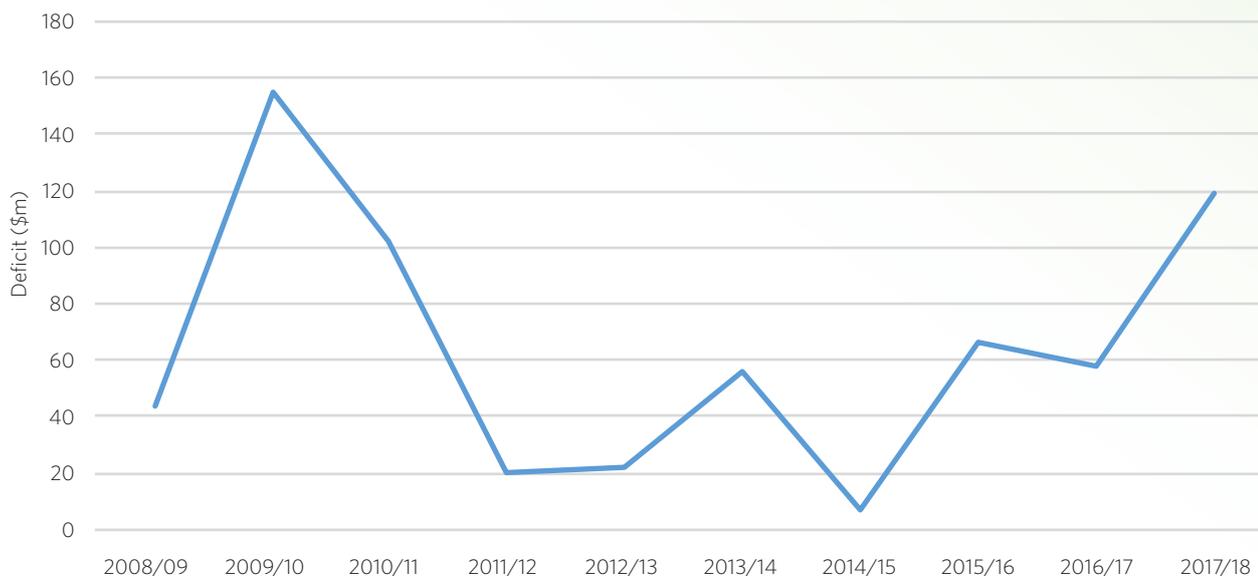


- 21 Family Violence Death Review Committee. 2016. *Fifth Report: January 2014 to December 2015*. Wellington: Family Violence Death Review Committee.
- 22 Canyon DV. 2012. The state of systemic threat surveillance in some Australian health organisations. *Journal of Business Continuity & Emergency Planning* 6(2): 102-10.
- 23 Macrae C. 2014. Early warnings, weak signals and learning from healthcare disasters. *BMJ Quality & Safety* 23(6): 440-5.

None of this is to deny the importance of spending money as wisely as possible (which is why reducing unwarranted variation in patterns of treatment is so important). However, long periods of no real growth in expenditure – while demand increases – create financial pressures on the system.

The reality of increasing financial instability is also demonstrated in the deficit position of DHBs, as reported in the New Zealand media and by the Ministry of Health to the Minister of Health.<sup>24, 25</sup> In its 2017 Briefing to the Incoming Minister, the Ministry highlighted the cost pressures of changing demographics, prices and patterns of illness. It noted that the track of DHB deficits (referring to the figure reproduced below as Figure 45) indicates efficiency gains are becoming increasingly difficult.<sup>26</sup>

**Figure 45: Combined DHB deficits, New Zealand, 2008/09–2016/17** (source: Ministry of Health)



The Ministry of Health provides sector financial performance reporting to the Minister on a monthly basis. At February 2018, only three DHBs were on target with their budget expenditure for the month. Fourteen out of 20 DHBs are not expected to meet their forecast end-of-year results. The monthly report notes that the Ministry closely monitors and works with DHBs with unfavourable financial results to help them improve these results.<sup>27</sup>

In the 2014/15 health sector audits published in August 2016, the Auditor-General raised concerns about an increasing focus on short-term deliverables within DHBs, at the expense of other important objectives:<sup>28</sup>

We saw indications in our 2014/15 audits that some DHBs are especially focused on achieving a particular financial result, and are basing their decisions on how they account for expenditure and revenue on this objective. This suggests that there is too much focus on the ‘bottom line’, which could detract from other important objectives, such as sound asset management and financial resilience.<sup>29</sup> (p 3)

24 Broughton C. 2017, 25 August. \$117m deficit for Kiwi health boards more than double original forecast. *Stuff*. URL: [www.stuff.co.nz/national/health/96144261/117m-deficit-for-Kiwi-health-boards-more-than-double-original-forecast](http://www.stuff.co.nz/national/health/96144261/117m-deficit-for-Kiwi-health-boards-more-than-double-original-forecast) (accessed 26 April 2018).

25 Williams K. 2017, 7 December. DHB deficits have leapt by \$100m since May, Health Minister David Clark claims. *Stuff*. URL: [www.stuff.co.nz/national/health/99633554/dhb-deficits-have-leapt-by-100m-since-may-health-minister-david-clark-claims](http://www.stuff.co.nz/national/health/99633554/dhb-deficits-have-leapt-by-100m-since-may-health-minister-david-clark-claims) (accessed 26 April 2018).

