

NSW HEALTH TELEHEALTH FRAMEWORK AND IMPLEMENTATION STRATEGY

2016–2021



Health

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Contents

Glossary	3
Executive Summary	4
Telehealth in NSW	9
Future State	9
Strategic Review of Telehealth in NSW 2015	11
A Framework and Strategy for the Future of Telehealth in NSW	13
Telehealth Framework	13
Implementation Strategy	15
1. Governance	15
Strategic Review Recommendations	15
Implementation Progress and Actions	15
2. Embedding Telehealth in Clinical Practice	18
Strategic Review Recommendations	18
Implementation Progress and Actions	18
3. Training and Change Management	21
Strategic Review Recommendations	21
Implementation Progress and Actions	21
4. Technology and Infrastructure	23
Strategic Review Recommendations	23
Implementation Progress and Actions	23
5. Funding Telehealth Models of Care	26
Strategic Review Recommendations	26
Implementation Progress and Actions	26
6. Monitoring and Evaluation	29
Strategic Review Recommendations	29
Implementation Progress and Actions	29
Appendices	31
Appendix A: Barriers and Enablers	31
Appendix B: NSW Health roles and responsibilities in telehealth	34
Appendix C: Consultation participants	35
Appendix D: References	37

Glossary

Term	Description
ABF	Activity Based Funding
ACI	Agency for Clinical Innovation
AusHFG	Australasian Health Facility Guidelines
BHI	Bureau of Health Information
CCIO	Chief Clinical Information Officer – engages with clinicians to align informatics and clinical practice across NSW Health
BYOD	Bring Your Own Device, a policy that allows employees to ‘opt-in’ to access Health network and information assets using a privately owned device
GP	General practitioner
HETI	Health Education and Training Institute
HNELHD	Hunter New England Local Health District
IHPA	Independent Hospital Pricing Authority
KPI	Key Performance Indicator
LHD	Local Health District
MBS	Medicare Benefits Schedule
MoH	NSW Ministry of Health
MDM	Mobile Device Management administration of mobile devices, such as smartphones, tablet computers, laptops and desktop computers
MLHD	Murrumbidgee Local Health District
NBMLHD	Nepean Blue Mountains Local Health District
PHN	Primary Health Network (formerly Medicare Local)
Point of care testing	Medical and diagnostic testing at, or close to the time and place of patient care
RACF	Residential Aged Care Facility
SCHN	Sydney Children’s Hospital Network
SHN	Speciality Health Network
SWSLHD	South Western Sydney Local Health District
Telehealth	Telehealth is the secure transmission of images, voice and data between two or more units via telecommunication channels, to provide clinical advice, consultation, monitoring, education and training and administrative services
Virtual consultations	Consultations between doctors and patients via videoconference or web-based video technology
WNSWLHD	Western NSW Local Health District

Executive Summary

Embedding sustainable telehealth services into the NSW Health system will support delivery of patient-centred care in the right place, at the right time. Telehealth, as the delivery of health care at a distance using tools ranging from web-based videoconferencing to wearable technologies, complements face-to-face consultation and offers significant benefits for patients, their carers, health care workers and the health system as a whole.

Telehealth has been particularly important in rural, remote and regional areas of NSW, where it has had a positive impact on patients and clinicians, through reduced travel time and improved timely access to specialists and advice. For clinicians, it may improve access to continuing education and professional development. Telehealth in NSW has developed iteratively, often through a range of small scale pilots, and has been characterised by variable uptake and levels of maturity across individual Local Health Districts (LHDs) and Specialty Health Networks (SHNs). There is a growing role for telehealth models of care in NSW including in metropolitan areas, for example to support hospital avoidance initiatives and deliver interpreting services remotely to patients. Telehealth technology is constantly evolving, with a range of digital and consumer-focused health technologies used within the NSW Health system, such as remote telemonitoring of patients in their home and the use of personal devices such as mobile phones and tablets.

The *NSW Health Telehealth Framework and Implementation Strategy: 2016-2021* (the *Implementation Strategy*) has been developed to outline actions, timeframes and responsibilities to embed telehealth in core business in NSW Health by 2021. These actions reflect significant consultation with NSW Health stakeholders, and the findings of the *Strategic Review of Telehealth in NSW* (the *Strategic Review*) which was undertaken in 2014 by the Nous Group. The *Strategic Review* identified barriers and enablers to telehealth, and made recommendations for future oversight, implementation and strategic direction. The *Implementation Strategy* outlines key actions against six priority areas (see **Table 1**) and is underpinned by the findings and recommendations of the *Strategic Review*.

The *Implementation Strategy* acknowledges work already underway in the system. Many LHDs and SHNs are developing local telehealth strategies, investing in support for telehealth-enabled models of care, and engaging with local stakeholders to deliver effective care at a distance. eHealth NSW is working to finalise the Health Wide Area Network (HWAN), and is developing other e-infrastructure that will support reliable delivery of telehealth. This includes improving wireless and broadband access in regional, rural and remote areas.

The *Implementation Strategy* reflects the devolved nature of the NSW Health system whereby LHDs and SHNs have responsibility to fund and deliver local telehealth models of care which are enabled by central NSW Health agencies. The implementation actions will be undertaken within the existing NSW Health budget. This document provides a framework to drive sustainable telehealth in NSW in the future.

Table 1: Implementation Actions

Governance			
	Action	Responsibility	Timeframe
1	<p>Establish NSW Telehealth Strategic Advisory Group. The group will be chaired by a representative of ACI, with membership from Branches, Pillars, Agencies and LHDs/SHNs from across the NSW Health System. The Advisory Group will report to the eHealth Executive Council which has overarching strategic oversight for eHealth in NSW. The key activities for this group may include:</p> <ul style="list-style-type: none"> • Provide a vision and strategic guidance for telehealth in NSW with links to other key NSW Health strategies and programs. • Monitor telehealth developments nationally, and undertake horizon scanning for new and relevant technologies. • Seek technical advice as needed to support increased uptake of telehealth across the system and overcome any barriers. • Encourage and advise on approaches to monitor telehealth uptake across the state. • Drive local innovation and prioritisation of telehealth-enabled models of care and develop use cases. • Review and contribute to updates to the ACI <i>Guidelines for the use of Telehealth for Clinical and Non Clinical Settings</i> where necessary, including in terms of training. • Monitor the effectiveness of telehealth models of care, as reported by LHDs/SHNs, and engage BHI where necessary. • Undertake an annual review of implementation progress across NSW in the six priority areas. 	ACI, MoH	Short term – mid 2016
2	<p>Establish a Telehealth Capability Interest Group, to include telehealth managers, clinicians (including specialists, nurses, midwives and, allied health staff), non-government organisations, private practitioners and consumers.</p>	ACI	Short term – end 2016

Embedding telehealth in clinical practice			
	Action	Responsibility	Timeframe
3	Capture and promote innovation in telehealth-enabled models of care in NSW. The NSW Telehealth Strategic Advisory Group and Telehealth Capability Interest Group could also assist with this process.	ACI, NSW Telehealth Strategic Advisory Group, Telehealth Capability Interest Group	Long term – end 2021
4	Continue to identify and build effective alliances and partnerships with external stakeholders to deliver patient-centred telehealth models of care.	LHDs/SHNs	Long term – end 2021
5	Amend position descriptions and contracts for clinical staff to reference that their work may require multiple types of service delivery, including via telehealth.	LHDs/SHNs	Medium term – 2017-2018
6	Consider including KPIs in clinician contracts in order to monitor telehealth uptake.	LHDs/SHNs	Medium term – 2017-2018
7	Finalise and release Bring Your Own Device (BYOD) policy statement on the use of personal devices including for delivery of care by telehealth.	eHealth NSW, MoH, NSW Telehealth Strategic Advisory Group	Short term – end 2016
8	Identify areas that require the development of new policies or updated advice to support delivery of health services by telehealth.	MoH, NSW Telehealth Strategic Advisory Group, Telehealth Capability Interest Group	Ongoing
9	Implement and leverage consumer-focused strategies to engage the local community and empower patients who receive care via telehealth, and further encourage consumer uptake.	LHDs/SHNs	Ongoing

Training and Change Management			
	Action	Responsibility	Timeframe
10	Identify staff with capability to support implementation of telehealth-enabled models of care, and drive strategic planning and ongoing development. Invest in new positions if required. Consider telehealth service provision and workforce configuration in undertaking workforce planning.	LHDs/SHNs	Short term – end 2016
11	Implement an effective change management strategy. This may include using ACI's Centre for Healthcare Redesign and/or ACI's Accelerating Implementation Methodology (AIM).	LHDs/SHNs, ACI	Medium term – 2017-2018
12	Promote further use of telehealth for training and staff development activities and monitor uptake.	LHDs/SHNs, HETI	Ongoing
13	Review the ACI Guidelines and make recommendations for any potential changes including: <ul style="list-style-type: none"> • Updates to align to developments in telehealth • Engagement of HETI for additional training resources 	NSW Telehealth Strategic Advisory Group, ACI, HETI	Ongoing

