NZIER
NEW ZEALAND INSTITUTE OF ECONOMIC RESEARCH

Benefits of AI for the health system

A rapid assessment

NZIER report to Orchestral

February 2026

About NZIER

New Zealand Institute of Economic Research (NZIER) is an independent, not-for-profit economic consultancy that has been informing and encouraging debate on issues affecting Aotearoa New Zealand, for more than 65 years.

Our core values of independence and promoting better outcomes for all New Zealanders are the driving force behind why we exist and how we work today. We aim to help our clients and members make better business and policy decisions and provide valuable insights and leadership on important public issues affecting our future.

We are unique in that we reinvest our returns into public good research for the betterment of Aotearoa New Zealand.

Our expert team is based in Auckland and Wellington and operates across all sectors of the New Zealand economy. They combine their sector knowledge with robust economic logic, models and data, and an understanding of the linkages between government and business to help our clients tackle complex issues.

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Key points

Purpose of the assessment

- Orchestral commissioned NZIER to undertake a rapid assessment of the potential benefits of AI for the New Zealand health system.
- The assessment synthesised international and healthcare-specific evidence and applied it to the New Zealand context.
- The WHO's six health system building blocks were used as the analytical framework.

What the evidence shows

- AI can contribute across all core health system building blocks, supporting service delivery, workforce productivity, data and evidence use, access to medicines, financing, and leadership and governance.
- Rather than operating as a standalone technology, AI has the potential to act as a system-wide enabler.
- Realising these benefits depends on effective integration with institutions, funding models, and decision-making processes, as well as access to high-quality data and skills.
- Used well, AI can support more proactive, data-driven stewardship in the face of rising demand, workforce pressures, and fiscal constraints.
- The age of AI is here, and if we do nothing or only make small changes, NZ will not realise the economic and social benefits of this technology for healthcare.

System-level impacts

- AI can lift system-wide productivity by improving the accuracy and timeliness of prediction, diagnosis, treatment, and surgery, reducing avoidable costs and downstream complications.
- It can improve allocative and technical efficiency by automating low-value tasks and supporting real-time decision-making, freeing scarce workforce and financial resources for higher-value activities.
- AI can accelerate innovation by enabling earlier detection, more personalised care, and faster testing and scaling of new models of care.
- These effects generate broader fiscal benefits by improving long-term resource allocation and system sustainability.
- AI adoption could generate substantial fiscal savings, with international evidence (NBER 2024) indicating a 5 to 10 percent reduction in health system costs driven by higher medical productivity and administrative efficiency. Approximately 35 percent of these gains stem from reduced administrative expenditure.

- Applying the NBER productivity estimate to New Zealand's health expenditure suggests potential ten-year savings of $15.5 to $31 billion, equivalent to funding an additional six months to one year of health system services over that time.
- GP access constraints impose high economic costs, with about 290,000 people unable to secure a GP, primarily due to workforce shortages and underinvestment (Fainit 2024).
- Limited primary care access increases downstream system costs, raising emergency department utilisation, avoidable hospitalisations, and productivity losses exceeding $1 billion annually (Black 2025), with inequities intensified by transport barriers and deprivation.
- Our benefit estimates are based on a medium-term outlook for a population of five million people, and these benefits are expected to grow further as the population continues to increase and age.

Next steps for the government

- Government has a dual role in capturing AI's benefits while managing associated risks.
- An enabling ecosystem is critical, including appropriate regulation, a strong talent pipeline, and high-quality data.
- Collaboration across government, industry, researchers, clinicians, and consumers is essential.
- New Zealand has an opportunity for global leadership by embedding partnership with Māori, upholding Māori and Indigenous data sovereignty, and maintaining a strong focus on equity.

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1 Introduction

Orchestral commissioned NZIER investigate the benefits of AI adoption for the health system in New Zealand based on desktop research. This report is a rapid assessment of the characteristics and potential size of the benefits based on distilling international findings and adapting those findings to the New Zealand context.

Purpose of the research

The purpose of the research is to provide foundational, evidence-based support for public and private discussion of the potential of AI to improve social and economic outcomes within the New Zealand health system.

