Unlocking our clinical potential: identifying and addressing barriers to efficient delivery of quality healthcare

New Zealand Clinical Senate

Te Kāwanatanga o Aotearoa
New Zealand Government

Health New Zealand
Te Whatu Ora

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1. Executive summary

The NZ Clinical Senate's purpose is to provide advice on system-wide issues that affect quality, affordable and efficient patient care. The Senate's inaugural meeting focused on the challenges, barriers and opportunities in improving productivity and efficiency across the health sector. That choice and focus reflects the importance of addressing the immediate challenges faced by public health systems internationally and in New Zealand due to aging populations, increased disease burdens, tightening financial constraints, rapid technological and pharmaceutical advancements and changing service models. Health service expenditure continues to rise, consistently exceeds funding, and is unsustainable.

Key findings

1. Defining and measuring healthcare productivity and efficiency:

For the purposes of the NZ Clinical Senate meeting and this report "efficiency" was defined as maximising the health outcomes achieved for the resources invested, while maintaining quality, safety and patient and whānau experience outcomes, aligning to efficiency as an element of overall value.

Measuring productivity and efficiency at a system-wide and strategic level effectively and meaningfully is complex and open to debate, with an absence of well-validated data in NZ. In assessing healthcare productivity, inputs are readily defined, but outputs are not. Healthcare's overarching objective is to improve health, and better health itself should be considered a key output of the healthcare sector. This report highlights the challenges in measuring efficiency meaningfully, and considers alternative methodologies used in other countries to inform potential measurement approaches here.

2. Barriers to efficiency improvement:

In alignment with other international public health systems, barriers to efficiency include insufficient beds and diagnostic capacity, outdated IT systems, inadequate maintenance and investment in clinical equipment and infrastructure, and an increase in bureaucracy, loss of decision-making delegations and an inability to get issues, equipment, systems and problems fixed in a timely manner. The environment of constant change is seen as demotivating.

Low workforce morale is a key concern, with inflexible models of working and conditions of employment, and pervasive moral injury. The key consequences of that low morale include increased vacancies and absences, with resulting high workloads, and loss of discretionary effort, further impairing efficiency.

3. Successful initiatives have untapped potential:

A wide range of clinician-led initiatives have improved patient outcomes, workforce capacity, and system efficiency in local services. These include digital tools for patient access and triage, workforce optimization, and community-based care models that prioritize equity and access. Unfortunately, many successful models appear to not have been sustained, with lack on ongoing funding, failure to embed the gains in ongoing operational processes, and loss of clinical champions.

Recommendations

Our approach endeavours to distil and focus the NZ Clinical Senate's priorities and recommendations on opportunities that traverse the whole health system. There was universal agreement that centring care with patients and their whānau, and a constant focus on equity and equality, are fundamental underpinnings of all efficiency improvement strategies and activities across the sector and must be woven through all the key priorities and recommendations outlined here.

The summary recommendations are listed below, with specific components presented for each in Section 4 of this report:

1. Measure System Productivity and Efficiency with a quality and outcomes-based methodology.
2. Reduce demand on the health system through investment in prevention, improving access to primary and community care, and enhancing patient and whānau engagement in advance care planning.
3. Improve operational processes and reduce waste, specifically: address missed appointments in secondary care, minimise low value care and reduce unwarranted variation in access to secondary care services.
4. Invest in IT infrastructure and digital enablement.
5. Focus on Workforce flexibility, wellbeing and enhanced scopes of practice.
6. Manage clinical equipment and facilities to ensure timely repair and replacement.
7. Sustain and scale efficiency improvements to embed system-wide improvements.

The report underscores the need for a strategic approach to healthcare productivity and efficiency, leveraging an investment in preventive measures, patient-centred care models and digital technology.

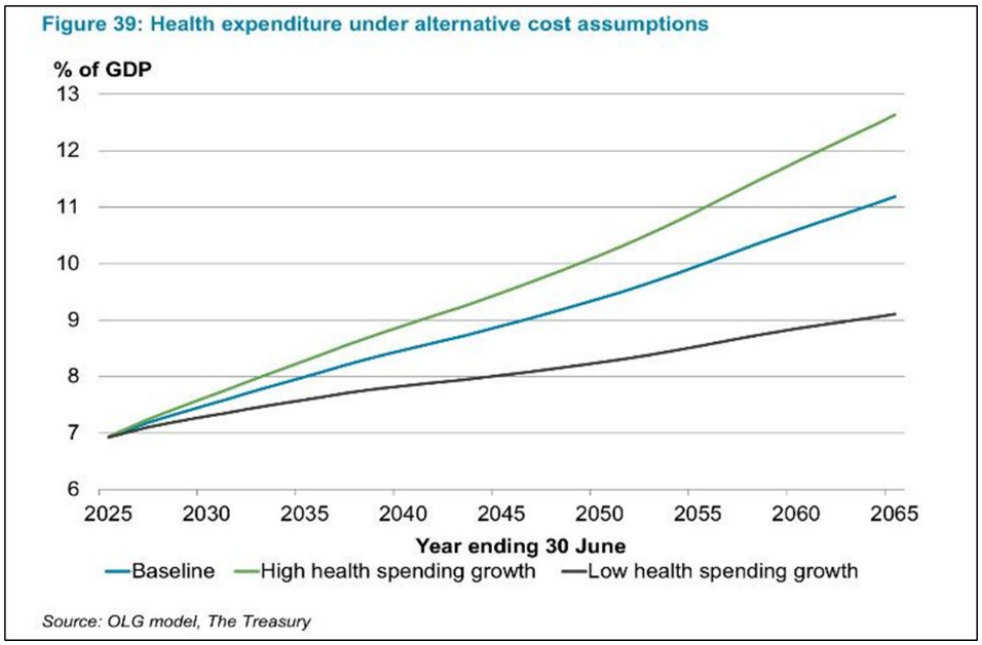
There remains considerable energy from members to engage with and lead improvement initiatives at a local level, tempered by high levels of frustration and diminishing goodwill at barriers to progress. By addressing the identified barriers and implementing the recommendations, New Zealand's healthcare system can achieve sustainable improvements in quality and efficiency.

2. Background and context

Public health systems are under pressure

Public health systems worldwide are under intense pressure from aging populations, increased disease burdens, tightening financial constraints, rapid technological and pharmaceutical advancements and changing service models. Health service expenditure continues to rise and consistently exceeds funding.

Keynote speaker at the Senate meeting, Dr James Walters, has written that an "*ongoing state of inefficiency amidst an environment of seemingly constant reform is…characteristic of the public health systems of many well-developed countries*".[1] Governments internationally are increasingly focused on efficiency and productivity in public health services.[2] [3] [4]



In New Zealand, Treasury forecasts highlight relentless growth in health expenditure, and the importance of improved productivity to sustainability, illustrated above.[5]

