

Webinar Series  
April 12, 2017



## Web-Based Videoconferencing (WBVC) for Rural Palliative Care Consultation in the Home

**Linda Read Paul, RN, MN, CHPCN(C)**  
**University of Calgary**

**Charleen Salmon, BHSc (Hons.)**  
**University of Calgary**

[www.cfn-nce.ca](http://www.cfn-nce.ca)



**Canadian  
Frailty  
Network**

**Réseau canadien  
des soins aux  
personnes fragilisées**

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- **Follows the presentation**
- **Submit your Qs online during presentation**
- **We will answer as many Qs as time permits**



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# Reminder: Upcoming Webinars



Register at:

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- **Wednesday, April 26, 2017 at 12 noon ET**

Implementing the 'Frailty Portal' in Community Primary Care Practice: Evaluating feasibility, effects and expansion needs – CFN-funded Implementation Grant Program – Paige Moorhouse, Tara Sampalli and Ashley Harnish, Nova Scotia Health Authority

- **Wednesday, May 31, 2017 at 12 noon ET**

Improving Palliative Care in Long-Term Care Homes Using Participatory Action Research – CFN-funded Strategic Impact Grant Program – Sharon Kaasalainen and Pamela Durepos, McMaster University and Tamara Sussman, McGill University



# Reminder



**SAVE THE DATE!** April 23-24, 2017  
Chelsea Hotel Toronto

**Canadian Frailty Network  
2017 Annual National Conference**

**Don't miss Canada's pre-eminent  
conference on frailty!**

Hear from and meet CFN researchers and other Canadian and international leaders in the field who will lead interactive discussions on the latest knowledge/ best practices and future directions to improve the care of our older frail citizens. Registration begins in January. Stay tuned for more details.

[www.cfn-nce.ca](http://www.cfn-nce.ca)

2017-04-12



**Register now!**

**<https://canadianfrailtynetwork.wildapricot.org/event-2458569/Registration>**



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Frailty  
Network**

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des soins aux  
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# Presenters

## Web-Based Videoconferencing (WBVC) for Rural Palliative Care Consultation in the Home



- **Clinical Associate Adjunct Professor in the Faculty of Nursing at the University of Calgary**
- **Clinical Nurse Specialist-Palliative Care with the Alberta Health Services Calgary Zone Rural Palliative Care Consultation Team**
- **Second-year Masters of Science student at the University of Calgary**
- **Earned her Bachelors of Health Science Honours Degree with a major in Health & Society and a concentration in Sociology**



**Linda Read Paul,  
RN, MN,  
CHPCN(C)**



**Charleen Salmon,  
BHSc (Hons.)**





# Web-Based Videoconferencing for Rural Palliative Care Consultation in the Home

**Linda Read Paul RN MN CHPCN(C)**

Clinical Nurse Specialist, AHS Calgary Zone Palliative Care Consult Service – Rural  
Clinical Associate Adjunct Professor, University of Calgary Faculty of Nursing

**Charleen Salmon**

2<sup>nd</sup> Year MSc Candidate - Epidemiology, University of Calgary  
Research Assistant, WBVC Project

**CFN Webinar April 12, 2017**



**Canadian  
Frailty  
Network**

**Réseau canadien  
des soins aux  
personnes fragilisées**

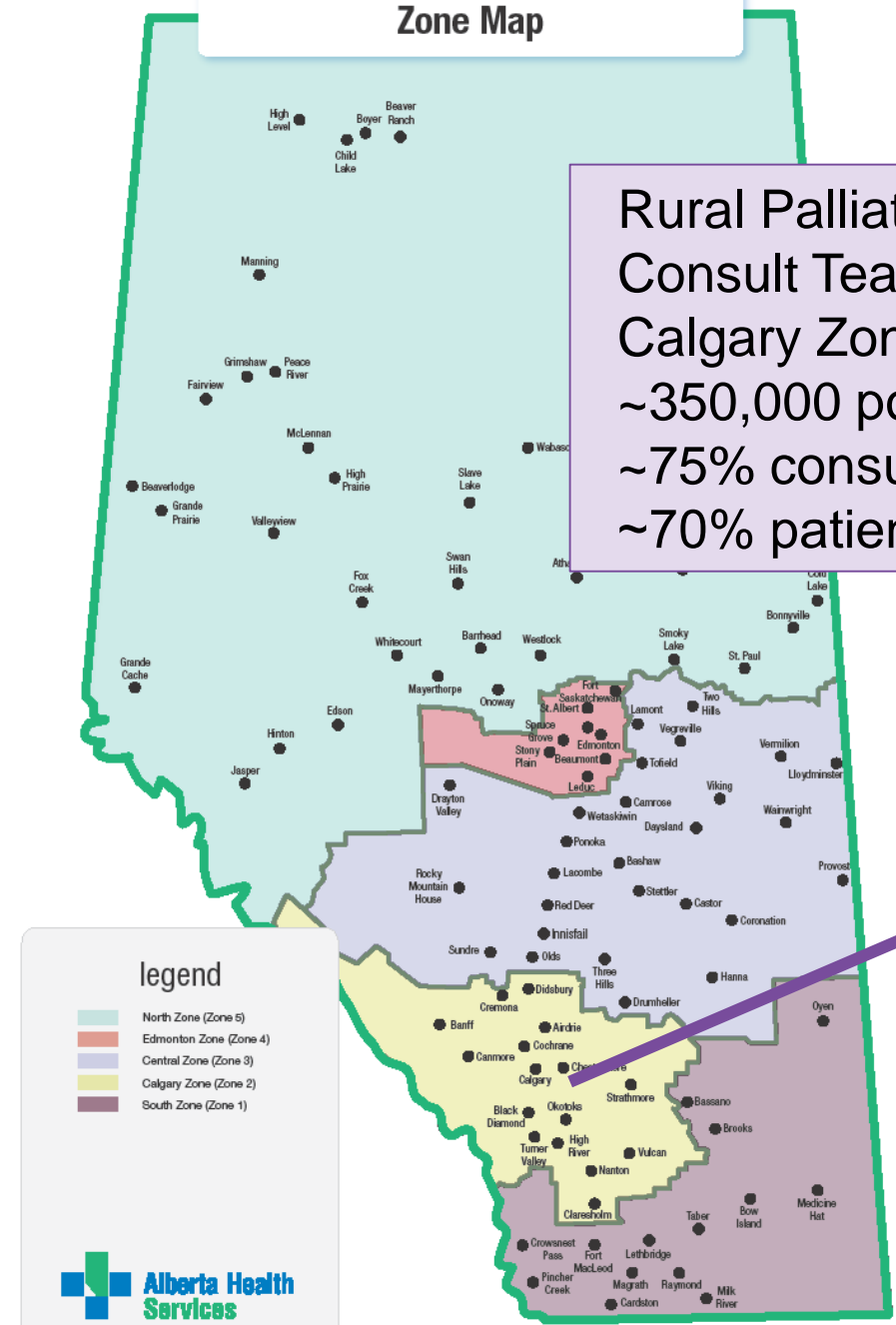
- This research was funded by the Canadian Frailty Network (known previously as Technology Evaluation in the Elderly Network, TVN), which is supported by the Government of Canada through the Networks of Centres of Excellence (NCE) Program.

<sup>TM</sup> Trademark of Canadian Frailty Network (Technology Evaluation in the Elderly Network, TVN). Used with permission.





