

# Remote Control: Can Telehealth Replace Face-to-face Clinics for Rural and Remote Families?

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## Introduction

The Children's Queensland Haemophilia Centre (QHC) is based at the Royal Children's Hospital in Brisbane, Australia. The Children's QHC is the only haemophilia treatment centre for children with inherited bleeding disorders and their families in Queensland. This state-wide service includes the provision of treatment, care and support by a multidisciplinary team consisting of medical specialists, a nurse, physiotherapist, psychologist/ social worker.

The geographical diversity of the families who live in rural and remote areas makes it a challenge to provide adequate haemophilia care to patients who need to travel down to Brisbane for clinic consultations. To this end, regular outreach clinics have been developed to provide face-to-face contact for families in their local hospitals at Far North Queensland, Gold Coast, Mackay, Nambour and Toowoomba.

In a new initiative, the QHC also provides regular telehealth consultations to families living in the regions of Cairns, Hervey Bay, Mackay, Rockhampton and Townsville. Unlike outreach clinics, these consultations enable the QHC staff to increase access to health services to families in remote and rural areas without having to travel out of Brisbane. Currently, about ten clinics are conducted every year. To date, at least 25 families have utilised this service, with an increased demand for this service observed.

Existing research indicates a high level of satisfaction among users of telehealth services in many populations such as stroke, diabetes and cardiac patients. However, little is known about how such services are perceived among the haemophilia community and health professionals who provide these services.

## Aims

The aims of this study were to

- Understand families and health professionals' perspectives and attitudes towards telehealth consultations
- Ascertain the effectiveness of telehealth consultations as a strategy to improve haemophilia care to rural and remote families

