

● Commission
● on Excellence
● and Innovation
● in Health.
●

A Culture of Innovation

Discussion Paper 2023

LET'S PUT IMAGINATION TO WORK



Government
of South Australia

Contents

Contents.....	0
Document Purpose	1
Current Context.....	1
Defining Innovation	2
Types of Innovation.....	3
Rationale for Innovation.....	4
Enabling Innovation.....	5-6
The Innovation Journey.....	7-8
A Culture of Innovation.....	9
Closing remarks	10
References	11

Document Purpose

This *Culture of Innovation: Discussion Paper* is a partner document to the *CEIH Culture of Innovation: Guide*ⁱ.

The *Culture of Innovation: Discussion Paper* delivers the context and rationale for why and how the health system will benefit from investment in innovation.

The *Culture of Innovation: Guide* is an overview of how boundaries of contemporary thinking can be pushed to harness the enormous potential innovation has to offer the health sector.

Research studies, practice wisdom and real-life testimonies demonstrate the critical significance of innovation in improving healthcare. Information presented in both this *Discussion Paper* and the *Guide* has been drawn from multiple sources to describe the function of innovation, the features of it, and the benefits it delivers.

Current Context

The South Australian healthcare system has been shouldering increasing demand for services over the past decade generally, and more explicitly, due to COVID19. Heightened pressure on the system and staff, along with an aging population, has led to unprecedented system stress, producing pressure points, such as ambulance ramping, throughout the care continuum. In order to improve the sustainability, quality and performance of the health care system, something needs to change to match the size, complexity and urgency of the challenge.

Exponential advances in diagnostics and treatments have re-framed how healthcare systems across the world approach the provision of care. Exploring, enabling and adopting innovative practices industry-wide, promises to unleash new models of care that embrace the breadth of contemporary opportunities and technologies available. Infiltrating existing practices, facilities and protocols with innovation is arguably the most rational and sustainable response to lifting the efficacy and efficiency of healthcare provision in this state.

Contemporary challenges possess both complexity and interconnectedness, which require the system to go beyond “traditional, linear thinking”ⁱⁱ. A standard ‘quality improvement agenda’ has legitimate merit and must remain, however, deliberately adopting an innovative approach can unlock completely new perspectives that would not necessarily have emerged through regular incremental improvement models and processes.

Although innovation is regarded as critical for systemic evolution, literature remains conclusive that barriers arise during translation of “evidence into practice”ⁱⁱⁱ. Only a system-wide agenda of innovation that pervades executive, managerial and operational echelons of the health system can accelerate the improvement agenda at a pace and scale required to achieve world-class standards.

South Australia is well positioned on the global scale to take advantage of the emerging innovation agenda. Our size, our economies-of-scale and our infrastructure offer a fertile environment for experimentation, research-translation and commercialization. Delivering a dedicated machinery that normalises innovation a manner that is time and monetarily efficient, and measurably and tangibly effective, benefits all.

Defining Innovation

Innovation as a concept has grown in notoriety as an integral part of any improvement agenda but, depending on the industry, the expert, the evidence or the opinion, varied definitions have emerged that reference multiple elements and components. Nick Skillicorn^{iv} has described innovation as “turning an *idea* into a *solution* that *adds value* from a customer's perspective”. David Burkus recognises innovation as “the *application* of ideas that are *novel* and *useful*”. Taking a more philosophical approach, Gaia Grant^v sees innovation as a “shape shifting energy that is initiated and fuelled by a desire for *improvement*”, whereas Jorge Barba^{vi} believes, more simplistically, that innovation is “the future delivered”.

As such, literature remains inconclusive with “no comprehensive and generally accepted definition of innovation”^{vii}, making standardisation of practice challenging across a dynamic healthcare system.

