

Effects of a Geriatric Outreach Program on the Care of Older Adults in Northern British Columbia

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Disclosures

- We have no conflicts of interest to disclose



Agenda

- Background and context
- What is the Geriatric Outreach Program?
- Purpose of this work
- Methods
- Results
- Discussion and conclusion
- Next Steps

People are Living Longer with Multiple Chronic Conditions

By **2024**, more than **20%** of Canada's population is expected to be aged 65+
(Statistics Canada, 2017)

Nearly **80%** of older adults in Canada have one or more chronic conditions (CIHI, 2011)

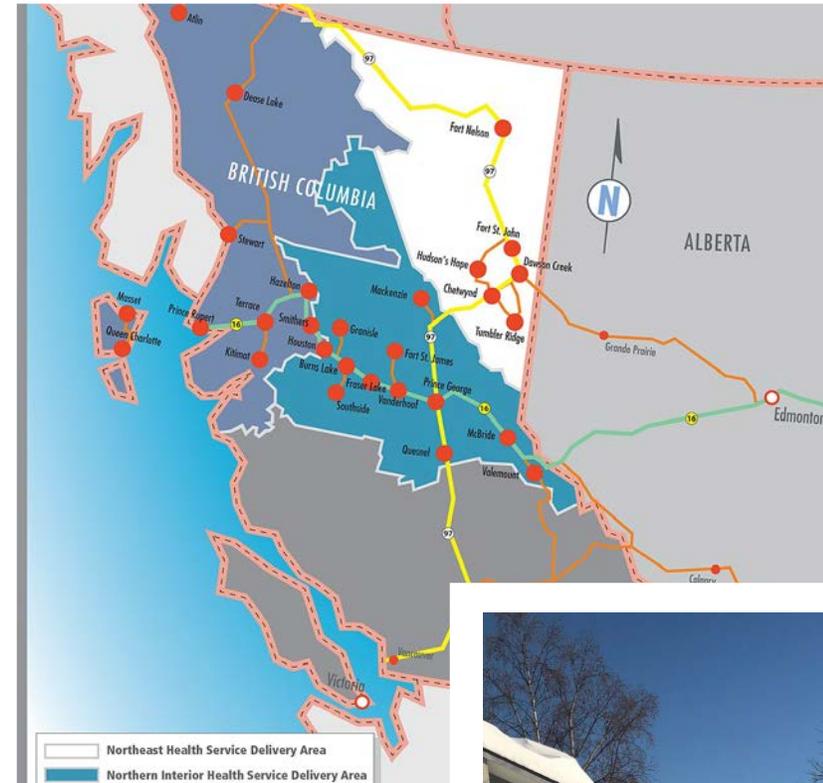
Increase in Population with Multiple Chronic Conditions Could Increase Health Care Spending

Older adults with **three or more** chronic conditions consume three times more health care than older adults without chronic conditions
(CIHI, 2011)

242 billion dollars were spent on health care in Canada in 2017 – nearly 12% of the gross domestic product (CIHI, 2017)

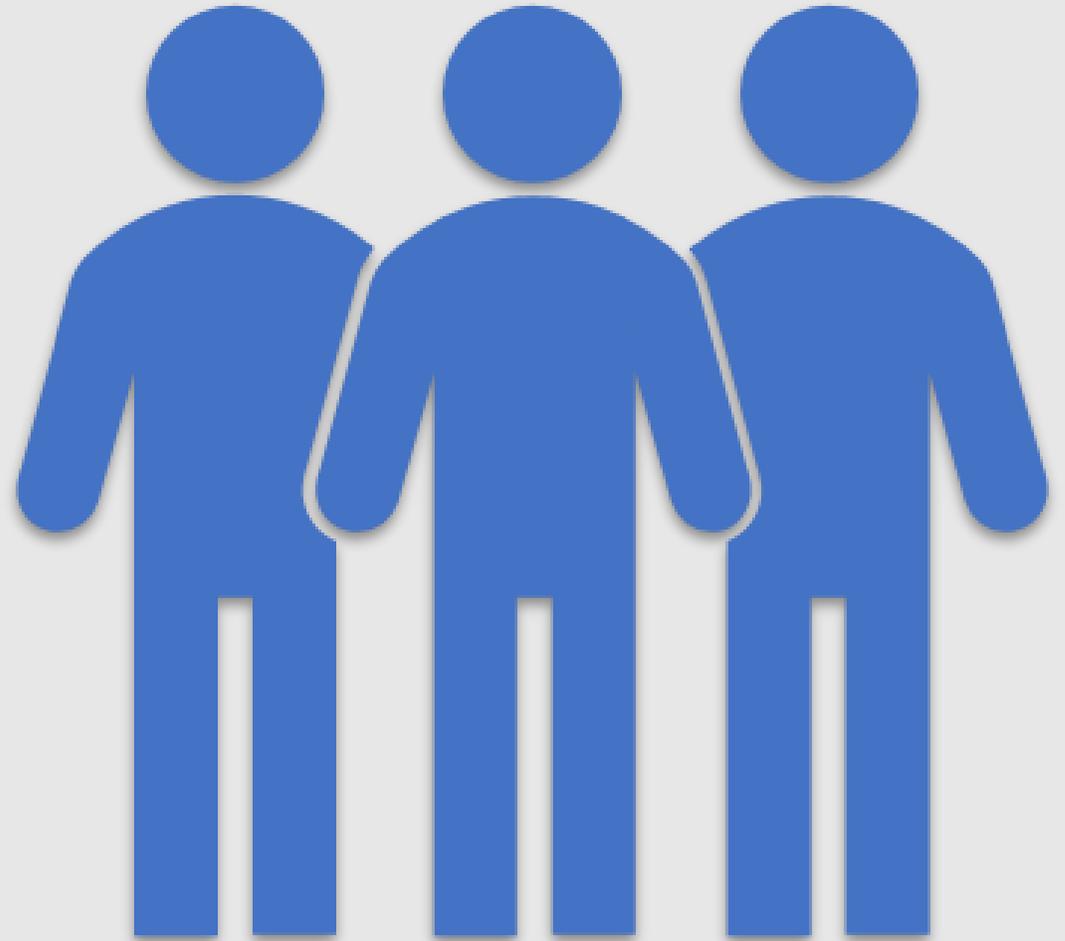
Under-resourced Communities Face Challenges to Accessing Care

