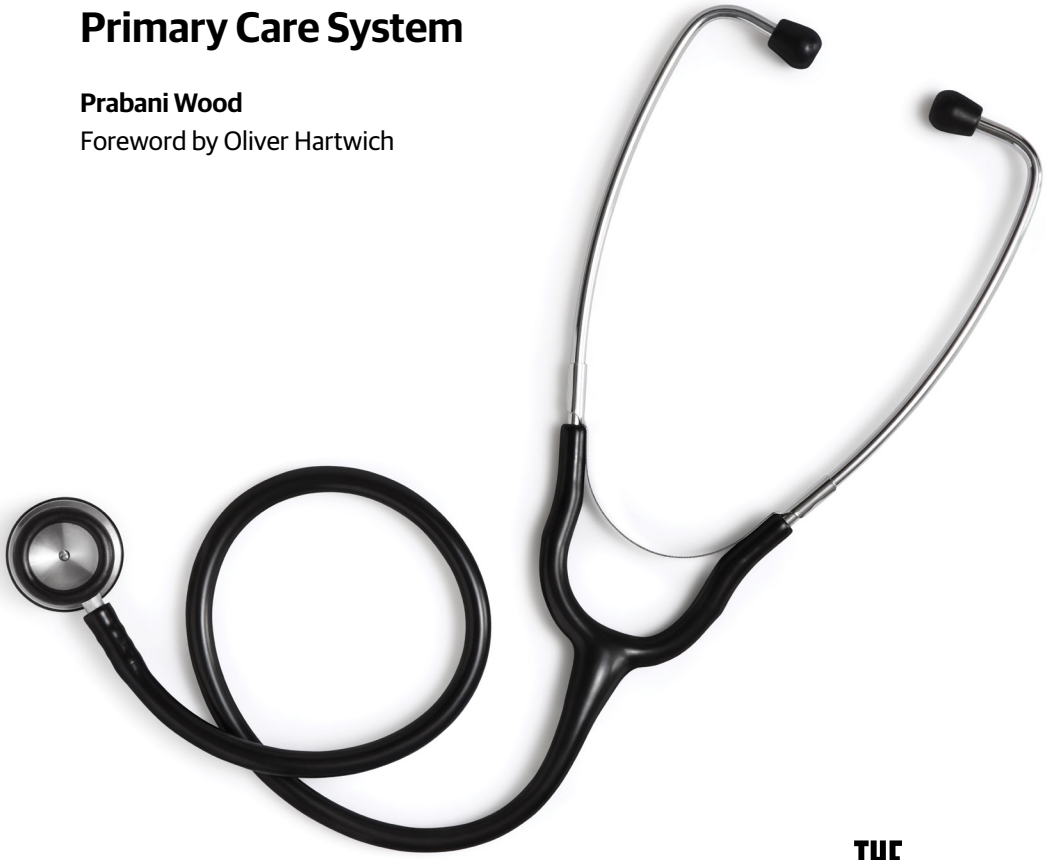
THE HEART OF HEALTHCARE

Renewing New Zealand's Primary Care System

Prabani Wood
Foreword by Oliver Hartwich



THE NEW ZEALAND INITIATIVE

Published April 2025 by
The New Zealand Initiative
PO Box 10147
Wellington 6143
New Zealand
www.nzinitiative.org.nz

ISSN
2624-0092 (print)
2624-0106 (online)

RR90

Printing arranged by TBD Digital

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About The New Zealand Initiative

The New Zealand Initiative is an independent public policy think tank supported by chief executives of New Zealand businesses. We believe in evidence-based policy and are committed to developing policies that work for all New Zealanders.

Our mission is to help build a better, stronger New Zealand. We are taking the initiative to promote a prosperous, free and fair society with a competitive, open and dynamic economy. We are developing and contributing bold ideas that will have a profound, positive and long-term impact.

ABOUT THE AUTHOR

Dr Prabani Wood is a Research Fellow at The New Zealand Initiative. She was born in Sri Lanka and moved to the United Kingdom when she was five years old. She obtained her medical degree and BA in Physiological Sciences from the University of Oxford. She emigrated to New Zealand with her husband in 2005. She gained a broad range of post-graduate experience in medicine, surgery, anaesthetics and public health prior to entering general practice, and she has been a GP for more than 14 years. Her master's degree in public health from the University of Auckland provided her with an excellent grounding in both public health in general and specific knowledge of the health system in New Zealand. In 2015 she set up a new GP practice, which within nine years was providing care to approximately 8,500 patients with a multi-disciplinary staff all within custom-designed premises. This has equipped her with a wealth of first-hand experience and knowledge of health policy, strategic planning, and management within healthcare. She has since left full-time general practice to focus on medical advisory roles to plan, deliver and maintain quality healthcare for all New Zealanders.

ACKNOWLEDGEMENTS

I would like to thank all the passionate people I met with and spoke to who are working in our healthcare system, and who despite the numerous challenges they face are making a difference to the lives of many. I would particularly like to thank my GP mentors who encouraged me to follow this rewarding career path, as well as all my specialist GP colleagues who strive to achieve the impossible every working day. Thank you to everyone at the New Zealand Initiative firstly for the opportunity and then all the support and guidance in writing this report. The responsibility for all views expressed, and any errors or omissions, lies with me.

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Foreword

When contemplating writing a foreword to Dr Prabani Wood's insightful report on primary healthcare, I felt a bit like an impostor. After all, I am a doctor, just not the medical kind. With my doctorate in law and master's in economics, commenting on the finer points of healthcare seemed somewhat presumptuous.

Yet, during my discussions with Prabani over recent months, it struck me that the core principle she describes – 'continuity of care' – is remarkably familiar from everyday experiences outside of medicine. In fact, it reminded me of my car mechanic.

Since moving to Wellington, I have trusted Peter to service my cars. He specialises in European vehicles, knows exactly what I expect and understands my priorities. Once, Peter even anticipated an issue, ordering replacement parts without first consulting me, knowing that I would agree with his decision. And, of course, he was right.

Listening to Prabani explain the GP-patient relationship, it seemed that what she was describing was fundamentally similar. Such long-term relationships, built on mutual understanding and trust, are not unusual. They are common in successful business relationships, whether between mechanics and their customers or between companies and their clients.

Indeed, during my studies—particularly in marketing—we often discussed such relationships. Management theorists regularly invent buzzwords for this, referring to 'customer integration' or 'co-production'. But the underlying principle remains consistent: recognising that good relationships, built on mutual understanding, deliver better outcomes.

So, if continuity of care is such a straightforward idea, why is it not more fully embraced in healthcare? This is the central question Prabani addresses. She clearly sets out the multiple benefits of robust GP-patient relationships: improved health outcomes, better preventative care and lower healthcare costs.

But equally, she examines why these relationships struggle to thrive under current conditions – highlighting systemic barriers including funding gaps, workforce attrition, fragmented IT systems and outdated healthcare models.

Her analysis brings to mind the principles behind Bill English's social investment approach, pioneered when he was Minister of Finance. This approach emphasises early, targeted interventions driven by solid data and evidence, aiming to improve long-term outcomes and prevent problems before they escalate.

In healthcare, investing in strong GP-patient relationships represents precisely this kind of pragmatic social investment. Yet, to fully realise these benefits, we need better data and research. Prabani rightly notes how greater transparency and improved data collection could transform healthcare policy and delivery.

I am particularly struck by the innovative solutions Prabani highlights, such as the WHIRI Model of Care. This approach, which combines comprehensive health needs assessments with coordinated care between health workers, demonstrates how targeted interventions can bridge gaps between communities and healthcare services. Like Bill English's social investment principles, these innovations focus on addressing problems early and efficiently.

Prabani's report is an important and timely contribution. It clearly articulates why primary healthcare should be at the heart of our health policy debates. And as her report convincingly argues, primary care truly is the heart of healthcare.

I commend this thoughtful, evidence-based report to anyone interested in the future of healthcare in New Zealand.

Dr Oliver Hartwich
Executive Director,
The New Zealand Initiative

Executive Summary

The New Zealand primary healthcare system stands at a critical juncture. Specialist General Practitioners (GPs) are highly trained doctors whose years of rigorous post-graduate training and hands-on experience enable them to manage complexity through specialist knowledge that comes from practice, not just textbooks. Their expertise in providing comprehensive care while maintaining long-term patient relationships leads to earlier interventions, more accurate diagnoses, and better management of chronic conditions. This approach not only saves lives and extends life spans but also creates significant cost efficiencies by reducing unnecessary testing, preventing hospital admissions, and managing conditions before they become severe. However, the current system faces mounting pressures that threaten its sustainability and effectiveness.

This report draws on my first-hand experience as both an experienced specialist GP and practice-owner to examine the challenges and opportunities within New Zealand's primary care system. It provides evidence-based insights into the value of specialist GPs while offering practical solutions for system-wide improvement.

Chapter 1 explores the fundamental role of specialist GPs in primary care, detailing their comprehensive expertise and complex case management capabilities. Examples from my practice illustrate how the specialised knowledge of GPs and continuity of care directly impact patient outcomes and system efficiency.

Chapter 2 focuses on the critical importance of continuity of care, presenting evidence for its impact on mortality rates, healthcare use, and cost benefits. It examines how accumulated knowledge

improves quality of care, enables personalised treatment approaches, and drives efficiency in primary care delivery.

Chapter 3 addresses the pressing issues of workforce attrition and fragmentation within the GP profession. It analyses workload distribution, financial pressures, and the impact on professional satisfaction, while examining the implications of task-shifting and changing roles within primary care.

Chapter 4 discusses how the issues with the current funding model are impacting GP practices, resulting in increasing healthcare inequities. The role of telehealth as an important tool in primary care is also explored.

Chapter 5 discusses our archaic fragmented IT systems, which are reducing efficiencies, increasing workloads, and putting patient safety at risk. These IT systems also increase the burden from secondary care on to primary care. Primary care's own struggles place more pressure on secondary care, creating a vicious cycle.

Chapter 6 showcases innovative approaches in primary care that can strengthen healthcare delivery across all practice settings. It examines the following successful initiatives: the Rural Accelerated Chest Pain Pathway (RACCP), Tapiri Mai project, the WHIRI Models of Care, and the Tiakina Te Tangata Programme, showing how innovation can improve access and outcomes for all communities.

Chapter 7 examines potential solutions for improving the primary care system, exploring opportunities in funding reform, IT infrastructure, and strategies for better integration between primary and secondary care. It analyses the Piki Te Ora project as an example of innovative healthcare delivery.

The future effectiveness of New Zealand's entire healthcare system rests on addressing the critical issues facing primary care.

Without substantial reform and investment in primary care, any attempts to improve healthcare outcomes will fail. While the challenges are significant, they must be confronted to prevent further deterioration of our healthcare system. This report provides evidence-based recommendations for essential reforms and strategic investment in our GP workforce. Implementing these recommendations is not optional if we wish to build a healthcare system that delivers better patient outcomes, reduces costs, and remains sustainable for future generations. Policymakers, healthcare professionals, and stakeholders across the sector must act now to strengthen the foundation of our healthcare system.

CHAPTER 1
A GP and a practice-owner

Late-night reflections

It was around 9 on a Friday night. I was home and looking forward to a restful weekend after another chaotic week in my GP practice. I had seen many patients in my clinic that day with complex medical issues, which the current system does not sufficiently fund. As usual, I had completed mounds of paperwork and other administrative tasks. I was sitting with my family after dinner, sharing stories about our week when I received a call from Pathlab. They needed to refer a dangerously deranged blood test result for a patient of mine.

However, I had not ordered these tests, nor was I aware of who had. The lab said the hospital specialist team, who had seen my patient after my referral months ago, had ordered the tests prior to organising his hip surgery. Pathlab were unable to contact the hospital team, and because I, as his GP, was automatically copied into his test results, the laboratory phoned me.

I immediately called the patient. Unbeknownst to me and his specialist team, he had been taking more than the recommended and prescribed amount of paracetamol for his hip pain. He had been inadvertently overdosing on it. This had put stress on his liver, which was reflected in his blood test results. I advised him to immediately stop taking paracetamol and recommended safe, alternative pain relief options. Prior to starting clinic on Monday morning, I organised regular repeat blood tests to closely monitor his liver function. I advised his hospital team of the results. Fortunately, his blood tests normalised over four weeks with no long-term damage to his liver.

This case highlights the importance of the unpaid non-patient facing work that I and other GPs undertake every day. If no one had contacted my patient about his blood test results until the following week, his liver might have been irreversibly damaged. Due to increasing pressures from the hospital system, GPs are taking on increasing workloads and responsibility for their patients.

This incident made me pause and reflect on how as a GP I had built the long-term doctor-patient relationships that define general practice. My GP practice was providing cost-effective, comprehensive healthcare to patients in their communities. However, my role as a GP and practice-owner was becoming harder with each passing year.

Building a bustling practice

Over a period of nine years, I built a GP practice with around 8,500 patients in the Waikato region. Its founding principle was the provision of continuity of care: high-quality clinical care through nurturing vital doctor-patient relationships. Continuity of care is achieved when the GP to patient ratio allows patients to readily see their designated GP for non-urgent issues. GP practices also need to be able to provide urgent appointments for acute medical complaints and injuries that would otherwise need urgent care or emergency departments.

A bold decision

I am proud to have established a practice that valued continuity of care. For family reasons, in 2023, I made the difficult decision to step away from my role as a full-time GP and practice owner. However, I believe that my position as a practice-owner of

a moderately-sized GP practice was becoming increasingly untenable. I did not wish to compromise on my ability to provide continuity of care, but it was becoming more and more demanding to meet the growing needs of my community.

I would like to now discuss my career path to becoming a specialist GP in New Zealand. Not surprisingly, the obstacles I faced illustrate the systemic barriers to a career in general practice.

Barriers and opportunities

My first encounter with a barrier to a career in general practice was during my training as a medical student at Oxford University from 1996 to 2002. I saw how general practice was devalued there. Our training was dominated by hospital specialists, who rarely encouraged us to consider general practice as a career option. They often portrayed GPs, who work in their communities, as inferior to hospital-based specialties. My experience at medical school was certainly not unique.[1]

During my first clinical attachment in my fourth year of medical school, my GP teacher, who was a former neurologist, opened my eyes to the world of general practice. He had chosen to move into general practice to better serve his patients in their communities.

His enthusiasm was infectious. He loved the rapid-fire diagnostic process that general practice demanded, relying heavily on history-taking and clinical examination skills. He spoke passionately about the deep relationships he had built with patients over the years. He pointed out that this aspect of care was often missing in hospital specialties, where patient interactions are typically brief and focused on specific issues.