26 Ministry of Health. 2017. *Briefing to the Incoming Minister of Health, 2017: The New Zealand Health and Disability System*. Wellington: Ministry of Health. URL: [www.health.govt.nz/system/files/documents/publications/briefing-to-the-incoming-minister-of-health-2017-the-new-zealand-health-and-disability-system\\_0.pdf](http://www.health.govt.nz/system/files/documents/publications/briefing-to-the-incoming-minister-of-health-2017-the-new-zealand-health-and-disability-system_0.pdf) (accessed 26 April 2018).

27 Ministry of Health. (nd). *District Health Board Sector Financial Performance for year to date 28 February 2018*. Wellington: Ministry of Health. URL: [www.health.govt.nz/new-zealand-health-system/key-health-sector-organisations-and-people/district-health-boards/accountability-and-funding/summary-financial-reports/dhb-sector-financial-reports-2017-18](http://www.health.govt.nz/new-zealand-health-system/key-health-sector-organisations-and-people/district-health-boards/accountability-and-funding/summary-financial-reports/dhb-sector-financial-reports-2017-18) (accessed 26 April 2018).

28 Controller and Auditor-General. 2016. *Health Sector: Results of the 2014/15 audits*. Wellington: Office of the Auditor-General. URL: [www.oag.govt.nz/2016/health-audits/docs/health-audits.pdf](http://www.oag.govt.nz/2016/health-audits/docs/health-audits.pdf) (accessed 26 April 2018).

29 *Ibid.*



It is concerning that this pattern may also occur across the wider work of the DHBs. Important work that strengthens and safeguards the future of the health system (like better meeting the broader needs of patients, improving services or the system, or investing in necessary capital infrastructure) can become secondary to more immediate and narrowly defined targets. A focus on narrowly defined targets can be exacerbated by the directions, expectations and emphases of national agencies. Particularly in times of financial constraint, performance management approaches can have contradictory and perverse effects.<sup>30, 31</sup>

## Health and wellbeing of the workforce

The health and wellbeing of the health sector workforce is a prerequisite for delivery of safe, effective services. Research from the United Kingdom has shown associations between staff unhappiness and negative experiences and reduced patient satisfaction.<sup>32</sup>

### Low morale

The health workforce is increasing over time. Health Workforce New Zealand reports that, as at the end of March 2017, the DHB sector had 2,260 more medical employed full-time equivalents (FTEs) (a 38.1 percent increase) and 4,642 more nursing employed FTEs (a 23.5 percent increase) than at 30 November 2008.<sup>33</sup> The Ministry of Health's monthly report to the Minister for the 2017 calendar year tells a similar story of increasing staffing.<sup>34</sup>

However, several health workforce unions highlight membership surveys that raise concerns about staff shortages,<sup>35, 36</sup> staff health and wellbeing,<sup>37</sup> declining morale<sup>38</sup> and high levels of stress and depression<sup>39</sup> within their workforce groups.

Government agencies and DHBs are working on specific initiatives to improve workforce wellbeing.

- TAS has been actively working with DHBs to develop policies and practices to support staff happiness and wellbeing. TAS has partnered with DHBs and unions to provide a 'Wellbeing for Health' website that serves as a central repository for information and resource sharing on workforce issues for DHBs.<sup>40</sup> Topics covered include: culture and values; communication and engagement; better work practices; leadership; and personal and mental health.

30 National Advisory Group on the Safety of Patients in England. 2013. *A Promise to Learn – A Commitment to Act: Improving the safety of patients in England*. URL: [www.gov.uk/government/publications/berwick-review-into-patient-safety](http://www.gov.uk/government/publications/berwick-review-into-patient-safety) (accessed 26 April 2018).

31 Barber, M. 2015. *How to Run a Government: So that citizens benefit and taxpayers don't go crazy*. London: Penguin.

32 NHS England. 2018. *Links between NHS Staff Experience and Patient Satisfaction: Analysis of surveys from 2014 and 2015*. URL: [www.england.nhs.uk/wp-content/uploads/2018/02/links-between-nhs-staff-experience-and-patient-satisfaction-1.pdf](http://www.england.nhs.uk/wp-content/uploads/2018/02/links-between-nhs-staff-experience-and-patient-satisfaction-1.pdf) (accessed 26 April 2018).

33 Ministry of Health. 2017. *District Health Board Clinical Staffing Numbers (March 2017)*. Wellington: Ministry of Health. URL: [www.health.govt.nz/system/files/documents/pages/dhb-clinical-staffing-numbers-mar2017.docx](http://www.health.govt.nz/system/files/documents/pages/dhb-clinical-staffing-numbers-mar2017.docx) (accessed 26 April 2018).

34 Ministry of Health. 2017. *District Health Board Sector Financial Performance for Year Ended 31 December 2017*. Wellington: Ministry of Health. URL: [www.health.govt.nz/new-zealand-health-system/key-health-sector-organisations-and-people/district-health-boards/accountability-and-funding/summary-financial-reports/dhb-sector-financial-reports-2017-18](http://www.health.govt.nz/new-zealand-health-system/key-health-sector-organisations-and-people/district-health-boards/accountability-and-funding/summary-financial-reports/dhb-sector-financial-reports-2017-18) (accessed 26 April 2018).

35 Association of Salaried Medical Specialists. 2017. *Briefing to the Minister of Health, October 2017*. Wellington: Association of Salaried Medical Specialists. URL: [www.asms.org.nz/wp-content/uploads/2017/11/BIM-2017\\_168920.6.pdf](http://www.asms.org.nz/wp-content/uploads/2017/11/BIM-2017_168920.6.pdf) (accessed 26 April 2018).

