



## Special Commission of Inquiry into Healthcare Funding

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**Name:** Australian Institute of Health Innovation, Macquarie University  
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## Australian Institute of Health Innovation submission to the NSW Special Commission of Inquiry into Healthcare Funding

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### Background

Worldwide, health systems are being challenged by multiple threats to their capacity to deliver high quality care in a sustainable way – and while NSW Health is a world leading provider of care, the NSW healthcare system is not immune to these challenges.

The most prominent threats include an ageing population, increasing rates of chronic and complex diseases, increased costs from new medical technologies and medicines, and wasteful spending on low-value care. Healthcare systems also face pressure from the impact of climate change on human health, system fragmentation and misalignment of provider incentives to patient needs.

While research has increasingly focused on ways to ameliorate these threats, there is limited use of evidence by healthcare systems and decision makers to support investment, policy and healthcare reform decisions.

The Australian Institute of Health Innovation (AIHI) investigates these threats and other challenges to healthcare system sustainability. Our multidisciplinary approach to healthcare systems research allows us to develop and evaluate healthcare interventions, investments, and system decisions, to better align service delivery with patient preferences and clinical needs, while promoting an efficient allocation of resources.

### Structure

While NSW Health is responsible for delivering healthcare to the 8.1 million NSW residents, it has limited ability to fully influence the health of this population due to siloed funding models and obfuscated governance models.

The ability of Local Health Districts (LHDs) to function as local health systems as opposed to public hospital systems is limited. There are barriers to delivering the care that people need, when and where they need it. Indeed, Australia has one of the most siloed health systems in the world, as noted by the OECD. Primary care for example is run by the Commonwealth, and Primary Health Networks are separate administrative structures from LHDs.

Activity based funding for most public hospital inpatient services has made it difficult to implement and sustain integrated care approaches that require care within the community. The relationship between LHDs and the private / not-for-profit sector is variable and disconnected, impacting the success of shared care models and structured service delivery strategies. The private / not-for-profit sector also competes for healthcare workers, sometimes making it difficult to fill essential roles within the public healthcare system, especially in rural and remote regions.

## Sustainability

The NSW healthcare system is under pressure like all healthcare systems around the world. Our [research pinpoints three key performance indicators](#) that have been static for more than 20 years but hold the key to delivering better, more sustainable healthcare:

- Around 60% of care is in line with evidence or consensus-based guidelines.
- 30% of care is some kind of waste including ineffective care that could have been avoided or the misuse of resources.
- 10% of patients are harmed when receiving care ranging from minor mistakes with medication administration to errors resulting in death or disability.

There is an urgent need for the NSW health system to increase value by improving health outcomes that matter to patients and reducing waste. Current funding models do not align with modern healthcare needs. Neither activity-based funding within public hospitals nor Medicare for primary care services explicitly incentivise providers to deliver high-quality or efficient care. System wide funding model reform that pays for value and facilitates the delivery of integrated care across acute, primary and community care must be at the top of the agenda within any future health system reform.

## NSW Health's Five Priorities

While NSW Health has the following State priorities, we provide the [5+9 model](#) for how health systems can be better performing.

- People receive high-quality, safe care in our hospitals.
- People can access care in out of hospital settings to manage their health and wellbeing.
- People receive timely emergency care.
- Keeping people healthy through prevention and health promotion.
- Our people and systems are continuously improving to deliver the best health outcomes and experiences.

## AIHI's 5+9 Model

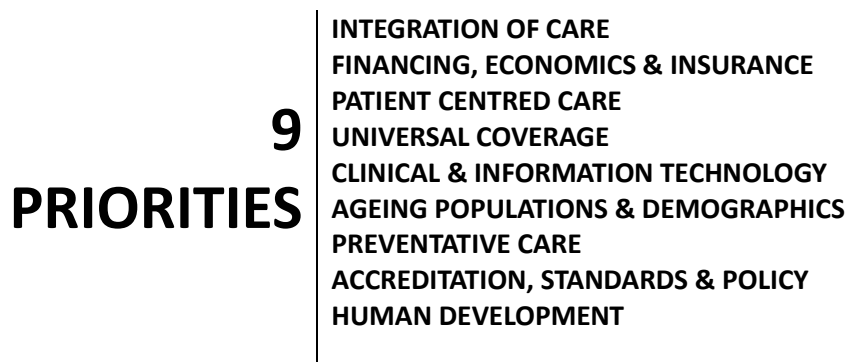
AIHI's 5+9 model shows the five trends and nine priorities for health systems to 2030. These are the factors that, if we get them in place, will determine a better-performing health system for NSW citizens by 2030.

**Figure 1: Five trends shaping health systems over the decade of the 2020s**

**5** | SUSTAINABILITY  
**TRENDS** | GENOMICS  
LEARNING HEALTH SYSTEMS, AI & MACHINE LEARNING  
DEMOGRAPHICS  
NEW MODELS OF CARE

1. **Sustainability of healthcare:** creation of health systems that are built to last and resilient.
2. **Genomics:** the adoption, implementation, and risk management of this new technology.
3. **Learning Health Systems, artificial intelligence, and machine learning:** strides in informatics over the next decade; including maturing artificial intelligence and machine learning technologies.
4. **Demographics:** for example, ageing populations, socio-economic gaps or social determinants of health.
5. **New models of care:** rapid emergence of more flexible and decentralised models of care appropriate to patient needs.

