HEALTH EQUITY IN THE DIGITAL AGE:

Enhancing Virtual Hospital-at-Home Care for South Asian Communities in British Columbia

KEY INSIGHTS AND RECOMMENDATIONS

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REPORT PREPARED BY

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EXECUTIVE SUMMARY

The South Asians For Equitable (SAFE) Virtual Health project examines how South Asian community members in the Fraser Health region experience virtual healthcare, identifying challenges and opportunities for improving accessibility and outcomes. With the development of a 'Virtual Hospital-at-Home' care model (provision of hospital level care in the comfort of one's own home through use of technology), this project seeks to refine culturally relevant strategies that enhance patient engagement and trust.

The project engaged 20 participants from diverse South Asian backgrounds, ranging in age from 19 to 79. Interviews were conducted in multiple languages, including English, Punjabi, Hindi, and Pashto, ensuring broad representation. Participants shared insights on barriers such as language difficulties, digital literacy gaps, concerns about quality of care, and unsuitable home environments. Facilitators of virtual healthcare included strong family support, convenience, and prior experience using virtual care services.

A co-design workshop brought together patients, healthcare providers, and community leaders to develop actionable solutions. Participants emphasized the need for culturally appropriate outreach, including engagement through community centers, religious institutions, and ethnic media. Training needs were also identified, such as simulation-based learning, multilingual guides, and digital tools like body mapping to support communication.

Key recommendations for healthcare providers and policymakers include integrating professional interpreters, offering clear and simple communication, and ensuring seamless transitions between virtual and in-person care. Participants suggested a streamlined process for returning to the hospital when necessary to ease concerns about emergency situations.

Lessons from this project underscore the power of patient voices in shaping healthcare solutions. Co-designing with diverse users highlighted the importance of addressing power imbalances and facilitating inclusive discussions.

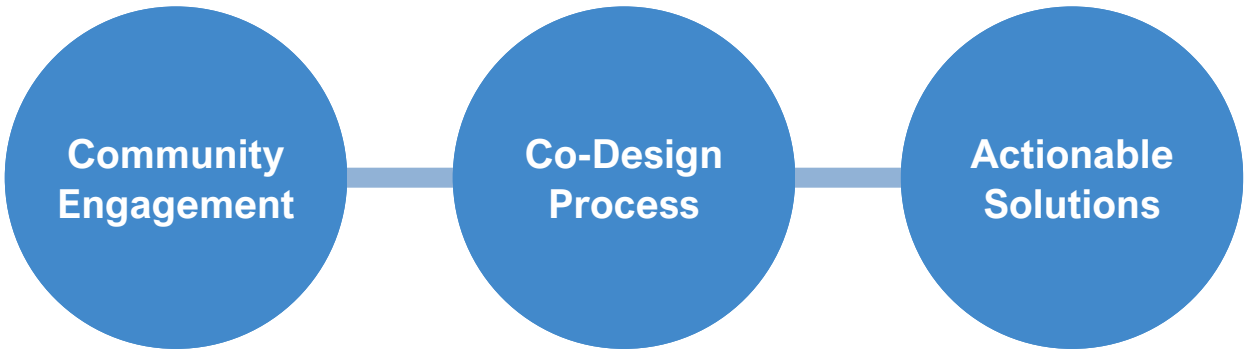
Hospital-at-home and virtual care initiatives are still in development, requiring ongoing collaboration and refinement. Moving forward, ensuring cultural safety, expanding community partnerships, and addressing digital access disparities will be crucial in achieving health equity for South Asian communities and beyond.

INTRODUCTION

One in five Fraser Health residents identify as South Asian (1). The term "South Asian" encompasses individuals with ethnic roots from the Indian subcontinent, including India, Pakistan, Sri Lanka, Nepal, Bangladesh, Maldives, and Bhutan (2). Research has shown that South Asians in Canada experience a higher prevalence of chronic conditions such as cardiovascular disease, diabetes, and hypertension compared to other ethnic groups (2). While genetic predisposition may play a role, studies suggest that barriers to culturally appropriate healthcare services contribute significantly to these health disparities, particularly in the prevention and management of chronic diseases (3,4).