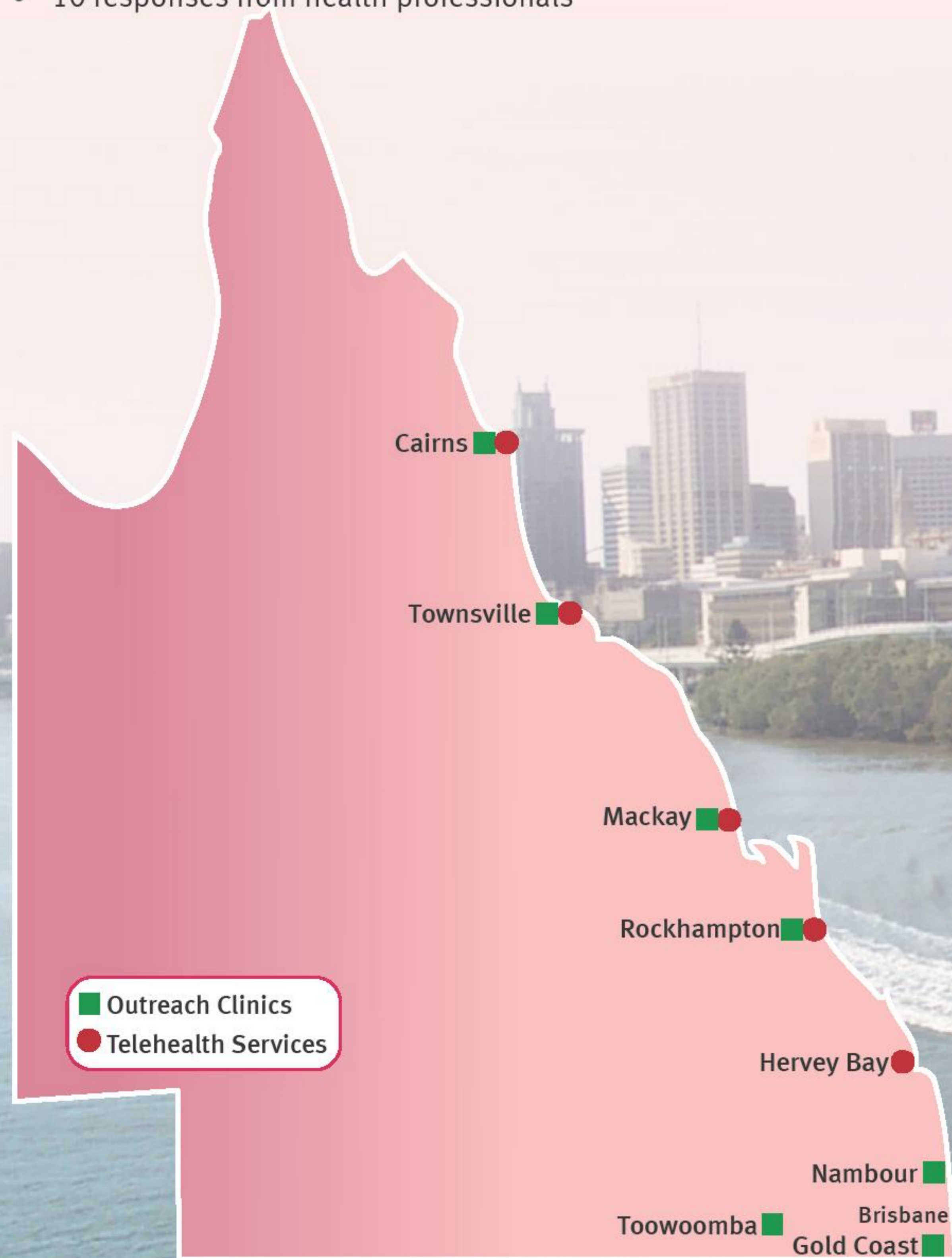
## Method

- Paper-and-pencil survey (3-page)
- Parents were asked to rate several statements on a 5-point Likert scale ranging from 1 (Not at all) to 5 (Extremely)
- Respondents were asked for additional comments at the end of the survey



## Participants

- 14 responses from 9 families, living in regional Queensland
- Child's ages ranged from 2-15 years (mean = 5 years)
- Average number of telehealth consultations was 3
- Mostly boys with severe haemophilia
- 10 responses from health professionals