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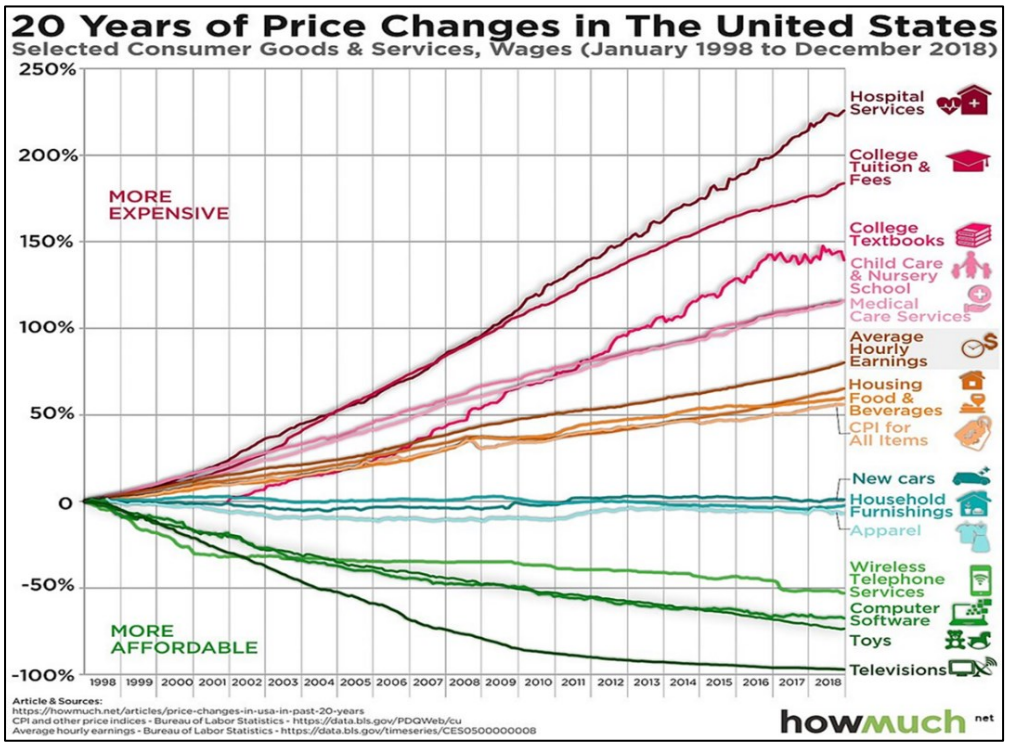
[1] Walters J et al. Supporting efficiency improvement in public health systems: a rapid evidence synthesis. BMC Health Services Research 2022;22:293
[2] Moody N & Powell T. NHS Productivity. Research briefing 23 July 2025. House of Commons Library.
[3] Jones B & Pereira P. How improvement can help NHS productivity. 10 December 2024. The Health Foundation
[4] Australian Government Productivity Commission. Delivering Quality Care More Efficiently. Inquiry 2025. Interim Report. https://www.pc.gov.au/inquiries-and-research/quality-care/#interim-report
[5] The Treasury. Long Term Fiscal Statement September 2025

The recent long term fiscal statement notes “A broader approach across health prevention, efficiency and productivity…could have a larger impact.” and “A scenario assuming 0.5% per annum less cost growth than baseline would limit health expenditure to 9% of GDP in 2065.”

There are similar forecasts in other jurisdictions, and notably the Intergenerational Report projected that Australian Federal Government healthcare spending alone would rise from 4.2% of GDP in 2022-23 to over 6% by 2062-63 (Commonwealth of Australia 2023).[6]

Baumol’s “Cost Disease” and healthcare productivity

Sarah Hogan, Deputy Chief Executive & Principal Economist, NZIER, drew the Senate’s attention to Baumol’s “Cost Disease”.[7] Baumol proposed that healthcare would (together with education and other smaller luxury sectors of the economy) be ‘non-progressive’, meaning that technological advancements, capital investments and economies of scale do not make for a cumulative rise in output that is on par with progressive sectors of the economy.[8]



[6] Productivity Commission 2024, Advances in measuring healthcare productivity, Research paper, Canberra

[7] Hogan S. Five priorities to put the health system back on track. NZIER Insight 115-2024

[8] Baumol WJ 1967. Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis. The American Economic Review 57(3): 415-426

Productivity in the health care sector is outgrown by general productivity of the economy, and an ever-increasing share of spending must be allocated to wages and salaries in the health sector to offset growth in the general economy and prevent a major shift in the workforce. This has been further exacerbated by falling levels of capital investment in public health systems. As Lord Darzi noted in his 2024 independent report on the NHS "a core tenet of industrialisation that transformed our prosperity in the 19th and 20th centuries was increased use of capital relative to labour to drive up productivity. In recent years, it appears that the NHS has been subjected to a kind of capitalism-in-reverse: forced to increase labour relative to capital, rather than the other way round"[9]

Recent empirical evidence using more robust data demonstrates that "cost disease" is real, affects all types of health systems, and is over and above what population ageing, income and other factors contribute.[10]

OECD health expenditure forecasts now include the so-called Baumol variable.[11] This variable measures the differential wage increases in excess of productivity growth.[12] Currently New Zealand does not measure or publish this variable.

Defining and measuring productivity and efficiency

Productivity and efficiency are closely related but are not the same thing. Productivity is the amount of output produced per unit of input; efficiency is how well resources are used to achieve a desired outcome, with minimum waste of time, effort or resources. The Senate chose to focus on efficiency but necessarily considered productivity in our discussion.

In assessing healthcare productivity, inputs are intuitive and readily defined: labour inputs are hours worked by healthcare workers and administrators, capital inputs include hospital beds and equipment, and operational inputs include medicines and consumables. However, outputs are less intuitive. The healthcare sector produces, among other things, hospital admissions, consultations, scans and surgeries. These are easy to measure but are a limited view of "output" and secondary to healthcare's

[9] UK Government Independent investigation of the NHS in England: Lord Darzi's report on the state of the National Health Service in England https://www.gov.uk/government/publications/independent-investigation-of-the-nhs-in-england (Sept 12, 2024), Accessed 14 November 2025

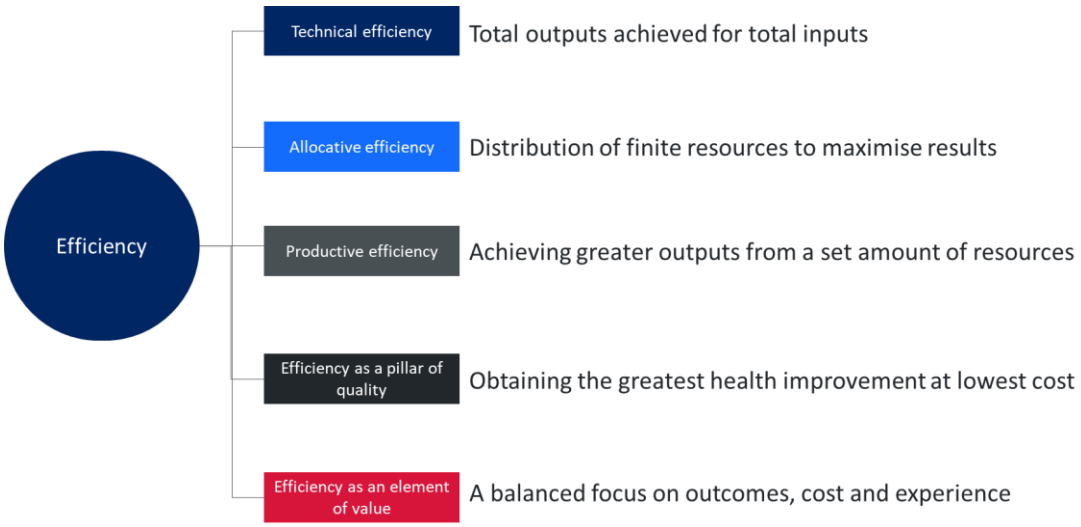
[10] Cost disease and solutions to relentless cost growth. Hogan S. NZIER. NZ Clinical Senate presentation 2025.

[11] Hartwig J 2008. What drives health care expenditure? — Baumol's model of 'unbalanced growth' revisited. Journal of Health Economics 27(3): 603-623

[12] OECD Health Working Paper No. 9. 2017. Future trends in healthcare expenditure: a modelling framework for cross-country forecasts. Marino A, James C, Morgan D and Lorenzoni L.

overarching objective, which is to improve health. **Better health itself might and perhaps should be considered a key output of the healthcare sector.**

A range of aspects of productivity and efficiency can be elucidated, as shown in the figure below, from Dr Walters:



For the purposes of the NZ Clinical Senate meeting and this report "efficiency" was defined as **maximising the health outcomes achieved for the resources invested, while maintaining quality, safety and patient and whānau experience outcomes**, aligning to efficiency as an element of overall value.