Over the past two decades, virtual care has become an integral part of healthcare delivery, with its adoption increasing substantially following the COVID-19 pandemic (5). Virtual care offers the potential to improve healthcare accessibility by providing remote consultations, reducing travel burdens, and offering more flexible care options. With Fraser Health planning to launch a 'Virtual Hospital-at-Home'—a service where patients receive hospital-level acute care from their homes as an alternative to in-person hospitalization—there is a critical need to understand how South Asian communities engage with virtual health programs and whether these models effectively meet their needs.

The South Asians For Equitable (SAFE) Virtual Health project was developed to explore how Virtual Hospital-at-Home services can bridge gaps in healthcare access for South Asian patients. This report presents key findings for project stakeholders and Fraser Health research users, offering an overview of the Experience-Based Co-Design (EBCD) methodology, the primary barriers and facilitators identified in patient interviews, and the solutions co-developed during workshops with community members, clinicians, and project partners. These insights aim to inform future policy, service design, and implementation strategies to enhance virtual health adoption and accessibility within Fraser Health's diverse communities.

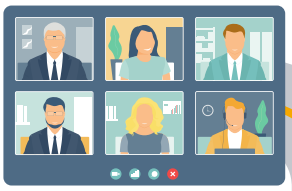


PROJECT PROCESS

1. Steering Committee Formed

FEB 2024

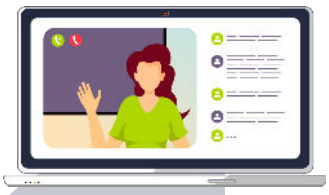
- Included researchers, academics, and healthcare leaders from Fraser Health, SAHI, PICS, BCIT, and UBC
- Monthly meetings to provide feedback and guide project direction



2. Participant Recruitment

MAY 2024

- 20 South Asian participants recruited from Fraser Health region
- Majority of participants recruited through existing PICS networks



3. Interviews

JUN-JUL 2024

- 20 semi-structured, one-on-one interviews over Microsoft Teams
- Aimed to understand participant experiences with virtual health

4. Analysis & Video Creation

AUG 2024

- Interviews were transcribed and analyzed to derive key themes
- A short video was created using interview excerpts to be presented during the Co-Design workshop event

5. Co-Design Workshop

SEPT 2024

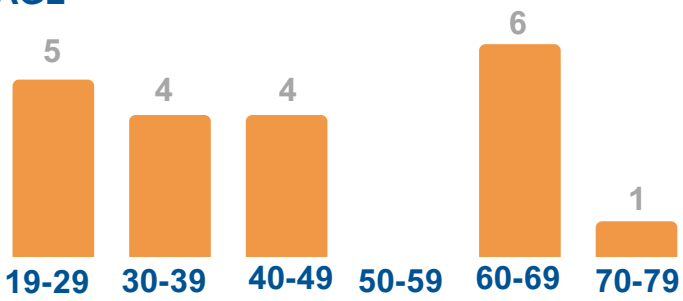
- Invited key users (participants, clinicians, project partners) and other health authorities' hospital-at-home programs
- Aimed to work together to develop solutions to barriers identified during the interviews

DEMOGRAPHICS

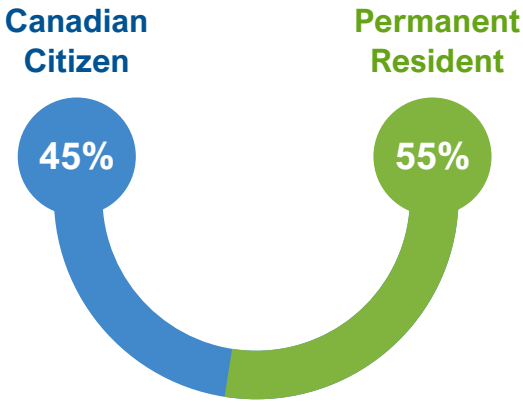
Of the 20 participants interviewed...

