

Western NSW Local Health District Telehealth Strategy

MARCH 2015 - MARCH 2018

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The WNSW LHD Telehealth Vision

In 2013 Telehealth was identified in the WNSW Strategic Health Services Plan for 2013 – 2018. Telehealth was seen as a primary enabler to support delivery against the District's Strategic Health Priorities.

The WNSW LHD Strategic Plan initiated a vision for WNSW to build a 'Telehealth Platform' that supported truly integrated service models. This platform would build effective Provider Networks within Primary Care, Aboriginal Medical Services and other providers; improve consumer experience and reduce the costs of delivering services through decreasing consumer and clinician travel.

In 2013 Telehealth was seen as an opportunity to improve the access to the specialist clinical resources that are available at the larger rural communities of Bathurst, Dubbo and Orange. This included smaller vulnerable communities with known aging populations and younger aboriginal communities.

The cost of patient transport were was also seen as significant with around \$26 Million dollars per year spent within WNSWLHD on patient transport.

In the 2015 the Telehealth Vision was initiated. From 2015-18 WNSWLHD would expand its existing Telehealth base towards a service that would support a Virtual Health Services, bridge geographic boundaries and bring healthcare providers together, supporting timely access for all consumers.

2015 Current State Assessment- KPMG

In March 2015 KPMG partnered with WNSWLHD to complete a current state assessment as a starting point in the development of the WNSW LHD Telehealth Strategy. At this time KPMG concluded that video conferencing (VC) was primarily used to support educational and corporate services, which consisted of up to 70% of all VC activity.

Telehealth was used both formally and on an ad-hoc basis. There were several key Telehealth Enabled Clinical Services that had been formally established. This included the Critical Care Advisory Service (CCAS); Mental Health Emergency Care (MHEC); Community Mental Health; Geriatric Consults; Oncology Consults; Neonatal Emergency Transport Service (NETS) and ECG Reading Service.

KPMG observed that there were key gaps that were impacting Telehealth which included:

Executive Governance: Deficits in Executive buy-in to Telehealth investment decisions making.

Services: There were limited preventative health services. There was also an underrepresentation of Allied Health Services and services that integrated with primary care. There were no Telehealth Services that specifically targeted improvements in Aboriginal Health.

Support: KPMG recommended that administrative support be provided for booking in appointments and for troubleshooting end-user technologies and well as ICT and network support specific to critical Telehealth technologies such as CCAS.

Technology Constraints: In 2015 there were considerable constraints including the ageing Tandberg endpoint devices, inability to access web based solutions, inability for Doctors to access systems from rooms or home, the provision of minimum bandwidths that supported the transition from Telstra's ISDN to an Internet Protocol (IP) operation of videoconferencing units.

Business Model: There was limited Medical Billing or designated budgets for Telehealth services.

Training and Workforce Planning: Telehealth Services were generally lead by clinical staff who had gone beyond their day-to-day responsibilities to create a Telehealth service. Training was delivered with new installations by the Manager, Telehealth and followed up annually or ad hoc support as required. There was one Full Time Employee supporting over 150 devices and multiple users along with device procurement, policy development and support for new services.

Outcomes and Benefits: There were some measurement of activity through patient transfer data and NAPOOS, analysis and reporting was undertaken, but there was no forum to present the reports to.

In 2015 The KPMG current state assessment ranked the overall capacity maturity of the Telehealth Enabled Services as of Medium Maturity:

The WNSWLHD Telehealth Strategy set out a three phase process towards developing a Target Operating Model that included;

- The First Phase - establishment of a telehealth platform, including a technology layer, a communication layer and a business and technical support layer.
- The Second Phase of the Strategy would introduce starting point Models of Care (MoC), and to continue the expansion of the telehealth platform. Building out MoC within the platform.
- The Third Phase would enable the connection of models and referral pathways to create a distributed Virtual Health Services capacity.