Among the plethora of explanations and definitions, consistent key themes emerge that suggest, for innovation to exist, to varying degrees, it must:

- be *novel* or *new* and involve an idea or *creative genesis*
- *respond* to, or address, a well-defined issue, *problem*, or *challenge*
- have *relevance* to, and resonate with, the customer, client, or consumer
- add *value* and make a difference to an individual, an agency, an industry, or a system
- entail viewing a topic from a non-traditional perspective using ‘outside the square’ thinking
- ultimately and fundamentally, *change something* for the *better*

Regardless of the presence of a conclusive definition, innovation has proven itself a valuable feature of successful industries across the nation and the world. Adopting innovation on a meaningful scale is often the game-changing catalyst that launches new solutions, products and industries that were seemingly not possible using standard problem solving and decision making

Innovation skills and knowledge can be built, and confidence in using tools and practices designed to support innovation can be bolstered. Accessing resources, experts and guidelines will assist with understanding of the key components of innovation and enable individuals, teams, and agencies to become more familiar with its presence, and more committed to its adoption.

Types of Innovation

Innovation manifests in a variety of forms depending on the circumstance. It is due to this ever-evolving nature that there is an almost infinite array of opportunities to examine current practices and processes, using an innovation lens. Innovations can act as both enhancers and disrupters to existing processes and standards.^{viii} The degree to which an idea evolves into a tangible solution can have a rippling effect, from incremental changes to complete disruption (Fig.1).

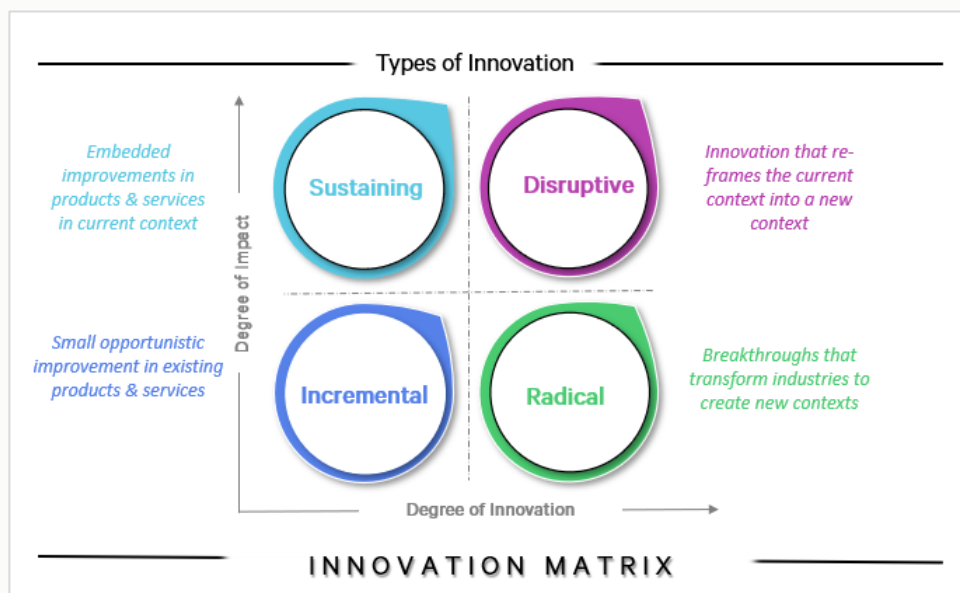


Figure 1: Types of Innovation

The degree of innovation and the degree of impact can fall into either micro, meso or macro level categories.^{ix} The extent of impact at a systemic level is not necessarily a reflection on how valuable the idea is, or the benefit it offers at a local level. Each type of innovation offers a different value, and a balanced mix is sensible and achievable. In many cases, micro level or incremental improvements can have a greater and more sustainable long-term impact than a macro level or disruptive innovation.

Literature reflects on the importance and value of all ideas, from micro to macro, and the intrinsic connectivity between innovative types of all scales. All operating cohesively will ensure healthcare delivery continues to evolve and progress with societal demands, with each idea influencing another.^x

This innovative ideology encourages the system to embrace ideas and bring them forward to help discussions on how to improve outcomes, from day-to-day efficiencies to transformative change. In this context, and within this framework, the system can recognise that no idea therefore is regarded as too small or too big, but rather regarded a different type of innovation. Using this approach can lead to the development of an improved system, which has people at the forefront of all decisions, and health outcomes as the foundation for change.