Primary, secondary care and tertiary care

It is generally accepted that general practice is a cornerstone of primary care and there is a huge amount of evidence to show that strong primary care is essential for community health and wellbeing.[2] So, what do we mean when we are referring to primary care? There is discordance in the way policymakers and some people in the health sector view primary care.

In their 2023 report, *Lifeline for Health*, Professor Des Gorman and Dr Murray Horn describe primary and secondary care as having two competing interpretations:

Traditional view of primary care

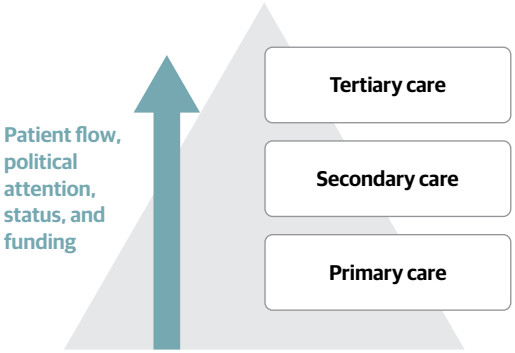
- Primary care means "first contact" healthcare. Providers of this care include GPs, practice nurses, community pharmacists, physiotherapists, etc.
- Your GP is who you see first when you are unwell.
- They assess you and decide if you need more specialised care.
- In this view, primary care providers are seen as less specialised than others.

Traditional view of secondary (and tertiary) care

- Secondary care providers are more specialised experts.
- They are seen as having more advanced knowledge than primary care providers do.
- Examples include cardiologists, dermatologists, and orthopaedic surgeons, among others.[3]
- Tertiary level care is even more specialised and will receive referrals from secondary care.

This traditional interpretation aligns with how healthcare is funded and structured (see Figure 1).

Figure 1: Current model of primary, secondary and tertiary healthcare



Source: Adapted from *Internal Medicine Journal* 54 (2024) 1435–1439, Royal Australasian College of Physicians.

An alternative view of primary care reflects reality:

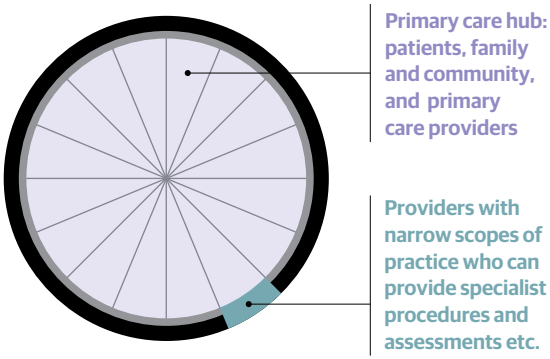
- Primary care means "comprehensive" or "complete" healthcare.
- GPs are viewed as specialists in providing broad, holistic care.
- They have expertise in treating the whole person and managing overall health.
- In this view, primary care doctors are highly skilled specialists.
- According to the Starfield principles, good primary care is continuous, comprehensive, coordinated and accessible.[4]

An alternative view of secondary (and tertiary) care:

- Secondary (and tertiary) care providers are "partialists" – meaning they focus on just one area.
- They support primary care doctors when specific expertise is needed.
- They are not seen as higher-level than primary care doctors, just different.

Secondary and tertiary care in both views refers to more focused specialists but with two interpretations.

Figure 2: Preferred model of primary care



Source: Adapted from *Internal Medicine Journal* 54 (2024), 1435–1439, Royal Australasian College of Physicians.

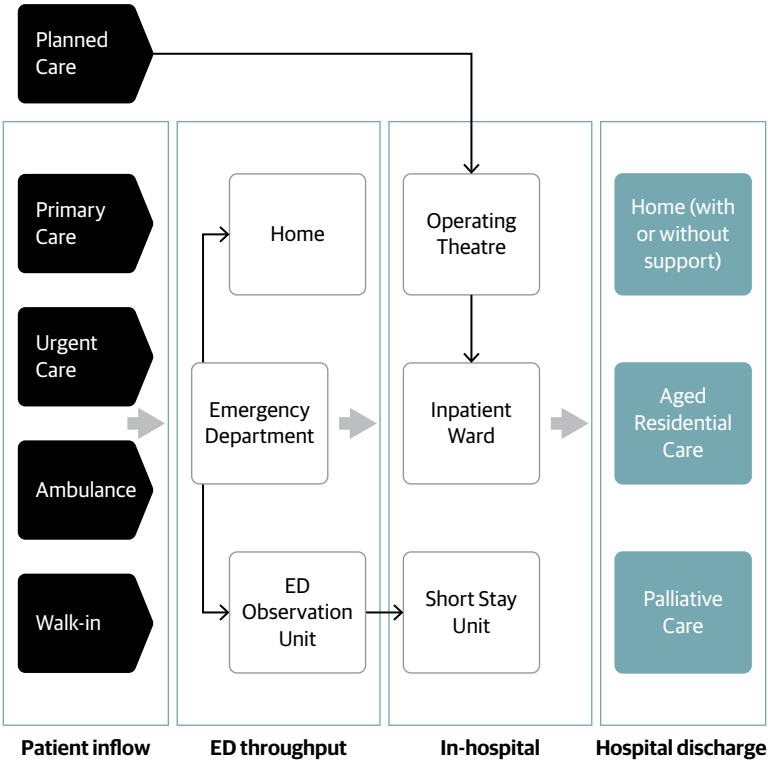
As Gorman and Horn said, "That the point of healthcare delivery should be shifted as much as is possible from hospitals into the community, and then into people's homes has long been acknowledged. But attempts at such shifts have had limited success."[5] One of the keys to future success is to recognise the specialist expertise and skills of GPs.

Evolving perspectives

Despite my first exposure to a career in general practice being a positive one, I initially avoided it as a career choice. The broad clinical uncertainty felt overwhelming. Like many of my peers, I was drawn to narrower specialties, thinking they would provide more structure and certainty. I also believed they would offer more respect within the medical community, reflecting the biases I had absorbed during my training.

I held a very hospital-centric view of the way patients interact with healthcare (see Figure 3).

Figure 3: Hospital-centric view: Patient flow for planned and acute care



Source: Adapted from Hefford, Martin. "Primary Care Development Programme August 2024," presentation (Te Whatu Ora – Health New Zealand).

It was after moving to New Zealand in 2005 and continuing my anaesthetics training in South Auckland that my perspective began to shift. I witnessed the limitations of secondary care, particularly after seeing Māori and Pasifika patients in their 30s and 40s presenting with end-stage diabetes complications, requiring amputations and dialysis. This experience highlighted the "ambulance at the bottom of the cliff" nature of hospital care and sparked my interest in epidemiology and the social determinants of health, leading me to pursue training in public health.

Drawn to primary care

After completing my Master of Public Health from Auckland University, I chose general practice as it allowed me to combine my theoretical knowledge with clinical practice, providing holistic care to my patients. This decision reflected my evolved understanding of healthcare, recognising how primary care offered unique opportunities for preventive health and addressing patients' physical, mental and social needs through early intervention and continuity of care.

I found myself drawn to aspects of healthcare most present in primary care. I wanted to build long-term relationships with patients, see them through health challenges and life stages, and treat patients early so they did not fall too sick. The variety of clinical presentations that once daunted me now appealed to me, offering a chance for continual learning and growth.

Value of primary care

Specialist GPs lead the work in primary care.

Impact and reach

- GPs serve as the first point of contact for most New Zealanders with health concerns (see Figure 4).
- Approximately 90% of medical problems are managed effectively within general practice.[6]
- Consistent GP-patient relationships are proven to:
  - reduce emergency department presentations
  - reduce hospitalisations
  - decrease mortality rates
  - reduce healthcare costs.[7 8 9 10]

Cultural safety and community integration

- Recognition of the importance of culturally safe medical care delivery in community settings is growing.[11]
- Cultural competency is a key component of the New Zealand GP training programme and quality assessment frameworks for general practices incorporate cultural safety metrics, including alignment with Te Tiriti o Waitangi principles.[12]

Core components of the value-add of specialist GPs

1. Comprehensive expertise and continuous learning

Specialist GPs possess specialised knowledge across multiple medical domains, requiring:

- Extensive post-graduate training and continual professional development
- Ability to manage complex cases across various medical specialties
- Skills in integrating new technologies and adapting to evolving healthcare needs
- Expertise in building long-term patient relationships and understanding family health contexts.

2. Complex case management

Specialist GPs excel in managing complexity through:

- Application of specialist knowledge gained through years of practical experience
- Integration of medical knowledge with individual patient circumstances
- Continual adaptation of treatment approaches based on patient response
- Coordination with specialists and other healthcare providers.

3. Economic impact and healthcare efficiency

Specialist GPs deliver significant economic benefits to healthcare systems by:

- Cost savings through prevention and early intervention.
- Reduction in unnecessary specialist referrals and hospitalisations and improved coordination of care across specialties.
- More efficient use of healthcare resources.
- Oregon's Patient Centered Primary Care Home program found $13 in savings for every $1 increase in primary care expenditures related to the program.[13]
- Improved population health outcomes: studies have found that for every additional ten GPs per 100,000 population there are 15 fewer deaths, 40 fewer hospitalisations,[14] and an average increase in life expectancy of 52 days.[15]
- More equitable healthcare access.[16]

Implications for healthcare reform

Critical considerations

Any successful primary care reform must address:

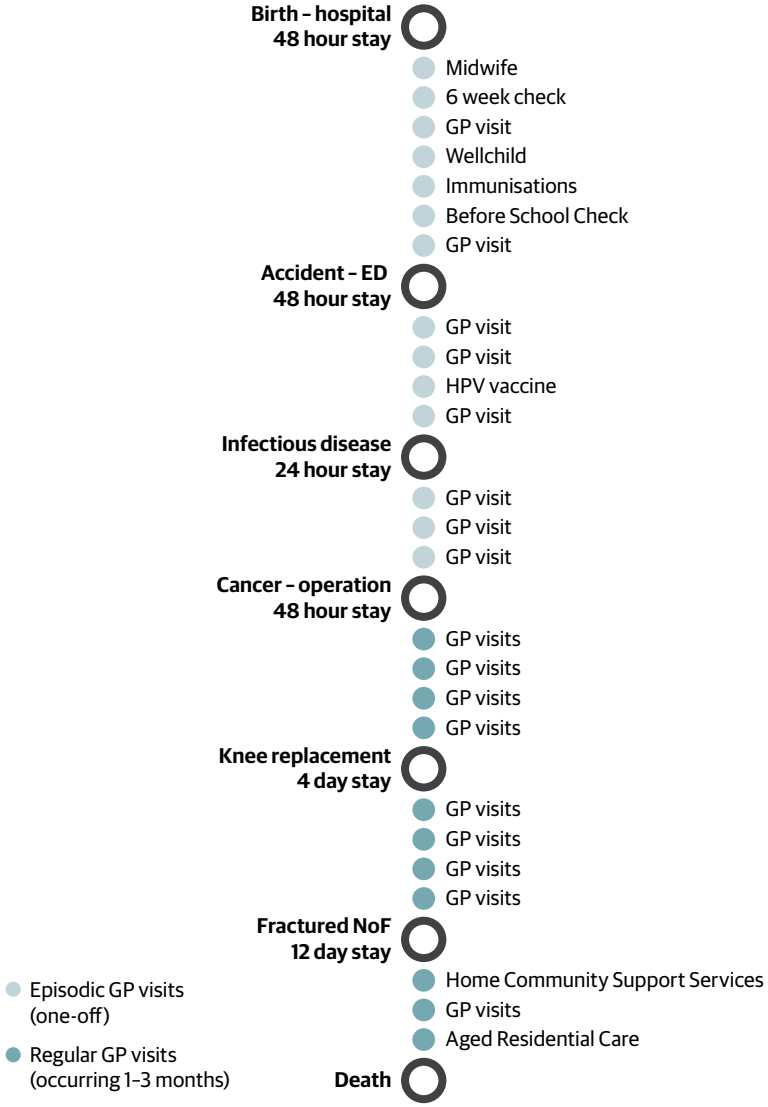
- The complexity and breadth of GP expertise required
- The value of long-term doctor-patient relationships
- The importance of continual professional development
- The need for adequate resources and support systems
- The integration of new technologies and care approaches.

Consequences of inadequate primary care

Weaknesses in primary care lead to:

- Increased healthcare system costs
- Poorer patient outcomes
- Higher rates of preventable hospitalisations
- Reduced healthcare access
- Less effective population health management.

Figure 4: Patient-centric view of healthcare encounters across a life course



Source: Adapted from Hefford, Martin. "Primary Care Development Programme August 2024," presentation (Te Whatu Ora – Health New Zealand).

Complexity of primary care

Understanding the value-add of primary care is vital and so is understanding the complexity of the day-to-day work of specialist GPs. David Katerndahl, et al. (2015) analysed 878,653,561 visits across 14 medical specialties and found general practice to be the most complex medical specialty in ambulatory care.[17]

This complexity stems from primary care's diverse nature. Unlike hospital specialists, who focus on specific body systems, GPs navigate a wide range of presentations, diagnoses, and treatments within time-constrained consultations. They must consider various symptoms and manage chronic conditions while addressing preventive care needs, all within the context of a patient's life circumstances.[18] Figure 4, which represents a patient-centric view of healthcare, illustrates the complex nature of general practice. It is worth noting that this figure represents a single patient, however, in general practice, we are often not just caring for individuals but also their families.

Examples of patient care from my own GP practice

These examples are from real patients with names and some details changed to prevent identification of individuals and protect privacy.

Supporting families through crises

The quote below from a family I looked after illustrates how GPs see patients not just as individuals but also in the context of their families.

> In the space of a couple of years, different members of our small family of four experienced a cancer diagnosis, sectioning under the *Mental Health Act*, stage four endometriosis, rape, Graves' disease, and three major surgeries. We leaned heavily

on our family doctor for guidance and strength. Being able to regularly see the same GP who understood what was happening in the wider family context genuinely made this time so much easier for us. Not having to re-tell and re-explain the history every time we needed medical care lessened our stress significantly.

Value of generational knowledge

Looking after two or three generations of the same family is commonplace for GPs. The collective knowledge is invaluable. Mary, her mother and grandmother were all my patients, but her husband and children were not. After Mary passed away from cancer, her teenage daughter, Anna, struggled with her grief. When she eventually came to me, I was well prepared to help her because I already knew members of her family closely. Anna did not have to re-live many aspects of her grief because I already knew about them, and she trusted me.