Technology and Infrastructure

	Action	Responsibility	Timeframe
14	Continue to develop e-infrastructure to enable telehealth to operate effectively state-wide, including for personal devices.	eHealth NSW	Long term - end 2021
15	Continue to identify and support the uptake of new telehealth solutions. The NSW Telehealth Strategic Advisory Group and Telehealth Capability Interest Group may also assist with this process.	eHealth NSW, ACI, LHDs/SHNs, NSW Telehealth Strategic Advisory Group, Telehealth Capability Interest Group	Long term - end 2021
16	Investigate integrated state-wide solutions to enable scheduling of telehealth consultations where needed, support streamlined administrative processes, and capture data for monitoring and evaluation, and funding purposes.	eHealth NSW	Medium term - 2017-2018

Funding for telehealth models of care

	Action	Responsibility	Timeframe
17	Continue to engage with the Commonwealth to ensure that MBS billing access for telehealth consultations is improved. Ensure that parameters are communicated to LHDs/SHNs.	MoH (Government Relations Branch), NSW Telehealth Strategic Advisory Group	Ongoing
18	Explore transparency of telehealth service events in activity data for admitted and non-admitted patients and patients in Emergency Departments with IHPA.	MoH (ABF Taskforce)	Ongoing
19	Consider the inclusion of a telehealth purchasing adjustor into the activity model.	MoH (System Purchasing and Performance Division)	Short term - end 2016

Monitoring and evaluation

	Action	Responsibility	Timeframe
20	Develop standardised metrics for analysis of telehealth activity, impacts and benefits at an LHD/SHN level.	HNELHD, NSW Telehealth Strategic Advisory Group	Medium term - 2017-2018
21	Monitor data and evaluations produced by LHDs/SHNs and consider mechanisms to capture patient experience of telehealth, including in the BHI Patient Experience Surveys in the future.	NSW Telehealth Strategic Advisory Group, BHI	Long term - end 2021

Telehealth in NSW

Future State

Telehealth offers benefits for patients, their carers, health care workers and the health system as a whole through improved access, availability, and efficiency of quality health care. Patient-centred, clinician-led telehealth provides an efficient and effective model of care that complements face-to-face consultation. Telehealth technology is constantly evolving, with a wide range of digital and web-based health technologies currently available to patients within the NSW Health system, including remote telemonitoring of patients in their home and the secure use of apps on personal devices such as mobile phones and tablets. There is a growing demand from patients and clinicians for the NSW Health system and its policies to keep pace with new practices in health service delivery. Going forward, consumer-focused and digital technologies will be enablers for managing rising demand for health services with fewer resources, while achieving a high quality of care.¹ Connecting the electronic Medical Record (eMR) to in-home monitoring devices; use of wearable technologies such as scannable patient wristbands to improve continuity of care in the hospital setting; and electronic referrals and online appointment scheduling are all examples of the opportunities telehealth offers to patients, their carers, clinicians and the health system.

Telehealth has been particularly important in rural and remote areas, where it has had a positive impact on patients and clinicians, through reduced travel time and improved access to specialists and advice. For clinicians, it may improve access to continuing education and professional development. While telehealth is often thought to be primarily used in regional, rural and remote areas, there is now an opportunity for a much broader uptake of telehealth models of care in NSW. Telehealth is also used in metropolitan areas for a range of purposes, including supporting hospital avoidance initiatives, providing services to patients with disability who may have trouble travelling to consultations, and offering interpreting services remotely where patients and clinicians do not share a common language. State-wide, telehealth is also utilised for prevention strategies, such as the Text Me program, which helps to improve the health of heart attack survivors. Studies are underway in Australia and internationally to grow the evidence base underpinning telehealth at a broader system level.^{2,3,4} It is an opportune time to identify actions the NSW Health system can undertake to measure the benefits of telehealth, accelerate its uptake and embed telehealth into core business in a variety of settings.



- 1 Dods S, Hansen D, Boyle J, O'Keefe C, Alem L, Cellar B, Freyne J, Kanagasingam Y 2014, *A digitally enabled health System*, <https://publications.csiro.au/rpr/download?pid=csiro:EP145606&dsid=DS1>
- 2 Nuffield Trust 2016, *The impact of telehealth and telecare: the Whole System Demonstrator project*, <http://www.nuffieldtrust.org.uk/our-work/projects/impact-telehealth-and-telecare-evaluation-whole-system-demonstrator-project>
- 3 Dods S, Hansen D, Boyle J, O'Keefe C, Alem L, Cellar B, Freyne J, Kanagasingam Y 2014, *A digitally enabled health System*, <https://publications.csiro.au/rpr/download?pid=csiro:EP145606&dsid=DS1>
- 4 Commonwealth Department of Health 2014, *Telehealth Pilots Programme*, <http://health.gov.au/ehealth-nbntelehealth>

Strategic context

The objectives of the *NSW Health Telehealth Framework and Implementation Strategy: 2016-2021* (the *Implementation Strategy*) align to and are supported by other key NSW Health strategies driving patient-centred care through the delivery of 'the right care, in the right place, at the right time for everyone.'⁵ Along with the *NSW State Health Plan – Towards 2021* and *NSW Rural Health Plan – Towards 2021*, eHealth NSW's *A Blueprint for eHealth in NSW* and the *NSW Health Integrated Care Strategy 2014-2017* provide a strategic foundation to drive delivery of care through telehealth where clinically appropriate. The eHealth NSW *Rural eHealth Program 2015-2018* will continue the delivery of critical infrastructure to rural and remote NSW to support and accelerate a broader and more integrated network of telehealth services.

Some of the benefits for patients, providers and the health system more broadly are described in **Figure 1** below.




Patients and their families/carers 	<ul style="list-style-type: none"> ✓ reduced costs and inconvenience (e.g. from less travel) ✓ less face-to-face specialists visits ✓ improved access to services (faster access and access to services that may not otherwise be available at all) ✓ improved quality of services with greater integration and continuity of care ✓ reduced burden on carers ✓ more accurate and timely diagnosis ✓ care is more patient-centred with increased independence and self-management ✓ less social isolation (e.g. from reduced travel) ✓ larger networks of care as more carers/family/friends can attend consultations
Health care workers 	<ul style="list-style-type: none"> ✓ greater access to continuing education and professional development ✓ greater provision of enhanced local services ✓ more experiential learning ✓ enables better networking and collaboration ✓ greater support to and reduced professional isolation for rural clinicians ✓ increased range of specialist advice available ✓ reduced time spent travelling ✓ shorter consultation times
Health system 	<ul style="list-style-type: none"> ✓ increased self-sufficiency of health care professionals ✓ reduced expenses related to patient transport ✓ reduced inequities in access to health services ✓ increased self-sufficiency of smaller health care facilities (such as rural hospitals and residential aged care facilities) ✓ reduced demand on emergency departments and tertiary hospitals ✓ reduced burden on subsidised transport schemes

Figure 1. Benefits of telehealth. *Strategic Review of telehealth in NSW: Final Report*, Nous Group 2015.

Embedding telehealth models of care into business as usual across all Local Health Districts and Speciality Health Networks in NSW is central to realising these benefits in a sustainable way. This *Implementation Strategy* aims to respond to the recommendations of the *Strategic Review* by outlining clear actions for all levels of NSW Health to achieve these benefits, while acknowledging key work streams already in train.

⁵ NSW Health 2014, *NSW Health Integrated Care Strategy 2014-2017: Info Summary*, <http://www.health.nsw.gov.au/integratedcare/Documents/integrated-care-info-summary.pdf>

Strategic Review of Telehealth in NSW 2015

Telehealth is the secure transmission of images, voice and data between two or more units via telecommunication channels, to provide clinical advice, consultation, monitoring, education and training and administrative services.

Agency for Clinical Innovation⁶

Telehealth models of care have been in place in NSW since the mid-1990s as part of a commitment to improving access, equity and quality of health services for people in NSW, particularly in rural and remote communities. Since then, there has been a shift from telephone-based models of care, to internet-based, visual models of care and growing demand for more mobile technologies such as tablets and mobile applications (apps). Videoconferencing facilities are available throughout NSW public health facilities and there is broad use of these across the state.

To date, telehealth in NSW has developed iteratively, often through a range of small scale pilot projects, and has been characterised by variable uptake across the state, with differences in maturity and integration into business as usual between individual Local Health Districts (LHDs) and Speciality Health Networks (SHNs).

The NSW Ministry of Health recognised there was a need to review the state of telehealth in NSW to assess how the benefits of investments in telehealth could be enhanced and leveraged to ensure the delivery of high quality, patient-centred care. In October 2014, the Nous Group was commissioned to undertake a strategic review of telehealth in NSW, on behalf of NSW Health. The *Strategic review of telehealth in NSW: Final report* (the *Strategic Review*) was finalised in April 2015 and is available on the NSW Health website.