Measuring productivity and efficiency at a system-wide and strategic level effectively and meaningfully is challenging and open to debate. A “traditional” approach divides healthcare into single occasions of service provision in a specific setting, modified by patient characteristics such as age or comorbidity (such as is captured in WIES). That data is typically readily available, especially for hospital-based care events, and hence this approach is often favoured.[13]

However, as the Australian Productivity Commission argues[14], there are key shortcomings of this traditional approach. Firstly, it fails to acknowledge that improvements in the quality of a given unit of healthcare, without accompanying cost increases, are genuine productivity improvements and secondly the method can lead to potential mis-measurement if alternative models of care shift the service provision to a different setting. For example, in the traditional approach shifting care from

[13] Warner, M and Zaranko, B. (2023). Is there really an NHS productivity crisis? Institute for Fiscal Studies. Available at: https://ifs.org.uk/articles/there-really-nhs-productivity-crisis (accessed: 13 November 2025)
[14] Productivity Commission 2024, Advances in measuring healthcare productivity, Research paper, Canberra

overnight hospital stay to a community daystay setting, the output measured (eg: WIES) will fall, but in fact a genuine productivity increase has resulted. Thirdly many elements of preventable healthcare and population health are not sought directly by the public and must be provided without measurable productivity, as an economic "merit good". Similar concerns are echoed in other public health systems, for example Chief Allied Health Professions Officer (UK) pointing out that traditional methods lead to "The consequence is a measurement framework that fails to recognise prevention, fails to reward avoided costs, and fails to acknowledge the value of independence and functional recovery."[15]

The Australian Productivity Commission recently proposed the use of an alternative methodology with two key features. Firstly, they divide the healthcare sector into person-centred 'units' of healthcare, defining a unit of healthcare to be 'all healthcare received in a financial year to treat a case of disease in a person of a given age'. Secondly, they adjust for healthcare quality change by examining changes in health outcomes (morbidity and mortality) per unit of healthcare.[16] Whilst more complex and underpinned by a number of assumptions, this alternative methodology suggests a greater level of productivity than is generally attributed to the sector using traditional analysis. In their view Australia (and also NZ) has favourable levels of productivity as compared with other OECD countries, as illustrated in the figure below.

In the NHS the Office for National Statistics reports a quality-adjusted measure of output in elective care, with adjustors including changes in short-term post-operative survival rates, waiting times, estimates of health improvement and results from patient satisfaction surveys.[17] Earlier this year an independent report recommended extension of the use of quality adjusters to non-elective procedures and expansion of patient experience surveys.[18]

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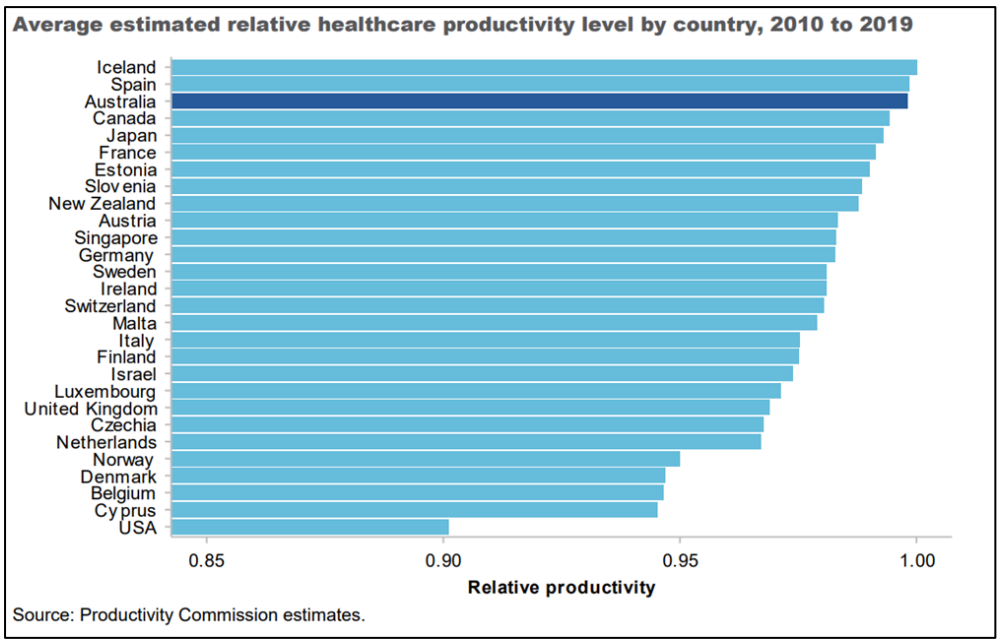
[15] Rethinking NHS Productivity: An AHP Perspective Briefing Based on the House of Commons Library "NHS Productivity" Evidence Briefing (July 2025)
[16] Productivity Commission 2024, Advances in measuring healthcare productivity, Research paper, Canberra
[17] Moody N & Powell T. NHS Productivity. Research briefing 23 July 2025. House of Commons Library.
[18] Office for National Statistics UK. National Statistician's independent review of the Measurement of Public Services Productivity. March 2025.



Overall considerable caution is needed in assessing and reporting the healthcare sector's productivity and efficiency. At the Senate meeting Dr Walters highlighted that establishing an agreed basis for comparison is essential to enable incremental change to be measured, and that reporting against a savings target rather than a baseline can represent an incremental improvement as a failure to achieve a budget or target position, when in fact it is a productivity gain.

Limited data is available in New Zealand

Knopf (2017) reviewed 15 examples of attempts to measure productivity in NZ national health sector organisations in the preceding 20 years.[19] She concluded:

"Attempts to measure efficiency/productivity in the health sector have been tough going. There are data gaps, missing paradigms, and communication issues. The analytical capacity and capability across the sector appears to be in short supply. Measures that are part of operational processes appear more enduring but that could be expected. Meaningful succinct measures to populate performance frameworks have been elusive."

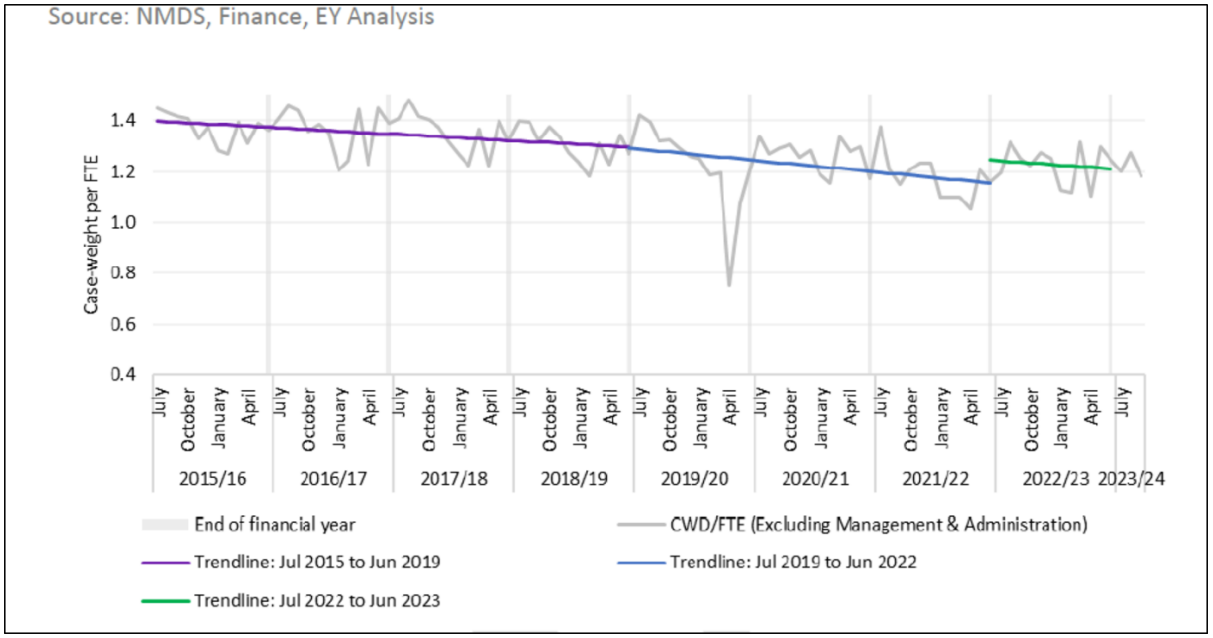
Fraser and Nolan (2017)[20], writing for the NZ Productivity Commission, emphasized the importance of system-wide data in developing measures of productivity and

[19] Knopf E. History of Efficiency Measurement by the New Zealand Health Sector Post 2000. 2017. Wellington: New Zealand Productivity Commission

[20] Fraser H, Nolan P. Understanding Health Sector Productivity. December 2017. Wellington: New Zealand Productivity Commission

driving change concluding “better use of data is an important step in providing the care needed for patients.”

In January 2024 Health NZ provided Treasury with a “Productivity Report”.[21] This was limited to hospital-based care and used a traditional approach similar to that of the UK Institute for Fiscal Studies, with outputs being case-weighted discharges. No methodology for quality adjustment was included. Within those important limitations the data is consistent with that in other countries, with FTE growth exceeding simple outputs over the past decade. That mismatch accelerated in the Covid pandemic but continued following it, as illustrated below.