36 New Zealand Nurses Organisation. 2017. *NZNO Research Employment Survey 2017: Our Nursing Workforce: Resilience in adversity*. URL: [www.nzno.org.nz/Portals/O/publications/Research%20report%20-%20Employment%20Survey,%202017.pdf](http://www.nzno.org.nz/Portals/O/publications/Research%20report%20-%20Employment%20Survey,%202017.pdf) (accessed 26 April 2018).

37 Association of Salaried Medical Specialists 2017, *op. cit.*

38 New Zealand Nurses Organisation 2017, *op. cit.*

39 Dixon L, Guilliland K, Pallant J, et al. 2017. The emotional wellbeing of New Zealand midwives: Comparing responses for midwives in caseloading and shift work settings. *New Zealand College of Midwives Journal* 53.

40 Wellbeing for Health. (nd). URL: <https://wellbeingforhealth.nz> (accessed 17 May 2018).

### **Kath Cook, chair of the 20 DHB Chief Executive Officers Group**

All of us who work in health have an interest in creating work environments that enable us to be our very best. Workplaces that prioritise wellbeing have better engagement, higher productivity and reduced absenteeism. We are keen to share resources that enable this to happen and this website is an opportunity to introduce, or strengthen, practices and policies that will lead to improved wellbeing. We are pleased to be working in partnership with our union colleagues so that we can make the greatest difference in having healthy and thriving environments for ourselves and ultimately, those we provide care to.

Wellbeing for Health. URL: <https://wellbeingforhealth.nz/about-wellbeing-for-health>.

- Individual DHBs have a range of programmes and activities underway to create healthy workplaces, and a number have created roles specifically to work on this goal.
- On 23 January 2018, Health Workforce New Zealand announced its commitment to developing an updated national health workforce strategic plan, in collaboration with the sector and consumers. It is expected the strategic plan will be published by the end of 2018.<sup>41</sup>

### **Sick leave patterns**

Internationally, sick leave is seen as an indicator of the wellbeing of the workforce.<sup>42</sup>

Since January 2016, TAS has tracked average annualised sick leave taken by the health workforce in New Zealand on a quarterly basis, and has published this information. The Commission has not been able to locate a central record of information on health sector workforce sick leave prior to 2016, so we have been unable to consider changing patterns of sick leave across time in this edition of *Window*. However, Figure 46 shows the average annualised sick leave hours of occupational groups for the years to 31 December 2016 and 2017. In 2017, care and support workers took the most hours of sick leave, at 89.6 hours on average per FTE for the year. Midwives, on average, took 85.3 hours per FTE and nurses took 81.6 hours per FTE. Average annualised sick leave patterns are similar across the two years.<sup>43</sup>

While we cannot compare across time beyond the two years of data we have, we can look internationally. We note these levels of sick leave are comparable with those seen in the United Kingdom's National Health Service.<sup>44</sup>

41 Ministry of Health. (nd). *Health Workforce Strategic Plan*. Wellington: Ministry of Health. URL: [www.health.govt.nz/our-work/health-workforce/health-workforce-strategic-plan](http://www.health.govt.nz/our-work/health-workforce/health-workforce-strategic-plan) (accessed 17 May 2018).

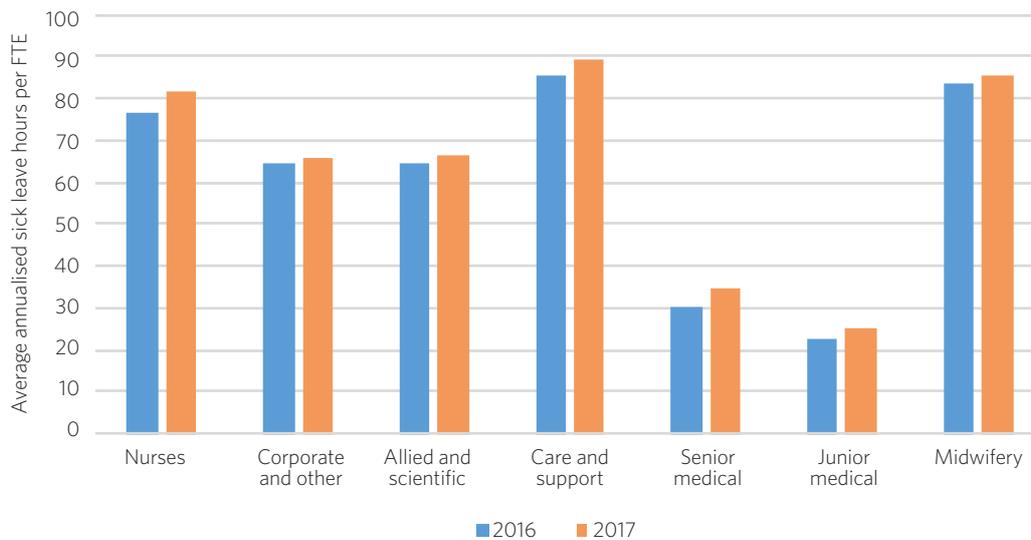
42 Kuoppala J, Lamminpää A, Väänänen-Tomppo I, et al. 2011. Employee well-being and sick leave, occupational accident, and disability pension: A cohort study of civil servants. *Journal of Occupational and Environmental Medicine* 53(6): 633-40. URL: [www.researchgate.net/publication/51202541\\_Employee\\_Wellbeing\\_and\\_Sick\\_Leave\\_Occupational\\_Accident\\_and\\_Disability\\_Pension](http://www.researchgate.net/publication/51202541_Employee_Wellbeing_and_Sick_Leave_Occupational_Accident_and_Disability_Pension) (accessed 15 May 2018).