The *Strategic Review* identified an overarching strategic priority for telehealth, which was supported by 23 recommendations for future oversight of funding, implementation and the strategic direction of telehealth in NSW. The *Strategic Review* outlined key barriers and enablers to delivery of telehealth as core business (summarised in **Table 2**). It identified the critical factors required to establish a sustainable telehealth network in NSW and align with work being done to support uptake of telehealth and its integration into the day-to-day business of health care.

The intention of the following *Implementation Strategy* is to address these recommendations and provide a framework to drive future telehealth activity in NSW. Further detail on the enablers and barriers of telehealth can be found in **Appendix A**.

6 Agency for Clinical Innovation 2015, *Guidelines for the use of telehealth for clinical and non-clinical settings in NSW*, http://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0010/258706/ACI-telehealth-guidelines.pdf

Enablers	Barriers
<ul style="list-style-type: none"> • Effective planning to ensure telehealth-enabled models of care are supported by adequate administrative support • Strong change management to support uptake of telehealth • Technology that is easy to use, convenient, quick to access, reliable, fit-for-purpose and cost-effective • An effective telehealth coordination role that incorporates both technical and clinical knowledge, and both acts as the single point of contact for all telehealth related questions and provides support 	<ul style="list-style-type: none"> • Need for strong and clear central governance to provide strategic direction and guidance • Financial disincentives created by the MBS discourage clinicians from using telehealth in situations where it is appropriate and would provide considerable benefits • Uncertainty about the impact of ABF on funding for services provided using telehealth • Need for access to adequate and appropriate technology, including bandwidth, to support quality and reliable communication • Need for systems to support effective scheduling of telehealth consultations, including a global contact list

Table 2. Enablers of and barriers to telehealth uptake in NSW. *Strategic Review of telehealth in NSW: Final Report*, Nous Group 2015



A Framework and Strategy for the Future of Telehealth in NSW

The aim of this document is to describe progress in telehealth in NSW, while outlining the actions, responsibilities and timelines required to reach the desired future state. The actions are underpinned by the findings and recommendations of the *Strategic Review* (illustrated in Figure 2).

Responsibility for the *Implementation Strategy* actions was assigned within the context of a devolved NSW Health system following a consultation with key NSW Health stakeholders in late 2015. The assigned implementation roles acknowledge LHD/SHN responsibility for embedding telehealth in core business, enabled by central NSW Health agencies. Through the recent consultations, it emerged that many of the actions are already in train across the state as part of the delivery of key NSW Health work programs; where relevant this progress is reflected in the *Implementation Strategy*. The implementation actions will be undertaken within the existing NSW Health budget.

While the *Strategic Review* focussed on more traditional videoconferencing technologies, the *Implementation Strategy* aims to acknowledge the increasing use of and demand for mobile technologies and other advances in digital health care such as point of care testing.

Telehealth Framework

The actions underpinning the *Implementation Strategy* are mapped to the following framework of six priority areas:

	1. Governance: including the establishment of a NSW Telehealth Strategic Advisory Group reporting to the eHealth Executive Council, to provide a strategic direction for telehealth in NSW, and a Telehealth Capability Interest Group.
	2. Embedding Telehealth in Clinical Practice: including the prioritisation of delivery of care via telehealth through LHD and SHN Strategic and Operational Plans; cultivating clinical champions to support effective engagement of clinicians; and secure use of personal devices.
	3. Training and Change Management: including LHD/SHN prioritising building staff capability and investing in new resources to drive local strategies where appropriate, and the use of guidelines and workshops to provide advice on best practice and change management.
	4. Technology and Infrastructure: including the identification and uptake of new and beneficial technologies and development of infrastructure where necessary.
	5. Funding for Telehealth Models of Care: including considering expansion of funding streams for individual clinicians participating in telehealth consultations, and recognising telehealth activity delivered in LHDs and SHN health services.
	6. Monitoring and Evaluation: including improved data capture and the development of standardised state-wide metrics; and surveys to collect information on patient experience and overall assessment of the effectiveness of the model of care.

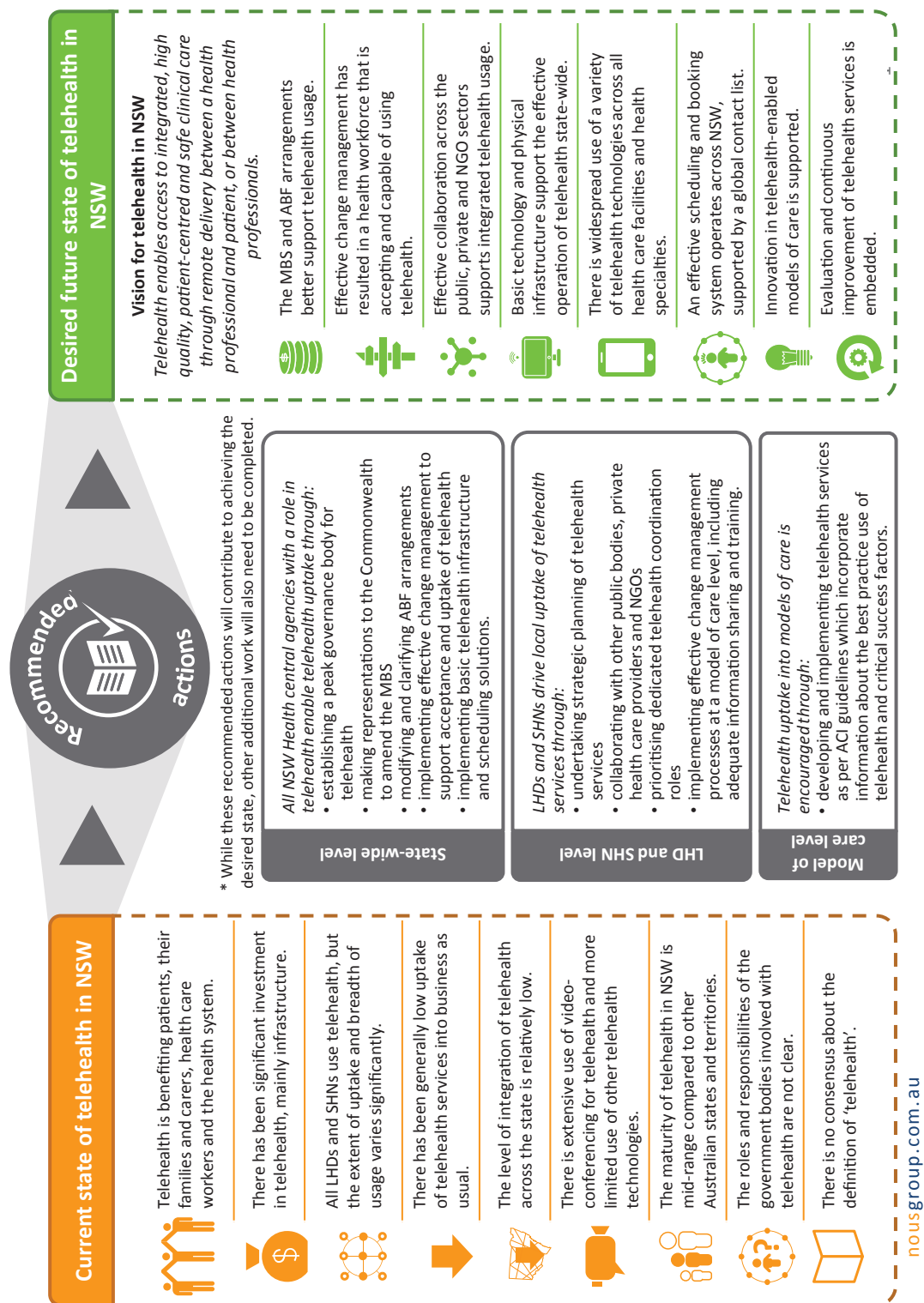


Figure 2. A Framework for Telehealth in NSW – reflecting the current state and desired state of telehealth in NSW. *Strategic Review of telehealth in NSW: Final Report*, Nous Group 2015.

Implementation Strategy



1. Governance

Strategic governance is a critical issue identified in the *Strategic Review of Telehealth in NSW*. The 'need for strong and clear central governance to provide strategic direction and guidance' was described as key, and the absence of such a governance mechanism was a commonly cited barrier to telehealth uptake in NSW.

Strategic Review Recommendations

The *Strategic Review* recommended that a central governance group be developed to:

- a) Agree a definition of telehealth to be used in NSW;
- b) Articulate a vision for telehealth in NSW, and measures for success, and provide strategic guidance;
- c) Clarify the roles and responsibilities of MoH, eHealth, ACI, HETI and LHDs/SHNs in relation to telehealth, and ensure these are effectively communicated;
- d) Monitor telehealth developments at the national level;
- e) Drive local innovation and prioritisation of telehealth-enabled models of care, including exploring funding options to support this;
- f) Encourage and monitor telehealth uptake across the state to ensure it is occurring in a manner consistent with the articulated direction;
- g) Provide guidance about key activities that should be standardised across the state (e.g. secure information storage, data collection);
- h) Ensure an effective change management approach at the state level to support embedding of telehealth into business-as-usual (including through the use of financial incentives);
- i) Oversee the development of a core training package about best clinical practice in relation to telehealth, to be developed and delivered by HETI;
- j) Implement the changes suggested in the Report.

