

Evaluating the implementation and early adoption of telehealth as a medium for delivering rehabilitation physician consultations in country South Australia

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Organisational/strategic background: 1

- > Development of telehealth within the SA public health system, and within subacute services in particular:
 - Telehealth has been used in clinical consultations within SA Health for many years, with psychiatry leading the way.
 - Substantial benefits in avoiding travel and allowing quicker access to care.
 - Guidelines for Sub-acute Services Offering DTN Consultations, 2012.

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Organisational/strategic background: 2

- > Country Health South Australia (CHSA):
 - One of the five Local Health Networks (LHNs) within SA Health.
 - Oversees and provides services for the “almost 430,000 people living in 1200 cities, towns and small communities across almost one million square kilometres of South Australia”
(*Strategy for Planning Country Health Services in SA, p.17*).

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Organisational/strategic background: 3

- > Subacute service development in country South Australia:
 - COAG funding 2010 → 106 FTE positions.
 - Statewide Rehabilitation Service Plan 2009-2017.
 - Implementing the strategic intent of this Plan in relation to telehealth has been challenging.

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Rehabilitation physician consultations via telehealth: 1

- > June 2013: rehabilitation physicians based at Repatriation General Hospital (RGH) expanded delivery of telehealth-based consultations for patients at three rural general hospitals.
 - First major advancement since the Guidelines document developed.
 - Several specific clinical protocols implemented, requiring subacute clinical staff to complete preparatory and follow-up work.

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Rehabilitation physician consultations via telehealth: 2

- Small, highly mobile telehealth units (Cisco TelePresence VX Clinical Assistant) utilised.



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Rehabilitation physician consultations via telehealth: 3

- > Potential **risks** (addressed in Guidelines):
 - breaches of confidentiality;
 - patient misidentification;
 - ineffective transfer of responsibility for care;
 - inadequate documentation;
 - local staff providing clinical support beyond their scope of practice; and
 - inadequate emotional support of patients.
- > Main **cost**: time required of local subacute staff fulfilling support role.

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What's already known

- > Literature re evaluation of telehealth implementation appears limited in quantity and variable in quality.
- > However, the literature is consistent re:
 - high levels of satisfaction amongst patients and clinicians
 - substantial benefits of telehealth;
 - complexity of issues affecting implementation
 - the need for careful planning.


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Project goal

- > To evaluate the implementation and early adoption of rehabilitation telehealth clinics in Whyalla, Berri and Mount Gambier between June 2013 and March 2014.


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Methods

- > Analysis of activity statistics
- > Analysis of data from patient experience evaluation forms
- > Surveys of rehabilitation physicians and local subacute staff
- > Evaluation of telehealth training day
- > (Ethics and data access approvals obtained)

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THE STATS: WHAT WAS DONE, WHERE AND WHY

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Activity statistics: 1

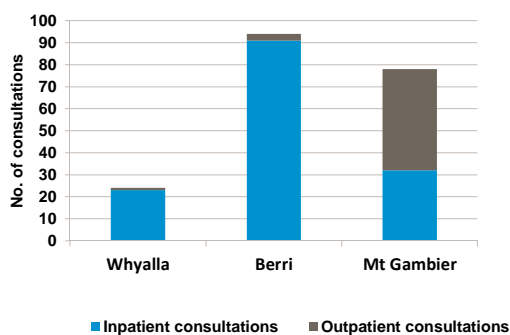
No. of telehealth consultations
June 2013 to March 2014
– all sites combined