- Distance to care influences decision to access care regardless of need (Gatrell & Elliott, 2009)
- Sometimes must choose between compromising safety by traveling to urban centers in dangerous road and weather conditions to meet care needs or remaining in community and not having care needs met (Regan & Wong, 2009)

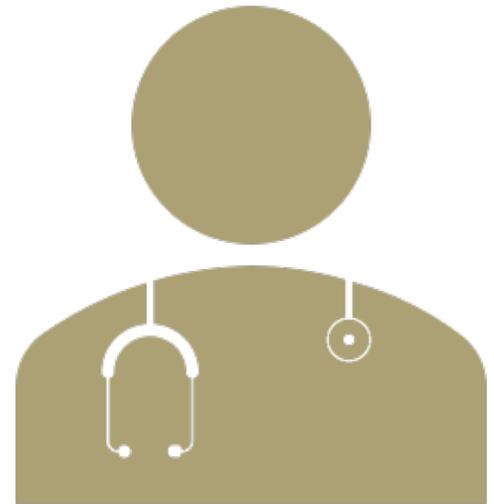


Older Adults Want to Age in Place

- Older adults want to age in their chosen community, where they have established social networks and connections to the community (Wiles et al, 2012)

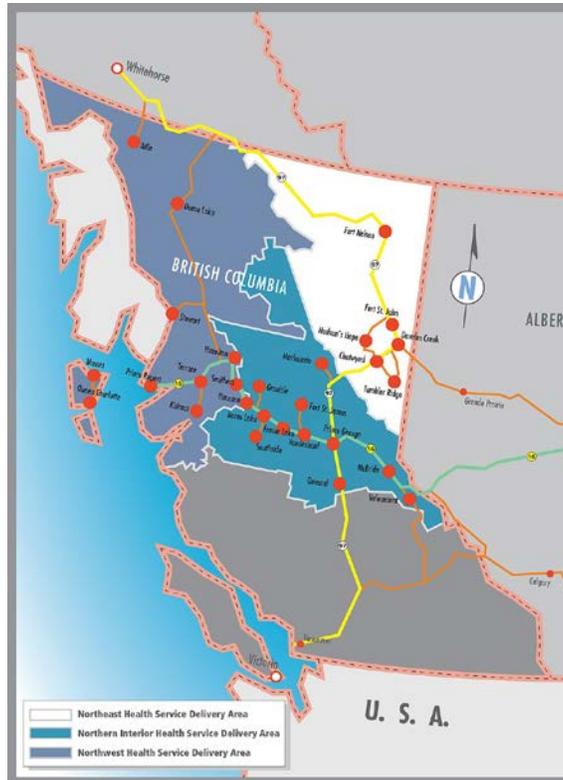


Health care programs that can improve access to health services for older adults residing in under-resourced areas are warranted.





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What is the Geriatric Outreach Program?

