IMPACT EVALUATION REPORT

2021-2022

YOU MATTER
Pathways to Care for STBBIs

TEST LINK CALL PROJECT

Supporting connection to hepatitis C virus care among people who experience criminalization in British Columbia, Canada

Acknowledgements

This report was produced by the BC Centre for Disease Control and made possible with funding from Gilead Sciences Inc. and AbbVie Corporation via the Provincial Health Services Authority and BCCDC Foundation for Public Health. The authors would like to thank all the organisations who support or participate in Test Link Call Project, particularly Unlocking the Gates Services Society, BC Mental Health and Substance Use Services, and BC Hepatitis Network. We are grateful to infrastructure support from the School of Population and Public Health at the University of British Columbia, as well as the You Matter Project. We also wish to acknowledge all people in the land colonially known as Canada who have lived experience of hepatitis C infection and who are represented in the statistics, figures, and quotes in this report.

Land Acknowledgement

We are grateful to all the First Nations who have cared for and nurtured the lands and waters around us for all time, including the xʷməθkʷəy̓əm (Musqueam), Sḵwx̱wú7mesh Úxwumixw (Squamish Nation), səlilwətaɬ (Tsleil-Waututh), and S'ólh Téméxw (Stó:lō) Nations, on whose unceded and ancestral territory our offices are located and where many of us work and live.

Prepared by

Nicola Gale, Amrit Tiwana, and Sofia R. Bartlett at BC Centre for Disease Control (BCCDC).

Recommended citation

Gale, N., Tiwana, A., & Bartlett, S.R (September 2023). Test Link Call Project Impact Evaluation Report 2021-2022. Vancouver, BC. BC Centre for Disease Control (BCCDC). Available at: www.stbbipathways.ca.

ISBN 978-1-7781841-8-5

BCCDC Foundation for Public Health

Unlocking the Gates Services Society

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BC Mental Health & Substance Use Services
Provincial Health Services Authority

BC Centre for Disease Control
Provincial Health Services Authority

The University of British Columbia

You Matter
Pathways to Care for STBBIs

A message from the founder of TLC project

Sofia Bartlett PhD

Senior Scientist | BCCDC

Adjunct Professor | SPPH, UBC

*"Health services are impossible to access without a phone. **Health is a human right**, so shouldn't owning a cell phone be one too?"*

Sofia Bartlett

I had the idea to create Test Link Call (TLC) Project after healthcare providers working in BC Provincial Correctional Centres told me about how difficult it was for people living with hepatitis C infection to connect to treatment after they are released from custody. These clients almost never have a cell phone or stable contact number, which renders it next to impossible to make healthcare appointments for them in the community. One day I thought "**what if we gave everyone leaving custody who is living with hepatitis C a cell phone and pay their phone bill for six months?**". Initially, the healthcare providers I proposed this to were skeptical, but Peer Health Mentors I spoke to were enormously enthusiastic about it.

From that spark, TLC was born, and we've now gone on to demonstrate the success of this model, and the significant positive impact it can have, both for individuals and for the health of our communities overall. I'm optimistic that one day, we won't need these types of quality improvement projects, but for now, they are essential. So I want to express my heartfelt thanks to everyone who has played a part in making TLC possible, especially the clients who trusted us and took the leap to enroll in the program.

With hope, Sofia

A note about this report

There are quotes in speech bubbles, like the ones on this page, throughout this report.

These are the words of the clients (‘**TLC Client**’), the Peer Health Mentors who supported clients (‘**Peer Navigator**’), and the health and social service providers who supported clients (‘**Service Provider**’) that were part of TLC during the first 15 months this project was running (October 1st 2021 - December 31st 2022).

Quotes were obtained in semi-structured interviews conducted to monitor and evaluate TLC project. All interviewees gave prior and informed consent for interviews to be recorded, transcribed, and used for the purposes of demonstrating the impact of TLC project.