Research questions

The investigation into the potential benefits of AI for the New Zealand health system explores the following research questions:

- What is AI?
- What are the benefits of AI for health systems based on international research and practical experience?
- How might the international experience apply to the context in New Zealand?
- What are the next steps based on the findings of this research?

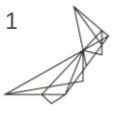
Scope of the research

The scope of the research into the benefits of AI for the New Zealand health system included the following activities:

- A literature scan to rapidly distil the benefits of AI for the health system internationally
- Application of the international experience to the New Zealand context
- Consideration of any key differences between what has typically been experienced overseas and how New Zealand might differ from international trends

The following actions were out of scope for the research:

- Surveys or interviews which could inform the assessment of the New Zealand context
- Time and resources comparative analysis, with and without AI, that could be used to quantify the benefits of AI in the health system compared to the status quo of no AI
- An assessment of the costs and the return on investment, which could be the natural next step from assessing the benefits alone.
- Evaluation of the wider economic effects of improved productivity on the macroeconomy.



2 The health system and AI context

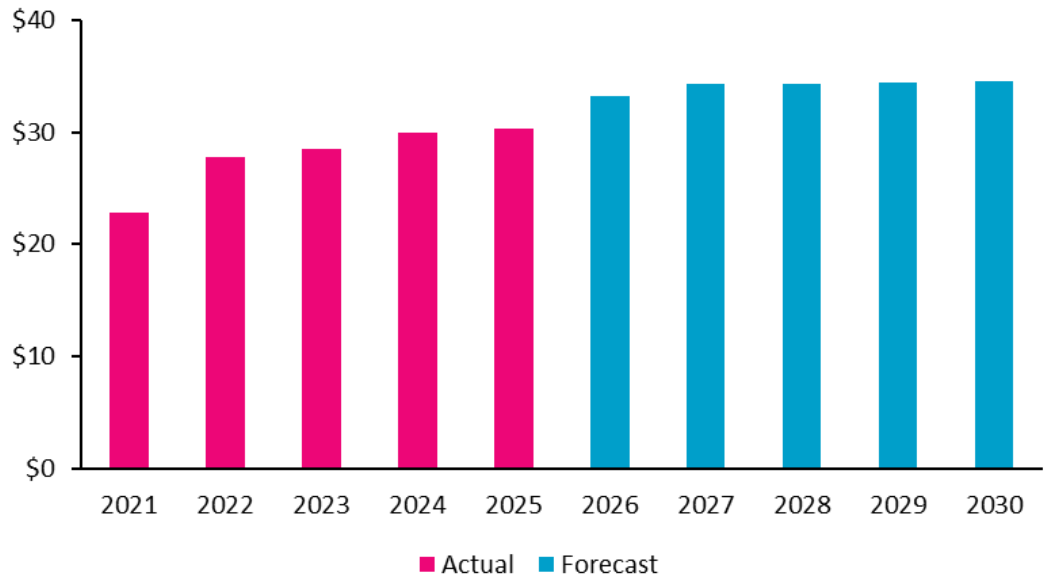
Understanding the health system and AI context is key to evaluating the potential benefits of AI for the New Zealand health system. In this section, we explore the persistence pressures faced by the health system in New Zealand and what is known about the generalisable economic benefits of AI

2.1 New Zealand's health system is under pressure, and productivity improvements are needed

The cost of a public system is high, and health budgets are under constant pressure to increase. Figure 1 shows the actual and forecast core Crown expenditure on New Zealand's health system up to 2030. In 2025, core crown expenses on health provision cost $30.3 billion, which was 21 percent of total core crown expenses and the second largest expense behind social welfare. In 2026, the forecast cost of health provision is $33.2 billion. By 2030, the cost is expected to reach $34.6 billion.

Figure 1 Health system costs continue to increase

Annual core Crown expenses on health, billions



Source: New Zealand Treasury (2025)

The drivers of the growth in health system costs are well known

The key drivers behind the growth of the cost of health provision are understood to include:

- An ageing population
- Increased prevalence of chronic disease
- Increased health system utilisation due to wait time and barriers to accessing community services sooner

- Workforce shortages
- Workforce remuneration pressures in a globally competitive labour market
- Underinvestment in medical technology

Long-term megatrends, such as underlying demographic trends and persistent labour market dynamics, are enormously influential in shaping the ongoing implications for health system resourcing.