Implementation Progress and Actions

Strategic governance for telehealth

A dedicated, time-limited NSW Health Telehealth Strategic Advisory Group will be established to coordinate and drive state-wide telehealth activity. The Group will be in place for the course of this strategy, at which point its ongoing role will be reviewed. The Advisory Group will be chaired by a representative of ACI, acknowledging that clinical need is the driving force for effective telehealth models of care and technical solutions. Membership of the group will include representatives from across the NSW Health System, including from Branches, Pillars, Agencies and LHDs/SHNs. The NSW Telehealth Strategic Advisory Group will be charged with providing strategic guidance for telehealth in NSW, driving innovation and monitoring developments in telehealth that may be of benefit to the health system. The NSW Telehealth Strategic Advisory Group will oversee an annual review of implementation progress across NSW in the six priority areas.

The Advisory Group may choose to harness technical expertise and advice from across the NSW Health system as required, to support uptake of telehealth including on key issues addressed in the *Implementation Strategy* actions such as:

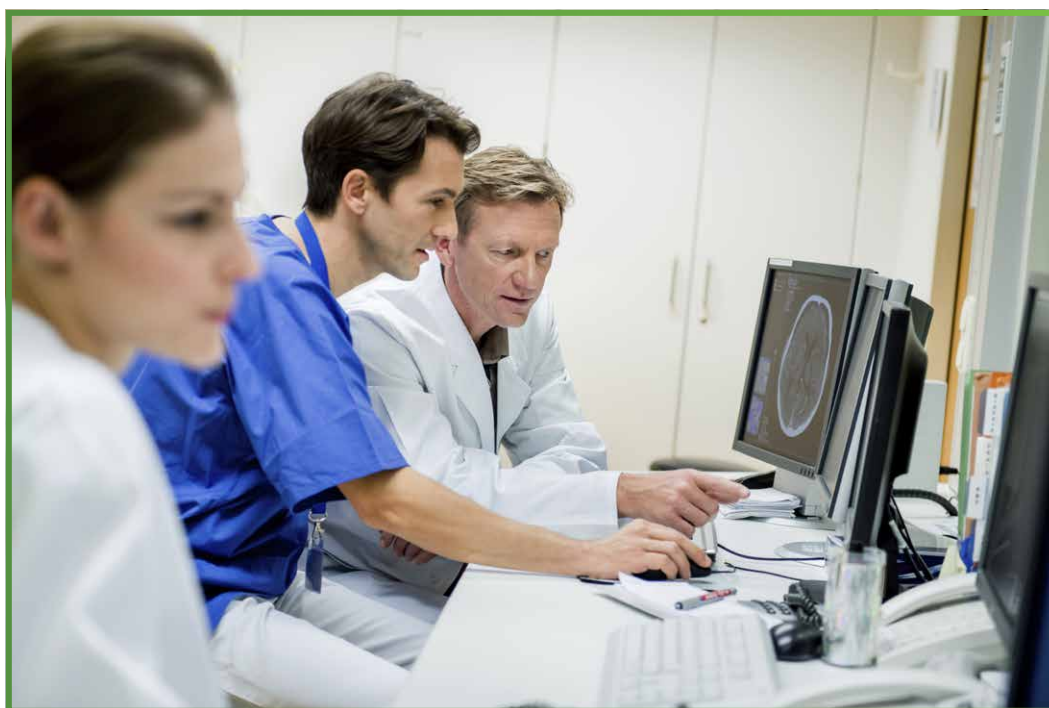
- Activity Based Funding (ABF) and Medicare funding;
- Legal and privacy issues;
- Incentives for telehealth through the NSW Health performance framework;
- Monitoring and evaluation of telehealth models of care;
- Training and change management;
- Promoting the availability of new technologies; and
- Strategies to engage and empower patients who receive care via telehealth, particularly people from rural LHDs, Aboriginal people and people with disability, as well as others who will most benefit from telehealth.

Exploring synergies with other key NSW Health strategies and programs such as the *Integrated Care Strategy 2014-2017* and working with organisations such as Healthdirect Australia will also be a valuable role of this group.

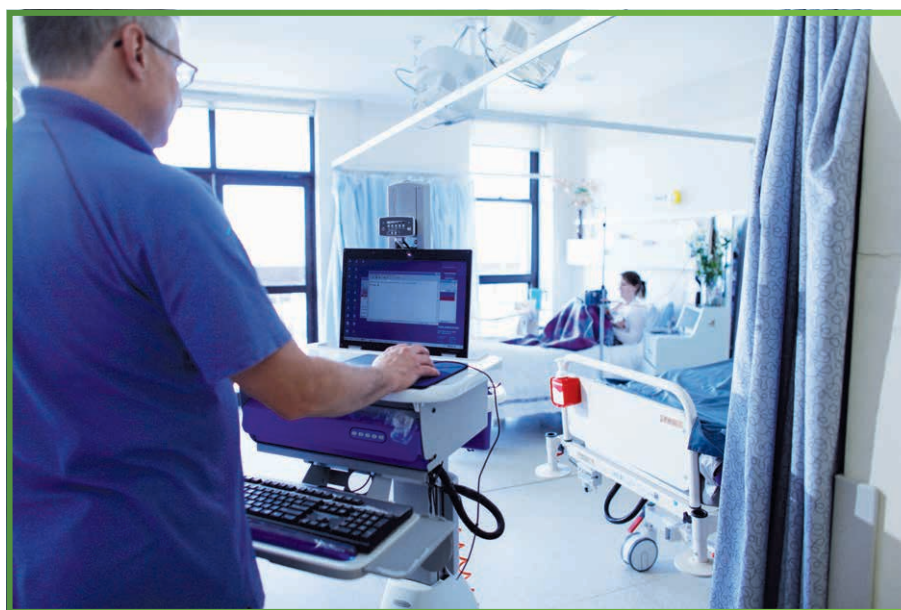
The NSW Telehealth Strategic Advisory Group will report to the NSW Health eHealth Executive Council as required, through the ACI Chief Executive, who is a member of the Council. The NSW Health eHealth Executive Council is responsible for setting overall state-wide strategic direction for eHealth, advising on eHealth policy and standards, monitoring eHealth performance and ensuring effective eHealth project delivery within a whole of NSW Health context.

Building a community of practice

ACI is establishing a Telehealth Capability Interest Group in early 2016 to bring together interested clinical and non-clinical staff from all LHDs/SHNs (including telehealth managers and clinical champions), non-government organisations, private practitioners, and consumers, who utilise telehealth for their work or health care needs. The Group will help promote the uptake of telehealth, share knowledge of systems and processes, build capability, and improve the experience and delivery of telehealth state-wide. The Telehealth Capability Interest Group will report to the NSW Telehealth Strategic Advisory Group as required. Local communities of practice may also be developed.



Governance			
	Action	Responsibility	Timeframe
1	<p>Establish NSW Telehealth Strategic Advisory Group. The group will be chaired by a representative of ACI, with membership from Branches, Pillars, Agencies and LHDs/SHNs from across the NSW Health System. The Advisory Group will report to the eHealth Executive Council which has overarching strategic oversight for eHealth in NSW. The key activities for this group may include:</p> <ul style="list-style-type: none"> • Provide a vision and strategic guidance for telehealth in NSW with links to other key NSW Health strategies and programs. • Monitor telehealth developments nationally, and undertake horizon scanning for new and relevant technologies. • Seek technical advice as needed to support increased uptake of telehealth across the system and overcome any barriers. • Encourage and advise on approaches to monitor telehealth uptake across the state. • Drive local innovation and prioritisation of telehealth-enabled models of care and develop use cases. • Review and contribute to updates to the ACI <i>Guidelines for the use of Telehealth for Clinical and Non Clinical Settings</i> where necessary, including in terms of training. • Monitor the effectiveness of telehealth models of care, as reported by LHDs/SHNs, and engage BHI where necessary. • Undertake an annual review of implementation progress across NSW in the six priority areas. 	ACI, MoH	Short term – mid 2016
2	<p>Establish a Telehealth Capability Interest Group, to include telehealth managers, clinicians (including specialists, nurses, midwives and, allied health staff), non-government organisations, private practitioners and consumers.</p>	ACI	Short term – end 2016





2. Embedding Telehealth in Clinical Practice

Telehealth should be driven by clinical and consumer need and be well-embedded into patient-centred clinical models of care and prevention initiatives. A number of the key enablers of telehealth identified in the *Strategic Review* and the related recommendations work together to support this objective.

Strategic Review Recommendations

The *Strategic Review* made the following recommendations:

1. ACI to incorporate best practice use of telehealth in models of care, and to incorporate critical success factors in the revised *Guidelines for the use of Telehealth for Clinical and Non Clinical Settings in NSW*
2. eHealth NSW and ACI to explore how best to capture and communicate innovation in telehealth-enabled models of care.
3. LHDs/SHNs to identify and build effective alliances and partnerships to support best practice telehealth-enabled models of care.
4. LHDs/SHNs to consider the value of inclusion of KPIs in contracts with individual clinicians.
5. MoH to develop a policy statement to address perceived medico-legal, ethical, confidentiality and/or security issues.