INPATIENT CONSULTATIONS	OUTPATIENT CONSULTATIONS	TOTAL
146 (74%)	50 (26%)	196

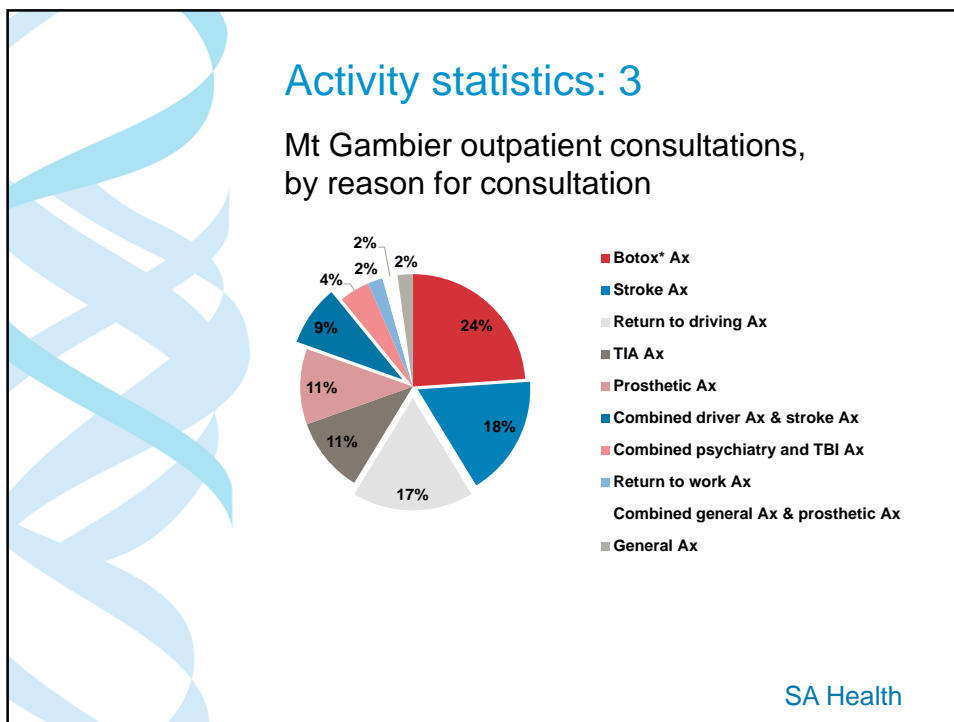
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Activity statistics: 2

No. of inpatient and outpatient consultations
at each site



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WHAT THE PATIENTS TOLD US

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Patient evaluation forms: 1

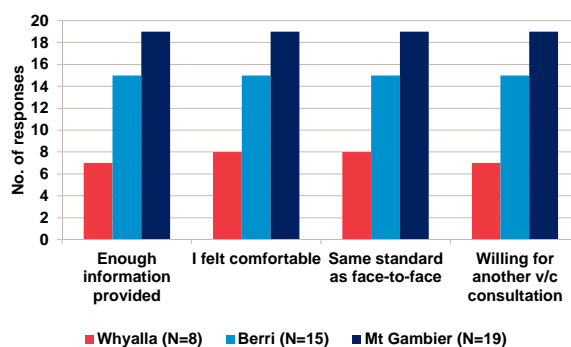
Comments recorded on forms – by theme

Theme	+ve	Neutral	-ve	Total
Ease of communication	2	0	0	2
Comparison with 'face-to-face'	1	0	1	2
Level of comfort (with telehealth)	1	0	0	1
Booking arrangements	0	1	0	1
Avoidance of travel	1	0	0	1
Avoidance of waiting	1	0	0	1
No theme identified	7	1	0	8
Total	13	2	1	16

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Patient evaluation forms: 2

No. of 'Agree' and 'Strongly Agree' responses – by site



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Physician and staff surveys:1

No. of participants

	Rehabilitation physicians	Local subacute staff
Max potential number	8	20
Provided consent	7	19
Completed the survey	6	15

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Physician and staff surveys: 2

Analysis of comments

Theme	Staff	Physicians	TOTAL
Technical issues	4	1	5
Importance of staff training / appropriately trained staff being available	3	2	5
Time demands	2		2
Value of telehealth overall, and/or for specific applications	1	1	2
Space/location issues	1		1
Importance of ensuring simplicity of process	1		1