Investing in technologies such as AI is one way to manage demand and reallocate human resources to the most productive use of their time. The need for greater investment in capital productivity to support labour productivity is a common theme in New Zealand's political and economic discourse.

2.2 What is AI?

An AI system is a machine-based system that uses the inputs it receives to infer how to produce outputs, such as predictions, content, recommendations, or decisions, to meet explicit or implicit goals. These outputs can affect both physical and digital environments. AI systems differ in how autonomous and adaptable they are once deployed.

2.3 How generative AI could transform our economy?

NZIER explored how generative AI could transform our economy in an NZIER Public Good Insight in 2024 (NZIER 2024), drawing the prominent themes in the international research. The high-level findings include:

- AI could drive broad productivity growth as a general-purpose technology (GPT) (Bresnahan and Trajtenberg 1995)
- It could become widespread and have a significant effect on productivity; however, adoption will take time ('Technological Disruption in the US Labor Market | Harvard Kennedy School', n.d.)
- AI could drive a new period of innovation as it can be a tool for generating ideas and a process for the invention of new ways of inventing.
- In a process of creative destruction, AI is expected to displace some labour-intensive tasks and create new labour-intensive tasks. Just as the widespread use of personal computers displaced some manual tasks, it led to the creation of widespread jobs in information technology (Acemoglu and Restrepo 2019)
- AI-assisted professionals complete writing tasks 40 percent faster, and writing quality is 18 percent better
- AI-assisted customer service work resolves 15 percent more issues per hour
- Software developers complete 56 percent more programming tasks per hour.

The general-purpose nature of AI and evidence of its benefits in assisting humans and enhancing productivity across many settings indicate that AI is likely to become widespread in the health system and health research, improve productivity, and accelerate health innovations that directly affect health system activities.

3 A health system approach to assessing the benefits of AI

Assessing AI's potential benefits needs a research framework that frames the evaluation and organises the analysis. There are many possible ways to think about the benefits of AI for a health system. We have chosen the World Health Organisation's (WHO) six building blocks of effective health systems (WHO 2010) As a reference framework for assessing the contribution of AI to the New Zealand system, it provides a high-quality, comprehensive structure for assessment at a system-wide strategic level.

Table 1 provides the six building blocks of an effective health system, along with the performance outputs and societal outcomes sought from such a system. The building blocks affect each of the performance outputs and the societal outcomes. We will investigate the potential benefits of AI for the building blocks individually and collectively.

Table 1 Six building blocks of effective health systems

System building blocks	Performance outputs	Societal outcomes
Service delivery Organisation and provision of effective, safe, people-centred health services across the care continuum	**Access** Timely, equitable and appropriate use of needed services	**Improved health outcomes and equity** Better population health with reduced disparities
Health workforce Availability, distribution, skills, and wellbeing of health professionals	**Coverage** Geographically and demographically distributed services	**Responsiveness** Services that meet population needs and expectations
Health information systems Storage, production, analysis, and use of reliable health data and evidence	**Quality** Services delivered in line with clinical and service standards	**Social and financial risk management** Protection from health-related financial hardship and social exclusion
Access to essential medicines Availability and affordability of safe, effective, and quality-assured medicines and technologies	**Safety** Minimisation of avoidable harm to patients	**Improved efficiency** Maximum health gains from available resources
Financing Mobilisation, pooling, and allocation of financial resources for health		
Leadership and governance Stewardship, regulation, accountability, decision making and strategic direction of the health system		

Source: NZIER based on WHO (2010)

Our approach to assessing the potential benefits of AI for the health system in New Zealand will draw on broad-based systematic reviews published in high-quality journals and topic-specific reviews that narrow in on specific aspects, for example, the benefits for diagnosis.