# Alberta Health Services Zone Map



Rural Palliative Care  
Consult Team (RPCCT) –  
Calgary Zone (CZ)  
~350,000 pop'n served  
~75% consults at home  
~70% patients ≥ 65

legend

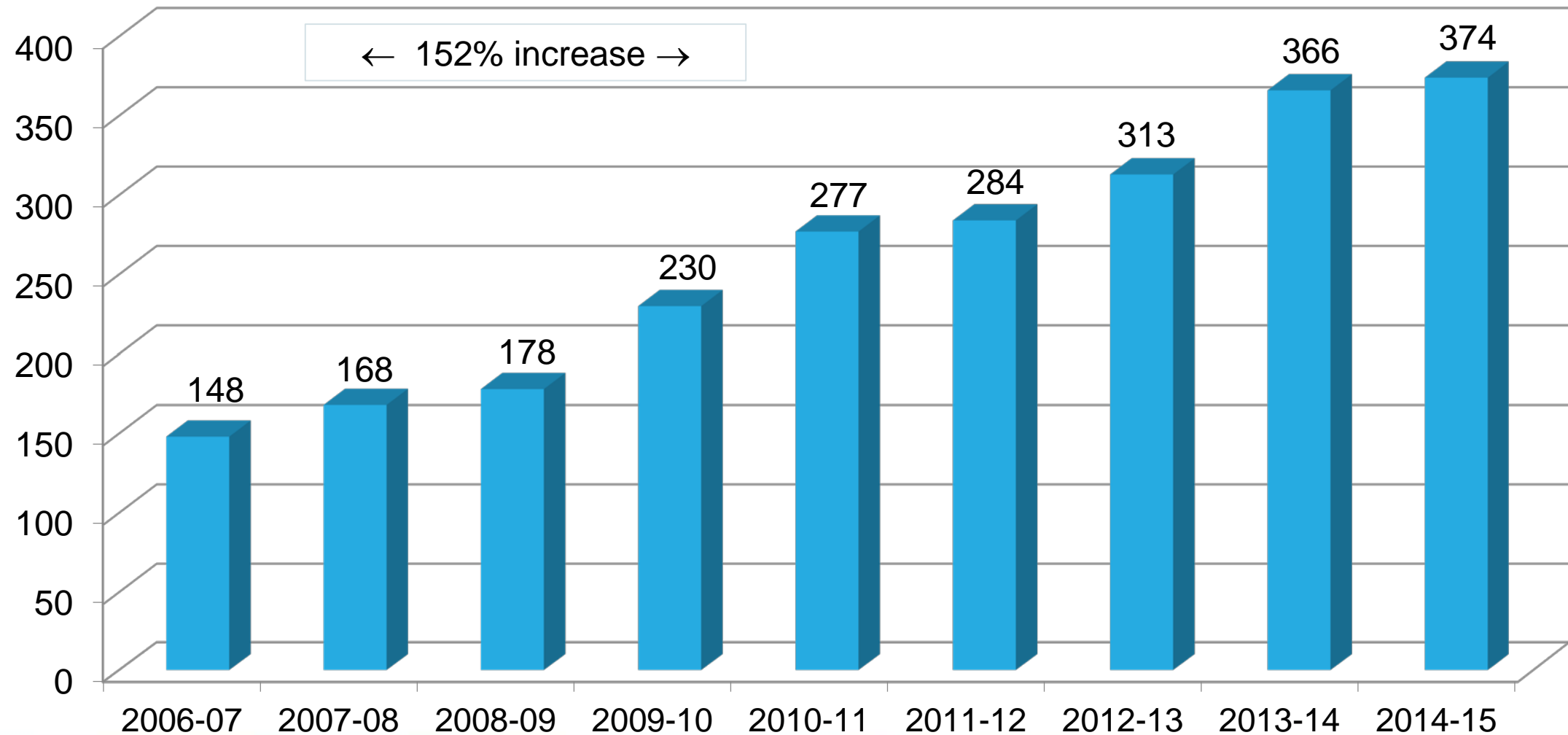
- North Zone (Zone 5)
- Edmonton Zone (Zone 4)
- Central Zone (Zone 3)
- Calgary Zone (Zone 2)
- South Zone (Zone 1)



# Alberta Health Services Calgary Zone Map



## *AHS CZ RPCCT Initial Consults per fiscal year*



# Study Rationale

1. In-person RPCCT home visits not always feasible due to barriers of:



Time



Weather



Distance



Increasing consult requests



# *Study Rationale*

2. Telephone consult does not provide opportunity for consultant and patient / family to see each other

- 
- Limited assessment
  - Less interpersonal connection



# Study Rationale

3. Travel by elderly Patient/Family to RPCCT office or nearest facility with telehealth not feasible due to:



Poor health



Limited finances

Few transportation options



In-home videoconferencing is an option we need to explore



# WBVC Research Project Team

Role	Name
Principal Investigator	Linda Read Paul <sup>1,2</sup>
Co-Investigators	Ron Spice <sup>1,2</sup> , Gilian Ho <sup>1,2</sup> , Marie Webb <sup>1</sup> , Jill Uniacke <sup>1</sup> , Joanne Linsey <sup>1</sup> – Rural Palliative Consult Team members Ayn Sinnarajah <sup>1,2</sup> – Medical Director, Palliative EOL Care
Research Assistant	Charleen Salmon <sup>2</sup>
Collaborators	Jason Kettle <sup>3</sup> – Provincial Director, Unified Communications & Telehealth Technology Rakib Mohammed <sup>3</sup> – Provincial Director, Clinical Telehealth

<sup>1</sup>Palliative/End of Life Care (EOL), Alberta Health Services (AHS) – Calgary Zone; <sup>2</sup>University of Calgary; <sup>3</sup>Information Technology - AHS





# *Project Budget*

- \$20,000 - CFN Health Technology Innovation Grant
- \$22,250 - In-kind funding from AHS IT Clinical Telehealth and Unified Communications & Telehealth Technology Teams
  - \$12,500 – equipment
  - \$9,850 – technical support and training





# *Study Purpose*

- To trial and evaluate the use of mobile Web-based videoconferencing (WBVC) to connect frail elderly patients with life limiting illness to a distant palliative care physician from the comfort of their rural homes.



# *WBVC Visit Set up*

- RPCCT Clinical Nurse Specialist (CNS)
  - In home with patient / family, Home Care (HC) nurse
  - Brings AHS laptop computer, speakerphone, webcam to conduct WBVC with distant RPCCT Physician (MD)
- RPCCT Physician (MD)
  - In private location with AHS laptop, webcam, headset
- Microsoft Lync® videoconferencing software – encrypted, secure



## *Why this Set Up?*

- Health Care Provider (HCP) in home for support and clinical exam (CNS with HC HCP for proof of concept, HC HCP only in future)
- Patient/family not burdened with managing technology
- Technology doesn't stay in home - avoids medicalization of home, loaning of equipment
- Standardization of equipment and software
- Distant consultant provides support and education to BOTH primary care provider and patient/family



