Embedding telehealth in rural Victoria—choosing appropriate practice models

Paulette Kelly
Rural Workforce Agency, Victoria

Background and aims
Telehealth is expected to play an increasingly important role in health reform with promises of improving access to specialist services in rural communities, potentially leading to better management of chronic conditions and health outcomes. Telehealth would support a model of care that integrates rural primary care and urban specialist services, reducing the time and financial cost of travel for country patients. Yet the perceived difficulty involved in soliciting telehealth services, organising telehealth appointments, booking facilities and coordinating staff, providers and patients has been identified as a deterrent to incorporating telehealth into the practice of private specialists.

Telehealth has had a long gestation period. The ‘Health On Line’ report was first tabled in parliament in 1998, signifying the move of telehealth from discrete projects and one off funding grants to being incorporated into models of care. The last decade has seen constant activity in the eHealth space, demonstrating mixed results. Telemedicine which uses Information Communications Technology to provide specialist consultations to distant communities is well developed in Australia. Telehealth, which incorporates wider health goals of self-management and patient education, is less developed.

Recently there has been a rapid growth in video consultations in Victoria. In the last 12 months a 438% growth in specialist telehealth MBS item claims in Victoria has been recorded (MBS Online 2013). However, as at end September 2012, Victoria accounted for only 14.6% of Australia’s telehealth activity despite being the second most populous state. Victorians concentrate in the state’s capital city—70% of the state’s population live in Melbourne—yet the proportion of the population aged 65 years and above living outside greater Melbourne rose to 17% in 2011 compared to 13% in Melbourne. The health of older Australians is considered to be ‘one of the most important medical and economic challenges facing Australia’. Telehealth has the potential to address some of these concerns but has been vulnerable to the lack of sustainable business models and lack of resilience due to poor organisational support.

The Medical Specialist Outreach Assistance Program
The Rural Workforce Agency Victoria telehealth program has the major objective of improving access by rural patients and general practitioners to medical specialists through the promotion of telehealth. The program is doing this by supporting video as a new mode of service delivery for specialists participating in the Medical Specialist Outreach Assistance Program (MSOAP). The program is part of the Commonwealth’s ‘Connecting Health Services with the Future: Modernising Medicare by Providing Rebates for Online Consultations’ initiative.

Method
To explore the practice models being used by private specialists providing telehealth services to rural Victoria and to identify the approaches that best facilitate the integration of telehealth into clinical practice, a survey was distributed to all Victorian MSOAP providers. The survey was sent out in hard copy and was responded to by n=110 private specialists representing 50% of the sample.

The survey sought explanation of factors influencing decisions to conduct or not conduct video consults, and data on intentions relating to service utilisation—the volume of video consults that specialists had conducted in the last month and the likelihood of participating in telehealth within the next three months. Specialists identified as actively engaging with video consultations (those reporting having conducted 16+ video consults in the last month) were contacted for interview.
The qualitative technique used involved semi structured interviews. ‘Open-response questions to obtain data of member meanings—how individuals conceive their world and how they explain or ‘make sense’ of the important events in their lives’. A total of five face-to-face, one-on-one interviews with private specialists are drawn on in this paper. The interviews were recorded, transcribed and sent to the participant for comment.

The semi structured interviews drew attention to the administration of two practice models which aim to support the adoption of telehealth:

- teleclinics supporting particular patient populations in rural Victoria
- teleconsults supporting access to specialist services between face-to-face visits.

**Results**

The factors identified by Victorian outreach assistance specialists as important to their adoption decision making were mapped to common high level measures used to evaluate service performance.

**Table 1 Factors important to adoption mapped to measures of service performance**

<table>
<thead>
<tr>
<th>Reason for conducting</th>
<th>Accessible service</th>
<th>Appropriate</th>
<th>Effective</th>
<th>Responsive</th>
<th>Efficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel/distance from patient (19%)</td>
<td>*</td>
<td>Clinically appropriate, appropriate medical care (26%)</td>
<td>Service reach: The need exists (6%)</td>
<td>Reduces waiting time for patients (2%)</td>
<td>Good for patient history (2%)</td>
</tr>
<tr>
<td>Convenient for patients/doctor (18%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient access to specialist services (15%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient access to specialist advise (2%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>54%</td>
<td>25%</td>
<td>17%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reason for NOT conducting</th>
<th>Practice is not set up for it. (15%)</th>
<th>Not clinically appropriate (21%)</th>
<th>Have never been asked to teleconsult (10%)</th>
<th>Current practice is appropriate (8%)</th>
<th>Less efficient than face to face (4%)</th>
<th>Does not fit in to current practice patterns (8%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited time to embark on this (25%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited experience (10%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>50%</td>
<td>21%</td>
<td>10%</td>
<td>8%</td>
<td>12%</td>
<td></td>
</tr>
</tbody>
</table>

The specialists indicated that they regard telehealth as a service model, and as a model of care, citing clinical appropriateness as a significant factor impacting adoption decisions. Accessibility to the health service provided the most compelling measure for adopting telehealth, and for rejecting telehealth. While some respondents identified telehealth as improving access to services, other respondents identified the requirement for change to processes, procedures and technology as a barrier to gaining access to services. Perceptions of telehealth as less efficient and not clinically appropriate highlight the need for change management in encouraging adoption. The survey results suggest that telehealth adoption amongst Victorian MSOAP providers remains a change management issue rather than a technology usability issue.