4 Literature review on the benefits of AI for health systems

In this section of the report, we explore the general findings of the academic literature on the benefits of AI for the health system and health outcomes. While the report focuses on the benefits of AI for the New Zealand system, we are mindful of the challenges that new technologies and applications pose. Therefore, when challenges are consistently identified in the literature, we have chosen to flag such issues for future consideration. There should be no surprise that challenges exist; by summarising them, we hope to bring some balance to what a one-sided assessment of AI's benefits would otherwise be.

4.1 Systematic reviews reveal medical, economic and societal benefits

Chustecki (2024) evaluated both the advantages and the drawbacks of incorporating AI into health care. Its focus was not just on potential benefits but also on the critical risks and challenges that accompany AI adoption. After removing duplicates and applying all criteria, 44 studies remained in the qualitative synthesis, demonstrating the significant promise of AI in health care and identified persistent concerns. Table 2 summarises the findings from their survey of existing research.

Table 2 Identified the benefits of AI in health care

Benefits	Description
Medical benefits	**AI benefits prevention, treatment and system preparedness**
Helps in the prediction of various risks and diseases	AI uses large-scale data to predict disease risk, identify high-risk patients, and support personalised care through advanced models such as machine learning and deep learning.
Helps in the prevention and control of various diseases	AI supports disease prevention and control by analysing large-scale digital data to improve surveillance, predict outbreaks, and identify misinformation.
Leads to better data-driven decisions within the health care system	AI enhances data-driven decision-making in health care by analysing high-quality clinical data and providing real-time, guideline-based recommendations that reduce medical errors and support clinicians.
Assists in improving surgery	AI improves surgical practice by enhancing precision through robotic systems, enabling remote telesurgery, and supporting real-time surgical mentorship to improve outcomes.
Supports mental health	AI use in mental health treatments is growing, as patients prefer simple, quick feedback that can be personalised through social media posts, along with direct input.
Economic and social benefits	**Cost savings, innovation and improved health indicators**
Reduction in posttreatment expenditures	AI reduces post-treatment costs by analysing patient data to identify the most effective personalised interventions and prevent complications through faster diagnosis and timely care.
Cost saving through early diagnosis.	AI enables faster, more accurate analysis of medical images and diagnostic tests, allowing earlier disease detection, reducing errors, and lowering costs associated with late-stage diagnoses.
Cost saving with enhanced clinical trials.	AI accelerates clinical trials by simulating treatments, analysing biomarkers and large patient datasets, and optimising drug development to reduce costs.

Benefits	Description
Patient empowerment	AI empowers individuals to manage their health by analysing data from wearables and smartphone apps to deliver personalised recommendations, support chronic-disease management, and help reduce healthcare costs.
Relieving medical practitioners' workload	AI eases clinicians' workloads by automating administrative tasks, analysing patient data efficiently, and supporting diagnosis, allowing practitioners to focus on critical cases and improving overall productivity and patient care.

Source: Chustecki (2024)

AI generates material efficiencies across all six WHO health system building blocks by improving the productivity, reliability, and allocative efficiency of health services. In service delivery, AI enhances the accuracy and timeliness of prediction, diagnosis, prevention, and surgical intervention, improving the quality and safety of care while reducing costly downstream treatment. Its ability to automate routine tasks and support clinical judgement boosts health-workforce productivity, enabling scarce labour to be reallocated toward higher-value activities. The technology strengthens health information systems by transforming large, fragmented datasets into actionable insights that support more efficient clinical and operational decision-making. AI also contributes to access to essential medicines and technologies by accelerating drug development and reducing research and development costs. These efficiency gains translate into improved health-financing outcomes, particularly through reduced complications, avoided late-stage disease, and lower input costs. While less directly addressed, the breadth of these impacts provides a strong evidence base to inform leadership and governance decisions regarding investment, regulation, and system-wide integration.

AI also comes with risks and challenges. AI in health care carries notable risks, including variable diagnostic accuracy, opaque or overly complex models, biases from poor-quality data, and errors for which no accountable party exists. Implementation challenges, limited data availability, transparency concerns, and uncertain regulatory settings further complicate safe deployment, while social factors such as trust and acceptance also constrain adoption.