2015 KPMG Current State Assessment evaluation of overall capacity maturity though the evaluation of key Telehealth enabled services



DRAFT FOR DISCUSSION PURPOSES ONLY



The Innovation: What changes were made?

Expansion of the WNSW Telehealth Platform: New Devices / Technologies

AVIZIA CA700 Wireless Carts; - “Wallies”, portable, wireless video conference devices procured to enable the devices to be taken to the patient’s location within the facility. These can support virtual ward rounds when the facility is without medical coverage along with traditional telehealth consults.

Cisco DX80; – Desktop devices that are installed in outpatient locations, providing ready access for the clinicians to meet their work flow, rather than having to book meeting rooms. These were installed with the aim of reducing the need for patients to travel back to the base hospitals for follow up consultations.

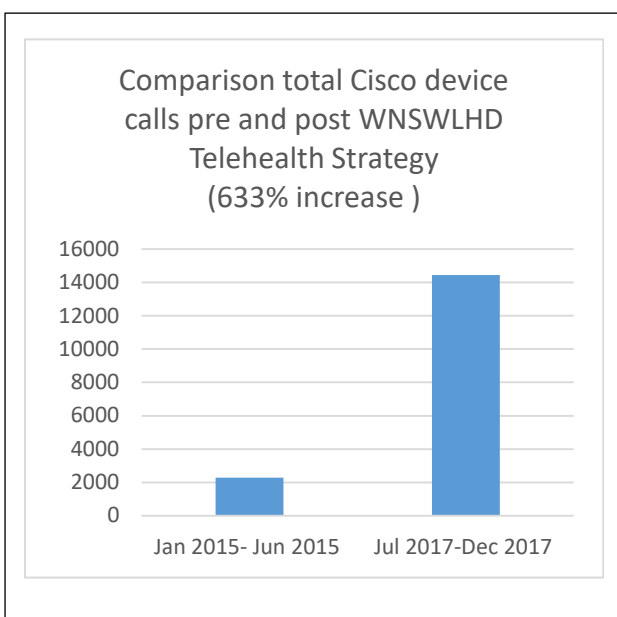
Cisco EX90 & EX60; – provided by Cisco as an interim solution until a firmware upgrade of the DX was available. These devices had the full functionality of Pan, Tilt & Zoom PTZ & Far End Camera Control (FECC).

Cisco MX200 & MX300; – Existing systems that were no longer supported by Cisco (End of Life – EOL) were refreshed or new installation occurred in the meeting rooms with high activity or where Executive Members were located. Systems that had failed or had experienced issues were replaced.

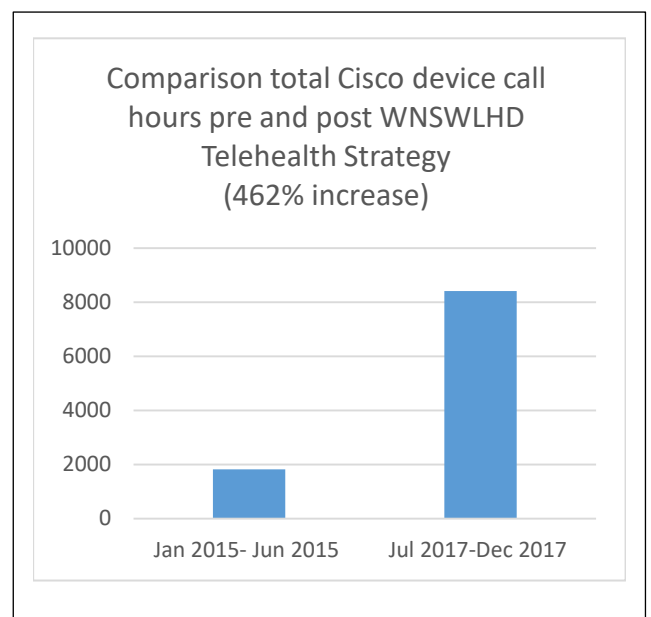
When comparing the usage for the six months prior to the introduction of the WNSWLHD Telehealth Strategy and the last six month of 2017 when the strategy was becoming more established:

The total number of Cisco device calls have increased by 633 %

The total usage hours of all Cisco devices have increased by 462%



In July 2015 there were a total of 135 devices



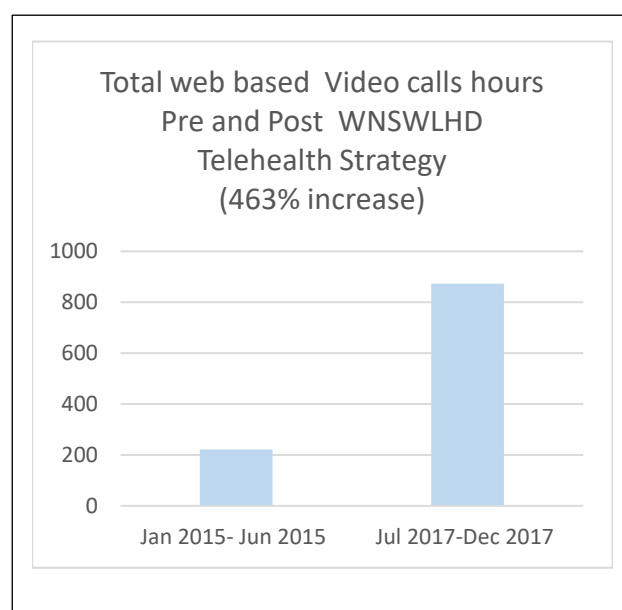
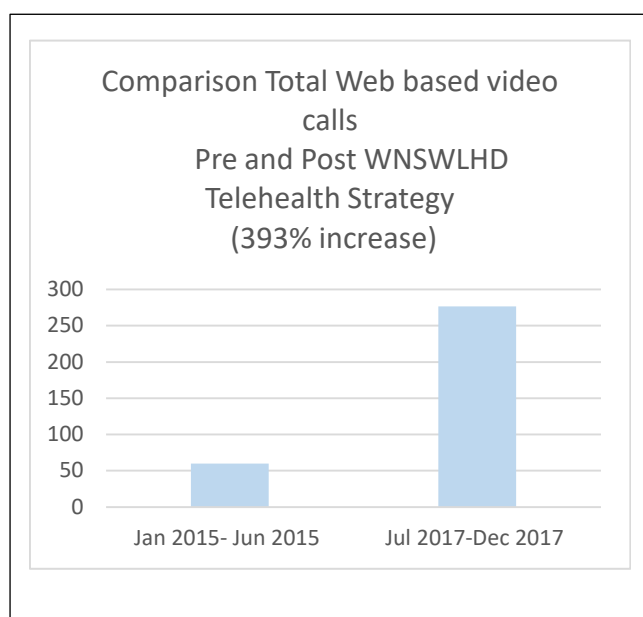
In Dec 2017 there were a total of 424 devices

Web Based Telehealth: – Is an internet video product that has been used with the aim of enabling clinicians to consult via the internet with other providers or with a patient using the patient’s own device.

When comparing the usage for the six months prior to the introduction of the WNSWLHD Telehealth Strategy and the last six month of 2017:

The total number of Health Direct calls increased by 393 %

The total usage hours of Web based devices increased by 463%



Communication Strategy

The communication section of the Project Implementation Plan was managed through a specific small team. This included stakeholder identification, the development of the initial messages regarding Telehealth, the branding and marketing strategy as well as the development of a Telehealth Web site.

Initial web page design was completed and included a promotional animation on Telehealth as well as short videos from the Orange Health Service Pain Clinic Team on their experiences using Telehealth.

The Telehealth Team has been contacted by other LHD’s who want to base their telehealth webpage on the NSW Telehealth internet page.

A subsequent review of the webpage in 2017 increased the functionality of the webpage.