43 Technical Advisory Services. (nd). *District Health Board Employed Workforce Quarterly Report to 31 December 2016* (page 17). Wellington: TAS. URL: <https://tas.health.nz/strategic-workforce-services/health-workforce-information-programme-hwip/> (accessed 8 May 2018).

44 Quality Watch. (nd). *NHS Staff Sickness Absence*. London: Nuffield Trust and the Health Foundation. URL: [www.qualitywatch.org.uk/indicator/nhs-staff-sickness-absence](http://www.qualitywatch.org.uk/indicator/nhs-staff-sickness-absence) (accessed 26 April 2018).



**Figure 46: Average annualised sick leave hours per FTE for workforce occupational groups in New Zealand, for the years to 31 December 2016 and 2017 (source: TAS)<sup>45, 46</sup>**



Rates of sick leave taken by junior and senior medical staff (25.2 hours and 34.7 hours per FTE for the 2017 year, respectively) are low, compared with care and support workers, nurses and midwives.

In its Briefing to the Incoming Minister, the Association of Salaried Medical Specialists raised concerns about senior doctors working through illness, based on an earlier membership survey.<sup>47, 48</sup> Sick leave patterns reported by TAS (Figure 46) may be interpreted as indicating that junior medical staff may be present, despite illness, to an even greater degree than their more senior colleagues.

The term sickness presenteeism (SP) has been described as the act of going to work despite having a state of health that may be regarded as poor enough to justify sick leave. SP has been observed to be prevalent among three-quarters of health care providers (HCPs). Working while sick not only puts patients at risk but also decreases productivity and increases the probability of medical errors. Moreover, SP has been identified as a risk factor for many negative health outcomes among the HCPs themselves, such as depression, burnout, and serious cardiac events.<sup>49</sup> (p 711)

Both high and low levels of sick leave can be of concern, if staff morale is in question. The Commission will continue to consider sick leave over time.

### Bullying

RACS and ANZCA have published reports expressing concerns about levels of bullying in the New Zealand health workforce. Concerns are also evident in Australia and internationally, as jurisdictions recognise the importance of the health workforce and the centrality of the role in delivering the best possible care to patients. Bullying is also a matter of concern in other professions, such as law, and in the workforce more generally.

45 Technical Advisory Services. (nd). *District Health Board Employed Workforce Quarterly Report to 31 December 2017* (page 17). Wellington: TAS. URL: <https://tas.health.nz/assets/SWS/HWIP/DHB-Employed-Workforce-Quarterly-Report-December-2017.pdf> (accessed 26 April 2018).

46 Technical Advisory Services. (nd). *District Health Board Employed Workforce Quarterly Report to 31 December 2016* (page 17). Wellington: TAS. URL: <https://tas.health.nz/strategic-workforce-services/health-workforce-information-programme-hwip/> (accessed 8 May 2018).

47 Association of Salaried Medical Specialists 2017, *op. cit.*

48 Chambers C. 2015. Superheroes don't take sick leave: Presenteeism in the New Zealand senior medical workforce – a mixed method study. *ASMS Health Dialogue* 11.

49 Al Nuhait M, Al Harbia K, Bustami R, et al. 2017. Sickness presenteeism among health care providers in an academic tertiary care center in Riyadh. *Journal of Infection and Public Health* 10(6): 711-15.

- In 2015, RACS published a report from its expert advisory group on discrimination, bullying and sexual harassment in surgery in Australia and New Zealand.<sup>50</sup> The advisory group found 49 percent of fellows, trainees and international medical graduates reported being subjected to discrimination, bullying or sexual harassment. Also, 71 percent of hospitals reported discrimination, bullying or sexual harassment by a surgeon in their hospital in the past five years, with bullying the most frequently reported issue. The report highlighted that:

Bullying is endemic in surgery; common in training and the surgical workplace; and central to the culture of surgery.<sup>51</sup> (p 5)

RACS introduced an action plan in 2015, with the goal of changing behaviours that are bad for individuals, impair teams and put patient care and safety at risk.<sup>52</sup> In June 2016, ANZCA and RACS agreed to work together to explore further opportunities to address discrimination, bullying and sexual harassment.<sup>53</sup>

- ANZCA has established a bullying, discrimination and sexual harassment (BDSH) working group to address these concerns. The *BDSH Working Group Report 2017* highlights the results of a survey of ANZCA trainees completed in 2016. Across Australia and New Zealand, New Zealand has the highest percentage of survey respondents that report having personally experienced workplace bullying (43 percent) and having witnessed workplace bullying (66 percent). The report also reflects that New Zealand survey respondents reported knowing how to report or seek help for bullying, discrimination or sexual harassment, across all the contexts considered (hospital department, hospital, college, and through outside bodies), less than any of the other five comparator areas across Australasia.<sup>54</sup>

### Clinical governance and safety culture slow to progress

In 2017, the Commission supported the repeat of a 2012 DHB workforce clinical governance and safety culture survey, using the same methodology and many of the same questions that had been previously asked in 2012. The response rate was 18.4 percent, compared with 25 percent in 2012.<sup>55</sup>

In 2012, the largest-ever health workforce survey was undertaken by the Commission, Ministry of Health and DHBs in partnership with the University of Otago, focusing on assessing clinical governance culture in DHBs.<sup>56</sup> All registered DHB health professionals working across New Zealand were invited to participate. The 2012 survey had a response rate of 25 percent.