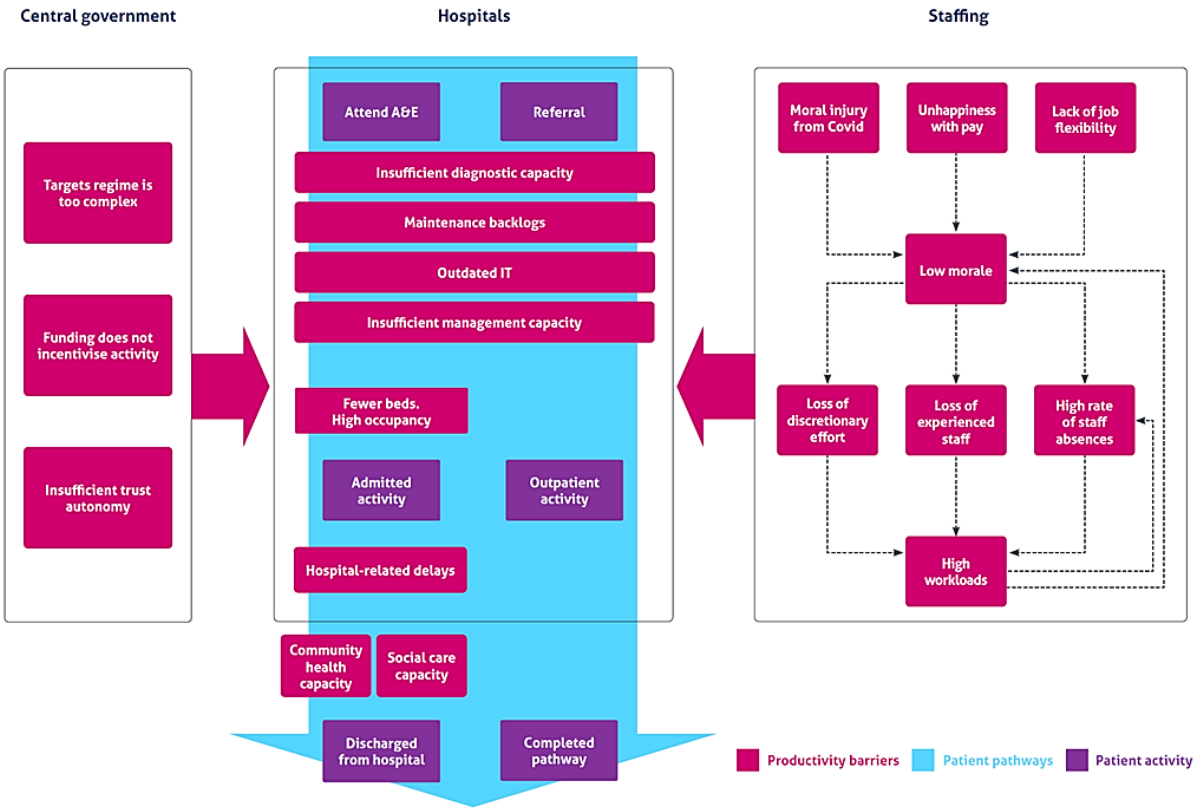
At the time of writing Health NZ anticipated a “twelve-month programme of work with ongoing development and refinement into the future” which would consist of 3 components: developing measures that help understand productivity and its drivers, “consolidation and automation” of data sources with appropriate data quality controls, and an increase in the use of productivity reporting to support decision making. These remain worthy and important goals, but little progress has been observed thus far.

[21] Productivity Report. January 2024. Health NZ, Te Whatu Ora. Released in full under OIA: 20240910, December 2024

Barriers to improved productivity and efficiency

International literature, particularly from the UK, has summarised a wide range of potential system barriers to improving health sector productivity, albeit with a greater focus on hospital and secondary care.

Senate members reviewed the 2023 publication "The NHS productivity puzzle".[22] It identified 3 main areas impacting sector productivity and efficiency: the lack of capital investment, high staff churn and low morale, and problems arising from central government policy and "incentives". These are summarised in the figure below.



Source: Institute for Government, Public First and Health Foundation analysis.

The Senate saw close alignment between these barriers and the current situation in NZ. Hospital-related delays linked to insufficient beds and diagnostic capacity, outdated IT system, and inadequate maintenance and investment in clinical equipment and infrastructure are the reality for most secondary care-based Senate members.

[22] Freedman S, Wolf R. The NHS productivity puzzle. 2023. Public First and the Institute for Government.

The range of contributors to low staff morale including inflexible models of working, terms and conditions of employment and moral injury are pervasive. Increased vacancies and absences, high workloads and loss of discretionary effort are key consequences here as much as in NHS England. Members noted an increase in bureaucracy, loss of decision-making delegations and an inability to get issues, equipment, systems and problems fixed in a timely manner also contribute. The environment of constant change was seen as demotivating.

The breadth of membership of NZ Clinical Senate, including public health, and primary and community care led to a wider view of barriers and corresponding enablers of productivity and efficiency, which is presented in Section 3.

Overall productivity and efficiency have become the central focus of governments and health executives internationally, with significant strategic activity, proposals and targets.[23] New Zealand has an opportunity to learn from experiences in other jurisdictions and adapt them to our unique population and needs.

23 https://www.health.org.uk/funding-and-partnerships/programmes/nhs-productivity-commission-call-for-evidence. Accessed 13 November 2025

3. Identifying successes, and exploring enablers and barriers to increased efficiency

NZ Clinical Senate meeting korero – summary

Part 1 – examples of success

Senate members shared numerous examples of local and regional clinician-led initiatives that they considered are already improving patient outcomes, workforce capacity, and system efficiency. Six main themes emerged from the initiatives shared.

Digital tools and systems are transforming patient access, triage, and clinical workflows. Technology is being used to streamline processes, improve communication, and enable remote care.

Examples:

- Digital navigation systems for triage and faster patient access.
- Telehealth and Assisted Telehealth services, including support for patients less confident with technology.
- Patient portals for bookings, discharge summaries, and improved visibility.
- Electronic laboratory ordering
- E-prescribing including for outpatient scripts and e-prescribing protocols for safer, more efficient medication management
- AI used to assess clinician templates, support consults, and automate radiology tasks.
- Shared clinical portals and integrated access to patient records.
- Standardisation of electronic clinical note templates.
- National PACS for radiology.
- E-prescribing for outpatient scripts
- Digital systems for managing cases and contacts of notifiable diseases, improving outbreak control

Workforce Optimisation, Scope Expansion & Collaboration means Clinicians are being empowered to work at 'top of scope', expanding roles, and fostering collaboration across disciplines and settings.

Examples:

- Standing orders and delegated clinical tasks to assistant workforce.
- Rapid recruitment and local decision-making for workforce needs.
- Formalised training programmes and micro-credentialling to upskill the workforce.
- Nurse practitioners and prescribers funded in rural areas for better access.
- Combined clinics (SMO/RMO/Allied Health) and multidisciplinary appointments.
- Integration of allied health practitioners (e.g., optometrists, paramedics) into broader care teams.
- Transdisciplinary education and support for collaboration.

Patient and whānau remain firmly imbedded at the centre of care with a focus on Equity and Access. Initiatives described were delivered based on what works for patients and their whānau. Such as being able to access care closer to home and prioritising cultural safety and equity.

Examples:

- Whiri model group supporting Māori and Pacific patients.
- Kaupapa Māori care coordination and cultural safety orientation for kaimahi.
- Navigators following up missed appointments, arranging transport, and supporting vulnerable patients.
- Using equity as a driver for prioritisation (e.g., cataract surgery, rural imaging).
- Moving clinics into the community and workplace-based assessments (e.g., hauora assessment at forestry workers' workplace)
- Nurse-led marae-based clinics and kaupapa Māori care models.
- Outreach clinics for high-risk patients and surgical bus initiatives.
- Peer-led groups for chronic conditions and community-based education.
- Incorporating NGOs and patient support agencies in education and care.
- Frailty scoring and advance care planning from admission
- Prescribing pharmacists in Marae Clinics
- Combined clinics with multiple clinicians for streamlined care

Improving Processes & Reducing Waste, by streamlining clinical and administrative processes, eliminating unnecessary interventions, and focusing on value and outcomes.