# Technology

Dell E7440  
\$1500



3G AirCard  
Cellular Data Plan



Jabra 410  
\$135



Jabra GN2000  
\$80

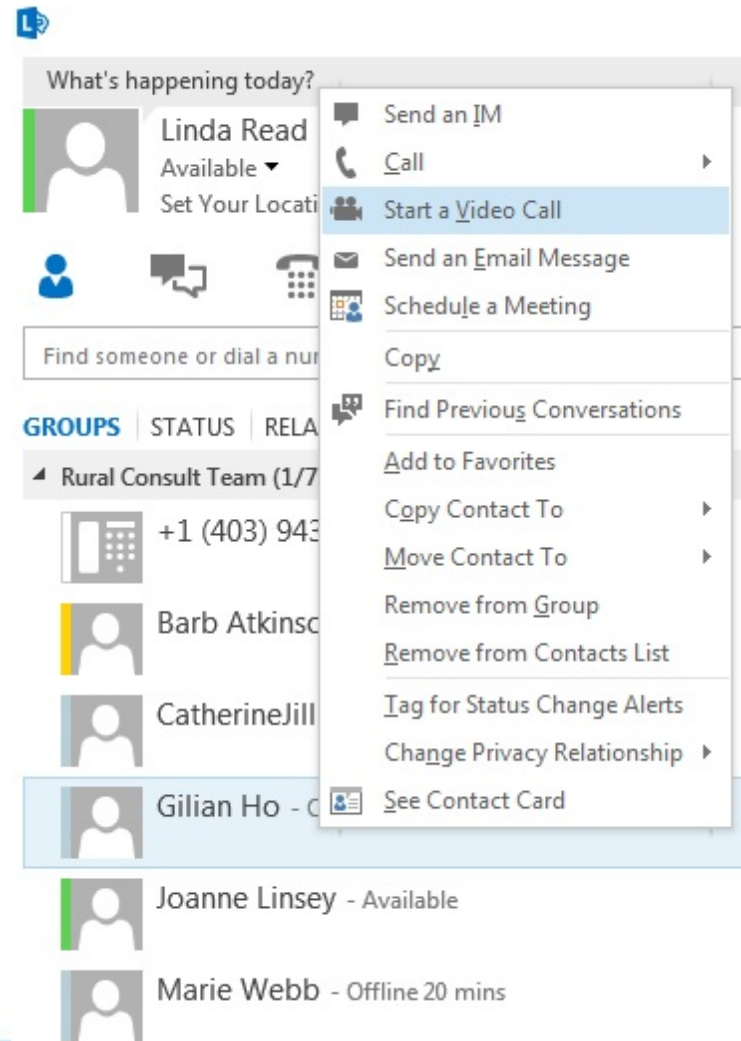


Microsoft LifeCam HD  
\$100



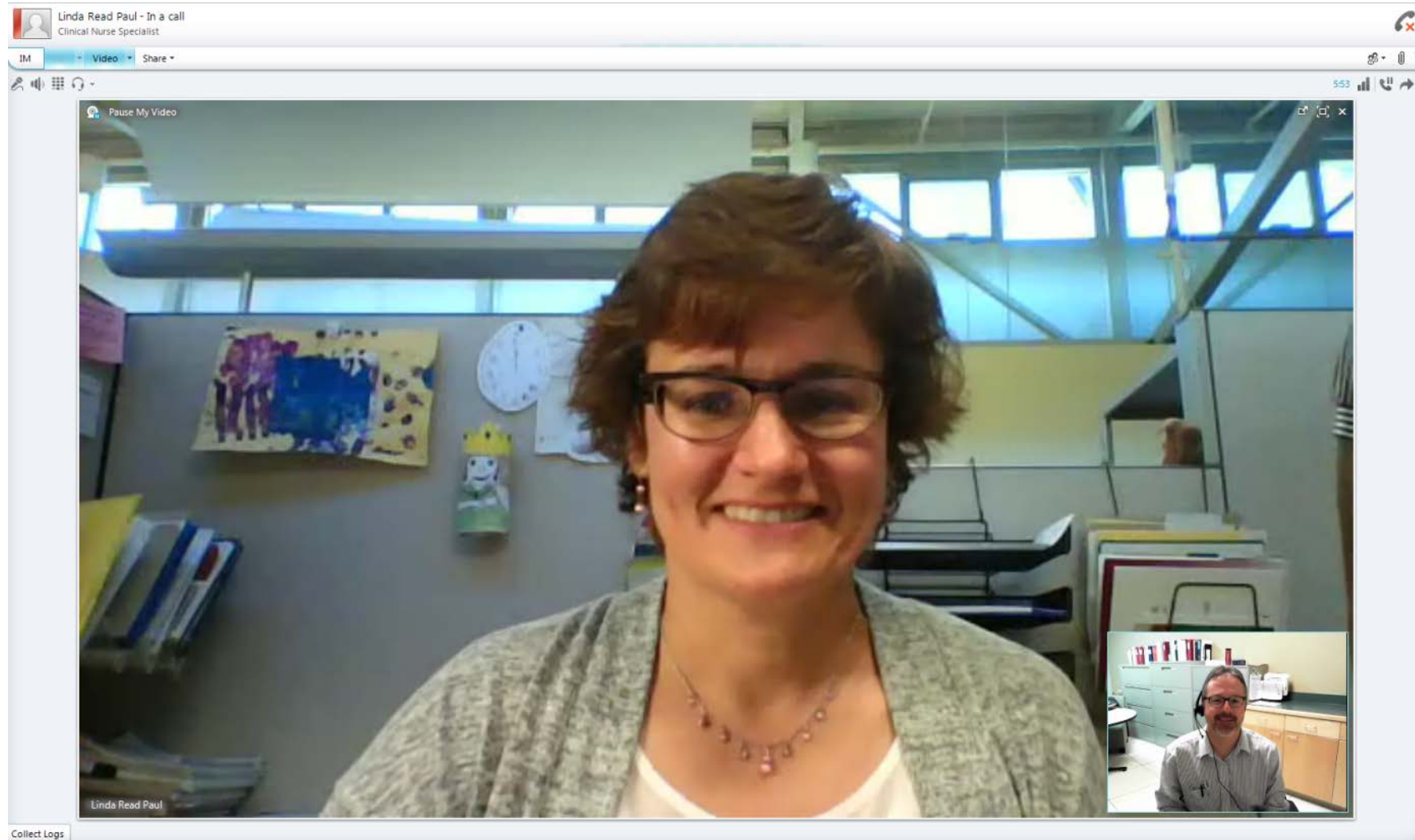
Google Advanced Image Search: [https://www.google.com/advanced\\_image\\_search](https://www.google.com/advanced_image_search) (Creative Commons)