- Geriatric specialists from Vancouver/Vancouver Island
- Provides geriatric consultations in-person and through telehealth
- Occur approximately every 3-4 months

Purpose

- To investigate the effects of a Geriatric Outreach Program on the Care of Older Adults in northern British Columbia
- To compare telehealth and in-person consultations with respect to outcomes and cost



Multi-Method Research Approach



Qualitative

- Semi-structured interviews ($N = 6$) with geriatric specialists ($n = 2$) and referring general practitioners ($n = 4$)
- Content analysis



Quantitative

- Retrospective review of consultation letters from first follow-ups in 2017/2018 Fiscal Year ($N = 95$)
 - 33 in-person
 - 62 telehealth
- A cost comparison

The Geriatric Outreach Program Supports Care of Older Adults in 3 Main Ways



Care Planning

Polypharmacy
Behaviour
Validation



Provider Support

Education
Access
Rapport



Patient Access

Travel
Availability

Differences between In-person and Telehealth Consultations



RESOURCES



TESTING

Table 1. Differences by Service Delivery Type of Patients' First Follow-up Geriatric Consultation in 2017/2018 Fiscal Year (N = 95) , p. 55

<u>Outcomes of Consultation</u>	Total Sample (N = 95)	Telehealth 65.3% (N = 62)	In-person 34.7% (N = 33)	P value ($\alpha = 0.05$)
New diagnosis	28.4 (27)	38.7 (24)	9.1 (3)	0.002
Medication change	81.1 (77)	88.7 (55)	66.7 (22)	0.009
Further testing/screening	45.3 (43)	56.5 (35)	24.2 (8)	0.003
Referral to other specialty	7.4 (7)	9.7 (6)	3.0 (1)	0.42
Change in level of care	31.6 (30)	30.6 (19)	33.3 (11)	0.79
Safety recommendations	10.5 (10)	12.9 (8)	6.1 (2)	0.49
Anticipatory guidance	57.9 (55)	56.5 (35)	60.6 (20)	0.70
Further follow-up	57.9 (55)	66.1 (41)	42.4 (14)	0.03
No outcomes reported	1.1 (1)	-	3.0 (1)	-

Cost Differences Between In-person and Videoconferencing Geriatric Follow-up Consultations

Scenario	A In-person cost totals (from Table 2)	B Number of videoconferencing consultations	C Videoconferencing cost**	D Total (column A – column C)
1. Cost difference between average 1-day in-person clinic and average 1-day telehealth	\$1,934	10*	\$75 – \$250	\$1,684 – \$1,859
2. Costs saved if all consultations (N=95) through videoconference	\$31,014	95	\$713 – \$2,375	\$28,639 – \$30,301
3. Cost difference between total in-person (n = 33) and total telehealth (n = 62)	\$15,447	62	\$465 – \$1,550	\$13,897 – \$14,982
4. Cost saved by conducting n = 62 consultations via videoconference	\$18,997	62	\$465 – \$1,550	\$17,447 – \$18,532

Table 3, p. 59

Discussion



This program supports care in 3 major ways



Challenges with telehealth are already being mitigated



Opportunity to realize full potential of telehealth

Discussion



New diagnoses, medication changes,
further testing



Not yet clear why these are
significant



did existing diagnoses or reasons for
referral contribute to any of the
outcomes?

**How does the
Geriatric
Outreach
Program affect
care of older
adults?**

By providing comprehensive geriatric assessments in-person and through telehealth

NEXT STEPS

- Compare findings to confirmed diagnoses and actual reasons for referral
- Investigate patient perspectives