Examples:

- Stopping “pointless” imaging and unnecessary clinical activities.
- Direct access criteria for procedures (e.g., gastroscopy) to reduce low-value care.
- Data cleaning of waitlists and standardisation of electronic clinical note templates.
- Reducing dictation delays with template letters and improving booking processes.
- Patient-initiated follow-up and redesigning follow-up pathways to reduce unnecessary appointments.
- Standardisation of guidelines and protocols (e.g., national chest injury guidelines, radiology referral guidelines)
- Applying national surveillance guidelines to reduce unnecessary procedures

Proactive approaches to health, focusing on **prevention, early intervention, and health promotion to reduce long-term demand and improve outcomes**.

Examples:

- Wellness checks prior to surgery and frailty scoring from admission.
- National deteriorating patient warning score and early discharge programmes.
- Health promotion activities (quit smoking, activity, vaccination) for kaimahi and patients.
- Mental health referral management services and proactive outreach for missed appointments.
- Early discharge programmes (e.g., START, Acute demand, CREST, POAC, HiH)
- Peer-led better breathing groups for chronic breathlessness.
- Empowering consumers through community education (e.g., gout management wananga).
- Immunisation across the life course to protect individuals and communities from severe illness caused by vaccine-preventable diseases, including school-based immunisation programmes and outreach services.
- Screening programmes focused on early detection of breast, bowel and cervical cancers.

- Hearing and vision checks for babies and children, antenatal screening and newborn metabolic screening to guide choices, treatment and management.
- Surveillance of notifiable diseases and environmental hazards to enable timely identification, monitoring, and response to improve public health outcomes.
- Health promotion activities to increase the number of people who are smokefree and vapefree.
- Health promotion activities that reduce the harm from alcohol and gambling on individuals and communities.
- Cross-sector collaboration to support the creation of healthy environments around food and physical activity.
- Protect Aotearoa New Zealand from the incursion of exotic species of mosquitoes to manage the risk of vector borne disease transmission. (might be too “public healthy”).

Continuous improvement, evidence-based practice, and robust measurement of outcomes to drive better care and outcomes.

Examples:

- Funding for quality improvement projects and sharing learnings.
- Effective patient-facing decision aids for informed consent.
- Use of outcome measures and data to inform practice and policy.

Part 2 – Barriers and Enablers

Although we don’t need to look far to find innovative initiatives that are creating improved access to care for patients and improved workforce capacity, they are often localised, at times unsustainable and not easily scaled.

To create more equitable and sustainable system wide efficiencies, Clinicians went on to describe the **barriers and critical enablers that will support health system efficiencies** for patient and staff across the entire health system and also the issues they believed needed the most attention. Direct quotes from the feedback are used where appropriate. The key messages are:

IT Infrastructure and Digital Enablement was highlighted as the single most important issue most needing attention, in particular the need to improve the basic foundations of IT systems. Clinicians called for national, integrated IT platforms, universal patient records, and improved digital solutions.

Poor IT was viewed as a root cause of inefficiency, risk, and frustration. There is a strong consensus that digital transformation is foundational for progress in all other areas.

- “Integrated IT systems, incorporating AI enablers such as ambient scribes.”
- “The absolute importance of good IT systems – so much inefficiency is caused by incompatible IT systems or breakdown in IT systems.”
- “Improve rural IT connectivity.”
- “One integrated patient portal.”

There was strong consensus for an increased focus on **Prevention, Health Promotion and demand reduction. A stronger public health focus** was highlighted as the only sustainable way forward to managing the high demand for health care and improving population health.

- “Prevention! Fully funded annual primary care check (for vulnerable and high risk groups), screening, more schools education on health and nutrition, harmful commodities.”
- “health promotion initiatives (e.g., smoking cessation, healthy school lunches, sugar tax proposals).”
- “Community-based care and early intervention (e.g., vaccinations at pharmacies, workplace health assessments).”
- “Focus on addressing the social determinants of health.”

Collaboration, Communication, and Breaking Down Silos was a consistently mentioned themes as both a barrier and an enabler. Clinicians described the need for more cross-sectoral collaboration and working in silos as a major barrier to patient centred care and system efficiency.

Siloed funding streams, lack of cross-sector communication, and professional patch protection were identified as barriers.

- “Joined up referral pathways into and out of services.”
- “Cross sectorial and cross professional communication.
- “Shared clinics and multidisciplinary teams (e.g., combined clinics, shared goals of care).”

Patient and Whānau-Centred Care emerged as a core value. Clinicians felt patient and whānau voices needed to be central in design, delivery, and decision-making. There is a strong belief that genuine patient and whānau engagement leads to better outcomes and more efficient care.

- “Ask people what they want (goals of care) first before things are done to them.”
- Co-design with patients and whānau, including consumer councils and community engagement.
- Patient-initiated follow-up, shared decision-making, and culturally appropriate care models (e.g., kaupapa Māori care).
- Bringing services to the community and removing barriers to access (e.g., banning visiting hours, transport support).

Funding, Resource Allocation, and Sustainability. Clinicians want funding models that are flexible, long-term, and aligned with real needs to enable a more sustainable, innovative, and effective health system.

Concerns were raised about funding models that are inflexible, short-term, and misaligned with needs, making it difficult to plan and invest in long-term improvements. That was particularly considered the case for initiatives that require sustained effort such as prevention such as IT upgrades or workforce development.

- “Review FTE demand accurately. Redesign primary and secondary funding.”
- “Resource primary and community care to deliver care that can happen in primary care rather than secondary care.”
- “Community Pharmacies are vital for prevention and access, especially in rural areas, yet face the same burnout and resource pressures as other parts of the workforce."
- Sustainable funding for quality improvement, prevention, and workforce development.
- National funding models to address regional inequities and support integrated care.

Workforce Wellbeing, Retention, and Culture was described as a key challenge and high priority. Burnout, retention, and the need for better support and culture change were seen as critical to system sustainability and quality of care.

- “Staff wellbeing – considering we are health we do not take care of our staff sufficiently.”
- “Compassion fatigue, moral injury, staff burnout rates continue to rise without any levers and support from the system.”
- Workforce strategy focused on flexibility, wellbeing, and working at “top of scope.”
- Investment in training, succession planning, and psychological safety.

A stronger focus on equity and access, particularly for Māori, Pacific, disabled people, those that live rurally, and other disadvantaged groups - was seen as a priority. Inequitable funding and lack of standardised practices and access across districts and regions were seen as key barriers needing to be addressed.

- “Look at what’s worked and apply it nationally especially within Māori/Pacific health.”
- “Lack of access to GPs impacts all of the healthcare system so improving GP funding and availability is critical.”
- Equity-driven prioritisation (e.g., cataract surgery, rural health access).
- Addressing social determinants, funding for vulnerable communities, and culturally safe care.

Although not as frequently discussed as other themes, **strong leadership, effective change management**, and **support for innovation** were identified as key enablers. Members emphasised the need for strong, visible, and distributed and properly resourced leadership at all levels. However, persistent leadership turnover and limited local decision-making were seen as significant challenges impacting leaders.

Measurement, Outcomes, and Value – Clinicians called for a shift from measuring activity (what is done) to measuring outcomes (what is achieved). Members want more focus on value-based care, meaningful outcome measures, and better use of data such as Patient Reported Experience Measures (PREMs) and Patient Reported Outcome Measures (PROMs) to guide decisions and funding.

Administrative and Operational Barriers such as bureaucracy, red tape, and inefficient processes are frequently cited as sources of frustration. These barriers slow down innovation, waste clinician time, and make it harder to implement improvements and a focus on patient care.

Figure 1. reflects how members ranked the importance of eight overarching principles that arose out of the Senate meeting discussions. These principles underpinned the recommendations that follow in Section 4.