Rationale for Innovation

The pandemic brought to light both the fragility and agility of our system, shining a spotlight equally on its excellencies and deficiencies during such an extreme and unprecedented circumstance. In this context, the need to solve problems, design responses and deliver solutions demonstrated the innate innovation that currently exists within our current workforce, processes and systems. However, in the absence of a public health emergency, there is risk innovation may lay dormant as ‘business as usual’ practices become more pronounced as the ‘established system’.

“Contemporary innovations challenge existing solutions and systems” therefore often ideas not only have to prove the value of their impact, but they must also overcome the resistance of this “established system” in order to be implemented sustainably.^{xi} Although the economic benefits or the desirability of profits often play a large role in the uptake of ideas, the real value is harnessed in the knowledge and use of the right tools to foster innovative thinking and solutioning. However, knowing when and how to adopt innovation is only one part of the challenge in a large-scale system. Gaining permission, support and approval for innovation is often the more difficult issue to address.

Health is a human right, not a privilege. Every person should have equitable access to care, and it is the system’s responsibility to deliver a quality service to those who need it, when they need it. As society changes, so too do the needs of the population, therefore evolution of care should be at the forefront of all roles within the system. As the health demands of a population change, the systemic response needs to be progressive as “adaptation to changing needs has a high influence on social welfare”.^{xii} It is a collective responsibility to collaborate and evolve healthcare processes and technologies to not only provide high level care, but also opportunities for all to access it. Health equity is a crucial element of positive innovation, as it ensures that inequality, biases, and disparities are not further reinforced, but rather diminished and eradicated. Innovation must take into account the ethical, financial, legal, and quality considerations of proposed solutions to ensure inequity is reduced.

The drive to think critically and creatively has the power to change the way societies integrate and operate. The incorporation of all tiers of government into the discussions around innovation that are already occurring in academia and research, has the ability to revolutionise healthcare outcomes locally and globally^{xiii}.

Without innovation and the space to think critically, inspire creativity, and allow for different perspectives, the opportunities to solve big problems are reduced. Certainly, innovative approaches are not a replacement of public health best-practices, but rather, a partner to work collectively on enhance processes, “tailor interventions” and implement new ideas in areas lacking cohesion.^{xiv} Innovation offers fresh solutions which can be applied in impactful and sustainable ways. In order to improve the quality and longevity of life for our population, innovation is fundamental to systemic reform and improvement.

Enabling Innovation

Enabling innovation extends far beyond the science of implementation. The triggers of innovative processes are often a result of “conflicts, competing demands, contradictions, dilemmas, and tensions”.^{xv} In response, the same needs that prompt innovative processes can act as systemic constraints, hindering the “transfer of innovative approaches to healthcare systems” and generating barriers for successful implementation.^{xvi} Drawing upon literature, key challenges of nurturing implementation of innovation into the healthcare market are^{xvii}:

- Budget constraints
- Rapid increase in demand
- Frontline pressure
- Public expectations and rising standards
- Absence of time and space to test ideas in a clinical setting
- Systemic challenges of adopting, encouraging, and sustaining innovation

Across the South Australian healthcare landscape, there is an absence of a cohesive vision for innovation, that engages, guides and aligns efforts across public and private realms. As innovation is subjective to the context it is in, a system level standardisation of innovation is crucial for consistent creation and deployment of ideas more broadly. Greater “system level clarity around the definition of innovation, the primary mission underlying innovation efforts, and organisational roles and responsibilities” will reduce duplication of issues between healthcare providers and provide a pathway of collaboration to overcome implementation hurdles.^{xviii}

Given these complexities, there is a “multitude of contradictory and rarely aligned elements”^{xxix} which provide significant barriers to enabling innovation. Naturally, innovation processes are non-linear, so a culture of innovation is important to facilitate the agile development of ideas and to foster successful implementation.^{xx} This culture will encourage creativity, prioritise critical thinking and support courageous decision-making to orient to a non-traditional perspective on problem solving.

Innovation is most potent when there are collaborations and inter-agency mechanisms that transcend government and non-government boundaries as well as the hierarchies of authority within them. For the healthcare sector to harness the potential of innovation, it must openly and actively forge new and necessary horizontal and vertical relationships with a broad range of communities, organisations, associations, and industries.