GENDER

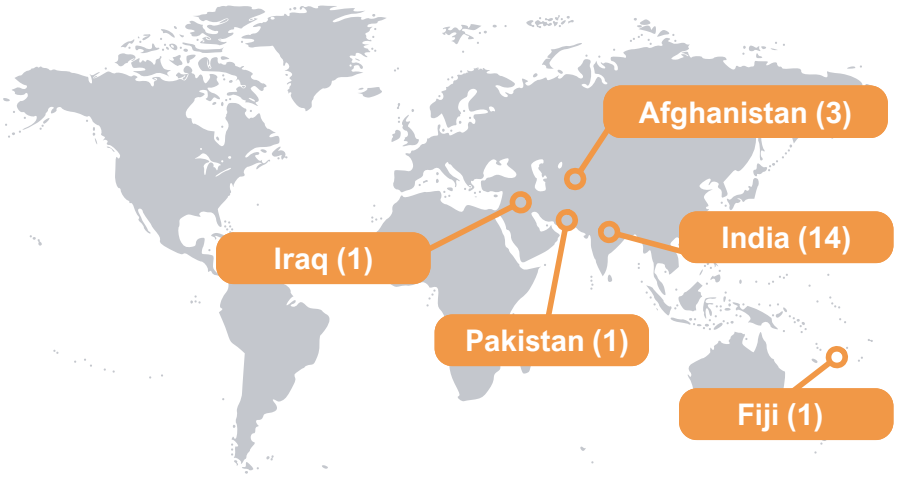
AGE



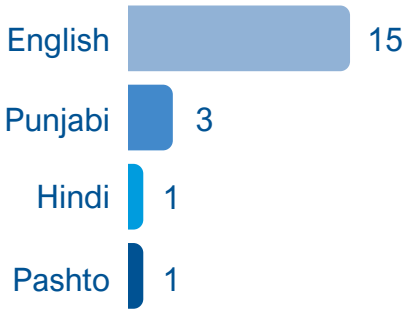
IMMIGRATION STATUS



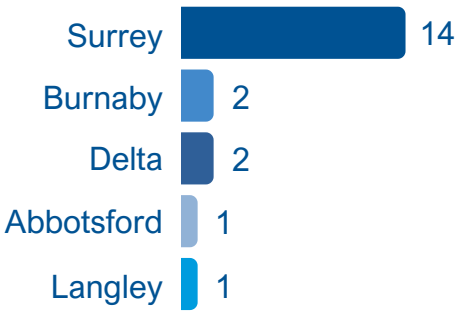
PLACE OF ORIGIN



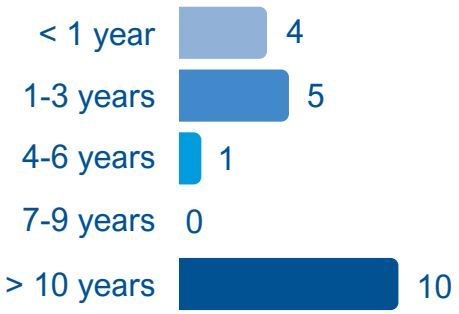
INTERVIEW LANGUAGE



COMMUNITY OF RESIDENCE



TIME LIVING IN COMMUNITY



KEY FINDINGS FROM INTERVIEWS

BARRIERS TO VIRTUAL CARE

LANGUAGE

- Participants valued interactions with providers who speak their native language or having interpreters readily available.
- Some found it easier to communicate with providers who share their cultural background.
- Participants wanted simple, two-way communication channels to quickly connect with their care teams when needed.