Thank you

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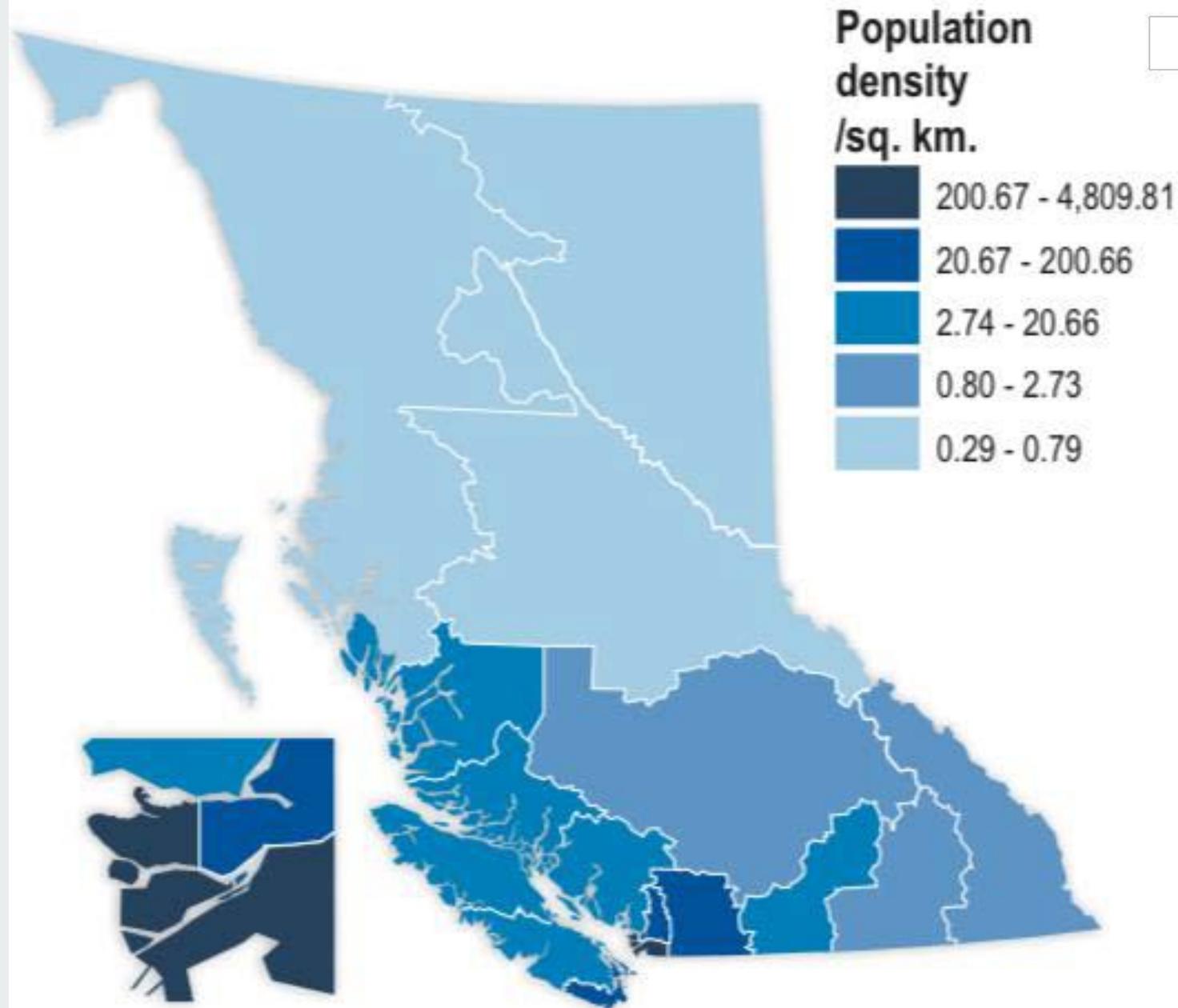
What factors are associated with the use of teletrauma in northern BC?

Timothy Wood MSc RN¹, Shannon Freeman PhD¹, Davina Banner PhD¹, and Melinda Martin-Khan PhD², Neil Hanlon PhD¹, Frank Flood³

1. University of Northern British Columbia, Canada
2. University of Queensland, Faculty of Medicine, Australia
3. Northern Health Authority

Variable access to health services throughout BC

- Geographic dispersion
- Low population densities
- Centralization of services



(BC Stats, 2010, as cited in Foster, Keller, McKee, & Ostry, 2011)

Trauma patients may be disproportionately affected by inequitable access

- Longer time from injury to discovery
(Esposito et al., 1995)
- Higher trauma-related mortality
(Peek-Asa, Zwerling, & Stallones, 2004; Tiesman, Zwerling, Peek-Asa, Sprince, & Cavanaugh, 2007)
- Risk of dying increases with degree of rurality (Gomez et al., 2010)