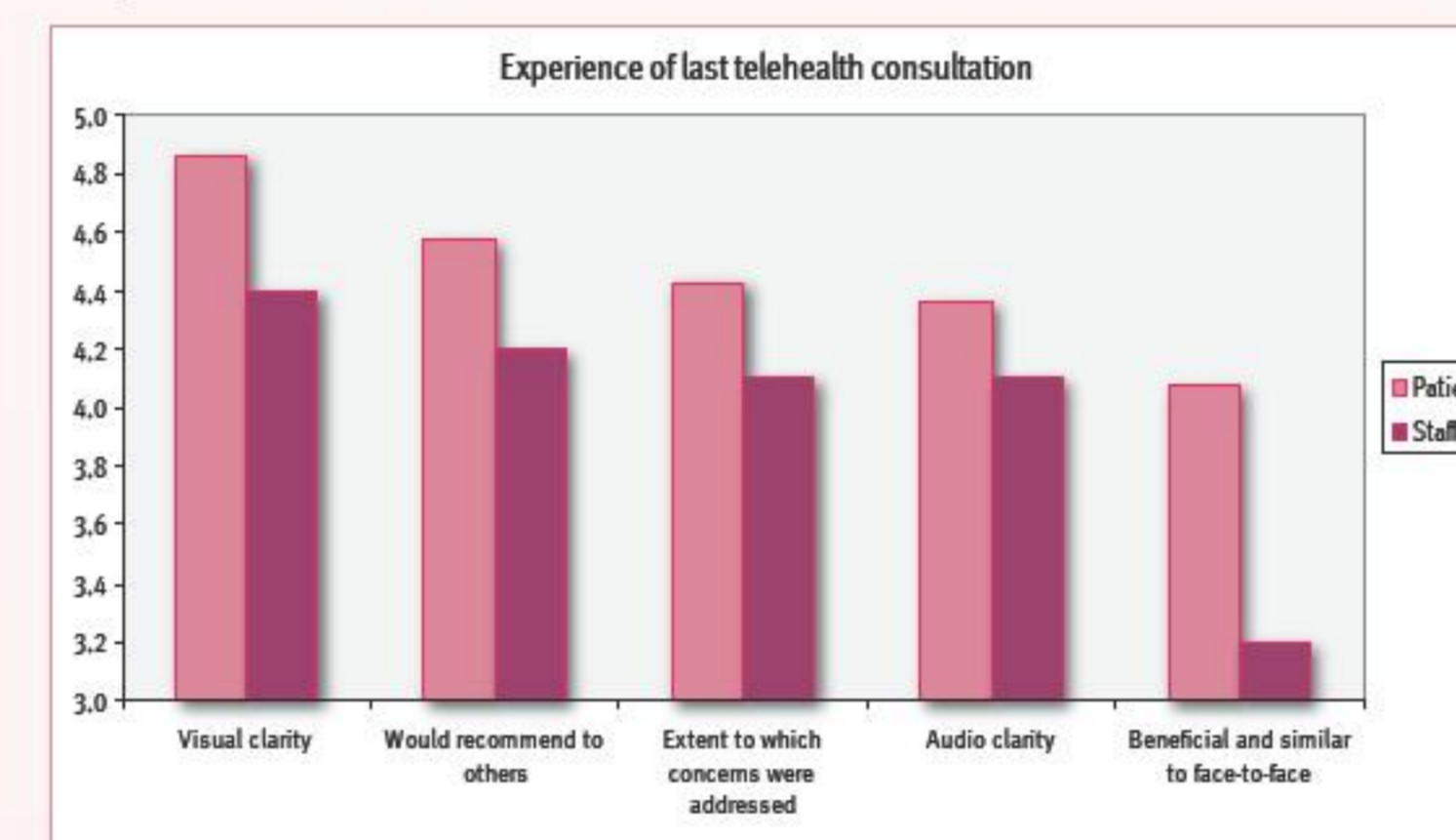
## Results

Comparison of costs : local travel versus travel to Brisbane.