The survey was repeated in December 2017, achieving a response rate of 18.4 percent. The work was commissioned from the University of Otago, by the Commission. The survey was undertaken and the report has been written by Professor Robin Gauld (Pro-Vice-Chancellor and Dean, Otago Business School, University of Otago) and Dr Simon Horsburgh (Senior Lecturer in Epidemiology, Department of Preventive and Social Medicine, University of Otago). The report, due to be published at a similar time to this *Window*, highlights that change in staff perceptions about clinical governance from 2012 to 2017 is limited.

The 2017 survey found, in comparison to 2012, there were small increases in the percentage of respondents who:

- were familiar with the concept of clinical leadership and decision-making
- perceived DHBs had sought to foster clinical leadership

50 Expert Advisory Group on Discrimination, Bullying and Sexual Harassment. 2015. *Report to the Royal Australasian College of Surgeons*. Melbourne: RACS. URL: [www.surgeons.org/media/22086656/EAG-Report-to-RACS-FINAL-28-September-2015-.pdf](http://www.surgeons.org/media/22086656/EAG-Report-to-RACS-FINAL-28-September-2015-.pdf) (accessed 26 April 2018).

51 *Ibid.*

52 Royal Australasian College of Surgeons. 2015. *Building Respect, Improving Patient Safety: RACS action plan on discrimination, bullying and sexual harassment in the practice of surgery*. Melbourne: RACS. URL: [www.surgeons.org/media/22260415/RACS-Action-Plan\\_Bullying-Harassment\\_F-Low-Res\\_FINAL.pdf](http://www.surgeons.org/media/22260415/RACS-Action-Plan_Bullying-Harassment_F-Low-Res_FINAL.pdf) (accessed 26 April 2018).

53 Australian and New Zealand College of Anaesthetists. 2017. *ANZCA Bullying, Discrimination and Sexual Harassment Working Group Report - 2017*. Wellington: ANZCA. URL: [www.anzca.edu.au/documents/comms\\_bdsh-wg-report\\_20170219.pdf](http://www.anzca.edu.au/documents/comms_bdsh-wg-report_20170219.pdf) (accessed 26 April 2018).

54 *Ibid.*

55 Gauld R, Horsburgh S. 2018. *Health professionals' perceptions of clinical governance and the quality and safety environment in DHBs* (unpublished draft report).

56 Gauld R, Horsburgh S. 2013. *Clinical Governance Assessment Project. Final Report on a National Health Professional Survey and Site Visits to 19 New Zealand DHBs*. Dunedin: Centre for Health Systems, University of Otago. URL: <https://www.hqsc.govt.nz/assets/General-NEMR-files-images-/clinical-governance-final-report.pdf> (accessed 1 June 2018).



- believed health professionals in their DHB involved patients and families in improving patient care
- thought their DHB had an established governance structure that ensured a partnership between health professionals and management.

However, there were small declines in the percentage of respondents reporting:

- staff involvement in changing the system to benefit patients
- that their DHB sought to give responsibility to their team for clinical service decision-making
- that it was easy to speak up if they perceived a problem with patient care.

There was little change in the percentage of respondents who:

- believed their DHB had worked to enable strong clinical leadership
- thought health professionals in their DHB worked together as a well-coordinated team.

Most DHBs had mixed results, with some improvement and some declines over the series of questions asked. The variation in response across DHBs on any given question is notable as well as variation in response within many DHBs on different questions. This pattern of variation suggests improvement is possible in a number of DHBs.

Key findings highlighted in the report of the 2017 survey are that:

- progress on questions asked in 2012 has been limited; in many cases, respondents are less positive than they were in 2012
- the findings have implications for health sector policy, governance and management as well as for health professionals
- in particular, there may be a need to refresh the emphasis on clinical governance and aspects of the quality and safety environment nationally and within DHBs.

The study found limited progress had been made since 2012 in terms of how staff perceive clinical governance and safety culture in their organisations and services. While slight progress was made in some areas, in many cases, respondents were less positive than they were in 2012. Responses also varied across DHBs, with some having a considerable decline in staff perceptions in some areas since 2012.

In the 2017 clinical governance survey, participants were asked about their agreement with the statement 'In this clinical area, it is easy to speak up if I perceive a problem with care'. Results were compared with 2012. In the 2017 survey, five DHBs had a statistically significant decrease in staff agreeing to the statement, compared with 2012.

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***The results from the 2017 survey suggest that an increased focus on clinical governance and safety culture is required, into the future, if we want to see improvement.***

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Another DHB staff survey undertaken by the Commission in late 2017 focused on the area of patient deterioration. A draft report is in development.<sup>57</sup> The survey found that staff find the national patient deterioration recognition and response system useful, in particular because it enables and empowers staff to escalate their concerns to those more senior.

The more confident a recogniser is, the less likely they are to hesitate to escalate care and the less likely they are to seek a second opinion about escalating care when escalation trigger points are reached. We also heard that some recognisers might not, or might hesitate to, escalate care because they were afraid of how responders might react. Being able to draw on the nationally and locally mandated recognition and response system helps address some of these issues (a sense of lack of support and/or fear of being blamed or reprimanded).<sup>58</sup> (p 56)

Similarly, how much a responder trusts and respects their colleagues influences how they respond to escalation.