Evaluation

Governance:

In 2015 The WNSWLHD Telehealth Steering Committee (TSC) was reviewed and expanded to include more Executive Leadership. The TSC Terms of Reference were amended and

one of the core activities is to evaluate, monitor and ensure currency of all clinical applications for new telehealth models of care (MoC).

The committee has also set up processes ensuring that applications are processed and commenced within a timely manner. Applications are reviewed to ensure that the technology used fits with the scope of practice and that the applicants are appropriately credentialed to provide the proposed service.

Since 2015 WNSWLHD has also amended the procurement process, which has improved the executive governance around Telehealth Procurement.

Respondents replied that writing the application helped by focusing thoughts and discussions into how telehealth should be used in their department and what they wanted to achieve.

Generally the respondents described the governance process was described “well supported, smooth and seamless”.

“This process was straightforward and governance processes seem to be quite robust.”

Dr Peter Kramer Clinical Director Oral Health WNSWLHD

Clinical buy-in:

In 2015 the Telehealth Strategy focused on clinical starting point models, whilst establishing the Telehealth platform. The clinical starting point models included the expansion of the Patient Flow Transport Unit (PFTU), Dubbo Renal Outreach, Dubbo Orthopaedic / Physiotherapy, Orange Pain Clinic and the development of an Outreach Obstetric MoC.

The Patient Flow Transport Unit received a NSW Premiers award in 2017 for the changes to their service.

WNSWLHD staff now spend over 1449 hours per month on a Telehealth device. This is an increase of 1135 hours per month since the beginning of the Telehealth Strategy.

Of this 1402 hours per month used traditional VC devices, and 46 hours per month used web based Telehealth.

The largest Clinical Telehealth user was MHEC, which used Telehealth on average over 90 hours per month. The 31 facilities used a total of 174.2 hours per month. The largest user was Nyngan MultiPurpose Service (MPS) 11 hours per month. Other large clinical users are Oncology services across Dubbo and Orange with usage across multiple devices.

By comparison the largest corporate user is the WNSWLHD Executive Unit in Dubbo, which uses their machine, on average, 26 hours per month.

The responses are indicative of the many ways that clinicians from WNSWLHD Service use Telehealth. This has ranged from allowing specialist counselling from Sydney Sexual Health, allows clients access to expert clinicians; Dysphagia assessments and handover; Critical Care Advisory, Clinical Genetics and Clinical Familial Cancer Care; Cardiopulmonary Rehabilitation programs in smaller communities; Physiotherapy; Occupational Therapy;

continence clinical advice, Mental Health. The Clinical Nurse Educator teams uses Telehealth to connect with clinicians to offer a range of education and support, especially to the New Graduates who may be in more remote and isolated communities.

“Telehealth Services between hospital to hospital have been a wonderful option for our patients. As WNSWLHD covers such a wide area it has been taken up by many of our clinicians and once they try it they like it all the more. It save our patients significant time in travel and hopefully reduces IPTAAS payment. Hospitals in regional locations are increasing their support of the service but it could improve”

Amanda Saunders Manager Myall St Specialist Clinics Dubbo

Consumer buy-in:

The WNSWLHD Telehealth Strategy was to making Telehealth as easy to use as possible. The use of multiple technologies was purposely chosen to provide a best fit for a consumer, depending on their needs.

“Telehealth care close to home” was chosen as the Telehealth motto and is included with signage on Telehealth Clinical Rooms which were established in 2017 throughout WNSWLHD as part of further Technology enhancement. These rooms make it easy for consumers to access specialist care by identifying a room at each site that can booked for a Telehealth appointment. This room is equipped with a Cisco Dx80 Desktop device and a web camera which can be used if the clinician is connecting in via Health Direct Video Call.



The Telehealth Logo is also present on a consumer brochure which explains to patients what they need to do in preparation for their Telehealth consultation. This included Telehealth etiquette as well as what to do if their appointment is through their General Practice, a WNSWLHD facility, or at home.