Reducing presentations at emergency departments

GPs want to do more to help patients avoid being admitted to hospital. There is funding to provide acute services in primary care, but it is often insufficient to cover the costs of providing this care. In my practice, we were able to look after pregnant women suffering from the severest form of morning sickness. These women are so dehydrated that they need intravenous fluids often up to three times a week for 20+ weeks. It would take at least three hours with each visit to safely give two litres of fluid. For this, we were paid a total of $210 from a combination of acute care and emergency maternity care funding. If these women needed to go to the ED, it would have cost the healthcare system a minimum of $1,000 for each visit.

Disease prevention: Changing a patient's life course

James was a man of Samoan ancestry in his early 40s. His dad, granddad, various aunts, uncles and cousins – all had diabetes,

gout and hypertension in their 40s. James had accepted this eventuality for himself.

Fortunately, James's partner was able to persuade him to see me. I diagnosed James with early diabetes, hypertension and recurrent gout.

James came to see me regularly over a year. With lifestyle changes and medication, we were able to not only prevent his gout from recurring and control his blood pressure, but also reverse his early diabetes. His whole outlook of his health and life changed when he realised it was not inevitable that he would suffer from the complications of hypertension, diabetes and gout. He even told some of his family members in Samoa of his lifestyle changes and urged them to follow suit.

Building trust over time

I saw several patients in their late teens and early twenties, who would see me episodically for acute, self-limiting issues such as respiratory infections. After seeing me a few times, they would mention concerns about their mental health, such as anxiety symptoms and depression. As a result of the relationships I had built with them over time, they felt they could trust me to discuss their mental health concerns.

Conclusion

Specialist GPs perform highly complex work that demands expertise across a broad range of medical areas, combined with the essential ability to build enduring patient relationships. As highly trained doctors with many years of rigorous post-graduate training, GPs manage complexity through specialist knowledge and experience gained through practical application rather than textbooks alone. While medical training provides the foundational

tools for diagnosis and treatment, it is the ongoing application of this knowledge in the context of individual patients that truly defines general practice.

In today's rapidly evolving healthcare landscape, GPs continually adapt to new technologies and changing patient health needs. Their work directly **saves lives, extends life spans, and generates substantial economic benefits.**

Any attempt to reform primary care without considering the complexity of GP work, their extensive training requirements, and the importance of sustained doctor-patient relationships will fail to build a sustainable GP workforce. Without robust primary care, healthcare systems inevitably become less effective and more expensive, leading to poorer patient outcomes. Therefore, supporting and strengthening primary care systems remains crucial for maintaining effective, efficient and equitable healthcare delivery.

To gain the full value-add of GPs, patients need to be able to be seen in a timely manner when they are acutely unwell, and they need to be able to see their regular GP when they have ongoing health issues, which is continuity of care (see Chapter 2).

CHAPTER 2

The importance of continuity of care

The most crucial aspect of effective primary care is continuity of care or seeing the same GP over time. This concept is not just a desirable feature of healthcare but also quite literally, a matter of life and death.[19] Numerous studies have shown that people who regularly see the same doctor are less likely to die early, go to hospital, or need emergency care.[20] These benefits apply to all kinds of patients and health conditions, making continuity of care the cornerstone of effective primary healthcare systems. With continuity of care comes a reduction in healthcare costs. This chapter outlines the evidence for the effectiveness of continuity of care and includes anonymised quotes from patients and GPs I have interviewed.

Evidence for the impact of continuity

Mortality benefits

A study by Sir Denis J Pereira Gray et al reviewed all available research on the relationship between continuity of care with a doctor and patient mortality. They found strong evidence to show that those who saw the same doctor over time lived longer.[21] This was true for older people, those on Medicare in the US, and people with serious mental health problems. They have lower chances of dying from medical events like heart attacks, strokes, cancer or diabetes.[22] Remarkably, this is true even for people who smoke or are overweight and the benefits exist regardless of age, ethnicity or income.[23]

Reduced healthcare use-cost savings

A large, comprehensive study of 1.4 million Medicare patients in the United States showed the cost-effectiveness of continuity of care with a GP. Those who consistently saw the same GP had 16.1% lower odds of hospitalisation, and those patients with the highest levels of continuity of care with a GP brought about savings to the health system of 14.1%.[24] This is a significant reduction, considering the high costs and potential risks associated with hospital stays.

A study from Norway, which examined more than 4.5 million people, found relatively linear relationships between the length of the GP-patient relationship and emergency department visits, hospital admissions, and overall mortality.[25] Patients who had established a relationship with their GP for fifteen or more years demonstrated a 30% reduction in emergency department attendance and hospital admittance, and approximately 25% reduction in overall mortality compared to patients who had had a regular GP for one year.[26]

Large studies from Canada have also demonstrated a linear relationship between the length of the GP-patient relationship and reduction in likelihood of hospitalisation.[27] [28]

> When we talk about cost-effective healthcare, we often focus on new technologies or treatments. But in my experience the most powerful tool we have is the long-term doctor-patient relationship. It is what makes general practice unique, and allows us to provide more targeted, appropriate care, avoiding unnecessary interventions and catching issues early when they're easier and less expensive to treat.

Mechanisms of benefit

This continuous application of medical expertise forms the bedrock upon which relational continuity is built. As GPs interact with patients over time, they layer their growing understanding of the individual onto their medical knowledge, creating a powerful synergy that enhances care quality and efficiency.[29]

Relational continuity serves as the conduit through which GPs channel their medical expertise to provide tailored, comprehensive care. This ongoing relationship allows for the accumulation of both medical and personal knowledge about the patient, creating a rich context for every interaction.[30] [31] The key ways in which relational continuity acts to improve patient care are described below.

Accumulated knowledge improves quality of care

With each consultation, GPs add to their understanding of a patient's health profile.[32]

> When I see a patient I've known for years, I'm not just looking at their current symptoms. I'm considering their entire medical history, how they've responded to treatments in the past, and how their health has evolved over time. This longitudinal view is invaluable for making accurate diagnoses and formulating effective treatment plans.

This accumulated knowledge allows GPs to:

1. detect subtle changes in health status that might be overlooked in isolated encounters[33] [34]
2. make more informed decisions about further testing or specialist referrals[35] [36]
3. tailor treatment plans based on known patient responses and preferences.[37] [38]

Accumulated knowledge enables personalised care

Beyond the purely clinical benefits, relational continuity allows GPs to understand the personal, social and environmental factors that influence a patient's health. This holistic view is crucial for arranging truly comprehensive holistic care.[39]

Sarah, a patient who had seen me for more than a decade, says:

> My doctor doesn't just know my medical history; she understands my life, knows about my stressful job, my family history, even my reluctance to take certain medications. This means her advice is always tailored to what will work for me, not just what looks good on paper.

This deep understanding allows GPs to:

1. provide lifestyle advice that patients are more likely to implement
2. recognise when social or environmental factors might be contributing to health issues[40]
3. communicate complex medical information in a way that resonates with individual patients.

Accumulated knowledge: Efficiency engine of primary care

Relational continuity does not just improve the quality of care; it also significantly enhances the efficiency of healthcare delivery. The GP-patient relationship allows the development of trust from the patient and increased empathy from the GP.[41 42] Some of the key ways this increased patient trust and GP empathy manifest are as below.

Reduced unnecessary testing and referrals

With a comprehensive understanding of a patient's health history, GPs can make more informed decisions about the necessity for tests or specialist referrals.[43 44]

> Knowing a patient's baseline health status and typical responses often allows me to confidently rule out certain conditions without extensive testing. This saves time, reduces patient anxiety, and cuts healthcare costs.

Streamlined consultations

When GPs and patients have an established relationship, consultations become more focused and productive. There is less need to revisit basic information, allowing more time to address current concerns and preventive care.[45]

Improved chronic disease management

Treatment of chronic conditions such as diabetes, hypertension and asthma benefit significantly from the continuity of care provided by GPs. The ongoing relationship allows for:

1. regular monitoring and timely adjustments to treatment plans[46]
2. early detection of complications or related health issues
3. consistent reinforcement of self-management strategies.[47] [48]

This proactive, long-term approach reduces the likelihood of acute exacerbations, leading to fewer emergency department visits and hospitalisations.[49] [50]

Enhanced preventive care

Relational continuity positions GPs as ideal providers of preventive care. They can:

1. track and encourage regular health screenings
2. provide timely vaccinations
3. offer personalised advice on diet, exercise and other lifestyle changes.

By focusing on prevention, GPs help patients maintain better health over the long term, reducing the overall burden on the healthcare system.[51]

Trust and mental health issues

Building the GP-patient relationship allows trust to build such that patients are more likely to discuss issues they may not feel too comfortable discussing with someone they do not know well. This is especially true for mental health issues (see Chapter 1 for an example from my practice).

Increased sense of responsibility for the patients by the GP

Continuity of care changes the GP, too. It significantly affects the GP's professional approach and commitment. Research shows that a GP's sense of responsibility for their patients increases five-fold after a year of looking after a specific patient group, and this commitment continues to strengthen over time. This enhanced sense of responsibility leads to more thorough follow-up of test results and referrals, greater attention to preventive care opportunities, increased investment in understanding the patient's broader life context, and stronger advocacy for patient needs within the healthcare system. However, driving a lot of professional burnout are rapidly deteriorating working conditions and this responsibility GPs feel for their patients, combined with a feeling that systemic barriers are preventing them from providing optimal patient care.

System navigation and coordination

When a GP maintains a continuous relationship with a patient, they become a more effective navigator and coordinator of the broader healthcare system. GPs can ensure that patients are seen in a timely way in hospital outpatient clinics.[52]

Personal experience of continuity of care in action

In my own GP practice, I have seen the profound impact of continuity of care. I recall Julie, a patient with multiple co-morbidities, including diabetes, hypertension, chronic renal failure, obesity, asthma and breast cancer. Following a prolonged exacerbation of asthma, which required medications that worsened Julie's renal function, she needed twice weekly and then weekly check-ups for approximately eight weeks.

My GP practice was able to manage Julie's needs effectively because our GP-patient ratio facilitated continuity of care. I knew her medical history intimately, understood her personal circumstances, and could track subtle changes in her condition over time. Julie received more targeted, effective care that caught potential complications early and prevented the need for hospitalisation.

Challenges and future directions

With the increasing shortage of GPs in New Zealand, continuity of care is becoming harder to achieve. Many GP practices are struggling to even retain GPs, let alone maintain the kind of GP-to-patient ratios that allow for optimum continuity. Our funding model does not specifically incentivise continuity of care, making it challenging for practices to offer it.

Modern healthcare challenges include increasing workloads, the prevalence of walk-in clinics, and doctor burnout. Even with more people using virtual healthcare, especially since the COVID-19 pandemic, seeing the same doctor still matters. Telemedicine undoubtedly improves access to care, but it also should enhance rather than replace ongoing doctor-patient relationships.

The evidence I have cited comes from overseas studies. We do not have good New Zealand research to show the importance of continuity of care. The Integrated Data Infrastructure (IDI) does not house primary care data. Rectifying this would enable researchers to quantify the benefits of continuity of care within a New Zealand context.

Conclusion

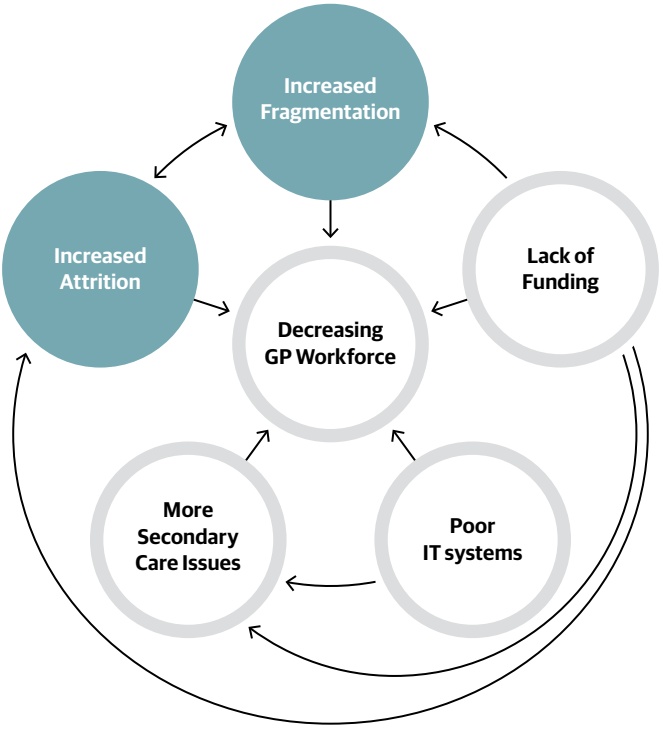
Seeing the same doctor over time helps people stay healthier and live longer. It leads to fewer early deaths, fewer hospital visits, and lower healthcare costs. The long-term doctor-patient relationships make general practice unique among medical specialties. **Without continuity of care, there is no general practice.**

As we introduce reforms, we must focus on maintaining and improving continuity of care in New Zealand's primary care system. We need funding models that incentivise continuity, increase support for GPs to retain them in the workforce and prevent burnout, encourage more doctors to train as GPs, and better integrate primary care with other parts of the healthcare system. With the loss of continuity of care comes the loss of the full scope of general practice and a loss of the value-add of specialist GPs.

Chapters 3 to 5 will outline the interconnected issues in primary care based on my experiences as a GP and practice-owner.

CHAPTER 3

Current state of the GP workforce: Attrition and fragmentation



Workforce attrition

State of the GP workforce

The GP workforce in New Zealand is facing a severe shortage of practitioners. The latest biannual workforce survey by the Royal New Zealand College of General Practitioners (RNZCGP)

reveals that the proportion of the medical workforce who are specialist GPs has dramatically declined from 37% to 25% since 2000.[53] This decline is made worse by the minimal growth in workforce numbers, with 2022 showing a net increase of only 15 practitioners.[54] What is frustrating is that successive workforce surveys have been painting the same picture for the last two decades and little effective action has occurred in response from healthcare policymakers.