<sup>57</sup> Point Research. 2018. *All DHBs staff survey for the patient deterioration programme: Draft for HQSC review* (unpublished draft report).  
<sup>58</sup> *Ibid.*

How supportive a responder is of a decision to escalate care is strongly correlated with how likely they are to respond within response protocol timeframes. Responders' support for a decision to escalate care is affected by the extent to which they 'trust' the recogniser's judgement that a response is in fact urgently needed.<sup>59</sup> (p 56)

**These results suggest further work is required to create working environments where 'it's okay to ask for help'.**

## Safety

Chapter 1 has shown that clear improvements have been made in specific areas of harm that can be addressed within organisational boundaries. However, changing patterns of adverse events reporting and consumer complaints reflect harm from cross-boundary and system issues that are complex and that will require organisational collaboration to resolve.

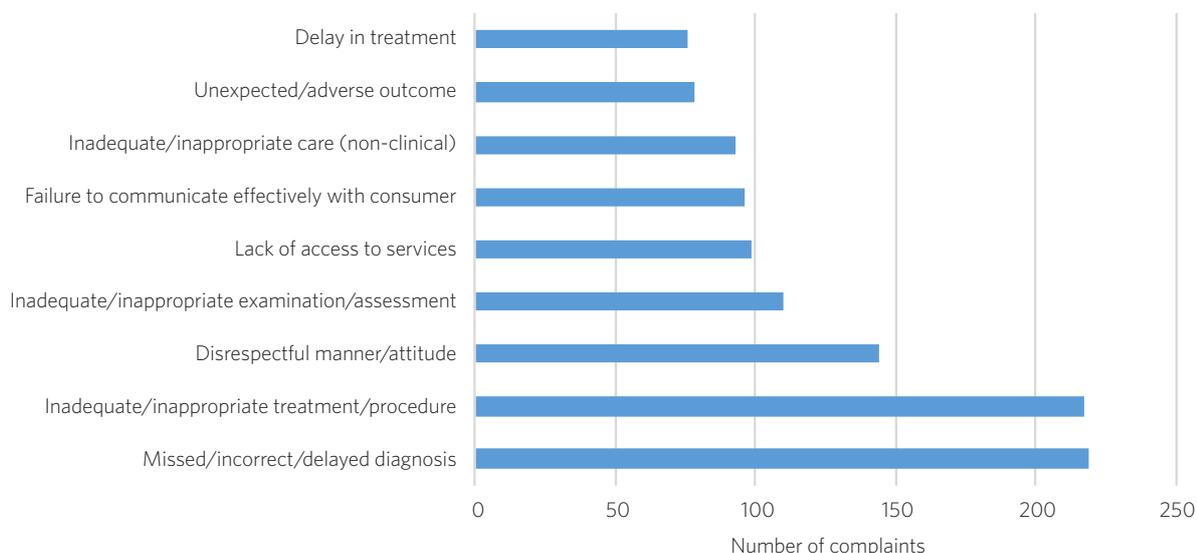
### Growing complexity in adverse events and complaints

The balance of harm being reported through the Commission's adverse events learning programme is shifting over time, from the relatively straightforward to the more complex. 'Clinical management events', which tend to have a combination of causes and require complex, multi-system, cross-boundary resolution, are now the most common type of adverse event reported by DHBs to the Commission (52 percent). In contrast, the number of falls reported has dropped. Falls have been addressed, to a great degree, within the boundary of a particular service or organisation, through clinical practice improvement, with support from the Commission's falls quality improvement programme.

Complaints to the Health and Disability Commissioner also highlight a variety of complex issues. Figure 47 reflects the most commonly received complaints in 2016/17, which are reasonably consistent across recent years.<sup>60</sup> The themes of delays (diagnosis, treatment and assessment) and unexpected or adverse outcomes from treatment are common across both events reported to the Commission from the health sector and in consumer complaints made to the Health and Disability Commissioner.

To address much of the harm reflected in these adverse events and complaints, organisations will need to work across their boundaries, and national agencies will need to collaborate to find system-level resolutions. This can be challenging if organisations are under financial stress and performance expectations encourage a focus on their core business ('doing it right') and not beyond it ('doing the right thing').

**Figure 47: Health and Disability Commissioner complaints by category, New Zealand, 2016/17** (source: Health and Disability Commissioner)



<sup>59</sup> *Ibid.*

<sup>60</sup> Health and Disability Commissioner. 2017. *Annual Report for the Year Ended 30 June 2017*. Wellington: Health and Disability Commissioner. URL: [www.hdc.org.nz/media/4540/hdc-annual-report-for-the-year-ending-june-2017.pdf](http://www.hdc.org.nz/media/4540/hdc-annual-report-for-the-year-ending-june-2017.pdf) (accessed 26 April 2018).



### **Addressing the complex issues: A case study of change in ophthalmology services**

The Commission's *Learning from adverse events 2015-16* report<sup>61</sup> identified increased reporting of adverse events in ophthalmology services and delays in access to follow-up care.

The increase in adverse events reflected pressures from increased demand driven by both an ageing population and the availability of new treatments, such as Avastin injections. These new treatments offered benefits for conditions that were previously difficult to treat, but they required frequent follow-up appointments.

Quality improvement science teaches a systems approach; to measure and monitor any new change we introduce, to avoid unintended consequences.

Avastin was introduced in different ways in different parts of the country, with no national systems approach.