4.1.1 Systematic reviews of case studies reveal the multidimensional benefits

In a systematic review of 92 studies Gebremeskel and Romeo (2026) found demonstrated benefits of the application of AI in healthcare across three system dimensions :

- Benefits for the individual

  The individual benefits dimension is well-defined but highly context-dependent, with notable improvements in early detection, diagnostic accuracy, and ongoing monitoring. Evidence indicates that AI can reduce workload by 19%–50%, shorten reading times by 21%–54%, improve cancer detection rates by around 20%, and support more timely treatment.

  AI can improve the accuracy and reliability of patient monitoring systems, enhancing patient outcomes and reallocating health professional resources. For example, AI can be utilised to capture periodic observations through the data and detect deviations from personal patterns, then alert health professionals as needed with summarised information.

- Benefits for the organisation

  The organisational benefits dimension focuses on AI-enabled workflow optimisation and cost savings, resulting in greater efficiency in clinical operations and service management.

  AI can be used to reduce costs, improve efficiency, detect fraud and improve resource allocation. All the savings will contribute to a more efficient and productive health system while also improving the wellbeing of health professionals who face greater demand.

- Benefits for the sector more broadly

  The strongest evidence sits at the health system level, where AI is associated with better patient outcomes, improved workflow efficiency, enhanced data accessibility, strengthened training, and broader system-wide improvements.

  AI-supported cancer screening programmes required 44 percent less radiologist time while cancer detection increased by 20%. While an AI-assisted head scan reduced the waiting time among cases of intracranial haemorrhage by 25% per positive case (O'Neill et al. 2021). When applied to lung cancer screening, AI outperformed human detection in early detection, doubling the time available for intervention and increasing the probability of survival. (Svoboda 2020).

In the context of the WHO building blocks, this review and the studies covered show clearly demonstrated benefits for all six building blocks, either directly or indirectly. The indirect benefits are related to the building blocks of leadership and governance.

4.2 OECD guidance points to large benefits and risks that need regulatory frameworks

The OECD's investigation into the benefits of AI for the health system identifies significant benefits and important risks, prompting the establishment of regulations and sector standards to protect organisations and individuals from AI-related risks. (OECD 2024) .

The OECD highlighted a range of evidence-based benefits of using AI in healthcare.

- AI can reduce the risk of preventable medication errors by at least 50%
- AI can assist health professionals with transcribing notes and administration, improving their productivity and shifting more effort to treating people. This would significantly reduce the projected shortage of health professionals across OECD members (OECD 2023).
- AI can enhance cybersecurity by improving the ability to detect threats and prevent health system cyber breaches, which are costly and fundamentally erode trust in the health system.
- AI can use the unreleased potential of health information to detect health warning signs in individuals, accelerate health research, improve patient safety and advance personalised medicine.

4.3 Exploring the size of the potential economic benefits

The evidence shows there is reason to be confident that the adoption of AI in New Zealand's health system has the potential to yield substantial cost savings, efficiency gains, better health outcomes, and reduced workforce pressures. In this section, we explore international evidence on the scale of economic savings for health system budgets and their implications over time.

In section 2.1, we highlighted the high and increasing costs of the health system, which need to be addressed to ensure sustainable and equitable access to health in New Zealand. While New Zealand needs to attract and retain talented health professionals, it also needs to export the productivity improvements that could be realised through investment in digitalisation to support human resources to deliver greater efficiency. Digital tools, including AI, could facilitate better utilisation of health professionals' time towards patient outcomes rather than processing administration.

The cost savings could be material for New Zealand

Our literature scan showed that there is a wide range of studies that assess the benefits of AI for various parts of the health system, which included:

- Benefits for specific disease groups
- Benefits for various anatomic systems
- Productivity or medical improvement across various health professions such as doctors, nurses, medical imaging specialists and physiotherapists.

However, we found only one study that quantified the benefits for the entire health system. NBER (2024) assessed the potential cost savings from using AI in the US health system. The estimate that adoption of AI in healthcare costs improves medical productivity and reduces administrative costs to the health system by 5-10 percent, with around 35 percent of the savings linked to the benefits of AI for cost savings in administrative systems.