Implementation Progress and Actions

Clinical alliances and partnerships

A range of initiatives are already underway across the NSW Health system, helping to embed telehealth into clinical practice in a number of settings. Many LHDs/SHNs are actively engaging with their key external stakeholders and service providers to establish arrangements for patients to access care through telehealth. Partnerships are being cultivated with local GPs, Primary Health Networks (PHNs) and Residential Aged Care Facilities (RACFs) amongst others. It is acknowledged that there are some technological, workforce and capability issues which may need to be managed to facilitate these partnerships. A number of arrangements are supported through the *Integrated Care Strategy 2014-2017*.



CASE STUDY

Murrumbidgee LHD is working closely with Primary Health Networks and NSW Ambulance to develop telehealth-enabled inreach and outreach models of care. Outreach to Residential Aged Care Facilities is also a priority, as part of hospital avoidance strategies.

Telehealth as a strategic priority for LHDs/SHNs

Many LHDs/SHNs are prioritising delivery of care by telehealth through local Strategic and Operational Plans, and investing in dedicated staff telehealth coordinators to facilitate these goals, while in other LHDs/SHNs, telehealth responsibilities are shared amongst other staff.

The functions of staff charged with responsibility for telehealth range from the development and strategic planning of telehealth-enabled models of care, to embedding these models into business as usual. The role may include: looking for new innovations in telehealth; engaging clinical, administrative, executive and management staff in telehealth project development and implementation; ensuring that relevant policies are adhered to; and implementing strategies to ensure that telehealth programs are sustainable and can be appropriately evaluated. While the role may vary between LHDs/SHNs, depending on the maturity of telehealth facilities, and the extent to which telehealth is a priority in the local area, the key responsibilities of staff in telehealth support/coordination roles are to create a bridge between the technical and clinical domains, and to drive change management at all levels of the LHD/SHN. Staff who are able to assume these functions would be of benefit to all LHDs/SHNs, and may be supported by staff telehealth champions, particularly clinical champions. Such a role is key to supporting change management.

Championing increased uptake of telehealth by clinicians

Local clinicians are being encouraged to incorporate telehealth-enabled models of care into their practice where clinically appropriate. A range of methods are in place across NSW Health to influence and support use of telehealth as business as usual, including provision of reports to identify patients who are suitable for telehealth, and the engagement of local clinical champions. Chief Executive support is pivotal to driving strategic change throughout the organisation, while senior clinician support is integral to encouraging junior clinician use of telehealth. This partnership between junior and senior clinicians may also work the other way, with junior staff often more engaged with new technologies and encouraging their uptake by more senior colleagues. Clinical champions have a valuable role in promoting enthusiasm for using new technologies for patient consultations.

LHDs/SHNs may also consider making adaptations to clinician position descriptions and contracts to make reference to the fact that their consultations may be undertaken via a range of types of service delivery, including telehealth.

CASE STUDY

The Sydney Children's Hospital Network includes telehealth delivery in its Strategic Plan and some clinical services plans. It provides a range of specialist telehealth clinics, including the Complex Pain Clinic to children around the state. The Complex Pain Clinic uses Healthdirect Australia's VideoCall management platform. Patients can access a video consultation from home using their own computer or device. Patients need a web browser, but no special software. They simply enter a 'waiting area' via a button on the Complex Pain Clinic's website, where any authorised clinician can join them.

Use of personal and mobile devices for telehealth

There is an increasing demand from clinicians for technical solutions that allow for the use of more mobile and personal technologies to engage with patients remotely in a secure, convenient and appropriate way. Bring Your Own Devices (BYOD), whereby clinicians use their own preferred mobile devices for both professional and personal use, is a growing area of focus and activity. A number of policies to provide guidance in this area currently exist, including the *NSW Health Privacy Manual for Health Information*, which provides broad advice on the management of personal health information and privacy requirements across the NSW Health System. Additionally, eHealth NSW is currently developing a new, more targeted BYOD policy in consultation with staff at LHDs/SHNs. The purpose of the policy is to respond to the growing demand of employees to use their own devices to connect to the corporate NSW Health network and access information, including email, HR services and clinical information. The policy has the potential to increase uptake of mobile solutions while managing the associated risks. The policy may be supported using Mobile Device Management (MDM).

Supporting best practice for telehealth

ACI supports LHDs/SHNs in the delivery of telehealth models in line with best practice. The ACI *Guidelines for the use of Telehealth for Clinical and Non Clinical Settings* were published in 2015, and provide standardised approaches for the use of telehealth in a range of settings. Additionally, eHealth NSW and ACI have mechanisms in place to identify and communicate innovations in telehealth around the state. These include the ACI Innovation Exchange and regular eHealth forums coordinated by the Clinical Chief Information Officer.

Embedding telehealth in clinical practice			
	Action	Responsibility	Timeframe
3	Capture and promote innovation in telehealth-enabled models of care in NSW. The NSW Telehealth Strategic Advisory Group and Telehealth Capability Interest Group could also assist with this process.	ACI, NSW Telehealth Strategic Advisory Group, Telehealth Capability Interest Group	Long term - end 2021
4	Continue to identify and build effective alliances and partnerships with external stakeholders to deliver patient-centred telehealth models of care.	LHDs/SHNs	Long term - end 2021
5	Amend position descriptions and contracts for clinical staff to reference that their work may require multiple types of service delivery, including via telehealth.	LHDs/SHNs	Medium term - 2017-2018
6	Consider including KPIs in clinician contracts in order to monitor telehealth uptake.	LHDs/SHNs	Medium term - 2017-18
7	Finalise and release Bring Your Own Device (BYOD) policy statement on the use of personal devices including for delivery of care by telehealth.	eHealth NSW, MoH, NSW Telehealth Strategic Advisory Group	Short term - end 2016
8	Identify areas that require the development of new policies or updated advice to support delivery of health services by telehealth.	MoH, NSW Telehealth Strategic Advisory Group, Telehealth Capability Interest Group	Ongoing
9	Implement and leverage consumer-focused strategies to engage the local community and empower patients who receive care via telehealth, and further encourage consumer uptake.	LHDs/SHNs	Ongoing



3. Training and Change Management

Strong change management strategies are one of the key enablers of increased delivery of health services by telehealth in NSW. Using telehealth to deliver care may involve new processes and ways of working within an organisation and with other stakeholders. Change management approaches driven by champions within an organisation can support a positive environment around change. Strategies may assist by overcoming personal and cultural barriers and addressing or removing obstacles that might prevent uptake of telehealth into business as usual.

Strategic Review Recommendations

The *Strategic Review* made the following recommendations:

1. HETI to provide core training for relevant NSW Health staff about best clinical practice in relation to telehealth. Development of the training package should be overseen by the peak governance group.
2. LHDs/SHNs to design and implement an effective change management strategy when establishing new telehealth-enabled models of care.
3. LHDs/SHNs to prioritise a dedicated role/s (e.g. telehealth coordinator role) with the following capabilities/responsibilities to drive the uptake of telehealth within their jurisdiction.
 - a. Providing oversight of telehealth within the LHD/SHN;
 - b. Driving the strategic direction for telehealth within the LHD/SHN;
 - c. Facilitating, supporting and promoting best practice uptake of telehealth in the LHD/SHN through clinician engagement, change management and risk minimisation;
 - d. Providing support to LHD/SHN staff who wish to investigate/establish a new telehealth-enabled model of care;
 - e. Supporting the evaluation and continuous improvement of telehealth services;
 - f. Developing and maintaining knowledge of telehealth technologies in a clinical context to support the provision of safe, reliable, patient-focused care;
 - g. Ensuring collaboration between the strategic, technical and clinical elements of telehealth within the LHD/SHN; and
 - h. Collaborating with staff in other LHDs/SHNs with a similar role, to share learnings and innovative ideas.

Implementation Progress and Actions

Leveraging change management support

Change management strategies have been implemented in a range of LHDs/SHNs, including: identification of patients who are suitable for telehealth consultations and provision of this data to clinicians; support of an engaged executive team; and clinical leadership. The ACI Accelerating Implementation Methodology (AIM) is a short course run frequently at LHDs around the state to grow capability of staff to manage change effectively by overcoming personal and cultural barriers. The program outlines how to address or remove obstacles that might prevent the implementation of change projects, on budget and within scope. It is delivered in many formats across LHDs/SHNs.

ACI has recently released an *Implementation Guide: Putting a model into practice* which is intended to support the translation of an established and documented best practice model into an effective and sustainable way of working. The ACI's *Guidelines for the use of Telehealth for Clinical and Non Clinical Settings in NSW* provides guidance to support best clinical practice. As this is a live document, it may be beneficial for the NSW Telehealth Strategic Advisory Group to assist with regular reviews to align the guidelines with developments in telehealth practice and policy. It may also be valuable to engage the Health Education and Training Institute (HETI) in future for the production of complementary resources.