In order to further enable the process of innovation systemically, partnerships are critical.^{xxi} Relationships that allow for ideation and collaboration support the broader culture of innovation that, in turn, encourages ideas to be critically and creatively developed for success.

The progression of these ideas is supported in literature, including through design thinking processes, with the incorporation of human centred and/or community centred design.^{xxii} Design thinking, an element of the innovation process, allows for “tolerance, visualisation, quick iteration, and prototyping” that helps facilitate the development of an idea.^{xxiii}

The *CEIH Innovation Model*^{xxiv} (Fig.2) has been developed to provide a conceptual appreciation of the phases of innovation that can help provide a methodology and framework for decision makers, innovators and ideators to understand the maturity of a particular solution or idea, and what needs to occur to propel it sustainably into the market.

The model draws upon innovation processes, design thinking and human centred design methodologies, enabling effective facilitation of ideas through an optimised pathway to deployment. The incorporation of design thinking encourages refined solutions in less time than traditional methods of problem solving.^{xxv}

Throughout the innovation process, as insights and visions are refined, ideas will arise and will need a process of selection to determine which ideas to progress and test. There are several software tools and conceptual frameworks publicly available that can support the process of ideation and collaboration and can assist in refining and prioritising initiatives.

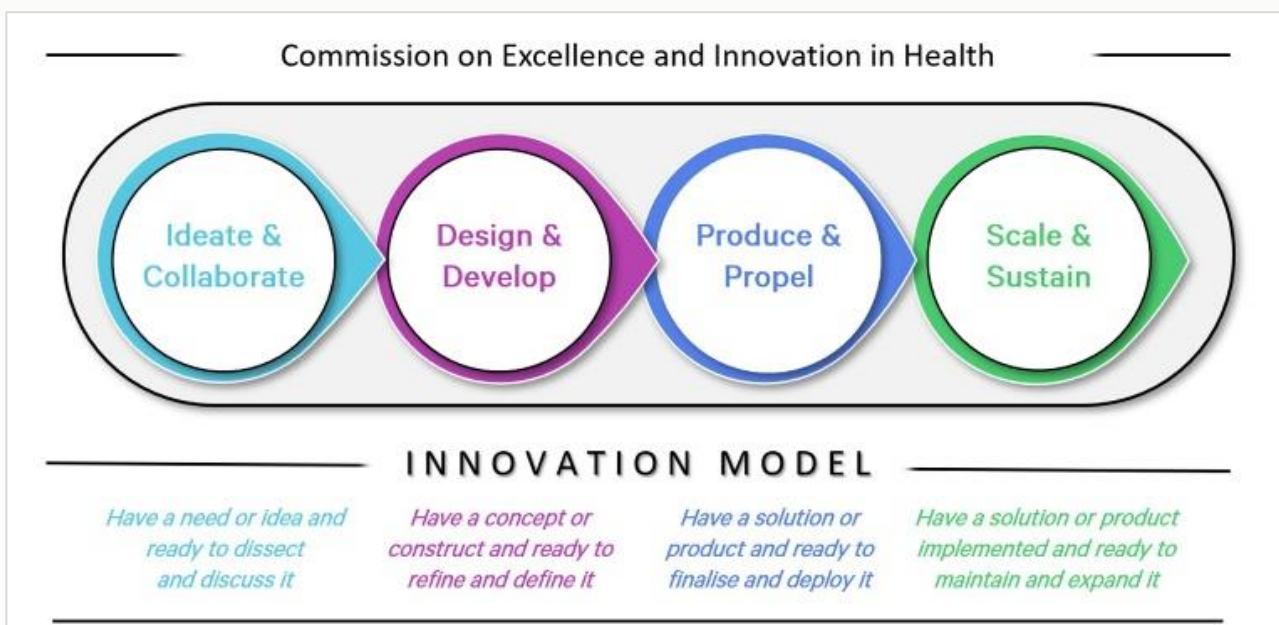


Figure 2: The CEIH Innovation Model

Ultimately, innovation is advanced through staff being appropriately skilled and trained to understand and address the challenges and opportunities of an innovation journey. Coupled with being given experiences in using innovation models and methods, individuals and agencies can evolve their innovative mindset and subsequently come to embody an innovation culture.