Figure 1. Rank of Principles in order of importance

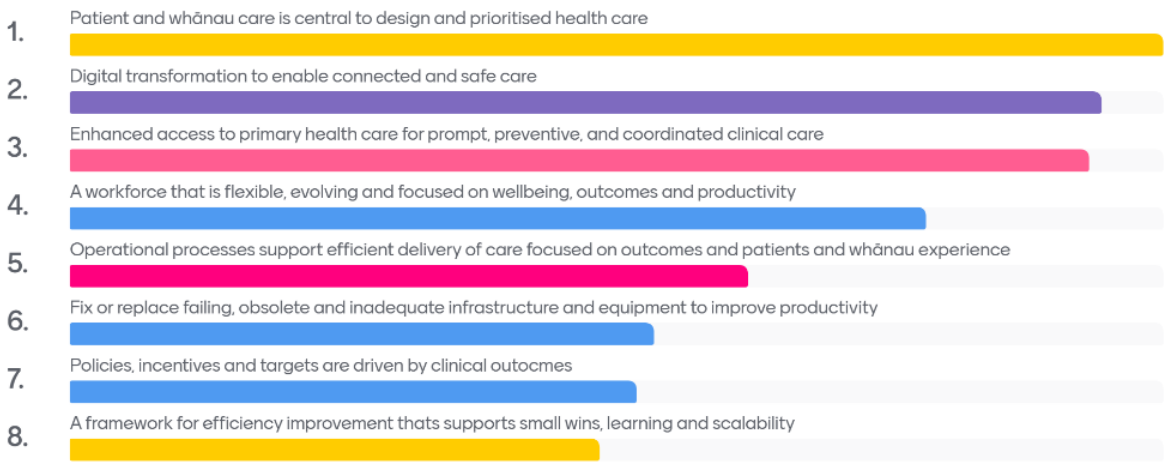


Figure 2. reflects the frequency with which the 'themes' were mentioned by members during the face-to-face workshop (via "Menti"™) and in the evaluation feedback.

Figure 2. Summary Table: Most Popular Themes (in order of frequency)

Rank	Theme
1	IT Infrastructure & Digital Enablement
2	Prevention & Health Promotion
3	Collaboration & Breaking Down Silos
4	Patient & Whānau-Centred Care
5	Funding & Resource Allocation
6	Workforce Wellbeing & Culture
7	Equity & Access
8	Leadership & Innovation
9	Measurement & Outcomes
10	Administrative Barriers

4. Key priorities and recommendations

The Clinical Senate's purpose is to provide advice on **system-wide issues** that affect quality, affordable and efficient patient care. Throughout the course of the meeting and in subsequent feedback, Senate members raised a broad range of issues and potential efficiency improvement initiatives that were specific to professional groups, clinical specialties and localised to geographic areas. There remains considerable energy from members to engage with and lead improvement initiatives at a local level, tempered by high levels of frustration and diminishing goodwill at barriers to progress.

Our approach endeavours to distil and focus the Clinical Senate's priorities and recommendations on opportunities that traverse the whole health system. Clinical leadership and cross sector collaboration are fundamental to our approach. We are aware there is considerable work already underway, and where the Senate is aware of that work, we wish to add our strong support for progressing and implementing improvements.

Patient and whānau-centred care and equity

There was universal agreement amongst the Senate membership that **centring care with patients and their whānau**, and a **constant focus on equity[24] and equality**, are fundamental underpinnings of all efficiency improvement strategies and activities across the sector. These must be **woven through all the key priorities and recommendations** outlined here.

[24] Ministry of Health's definition of equity (2019): "In Aotearoa New Zealand, people have differences in health that are not only avoidable but unfair and unjust. Equity recognises different people with different levels of advantage require different approaches and resources to get equitable health outcomes." https://www.health.govt.nz/strategies-initiatives/programmes-and-initiatives/equity. Accessed 23/12/25

Priorities and recommendations for Health NZ:

1. Measure system productivity and efficiency with a quality and outcomes-based methodology

Measuring efficiency and productivity can clarify whether funding increases have led to gains in healthcare delivery and outcomes, and more importantly whether and where there are opportunities for greater return on that investment.

As highlighted in the background section of this report, there is limited NZ data on system efficiency and productivity, and none of it accounts for whether services have resulted in better health for patients, improved quality of care or a more patient and whānau-centred service.[25] Simplistic ratios of 'case weights' to 'employed FTE' are inadequate. They reinforce a reactive, hospital-centric model of care whilst sidelining the preventative, community-based interventions that could substantially reduce future demand, increase efficiency and improve population health outcomes.[26] The use of and emphasis on a simple inputs/outputs lens has led to prominent calls for a cessation in government focus on health sector productivity.[27] Current Ministerial targets are focused on operational performance metrics, particularly timeliness of care, and not productivity, efficiency, health outcomes or patient experience.

Specific measures of productivity incorporating quality, prevention gains and health outcomes are achievable and would complement measures of equity and access to provide a more complete picture, and alignment between efficiency and quality performance indicators could further enhance gains.

Recommendations

1. **Develop system-wide measures of productivity and efficiency that include agreed adjustors for quality, outcomes and preventive interventions, and appropriate stratification for population subgroups.**
2. **Agree baseline measures and regular report on productivity and efficiency to inform strategic investment decisions and improvement initiatives.**

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[25] Productivity Commission 2024, Advances in measuring healthcare productivity, Research paper, Canberra

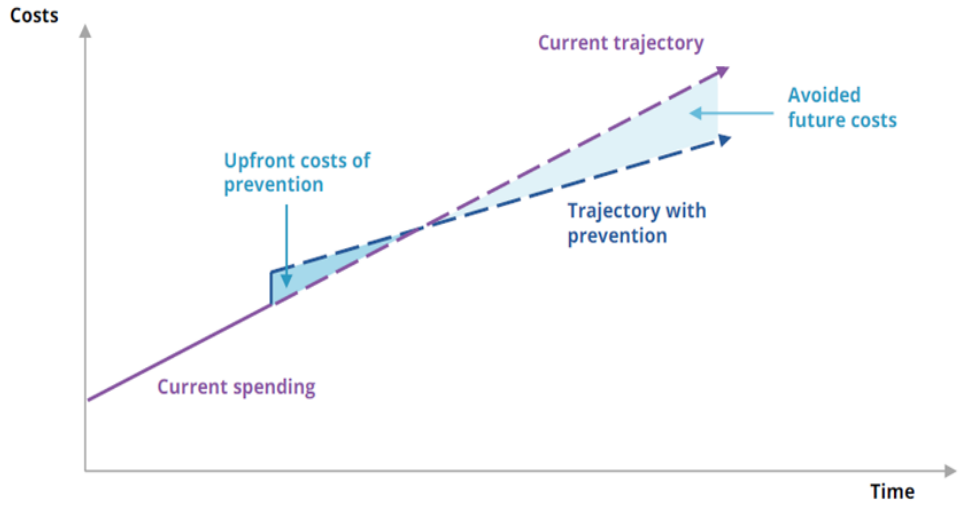
[26] Rethinking NHS Productivity: An AHP Perspective Briefing Based on the House of Commons Library "NHS Productivity" Evidence Briefing (July 2025)

[27] Bagenal J. Why we need to stop talking about productivity in the NHS. The Lancet. Volume 405, Issue 10487, 19–25 April 2025, Pages 1324-1325

2. Reduce demand on the health system

a. Invest in prevention

Preventing a problem from developing can frequently be a more efficient use of resources than addressing it after it happens. Prevention programmes typically deliver more value than their total cost, can limit the need for higher cost acute and intensive services while achieving the same results, and, in the best cases, can achieve better outcomes while reducing costs as illustrated.[28]



Gains can be substantial, with a 14-fold return on investment cited[29], but underinvestment in prevention is the norm in NZ and internationally. Unlike most OECD countries NZ does not currently publish the proportion of the total health budget spent on prevention. It is reported as ~2% in Australia, less than half of that spent by Canada. A target of 5% has been proposed[30]. A national framework to support government investment in prevention is one of 3 key recommendations of the Interim Report into delivering quality care more efficiently in Australia.[27]

A wide lens of prevention is needed to tackle the social determinants of poor health,[31] beyond improving public and population health services. The Senate acknowledges a “whole of government” approach is needed, which is beyond the

[28] Australian Government Productivity Commission 2025, Delivering quality care more efficiently, Interim report, Canberra, August
[29] Masters R, Anwar E, Collins B, Cookson R, Capewell S. Return on investment of public health interventions: a systematic review. J Epidemiol Community Health. 2017 Aug;71(8):827-834
[30] Commonwealth of Australia as represented by the Department of Health 2021. National Preventive Health Strategy 2021–2030
[31] Public Health Advisory Committee. 2025. Determining our Future - Social, Cultural, Economic and Commercial Determinants of Wellbeing in Aotearoa New Zealand: Actions to improve our health and wellbeing. Wellington: Ministry of Health.

accountabilities of HNZ.[32] However, there are many opportunities for HNZ to invest in and support prevention programmes with high health gains, notably in the prevention and management of obesity and diabetes to prevent downstream costly heart and kidney deterioration and the impact on health. That is the focus of a rapidly progressing collaboration between the Cardiac, Renal and Diabetes Clinical Networks.