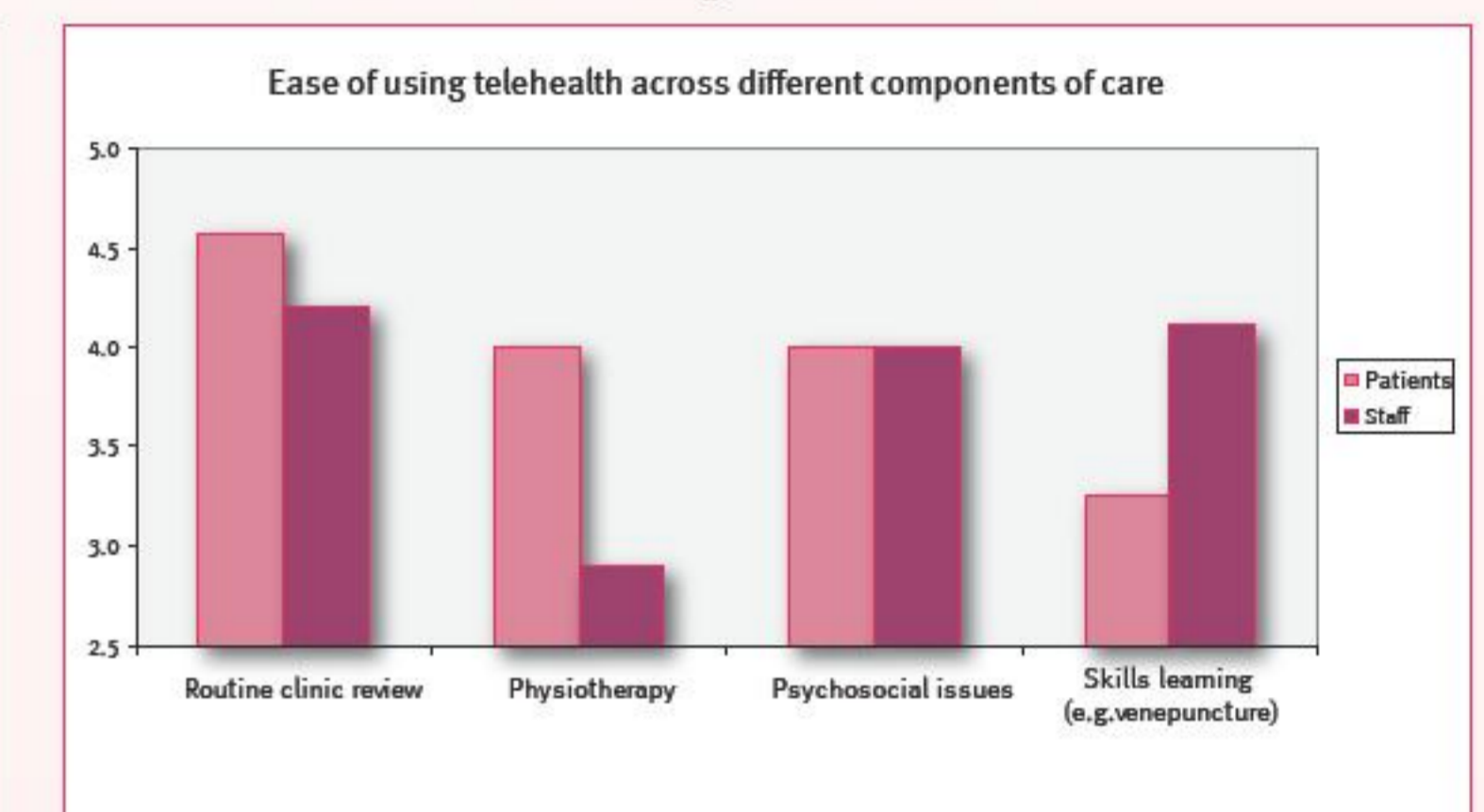
Significant time and travel savings

	Local	RCH
Average time to travel	15 mins by car	103 mins (flight time only)
Average transport cost	\$9	Estimated \$1000 per family. Cost of air-tickets/ accommodation—usually covered by patient travel subsidy scheme