# *Lync Point to Point (PTP) Video Call*

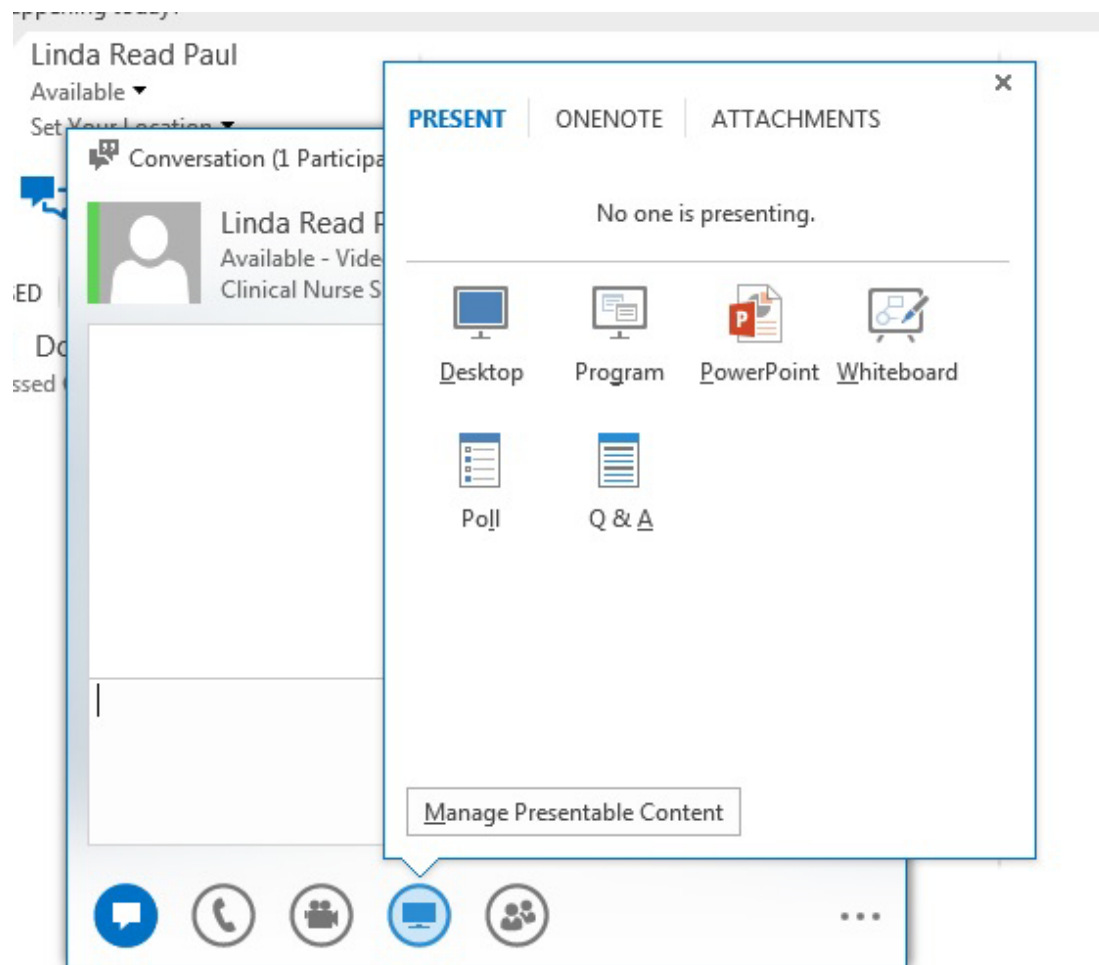




# *Lync PTP Video Call – Screen Images*



# *Lync Content Sharing*



# Sharing Diagnostic Images

Ron Spice

2:09

Request Control

Currently sharing: Give Control

Stop Sharing

Alberta Health Services [CA]

Google

ORION

View By: Category Look For: Status: All

GR Chest 1 Projection - RGH

Study List

1-GR AP SINGLE

AP Upright  
Scanned  
Portable  
NO 180

Ron Spice

Netcare

start

Trusted user

100%

9:53 AM

# *Project Outcomes Measured*

- Feasibility
- Acceptability
- Effectiveness
- Quality
- Impact on access
- Impact on cost and resource use



# *Experimental Design*

Proof of Concept

Descriptive

Mixed Methods



Quantitative



Qualitative

Google Advanced Image Search: [https://www.google.com/advanced\\_image\\_search](https://www.google.com/advanced_image_search) (Creative Commons)

# Questionnaires

## Participant Data Form



### WEB-BASED VIDEOCONFERENCING (WBVC) PARTICIPANT DATA FORM

Date: yyyy/mm/dd WBVC Event#: \_\_\_\_\_ Pt/Family Study ID#: \_\_\_\_\_

#### Home Environment:

☐ House ☐ Apartment Building ☐ Facility ☐ Other: \_\_\_\_\_

#### WBVC connection:

In-Home: ☐ Cell ☐ Wi-Fi → Wi-Fi Provider: \_\_\_\_\_ OR ☐ Unable to connect  
Distant: ☐ Net ☐ Cell ☐ Wi-Fi → Provider: \_\_\_\_\_ OR ☐ Unable to connect

#### Time (in Minutes):

WBVC Setup: Before Home Visit (HV): \_\_\_\_\_ During HV: \_\_\_\_\_ Total: \_\_\_\_\_

HV Time Started: \_\_\_\_\_ Time Ended: \_\_\_\_\_ Length: \_\_\_\_\_

WBVC Time Started: \_\_\_\_\_ Time Ended: \_\_\_\_\_ Length: \_\_\_\_\_

#### Impact on Access:

Earliest HV by MD (instead of WBVC): Date: yyyy/mm/dd Difference (in days): \_\_\_\_\_

HV delayed due to WBVC scheduling: ☐ No ☐ Yes Length of delay (in hrs): \_\_\_\_\_

#### Patient Information:

Age: \_\_\_\_\_ Gender: ☐ Male ☐ Female

Diagnosis: \_\_\_\_\_ PPS: \_\_\_\_\_

Type of Visit: ☐ Initial Consult OR ☐ Follow up visit

If Follow up: Previous contact with: ☐ CNS → ☐ T/C ☐ In person  
☐ MD → ☐ T/C ☐ In person

Reason for Consult (check all that apply): (as per Consult Request Form if initial consult)

- |  |   |
|--|---|
| <input type="checkbox"/> Psychosocial or spiritual distress for person or family                 | <input type="checkbox"/> Deteriorating physical or cognitive function |
| <input type="checkbox"/> Complex pain and symptoms   | <input type="checkbox"/> Education needs of the person or family      |
| <input type="checkbox"/> Difficult end of life decision making                                   | <input type="checkbox"/> Coordination of resources                    |
| <input type="checkbox"/> Transition to alternate settings of care (i.e. hospital, hospice, home) |   |

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Ethics ID: REB15-0429  
Study Title: Web-Based Videoconferencing (WBVC) for Rural Palliative Care Consultation in the Home  
PI: Linda Read Paul  
Version number/date: V2, 2015/07/22  
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### WEB-BASED VIDEOCONFERENCING (WBVC) PARTICIPANT DATA FORM

Participants		Location
Role	ID	
RPCCT MD		
Patient		(town or distance/direction from nearest town)
RPCCT RN		

Patient/Family – Travel Data					
Nearest Telehealth Facility Location: _____		Nearest RPCCT Office <input type="checkbox"/> Okotoks <input type="checkbox"/> Cochrane		Nearest Cancer Clinic <input type="checkbox"/> TBCC <input type="checkbox"/> JACC <input type="checkbox"/> N/A	
km from Home	Travel Time (hours)	km from Home	Travel Time (hours)	km from Home	Travel Time (hours)

Physician – Travel Data	
Office Location: <input type="checkbox"/> Okotoks <input type="checkbox"/> Cochrane	
Office to HV	
Distance (km)	Travel Time (hours)

Ethics ID: REB15-0429  
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# Patient / Family Questionnaire



**WEB-BASED VIDEOCONFERENCING (WBVC)  
PATIENT / FAMILY QUESTIONNAIRE**

Date:       yyyy/mm/dd       WBVC Event #:                      Participant Study ID #:                     

Person Completing Form:

☐ Patient    ☐ Family/Friend → ☐ Spouse    ☐ Child    ☐ Friend    ☐ Other \_\_\_\_\_

Please mark an **x** in the circle that best reflects your rating of the WBVC.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. The purpose of the WBVC was clearly explained to me beforehand. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I felt comfortable discussing my concerns by WBVC. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. My needs were addressed by WBVC as well as they would have been in person. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Using the WBVC was an effective use of my time. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I could communicate effectively by WBVC. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I would use WBVC again in a similar situation. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. The technology functioned well throughout the WBVC. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ethics ID: REB15-0429  
Study Title: Web-Based Videoconferencing (WBVC) for Rural Palliative Care Consultation in the Home  
PI: Linda Read Paul  
Version number/date: V1, 2015/02/14  
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**WEB-BASED VIDEOCONFERENCING (WBVC)  
PATIENT / FAMILY QUESTIONNAIRE**

During the WBVC,	Very Poor	Poor	Average	Good	Very Good
1. the overall video image quality on the device was...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. the overall sound quality of the call was...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please mark an **x** in the circle beside any **technical** issues that may have occurred during the WBVC.