No systematic productivity and efficiency measures in NZ currently include or explicitly acknowledge the gains from preventive approaches, particularly for care delivered in community and primary care settings, or through public health programmes.

Recommendations

1. **Measure and report the health gains and reduced downstream resource utilization attributable to prevention programmes, and integrate those measures into overall sector productivity and efficiency reporting.**
2. **Measure and report the proportion of the total HNZ budget spent directly on preventive health measures and agree a target proportion to uplift investment.**
3. **Agree a funding approach for prevention initiatives that enables successful programmes to be sustained over multiple budget cycles.**

b. Improve access to primary and community health care

Primary health care provides essential health promotion, preventative, diagnostic and treatment services to the population. Equity in health outcomes is significantly impacted by the effectiveness of the primary health care system, and accessibility is central to this. Cost has been found to be a persistent barrier, and Māori and Pacific peoples experience lower access. Worse health outcomes and a greater use of hospital services are the consequences.

Children whose whānau experienced barriers to primary care by age 24 months were twice as likely to be hospitalised in the 12 months to age 54 months, worse for Māori tamariki.[33] International studies suggest continuity of access leads to reduced use of secondary care. In Norway patients who had established a relationship with

[32] Public Health as an Investment. NZ College of Public Health Medicine Policy Statement. 2025 https://nzcphm.org.nz/Policy-Statements/10944/

[33] Prevalence and Consequences of Barriers to Primary Health Care. Jeffreys M et al. Ministry of Social Development March 2021

their GP for fifteen or more years demonstrated a 30% reduction in emergency department attendance, as compared with those with a regular GP for one year.[34]

Innovative models of community care have been successful in improving access, but support for their continuation and expansion has been inconsistent. Senate members highlighted the "WHIRI" (Whānau Hauora Integrated Response Initiative) model as an example, both in primary care and supporting secondary services such as cancer care.[35] The “Comprehensive Primary and Community Teams Programme” was also discussed as an example of improving efficiency and access at GP clinics through integrating new roles including clinical pharmacists, extended care paramedics, care coordinators and kāiawhina.[36]

Recommendations

1. **Identify, support, and sustainably scale, and implement successful initiatives that facilitate greater efficiencies in the provision of primary and community care.**
2. **Develop funding models that incentivise access to primary and community care and reduce reliance on secondary care services.**

c. Enhance patient and whānau engagement in advanced care planning.

Advance care planning (ACP) and shared goals of care (SGOC) are processes of discussion and shared planning for future health care. They are focused on the individual and involve both the person (and whānau if desired) and their health care professionals.[37] ACP and SGOC encourage conversations about what is important to patients, help people achieve a sense of control and engage others such as caregivers and whānau.

Senate members highlighted the lack of wide promotion of ACP/SGOC and the increasing complex and costly care with unclear benefits provided to patients in whom it may no longer align with their goals. In addition to the considerable individual benefits of ACP/SGOC, Scott et al have recently published data in Australia suggesting “*Having an ACP document available 6 months or more prior to*

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[34] Cited in “The Heart of Healthcare” Renewing New Zealand’s Primary Care System. Wood P. The New Zealand Initiative. April 2025

[35] WHIRI for long-term conditions: A culturally safe model enhancing healthcare for Māori. Pacific Region Indigenous Doctors Congress December 2024. https://www.researchgate.net/publication/389744319_WHIRI_for_longterm_conditions_A_culturally_safe_model_enhancing_healthcare_for_Maori

[36] https://www.tewhatuora.govt.nz/health-services-and-programmes/primary-care/comprehensive-primary-and-community-care-teams

[37] Advance Care Planning. Ministry of Health. Published August 2011.

death was associated with fewer ED presentations, admissions to hospital or ICU, and in-hospital deaths, and lower hospital costs compared with having no ACP document available for the same period."[38]

Embedding patient and whānau-led care through ACP and SGOC is an important strategic lever for HNZ. It enables measurable gains toward national health targets by improving quality, reducing unwanted and unwarranted interventions.

In NZ's Bay of Plenty District a novel perioperative Complex Decision Pathway (CDP) used a structured communication (and a tikanga Māori framework for Māori patients), to facilitate a "goals of care" conversation. An important number of patients chose not to go ahead with surgery following those conversations. In addition to well-described patient and whānau benefits and reduced demand on surgical and post-operative resources, the intervention was cost saving, at an average of $32,326 per operation avoided.[39]

Recommendations

1. **Enable district and regional advance care planning and shared goals of care implementation, with delivery supported by consistent resourcing, local role structures and mandated policies.**
2. **Resource the continued embedding of shared goals of care in community and aged residential care settings, and develop a palliative care approach for community and hospice inpatient settings, aligning with National Palliative Care Outcomes Measures and Reporting Working Group.**
3. **Embed the sharing of advance care planning documentation into admission and transfer protocols, supported by integrated digital tools and connectivity.**

3. Improve operational processes and reduce waste

Senate members discussed many examples and ideas for improving local and national operational processes and reducing waste. The priorities and recommendations below highlight three 'high gain' opportunities for HNZ.

a. Address missed appointments in secondary care

Missed appointments, particularly in secondary care, detrimentally impact patient health and system efficiency. Care is delayed or not delivered at all, and staff time and facility capacity is wasted. The cost of missed appointments in the DHBs was

[38] Scott I, et al. BMJ Open 2024;14:e082766
[39] Omundsen HC et al. Experiences and outcomes of patients participating in a perioperative shared decision-making pathway. Anaesthesia and Intensive Care. 2024;53(1):25-36.

estimated at $29million in 2019.[40] HNZ does not systematically track and report the number or rate of missed appointments, but rates may exceed 20% in individual services. Rates are consistently worse for Māori and Pacific people, further exacerbating health inequities.[41] There is no coordinated programme of work to address missed appointments.

Booking and communication processes are frequently provider-centric, differ widely between services and districts, and have not considered patient or whānau needs or barriers to attendance.

Recommendations

1. **Measure and report the proportion of missed appointments in secondary care, by district, ethnicity and specialty service.**
2. **Identify, support and implement initiatives to reduce missed appointments.**
3. **With consumer input, redesign and implement hospital patient booking/scheduling systems to be patient and whānau-centric, supported by digital tools and connectivity.**

b. Avoid low value care

Low-value care is unnecessary care that contributes to inefficient use of health resources. Studies have suggested clinicians rationalise the provision of low-value care in terms of upholding a good relationship with their patients, satisfying patients' demands, fear of missing a diagnosis and the potential consequences of that, and perverse financial incentives of physicians in 'fee for service' payment models. Low-value care may be the result of capacity pressure on clinicians and a lack of time for shared decision making or educating patients about the low-value nature of certain care pathways. Patient and whānau factors driving requests for low value care are less well characterised, and include cognitive biases, expectations, emotions, sociocultural factors and loss of trust in the provider.[42]

New Zealand supported and implemented the international "Choosing Wisely" approach in 2016, championed by the Council of Medical Colleges. Shared decision making with patients and whānau was a key focus.[43] The programme lost momentum over the Covid pandemic and is no longer being promoted, with missed

[40] Missed Specialist Appointments: A $29 Million Bill for Taxpayers. New Zealand Taxpayers Union Briefing Paper August 2019.
[41] NZMJ. 2023 Apr 14; 136(1573)
[42] Fraser et al. BMC Health Services Research (2024) 24:1656
[43] Choosing Wisely Aotearoa New Zealand. The achievements and the challenges. December 2019.

opportunities to build on the initial gains in prudent management of scarce healthcare resources.

Recommendations

1. **Operationally embed agreed clinical thresholds of access and limit low value referrals/requests for diagnostic testing, by leveraging digital ordering systems.**
2. **Empower and resource clinical networks to drive the implementation of agreed opportunities to avoid a low value care and identify areas for disinvestment.**

c. Reduce unwarranted variation in access to secondary care

Unwarranted variation in healthcare is variation that cannot be explained based on illness, medical evidence or patient preference. Persistent unwarranted variations in health care directly impact equity of access to services, the health outcomes of populations and efficient use of resources. Understanding local variation and identifying whether it is warranted or unwarranted requires local initiatives and analyses, supported by a nationally consistent framework.[44]

Addressing the underuse of effective care and developing and implementing clinical pathways to ensure consistent access thresholds with supportive resourcing, are key elements in reducing variation. At the Senate meeting the Eye Network presented their recent work including a consistent national CPAC score of 46 for referral for cataract removal as an example.