We shared quotes from Clients, Peer Navigators, and Service Providers involved in TLC throughout this report to center them and their voices, because they are the **real experts** on what works for them.

Being an addict and just having that mentality for so many years - you just go with the "I don't care" attitude for so long that you have to change it, otherwise nothing is gonna change. **Having the phone and being able to contact [the peer navigator], and text her and tell her what time and when, has been a godsend.**

-TLC Client

"I guess the only thing that has changed is the fact that we now have cell phones that we can give to our patients who are anywhere sort of on the cascaded care for Hepatitis C, which is great."

-Service Provider

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Executive Summary

The Test, Link, Call (TLC) project is a continuous quality improvement project that aims to support access to hepatitis C virus (HCV) care for people who experience criminalization in British Columbia (BC).

TLC is a joint initiative between the BC Centre for Disease Control (BCCDC), BC Mental Health & Substance Use Services (BCMHSUS), BC Hepatitis Network, and Unlocking the Gates (UTG) Services Society. **This unique partnership brings together government agencies, HCV care providers, prison health services, and peer organizations.**

Expanding access to HCV care through the TLC project was intended to support long-term goals of reducing the prevalence of HCV infections for priority populations and contribute to **global and national targets to achieve elimination of HCV as a public**[1] **health threat by the year 2030**.

This report outlines the rationale for TLC project, the change ideas implemented, and then details the monitoring and evaluation of outcomes that were achieved during the first 15 months it was running (October 1st 2021 - December 31st 2022).

Photo by Rennie Brown, PHSA Communications

Overall evaluation finding:

The TLC project improved health equity and the overall quality of HCV care in BC. Providing priority populations with digital connectivity and access to peer support **decreases gaps in access to HCV care** and **supports continuity of care** as people move between corrections, acute care, housing services, and primary care providers.

About Hepatitis C Virus (HCV)

Hepatitis C virus (HCV) is a type of sexually transmitted and blood-borne infection (STBBI) that disproportionately affects the following groups:[2]

- People experiencing incarceration
- People who use drugs (PWUD)
- People experiencing houselessness or unstable housing

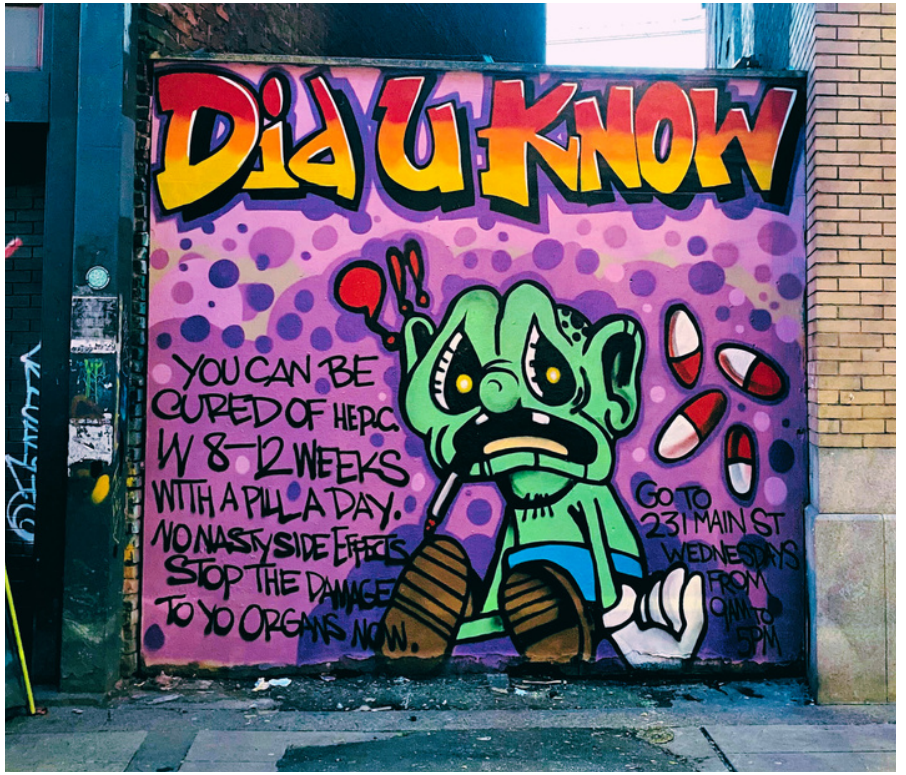


Photo by Rennie Brown, PHSA Communications

HCV infections are preventable and curable.