There was a black or blank screen.	<input type="radio"/>	Was unable to hear the patient/family properly (too loud, too quiet, not at all).	<input type="radio"/>
Camera was out of focus, or image was blurry.	<input type="radio"/>	The sound was delayed.	<input type="radio"/>
The image would freeze throughout the appointment.	<input type="radio"/>	There was echo with the sound.	<input type="radio"/>
The image was delayed, unclear, or blurry.	<input type="radio"/>	It took a long time to connect.	<input type="radio"/>
Other: <i>(specify)</i>	<input type="radio"/>	The connection was lost.	<input type="radio"/>

Please describe your overall impression of the WBVC experience (e.g. what you liked and didn't like, what worked well and didn't work well):

[illegible]

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# Health Care Provider (HCP) Questionnaire



## WEB-BASED VIDEOCONFERENCING (WBVC) HEALTH CARE PROVIDER (HCP) QUESTIONNAIRE

Date:       yyyy/mm/dd       WBVC Event #:                      Participant Study ID #:                     

Person Completing Form:

☐ RPCCT CNS    ☐ RPCCT MD    ☐ Home Care RN    ☐ Home Care LPN    ☐ Other                     

Please mark an ✕ in the circle that best reflects your rating of the WBVC.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I felt comfortable discussing the patient's/family's concerns by WBVC. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The needs of the patient/family were addressed by WBVC as well as they would have been in person. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The WBVC improved clinical decision making beyond reviewing the case with the distant consultant by phone alone. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Using the WBVC was an effective use of my time. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The patient/family could communicate effectively by WBVC. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I would use WBVC again in a similar situation. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. The technology functioned well throughout the WBVC. <i>Comments:</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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## WEB-BASED VIDEOCONFERENCING (WBVC) HEALTH CARE PROVIDER (HCP) QUESTIONNAIRE

During the WBVC,	Very Poor	Poor	Average	Good	Very Good
1. the overall video image quality on the device was...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. the overall sound quality of the call was...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please mark an ✕ in the circle beside any technical issues that may have occurred during the WBVC.

There was a black or blank screen.	<input type="radio"/>	Was unable to hear the Health Care Provider(s) properly (too loud, too quiet, not at all).	<input type="radio"/>
Camera was out of focus, or image was blurry.	<input type="radio"/>	The sound was delayed.	<input type="radio"/>
The image would freeze throughout the appointment.	<input type="radio"/>	There was echo with the sound.	<input type="radio"/>
The image was delayed, unclear, or blurry.	<input type="radio"/>	It took a long time to connect.	<input type="radio"/>
Other: (specify)	<input type="radio"/>	The connection was lost.	<input type="radio"/>

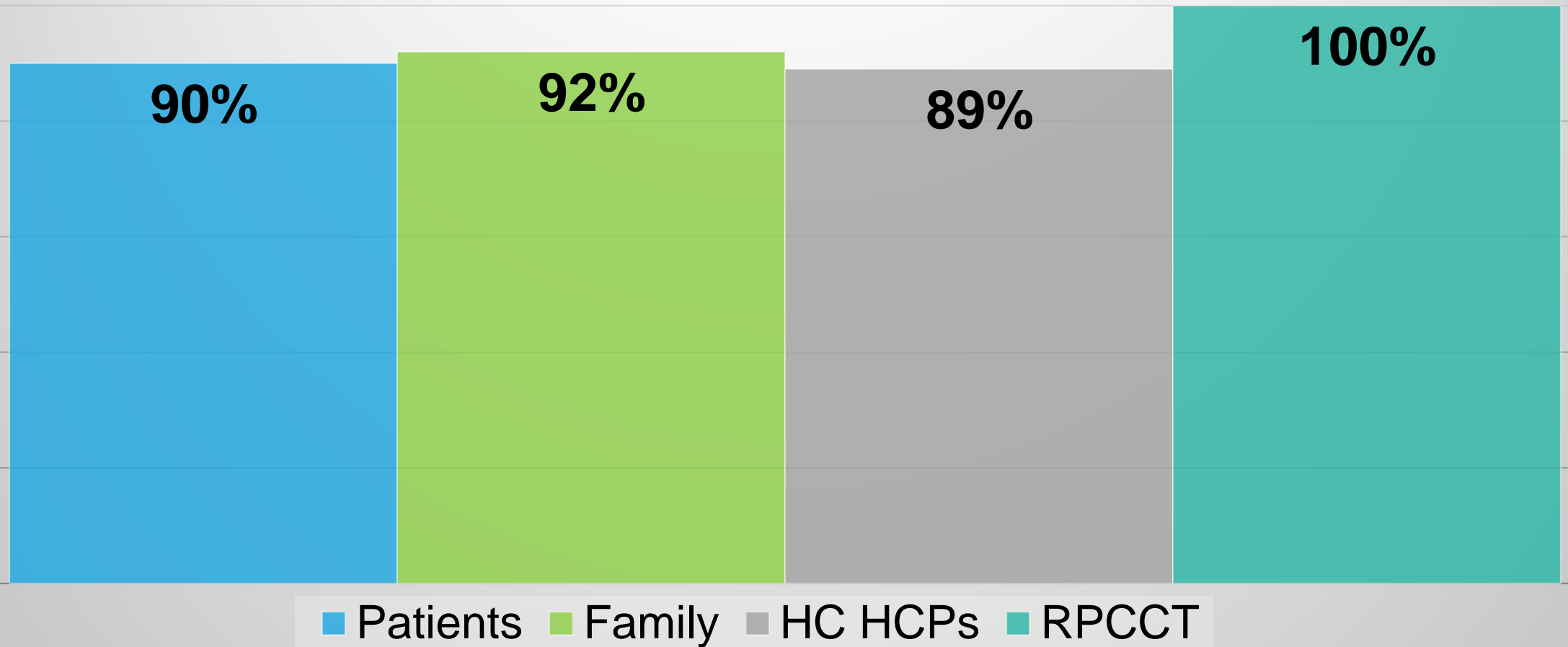
**WBVC Setup:** Please describe how the WBVC was set up and conducted (e.g. location, setting, lighting, timing) and comment on what worked well and didn't work well.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Other Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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# Questionnaire Response Rates