DIGITAL LITERACY

- Some participants, especially newcomers and older adults, were less familiar with virtual communication tools.
- Many relied on younger family members for guidance in using technology.

QUALITY OF CARE & TRUST

- Some preferred round-the-clock care available in bricks and mortar hospitals.
- Participants feared they could not effectively self-manage their care.

HOME ENVIRONMENTS

- Not all home environments were suitable for hospital-at-home, lacking accessibility features or in-home caregivers.
- Expectations to handle daily tasks at home could slow recovery for some.

"For the younger generation, [...] it's way easier to use technology compared to our grandparents [...] But then there's always someone, well, in my household, I can't speak for everyone, for them to set that up. So if it was for my grandma specifically, I know someone would be able to help her, but I'm just not sure if other households [would], for the older generation, [...] for seniors, how it would work?" ***- Study Participant***

"How my parents would react, [...] they would think, "I would receive better care at a hospital rather than me taking my medications on my own. What if I forget? What if something happens to me [...]?" They're kind of like hesitant about it like that." ***- Study Participant***

FACILITATORS TO VIRTUAL CARE

FAMILY SUPPORT

- Some believed they would recover faster at home with homemade meals and family support.
- Participants noted that the ease of visitation at home would reduce feelings of isolation often associated with hospital stays.

EASE OF ACCESS

- Participants valued the ability to receive care in the comfort of their own homes.
- Some highlighted the convenience of receiving care at home, creating time, energy, and cost savings from avoiding hospital commutes.

PAST POSITIVE EXPERIENCES

- Most participants have previously used some form of virtual healthcare and found it beneficial.

"They don't have to jeopardize their own, you know, faith or culture to go to hospital or be worried that they would have to to go to hospital, but they can still live their life the way they normally can while also receiving care and being treated." ***- Study Participant***

ATTITUDES TOWARDS VIRTUAL HOSPITAL-AT-HOME

OPENNESS

- Many were willing to try hospital-at-home if recommended by their doctor.
- Positive testimonials from others could increase willingness to participate.
- Some participants had a strong preference for staying at home, citing previous early discharge requests.

CONCERNS

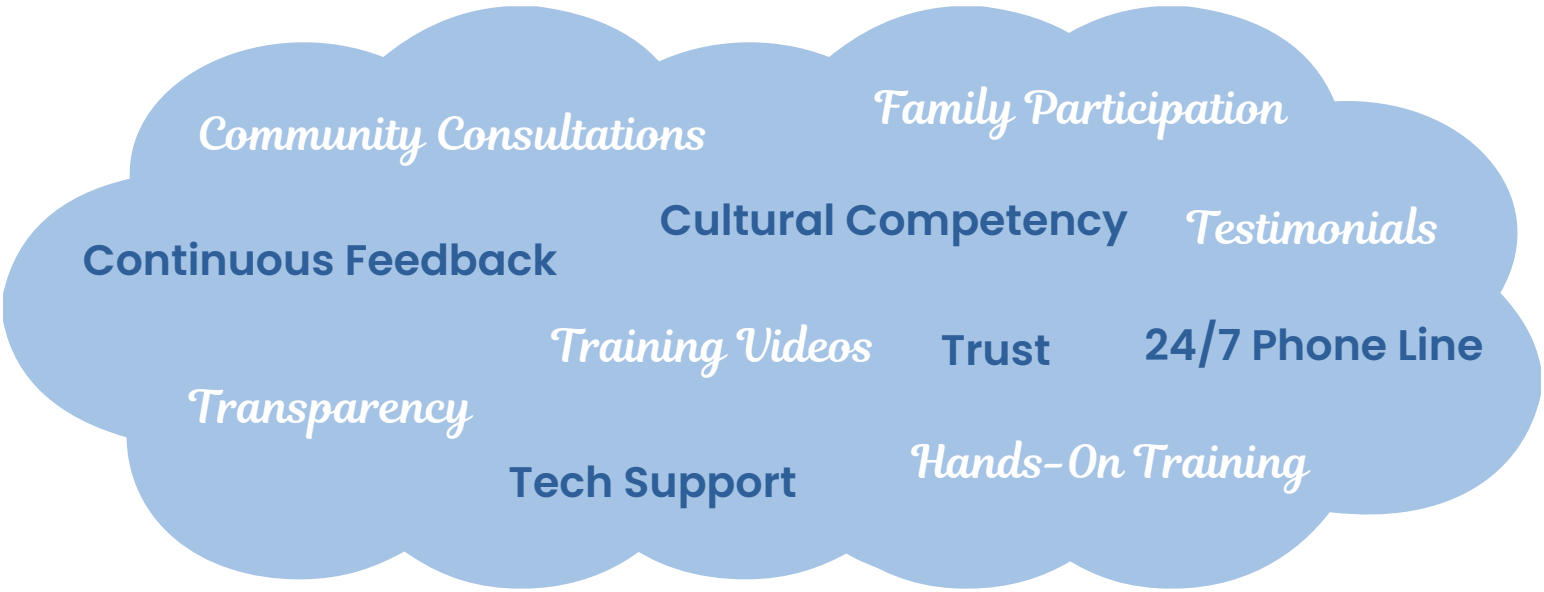
- Some participants believed in-person hospitalization offered higher quality care and were hesitant to try hospital-at-home.
- Participants raised concerns about accessibility to care in emergencies.
- One participant suggested that a streamlined process for returning to the hospital, bypassing standard emergency room triage, could help alleviate these concerns.