Recommendations

1. **Empower clinical networks to agree consistent thresholds of access to secondary services and resource the progressive implementation of those thresholds.**
2. **Rapidly progress programmes of integrated care across regions and where appropriate on a national basis to lessen variation.**

[44] Love T & Ehrenberg N. Addressing unwarranted variation: literature review on methods for influencing practice. Sapere Research Group for the Health Quality Safety Commission. March 2014

4. Invest in IT infrastructure and digital enablement

There was a strong consensus in the Senate that digital technology is a vital enabler of improved productivity and efficiency. Most participants rated this the **single most important area** of potential gains. It is widely accepted that those gains include: increasing the quality of care and efficiency, reducing operating costs of clinical services, reducing administrative costs and enabling entirely new models of care.[45] The OECD has estimated that investment in improving how health data is used could have a three-fold return.[46] However the design and implementation of digital enablers must be cognisant of unintended consequences, such as excessive notifications to provider inboxes which impairs clinician efficiency.[47]

AI holds unique promise in a wide range of applications, with the potential to improve almost every aspect of healthcare,[48] and the Senate was engaged by Dr Ryan Radecki's presentation on that topic. As an example of efficiency gains, recent real-world data suggests a 23.5% increase in direct patient care resulting from the use of generative AI ambient voice recording.[49] However much remains uncertain about the risks and benefits of AI,[50] and "*achieving effective triadic care, with clinicians, patients, and AI working together, requires good institutional governance and readiness".*[51]

Senate members were forthright in their concerns about the size of the current **digital infrastructure gap** in most districts, with many citing examples of departments working with aging and failing IT infrastructure, historical software, and lack of basic functionality such as clinical grade wifi. Some districts noted paper-based systems remain in use, unchanged in decades. Considerable foundational investment will be required before any gains from novel models of care and supporting AI-based platforms can be realised consistently across the system. All agreed that cross sector connectivity was essential.

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[45] Improving Health Sector Efficiency: The Role of Information and Communication Technologies. OECD Health Policy Studies 2010.
[46] Health in the 21st Century: Putting Data to Work for Stronger Health Systems, OECD Health Policy Studies 2019
[47] Medlicott R. "Geekspeak" NZ Doctor 8 July 2025
[48] Productivity Commission 2024, Leveraging digital technology in healthcare, Research paper, Canberra
[49] The use of Ambient Voice Technology with Generative Artificial Intelligence in Multiple Clinical Settings Across the NHS. Great Ormond Street Hospital Data Research, Innovation and Virtual Environments Unit. July 2025
[50] Lucian Leape Institue. Patient Safety and Artificial Intelligence: Opportunities and Challenges for Care Delivery. Boston. IHI 2024
[51] AI in the doctor-patient encounter BMJ 2025;391:r2344

Recommendations

1. **Urgently invest in foundational IT infrastructure to achieve minimum viable standards for implementation of electronic health records and digital support tools in public hospitals.**
2. **Prioritise cross-sector connectivity and joined up access to clinical records, inter-professional advice and referral processes.**
3. **Ensure initiatives implementing AI technologies have strong clinical governance, robust evaluation and demonstrate clear system improvements before wide implementation.**

5. Focus on workforce: flexibility, wellbeing and scopes of practice

Improving productivity and efficiency fundamentally depends on a healthy and motivated workforce with the right skills and experience. The NZ Health Workforce Plan identifies 5 priorities and a range of actions and opportunities to invest in workforce growth[52] and those broadly aligned with feedback from Senate members. The importance of expanding and investing in training pathways, shifting to interdisciplinary practice, developing novel models of team-based care and flexibility across workplace settings resonated strongly.

In common with other public health services internationally, our health system is highly reliant on 'discretionary' effort – staff going above and beyond, which is a driver of productivity. It has been suggested that when healthcare workers feel valued, discretionary effort rises, even in a period of severe resource constraints.[53]

Robust views were expressed by Senate members on current challenges, including a lack of support for staff health and wellbeing, worsening moral injury, increasing burnout and a loss of autonomy. Current restrictions on recruiting to team vacancies in hospital settings create a corrosive mix of higher costs for unavoidable clinical roster coverage, fatigue and deteriorating staff retention, significantly impacting efficient delivery of quality care.

Members highlighted the considerable opportunities for efficiency gains in professional groups achieving extended or enhanced scopes of practice and micro-credentialing. The enhanced role of optometrists presented by the Eye Network was discussed as an exemplar. Frustration was expressed with contractual and

[52] New Zealand Health Workforce Plan December 2024
[53] https://www.bi.team/comment/improving-nhs-productivity-the-overlooked-role-of-workforce-management/ Accessed 25 Oct 2025.

regulatory barriers where historic processes and requirements are no longer fit for purpose, and noted that legislation (such as the Medicines Act 1981) may also inhibit the development of alternative workforces and models of care.

Recommendations

1. **Actively identify and work to address regulatory and contractual barriers to professional groups achieving extended scopes of practice and working flexibly in novel clinical models of care.**
2. **Prioritise recruitment to vacancies in public hospitals, where those vacancies are impairing efficient delivery of care or are promoting a reliance on locums.**
3. **Promote and resource staff wellbeing programmes such as Kaimahi Hauora.**

6. Manage clinical equipment and facilities

The HNZ National Asset Management Strategy is clear that "decades of under investment has led to a significant number of health facilities approaching their end of life" and that "Many of our hospitals are not fit-for-purpose and are struggling to provide the healthcare required."[54] That strategic document focused almost exclusively on buildings infrastructure, but similar challenges of underinvestment have led to failing or inadequate clinical equipment maintenance and replacement. DHB expenditure on equipment repairs and maintenance fell consistently as percentage of total expenditure between FY16 and FY22.[55] The lack of availability of appropriate clinical equipment and frequent breakdowns directly impact efficient delivery of care.

Recommendations

1. **Require all HNZ districts to develop and maintain comprehensive asset registers of clinical equipment and require input from relevant clinical leaders into programmes of timely replacement and upgrades.**
2. **Ensure sufficient annual capital funding for clinical equipment purchase is available to meet replacement lifecycles, and minimise procurement delays.**

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[54] Health New Zealand | Te Whatu Ora. National Asset Management Strategy - Infrastructure. March 2025

[55] Repairs and maintenance of clinical equipment, DHB consolidated expenditure 2010/11 – 2021/22 (From: Croxson B, MoH)

7. Sustain and scale efficiency improvements

Feedback from Senate members illustrated a wealth of local initiatives and pilot programmes that realized gains in efficient delivery of services, improved quality of care and a preventive approach. Unfortunately, many successful models appear to not have been sustained, with lack on ongoing funding, failure to embed the gains in ongoing operational processes, and loss of clinical champions. Dr Walters has noted that "*Realistic timeframes of up to three years for efficiency improvements must therefore be considered*".[56] Furthermore successful initiatives in one district or region typically remain localised and opportunities to realise gains across the sector are missed.

There is a need for a more strategic approach, sustaining those local and regional efficiency improvements that are highly successful and ensuring the learnings are widely disseminated and implemented where appropriate.

The Senate noted that improving productivity and efficiency in the health sector is a classic "wicked problem" and that *"small wins can contribute to evaluating progress in wicked problem areas in a way that energises a variety of stakeholders instead of paralysing them"*.[57] A "rolling maul" of small wins across the motu could make substantial long-term gains.

Recommendations

1. **Support local and regional teams with efficiency improvement resources and expertise to optimise the development and implementation of efficiency initiatives.**
2. **Develop a digital "clearing house" of efficiency initiatives throughout New Zealand to facilitate rapid dissemination of opportunities and learnings.**
3. **Identify, scale and fund high performing initiatives to maximise trans-regional benefits.**

[56] Walters J et al. Supporting efficiency improvement in public health systems: a rapid evidence synthesis. BMC Health Services Research 2022;22:293

[57] Termeer C and Dewulf A. A small wins framework to overcome the evaluation paradox of governing wicked problems. Policy and Society 2019;38(2):298-314