# *Semi-Structured Interviews with Patients/Families*



iStock.com

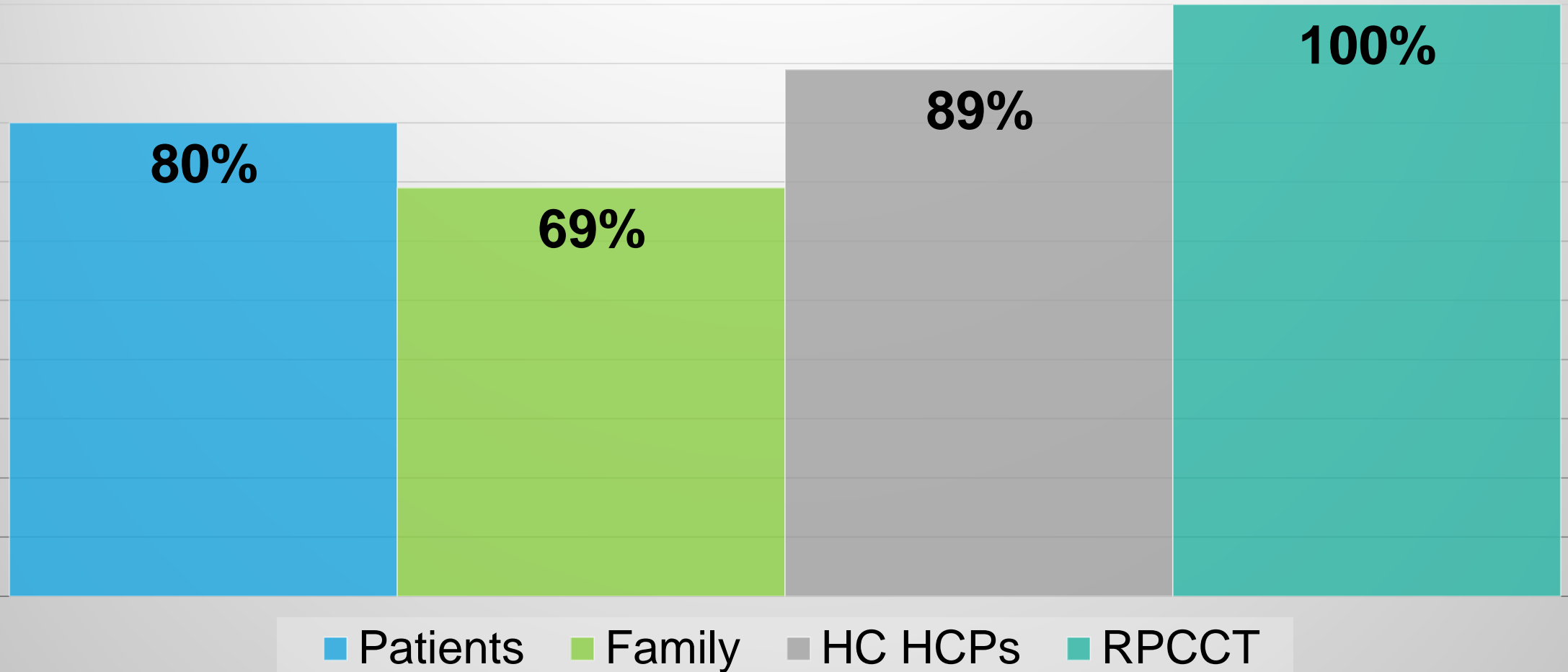
# *Focus Groups with HCPs*



<https://d3irk3g7luh32r.cloudfront.net/wp-content/uploads/sites/5/2015/04/focus-group-main-image.png> (Creative Commons)



# *Interview / Focus Group Participation Rates*





# Patient Inclusion Criteria



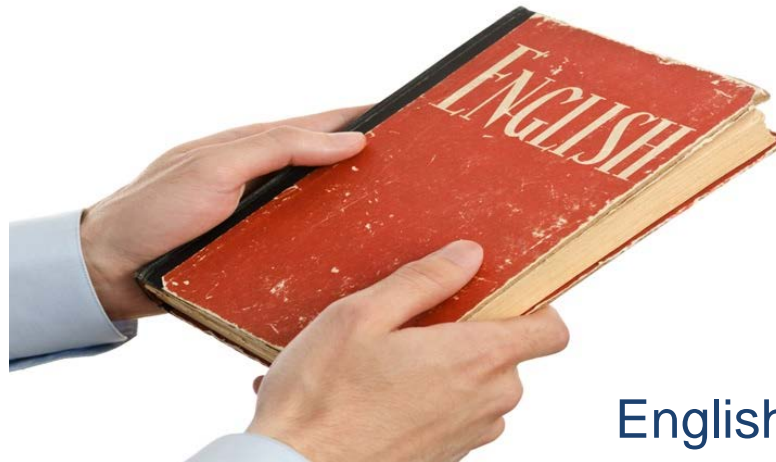
Referred to RPCCT  
for initial/follow-up consult

<http://b2bsalesprospects.com/wp-content/uploads/2016/03/referral.png>  
(Creative Commons)



Alberta Health Services Faces of Health Care Photo Gallery

Age  $\geq$  65 years



English-speaking

[http://study.com/cimages/course-image/9th-grade-english-textbook\\_136276\\_large.jpg](http://study.com/cimages/course-image/9th-grade-english-textbook_136276_large.jpg)  
(Creative Commons)

Live at home

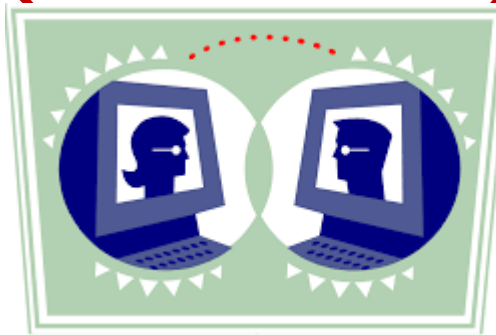


# Convenience Sample

10 WBVC Visits



- Patient
  - RPCCT CNS
  - Family\*
  - HC HCP\*
- (\* if present at visit)



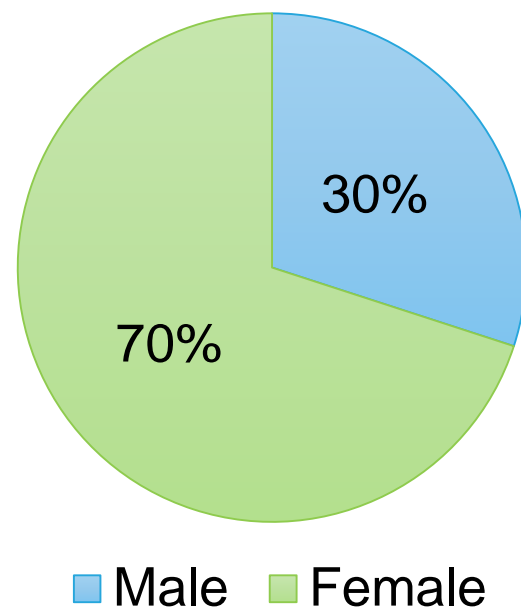
- RPCCT MD



# Participants

- 10 patients

**Gender**

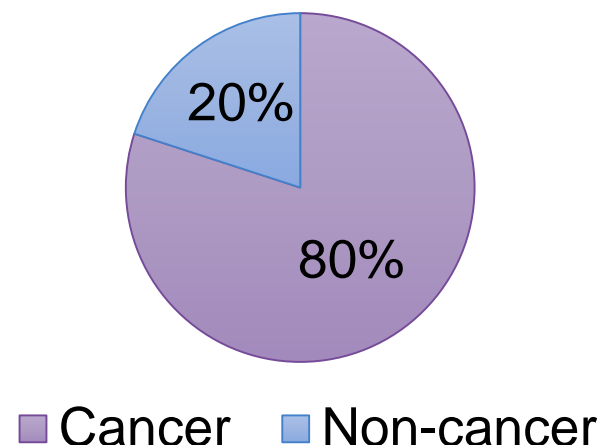


**Age**

Range: 69 – 92 years old

Mean: 76.9 years

**Diagnosis**



**Palliative Performance Scale (PPS)**

Range: 30-100%

Median: 50%

**Type of Consult**

Initial: 5

Follow-up: 5

# *Participants*

- 13 Family members
  - 8 children
  - 3 spouses
  - 2 siblings
- 9 Home Care Nurses (HC HCP)
- 3 RPCCT Clinical Nurse Specialists
- 2 RPCCT Physicians