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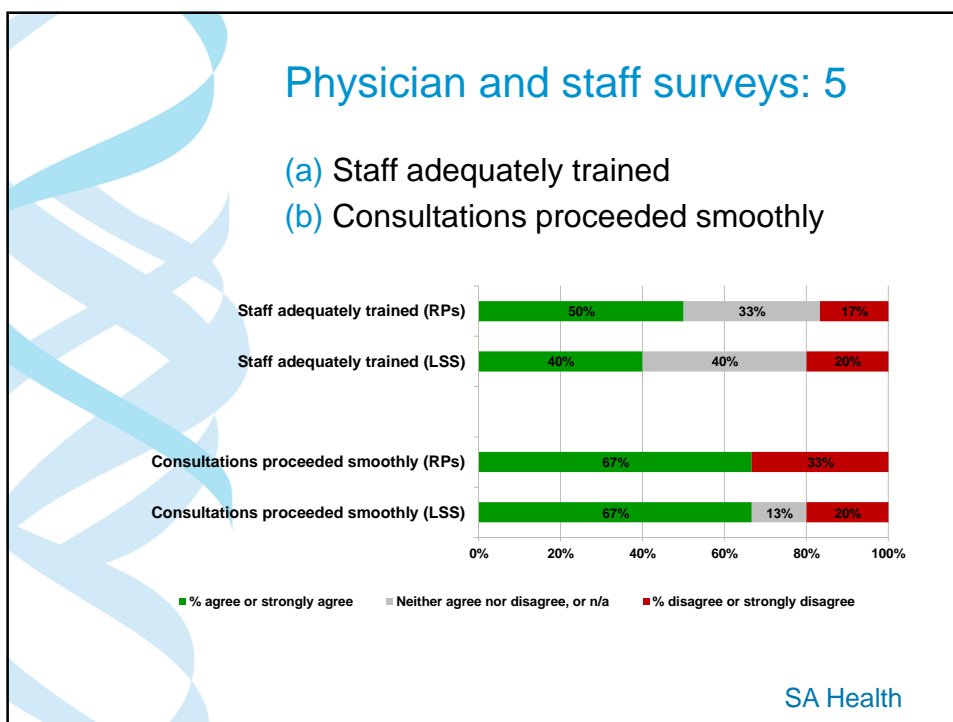
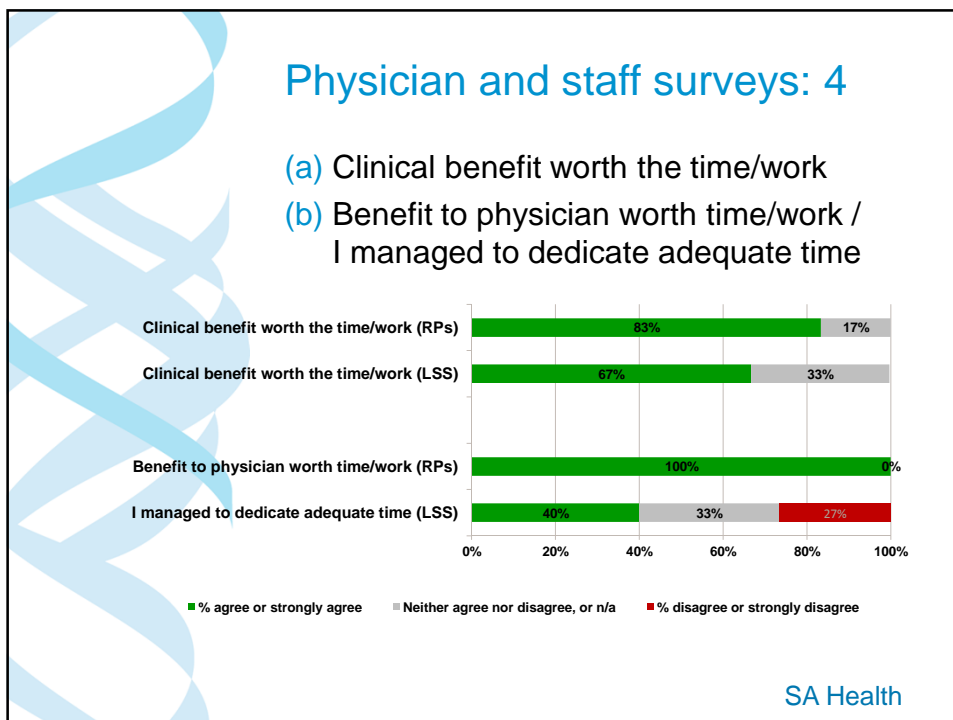
Physician and staff surveys: 3