Consequently, local services responded variably to the demand pressures, with different processes, planning and models of care. The unintended result was delays in follow up in some DHBs, leading to loss of vision or blindness for a small number of people. Some DHBs responded well at a local level and avoided harm. However, their local experience and learning was not initially shared nationally.

Since the publication of the Commission's report, various clinical groups, professional bodies, DHB management and the Ministry of Health have worked collaboratively to develop solutions. Work to date includes a consistent approach to service production planning, as well as updated national guidelines and prioritisation tools.

While the Commission's report has encouraged and facilitated a system-wide, collaborative response, if the problems that occurred had been noted and shared earlier, harm may have been avoided, with less negative impact on patient eyesight.

## Where to next?

The health system's struggle to address the complex issues highlighted over the past four to five years matters. Continuing inequity and variation matter. The lack of progress in these important areas cannot continue to be ignored. Financial strain (deficits and possible under-investment in important areas), workforce wellbeing concerns and increasingly complex safety issues are all present. Each issue would benefit from a collaborative approach to understanding and to coordinating action for resolution, where this is not already occurring.

The case study of change in ophthalmology services emphasises organisations working together in the system to ensure safety. The challenge is to support our health system to look forward and to foresee and prevent harm from happening to people.

This chapter has started discussion on new approaches we can use to do this. The use of 'soft' intelligence and more leading indicators, alongside the traditional lagging indicators, can help us to better anticipate emerging issues. In turn, this will enable us to work together to proactively prevent harm. Chapter 3 considers how we might collaborate better, as a system, to prevent, and to respond early, to harm.

61 Health Quality & Safety Commission. 2017. *Learning from Adverse Events 2015-16*. Wellington: Health Quality & Safety Commission. URL: [www.hqsc.govt.nz/our-programmes/adverse-events/publications-and-resources/publication/2684](http://www.hqsc.govt.nz/our-programmes/adverse-events/publications-and-resources/publication/2684) (accessed 26 April 2018).

## 3 Where to from here?

How best can New Zealand ensure its health system is set up to address future demands while maintaining, and where necessary improving, the quality of services provided?

This question has many different, overlapping answers. We have three suggested approaches that may help. The first is the further extension of quality improvement approaches across the sector. Chapter 1 demonstrates that, correctly used, the sorts of quality improvement approaches the Commission has adopted over the last five years can reap dividends.

These can help into the future in two ways. First, they can be extended into other areas where harm exists: pressure injuries, hospital inpatients with deteriorating conditions, other healthcare-associated infections and medication harms, to name but a few. Perhaps more importantly, the techniques and capabilities of quality improvement can also be applied to underlying causes of quality such as the development of good safety cultures, patient-centred care, effective clinical governance and well-coordinated services.

Being able to apply these techniques to these broader issues is important. As we have noted throughout this *Window*, many of the issues our health system faces are complex and wicked problems. A culture of quality improvement still has an important role to play.

In contrast to this development of an existing approach to 'lending a helping hand', the other two approaches are new, and relate to the Commission's mission of 'shining a light' on the quality of the system:

- building on existing approaches to encourage focused monitoring of service quality
- developing a mechanism for identifying and addressing potential problems early.

### Building on existing approaches to encourage focused monitoring of quality

Chris Walsh suggests, in the text box on page 26, that we should consider a national target to improve patient experience. The system is already moving in this direction. Although not a target as such, the System Level Measures Framework<sup>62</sup> (SLMF) includes patient experience as one of six top level measures.

This is important because both the SLMF and the quality and safety markers<sup>63</sup> that the Commission uses to track progress in patient safety represent a development from traditional process targets used in health and public sectors internationally. Together, they reflect several useful principles for capitalising on the strengths of target regimes while minimising their less positive effects.<sup>64, 65</sup>

These principles are as follows.

- 1 The ultimate outcome or aim of the system must be understood and measured at a national level. This is critical to any evaluation of how well the system is working.
- 2 Any process changes measured and incentivised must have evidence that they will actually affect the linked outcome being assessed, without generating perverse or unintended consequences.
- 3 Changing processes without improving the ultimate outcome constitutes failure. If this happens, we need to understand why, whether the process measurements are reliable, and whether a different process change is required to achieve the desired outcome. Given that an outcome is generally measured by an indicator, rather than in its entirety, it is also relevant to ask if the right indicator is being measured and if this measurement is reliable.

62 Ministry of Health. (nd). *System Level Measures Framework*. Wellington: Ministry of Health. URL: [www.health.govt.nz/new-zealand-health-system/system-level-measures-framework](http://www.health.govt.nz/new-zealand-health-system/system-level-measures-framework) (accessed 18 May 2018).

63 Health Quality & Safety Commission. 2018. *Quality and Safety Markers*. Wellington: Health Quality & Safety Commission. URL: [www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/quality-and-safety-markers](http://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/quality-and-safety-markers) (accessed 18 May 2018).

64 Bevan G, Hood C. 2006. What's Measured Is What Matters: Targets and gaming in the English public health care system. *Public Administration* 84(3): 517-38.

65 Deber R, Schwartz R. 2016. What's Measured Is Not Necessarily What Matters: A cautionary story from public health. *Health Policy* 12(2): 52-64.



- 4 Ideally, changes in practice should be driven at a local level, believed in by local services and populations, and be made in response to local circumstances. This requires the selection, planning and implementation of changes to be determined by local providers, not the 'centre'. On the other hand, alignment with overarching central objectives is also important.