The Innovation Journey

The healthcare sector has long pioneered advancements through innovative and creative solutions to often age-old problems. However, introducing innovation can be a difficult and unpredictable journey, which consists of peaks and troughs, perhaps best described in Gartners Hype Cycle (Fig.3).

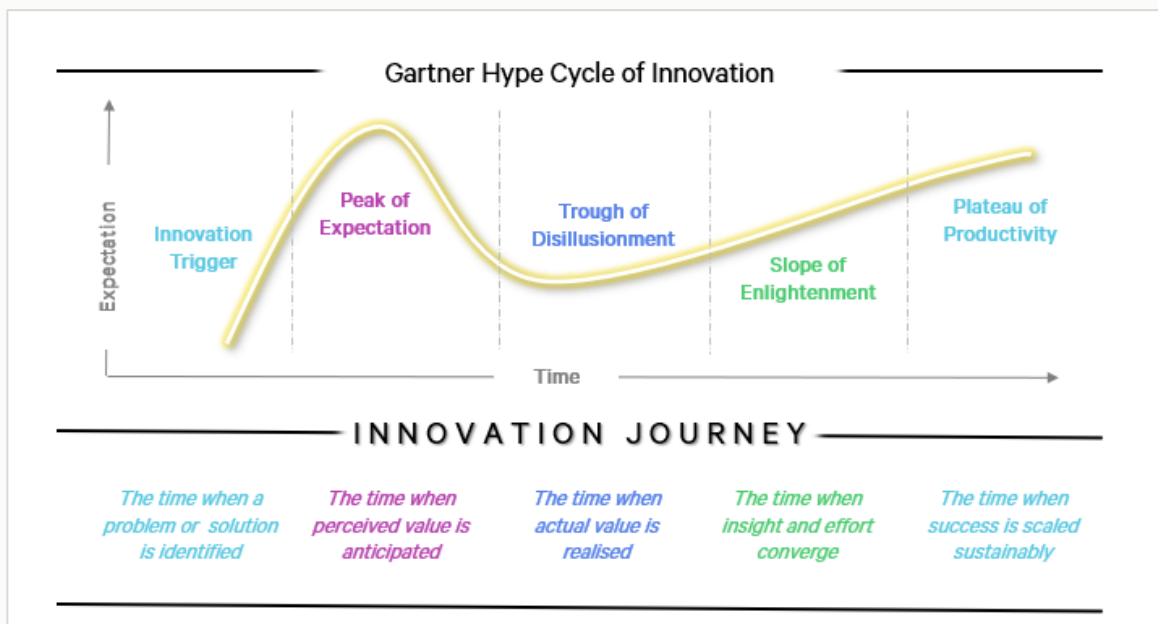


Figure 3: The Garnter Hype Cycle of Innovation

Problem identification is the catalyst for the first innovation trigger. As the problem is explored more deeply, the idea grows in perceived value, heading towards the 'peak of inflated expectation'. This is where innovators are micro focused on the singular solution, rather than a broader systemic focus. The 'trough of disillussionment' then often becomes inevitable, as perspectives, restrictions and current processes test for viability and suitability. Once these realities are successfully examined and addressed, the 'slope of enlightenment' further refines the idea to ensure it is designed for lasting impact, as it progressively transforms into a 'plateau of productivity'. This final phase does not equate to minimal success but rather prepares the solution for sustainable deployment, which takes time.