Another brochure for partners was also developed. This Brochure includes information on how to book a Telehealth appointment, what they need to do to ensure the technology will operate efficiently, as well as information on Telehealth Medicare Billing through the Medicare Benefits Scheme. A Telehealth Help Desk provides support if required.



Telehealth Modality of Care Non Admitted Patient Occasions of Service activity is monitored at the Telehealth Steering Committee to measure how often community based consumers access Clinical Services via Telehealth. This data excludes Mental Health Services.

“All have expressed that the option of not having to travel to Sydney as a huge bonus.”
Gillian Shannon – Familial Cancer

“When consumers are adequately supported by clinicians who are confident and keen to utilise telehealth engagement is strong. Telehealth is better received by both consumers and health staff when the consultation (or other use) is managed well. For example, clinicians have clinical reference documents at their disposal prior and during the consult, when time is taken to introduce and acknowledge all participants in the consultation and that they are all in view.”
Alison Dawes CNC Palliative Care

Technology fit for purpose:

The Critical Care Advisory Service (CCAS) and Neonatal Emergency Transport Service (NETS) utilise over-bed coverage via a modified Sony IPPM camera. The CCAS covers 36 Emergency Departments (ED).

The introduction of the wireless carts (Wallies) has supported the CCAS camera coverage and can be used in conjunction with the CCAS camera when two way feedback is required. The Wallies have the ability to be taken anywhere within the facilities with Wi-Fi coverage and so, can cover all inpatient beds within the WNSWLHD.

Patient Flow use desktop devices to access the Wallies, desktop devices can activate the pan tilt and zoom on the Wallies for advanced clinical assessment. This service was not

available in 2015 and commenced with the introduction of medical officers into Patient Flow as a starting point model for the Telehealth Strategy. 2016 saw the appointment of a Direct PFTU and expansion of the medical officers attached to the Patient Flow Transport Unit (PFTU). Telehealth is used to run their clinical services across the LHD from the Dubbo and Orange facilities.

Many of the respondents reported that they were happy with the level of access as well as the types of technology that they have.

“Our use of the telehealth technology is currently in its infancy. Additional technology may not be adopted into use quickly. However as our senior staff are exposed to the functionality of telehealth the better will be the uptake of this technology.”

Dr Peter Kramer

Business model evaluation

The Telehealth Strategy has developed documents and worked through Business Models with each application as they are submitted through the Telehealth Steering Committee. This has included development of a pamphlet on MBS billing and providing information on the Telehealth Website.

The NAPOoS are clearer. A “quick reference guide” and discussion document was developed as an educational tool.

Several respondents comments indicated that clinicians had business models in place and acknowledged high levels of support.

Outcomes and benefits reporting evaluation:

The WNSW LHD Telehealth Strategy aimed to make Telehealth as easy for clinicians and patients to use as possible. The decision was made by the Steering Committee not to create reporting structures for clinicians for Telehealth that made using Telehealth arduous, and a negative process rather than positive experience. The emphasis has been instead to set up a process in which reports that can be generated from Health Intelligence systems that indicate activity as one way to look at increased consumer and clinician usage, and also to monitor and check on data recording into the ABF systems such as CHOC and i.PM, as well as feedback through departmental based patient experience surveys.

WNSWLHD Telehealth is involved with research in partnership with Sydney University. Four medical students are undertaking clinical research on Telehealth as part of their studies in partnership with clinicians based in Dubbo and Orange. ies.

The physiotherapists describe that Telehealth has made Physiotherapy services available to sites that did not have this service and that “We have been able to follow up patients in peripheral sites that do not have an available Physiotherapy service.”

A Speech Therapist commented “It has not improved our services. It has just provided equitable access.”

“Enabled OT to be provided to patients & residents who otherwise have no access to an OT service.”

“Telehealth has facilitated the provision of specialist counselling and medical services to our clients who located across a large geographical area including rural and remote sites. We receive monthly medical visits to our 2 large sites and 6 monthly visits to the 2 smaller sites. Telehealth has allowed us to fill the gap when necessary to review clients medically between visits and to receive the specialist counselling that would otherwise not be available.”