The Commission suggests that the fundamental approach, of specific local actions and changes driving improvements to reach a national goal, should be the centrepiece of how the functioning of the health system is managed. The effects of these actions can be strengthened, while avoiding an imposed 'master-servant relationship' on DHBs, by two mechanisms.

- 1 First, we believe that the Government, through the Ministry of Health, should set national aims at a high level, rather than precisely targeted ones. The Ministry and other central agencies, rather than local health alliances, would then have overall responsibility for delivering these aims. As now, local health alliances would be required to identify locally relevant areas for improvement that would contribute towards achieving these national aims, and agree these with the centre. This would create a partnership between the centre and local providers in delivering high-quality services, effectively moving relationships away from a 'funder and provider' contracting model. The role of the centre in such an arrangement is more facilitative, providing focus on national priorities and access to useful data analyses, helping to foster a culture of continuous quality improvement and building capacity and capability for improvement work.
- 2 Second, we would advocate that all health alliances should work with appropriate local populations to co-produce their plans for local improvement. These plans should include a clear statement of the overall objective, how this aligns with the Government's priorities, the proposed changes to services and processes, how success will be measured locally and how this will feed into national estimates of the quality of health care. Many local health alliances have already adopted this general approach with considerable success. The Commission would advocate that this should be seen as expected practice.

### **Thinking nationally, acting locally**

There are several advantages to this approach.

- 1 Aims that are agreed, rather than targets that are imposed, have a greater likelihood of local professional ownership and support, and are more likely to lead to genuine, clinically and locally relevant change.
- 2 Locally agreed aims are more likely to address local priorities, which should be aligned with the overall, high-level priorities of the Government.
- 3 Both of the above advantages limit the risk of the measures failing to be meaningful.
- 4 Mutually agreed aims are more likely to generate trust across the system, which will be essential for identifying and addressing the emerging issues currently faced by the health system.
- 5 The approach is more likely to have a beneficial impact on equity, if local ownership appropriately involves local communities and consumers (especially Māori, as Treaty of Waitangi partners).

An example of how this might work for patient experience is outlined in Figure 48.

Figure 48: Example of a redesigned target for improving patient experience of care

### Government high-level aim

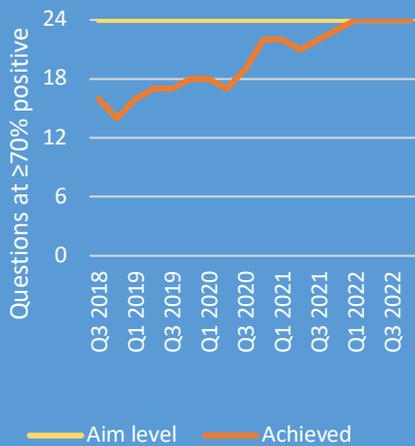
Provides overall accountability to public

Patient experience aim

**IMPROVE RECORDED EXPERIENCE OF CARE**

Eg, 'At a national level, at least 70 percent of patients will give the most positive answer for *all* questions in the national patient experience surveys by 2022'

Quarterly reporting of progress against aim demonstrates improvement over time (and can be used to show how interventions relate to outcomes)



### Local health alliance delivery

Identification of improvements needed locally as contribution to national aim

Agree actions and priorities appropriate at a local level with consumers and Ministry

Consumer councils and other local stakeholders

Finalised action plan to address the needed improvements for a local population

Publicly report progress against action plans (ie, are we doing what we said?)

Monitor patient experience as reported through national patient experience surveys (ie, is what we're doing having the effect we thought it would?)

Although this builds on current approaches, many aspects are novel. If this approach is seen as worth pursuing, work will be needed by the Commission, DHBs, the Ministry of Health and other willing parties to develop the concept further, undertake important pilot projects, produce an agreed national framework and implement it.



## Developing a mechanism for identifying and addressing potential problems early

Chapter 2 identifies a range of emerging issues that are complex in origin and need trust and collaboration to resolve. The problems associated with provision of Avastin described on page 46 – and, for that matter, the issues associated with surgical mesh and the emerging threat of antimicrobial resistance – are all examples of complex system problems. These are not necessarily caused by poor performance of clinical staff or DHB administration, and cannot always be solved by focused performance management of individual providers. Instead, they require early identification of their presence, scale and nature, followed by early communication with key players to establish agreement on what, if anything, needs to be done.

Responding effectively to complex system problems requires different actors in the system to share what they know about these emerging issues, diagnose their cause and work together to intervene appropriately. This implies combining various ‘hard’ numeric measures, like those reported in this *Window*, with ‘soft’ intelligence (the stories and patterns of concern that individuals at the workplace (staff and patients) know about). The challenge lies in connecting organisations that may be unaware that they share a common problem, to triangulate these anecdotal reports with systematic data held by various agencies, and then to evaluate the true significance of emerging potential problems.

This cannot be undertaken by one agency or local service alone. A common theme in reviews and investigations into system and organisational failure in health care is a failure to recognise the significance of fragmented intelligence held by agencies that, combined, may have highlighted a problem more quickly. It is only by bringing all relevant information together that the significance becomes clear.

Similarly, no sole agency or service holds all the necessary levers to resolve an emerging issue. Regulation, performance management, quality improvement activities, leadership development or additional funding may all be appropriate responses to specific circumstances. However, each organisation has a different role in the system, and with this comes a natural tendency to see that specific role as the correct solution to any particular problem. Collaboration between agencies with different roles and perspectives makes it more likely problems will be identified early in their evolution, and effective and appropriate responses will be found in time to minimise harm to patients.









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