It is the systemic tensions around complex barriers which contribute to the non-linear ideation pathway to deployment.^{xxvi} Current system processes, conceptual constraints and an absence of innovation culture contribute to the hesitation around involvement and uptake. It is due to the size and complexity of healthcare systems that immediate priorities guide improvement agendas, whereby innovation can be seen as a luxury rather than a necessity.^{xxvii}

A systematic review examining where most tensions occur during the innovation process in healthcare systems identified that, consistently, the greatest barriers don't arise with problem identification or ideation but, rather, the process of implementation (Fig: 4)^{xxviii}

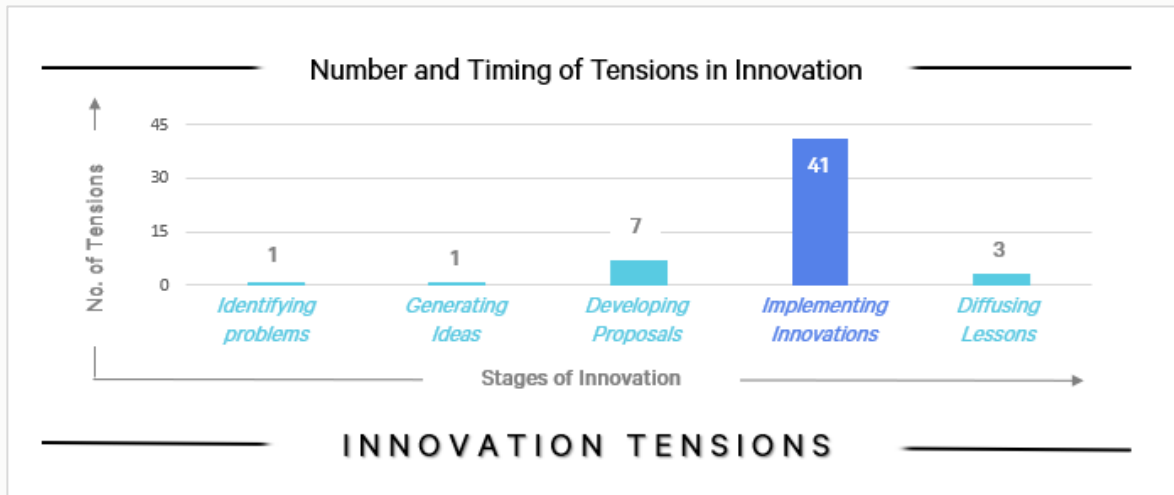


Figure 4: Tensions in the Innovation Process, OPSI (Observatory of public Sector Innovation)

Source: Observatory of Public Sector Innovation. What's the problem? Learning to identify and understand the need for innovation. 2016. bmchealthservres.biomedcentral.com

Literature further reinforces the barriers of implementation with consensus that the majority of innovations, although “great ideas with very good intentions, will never find their way into the healthcare market” due to the process and cultural barriers leading up to implementation.^{xxix}

As such, to support the implementation process, a system-wide awareness of innovation approaches to healthcare is necessary to continue evolving with the demands of society. The *Culture of Innovation* Discussion Paper and Guide provide a foundational vision to develop a *culture of innovation* across the system, to support successful deployment of ideas to unleash significant potential in service improvement.^{xxx} It acknowledges the importance of raising the collective consciousness of the workforce about the value and importance of innovation in generating improved outcomes for patients and optimal working conditions for staff. It is through this deep understanding and appreciation of innovation that implementation processes can be further nurtured for success, and ideas have a greater likelihood of long-term adoption.

Innovation is about being proactive rather than reactive; not waiting until problems become consuming, but actively encouraging creative and critical thinking about how the system supports ideas from inception through to implementation, and how lessons-learned are reflected upon for a continual cycle of improvement.^{xxxi} In order to facilitate implementation, the goal is to create an environment that advocates for innovation and its integration into the healthcare system from the beginning of the process.^{xxxii}

A Culture of Innovation

Thoughts, statements, decisions, and actions are the lived expression of culture within a team, an organisation or a system. Daily reinforcement and reminders of key cultural elements will, over time, generate and promulgate expected and shared standards, values, and principles. These are also the attributes of high performing teams that set up innovation for success through sharing understanding around systemic challenges and encouraging the adoption and implementation of innovation into everyday practice.^{xxxiii}

A system-wide *culture of innovation* requires a proactive recognition of the contexts in which innovation must be activated, nurtured and enhanced. Alongside individual efforts systemic policy reform plays a critical role in the success or failure of an innovation agenda, with “context and culture”^{xxxiv} driving changes. Equally, innovation must recognise the relationships between different echelons and functions within any agency or industry. In a culture that values and supports ideas, innovation will emerge in a range of forms depending on the functionality required, the features it offers and the benefits that are needed. Innovation does not often exist naturally in large organisations, systems or industries is often limited to ad-hoc moments in isolated incidents and is rarely, if ever, deployed to scale. For innovation to flourish and influence significantly, a culture of innovation must exist to ensure decision makers at all levels of the system are promoting, enabling, and adopting innovative approaches to healthcare.