**Figure 2: Nine priorities that will define the future of health services over the next decade**



1. **Integration of care:** Over the next decade, currently siloed models of care delivery need to be radically transformed and replaced by more integrated and collaborative ones. If we get it right, harnessing the power of multidisciplinary teams, highly skilled practitioners will work across disciplinary and sectoral boundaries to provide patients with high quality care throughout their lifetime. Confines separating primary, secondary and community care will dissipate as patient data and medical records become easily shared and accessible. Integration of care will be key to reducing waste, duplications and improving the coordination of health systems by 2030.
2. **Financing, economics, and universal health coverage:** Ensuring healthcare costs are sustainable is increasingly becoming a priority for governments around the world as healthcare costs as a proportion of gross domestic product continues to increase. Policy makers and funders can play a decisive role in extracting more value from their healthcare systems including through the adoption of [value-based payments](#). This would entail a natural next step in NSW Health’s continued progress towards value-based healthcare.
3. **Patient centred care:** As experts and partners in their care, patients will play an increasingly prominent role in controlling and driving treatment options and plans. The ubiquity of health data will empower them to decide how they access and use health services. New technologies will enable them to manage emerging or chronic routine procedures. NSW and the other Australian jurisdictions have work to do in this area, too.
4. **Universal coverage:** In line with the WHO’s quest for all countries to cover their population adequately and equitably, the better performing health systems will, over the current decade, have introduced a basic level of care for all, creating greater levels of coverage

across-the-board. Our [survey](#) of Australians showed that 14% of people with chronic health conditions were unable to pay for healthcare or medicine due 'a shortage of money'. Again, NSW and the other jurisdictions have work to do.

5. **Clinical and information technology:** Health systems are on the cusp of a major digital revolution. Exponential innovations in clinical technologies, monitoring and diagnostic capabilities are set to increasingly rely on new technologies such as robotics to automate and streamline many of the tasks conducted by doctors today, and AI to support better decision-making. Decisions will need to be made around investment to support the safe and ethical introduction of AI into healthcare. For the NSW health system, this may involve contributing to a national agenda. Learning Health Systems would act to capitalise on the information revolution and bring clinicians and patients together with a culture of continuous learning and empowerment. Greater transparency of data being made available from the health system will lead to improvements in care and opportunities to introduce value based funding models. For example, greater access to emergency department data would deliver better understanding of the need to improve the management of chronic health issues at the primary care level.
6. **Ageing populations and demographics:** Shifting demographic profiles constitute a major challenge for healthcare. People are living longer than ever before, and with a high prevalence of degenerative chronic conditions that add considerable pressure on health systems. Holistic healthcare strategies are needed that will help reduce the burden of the global demographic and epidemiological transitions on health systems.
7. **Preventative care:** Future health systems will be pro-active in anticipating patient needs. They will focus on wellbeing and early intervention to prevent foreseeable disease. As monitoring technologies and biosensors become ubiquitous, health data will be continuously tracked and analysed thanks to advanced computing capabilities. Irregularities will be detected in time to prevent issues before they arise or escalate to a more serious or life-threatening level. The affordability of new technologies is not yet clear, and it is necessary to identify and resolve obstacles to the implementation of delivery systems. Again, NSW and the other jurisdictions have work to do particularly given the separate funding and governance jurisdictions involved from primary care to allied health, specialists, hospitals, aged care and community services. Building on work already done through NSW Health's part in the Keeping People Out of Hospital initiative, it will be necessary to balance the drive for bricks and mortar building projects against the need for preventative health strategies.
8. **Accreditation, standards, and policy:** Although considerable efforts have been made to improve patient safety and the quality of care, health systems have a considerable way to go in reducing harm to patients. The next decade is expected to see a rise in national policies and regulatory efforts oriented towards improving patient safety and strengthening the system through accreditation or national policies and standards. They will also integrate ideas from Safey-II: this involves a concerted effort to enable things that go right to go right more often.
9. **Human development:** The healthcare workforce is an essential component of health systems. Workforce development is crucial to improving the quality of care from recruitment to education and training, to professional development, to supporting leadership roles. Robust, evidence-based health workforce planning (not just the medical workforce) is essential to enable healthcare systems to respond to significant challenges, including climate change induced events, outbreaks and future epidemics and pandemics. The current journey of learning to rigorously evaluate organisational change programs is aimed at changing unprofessional behaviours and overcoming the current epidemic of toxic

behaviour impacting some health provider organisations. Creating positive workplace cultures is critical to staff retention, wellbeing, reduced burnout and the delivery of safe and effective care. Current measures in NSW to attract more doctors, nurses and allied health staff, particularly to regional areas, needs to be reinforced with strategies to enable staff to work at the top of their licence and across silos.

## Recommendations

- Support the development of a national vision and 10-year plan for value-based payment integration into the Australian healthcare system, accompanied by an independent value-based payment authority, improved cost and outcome data collection and sharing, and investment in provider education, training and innovation.
- Increase high value care by establishing and embedding Learning Health Systems and interdisciplinary networks to support data informed and evidence-based practice and health policy that can be continually evaluated and adapted to ever-changing contexts and system demands.
- Focus on the 60:30:10 metrics to achieve high quality, sustainable healthcare – increasing the use of evidence-based care, reducing waste and preventing avoidable harm to patients.
- Address gaps in system integration that impact the continuity of care people receive between hospitals and community settings, and between specialties and disciplines.
- Support the development of a national approach to health technology assessment to ensure investment decisions within public hospitals and community health programs are evidence based.
- Support rigorous monitoring and evaluation of new clinical technologies to optimise their safety and effectiveness.
- Embed and increase the use of analytics and data intelligence to enable ongoing evaluations of healthcare innovations that can be adapted, scaled up or discontinued based on robust evidence.
- Continue to build capacity to ensure direct involvement of health consumers in decision-making in the health system that serves them.

This submission has been produced by the Australian Institute of Health Innovation, Macquarie University. For inquiries, please contact Professor Jeffrey Braithwaite

## Further reading

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