If left untreated, chronic HCV infections can result in significant liver-related morbidity and mortality, including severe fibrosis, cirrhosis, hepatocellular carcinoma (HCC), liver transplant, and even death. HCV is the most burdensome infectious disease in Canada and the leading cause of liver disease and transplantation.[3]

Direct Acting Antiviral (DAA) medications can cure chronic HCV infections within 8-12 weeks and have cure rates >95%

About Test, Link, Call (TLC) Project

Test, Link, Call (TLC) project is a Continuous Quality Improvement (CQI) project that was launched in British Columbia (BC) on October 1st, 2021. It aims to support access to hepatitis C virus (HCV) care for people who experience criminalization through implementing change ideas focused on addressing identified key drivers of barriers to care (see Appendix 1. for QI Driver Diagram) .

INGREDIENTS	METHOD
Digital Connectivity 	Participants are provided with a **free cellphone and a 6-month unlimited talk and text plan**. Phones are set up with apps and websites designed to support participants, such as overdose prevention apps, pill reminders, and mental wellness apps.
Connection to Care 	**Supportive and non-judgemental care** that addresses both structural and interpersonal barriers to access, supports social inclusion, and acknowledges outcomes “beyond cure” help to engage priority populations in hepatitis C care and treatment.
Peer Support 	TLC participants are offered **connection to Peer Health Mentors (PHMs)** from Unlocking the Gates. PHMs meet clients on the day of their release from custody or in the community to support with accessing health and social care.
Hepatitis C Cure 	**Engagement in hepatitis C care and treatment** has benefits for long-term liver health including reduced risks of severe scarring, cancer, transplant, and death. Benefits extend beyond liver health, including reduced drug-related harms and even all-cause mortality.[4]

Test, Link, Call (TLC) Project Oversight and Governance

We used the Provincial Health Services Authority (PHSA) Project Sorting Tool to differentiate if TLC was a research or non-research project.

This tool determined that the TLC Project does not constitute research, therefore did not require Research Ethics Board review or approval.

Instead, the project charter, materials, and methods (including project administration, data sharing, monitoring, and evaluation procedures) were reviewed by the BC Mental Health and Substance Use Services Quality Committee, PHSA Risk Services, PHSA Legal Services, and the PHSA Office of Virtual Health to ensure all relevant legislation and policies were adhered to.

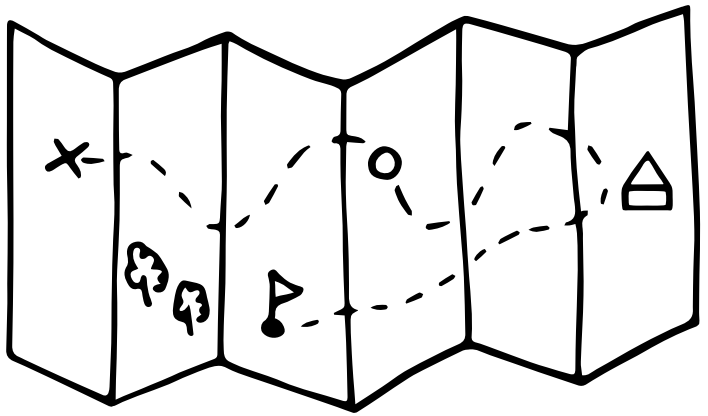
Once project materials and procedures were approved and in place, TLC was able to begin accepting enrollments from clients who were identified as eligible (see Appendix 2. TLC Client Eligibility Criteria) and consented to participate.