Driving telehealth in LHDs/SHNs

As noted earlier, many LHDs/SHNs have one or more staff, or are actively recruiting staff with responsibility for driving and facilitating the use of telehealth within the organisation. These individuals and teams play a critical role in driving change and providing support and guidance across these organisations.

Identifying existing staff, or potentially investing in new positions with responsibility for providing a bridge between technical and non-technical roles and helping to implement a strategic direction for telehealth in the organisation, is integral. Such a role is likely to encompass change management support and training for other staff. LHDs/SHNs with established and effective change management programs may elect to continue these, while others may wish to utilise the ACI's AIM program.

Training and Change Management			
	Action	Responsibility	Timeframe
10	Identify staff with capability to support implementation of telehealth-enabled models of care, and drive strategic planning and ongoing development. Invest in new positions if required. Consider telehealth service provision and workforce configuration in undertaking workforce planning.	LHDs/SHNs	Short term – end 2016
11	Implement an effective change management strategy. This may include using ACI's Centre for Healthcare Redesign and/or ACI's Accelerating Implementation Methodology (AIM).	LHDs/SHNs, ACI	Medium term – 2017-2018
12	Promote further use of telehealth for training and staff development activities and monitor uptake.	LHDs/SHNs, HETI	Ongoing
13	Review the ACI Guidelines and make recommendations for any potential changes including: <ul style="list-style-type: none"> • Updates to align to developments in telehealth • Engagement of HETI for additional training resources 	NSW Telehealth Strategic Advisory Group, ACI, HETI	Ongoing





4. Technology and Infrastructure

Access to adequate, reliable and user-friendly technology and underpinning infrastructure is identified as a critical success factor for effective telehealth-enabled models of care.

Strategic Review Recommendations

The *Strategic Review* recommended that:

1. eHealth NSW to continue to focus on establishing the basic infrastructure to enable telehealth to operate state-wide. This includes ensuring all locations have access to adequate bandwidth and infrastructure is standardised to the extent that it enables interoperability of systems across LHDs/SHNs.
2. eHealth NSW to implement mechanisms to identify and support the uptake of new technologies to provide appropriate telehealth solutions for clinical problems, particularly personal devices such as mobile phones and tablets.
3. Health Infrastructure NSW to consider telehealth in planning and design as part of the Australasian Health Facility Guidelines (AusHFG) to ensure the necessary technology is in place or can easily be added to new facilities, and appropriate facilities are available for the provision of services via telehealth.
4. eHealth NSW to implement technology solutions to enable effective scheduling for telehealth consultations.

Implementation Progress and Actions

Core infrastructure to support telehealth

Considerable work is already underway to deliver telehealth technology and infrastructure across the NSW Health system. The eHealth NSW work program is essential to improving connectivity, particularly in rural and remote areas, and will drive the development of infrastructure to enable sustainable and integrated state-wide implementation of telehealth. eHealth NSW is working to finalise the Health Wide Area Network (HWAN) in all LHDs/SHNs by 2016, and will deliver increased access to broadband and clinical grade wireless internet, particularly in rural and remote areas through the *Rural eHealth Program 2015-2018*. The underlying infrastructure will support integration of more mobile technologies – such as tablets and smartphones widely used by clinicians.

Integrated state-wide solutions will enable the scheduling of telehealth consultations where needed, support streamlined processes and ensure reliable and accurate data collection. Data collection for evaluation and funding is critical to driving increased uptake of telehealth. These solutions would be of benefit to many LHDs/SHNs and will need to take into account the variety of different systems being used state-wide. LHDs/SHNs are also using telehealth technologies such as digital medical archiving and communication systems, as described in the eHealth NSW *Blueprint for eHealth in NSW*.

CASE STUDY

The Telehealth for Home Haemodialysis smartphone app has been integrated into patient care for users of the Western Renal Service (which encompasses Nepean Blue Mountains LHD [NBMLHD] and Western Sydney LHD). The app was developed by the Nepean Telehealth Technology Centre, which is a partnership between NBMLHD and the Institute of Biomedical Engineering and Technology at the University of Sydney. The app displays dialysis data and trends in real time, resulting in improved clinical decision making. The app also reduced travel time for both patients and clinicians.

Identification of new technologies

Currently a wide range of systems are used to deliver telehealth across LHDs/SHNs, sometimes within a single organisation, including Scopia, Microsoft Lync, Vidyo and WebEx. NSW Health is also implementing consumer-focused and initiated web-based clinical consultations through Healthdirect Australia's Video Call service. The experience of cross-border regions should also be acknowledged, where web-based and traditional videoconferencing systems need to connect with those in other states to ensure that all patients receive appropriate care.

CASE STUDY

South Western Sydney LHD has recently commenced telemonitoring activities as part of the implementation of the Integrated Care Strategy. This includes provision of equipment to patients to allow them to monitor their health from home, using measures such as blood pressure.

While it is the responsibility of individual LHDs/SHNs to fund the development, operation, maintenance and support of telehealth, there is a role for eHealth NSW in supporting the identification of new technologies and innovations of value for the system. Both ACI and eHealth NSW already work to identify and discuss new telehealth technologies with LHD/SHN clinicians through regional eHealth forums, and through the ACI Innovation Exchange which allows LHDs/SHNs to share effective models of care on a system-wide platform. eHealth NSW has a Clinical Chief Information Officer, who engages with clinicians to align informatics and clinical practice across NSW Health.

The newly created NSW Telehealth Strategic Advisory Group could also play a role in this horizon scanning function. Where new technological infrastructure beyond the remit of eHealth NSW is required, the NSW Telehealth Strategic Advisory Group can engage the support and expertise of Health Infrastructure.

Technology and Infrastructure			
	Action	Responsibility	Timeframe
14	Continue to develop e-infrastructure to enable telehealth to operate effectively state-wide, including for personal devices.	eHealth NSW	Long term - end 2021
15	Continue to identify and support the uptake of new telehealth solutions. The NSW Telehealth Strategic Advisory Group and Telehealth Capability Interest Group may also assist with this process.	eHealth NSW, ACI, LHDs/SHNs, NSW Telehealth Strategic Advisory Group, Telehealth Capability Interest Group	Long term - end 2021
16	Investigate integrated state-wide solutions to enable scheduling of telehealth consultations where needed, support streamlined administrative processes, and capture data for monitoring and evaluation, and funding purposes.	eHealth NSW	Medium term - 2017-2018



5. Funding Telehealth Models of Care

There are a number of current and potential funding streams available for telehealth in NSW. In the context of the devolved NSW Health system, the Ministry of Health purchases health service activity from the LHDs/SHNs which hold responsibility for delivery of services – including telehealth – to the local population. LHDs/SHNs have responsibility for funding the delivery, operation, maintenance and support of telehealth as part of core business through their local budgets.

There are two key funding sources available for telehealth activity in the NSW Health system depending on the clinician settings:

- Commonwealth Government Medicare Benefits Schedule (MBS) which funds services provided by health practitioners; and
- Activity Based Funding (ABF) which is a way of funding NSW hospitals whereby they get paid for the number and mix of patients treated.⁷

The ACI *Guidelines for the use of Telehealth for Clinical and Non Clinical Settings in NSW* includes current advice on these two funding streams for telehealth including conditions and criteria for eligibility. Further work is being undertaken by NSW Health to ensure the available funding streams continue to provide appropriate levels of financial support for the expanding level and scope of telehealth activity in LHDs/SHNs.

Strategic Review Recommendations

The *Strategic Review* recommended the following actions:

1. ACI and MoH ABF Taskforce to continue to provide clarification about the ABF and how it applies to telehealth.
2. That MoH consider making representations to the Commonwealth Minister for Health to amend the MBS to remove the financial disincentives created by the MBS.
3. MoH to continue to work with the Independent Hospital Pricing Authority to explore ABF for telehealth activities for Emergency Departments and admitted patients.
4. MoH to clarify with NSW Health system stakeholders that from 1 July 2015 NSW Health will fund non-admitted telehealth activity at both the provider and receiver end.

Implementation Progress and Actions

Medicare Benefits Schedule

The Commonwealth Government provides rebates for telehealth consultations through items on the MBS. Specific criteria, in place since July 2013, and which includes the type of clinician and telehealth consultation, must be met in order for providers to be eligible for these rebates. The *Strategic Review* and further stakeholder consultation indicated that expanding these eligibility criteria to reflect broader models of care would facilitate increased uptake of telehealth by clinicians in both rural and metro areas, with the benefits flowing to patients, clinicians and the health system.

NSW Health is exploring opportunities through national health reform processes – including the Medicare Benefits Schedule Review Taskforce – to influence the scope of telehealth consultations funded through MBS items to support patient-centred models of care. NSW Health supports consideration of practical actions that could be taken to allow access to the MBS, for example in rural and remote areas or for particular cohorts, such as:

- Enabling GPs, nurse practitioners and allied health professionals to bill for virtual consultations
- Enabling clinicians providing consultations as part of a multi-disciplinary team to bill for virtual consultations
- Enabling billing by clinicians consulting with each other about a patient when the patient is not present
- Including a service item to enable online review for repeat medication prescriptions.