# *Data Analysis*

## *Quantitative*

- Descriptive Statistics
  - SPSS software
  - Means, ranges, percentages, proportions

## *Qualitative*

- Interpretive Description & Content Analysis Methods
  - Iterative process with multiple research team members
  - Nvivo software
  - Themes, Codes

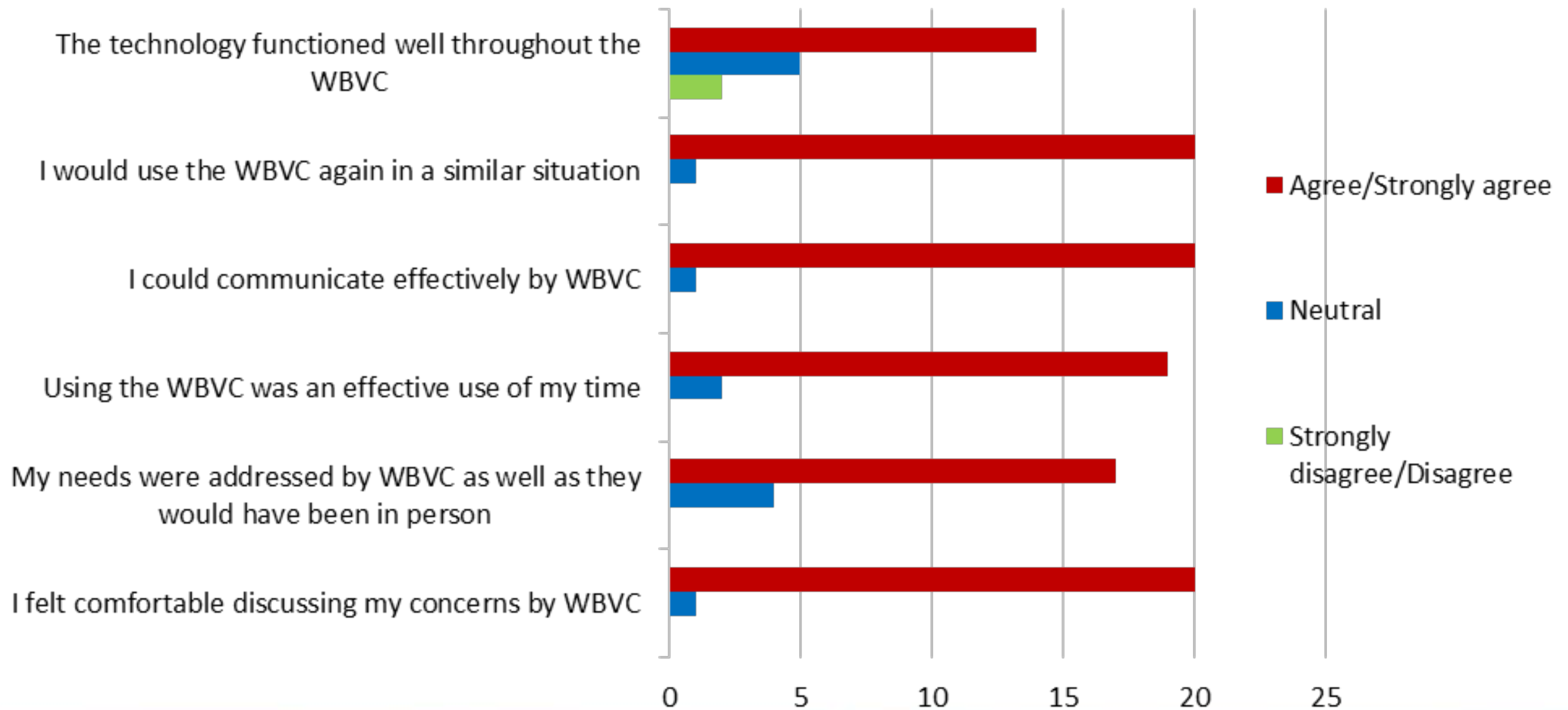


# *Quantitative Results*

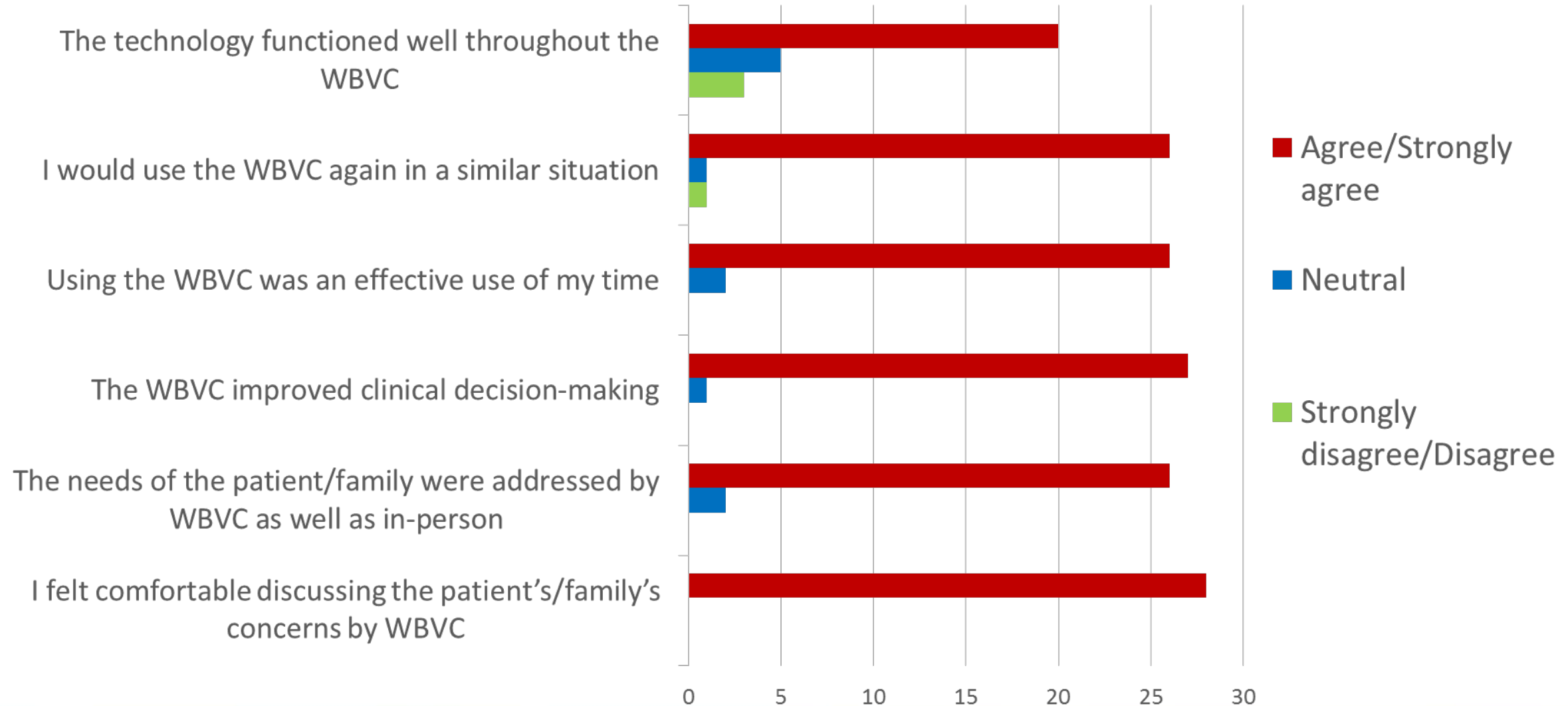




# Results from Patient/Family Questionnaires (N=21)



# Results from HCP Questionnaires (N=28)





# *Time and Travel Saved by WBVC HV<sup>1</sup>*

	<b>RPCCT MD</b> (compared to in person HV <sup>2</sup> )		<b>Patient / Family</b> (compared to Telehealth visit at nearest facility)	
	Travel Time Saved (hrs)	Travel Distance Saved (kms)	Travel Time Saved (hrs)	Travel Distance Saved (kms)
Range	0.56 to 2.2	38.6 to 176.8	0.14 to 1.34	2.2 to 100
Mean	1.5	110.7	0.424 (25 min)	22.3