As TLC is a CQI project, 'change ideas' are tested and implemented at different times during the project, based on Client, Provider, and Peer Navigator feedback.

How TLC Works

Care providers (in Corrections or in community- 'the TLC Network'), and Peer Health Mentors (PHMs) from Unlocking the Gates can identify eligible clients & offer participation in TLC. Clients who choose to participate sign consent for release of information and participation, which is then faxed/emailed to the TLC Project team. At this time, a phone is assigned to the client, and clinics are able to share client health info with PHMs.

PHMs meet client on day of release from custody to give them their new phone, and clients already in community can receive their phone from clinic or PHM. Clients enrolled receive 'standard of care' for HCV treatment from health service they are connected to; TLC provides additional supports to enable services to 'reach the hardly reached' & maintain engagement with clients



Partner Organization Spotlights

Unlocking the Gates Services Society

Unlocking the Gates (UTG) Services Society is a peer-led, non-profit organization that supports the reintegration of individuals being released from correctional facilities in BC. UTG connects with individuals prior to their release and provides peer support during the transition from prison back into the community.

UTG has been a core part of TLC from inception, with Executive Director Mo Korchinski and Manager Pam Young providing input in to the project design and objectives. UTG staff are able to connect with clients who are living with HCV who are incarcerated prior to release, and help them make plans that will support successful re-integration in to the community as well as continuity of HCV care or connection to care upon release.

This partnership is crucial to the success of TLC in supporting people who experience criminalization, as many people being released from prison have immediate needs the day they are released including food, shelter, medication, and clothing. Without immediate supports, individuals released from prison often go right back to their old lives, involving crime and substance use, and HCV falls to the back of the list of priorities.

Photo supplied by Unlocking the Gates Services Society

Partner Organization Spotlights cont.

BC Mental Health & Substance Use Services

BC Mental Health and Substance Use Services (BCMHSUS), part of the Provincial Health Services Authority (PHSA), provides specialized mental health and substance use services to people with severe and complex needs in BC. This includes inpatient and outpatient services for adults with complex mental health and substance use issues, forensic psychiatric services, as well as health, mental health and substance use services for people who are incarcerated in provincial correctional facilities.

BCMHSUS Quality Committee reviewed the TLC quality improvement project charter and provided oversight to ensure that client privacy and confidentiality would be upheld upon implementation of TLC project. BCMHSUS engages in many continuous quality improvement projects to ensure clients receive the highest standard of care possible.

BC Hepatitis Network

The BC Hepatitis Network is a registered charity working to prevent new viral hepatitis infections while providing education and support to all affected by hepatitis in BC. BC Hepatitis Network provides hepatitis education, peer-to-peer support, peer mentorship and training, hepatitis C screening & linking to care events, connection to services, and advocacy. BC Hepatitis Network staff provided training and support to UTG staff when they first began providing HCV treatment navigation and peer support. BC Hepatitis Network also provided program administrative support and knowledge translation/promotion support to TLC.

The mission of the BC Hepatitis Network is to collaborate with and support community partners, health care providers, researchers and people with lived and living experience to reduce the impacts of viral hepatitis and eliminate hepatitis C in BC, and they continue to be a crucial partner in the success of TLC.

BC MENTAL HEALTH
& SUBSTANCE USE SERVICES
Provincial Health Services Authority

bchepatitis network

TLC Project Rationale

Improving HCV Care Is A Matter of Health Equity

Populations at the highest risk of acquiring HCV are also the least likely to access care and curative treatment. [2]

Overall, the health system is **not meeting the needs of high-risk populations** in British Columbia, with the largest **gaps in care** experienced by people who use drugs, people with a history of incarceration, and people experiencing homelessness or unstable housing.

Barriers to HCV diagnosis and treatment among marginalized populations are multi-factorial. Personal and social barriers such as perceived and realized stigma from others in their community, managing multiple health and social priorities, as well as clinician perceptions can all impact the likelihood of a client engaging in HCV testing and care.