KEY CHANGE IDEAS FROM WORKSHOP

COMMUNITY-DRIVEN SOLUTIONS TO IDENTIFIED BARRIERS

- Workshop attendees collaboratively developed ideas to address barriers to virtual care

COMMON KEYWORDS



- **Body mapping tools** with translated glossaries, accessible on tablets, could improve communication for patients with language barriers.
- **Simulation-based learning** before discharge could better prepare patients for hospital-at-home.
- **Multilingual training manuals** with visual aids and plain language could improve patient understanding.

TRAINING NEEDS

- Participants suggested using media, community centers, cultural events, and places of worship to raise awareness about hospital-at-home.
- **Online queue systems** or digital “call bells” could enhance transparency in wait times and care escalation, increasing patient trust in digital healthcare.
- **Training modules** should be regularly updated to reflect current patient concerns.
- **Patient education campaigns** could help newcomers better navigate the Canadian healthcare system.

EDUCATION & AWARENESS

DISCUSSION

CULTURAL AND CONTEXTUAL RELEVANCE

South Asian communities in Canada face unique challenges in accessing healthcare, often influenced by factors such as financial constraints, multigenerational family dynamics, and varying levels of health literacy. Many South Asians rely on family members for healthcare navigation, particularly older adults who may have limited English proficiency or digital literacy. Additionally, newcomers may be unfamiliar with the Canadian healthcare system, making it difficult to access appropriate care, especially in virtual settings. Understanding these contextual factors is crucial for designing inclusive virtual healthcare solutions that address disparities and improve patient outcomes.

PRACTICAL APPLICATIONS & IMPACTS

To translate these insights into practice, healthcare providers, program planners, and policymakers can take actionable steps to enhance accessibility and cultural responsiveness in virtual care. Developing a checklist or toolkit can provide concrete guidance for patient-centered virtual care. Key recommendations include:

Language & Communication

- Ask patients about their preferred language for virtual care and offer professional interpreters or multilingual resources when possible.
- Use clear, simple language and avoid medical jargon to improve patient comprehension.

Patient Education & Digital Literacy

- Offer hybrid digital literacy training, combining online and in-person instruction to support older adults and newcomers.
- Provide multilingual instruction booklets with visual aids to help patients and caregivers better navigate virtual care.
- Familiarize patients with hospital-at-home procedures prior to discharge to proactively resolve any questions or concerns that may arise.