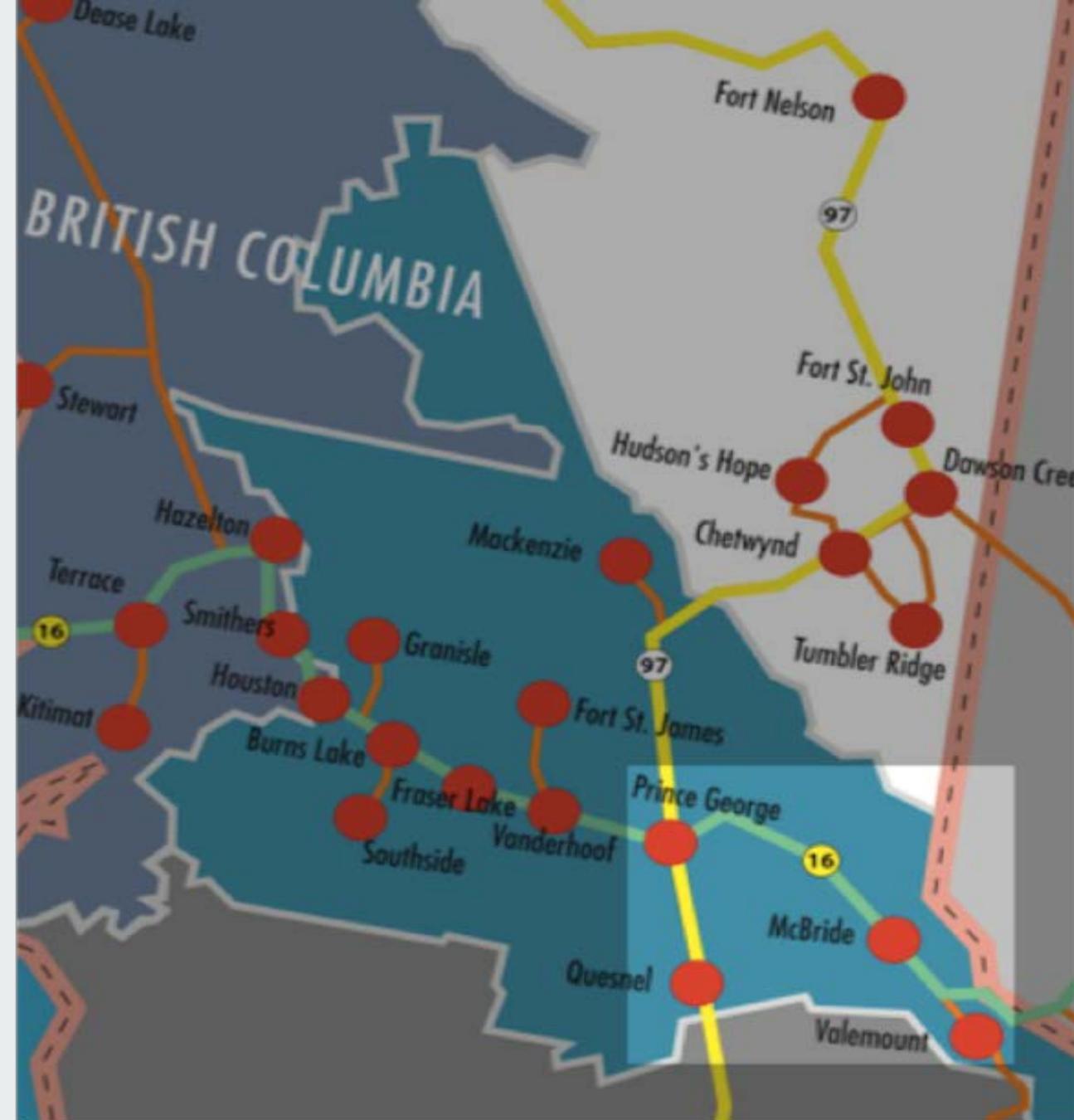


Telehealth is one solution to enable access to care



“The use of telecommunication and virtual technology to deliver health care outside of traditional health-care facilities” (World Health Organization, 2019, para. 1)

Robson Valley virtual care program (McBride and Valemount)



(Northern Health Authority, n.d.)

What factors are associated with teletrauma use in northern BC?

The objectives are to:

1. Describe the Robson Valley teletrauma program
 2. Identify factors associated with teletrauma utilization
 3. Explore the perspectives of physician teletrauma users and stakeholders
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Factors associated with teletrauma use and gaps in knowledge

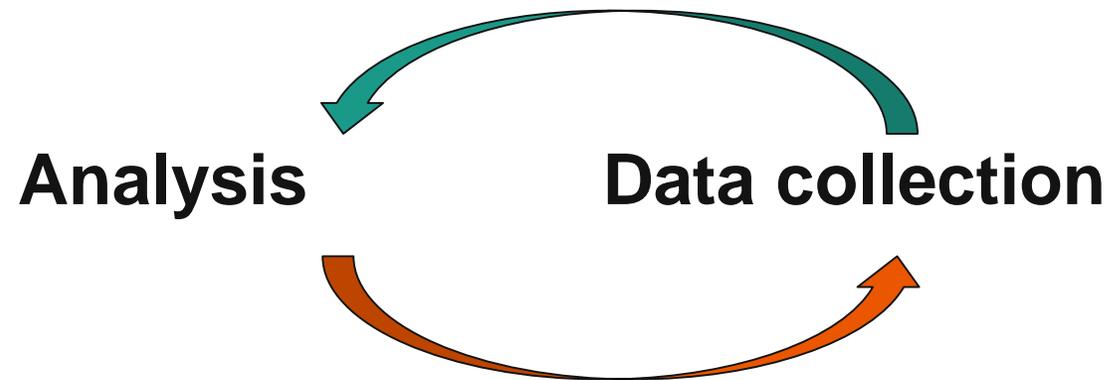
- Younger patient age**
(Dharmar et al., 2013; Franken et al., 1997; Marcin et al., 2004; Mohr et al., 2017; Mohr et al., 2018; Yang et al., 2015a; Yang et al., 2015b)
- Penetrating injury**
(Duchesne et al., 2008; Mohr et al., 2017)
- Higher injury/illness severity**
(Duchense et al., 2008; Marcin et al., 2004; Ricci et al., 2003; Rogers et al., 2001)
- Clinician uncertainty with diagnosis**
(Dharmar et al., 2013)
- Limited research on physician experiences using teletrauma**