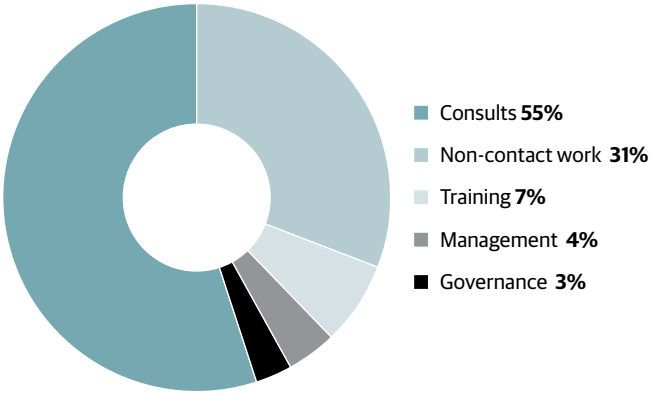
Unrealistic job-sizing

Detailed insights into GP workload patterns come from a recent report by the Your Work Counts Study from the RNZCGP. Direct patient consultations comprise merely 55% of a GP's workload, with non-contact clinical time accounting for 31%. This translates to approximately 3.5 hours of essential follow-up work generated from 4.5 hours of patient consultations. The remaining time is distributed across various essential activities: training and education (7%) and clinical governance and practice improvement (3%).[55]

A GP's hours are still calculated solely based on patient contact time, whereas hospital doctors have some non-contact time incorporated into the work hours for which they are employed. What does this mean in practice? A GP who is employed to work 0.7 FTE* will be seeing patients for nearly all this time and the vast amount of the non-contact time generated is not taken into account. A hospital specialist employed for 0.7 FTE could expect 0.5 FTE to be patient facing and 0.2 FTE to be non-patient facing time. It is vital that policymakers are aware of this discrepancy, particularly when much of the GP workforce is being considered as working 'part-time'. The RNZCGP's Your Work Counts Survey reveals that a GP employed at 0.7 FTE will actually be working up to 1.25 FTE.[56]

* Full time equivalent, ie 0.7 FTE is 3.5 days a week.

Figure 5: A specialist GP's workload



Source: Adapted from Royal New Zealand College of General Practitioners (RNZCGP), "Your Work Counts Study."

Unsustainable working patterns

Unsurprisingly, the Your Work Counts survey showed that many GPs are working well beyond standard working hours. The study calculated that a sustainable workload is approximately 1,023 patients per full-time equivalent GP, yet many practices significantly exceed this ratio. The study, which documented GP workloads for two blocks of consecutive 14-day periods, showed that:

- 14% of GPs were working continuously for 14 days
- 15% were working all weekend days
- 18% were completing at least one 50-plus hour week
- 2% were consistently working beyond 60 hours weekly.[57]

Financial pressures and structural challenges

The financial landscape presents significant challenges for GP practice sustainability. GPs typically earn less than their specialist counterparts in other medical fields, creating recruitment difficulties. Practice owners often find themselves earning less than their employed doctors due to rising operational costs, including paying for their employees' non-patient-facing work.

Impact on mental health and professional satisfaction: Burnout

The combination of intense workload and financial pressures has led to significant mental health concerns within the profession. The statistics paint a troubling picture:

- 79% of GPs report experiencing some level of burnout
- 48% report high levels of burnout
- 96% agree that GP and nurse shortages are causing overburdening of GPs
- 31% would not recommend a GP career, a significant increase from 14% in 2020.[58]

Professional burnout is a key factor in workforce attrition and the RNZCGP workforce survey reveals a direct correlation between higher levels of burnout and increasing likelihood of earlier retirement.[59] Workforce attrition also means fewer doctors joining the GP workforce. The fellowship training to become a specialist GP relies on a good supply of experienced GP Fellows willing to take up teaching roles. But around a third of specialist GPs would not even recommend general practice as a career choice and those suffering from high levels of burnout are less likely to be able to commit to teaching trainee GPs.[60] A recent Commonwealth Fund survey revealed that, out of all countries surveyed, GPs in New Zealand were suffering from the greatest level of burnout.[61]

The detrimental impact of this professional burnout on GP practices and thus healthcare access will be discussed in the next chapter.

Lack of recognition of GP Fellowship training

An important factor driving workforce attrition is the lack of recognition of vocational GP training culminating in Fellowship of the Royal New Zealand College of General Practitioners (FRNZCGP). Specialist GPs are highly trained doctors who have undertaken post-graduate training in general practice. Specialist GPs feel undervalued by policymakers compared with their hospital colleagues.[62]

New Zealand has doctors who are working as GPs but without having undertaken this specialist training or equivalent training in another country recognised by the RNZCGP. To achieve the full value-add of GPs, we need a GP workforce of the highest quality. In Australia, a doctor can call themselves a GP only if they have, or are working towards, attaining Fellowship of the Royal Australian College of General Practitioners. Attaining the GP Fellowship must be recognised and valued both within the medical fraternity and by policymakers. See Appendix.

Diversity challenges

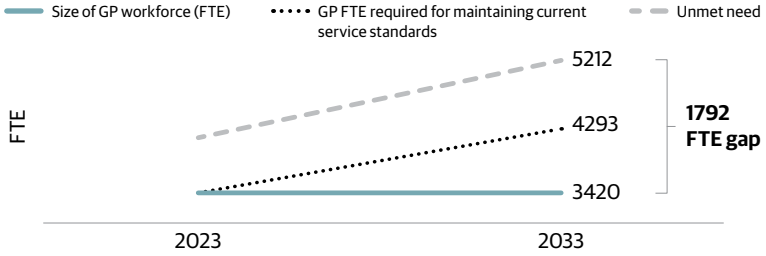
The workforce crisis is compounded by significant diversity gaps, particularly in Māori and Pasifika representation.

- Less than 5% of GPs identify as Māori.
- Only 2% identify as Pasifika. These figures stand in stark contrast to New Zealand's population demographics of 17% Māori and 9% Pasifika people.[63]

Projections and immediate concerns

New Zealand is currently short of approximately 600 GPs and this shortage is predicted to rapidly worsen over the next few years. The average age of specialist GPs is 54 years and 45% of GPs intend to retire within the next ten years.[64]

Figure 6: Projected vocationally registered GP workforce (FTE)



Source: Adapted from Hefford, Martin. "Primary Care Development Programme August 2024," presentation (Te Whatu Ora – Health New Zealand).

Healthcare access is clearly facing serious challenges.

- 64% of specialist GPs intend to retire by 2032.
- The immediate retirement of GPs aged 65 and over would leave approximately 725,000 patients without a doctor.
- Current training numbers of 200 GP registrars annually fall short of the required 300.
- 11.5% of adults and 7.6% of children have already reported missing necessary GP visits due to long wait times.[65]

The situation demands immediate and comprehensive action to ensure the sustainability of New Zealand's primary healthcare system and the wellbeing of both practitioners and patients.

The Your Work Counts study findings align with my experiences. The areas highlighted in blue below are for unpaid work and those in grey are insufficiently remunerated to cover costs. When my practice opened in 2015, I worked off the GP-to-patient ratio of 2,000 patients per FTE. This ratio allowed for a manageable patient load, and enabled continuity of care with a viable business. But each passing year saw a noticeable increase in the amount of non-patient contact time. As a practice-owner, I paid my employees for non-patient contact time while my GP business bore the financial loss.

Table 1: A typical workday and workweek for a specialist GP

Typical day	Typical week
Minimum 24 booked patients	Teach and supervise staff
Any emergencies	Teach GP trainees
Peer support	Business management
Write referral letters	Personal, ongoing learning
Review test results	
Read and action hospital letters	
Repeat prescriptions	
Answer phone calls and emails from patients	
Home visits and palliative care visits	

Task-shifting in primary care

While there is a clear need to reduce GP workload, task-shifting must be approached carefully and with clear evidence. Other medical professionals, such as nurse practitioners (NPs) and physician associates (PAs), play vital roles in primary care, but their scope of practice must be defined based on their training and expertise.

The training differences between doctors, NPs and PAs are significant. Doctors receive at least 20 times more hands-on training than NPs, spending thousands of hours working directly with patients. About 60% of NP training is done online. PA programmes last about two to three years after a bachelor's degree. It takes a minimum of five years of training post-medical degree to qualify as a specialist GP. See Appendix.

The Hattiesburg Study

The Hattiesburg Clinic Study of 33,000 patients, published in the *Journal of the Mississippi State Medical Association,* examined the impact of employing NPs and PAs working independently as primary providers to address GP shortages. The study aimed to show that NP/PAs could provide similar quality of care, keep costs stable, and meet patient expectations compared to seeing a GP.[66] However:

- GPs performed better in 9 out of 10 quality measures.
- Care costs were higher with NPs/PAs as primary providers:
  - $43 more per patient monthly ($10.3 million annually)
  - $119 more for complex patients ($28.5 million annually).
- Patients with NPs/PAs as primary providers showed:
  - higher emergency department visits
  - higher specialist referral rates
  - increase in X-ray ordering
  - higher antibiotic prescription rates
  - double the skin biopsies.[67]

These findings correlate with other research, which shows increased rates of specialist referrals,[68] antibiotic and opioid prescribing,[69 70 71] and diagnostic imaging[72] when NPs and PAs are working independently within a broad scope of practice.

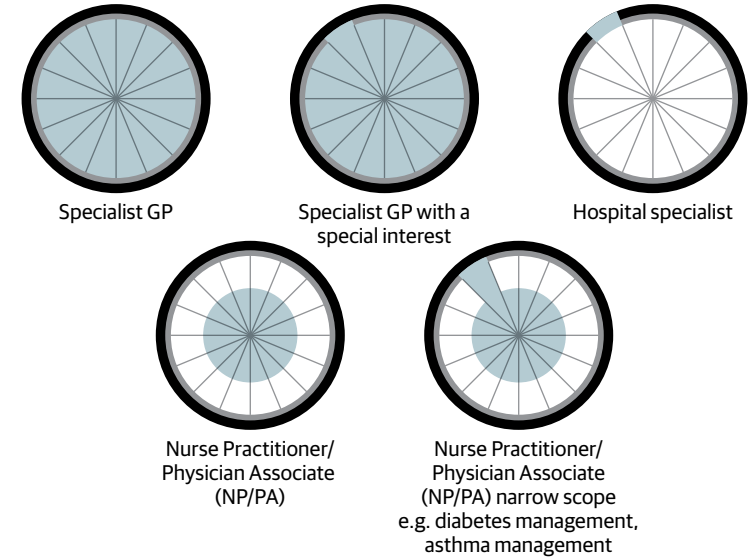
A balanced approach to task-shifting

The solution lies in recognising both the specialist nature of general practice and the valuable contribution of other healthcare professionals. Effective task-shifting requires:

1. defining roles clearly based on training and expertise
2. recognising the complexity of GP work
3. understanding that certain aspects of primary care require specialist GP expertise
4. providing appropriate supervision and collaboration structures
5. evaluating outcomes regularly
6. focusing on team-based care where each professional works within their scope.

Figure 7 adapts the wheel and spoke diagram in Figure 2 to illustrate the differences in scope of practice and expertise of various healthcare professionals.

Figure 7: Schematic diagram adapted from Figure 2 to represent the differences in scope and expertise of various healthcare professionals



Workforce attrition and fragmentation: A vicious cycle

The increasingly challenging working conditions and lack of funding is causing sustained workforce attrition, which in turn is resulting in increasing fragmentation of the GP workforce. The shift towards fragmented roles is particularly pronounced among mid-career GPs who have developed substantial clinical expertise but find the current working conditions in traditional practice unsustainable. This trend creates a concerning cycle where workforce attrition leads to increased pressure on remaining GPs, which in turn drives further attrition and fragmentation.

The broad scope of general practice has been divided into narrower areas such as urgent care, telehealth, and administrative work. These segmented roles often provide better remuneration and do not come with the responsibility of ongoing patient care, making them particularly attractive to GPs seeking respite from the mounting pressures of full-scope practice. This fragmentation is both a symptom and a driver of the workforce crisis – as more GPs opt for these roles, the strain on remaining full-scope practitioners increases, triggering further attrition.

Financial disparities in service provision

A significant disparity exists in the funding model between traditional GP practices and urgent care facilities. GP practices typically receive lower funding for providing acute medical services to their patients compared to the funding allocated to urgent care facilities for the same services. This financial inequity has made it economically unfeasible for many general practices to extend their operating hours to provide urgent medical services, despite the clear need for such care in their communities.

The outdated contract model

The current contractual obligation requiring GPs to provide 24-hour care, 365 days per year for their patients has become outdated and impractical.[73] This arrangement reflects a historical context when:

- medical cases were less complex
- the administrative burden was significantly lower
- patient loads were more manageable
- regular home visits were standard practice.

This model no longer aligns with contemporary healthcare demands and the evolution of general practice.

Urban-rural disparities in urgent care

Urban areas

In urban settings, the proliferation of urgent care facilities has created an alternative care pathway for patients and serves to relieve the out-of-hours work commitments of many urban GPs. However, the current system financially penalises GP practices when their patients access these facilities, even when the practice provides adequate access during standard hours. This punitive approach undermines the sustainability of traditional general practices and fails to recognise the changing healthcare landscape.

The establishment of a fellowship training programme in Urgent Care has further legitimised this fragmentation of services. While this specialisation offers important career pathways, it has contributed to the dilution of the traditional GP workforce, particularly in urban areas where numerous urgent care facilities operate.

The current situation:

- creates unnecessary competition between general practices and urgent care facilities
- undermines the financial sustainability of traditional general practices
- fails to recognise the evolving nature of primary healthcare delivery.

Rural challenges

Rural GPs face particularly acute challenges. They work under especially difficult conditions:

- extended on-call requirements with inadequate remuneration
- limited specialist support
- higher workloads per practitioner
- increased risk of burnout.

The situation in rural areas is especially concerning as these regions lack the urgent care infrastructure available in urban areas, placing additional pressure on local GP services to provide comprehensive 24-hour care coverage with a diminishing workforce.

Telehealth and workforce fragmentation

Many GPs are moving into telehealth roles. They are afforded the flexibility of working from home, are better remunerated than they are for face-to-face work, and they do not have ongoing responsibility of care for the patients they see virtually. Chapter 4 contains a detailed discussion of telehealth, its benefits and pitfalls.

Conclusion

The specialist GP workforce crisis in New Zealand has reached a critical point that demands comprehensive solutions beyond simplistic approaches. If we are to find meaningful solutions to this crisis, it is vital to address the underlying causes of workforce attrition and to acknowledge the reality of workforce fragmentation.

Bringing in more GPs from overseas or training more GPs domestically, while helpful, is insufficient without tackling the fundamental issues driving existing practitioners away from the profession. The alarming rates of burnout, unrealistic job-sizing that fails to account for non-contact clinical time, financial disadvantages compared to other medical specialties, and lack of recognition for GP Fellowship training all contribute significantly to the exodus of qualified practitioners.