Care Coordination & Support Systems

- Implement two-way communication tools to ensure patients can easily reach their care teams.
- Recognize the role of family caregivers, especially younger members, and provide resources to support their involvement in care.
- Establish community partnerships with local organizations to improve outreach and build trust in virtual healthcare services.

LESSONS LEARNED

This research reinforced several key lessons about engaging communities in participatory research and healthcare co-design.

The Power of Patient Voices

- Direct quotes and video clips from participants were instrumental in capturing lived experiences and advocating for change.
- *If we were to do this again:* We would incorporate more storytelling elements and patient-led presentations to strengthen engagement with decision-makers.

Co-Designing with Diverse Stakeholders

- Bringing together patients, clinicians, and program designers enriched discussions but also required careful facilitation to address power imbalances and differing perspectives.
- *If we were to do this again:* We would include pre-meeting orientation sessions for community members to ensure they feel confident contributing to the discussions.

Flexibility & Adaptability

- Real-world constraints, such as scheduling interviews in multiple languages, project pauses, and shifts in priorities, required an adaptive research approach.
- *If we were to do this again:* We would build in longer project timelines and allocate resources for ongoing community engagement to bridge research to action.

CONCLUSION

Hospital-at-home offers a promising opportunity to improve healthcare accessibility and patient-centered care for diverse communities, including South Asians in Fraser Health. Ensuring virtual hospital services remain culturally responsive and equitable requires ongoing collaboration with patients, clinicians, and community stakeholders. Findings from the SAFE Virtual Health Project highlight the need to address language barriers, digital literacy, and trust in virtual care through multilingual support, community outreach, and culturally tailored patient education.

The future of virtual health depends on continuous adaptation to meet the needs of diverse populations. By integrating co-designed solutions and community perspectives, Fraser Health can promote greater health equity, ensuring all patients, regardless of cultural or linguistic background, have access to high-quality, patient-centered virtual care. The insights gained from this initiative will inform hospital-at-home development while contributing to broader shifts toward inclusive, technology-enabled healthcare models that empowers patients and reduces disparities.

ACKNOWLEDGEMENTS

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REFERENCES

1. *Statistics Canada. Census profile, 2021 Census of Population [Internet]. Ottawa: Statistics Canada; 2023 Feb 1 [cited 2024 Sep 23]. Available from: https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E*
2. *Fraser Health. South Asian health report [Internet]. Fraser Health; 2015 [cited 2024 Sep 23]. Available from: https://www.fraserhealth.ca/-/media/Project/FraserHealth/FraserHealth/Health-Topics/South-Asian-Health/201606_South_Asian_Health_Report.pdf?rev=8df6bc72aca64ecb8e4bd94cfc95df9e*
3. *Palaniappan L, Garg A, Enas E, Lewis H, Bari S, Gulati M, et al. South Asian Cardiovascular Disease & Cancer Risk: Genetics & Pathophysiology. J Community Health. 2018 Dec;43(6):1100–14.*
4. *van Draanen J, Shafique A, Farissi A, Wickramanayake D, Kuttaiya S, Oza S, et al. How to Offer Culturally Relevant Type 2 Diabetes Screening: Lessons Learned from the South Asian Diabetes Prevention Program. Can J Diabetes. 2014 Oct 1;38(5):329–33.*
5. *Hincapié MA, Gallego JC, Gempeler A, Piñeros JA, Nasner D, Escobar MF. Implementation and usefulness of telemedicine during the COVID-19 pandemic: a scoping review. J Prim Care Community Health. 2020;11:2150132720980612.*
6. *Point of Care Foundation. Experience-based co-design [Internet]. Point of Care Foundation; n.d. [cited 2024 Sep 23]. Available from: https://www.pointofcarefoundation.org.uk/resource/experience-based-co-design-ebcd-toolkit*