Access to general practitioners in New Zealand has become a significant structural constraint within the primary healthcare system, creating measurable economic inefficiencies and widening disparities in service utilisation. Nearly half of all general practices have closed their books to new patients, leaving approximately 290,000 individuals unable to enrol with a GP (Fainit 2024). This reflects persistent demand pressures, workforce shortages, and long-term underinvestment in primary care capacity. Workforce constraints are reinforced by an ageing GP cohort, recruitment difficulties in rural regions, and pay inequities between community and hospital settings, which further limit the effective supply of primary care services. These access limitations shift patients to higher-cost emergency departments and delay treatment, thereby increasing avoidable hospitalisations and generating substantial system-wide costs. A recent economic assessment estimated that GP scarcity imposes annual productivity losses of more than 1 billion dollars (Black 2025) and unnecessary hospital admissions. Transport barriers affecting deprived and minority populations intensify these inequities and exacerbate unmet healthcare need.

Table 3 shows the potential costs for New Zealand’s health system if the rate of benefits of AI is estimated by NBER (2024) is applied to the actual and forecast health system costs set out in the Half Year Economic and Fiscal Update 2025 (New Zealand Treasury 2025). Over ten years, the cost savings from core Crown expenditure range from $15.5 billion to $31

billion. This is equivalent to the cost of providing an additional six months to a year of health system services.

The productivity benefits of AI could address barriers to access

Access to general practitioners in New Zealand has become a significant structural constraint within the primary healthcare system, creating measurable economic inefficiencies and widening disparities in service utilisation. Nearly half of all general practices have closed their books to new patients, leaving approximately 290,000 individuals unable to enrol with a GP (Fainit 2024). This reflects persistent demand pressures, workforce shortages, and long-term underinvestment in primary care capacity. Workforce constraints are reinforced by an ageing GP cohort, recruitment difficulties in rural regions, and pay inequities between community and hospital settings, which further limit the effective supply of primary care services. These access limitations shift patients to higher-cost emergency departments and delay treatment, thereby increasing avoidable hospitalisations and generating substantial system-wide costs. A recent economic assessment estimated that GP scarcity imposes annual productivity losses of more than 1 billion dollars (Black 2025) and unnecessary hospital admissions. Transport barriers affecting deprived and minority populations intensify these inequities and exacerbate unmet healthcare need.

Table 3 Potential cost savings for the New Zealand health system

Certainty	Cost savings	5%	10%
	Year	$ million	$ million
Actual	2021	1,139	2,278
	2022	1,389	2,778
	2023	1,424	2,849
	2024	1,500	3,000
	2025	1,516	3,031
Forecast	2026	1,661	3,322
	2027	1,714	3,429
	2028	1,713	3,425
	2029	1,719	3,439
	2030	1,728	3,456
Total	**2021-2030**	**15,503**	**31,007**

Source: NZIER

5 Bringing it all together

5.1 What we set out to do

Orchestral commissioned NZIER to complete a rapid assessment of the benefits of AI for the New Zealand health system. We distilled the general and healthcare-specific benefits of AI from the available research, then applied them to the New Zealand context. We use the WHO's six building blocks of a health system as an overall framework to guide the research.

5.2 What we found

Table 4 summarises how artificial intelligence can contribute across the core health system building blocks, highlighting practical applications that support service delivery, workforce productivity, data and evidence use, access to medicines, financing, and system leadership and governance. Overall, these applications suggest that AI can act as a system-wide enabler rather than a standalone technology. Realising these benefits will depend on how well AI is integrated into existing institutions, funding models, and decision-making processes, as well as on the availability of high-quality data and skills. Used well, AI can support more proactive, data-driven stewardship of the health system, helping decision-makers respond to growing demand, workforce pressures, and fiscal constraints while improving system performance and resilience.