Creating supportive and non-judgemental care that addresses both structural and interpersonal barriers to care and acknowledges outcomes "beyond cure" are important for engaging priority populations in HCV care. [8]

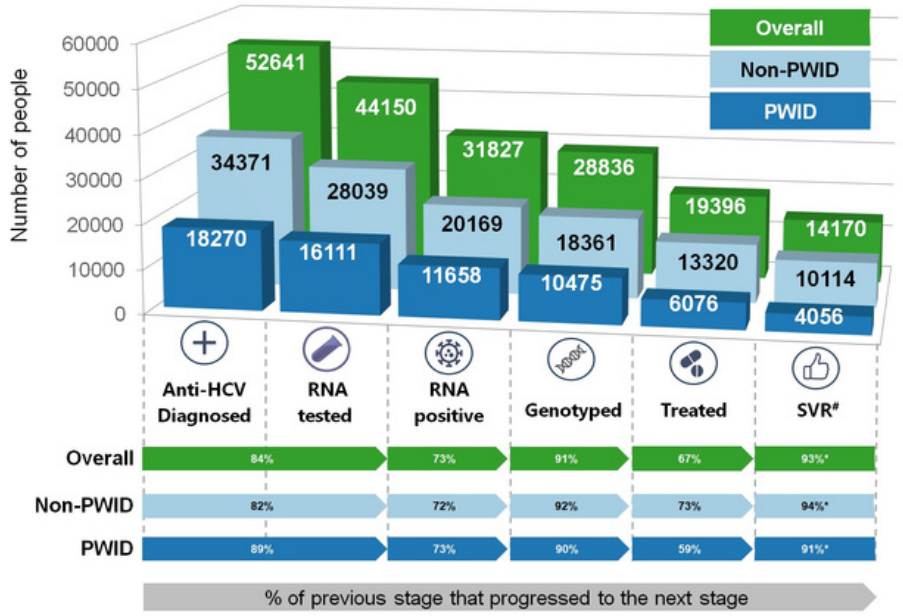
The TLC project has the potential to improve health equity and the overall quality of HCV care in British Columbia, particularly as the project connects sectors of the health and social care systems that are traditionally disconnected. Program activities are predicted to decrease gaps in continuity of care as people move between corrections facilities, acute care, housing services, and primary care providers for example.

Often people with lived experience of substance use are hesitant with doctors and medical professionals. There's still a lot of stigma around getting medical care, especially if someone's actively using. **It can be really stigmatizing to go to the doctor** and they maybe feel a bit of fear, of who they're going to see and what they're going to be like.
-Peer Navigator

Provincial Gaps in HCV Care

The **largest gap** in the provincial cascade of care is between the stages of **diagnosis to starting curative HCV treatment:**[5]

HCV care cascade in British Columbia as of 2019, stratified by history of injecting drug use (IDU)



66%*

of people with **no history of IDU** started curative treatment

while only

52%*

of people with **current or previous IDU** started curative treatment

58%

As of 2020, ~58**%** of all people living in BC diagnosed with chronic HCV infection had accessed curative treatment and were cured.[6]

80%

To reach the WHO global targets for HCV elimination by 2030, **80%** of all people with chronic HCV need to be connected to HCV care and cured.[7]

*Percentage of people treated among all those confirmed as HCV RNA positive

Prison Health is Public Health

HCV is **20x more prevalent** among people who are incarcerated than in the overall population in BC. However, **only 41% of people who tested HCV RNA positive received curative treatment** while in custody in 2021.[9]

No one should ever have to wait to be incarcerated to be able to access their right to healthcare. However, for many people, time in a correctional facility may present an opportunity to access services including prevention, screening, and treatment. Despite this opportunity, with PWAI often being considered to be a 'captive audience', the reality is that there is considerable and frequent movement in and out of provincial correctional facilities.