Building upon these foundations, organisations need a clear strategy that is supported by sufficient capability, capacity, tools, methodology and leadership to reinforce a culture of innovation that facilitates impact and achieves measurable outcomes^{xxxv}. Institutional structures underpin processes that enable innovation development, and eventual deployment of solutions into practice. Therefore, setting up ideas for success requires strong institutional foundations that have a positive culture of innovation ingrained to allow for clear guidance around best practice. These foundations are filtered and advocated for, from the top down, whereby strong leadership is crucial to the promotion and facilitation of a workplace’s culture of innovation, rarely, if ever, deployed to scale. For innovation to flourish and influence significantly, a culture of innovation must exist to ensure decision makers at all levels of the system are promoting, enabling, and adopting innovative approaches to healthcare.

For the full potential of innovation to be realised, systems, processes and practices need to be designed in ways that authorise, permit, and facilitate its presence and growth^{xxxvi}. Creating supportive environments with a positive culture of innovation involves a combination of physical, social, and intellectual components that provide the necessary space, permission and time required to achieve measurable outcomes. Institutional structures underpin processes that enable innovation development, and eventual deployment of solutions into practice.^{xxxvii} Therefore, setting up ideas for success requires strong institutional foundations that have a positive culture of innovation ingrained to allow for clear guidance around best practice.^{xxxviii} These foundations are filtered and advocated for, from the top down, whereby strong leadership is crucial to the promotion and facilitation of a workplace’s culture of innovation.^{xxxix}

For the full potential of innovation to be realised, systems, processes and practices need to be designed in ways that authorise, permit and facilitate its presence and growth. Creating supportive environments with a positive culture of innovation involves a combination of physical, social and intellectual components that provide the necessary space, permission and time required.^{xl}

Closing remarks

As health systems around the world grapple with the challenges that emerge from technological, political and societal changes, the appeal of adopting innovative approaches increases. Traditional problem solving methods and linear quality improvement processes have proven to be somewhat inadequate in addressing the growing incidence of wicked and complex problems related to modern era health care.

Pursuing and mobilising a ‘culture of innovation’ will result in a generation of executive leaders, managers and service providers with more confidence and capability to apply creative solutioning techniques to deliver tangible benefit to practitioners, policy makers and patients alike.

The *Culture of Innovation* Discussion Paper and Guide have been released to contribute to the emerging conversations that confirm not just that innovation is of critical importance, but that it is something that can be successfully introduced into all areas of service delivery.