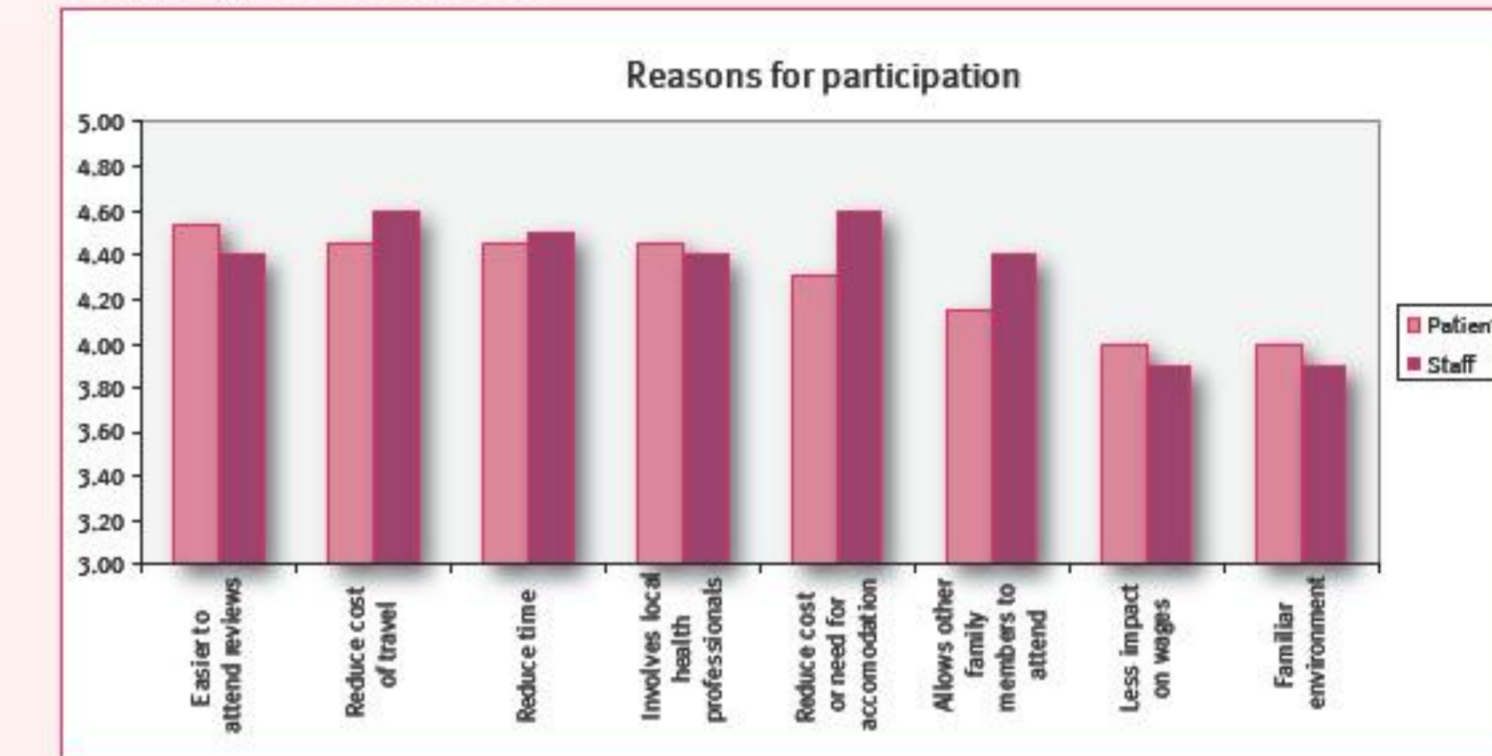
### Experience of most recent telehealth consultation



### Level of comfort in using telehealth



### Rating of reasons



## Discussion

### Experience of telehealth consultation

- Parents expressed high levels of satisfaction
- Staff was less satisfied across all domains

### Level of comfort

- Families were generally receptive and highly positive towards the use of telehealth consultations for a routine clinic review, discuss psychosocial or physiotherapy issues
- Families are least comfortable using it as a means for skills-based learning
- Staff least comfortable using telehealth to manage physiotherapy issues

### Reasons for telehealth

- Reduced financial and time burden.
- Involvement of local staff in haemophilia care
- Travelling to Brisbane can be a major source of stress for families with small children
- Partnership between the RCH and regional hospitals provides a good platform for both teams to exchange information and provide continuity of care

### Health professionals' perspectives

- Partnership between the RCH and regional hospitals provides a good platform for both teams to exchange information and provide continuity of care.
- Main difficulties are poor attendance rates due to mindset that these are optional sessions and technical hiccups resulting in communication breakages

## Conclusion

- Differing perspectives by families and health professionals noted on some aspects
- Overall, telehealth consultations, while beneficial, cannot replace face-to-face clinic reviews. They should be viewed as complementary but yet important to haemophilia care.
- Plans to expand the scope of this service to more regions and to increase frequency of telehealth clinics at existing sites

### References:

- Baker, R. I., Laurenson, L., Winter, M., & Pritchard, A. M. (2004). The impact of information technology on haemophilia care. *Haemophilia*, 10(4), 41-46.
- Grubaugh, A. L., Cain, G. D., Elhai, J. D., Patrick, S. L., & Frueh, B. C. (2008). Attitudes towards medical and mental health care delivered via telehealth applications among rural and urban primary care patients. *The Journal of Nervous and Mental Disease*, 196(2), 166-170.
- Sevean, P., Dampier, S., Spadoni, M., Strickland, S., & Pilatzke, S. (2008). Patients and families experiences with video telehealth in rural/ remote communities in Northern Canada. *Journal of Clinical Nursing*, 18, 2573-2579.