This **results in gaps in continuity of care for PWAI**, making linkage to HCV care and treatment during and shortly after incarceration very challenging. **Connecting to community HCV care during the release period** is an important time to engage with clients and to support access to primary care, peer support, and other needed social supports.[10, 11]

Compared to the prevalence of HCV within the overall population in BC (~1.04%):[12]

HCV prevalence among populations experiencing houselessness or unstable housing is **13%** [13]

HCV prevalence among people admitted to BC Provincial Correctional Centres is **22%**[9]

Photo supplied by Unlocking the Gates Services Society

Digital Inclusion as a Social Determinant of Health

Access to the internet, connectivity, and digital literacy have all been called **"super social determinants of health"** that intersect with all other social determinants of health.[14]

Mobile phone-based interventions and text messaging may be important tools to improve connection to HCV care during the release period and to help improve health equity for populations that are at a disadvantage in a healthcare system that has become increasingly focused on virtual care and online services.[15]

Particularly in the wake of the COVID-19 pandemic, mobile technology has the potential to improve efficiency and access to care. However, it also has the potential to increase health disparities; the World Health Organization has raised a warning signal that increasing reliance on digital technology may have actually inadvertently widened health inequities for vulnerable groups around the world.[14,15,16]

While still a newer area of study, many groups are calling for more acknowledgement of the **importance of tech equity,** and recommend that healthcare systems move to adopt digital inclusion-informed strategies that recognize these potential disparities in access to technology and actively support patients in understanding and using technology.

I think having a phone is just how you participate in this century... I know how hard it is for me to stay up to date with technology. When you're maybe 10 years behind or you haven't really learned to use a touch phone, it's a pretty big deal. How do you access anything? You have no email ... how do you even get yourself out of your situation? Because everything you would need to do to find a place, it's online. **The phone is pretty much essential these days.**

-Service Provider

Oh, it's a huge difference - going from not having any way to communicate. Because as you know, there are no pay phones anymore. People are very unlikely to loan their phone out to somebody to use for a brief moment.
So I think having the phone gives them a sense of belonging and a sense of pride.
-Peer Navigator

It's really important to build trust.
Going from my own experience when I was incarcerated, I just became very distrustful of people because the system I felt failed me quite often. So I put a wall up. Seeing my clients is a gentle reminder that **I've been where they've been. I understand.** I know, you know. So I build a rapport with them first, and naturally we become bonded.
-Peer Navigator

Peer-Based Care

- Improves client understanding of HCV;
- Increases healthcare provider trust in clients to continue with treatment plans;
- Supports clients ability to attend appointments and adhere to medications; and
- Supports continuity of care as clients transition between providers.

Considering the many layers of barriers to accessing care, many STBBI programs have started to shift to incorporating peer-based outreach initiatives. Peers with lived or living experience of HCV, houselessness, substance use, and/or incarceration are important members of the HCV care team; they can assist clients in navigating complex health systems, access needed social supports, give voice to client concerns, and help to build trust with healthcare providers.[17,18]

Project Evaluation Framework

In order to determine if the TLC Project was effective at meeting it's goals and objectives ('**did it work?**'), and how or why the TLC Project is effective ('**how did it work?**'), a **monitoring and evaluation plan** was created before the project was launched.

This plan set out the data that would be collected to monitor the progress of the project, as well as a framework for the evaluation, and evaluation questions.

We conducted a mixed methods evaluation using a transformative paradigm. The transformative mixed methods approach was chosen as this centers the experiences of marginalized communities, includes analysis of power differentials that have led to marginalization, and links findings to actions intended to mitigate disparities.

We employed both qualitative and quantitative methods **concurrently**, with data collection occurring simultaneously in parallel**.**

Results from the qualitative and quantitative analyses were then merged and integrated to compare, interrelate, triangulate, and validate the results of each method.

The questions we set out to answer in this evaluation were:

1. What impact does providing a phone +/- peer support have with respect to HCV treatment 'access' among people who experience criminalization?
2. How does providing a phone +/- peer support impact HCV treatment 'access' among people who experience criminalization?
3. Should this intervention be used to reduce barriers to care for HIV, substance use, or other health issues?