Workforce fragmentation – where experienced GPs are abandoning traditional practice for roles with narrower scope in urgent care, telehealth, and administration – creates a vicious cycle that further stresses the system. As mid-career GPs with substantial expertise

leave full-scope practice, the burden on remaining practitioners intensifies, triggering even more attrition.

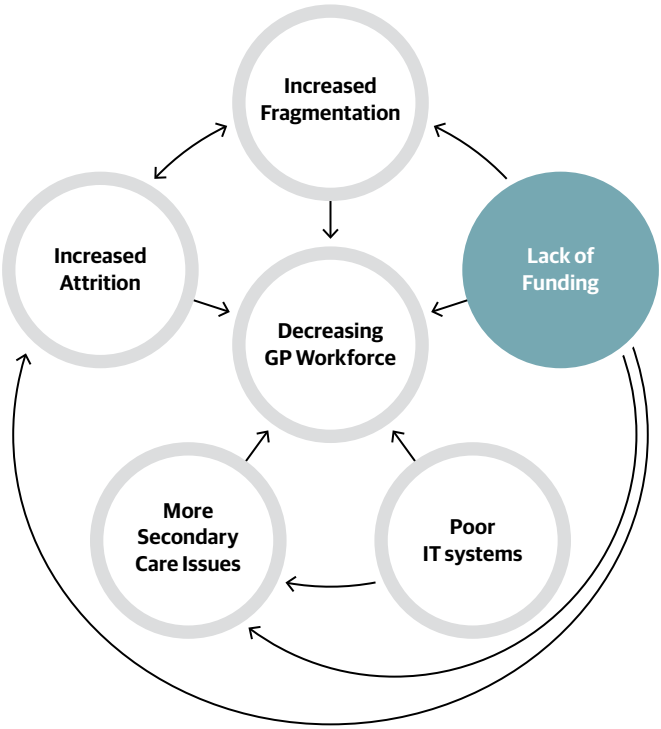
Any effective solutions must therefore focus on creating sustainable working conditions and implementing meaningful reforms that address these root causes. Without fundamental system-wide changes, stopgap measures will only delay an inevitable deeper crisis in New Zealand's primary healthcare system.

Several key reforms are necessary:

- Increase GP registrar training numbers to meet the target of 300 annually
- Establish pay parity with hospital-based medical registrars
- Implement funding mechanisms for non-clinical administrative time
- Increase funding for teaching and ongoing professional development activities for specialist GPs to be on par with hospital specialists
- Develop targeted strategies for Māori and Pasifika GP recruitment and retention
- Revise the 24/7 care obligation to reflect modern healthcare delivery models
- Financially support GP practices to extend their services where feasible
- Develop collaborative models between general practices and urgent care facilities
- Utilise telehealth whilst also maintaining continuity of care.

CHAPTER 4

Primary care funding and healthcare access



The capitation model: Promises and problems

The capitation model, introduced in 2001 as part of the Primary Health Care Strategy, aimed to provide fair access to primary care and focus on preventive medicine.[74] The premise was sound: practices would receive a set amount of funding per enrolled patient, such that the fee the patient paid to see a GP was reduced,

with the aim of allowing GPs to provide care based on need rather than ability to pay.[75] [76] GP practices are funded for approximately 2.2 visits per patient per year. Initially, there were improvements seen with more people accessing primary care.[77] [78]

Limitations of age and gender-based funding

The model considers only age and gender, with more funding for babies and young children, and then funding gradually increases across age bands, peaking for those 65 years and older.[79] This creates problematic scenarios, for example in the case of Kate, a healthy 65-year-old marathon runner and her mother, Mary, a frail 85-year-old with multiple health conditions, where the same funding is received for the care of each patient.

Impact on Māori and Pasifika populations

A funding model based on age and gender fails our Māori and Pasifika populations, who often have higher health needs due to historical and socioeconomic factors. This results in their experiencing poorer health earlier in life than the rest of the population, effectively building unfairness into our healthcare system.[80] [81]

Increasing complexity of care

In the 20 years since capitation was introduced, patient needs have become much more complex. Patients are living longer, often with multiple chronic conditions, such as diabetes and kidney failure.[82] [83] The number of available medications has increased, and people are visiting their GPs more often than they did 20 years ago.[84]

General practitioners now handle cases in their clinics that hospitals used to manage. However, capitation funding has not kept up with these changes. Patients with chronic health conditions, such as diabetes, will invariably need to see their GP more than the funded 2.2 visits per year.[85]

Financial challenges and their impact

The funding gap

From 2009 to 2022, while the Consumer Price Index rose about 30%, funding for primary care only increased about 21%. This 9% gap means less money in real terms for providing the same care.[86] This gap is even higher for practices that serve a higher proportion of high-needs patients.[87]

Impact on high-need populations

Practices serving high-need populations face even bigger challenges. Practices with populations containing 50% or more high-needs patients are designated as Very Low Cost Access (VLCA). This means that in return for slightly higher capitation payments and some additional funding, their patient co-payments are set to a maximum amount of $19.50 for an adult. However, as the funding model does not adequately account for these high-needs patients, these practices are financially worse off than their non-VCLA practice counterparts.[88]

The funding model assumes a certain level of cross-subsidisation, where funding for healthier patients helps cover the costs of caring for those with higher needs. However, in practices with a higher proportion of high-needs patients, there are not enough healthier patients to cross-subsidise their care. There is therefore a financial disincentive to provide the comprehensive care that these complex patients need.[89] [90] [91]

Current state of general practice: Key findings

Practice closures and access restrictions

Recent surveys from General Practice New Zealand (GPNZ) reveal a healthcare system under severe strain:

- 61% of Primary Health Organisations (PHOs) report having GP practices at risk of closure

- Nearly 60% of GP practices are restricting access to new patients
- 74% of after-hours GP services are at risk of closure or significant service restrictions.[92] [93]

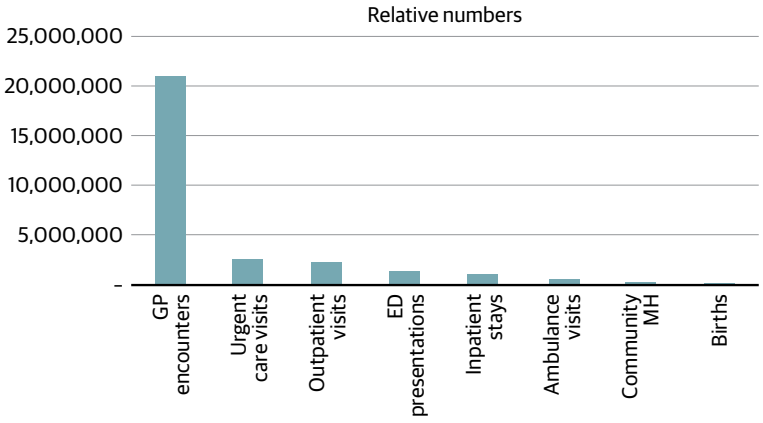
Service reductions

Many GP practices are implementing survival strategies including:

- Reducing or eliminating after-hours services
- Restricting new patient enrolments
- Merging with other practices or selling to corporate entities
- Implementing pre-payment requirements
- Reducing operating hours.[94] [95]

Despite all this GPs continue to be the backbone of healthcare for the population. Figure 8 shows that there were over 21 million patient visits to GP practices last year, compared to approximately 1.3 million visits to emergency departments. As mentioned earlier, we know that approximately 90% of medical problems are managed effectively within general practice.

Figure 8: GP practices are the backbone of the healthcare system



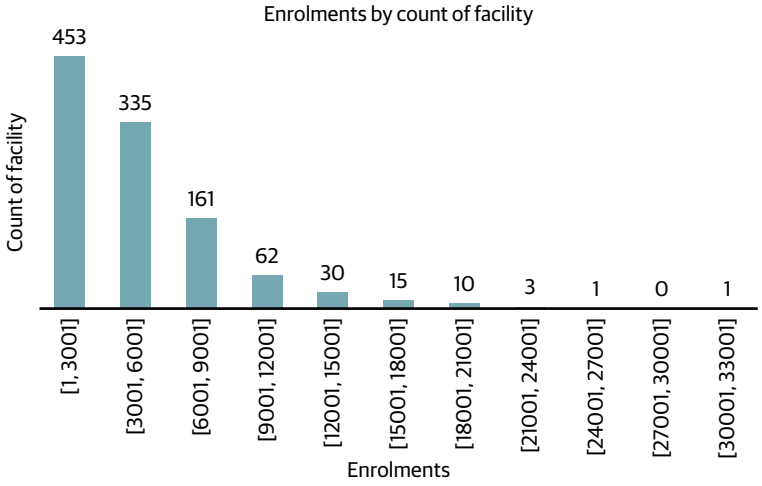
Source: Adapted from Hefford, Martin. "Primary Care Development Programme August 2024," presentation (Te Whatu Ora – Health New Zealand).

Size matters

The business model of GP practices compounds the issues caused by underfunding while innovation is stifled.

The past few years have consistently seen over 21 million patient encounters each year in primary care, but only around 6% of the health budget is allocated to it.[96] Many GP practices are small with around 42% of them having fewer than 3,000 enrolled patients and around 74% having fewer than 6,000 patients (Figure 9). Smaller practices have less capacity to deal with the pressures of: increased operating costs, funding not reflecting the increasing complexity of patients nor keeping up with CPI, and workforce shortages. Innovation is also harder when the business is smaller. Furthermore, most GPs do not receive any formal training in business management, yet GP practice-owners must balance clinical responsibilities with business management. Funding streams are also complex and more time is spent navigating them. See Appendix.

Figure 9: The majority of GP practices are small



Source: Adapted from Hefford, Martin. "Primary Care Development Programme August 2024," presentation (Te Whatu Ora – Health New Zealand).

Example of funding stream complexity

During the pandemic, my GP practice established itself as a Covid testing station. This was a crucial service at the time and we were able to provide it. We performed more than 300 tests a week for several weeks. To be remunerated for this, we had to follow a convoluted claiming process for every single test we performed, adding considerably to our administrative burden.

Example of funding system stifling innovation

The current funding system stifles innovation. I established a skin cancer screening service and a minor surgical procedure centre at my GP practice. Patients who could not self-fund or pay via insurance could have suspected skin cancers removed using public funding. Applying for this funding was a laborious process and the remuneration did not cover our costs. We were able to continue to provide the service due to cross-subsidisation from our insured and self-funding patients. If the publicly funded patients had their suspected skin cancers removed in hospital, the cost to the healthcare system would be at least five times higher.

As I mentioned in Chapter 1, GPs can also do much more to help prevent avoidable hospital admissions. This is better for patients and saves a considerable amount of money for the healthcare system. However, to provide these services, GP practices must be appropriately remunerated so that they can fund the staff needed, etc.

Impact on patient care and growing inequities

Access barriers

The impact of practice closures and access restrictions on patient care is severe:

- Approximately 500,000 people did not see a GP last year due to cost, with Māori disproportionately affected.[97]

- Approximately 1 million people did not use a GP service due to long waiting times.[98]
- Approximately 209,000 eligible people are not enrolled, of which 152,000 are Māori and 18,000 are of Pasifika ethnicity.[99]

Widening health inequities

The New Zealand Health Survey reveals concerning trends:

- The percentage of people reporting inability to access healthcare when needed increased from 18% in August 2020 to 24% (and 30% for Māori) in November 2022.
- Those reporting excessive waiting times increased from 11% in August 2020 to 18% (21% for Māori) in November 2022.
- 9% of the general population and 18% of Māori had not picked up a prescription because of cost.[100]

Impact of being unenrolled in primary care in New Zealand

Puskar Silwal, et al analysed data from deaths in New Zealand between 2008 and 2017 and found that after adjusting for age, gender and deprivation, those who died were more likely to not be enrolled with a GP practice.[101]

Another study looked at information from the New Zealand Health Survey and found that of those patients using an emergency department, the unenrolled were 14% more likely to attend than those who were enrolled with a GP practice.[102]

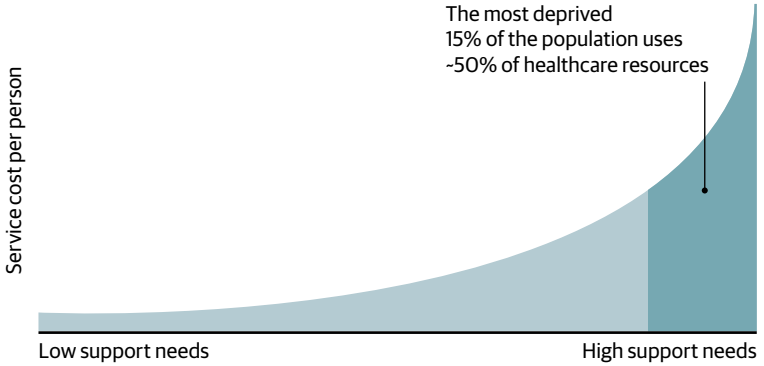
Impact on children's health

A study by Mona Jeffreys, et al. (2022) found that 4.7% of children experienced barriers to seeing a GP at age 12–24 months and 5.5% at age 42–54 months.[103] These barriers were significantly higher for Māori and Pasifika children compared with European children. This lack of early access to primary care is associated with higher hospitalisation rates later in childhood.[104]

The Mason curve and resource utilisation

The Mason Curve illustrates that the most deprived 15% of the population uses approximately 50% of healthcare resources.[105] This disproportionate use of resources highlights the importance of addressing health inequities and improving access to primary care for the most vulnerable populations. By improving primary care access and effectiveness for this high-need group, there is potential to significantly reduce overall healthcare costs and improve population health outcomes. This is social investment in practice.

Figure 10: The Mason Curve



Source: Adapted from Law and Economics Association New Zealand (LEANZ), "ImpactLab x LEANZ Seminar slide deck" presentation.

Telemedicine: An important tool but not a new model of care

One of the solutions for dealing with the dire lack of specialist GPs has been to increase the provision of and access to telehealth services.

Historical context and growth

Telemedicine usage expanded rapidly during the COVID-19 pandemic. In Ontario, Canada, for example, the number of patients using virtual walk-in clinics doubled between April 2019

and December 2020, with a corresponding increase in doctors offering virtual visits.[106] Policy changes in multiple countries, including Canada, Australia, and the United States, enabled payment parity between virtual and in-person consultations.[107]

Benefits of telemedicine

There are many benefits of telemedicine:[108] [109] [110] [111] [112] [113] [114] [115] [116] [117] [118] [119]

- improved access for rural populations
- reduced on-call commitments for rural health GPs
- convenience and cost efficiency for patients
- enhanced efficiency for certain types of consultations
- improved infection control
- reduced travel time and costs for patients
- lower overhead costs for practices.