<sup>1</sup> Reflects 2-way travel

<sup>2</sup> Same travel / time savings for Patient/Family when compared to in-person visit at MD Office

## *Impact of WBVC on Access to RPCCT*

- Earliest MD would have seen patient in person (if no WBVC)
  - 5 hours to 6 days later



Google Advanced Image Search: [https://www.google.com/advanced\\_image\\_search](https://www.google.com/advanced_image_search)





## *Costs Associated with WBVC*

- Cost of WBVC Equipment for 7 RPCCT Members
  - Laptops, webcams, speakerphones, headsets - \$12,400
- Cost of IT Support and Training - \$9,850
- Added time for WBVC Set up
  - Range – 5-38 min
  - Mean – 24 min





# *Qualitative Results*

## Themes

- Communication
- Logistics
- Trust
- Technical Issues





# *Qualitative Results - Communication*

Communication Codes
<ul style="list-style-type: none"><li>• Impact of technology (on communication)<ul style="list-style-type: none"><li>• Comfort</li><li>• Personal connection</li><li>• Topics</li><li>• Openness / Honesty</li><li>• Flow of conversation</li></ul></li></ul>
<ul style="list-style-type: none"><li>• People to include</li></ul>
<ul style="list-style-type: none"><li>• Comparison to other methods</li></ul>
<ul style="list-style-type: none"><li>• Non-verbal</li></ul>
<ul style="list-style-type: none"><li>• Communication outcomes</li></ul>



# Communication



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*“I felt like she [RPCCT MD] was very, very present and...it was much more personal for us...We were more engaged....The communication was actually **better** via Skype [WBVC] than it would have been if we were all just sitting in the room.”*

*(Impact of Technology – Personal Connection - Family)*

# Communication

*“I think it enhanced continuity of care in a seamless fashion because all of the clinicians involved in the care of the patient, uh, were hearing first-hand what the patient had to say – all at the same time.”*

*(Communication Outcomes - RPCCT CNS)*



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# *Qualitative Results - Logistics*

Logistics Codes
<ul style="list-style-type: none"><li>• Less burden<ul style="list-style-type: none"><li>• Comfort with own environment</li><li>• Easy / convenient</li><li>• Risk avoidance</li><li>• Travel</li><li>• Cost</li></ul></li></ul>
<ul style="list-style-type: none"><li>• Access</li></ul>
<ul style="list-style-type: none"><li>• Clinical Assessment</li></ul>
<ul style="list-style-type: none"><li>• Length of visit</li></ul>

# Logistics

*“I’m dying. That’s the bottom line. And as a result I think it [WBVC]...gives me a little more freedom than I would have if I had to go in and...sit and wait...plus the fact there’s a whole room full of people that are sick. They’ve got bugs, diseases, what have you... You may not die right away – but you may end up [dying] because you’ve picked up a bug from somebody in a waiting room.”*

*(Less Burden - Patient)*



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# Logistics

*“Well if you really needed her to say feel like a lump or something like that she wouldn’t be able to with this technology.”*

*(Clinical Assessment - Patient)*

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# *Qualitative Results - Trust*

Trust Codes
<ul style="list-style-type: none"><li>• Internet Security / Privacy</li></ul>
<ul style="list-style-type: none"><li>• Physician identity</li></ul>



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# *Trust*

*“Even though you’re assured that it’s private and everything else, there’s still that... These days everybody’s hacking into something... So there’s always that little bit of doubt .”*

*(Internet Security / Privacy - Patient)*



# *Qualitative Results – Technical Issues*

Technical Issues Codes
• Set up
• Audiovisual quality, connectivity

- Set up
- Audiovisual quality, connectivity

# *Technical Issues*

*“We kept losing her picture and you know... it would be nice if they could make it run all smooth.”*

*(Audiovisual quality / connectivity - Patient)*



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# *Technical Issues*

*“That is very frustrating when you get that weird choppy audio thing or you lose audio altogether for ...like 2 minutes, then you have to back track.”*

*(Audiovisual quality / connectivity -  
RPCCT MD)*



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# *Conclusions*

1. WBVC for Palliative Care Consultation in the home is a convenient, acceptable, effective, feasible way to provide more timely support to elderly patients and families in rural areas.
2. Audiovisual quality is not ideal but is adequate to enable communication.

# *Conclusions*

3. WBVC reduces the burden and expense of travel for patients, families, and consultants; and increases consultants' efficiency and productivity.
4. Real time, whole team discussion via WBVC enhances communication, assessment, and continuity of care; and facilitates more timely decision-making and care planning.



# Conclusions

5. WBVC is better than a phone call **but not as good as an in-person visit.**

- Ideally, WBVC should be an optional ALTERNATE visit format, not a REPLACEMENT for in-person visits.
  - The touch of warm hands is critical for support, connection, and assessment.



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# Next Steps

1. Operationalize Microsoft Lync® (now Skype for Business ®) as a clinical telehealth platform within AHS → Incorporate WBVC as a routine alternate RPCCT consult format.
2. Conduct further studies on using WBVC to support palliative patients at home (e.g. WBVC initiated by HC Nurse to RPCCT, GP, specialist) AND trial peripheral devices to augment clinical assessment over WBVC (e.g. Digital stethoscope).



→ Phase II project currently underway within CZ Rural HC



Lessons Learned	Carry Forward to Phase II (WBVC to RPCCT initiated by HC)
1. WBVC Training / Practice and current equipment are vital	<ul style="list-style-type: none"><li>• Training sessions implemented and recorded</li><li>• HC Equipment updated</li></ul>
2. Lengthy WBVC visit burdensome for clients	<ul style="list-style-type: none"><li>• HC &amp; client develop focused WBVC Consult agenda before video connection</li></ul>
3. WBVC can interfere with communication if malfunctioning	<ul style="list-style-type: none"><li>• Troubleshooting algorithm developed</li><li>• HC allows time for set-up and troubleshooting</li><li>• HC and Consultant use strategies to optimize audiovisual quality (e.g. direct internet connection, no programs open, use phone for audio or turn off consultant video)</li></ul>
4. Clients have fears regarding internet security and identity of distant HCP	<ul style="list-style-type: none"><li>• Privacy / Security information included in Client Information Sheet and HC script</li><li>• HC provides ample opportunity for questions about privacy / security before starting session</li><li>• Distant Consultant is well-lit, introduces self, explains private location and has visible name tag</li></ul>



## *Contact Information*

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