The significance of these barriers to adoption is countered by the result of the question regarding intended use of telehealth with only 18% of specialists suggesting they were not at all likely to conduct a telehealth consult in the next three months.
The survey results suggest there is interest and willingness amongst the outreach assistance specialists to offer telehealth. Semi structured interviews explored explanations for how to translate the intention of outreach specialists into adoption behaviour.

During interview outreach assistance specialists identified that private outreach assistance specialists offer their services from a range of locations (various hospitals, private consulting rooms, home) to patients located in many different settings. The specialists interviewed indicated that structured, well communicated and replicable administrative practices are required to embed telehealth into practice. Two administrative models were identified—teleconsults and teleclinics.

Teleconsults involve practices providing consultation sessions in which video consults are slotted in between face-to-face consults.

“I do a consultation session which is perhaps half telehealth. So I just fit them in as any patient consultation—30 minutes for a new patient, 15 minute for a review patient”. (gastroenterologist Melbourne)

Ensuring that all parties are in the virtual room at the allocated time was cited as a drawback of this administrative practice model. All participants indicated that they include the general practitioner in a supporting role during their teleconsults, adding to the complication of meeting time commitments during busy consultation sessions. Two specialists being interviewed indicated that the use of a General Practice telehealth coordinator significantly reduced delays and ‘did not shows’. Asked to describe the role of the telehealth coordinator, the specialists identified performing tasks such as booking appointments, sending reminder messages to all parties of appointment times, ensuring the patient brings all test results to the appointment, and testing the video connection. The specialists indicated that clarifying which practitioner is responsible for ordering tests and writing prescriptions was important to the success of the video consult. The specialists indicated a variety of reasons for including the General Practitioner in the consult; ‘ease of billing’ was the most common response, followed by ‘reduces fragmentation of care’.

Teleclinics involve practices allocating a fixed period during which they will accept video consultations. Three of the specialists interviewed had worked in Medicare billing teleclinics running from urban public hospitals. The specialists, opting for their right to private practice, provided the hospital with 4 hours of their time at a fixed rate. The hospital provides the administrative support, arranges appointments, provides use of equipment and coordinates billing. A particular challenge with this administrative approach was identified by an Infectious Disease specialist who provides support to patients located throughout regional Victoria. Describing an average teleclinic he indicated that the range of video solutions in use was adding complexity:
09:00 – 10:00 New initial consult with a patient at the Tristar clinic in Mildura—using ‘Gotomeeting’.

10:00 – 10:15 Review appointment with a patient in a GP practice in Swan Hill—using Vidyo.


11:00 – 11:15 Follow up consult with a patient in the Grampians region—using LifeSize ClearSea.

11:30 – 12:00 New initial consult with a patient in a GP practice in Albury—using Lync

Each solution is slightly different to use and access. The specialist stated that ‘trouble shooting becomes problematic and the large number of user id and passwords irritates.’ (Infectious Diseases and General Physician Victorian Infectious Diseases Service (VIDS))

Managing the support and administration of a number of solutions is problematic to those interviewed because they do not have dedicated IT support for their private practices. All specialists indicated that Skype provides the fall back solution. The advantage cited for teleclinics by those interviewed was that room set up needs only occur once, the scheduling of appointments is straightforward and easily communicated, general practices become familiar with the process, reduces ‘did not shows’ in some patient cohorts.

The specialists highlighted factors which influence their choice of administrative model. Two specialists who had chosen to provide teleconsults cited the financial risk of fluctuating volume as a disincentive of teleclinics. Teleconsults provide flexibility allowing the specialist to schedule teleconsults as needed. During interview all specialists indicated a level of discomfort with taking a proactive approach to promoting their telehealth services; many regarded it as ‘touting for business’. Teleconsults tended to favour existing referral patterns while teleclinics provided the option for new referrals. The specialists indicated that review and follow up appointments were their most common type of video consults.

**Discussion**

Mapping factors identified by outreach assistance specialists as influencing telehealth adoption decisions against common service performance metrics of accessibility, appropriateness, effectiveness, responsiveness and efficiency has highlighted that the performance of telehealth as a model of care is a significant factor influencing adoption decisions. Strong support exists among the Victorian Outreach Assistance Service providers to offer video consults to rural patients, however, change management needs to address concerns about the use of video consulting to provide effective, appropriate provision of accessible services. Currently information on the patient benefits of telehealth remains largely anecdotal with little exploration of the impact on health outcomes.

Telehealth offers a way to make health care more equitable—bridging the tyranny of distance. It also has the potential to cross social divides and supports inclusion of isolated health populations. Simultaneously, telehealth provides the opportunity for specialists to grow their practice. Telehealth as a service which could expand practices by opening up new referral routes and patient access points is impacted by specialist attitudes towards marketing this new service to referring General Practices and others.

**Policy recommendation**

There is little systematic and generalisable research on the most effective practice models to use for sustainable telehealth. Evidence is needed to better inform policy. This study in rural Victoria shows that greater emphasis is need on change management issues. Further it illustrates that structured administrative processes and agreed governance procedures can be integrated into practice to contribute.
to the confidence of specialists in using telehealth in situations where they regard it to be clinically appropriate. Research continues to be needed to identify the impact of various telehealth integration approaches on health outcomes.

References