Limitations and clinical challenges

However, it is important to recognise the limitations of telemedicine:[120] [121]

- Physical examination limitations affecting diagnostic accuracy leading to increased risk of missed diagnoses.[122] [123] [124]
- These limitations also lead to higher rates of emergency department referrals, especially in the case of virtual 'walk-in' clinics, which do not offer continuity of care with the patient's regular GP.[125] [126]
- My interviews with a number of experienced GPs working in telehealth indicate that only about two-thirds of cases can be safely managed virtually.
- There is also a risk of overusing healthcare with telemedicine. When it is very easy to see a doctor virtually, people might seek care for minor issues that would get better on their own.[127] This could lead to unnecessary treatment and higher healthcare costs.[128]

- There are particular challenges in managing:
  - children[129]
  - elderly patients[130] [131] [132]
  - acute respiratory illnesses[133]
  - complex medical conditions.[134]

The critical role of continuity of care

Research demonstrates that continuity of care remains vital even in virtual healthcare delivery:

- A large Canadian study during COVID-19 showed fewer patients died when virtual care was provided by doctors who knew their patients compared to those who did not.[135]
- Reviews of the evidence show that virtual walk-in clinics, while convenient, showed higher rates of emergency department attendance and fragmented care.[136] [137]
- Patients receiving virtual care from unfamiliar providers were more likely to require follow-up visits and specialist referrals.[138]
- The absence of an ongoing doctor-patient relationship in virtual care settings often leads to:
  - increased diagnostic testing
  - higher referral rates
  - less efficient healthcare utilisation
  - poorer health outcomes.[139]

Access and equity considerations

Technical barriers affect certain populations disproportionately and risk exacerbating existing health inequities:

- elderly individuals[140] [141] [142]
- low-income households[143]
- non-English speakers[144]
- rural communities with poor internet connectivity.[145]

Successful implementation models

Hybrid care approaches

The Tāpiri Mai model demonstrates effective integration of virtual and in-person care and will be discussed in detail in Chapter 5.

Hybrid care implementation requires:

- connection to patients' regular healthcare providers
- integration with medical records
- clear pathways for in-person assessment when needed
- maintenance of the doctor-patient relationship.

Recommendations

First, recognise that virtual healthcare is a vital tool but it does not provide a new model for the delivery of primary healthcare:[146]

- prioritise virtual care delivery through established doctor-patient relationships
- implement hybrid care models that combine virtual and in-person care
- develop clear guidelines for appropriate use of virtual consultations
- ensure equitable access through multiple consultation methods
- design payment systems that:
  - encourage effective use while discouraging overuse
  - incentivise continuity of care
  - support integrated care delivery

Second, provide support and education for both patients and providers on the safe and appropriate use of telemedicine.

Third, ensure there is regular evaluation of outcomes and adjustment of delivery models as needed.

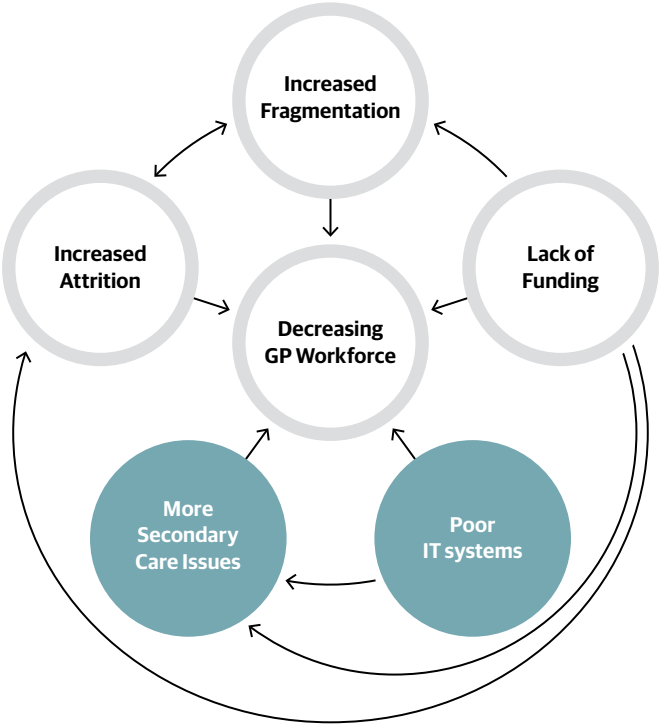
Conclusion

The current primary care funding model in New Zealand is contributing to widening health inequities, reduced access to care, and increased pressure on hospital services. While tools like telemedicine offer some solutions, they cannot address the fundamental issues of underfunding, inappropriate funding models, and the vital need for more specialist GPs.

Years of under-funding and under-valuing GPs have led to significant shortages and access issues, particularly affecting under-served communities. This is not a well-paid professional diatribe about needing more money. There is simply not sufficient funding to pay for the increasing needs of our populations.

CHAPTER 5

Systemic pressures and IT challenges in primary care



The increasing strain on primary care services in New Zealand also stems from multiple systemic issues, with fragmented information technology (IT) systems and mounting pressure from secondary care creating significant challenges for healthcare delivery.

IT systems: A barrier to effective care

Healthcare information technology systems are inadequately designed to support effective multidisciplinary collaboration, both within primary care teams and in the interactions between primary and secondary care providers. GP practices use electronic records through patient management systems (PMS's), with five different systems operating across New Zealand. These systems are not readily compatible with each other, creating significant barriers to coordinated care.

Patients reasonably expect their medical information to follow them seamlessly across different healthcare settings. These expectations include:

1. Complete transfer of electronic notes when moving to a different region.
2. Prompt full electronic documentation sharing between urgent care facilities and their GP.
3. Efficient communication of the Accident Compensation Corporation (ACC) claim details and treatment records between physiotherapists and GPs.
4. Electronic transfer of hospital treatment notes to GPs, regardless of the treating hospital's location.

However, reality falls far short of these expectations. GP Practices frequently must scan hundreds of pages of patient notes into their PMS when patients enrol, due to difficulties in transferring notes electronically. The situation varies significantly between regions. In the North Island, most GPs lack easy access to patient notes in the hospital system but receive automatic copies of investigation results ordered by hospital colleagues, often without prior knowledge of the tests being ordered. This can lead to challenging situations, such as receiving critical test results before the ordering specialist has reviewed them or formulated a management plan. See Chapter 1 for one example from my own experience.

In contrast, the South Island benefits from the Health One system, which allows GPs easy access to hospital notes without being overwhelmed by test results ordered by hospital colleagues.[147] Despite its success, this system remains unavailable to most North Island GPs.

A recent ongoing audit by an Auckland region GP working 0.6 FTE with 1432 patients undertaken over nine working days reveals the extent of information overload arriving daily into GP's inboxes. Of the inbox items:

- 5% were duplicates.
- 12.5% were automatically copied results from secondary care, including routine post-operative reports such as X-rays following total hip replacement surgery
- 15% were automated notes from secondary care, such as emergency department arrival notifications and acknowledgements of outpatient clinic referrals.[148]

Furthermore, hospitals in different regions operate incompatible IT systems, often forcing GPs to rely on fax machines for inter-regional patient follow-up care. This fragmentation of information not only negatively affects patient outcomes but also introduces unnecessary inefficiencies into the healthcare system. Shared digital health records, which allow sharing of patient notes between various primary care and secondary care providers, exist in a few areas of New Zealand, but they are not uniformly available.

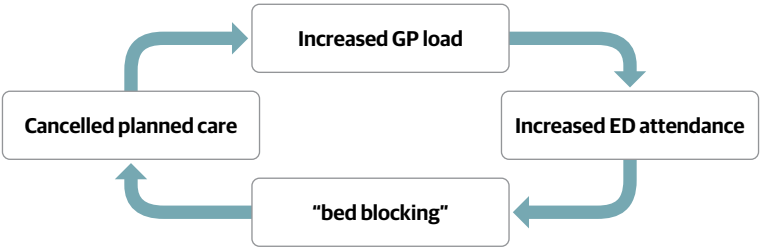
The cascade effect of secondary care pressures

The strain on secondary care services creates a significant ripple effect throughout the healthcare system. Since COVID-19, these pressures have intensified dramatically, with research from Otago University confirming a fundamental deterioration in healthcare delivery. The traditional boundaries between primary

and secondary care have blurred, with GPs increasingly managing complex patients who would traditionally have been managed in secondary care, often without adequate support or resources.[149]

The statistics paint a concerning picture, with a 5.2% annual increase in declined referrals and waiting times for services like orthopaedics stretching to 18–24 months.[150] These delays create a vicious cycle: more emergency admissions result in fewer beds for planned procedures, leaving more patients waiting longer in the community with worsening symptoms and requiring more intensive GP care.

Figure 11: The vicious cycle of increasing pressures at the primary-secondary care interface



A patient's story: The human cost of system failure

The case of a school groundsman with severe hip pain exemplifies our system's failings. Following diagnosis of advanced osteoarthritis, he faced a wait exceeding one year for surgery despite clear radiological evidence and significant functional impact. This delay proved devastating.

Unable to maintain his physically demanding role despite workplace modifications, he lost his job. The transition from employed to unemployed status forced him to navigate the complex process of applying for disability support, significantly impacting his family's financial security and his sense of self-worth.

The mental health implications were profound. Depression emerged as chronic pain and unemployment wore down his resilience. His world contracted, limited by pain and financial constraints. Activities he once enjoyed became painful reminders of his limitations.

As his GP, my role expanded beyond physical health management to encompass mental wellbeing support and assistance with social services. The management plan included:

- pain medication and antidepressant monitoring
- physiotherapy referrals
- mental health support
- social service coordination.

Yet these interventions were merely stopgap measures when what he truly needed was timely surgery. The case illustrates the cascade effect when healthcare systems fail to provide timely care.

An orthopaedic issue evolved into unemployment, financial hardship, and mental health challenges, affecting not just the patient but his entire family and community.

The hidden costs manifested through:

- increased healthcare utilisation
- social welfare payments
- lost productivity
- additional administrative burden
- immeasurable human suffering.

This case exemplifies the broader mental health crisis compounding system stresses. GPs struggle to access secondary mental health services, managing complex psychiatric cases with limited support. Waiting times for specialist mental health services extend to months, even for severe cases, leading to deteriorating

patient conditions, increased crisis presentations, reduced preventive care capacity, and growing provider stress.

Conclusion

Healthcare should be viewed as a continuous patient journey rather than a collection of disconnected encounters. See Figure 4. Achieving improved patient outcomes depends on placing the patient at the centre of medical records, whether this involves coordinating medications across different clinical environments or ensuring smooth care transitions.

To demonstrate this point, medications that are classified as long-term prescriptions should seamlessly follow patients as they move across various healthcare settings over time. However, the reality is that medical professionals frequently must rely on disconnected records that emphasise individual departmental systems rather than focusing on comprehensive patient care.

Inter-operability standards are crucial to ensure all healthcare IT systems can communicate effectively, reducing duplication and improving coordination of care. The current lack of standardisation in health condition coding, with many in primary care using outdated READ codes[151] instead of SNOMED[152] and hospitals using ICD-10 codes,[153] further compounds these issues, leading to diagnoses being missed in primary care.[154]

The current trajectory threatens not just individual health outcomes but the viability of New Zealand's primary care system. Without significant change, these challenges will continue to compound. Patient safety continues to be compromised thousands of times daily throughout New Zealand, necessitating immediate attention and comprehensive solutions to address both immediate care delivery challenges and underlying structural inequities.

CHAPTER 6

Innovative approaches in primary care

To improve our primary care system, we need to consider the unique challenges different communities in New Zealand face and the innovative approaches already making a difference. This chapter explores several initiatives that stand out for their creative thinking, community engagement, and willingness to adapt to local needs. These approaches offer hope and potential solutions to the challenges discussed in previous chapters.

Rural healthcare pressures

As mentioned earlier rural GPs work under especially difficult conditions:

- extended on-call requirements
- limited specialist support
- higher workload per practitioner
- increased risk of burnout.[155]

The Rural Accelerated Chest Pain Pathway (RACPP)

About 20% of New Zealand's population live in rural areas.[156] They face distinct healthcare challenges, particularly in managing acute conditions. For a long time, people in rural areas with chest pain often had to travel to city hospitals for diagnosis and treatment.[157] This caused delays and unnecessary expense to patients and the health system.[158] [159]

In response, rural GPs and health experts created the innovative Rural Accelerated Chest Pain Pathway (RACPP).[160] [161] The RACPP uses simple blood tests, risk assessment tools, and heart tracings that can be done in rural clinics and small hospitals.[162] This approach has proven to be both safe and effective.[163]

Nearly half of all patients with chest pain could stay in their local area for treatment and no patients deemed low risk by the pathway had serious heart problems in the month after being assessed. This saves about $1,000 for the overall healthcare service and $300 for each patient.[164]

While I do not have personal experience with rural healthcare, several rural GPs have told me that the RACPP has been invaluable in allowing them to manage chest pain cases more effectively and reduce unnecessary transfers to larger hospitals.

However, patients with serious heart conditions continue to experience differences in hospital care, for example, they are less likely to be referred for tests and treatments for their arteries (angiography) if they are seen in rural hospitals or smaller city hospitals without specialised heart facilities.[165] They are also less likely to have their heart pumping strength checked (echocardiography).[166]

Despite these differences, patients get similar medicines to prevent future heart problems, regardless of the type of hospital they go to.[167] There was no significant difference in death rates after thirty days or one year for patients who first went to rural, small city, or big city hospitals.[168] But after two years, slightly more patients who first went to rural hospitals had died.[169]

Compared with urban areas, a higher percentage of rural populations are Māori. Both Māori and Pasifika people have worse heart health outcomes than New Zealand Europeans. They are also less likely to get quick heart scans, even in big city hospitals.

This highlights the intersection of geographical and ethnic inequities in our healthcare system.[170]

Meanwhile, the RACPP still faces challenges in its functioning. The RACPP finds it hard to get consistent funding and delivery throughout rural regions across the country. Rural patients still struggle to get quick access to advanced heart tests. More trained rural healthcare workers are needed, as is better use and availability of technology.

A new project called ICare-RURAL POC is testing a new, more sensitive blood test that might rule out heart attacks with just one test for about half the patients with chest pain.[171] Despite its potential, this project is facing funding and organisational challenges.