Throughout all these questions, we sought to answer whether TLC Project increased access or reduced barriers to access, as examined through the 'five A's of access', social determinants of health, social justice framework, and utilizing an intersectional lens.

More detailed description of the monitoring & evaluation methodology can be found in **Appendix 4. Evaluation Methodology**.

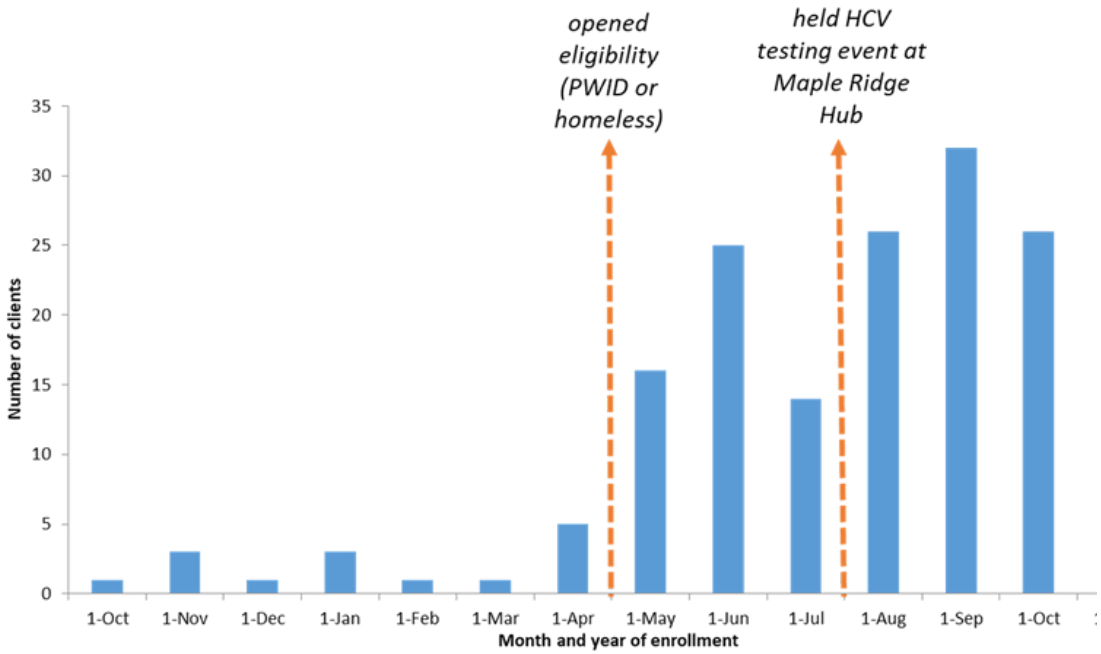
Client demographics & enrollment data

151 clients enrolled from 1st October 2021 - 1st October 2022

58.3% (88/151) enrolled by peers

41.7% (63/151) enrolled by clinics

49.0% (74/151) of clients had no fixed address or were unstably housed



38.4% (58/151) of clients were taking Opioid Agonist Therapy (OAT)

TLC network includes **46 organizations** from all 6 health authorities

Qualitative Analysis Results

Outcomes

Eighteen semi-structured interviews were conducted with clients (n=10); PHMs (n=3); and care providers (n=5).

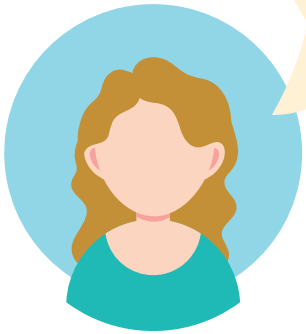
All stakeholders **described TLC as effective at engaging people** with a history of criminalization in HCV care.

All stakeholders agreed that TLC is beneficial for supporting people who experience criminalization to access HCV care and treatment.