NSW Health will continue to engage with the Commonwealth in ongoing national health reform discussions.

⁷ Independent Hospital Pricing Authority, date not specified, *Activity Based Funding*, <http://www.ihpa.gov.au/what-we-do/activity-based-funding>

Activity Based Funding

Telehealth activity has been recognised by the Independent Hospital Pricing Authority (IHPA) since 2013. From July 2015, IHPA has recognised non-admitted service events at both the medical practitioner/service provider and patient end of the consultation. This supports increased participation of clinicians in telehealth consultations.

The ABF Taskforce manages the ABF arrangements for the NSW Health system. NSW Health captures non-admitted telehealth activity data at both ends of the consultation including the clinical application. The funding is split between the two ends of the consultation, with the amount of funding dependent on the clinician type – i.e. doctor, nurse practitioner or allied health practitioner. The ABF Taskforce is continuing to work with IHPA to explore transparency of telehealth service events in activity data for admitted and non-admitted patients, and those in Emergency Departments, such as hospital avoidance programs.

Accurate data collection for telehealth activity and the systems that support it are essential to benefiting from ABF funding streams. If the activity is correctly counted and captured, appropriate funding will flow to the LHD/SHN. Updates on ABF funding for telehealth activity and practical advice on local implementation will continue to be provided to LHDs and SHNs on a regular basis through existing channels as well as through the NSW Telehealth Strategic Advisory Group. The ACI *Guidelines for the use of Telehealth for Clinical and Non Clinical Settings in NSW* will be updated as needed.

CASE STUDY

Western NSW LHD is by far the largest Local Health District by area, covering around 250,000 square km. This size has resulted in considerable expenditure on patient transports – around \$26 million per annum. In 2015, WNSWLHD engaged consultants to develop a Telehealth Strategy to help manage these costs and provide effective and appropriate health care to patients at home.

Other funding

In addition to improvements in MBS and ABF funding streams for telehealth activity, MoH is reviewing how a telehealth purchasing adjustor could be incorporated into the activity model. A positive purchasing adjustor would act as an incentive to encourage uptake of telehealth and improve data capture.

Funding for telehealth models of care			
	Action	Responsibility	Timeframe
17	Continue to engage with the Commonwealth to ensure that MBS billing access for telehealth consultations is improved. Ensure that parameters are communicated to LHDs/SHNs.	MoH (Government Relations Branch), NSW Telehealth Strategic Advisory Group	Ongoing
18	Explore transparency of telehealth service events in activity data for admitted and non-admitted patients and patients in Emergency Departments with IHPA.	MoH (ABF Taskforce)	Ongoing
19	Consider the inclusion of a telehealth purchasing adjustor into the activity model.	MoH (System Purchasing and Performance Division)	Short term – end 2016



6. Monitoring and Evaluation

Monitoring and evaluation of telehealth activity are integral to a range of activities including:

- Driving the uptake of telehealth-enabled models of care
- Determining funding allocations through both Activity Based Funding and the telehealth adjustor (if established)
- Ensuring that telehealth programs are safe, effective, user-friendly and accessible for patients and clinicians
- Continuing to build the evidence base for telehealth.

Strategic Review Recommendations

The *Strategic Review* recommended that:

1. LHDs/SHNs to require that telehealth-enabled models of care be evaluated at a minimum within five years of implementation and then at regular intervals, to support continuous improvement in line with evaluation best practice.
2. MoH and eHealth NSW to investigate how best to capture sufficient data to enable an analysis of telehealth usage across NSW and its benefits, including the need for an identifier for telehealth consultation.
3. BHI to consider collecting information on patient experience of telehealth through the NSW Patient Surveys.

Implementation Progress and Actions

Monitoring and evaluation approaches

Currently, monitoring and evaluation of telehealth models of care are undertaken by LHDs/SHNs using a range of methods and metrics. Data collection systems (for example, Cerner, CHIME, ITM and Tandberg Management Suite) also vary widely, even within the same LHD/SHN. While a large volume of data is collected, some LHDs/SHNs do not have the capability to extract data items valuable for monitoring telehealth activity and create tailored reports.

In addition it is useful and necessary to monitor and assess the patient and provider experience. Some LHDs have indicated that they are undertaking regular surveys of telehealth users to determine their level of satisfaction with the system, and with the care that they received.

CASE STUDY

Hunter New England LHD has one of the most established telehealth programs in the state. The LHD has developed effective systems of data collection and metrics to analyse telehealth data. The data can be used to identify patients who are suitable for telehealth models of care. This provides significant benefits for patients and clinicians.

Data capture for telehealth activity

Standardisation of data capture through the development of a state-wide scheduling system (as referenced in Section 4: Technology and Infrastructure) would enable monitoring and evaluation of telehealth, and help ensure appropriate levels of funding. The development of standardised metrics for analysis of telehealth data is a priority. Examples of metrics to measure at a state-wide level include:

- The cost of travel hours saved by using telehealth, for both patients and carers
- Number of days away from home for both patients and carers
- The overall cost of days away from home for both patients and carers

LHDs/SHNs with robust systems for metrics and data capture have indicated a willingness to share these with other LHDs/SHNs.

The NSW Telehealth Strategic Advisory Group could advise on the development of robust standardised metrics to monitor telehealth activity in consultation with LHDs/SHNs. These tools may be used to support and inform regular quantitative evaluations of telehealth programs across all LHDs/SHNs. The NSW Telehealth Strategic Advisory Group will also oversee an annual review of implementation progress across the six priority areas.

It may be beneficial for LHDs/SHNs to continue to undertake surveys of patient and provider experience, where resources or mechanisms are available. When more robust data on frequency and type of telehealth consultations is available, BHI may be engaged in incorporating telehealth specific questions into their Patient Experience Surveys. The NSW Telehealth Strategic Advisory Group, in conjunction with BHI, could assess the suitability of including telehealth in these Surveys or consider other approaches. BHI is also willing to provide technical expertise to any LHDs/SHNs undertaking electronic surveys, and to assist with determining a sample size for any research into the uptake of telehealth.

Monitoring and evaluation			
	Action	Responsibility	Timeframe
20	Develop standardised metrics for analysis of telehealth activity, impacts and benefits at an LHD/SHN level.	HNELHD, NSW Telehealth Strategic Advisory Group	Medium term – 2017-2018
21	Monitor data and evaluations produced by LHDs/SHNs and consider mechanisms to capture patient experience of telehealth, including in the BHI Patient Experience Surveys in the future.	NSW Telehealth Strategic Advisory Group, BHI	Long term – end 2021



Barriers and Enablers

Barriers

The *Strategic Review* identified a number of barriers to reaching the desired future state for telehealth in NSW. The barriers most frequently described by participants were:

1. Lack of strong, clear, central governance to provide strategic direction and guidance.

The lack of a central governance system to guide the implementation of telehealth in NSW was described as a barrier to increased uptake of telehealth for a number of reasons. Without a unified approach to implementation, there has been a lack of standardisation and direction across the state. Participants in the consultation for the *Strategic Review* almost universally agreed that a single governance mechanism is needed to set a direction for telehealth in NSW, drive its uptake at a strategic level (in line with related policies, strategies and frameworks) and provide overarching guidance for state-wide implementation of telehealth services by LHDs/SHNs. At the same time, participants agreed that LHDs/SHNs are best placed to hold responsibility for implementing telehealth, with the flexibility to adapt to local requirements.

2. Concerns about funding and a lack of financial incentives.

Both current Medicare Benefits Schedule (MBS) billing arrangements and a lack of clarity around existing Activity Based Funding (ABF) arrangements in relation to non-admitted patients were identified as barriers to the uptake of telehealth. Medicare rebates for telehealth consultations are only available in a limited range of circumstances, which do not cover all situations in which a telehealth consultation would be clinically appropriate. In the case of ABF, the primary concern was around ensuring that clinicians at both ends of a telehealth consultation (provider and receiver) are eligible for funding, as at the time of the strategic review consultation, an occasion of service could only be counted at the provider end. This discouraged some clinicians from participating at the receiving end. For non-admitted patients, this situation was rectified in 2015.

3. Access to adequate and appropriate technology, including adequate bandwidth.

A majority of consultation participants expressed concerns about inadequate bandwidth and technology that is 'unreliable, inflexible, not user-friendly, and not suited to the clinical situation.' Adequate and appropriate infrastructure is a critical success factor for implementation of effective telehealth-enabled models of care.

4. Lack of systems to support effective scheduling of telehealth consultations.

A large number of consultation participants found the absence of an effective, fit for purpose scheduling system to be a barrier. Difficulties with booking facilities and scheduling consultations have meant that in some circumstances, arranging a telehealth consultation can result in a greater administrative burden than a face to face consultation.

5. Additional barriers to uptake of telehealth included:

- Lack of standardisation of language and process across LHDs/SHNs
- Telehealth not being embedded into the workflow of clinicians
- Concerns about medico-legal, ethical, confidentiality and security issues
- Poor change management at the LHD/SHN level and some staff resistance
- Lack of standardisation of infrastructure across the state to enable interoperability of systems
- A full range of technology options not being leveraged
- Lack of clarity around the roles and responsibilities of central health agencies involved in telehealth.