Interpretive Description

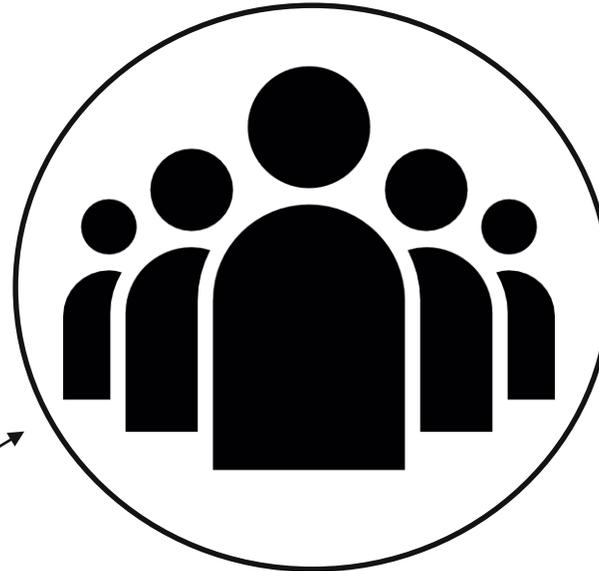
(Thorne, Kirkham, & MacDonald-Emes, 1997)



- Develops knowledge surrounding complex, experiential phenomenon (Thorne et al., 1997)
- Practical implications for the clinical setting (Thorne, Kirkham, & O'Flynn-Magee, 2004)



Setting, Sampling, and Data Collection



14x



Major themes identified from findings

1 Function, uses, and outcomes of teletrauma

2 Factors associated with teletrauma utilization

3 Teletrauma as a tool to foster interprofessional relationships

4 Interconnectedness of the healthcare system

Study Findings



1. **Function, uses, and outcomes of teletrauma**
2. Factors associated with teletrauma utilization
3. Teletrauma as a tool to foster interprofessional relationships
4. Interconnectedness of the healthcare system

**“Hands-down,
there's no way
telehealth does not
100 percent
improve patient care”**

(Participant P6)

Study Findings

1. Function, uses, and outcomes of teletrauma
2. **Factors associated with teletrauma utilization**
3. Teletrauma as a tool to foster interprofessional relationships
4. Interconnectedness of the healthcare system

“So whatever the emergency is, is what we use [teletrauma] for. I mean, the list is endless”

(Participant P2)