(a) T/health added value
(b) Satisfied overall

The chart displays four categories of responses. For 'Telehealth added value to the service (RPs)', 'Telehealth added value to the service (LSS)', and 'Satisfied overall (RPs)', 100% of respondents agree or strongly agree. For 'Satisfied overall (LSS)', 80% agree or strongly agree, while 20% are neither agree nor disagree, or n/a. No respondents disagree or strongly disagree.

Category	% agree or strongly agree	Neither agree nor disagree, or n/a	% disagree or strongly disagree
Telehealth added value to the service (RPs)	100%	0%	0%
Telehealth added value to the service (LSS)	100%	0%	0%
Satisfied overall (RPs)	100%	0%	0%
Satisfied overall (LSS)	80%	20%	0%

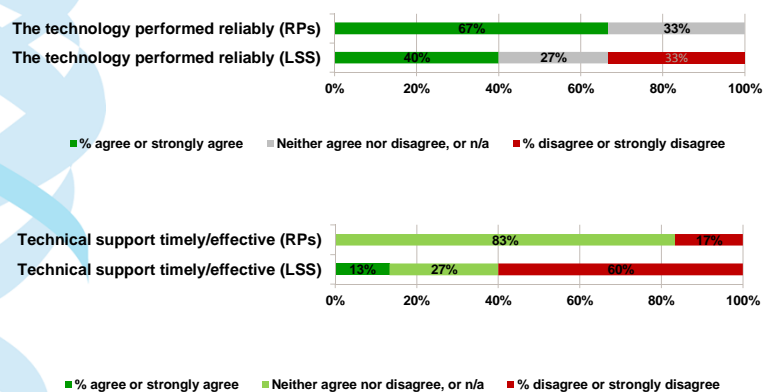
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Physician and staff surveys: 6

(a) The technology performed reliably

(b) Technical support timely/effective



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Evaluation of training day


- > Thirteen local subacute staff plus two staff from Orthotics and Prosthetics SA attended the telehealth training day at RGH in May 2013, and completed evaluation forms.
- > Responses overwhelmingly positive for each component of the day.

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LESSONS LEARNT / STEPS FORWARD

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Summary of findings

- > Overwhelming satisfaction amongst patients and physicians
- > Overall satisfaction amongst local subacute staff
- > Differences in perspective between physicians and local staff
- > Variable activity patterns between sites

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Lessons learnt / steps forward: 1

- > Importance of addressing / continuing to address 'human factors' (Brennan and Barker 2008). No 'one size fits all'.
- > Ongoing training and support of local subacute staff – multi-mode
- > Negotiation in service planning
- > Development of KPIs
- > Periodic evaluation and ongoing review of the service overall and the protocols

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Lessons learnt / steps forward: 2

- > Contributing to cost-effectiveness research – even (?especially) in an environment of austerity, further investment in telehealth development may result in savings overall.

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Key references

- > Brennan DM; Barker LM. Human factors in the development and implementation of telerehabilitation systems. *Journal of telemedicine and telecare*, 2008, Vol.14(2), pp.55-8.
- > SA Health 2012 (Statewide Rehabilitation Network). [*Guidelines for Sub-acute Services Offering Digital Telehealth Network Consultations*](#) (www.sahealth.sa.gov.au).
- > Van Dyk L. A Review of Telehealth Service Implementation Frameworks. *Int. J. Environ. Res. Public Health* 2014, 11, 1279-1298.

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