References

- ⁱ Commission on Excellence and Innovation in Health, A Culture of Innovation: Guide 2023
- ⁱⁱ Garney WR, Wilson KL, Garcia KM, Muraleetharan D, Esquivel CH, Spadine MN, Panjwani, S.; Ajayi, K.V. Supporting and enabling the process of innovation in Public Health: The Framework for Public Health Innovation. *International Journal of Environmental Research and Public Health*. 2022Aug16;19(16):10099.
- ⁱⁱⁱ Desveaux L, Soobiah C, Bhatia RS, Shaw J. Identifying and overcoming policy-level barriers to the implementation of Digital Health Innovation: Qualitative Study. *Journal of Medical Internet Research*. 2019Dec20;21(12).
- ^{iv} Skillicorn N. Build your innovation capabilities and creativity [Internet]. Nick Skillicorn: Innovation and Creativity. [cited 2023Feb1]. Available from: <https://www.improvides.com/>
- ^v Staff profile: Dr Gaia Grant [Internet]. The University of Sydney. [cited 2023Jan7]. Available from: <https://www.sydney.edu.au/business/about/our-people/academic-staff/gaia-grant.html>
- ^{vi} Barba J. Innovation, New Ideas and How The World is Changing [Internet]. Game Changer. 2022 [cited 2023Jan7]. Available from: <http://www.game-changer.net/>
- ^{vii} Flessa S, Huebner C. Innovations in health care—a conceptual framework. *International Journal of Environmental Research and Public Health*. 2021Oct18;18(19):10026.
- ^{viii} Flessa S, Huebner C. Innovations in health care—a conceptual framework.
- ^{ix} *Ibid.*
- ^x *Ibid.*
- ^{xi} *Ibid.*
- ^{xii} Proksch D, Busch-Casler J, Haberstroh MM, Pinkwart A. National health innovation systems: Clustering the OECD countries by innovative output in healthcare using a multi indicator approach. *Research Policy*. 2018Aug22;48(1):169-79
- ^{xiii} Curley M. Twelve principles for open innovation 2.0. *Nature*. 2016May17;533(7603):314–6.[viewed 4th Jan 2023]
- ^{xiv} Lister C, Payne H, Hanson CL, Barnes MD, Davis SF, Manwaring T. The Public Health Innovation Model: Merging Private Sector Processes with public health strengths. *Frontiers in Public Health*. 2017Aug7;5.
- ^{xv} Haring M, Freigang F, Amelung V, Gersch M. What can healthcare systems learn from looking at tensions in innovation processes? A systematic literature review. *BMC Health Services Research*. 2022Oct28;22(1).
- ^{xvi} *Ibid.*
- ^{xvii} Kelly CJ, Young AJ. Promoting innovation in Healthcare. *Future Hospital Journal*. 2017Jun4;4(2):121–5.
- ^{xviii} Desveaux L, et al. Identifying and overcoming policy-level barriers to the implementation of Digital Health Innovation: Qualitative Study.
- ^{xix} Haring M, et.al. What can healthcare systems learn from looking at tensions in innovation processes? A systematic literature review.
- ^{xx} *Ibid.*
- ^{xxi} Garney WR, et.al. Supporting and enabling the process of innovation in Public Health: The Framework for Public Health Innovation.
- ^{xxii} *Ibid.*
- ^{xxiii} *Ibid.*
- ^{xxiv} Commission on Excellence and Innovation in Health, A Culture of Innovation: Guide 2023
- ^{xxv} Lister C, et al. The Public Health Innovation Model: Merging Private Sector Processes with public health strengths.
- ^{xxvi} Haring M, et.al. What can healthcare systems learn from looking at tensions in innovation processes? A systematic literature review.
- ^{xxvii} *Ibid.*
- ^{xxviii} *Ibid.*
- ^{xxix} Flessa S, Huebner C. Innovations in health care—a conceptual framework.
- ^{xxx} Commission on Excellence and Innovation in Health, A Culture of Innovation: Guide 2023
- ^{xxxi} *Ibid*
- ^{xxxii} *Ibid.*
- ^{xxxiii} Kelly CJ, Young AJ. Promoting innovation in Healthcare.
- ^{xxxiv} Desveaux L, et al. Identifying and overcoming policy-level barriers to the implementation of Digital Health Innovation: Qualitative Study.
- ^{xxxv} Desveaux L, et al. Identifying and overcoming policy-level barriers to the implementation of Digital Health Innovation: Qualitative Study
- ^{xxxvi} Michael SC, Pearce JA. The need for innovation as a rationale for government involvement in entrepreneurship. *Entrepreneurship & Regional Development*. 2009May19;21(3):285–302.
- ^{xxxvii} Desveaux L, et al. Identifying and overcoming policy-level barriers to the implementation of Digital Health Innovation: Qualitative Study.
- ^{xxxviii} *Ibid.*
- ^{xxxix} Martin E, Fisher O, Merlo G, Zardo P, Barrimore SE, Rowland J, et al. Impact of a Health Services Innovation University program in a Major Public Hospital and health service: A mixed methods evaluation. *Implementation Science Communications*. 2022Apr25;3(1).
- ^{xl} Commission on Excellence and Innovation in Health, A Culture of Innovation: Guide 2023