Study Findings

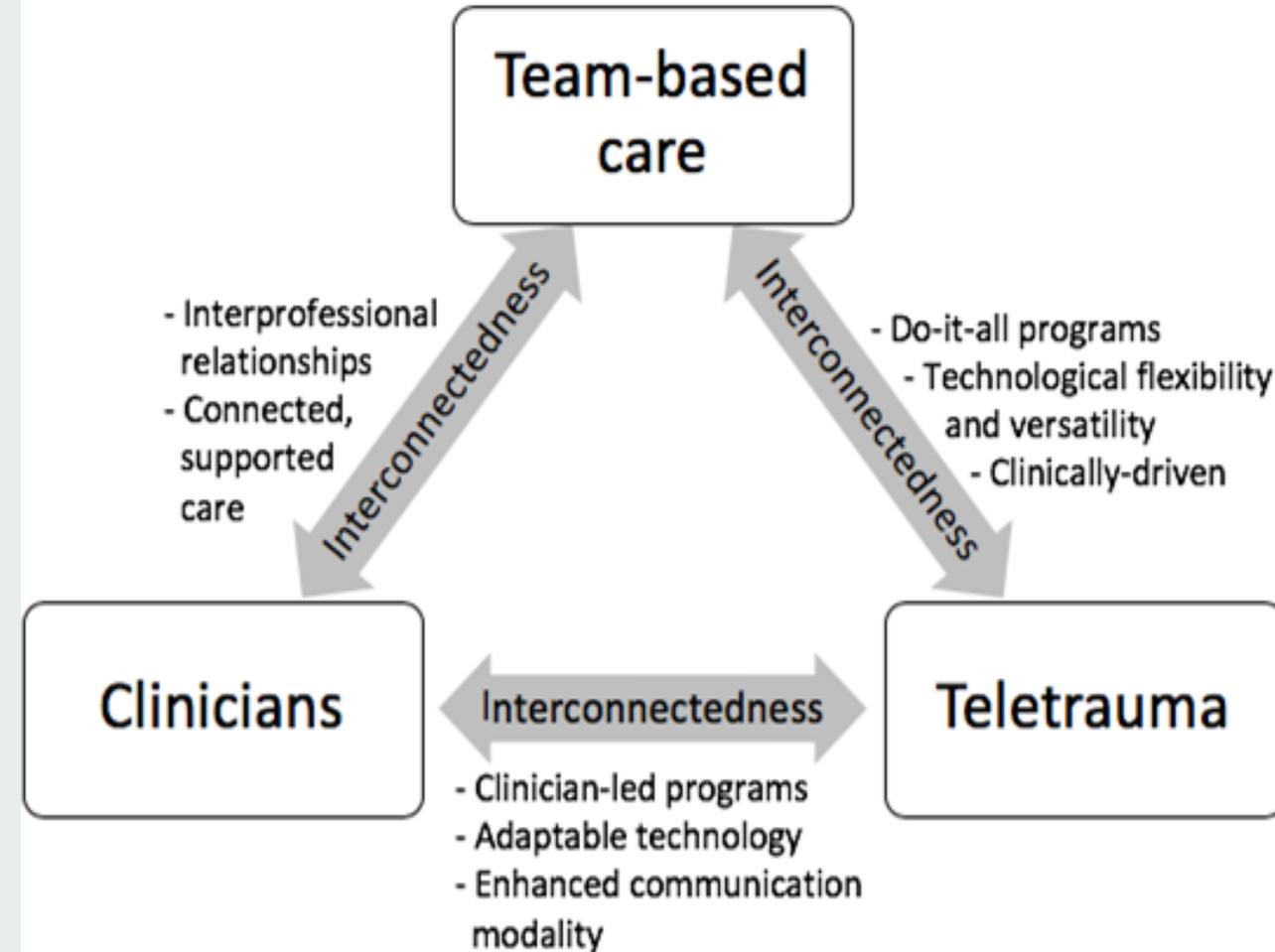
1. Function, uses, and outcomes of teletrauma
2. Factors associated with teletrauma utilization
3. **Teletrauma as a tool to foster interprofessional relationships**
4. Interconnectedness of the healthcare system

“Ninety-five percent of what made [teletrauma] fantastic was the attitude in the group... the technology was five percent of it”

(Participant P1)

Study Findings

1. Function, uses, and outcomes of teletrauma
2. Factors associated with teletrauma utilization
3. Teletrauma as a tool to foster interprofessional relationships
4. **Interconnectedness of the healthcare system**