The RACPP and similar initiatives show that innovative approaches can significantly improve healthcare delivery in rural areas. They also highlight the ongoing challenges faced by rural communities in accessing equitable healthcare. Of note is that this pathway could be implemented in all GP practices across the country, regardless of rurality. The potential cost savings in terms of preventing emergency departments and hospital admissions are huge. However, as a previous trial of other testing devices being made available in GP practices showed, adequate funding and support must be provided to enable sustainable service delivery.[172]

The Tāpiri Mai Project[173]

Residents in Matakana and Mōtītī islands in the Bay of Plenty face significant challenges in accessing healthcare due to their isolation and limited transport options. These factors were often disregarded while scheduling hospital appointments, often leading to missed appointments and frustrated patients, despite residents wanting

to use those services. An earlier attempt to introduce telehealth failed – mainly because it did not involve the community. The gap between healthcare and wellbeing services on the one hand and the island communities on the other was widening.

Community engagement

The Tāpiri Mai project was started to help these remote islanders. It combines virtual consultations with a community-led approach, while maintaining ongoing care from Hauora and General Practice teams. The Tāpiri Mai team extensively engaged with island residents. They held many meetings to ensure solutions met specific needs and addressed concerns. This was especially useful when discussing the installation of radio masts, allowing for open discussions and education about the technology.

Telehealth integration

A key part of the Tāpiri Mai project is virtual GP consultations. However, these are in addition to the existing on-site clinics, and the community agreed to explore the option of virtual consultations only on the condition that there would be no reduction in the provision of face-to-face clinics. This telehealth service allows residents to access medical care more often without costly and time-consuming travel. To enable these virtual consultations, the project team worked with the communities to install the radio masts that improved internet connectivity. Internet access further supports wellbeing with access to other services such as online counselling, education and training.

Local empowerment

The project also builds local skills. For example, a local resident was trained as a link between healthcare providers and the community. This role has been valuable in improving communication and helping new services run smoothly.

Practical solutions

Mainland pharmacies now deliver medicines to the barge dock and airport for island residents to collect. Emergency response can be improved by using the what3words geocode system. This helps emergency services find homes on the islands that did not have standard addresses.

The team is now coordinating hospital appointments with the limited transport options for islanders. This aims to reduce missed appointments and help islanders use hospital services more easily.

Continuity of care

Throughout the project implementation, the communities continue to receive ongoing care from General Practice teams. For about ten years, Ngāti Kahu Hauora, a Māori healthcare provider, has been providing regular on-site clinics monthly for Mōtītī Island and every two weeks for Matakana Island. The virtual consultations are run by GPs and a Nurse Practitioner from Ngāti Kahu Hauora. These GPs have established relationships with the patients and have full access to their medical records.

The Tāpiri Mai project shows the importance of community involvement, cultural awareness, and flexible solutions in improving healthcare access for remote populations. It combines new technology with respect for authentic community engagement and existing care structures. The project is actively addressing the previous gap between health and wellbeing services and island residents.

The WHIRI Model of Care[174]

The WHIRI Model of Care, which stands for Whānau Hauora Integrated Response Initiative, has been working well in the Waikato region. WHIRI combines several approaches to bridge the gap between healthcare and communities.

It was started by senior Māori clinicians and researchers at Waikato Hospital in 2020–21 in response to growing inequities, especially with outpatient waiting lists, during the Covid pandemic and following the cyber-attack at Waikato Hospital. It continues to serve people who have difficulty accessing outpatient clinic appointments. Their success rates are inspiring. For example, in 2023 the WHIRI Hospital team improved Māori patient attendance rates to cardiology appointments by 47% over a 10-month period.

The WHIRI model also supports priority children being discharged from Waikato hospital with comprehensive health needs assessments to address both their social and health needs. WHIRI Hapori, a unit within Health NZ Waikato, worked with twelve community care coordination hubs in the entire Waikato region, including rural areas like Taumarunui and Tokoroa, for fourteen months from April 2023 to June 2024. Nine were run by local iwi, one Pasifika hub in Hamilton, one in central Hamilton, and one based at the Settlement Centre for refugees and migrants.

1. Health NZ arranged for nurses and doctors to provide clinical oversight and access to immunisation.
2. Together, the hubs were able to care for their own local people and support nearly 7,000 high-risk people isolating with Covid by using the WHIRI Model of Care.
3. They delivered over 1,600 comprehensive health needs assessments to those at high risk of winter illnesses and provided over 1,100 immunisations in people's own homes.

Unfortunately, lack of funding led to WHIRI Hapori being disestablished at the end of June 2024. Hauraki Primary Health Organisation is now implementing the WHIRI model of care in the rollout of the Comprehensive Primary Care and Community teams to children, pregnant women, and those with long-term conditions. Its ethos includes:

1. building trust with underserved communities
2. considering the whole family (whānau)
3. using an electronic health needs assessment that looks at all aspects of a person's life, not just their illness
4. using the Te Whare Tapa Whā model of health
5. coordinating care between health workers
6. bringing together a team of different health professionals
7. basing its model on research and designed with community input. A WHIRI research team performs pilot studies testing feasibility of projects
8. using its staff and resources efficiently.

WHIRI's health check is comprehensive. It looks at physical health, mental health, social support, financial issues, and cultural needs. Case navigators deliver the electronic needs assessment and support to services with clinical support from nurses. Nurses lead regular team meetings. They make sure patients are connected with the right doctors and specialists. This helps solve complex health issues quickly and effectively. A part-time WHIRI GP provides clinical support to nurses as required.

WHIRI has had great results. More people are using its health services. More people are keeping their hospital appointments. More patients are happier with their care. People say they feel more supported and better understood by the health system.

The Tiakina Te Tangata Programme[175]

Tiakina Te Tangata is a mobile community programme managing long-term conditions in the Waikato region. Run by the National Hauora Coalition, this needs-based free programme brings healthcare directly to people in their homes, where they feel most comfortable.

Tiakina Te Tangata has four teams that work across the wider Waikato region. Each team has a Team lead, a nurse, and a Kaimanaaki Whānau (family support person). They are supported by pharmacists and doctors.

Cultural awareness: Tiakina Te Tangata also uses the Māori Model of health called Te Whare Tapa Whā. They look after not only physical health but also mental, spiritual and family wellbeing. They believe that to be truly healthy, all these parts of life need to be in balance.

Community engagement: The programme puts families (whānau) at the centre of care. Building trust with families helps them understand what each family really needs.

In 2023, the programme helped 599 families. About one-third of these families were Māori. The main barrier to Māori accessing services like Tiakina Te Tangata is that they are not going to their regular doctors. The programme is trying to:

1. reconnect families with primary care
2. design a fit-for-purpose referral management system so they can write notes in the same format as doctors
3. prioritise meeting people face-to-face to build trust and understanding instead of solely using phone and video calls.

Despite these innovative approaches, Tiakina Te Tangata, like many community services, faces some challenges, including securing sustainable funding to ensure it can continue helping whānau long-term.

Lessons from innovative approaches

The RACPP and the other novel models of community-based primary care – Tāpiri Mai, WHIRI, and Tiakina Te Tangata –

demonstrate how innovative, community-focused approaches can improve healthcare access and outcomes, particularly for underserved populations. They show the potential for targeted interventions to address some of the most pressing challenges in New Zealand's primary care system.

A recent review of the evidence to show how best to reduce health inequalities through general practice identified several key factors,[176] which are demonstrated by the programmes I have described.

Community engagement is mandatory as it leads to solutions more acceptable (effective) to the community.[177] [178] [179] [180]

Cultural awareness usually involves a holistic approach to physical, mental, social and spiritual wellbeing. The programmes I have described recognise the importance of culturally appropriate care, especially for Māori populations.[181] [182] [183] [184] [185] [186]

Programmes must be flexible and adapt their approach to meet the specific needs of the community they serve, whether they are remote, rural, or urban communities. While maintaining the importance of face-to-face interactions, the programmes I have described also leverage technology to improve access to care. This flexibility also improves health outcomes.[187] [188]

The programmes described also integrate different aspects of healthcare, from primary care to specialist services, to provide more comprehensive care.[189] [190] [191]

Lastly, there is a strong focus on prevention. By reaching out to communities and providing comprehensive health checks, the programmes aim to prevent health issues before they become serious. Prevention programmes work best by using a culturally appropriate, community-based, multi-disciplinary approach.[192] [193]

Despite their significant positive impacts in their communities, the very existence of these programmes underscores the widening gaps in our primary care system, particularly in rural, remote, and Māori communities, and the need for targeted interventions.

These programmes often face funding uncertainties and challenges in integrating with existing healthcare systems. This raises questions about their long-term sustainability and scalability.

Conclusion

As we consider the future of primary care in New Zealand, we need to reform our funding model, address workforce shortages, enhance IT systems, improve access and equity, embrace innovation while maintaining continuity of care, support GPs to prevent burnout, and strengthen the connection between primary and secondary care.

The next chapter explores potential solutions to consider how we might reshape our primary care system.

CHAPTER 7

Potential solutions for better primary care

Reforming the funding model

The scope of this report does not cover a detailed review of potential new funding models. This will follow in a forthcoming report; however, the main factors to be considered are as following:

- Recognise the scope and expertise of specialist GPs
- Implement a blended payment model combining capitation with fee-for-service elements and performance incentives
- Add supplementary payments for complex patients and chronic conditions
- Include performance incentives linked to health outcomes and patient satisfaction
- Adequate remuneration to GPs for providing services that reduce the need for patients to attend emergency departments. The cost savings from reducing preventable hospital attendance should be fed back into general practice.
- Strengthen support for continuity of care through financial incentives

Enhancing IT infrastructure

- Focus health records on individual patients and their interactions with the healthcare system over their life span.
- Develop national standards for healthcare IT systems.
- Implement a unified national health IT system connecting all care levels with interoperability across the whole healthcare system.

- Address coding standardisation issues between READ, SNOMED, and ICD-10 systems.
- Establish robust telehealth infrastructure.

Access and equity improvements

- prioritise healthcare equity for Māori and Pasifika communities
- develop programmes for reaching unenrolled populations
- implement comprehensive cultural competency training
- consider increased subsidies for underserved populations
- enhance health literacy programmes

Innovation and continuity of care

- Balance telemedicine benefits with relationship-based care
- Expand successful models like RACPP for all rural areas and then potentially to all GP practices
- Develop team-based care models maintaining continuity.

GP workforce development

1. Reduce patient loads per GP as per the Your Work Counts Study
2. Refine AI tools for administrative tasks and transcribing patient notes so that GPs have more time to focus on building and maintaining therapeutic relationships with their patients
3. Support flexible working arrangements
4. Implement proper remuneration for non-patient facing work
5. Separate out-of-hours urgent care from general practice in urban areas
6. Develop specific solutions for out-of-hours urgent care for rural areas
7. Maintain RNZCGP Fellowship standards.

Primary care teams

New Zealand is not alone in its shortage of GPs. In countries such as Canada, the UK and the US, primary care teams have been formed to ease the pressure on GPs whilst maintaining continuity and quality of care.

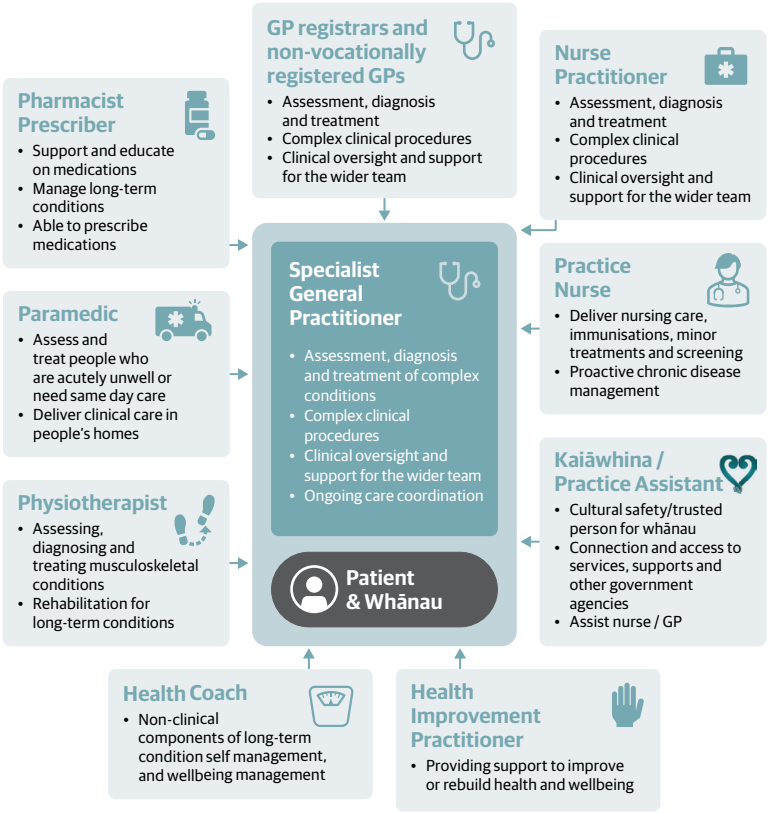
Evidence supports keeping specialist GPs as team leaders, with other medical professionals such as NPs and PAs working under their supervision.[194] [195] [196] This approach should ensure high-quality care that is not too expensive and keeps patients satisfied. It is a balanced solution that makes the most of each healthcare professional's skills and training. To run well it is vital to have good communication within the teams and between the teams and their patients. Each team member must have a clearly defined scope and expertise of practice. There must be continuity of care between the team and the group of patients assigned to them.[197] [198]

If team-based care in primary care is to be successful, it must produce the same benefits as those achieved by establishing continuity of care between a group of patients enrolled with a designated GP. The four principles of optimal primary care identified by Barbara Starfield: continuous, comprehensive, coordinated and accessible care[199] must be updated to reflect the changing ways in which primary care is being delivered. A new set of principles have been identified by researchers: person and family centred, continuous, comprehensive and equitable, team-based and collaborative, coordinated, integrated, accessible and high value.[200]

If specialist GPs are to run their teams in a similar manner to the way in which hospital specialists run their teams, they require support for professional development to do so. Each specialist GP in a practice will likely also need to develop a specialist interest in a particular field such as diabetes or women's health; support and funding are needed to enable this to occur.

Specialist GPs will also need to work as supervisors in their teams, providing support for their team members, this will mean that each specialist GP will themselves see fewer patients each day. Again, support and funding are needed to enable this to occur. Primary care teams operating well will be able to embed medical students and GP trainees into their structure. Supervision and training of medical students and GP trainees will thus be facilitated and medical students will gain more exposure and experience in general practice. Specialist GPs must be supported to provide this supervision and support to trainees.