Enablers

The *Strategic Review* also identified a number of factors that had enabled the uptake of telehealth services across NSW to date, or that could assist in embedding it in core business in future.

1. Effective planning to ensure telehealth-enabled models of care are supported by adequate administrative support

Administrative support to enable telehealth models of care is intrinsically linked with technological requirements. An effective booking and scheduling system is identified as key to reducing the workload associated with telehealth consultations. A state-wide scheduling system is currently being explored by eHealth NSW and a local system has already been implemented in Hunter New England LHD. Electronic administrative support could also come from the use of an electronic records management system, to provide patient information prior to a telehealth consultation. Adequate administrative support to set up such equipment and provide technical advice where necessary is important to streamlining the process for clinicians.

2. Strong change management to support uptake of telehealth

Change management when implementing telehealth services is essential to support and encourage its use by clinical and non-clinical staff across the health system. Change management that originates at Chief Executive level is particularly important, as it creates an environment where telehealth can be incorporated into business as usual. Many LHDs indicated that they have been using the ACI's Accelerating Implementation Methodology (AIM) to support change management, and almost all LHDs indicated that they had some sort of change management system in place.

One of the key change management suggestions of the *Strategic Review* was the inclusion of KPIs for telehealth in clinician contracts. This suggestion raised some concerns about the ability of clinicians to base decisions on clinical need, and an alternative suggestion being explored is that clinician contracts state the expectation that they will use a range of different options for the delivery of health care, including telehealth where appropriate.

3. Fit-for-purpose technology that is easy to use, convenient, quick to access, reliable and cost-effective

Reliable technology is integral to encouraging clinicians to try, and then continue to use telehealth as a means of delivering health care. Not only are clinicians more likely to continue to use telehealth if they have positive experiences, high-quality connection and appropriate technology (including purpose built technology) is necessary for patients to see telehealth as a viable means of receiving their care. Ease of use and flexibility were identified as key, to allow clinicians to provide time-critical care from a range of locations using a range of devices. eHealth NSW is currently working to finalise the Health Wide Area Network (HWAN) in all LHDs by 2016, and to increase access to broadband and clinical grade wireless internet, particularly in rural and remote areas. This will assist with integration of new technologies, especially personal devices such as tablets and smartphones.

Training and education in using telehealth systems are also needed to contribute to clinician confidence in utilising telehealth models of care.

4. An effective telehealth coordination role that incorporates both technical and clinical knowledge and both acts as the single point of contact for all telehealth related questions and provides support

In consultations for the *Strategic Review*, a telehealth coordinator to support the uptake of telehealth across districts and networks was described as an enabler and critical factor for the success of telehealth-enabled models of care. The role of a telehealth coordinator was seen as vital to the development of strategic direction, implementation of telehealth and ensuring sustainability. A telehealth coordinator provides a single point of contact for support of clinicians and non-clinicians using telehealth. In most LHDs, a telehealth coordinator role has been developed, with some positions currently filled, and others being recruited.

Health Roles and Responsibilities in Telehealth

Agency for Clinical Innovation (ACI) is responsible for developing and supporting telehealth models of care. ACI has also published *Guidelines for the use of Telehealth for Clinical and Non-Clinical Settings in NSW*, a high level resource which can be adapted locally.

Bureau of Health Information (BHI) undertakes quarterly reporting on performance and provides evidence updates on whether public reporting of information on the health care system improves performance.

eHealth NSW has responsibility for leading state-wide eHealth strategy, planning and project delivery. It ensures that the infrastructure to enable and support telehealth is in place, and it enables technology-based solutions to clinical problems for LHDS, SHNs and clinicians.

Health Education and Training Institute (HETI) supports and promotes coordinated education and training across NSW Health.

Health Infrastructure NSW manages the planning, design and delivery of health infrastructure capital works. Health Infrastructure NSW is the Secretariat for the Australasian Health Facility Guidelines (AusHFG) Steering Committee.

NSW Ministry of Health (MoH)

- **ABF Taskforce** works in partnership with LHDs/SHNs to ensure that Activity Based Funding is operationalised across the NSW public health system. The Taskforce also represents NSW Health on National Working Groups and works with the Independent Hospital Pricing Authority (IHPA) to explore ABF for telehealth activities in Emergency Departments and for admitted patients.
- **Government Relations Branch** coordinates intergovernmental health issues, and has provided a submission to the Medicare Benefits Schedule Review Taskforce regarding the need to expand billing options for telehealth.
- **Health System Planning and Investment Branch** developed this Telehealth Framework and Implementation Strategy and commissioned the Strategic Review of Telehealth. The Branch is also responsible for functions including specialty services planning and evaluation, strategic policy development, strategic analysis and investment, and service and capital planning.
- **Integrated Care Branch** develops and coordinates strategy and policy to promote integrated care for patients across health settings that support out of hospital care, and hospital substitution programs that aim to improve service delivery for people who are ageing or have disability. In addition, ICB develops, monitors and reviews priority primary care and community health care programs and services funded through non-government organisations. ICB is also the NSW Health contact for Healthdirect Australia.
- **Legal and Regulatory Service** provides regulatory, legal and compliance support through five separate units: Legal; Compliance; Corporate Governance and Risk Management; Private Health Care; and Pharmaceutical Services.
- **System Relationships Branches** have a key role in developing and maintaining the NSW Health Purchasing Framework, NSW Health Performance Framework and annual Service Agreements with Local Health Districts and Specialty Health Networks, as well as Service Compacts with the Pillars and other health agencies.

Consultation Participants

Agency for Clinical Innovation

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APPENDIX D

References

- Agency for Clinical Innovation 2016, *Accelerating Implementation Methodology*, <http://www.aci.health.nsw.gov.au/make-it-happen/centre-for-healthcare-redesign/accelerating-implementation-methodology-aim>
- Agency for Clinical Innovation 2015, *Guidelines for the use of Telehealth for Clinical and Non Clinical Settings in NSW*, http://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0010/258706/ACI-telehealth-guidelines.pdf
- Agency for Clinical Innovation 2015, *Implementation Guide – Putting a model into practice*, http://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0007/291742/Clinical_Innovation_Program_Implementation_Guide.pdf
- Australian Government Department of Health, Date Not Specified, *Telehealth: Specialist video consultations under Medicare*, <http://www.mbsonline.gov.au/telehealth>
- Commonwealth Department of Health 2014, *Telehealth Pilots Programme*, <http://health.gov.au/ehealth-nbntelehealth>
- Dods S, Hansen D, Boyle J, O’Keefe C, Alem L, Cellar B, Freyne J, Kanagasasingam Y 2014, *A digitally enabled health System*, <https://publications.csiro.au/rpr/download?pid=csiro:EP145606&dsid=DS1>
- eHealth NSW 2015, *Bring Your Own Device Policy: Version 0.4*
- HealthShare NSW 2013, *A Blueprint for eHealth in NSW*, <http://www.health.nsw.gov.au/eHealth/Publications/ehealth-blueprint.pdf>
- Health and Community Services Committee 2014, *Inquiry into telehealth services in Queensland*, <http://www.parliament.qld.gov.au/documents/tableOffice/TabledPapers/2014/5414T5969.pdf>
- Hunter New England Local Health District 2010, *HNE Health Telehealth Clinical Strategy 2010-2014*
- Hunter New England Local Health District, Date Not Specified, *Telehealth – Making healthcare more convenient*, <http://www.hnehealth.nsw.gov.au/telehealth/Pages/Telehealth%20Home.aspx>
- Independent Hospital Pricing Authority, Date Not Specified, *Activity Based Funding*, <https://www.ihpa.gov.au/what-we-do/activity-based-funding>
- KPMG 2015, *Western NSW Local Health District Telehealth Strategy – Three Year Telehealth Strategy and Implementation Plan*
- Nous Group 2015, *An evaluation of the Telehealth and Technology Initiative: Final Report Executive Summary – Nepean Blue Mountains Local Health District*
- Nous Group 2015, *Strategic review of telehealth in NSW: Final Report* www.health.nsw.gov.au/telehealth
- NSW Ministry of Health 2014, *Integrated Care Strategy: 2014-2017*, <http://www.health.nsw.gov.au/integratedcare/Documents/integrated-care-info-summary.pdf>
- NSW Ministry of Health 2014, *NSW Rural Health Plan: Towards 2021*, <http://www.health.nsw.gov.au/rural/Publications/rural-health-plan.pdf>
- NSW Ministry of Health 2014, *NSW State Health Plan: Towards 2021*, <http://www.health.nsw.gov.au/statehealthplan/Publications/NSW-State-Health-Plan-Towards-2021.pdf>
- Nuffield Trust 2016, *The impact of telehealth and telecare: the Whole System Demonstrator project*, <https://publications.csiro.au/rpr/download?pid=csiro:EP145606&dsid=DS1>