Kim Grant WNSWLHD Sexual Health

Training and workforce planning:

Technology support - administration, technology and training:

A restructure of the District Health Information Communication & Technology Department (HICT) saw the allocation of two existing FTE to the Telehealth Team. This had previously been one FTE only and that resource had multiple responsibilities across both Far West and Western NSW LHD. The staff were recruited in September 2015 and the Manager role now has sole responsibilities for Telehealth. As both new Support Officers had come from the previous Client Services Team, they are experienced in providing help desk support. Both have very quickly learned the aspects and knowledge to support Telehealth users. This knowledge base continues to grow with more exposure to various scenarios and new technologies.

The Telehealth Team has also rolled out equipment as part of Telehealth Platform establishment in 2015-16 and subsequent platform enhancement in 2017.



















Training support - evaluation:

On-site training is provided to all sites where video conference devices have been installed / refreshed.




The communication strategy and the need to instruct a range of clinicians, internally and externally and patients was linked and focused on information that we could easily make available on a Telehealth Web Page, including pamphlets and training video.

Many responses indicated a high level of satisfaction in regard to training indicating a level of clinician engagement from Telehealth Team member's participation at team days and the provision of training if requested.

Comparison - 2015 KPMG current state assessment Vs 2018 evaluation:

| Domain | 2015 Assessment | 2018 Evaluation |
|---------------------------------|---|---|
| Governance |  |  |
| Clinician Buy-in |  |  |
| Consumer Buy-in |  |  |
| Technology- Fit for Purpose |  |  |
| Business Models |  |  |
| Outcomes and Benefits reporting |  |  |
| Support - Admin |  |  |
| Support – Tech |  |  |
| Support - Training |  |  |

Legend: The ratings are subjective views based on, data, interviews and survey responses

| | | |
|---|---|---|
|  |  |  |
| Lower Maturity | Medium Maturity | Higher Maturity |

WNSW Telehealth Strategy Performance against the 2013-2018 Strategic Plan Vision

The WNSW Telehealth Strategy has successfully built a Telehealth Platform that has increased Telehealth usage by 462%. Many of the services have aimed at improving the access to clinical services for the smaller communities within WNSW.

One of the clinical examples is the Obstetric Outreach Model, in which Midwives based in Dubbo ensure that mothers and babies are followed up with the care team in their home community, and the specialist staff from Dubbo. For example a mother and baby returning home to Bourke can visit their community midwife at Bourke Community Health Service, Aboriginal Health Staff from Bourke can be involved and connections made into their Obstetrician and Specialist Midwives from Dubbo, ensuring that the care is integrated between the higher level facility and the remote site. The introduction of this project was led by Tammy O'Connor Clinical Midwifery Consultant, who was recognised by receiving a NSW Premiers award in November 2018

Another Model of Care ensures that patients at risk of malnutrition within smaller communities are able to access the Virtual Allied Health Service Dietician which ensures that the patient is appropriately screened and a plan is created to manage the clinical risk to the patient.

The WNSW LHD Telehealth Strategy has worked with our partners to improve access to care. An example of this is the staff from the Aboriginal Medical Service General Practices at Coonamble and Baradine, work with the staff at Coonamble and Baradine Multi-Purpose Services, to identify and refer patients to the Specialist Cardio Pulmonary Rehabilitation Team in Dubbo. This team is led by Dr Sugamya Mallawathantri who is a Respiratory Specialist in Dubbo. The team then provides a Telehealth enabled Cardio Pulmonary Rehabilitation Service to these communities with community staff and equipment based at Coonamble and Baradine.

Increased corporate Telehealth usage has meant that staff don't have to travel as often for meetings. This enables WNSWLHD to work more efficiently as a team, as well as having financial benefits through decreased cost of fleet, travel and accommodation costs.

The WNSW Telehealth Strategy was a finalist in the 2018 NSW Premiers Awards.

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