Figure 12: Primary care teams



Source: Adapted from Hefford, Martin. "Primary Care Development Programme August 2024," presentation (Te Whatu Ora – Health New Zealand).

Piki Te Ora: Innovative healthcare connecting primary and secondary care[201]

An exciting project that involves team-based care in the community and integration with hospital care is the Piki Te Ora project.

It has been piloted since July 2023 to serve remote parts of New Zealand. It is changing how doctors, both in the community and in the hospital, care for patients, especially those with long-term health problems. The government has given $2.3 million to support this work.

Piki Te Ora: Overview

Piki Te Ora ("to lift the health of the people" in Te Reo Māori) helps people in far-off areas who often struggle to see a doctor. The two-year project involves 60 people from four different communities in the north and east of New Zealand, including the Chatham Islands. The pilot study is focusing on managing heart failure and chronic obstructive airways disease.

Participants receive smart phones, smart watches, and other gadgets like special scales. These devices connect to a special app made for the project. Every day, the app asks people how they are feeling and reminds them to check their blood pressure, breathing, etc. The smart watch can even do a simple heart test called an electrocardiogram (ECG).

Piki Te Ora can work with different kinds of health devices, so people can choose what they prefer. All the information goes to a secure place easily accessible to doctors. Much of this technology came from systems developed during the COVID-19 pandemic when doctors had to find ways to care for patients remotely.

By bringing health checks into people's homes, Piki Te Ora solves a big problem for rural communities: getting to the doctor.

For many people, like those in the Far North, travelling to a clinic or hospital can be challenging due to lack of transport or bad weather. Piki Te Ora lets them check their health daily at home.

Most people take under five minutes each day to input their health information. This ease of use encourages regular engagement and empowers people to take charge of their own health. Instant health information helps people make informed choices and decide when to seek help from a GP.

One participant patient using the app in the Far North has stated, "It makes me feel secure and safe. It is just something I did not realise I could have. I wish I had it ages ago."

Collaboration

Piki Te Ora is also transforming how healthcare teams collaborate. The system allows local GPs and specialists to work together in real time, sharing patient information to provide better care. This quick teamwork can help catch problems early, thereby preventing hospital visits.

This collaboration is especially valuable in rural areas where GPs often handle a wide range of health issues with limited resources. Easy access to specialist knowledge allows GPs to provide more targeted care without always needing to refer patients to distant hospitals.

The system gives doctors a more complete picture of a patient's health over time. Instead of relying on occasional clinic reports, doctors can now see daily health information, helping them make more informed decisions about patient care.

Piki Te Ora can also facilitate support groups for people with similar health problems. The project is not just for managing existing health problems but also a tool for promoting good health and early detection of new issues. The app can remind people

about vaccinations, provide health information, or notify them about new local health services.

For doctors, Piki Te Ora offers insights into how patients use their medicines and their efficacy. It shows whether patients are taking their medicines as prescribed and what effect the medicines are having on symptoms and overall health.

Challenges

To succeed, Piki Te Ora needs good internet access in remote areas. The team is exploring satellite internet, internet plans, solar charging, and phone charging at clinics. The other two major challenges are:

1. providing adequate support and training, especially for people unfamiliar with technology
2. protecting patients' health data while allowing necessary access for doctors is also vital.

Potential benefits

In Northland alone, preventable hospital visits cost over $2.7 million annually, with more than 5,000 emergency visits that could have been avoided with early local doctor care. If Piki Te Ora can reduce these numbers, it could save healthcare funds while improving patient health.

The model can be easily and cheaply expanded to help people with any chronic health issues, such as inflammatory bowel disease or rheumatoid arthritis.

Other health providers can easily be incorporated into groups such as weight management, mental awareness, etc. The app comes with numerous health education tools and participants can use the ones that are relevant to them, thus allowing for personalised health promotion.

As one participant said, Piki Te Ora is not just a health monitoring tool but also a way to enhance community wellbeing. "It is my desire that we see this pilot continue and be delivered to the country. To help and support everyone so that they too can have better health outcomes."

Patients will be regularly inputting their health data into the app, therefore it is vital that there is appropriate funding both in primary and secondary care to enable designated healthcare workers to monitor and act on this data. However, if successful, Piki Te Ora could become a model for addressing similar healthcare challenges elsewhere, ushering in an era of connected, empowering patient-centred care.

Conclusion

Reshaping New Zealand's primary care system is a complex challenge, but one that we must address for the health and wellbeing of all New Zealanders. The solutions proposed here are not exhaustive, and implementing them will require significant investment, political will, and cooperation across the healthcare sector. Long-term cross-party agreement is required if any meaningful and sustainable improvements are to be achieved in primary care.

However, the potential benefits are enormous. A strong, accessible, and equitable primary care system will improve health outcomes, reduce healthcare costs, and enhance the quality of life for all New Zealanders. It can help us address the growing burden of chronic diseases, reduce health inequities, and create a more sustainable healthcare system for future generations.

Appendices

Appendix 1: The evolution of New Zealand's healthcare system

Table 2

Early 20th century	General practitioners (GPs)	Hospitals	
1900 to 1930s	Most doctors were GPs and provided both primary and some specialised care. They worked in both hospitals and private practices.	Public hospitals began to emerge, providing free or low-cost care to the public. Medical specialisation started to take hold.	Medical specialisation increased, creating distinction between hospital-based doctors and GPs.
Mid-20th century	**Increased specialisation**	**Accessibility**	
1940 to 1960s	As medical advancements continued, more doctors began to specialise in specific fields. This created a clearer distinction between hospital-based specialists and GPs.	Efforts by the government, particularly the Labour government in the 1930s, aimed to make healthcare accessible to everyone. Friendly societies also played a role in providing medical care.	Labour government aimed to provide free healthcare to all New Zealanders. Friendly societies provided medical care.
Late 20th century	**Separation of roles**	**Patient-centred care**	
1970 to 2000s	By the late 20th century, the roles of GPs and hospital-based doctors became more distinct. GPs primarily provided primary care in private practices, while specialists worked in hospitals.	The rise of patient rights movements and alternative health practitioners led to a more holistic approach to healthcare, where patients had more say in their treatment.	Patient rights movements led to more patient involvement in their care. Midwives and alternative health practitioners gained popularity.

Appendix 2: Evolution of GP funding in New Zealand (1941–2020)

This timeline illustrates the significant changes in New Zealand's general practice funding model over nearly 80 years, from a simple subsidy system to a complex capitation-based framework.

1938–1941: Initial resistance and compromise

- *Social Security Act 1938* proposed free primary care alongside hospital care
- Medical profession blocked implementation of free primary care
- General Medical Services (GMS) benefit introduced as a compromise in 1941
- Initial subsidy: seven shillings and sixpence (approximately 75% of average patient fee)

1950s: Early budget allocation

- Medical and maternity benefits: £3.4 million
- Represented 20% of Department of Health's £15.5 million budget

1970s: Shifting priorities

- Medical and maternity benefit decreased to 6% of health budget
- Growth in modern hospital services influenced this reduction

1990: Subsidy structure

- Total health budget: $3.9 billion GMS subsidy rates:
  - Standard adult visit: $4
  - Beneficiaries and chronically ill: $12
  - Children: $16
  - Average adult patient fee: approximately $31
  - Medical and maternity benefit: approximately 7% of budget

1990s Developments

- Increases in GMS subsidies
- Formation of independent practitioner associations
- Shift from GP-led to midwife-led maternity care

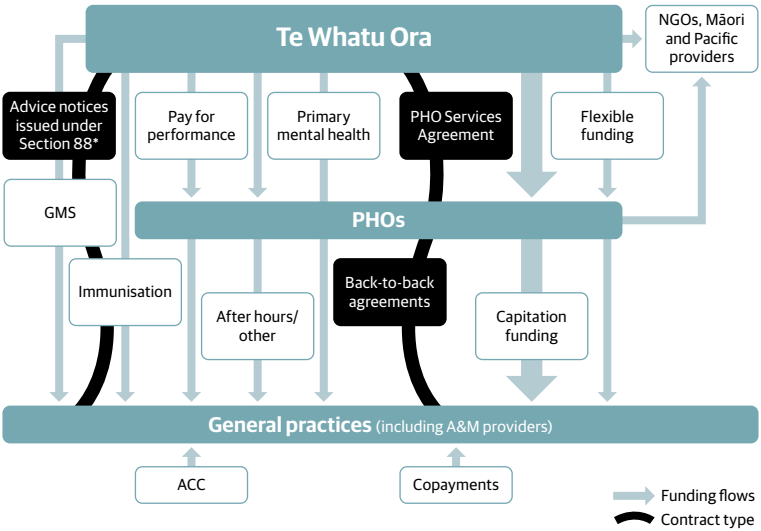
2001–2003: Primary healthcare strategy reform

- Major changes included:
  - Transition from per-visit subsidies to capitation funding
  - Introduction of patient fee regulation
  - Establishment of PHOs
  - Implementation of PHO Services Agreement contract

2020 Budget context

- Primary care funding via PHO Services Agreement: $1.08 billion
- Represented 5.45% of $20 billion Vote Health budget

Figure 13: General practice/PHO funding 2022–23



Source: Based on original diagram, General practice/PHO funding 2022-2023 from "Five per cent of what?", Fiona Cassie, *New Zealand Doctor Rata Aotearoa*, 23 May 2023. Republished with permission.

Appendix 3: GP-to-patient ratios: Regional variations

Table 3

Region	Population	Number of doctors	Number of GPs	Proportion of total FTEs (%)	Proportion of GPs (%)	Average hours worked
Te Tai Tokerau	203,900	627	149	3.3	3.3	43.7
Waitematā	648,900	1,370	460	6.9	10.3	41.3
Te Toka Tumai Auckland	492,200	3,698	568	22.1	12.7	49.0
Counties Manukau	624,500	1,225	374	6.5	8.3	43.2
Waikato	458,600	1,606	390	9.0	8.7	45.8
Hauora a Toi Bay of Plenty	279,800	917	258	4.7	5.8	41.9
Lakes	120,100	324	63	1.8	1.4	44.9
Tairāwhiti	52,600	161	42	0.8	0.9	43.1
Te Matau a Māui Hawke's Bay	184,700	621	159	3.3	3.5	43.3
Taranaki	128,800	413	97	2.2	2.2	43.8
Te Pae Hauora o Ruahine o Tararua MidCentral	192,700	567	134	3.2	3.0	47.0
Whanganui	70,000	172	38	1.0	0.8	47.7
Wairarapa	51,200	82	39	0.4	0.9	39.9
Hutt Valley	162,300	373	124	1.8	2.8	40.5
Capital and Coast	326,700	1,860	409	10.1	9.1	44.3
Nelson Marlborough	167,200	556	191	2.7	4.3	40.1
Te Tai o Poutini West Coast	32,900	71	23	0.3	0.5	37.8
Waitaha Canterbury	602,000	2,275	572	12.0	12.8	43.1
South Canterbury	63,000	144	38	0.8	0.8	47.3
Southern	360,600	1,324	353	7.1	7.9	43.9
All regions	**5,222,700**	**18,386**	**4,481**	**100.0**	**100.0**	**44.6**

Source: Medical Council of New Zealand, "The New Zealand Medical Workforce 2024".

Glossary

General practice

General practice is a specialty in medicine that focuses on delivering comprehensive primary care, including diagnosis, management and prevention of disease. It is both anticipatory and responsive and is delivered in the community.

GP practices

GP practices are business operations and refer to a practice building and facilities as well as to their staff (GPs, practice nurses, nurse practitioners, receptionists, and other practice staff).

Any reference in this report to **GPs** refers to specialist general practitioners, and any reference to **a general practice** refers to the business operations of a practice.

GP practice team members

- **Practice nurses** deliver nursing care, undertake immunisations, health screening, proactive chronic disease management, minor treatments such as wound care, support GPs by undertaking triage of patients
- **Nurse prescribers** can perform the above as well as training to allow them to independently prescribe from a designated list of medications. They are able to triage and manage patients presenting with certain acute conditions, such as an acute urinary tract infections or acute sexually transmitted infections, confirmed on in-practice testing
- **Nurse practitioners** can independently see and treat patients

- **GP registrars** are doctors on the vocational training programme to become specialist GPs
- **Health improvement practitioners** provide support for patients with concerns about mental health, addictions, long-term conditions, and general wellbeing. They provide brief interventions to improve wellbeing.
- **Health coaches** provide non-clinical support for patients living with long term conditions to support self-management and improve wellbeing
- **Clinical pharmacists** provide prescribing support for clinicians and support for patients managing multiple prescription medications, improve chronic disease management, can independently prescribe some medications
- **Physiotherapists** assess, diagnose and treat acute musculoskeletal conditions and provide rehabilitation for long-term musculoskeletal conditions
- **Paramedics** assess and treat people who are acutely unwell or need same day care. They can assess and deliver clinical care in patient's homes and reduce the need for emergency department visits
- **Kaiāwhina** provide support to patients to access healthcare services and other government agencies. They support GPs and nurses. They are a source of cultural support for whānau

Some GP practices also have Physician Associates who work under the supervision of a GP to review, assess and treat patients.

Specialist GPs vs. non-vocationally registered GPs

Table 4: GP training requirements for non-vocationally registered GPs and Specialist GPs

Requirement	Non-vocationally registered GP	Specialist GP-vocationally registered
Medical Degree	6 years	6 years
Internship	1 year	1 year
Post graduate experience	1 year minimum	2 years minimum prior to starting GPEP
GPEP	No	3 years
Certification	None	PRIMEX & Fellowship
Ongoing professional development and certification	Follows continuing professional education programme under the Medical Council of New Zealand	Follows continuing professional education programme under the Royal New Zealand College of General Practitioners

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New Zealand's primary care system is at a crossroads. As GP shortages grow and administrative burdens mount, the cornerstone of effective healthcare—the enduring relationship between doctors and patients—is under threat.

In "The Heart of Healthcare," Dr Prabani Wood draws on her 14 years of frontline experience as a GP to reveal the true value of continuity of care. She argues that long-term doctor-patient relationships are not just beneficial, but essential for better health outcomes and a more efficient healthcare system.

This report offers a fresh perspective on what constitutes good general practice and proposes innovative solutions to support GPs in building and maintaining these crucial relationships. By redefining primary care around this core principle, Dr Wood calls for the entire health system to be built around robust primary care.

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