Table 4 The contribution of AI to the building blocks of a health system

System building blocks	Contribution of AI
Service delivery Organisation and provision of effective, safe, people-centred health services across the care continuum	Optimising logistics, reducing medical error, assisted triage, earlier detection of disease than human-only approaches, and shorter waiting times.
Health workforce Availability, distribution, skills, and wellbeing of health professionals	AI supports health professionals in focusing on their scope of practice and spending less time on administration and searching. Liberating staff time and reducing staff shortages
Health information systems Storage, production, analysis, and use of reliable health data and evidence	AI is a powerful tool for efficiently distilling and cross-referencing large volumes of data. There are applications for health research, public health monitoring, prevention and treatment.
Access to essential medicines Availability and affordability of safe, effective, and quality-assured medicines and technologies	AI is at the forefront of health research, contributing to the invention of new treatments through its ability to handle large volumes of complex data. Similarly, AI can assist health professionals in investigating pharmacological options and risks tailored to individual needs.
Financing Mobilisation, pooling, and allocation of financial resources for health	AI supports health financing by improving forecasting of demand, costs, and revenue; identifying inefficiencies and leakage; modelling alternative funding and pooling arrangements; and optimising allocation decisions by analysing utilisation, capacity, and outcomes data to guide commissioning, purchasing, and investment decisions across the health system.
Leadership and governance Stewardship, regulation,	AI can support leadership and governance by providing timely system intelligence, scenario modelling, and performance monitoring to inform

System building blocks	Contribution of AI
accountability, decision making and strategic direction of the health system	strategic decisions; strengthening regulatory oversight through automated monitoring and compliance analysis; improving accountability via transparent reporting; and supporting stewardship by linking policy choices to system-wide impacts, risks, and outcomes.

Source: NZIER

AI has the potential to raise system-wide productivity by improving the accuracy and timeliness of prediction, diagnosis, treatment, and surgery. By enabling earlier intervention and reducing medical error and downstream complications, AI can lower avoidable costs while increasing the efficiency and effectiveness of service delivery across the health system.

AI can also improve both allocative and technical efficiency. Automating low-value administrative and analytical tasks, strengthening data analytics, and supporting real-time clinical decision-making allows scarce workforce and financial resources to be redirected toward higher-value clinical and preventive activities, helping health systems do more with existing capacity.

In addition, AI can unlock new health innovations by accelerating research and development through advanced analysis of complex datasets. This enables earlier detection and more personalised care pathways, while allowing new models of care to be tested, adapted, and scaled more quickly and at lower cost than traditional approaches.

At a system level, these impacts translate into broader fiscal benefits. By reducing post-treatment complications, avoiding late-stage diagnoses, shortening drug development timelines, and informing better governance and investment decisions, AI can support more sustainable long-term resource allocation across the health system.

The key benefits were:

- AI adoption could generate substantial fiscal savings, with international evidence (NBER 2024) indicating a 5 to 10 percent reduction in health system costs driven by higher medical productivity and administrative efficiency. Approximately 35 percent of these gains stem from reduced administrative expenditure.
- Applying the NBER productivity estimate to New Zealand's health expenditure suggests potential ten-year savings of $15.5 to $31 billion, equivalent to funding an additional six months to one year of health system services.
- GP access constraints impose high economic costs, with nearly half of practices closed to new enrolments and about 290,000 people unable to secure a GP, primarily due to workforce shortages and underinvestment (Fainit 2024).
- Limited primary care access increases downstream system costs, raising emergency department utilisation, avoidable hospitalisations, and productivity losses exceeding $1 billion annually (Black 2025), with inequities intensified by transport barriers and deprivation.

5.3 What are the next steps

The government has a dual role in capturing the benefits and managing the risks of AI for the New Zealand health system. The roadmap for realising the benefits in a rapid review by the Office of the Prime Minister's Chief Science Advisor (2023). The key messages include:

- AI impact depends on an enabling ecosystem, not just technical capability.
- Key enablers include appropriate regulation, a strong talent pipeline, and access to high-quality data.
- Effective deployment requires strong collaboration across public and private sectors, agencies, researchers, clinicians, and consumers.
- Aotearoa New Zealand has strong university and research capabilities in AI and a willingness to collaborate.
- There is an opportunity for global leadership by embedding a partnership with Māori, including principles of Māori and Indigenous data sovereignty.
- A focus on equity can help ensure AI improves healthcare outcomes for priority populations.

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