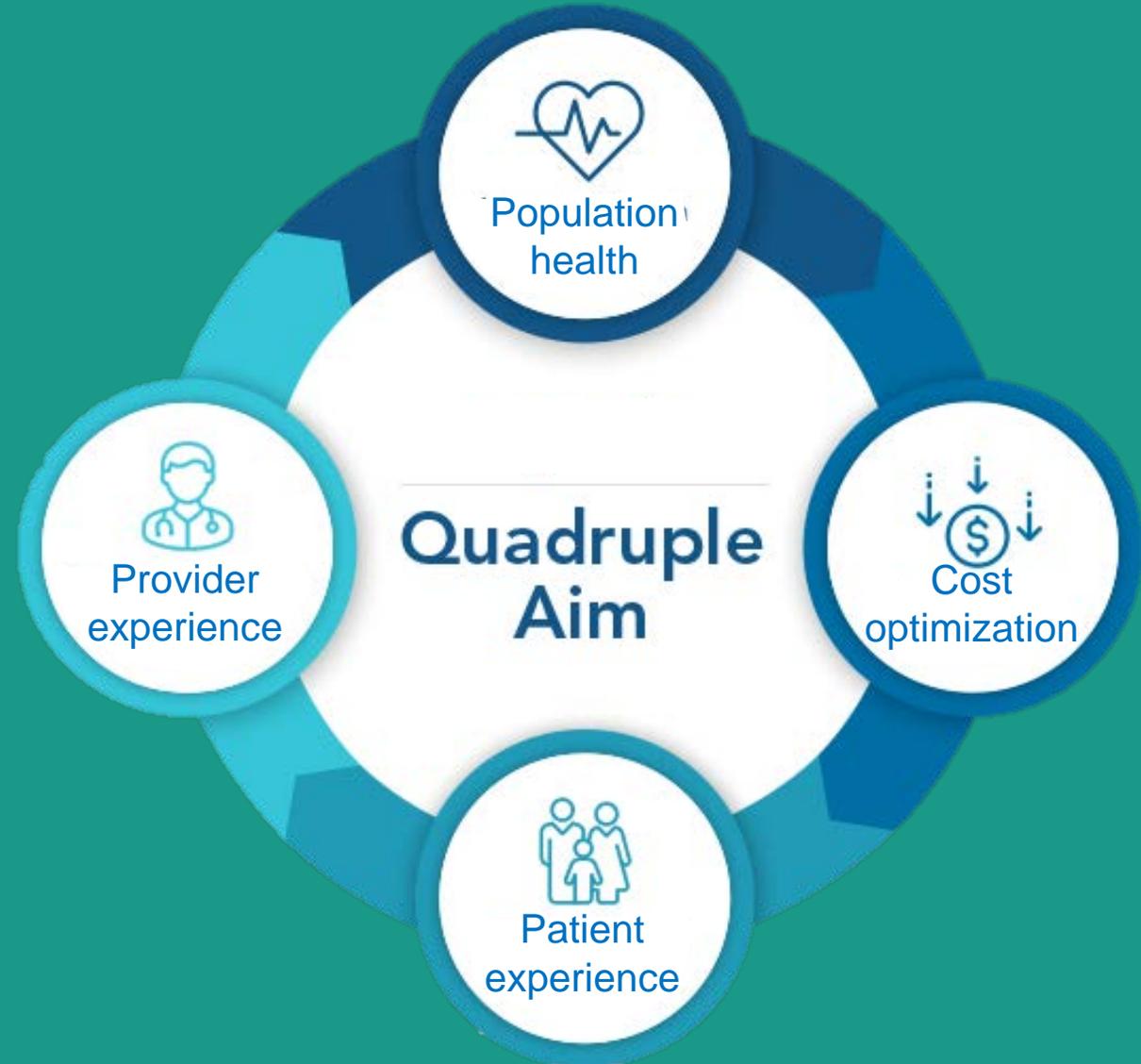


Themes that emerged from interpretation of findings

- 1 **Teletrauma affects the healthcare system**
- 2 **Teletrauma enables a network of care built on interprofessional relationships**
- 3 **Reasons clinicians use teletrauma are multifaceted and interrelated**
- 4 **Interconnectedness of the healthcare system**

Discussion

1. **Teletrauma affects the healthcare system**
2. Teletrauma enables a network of care built on interprofessional relationships
3. Reasons clinicians use teletrauma are multifaceted and interrelated
4. Interconnectedness of the healthcare system



Discussion

1. Teletrauma affects the healthcare system
- 2. Teletrauma enables a network of care built on interprofessional relationships**
3. Reasons clinicians use teletrauma are multifaceted and interrelated
4. Interconnectedness of the healthcare system



“If I can leave one impression in your ear, it’s that I really do think technology is wonderful, but it’s really about the relationships and the people”
(Participant P1)

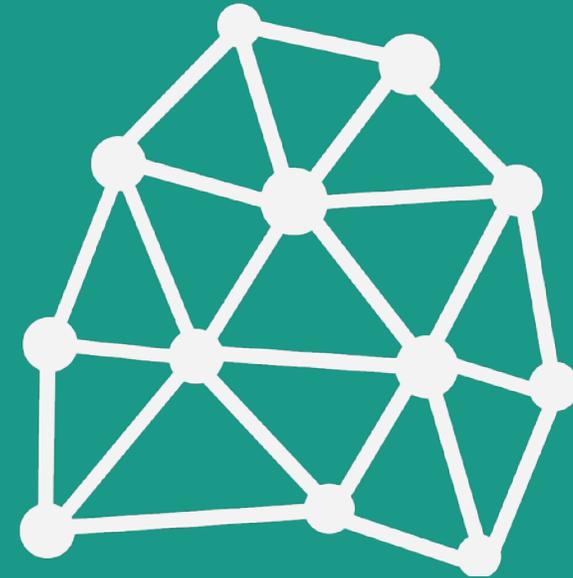
Discussion

1. Teletrauma affects the healthcare system
2. Teletrauma enables a network of care built on interprofessional relationships
3. **Reasons clinicians use teletrauma are multifaceted and interrelated**
4. Interconnectedness of the healthcare system



Discussion

1. Teletrauma affects the healthcare system
2. Teletrauma enables a network of care built on interprofessional relationships
3. Reasons clinicians use teletrauma are multifaceted and interrelated
4. **Interconnectedness of the healthcare system**



Interconnectedness

Implications

- Clinician-focused programs
- Interprofessional relationships as a key
- Regional teletrauma policies

Recommendations

- Future research should engage a complex systems perspective
- Medical education for rural trauma care



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