Stakeholders described **several benefits of TLC** for participants, and five main themes emerged.

Main Conclusion

The findings indicate that the TLC program is a valuable asset in addressing the healthcare needs of individuals who have experienced criminalization and are affected by HCV infection. Its ability to engage, support, and provide access to care aligns with the broader goal of improving public health outcomes and reducing disparities among high-risk populations.



That's different for me because **any other time I would make an appointment and never show up**. Having the [Peer Navigator's name] and the phone, I can keep accountable.
-TLC Client

Qualitative Analysis Results cont.

Theme 1: Approachability – the ability to perceive.

Approachability, or the ease of engaging with healthcare providers and organizations, is crucial for building trust among individuals who may experience criminalization and face barriers to healthcare access. In our interviews, phone support and peer assistance were highlighted as trust-building tools. A TLC client praised the provision of devices, citing it as a symbol of genuine care and a beacon of hope due to the effectiveness of HCV treatment. Such support not only eases communication but also inspires commitment to treatment, emphasizing the role of approachability in bridging barriers and enhancing overall well-being for this demographic.

> I think that's big what you're doing by offering that device. Because **it shows that, a) you care and b) there's a treatment out there that is close to 100% effective**. It gives people inspiration to follow through with it.
> -TLC Client

Creating a welcoming and approachable healthcare environment plays a crucial role in establishing trust and confidence among patients, ultimately resulting in improved health outcomes. A meta-analysis revealed a 19% increase in patient treatment adherence when regular communication with clinicians was prioritized.[20] Many healthcare providers and PHMs have adopted strategies that revolve around consistent phone calls to check in with their clients. This approach conveys a message of accessibility and approachability, which can significantly boost a client's trust and willingness to actively engage in the treatment process. For example, one clinician explained:

> Every Thursday we contact either everybody's pharmacy or every patient and make sure that they're taking their hep C treatment and then we case manage all the issues that can come from people going on and off their OAT (opioid agonist therapy) or people going on and off hep C treatment ... **the phones have made it easier** because we're able to call them and actually talk to the patient on the phone versus calling the pharmacy.
> -Service Provider

Qualitative Analysis Results cont.

Theme 2: Acceptability – the ability to seek.

Providing culturally and socially appropriate healthcare services can enhance patient satisfaction, thereby improving adherence to HCV treatment. "Acceptability" in healthcare means aligning services with patients' cultural and social norms, respecting their beliefs, values, and preferences. [19] This concept is crucial when catering to marginalized populations who may lack awareness of HCV care and treatment options. Participants noted that the phone and peer support played a significant role in enhancing their understanding of HCV and their willingness to adhere to treatment. For instance, one client expressed:

> It makes me feel good to have the phone and have these people that are helping me and getting on certain medicines to improve my health with Hep C. **This medicine stuff coming up, that's gonna be a big thing. That's gonna be changing my life around totally and I'm getting prepared for all of that.**
> -TLC Client

Enhancing acceptability in healthcare empowers patients to comfortably voice their needs and concerns with clinicians and PHMs, leading to improved adherence and acceptability of treatments. A review highlighted that peer-delivered services positively impact patients by fostering hope, empowerment, and an improved quality of life.[21] All PHMs emphasized how their personal experiences played a role in connecting with clients to encourage treatment adherence and service utilization. For example, one PHM expressed:

> I love it, because you have that shared lived experience kind of connection with people on like a deeper level than maybe just your average person. **I like being able to share my experience and being able to share what worked for me over the years.**
> -Peer Navigator

Qualitative Analysis Results cont.

Theme 3: Availability and Accommodation – the ability to reach.

Availability and accommodation in healthcare encompass the physical presence of health resources and the ease of timely access.[19] These factors are necessary for treatment adherence, directly impacting a patient's ability to access healthcare services and follow prescribed treatments. Consistent with existing research, we found that access to healthcare is intertwined with transportation,[22] knowledge about available services,[23] housing stability, and the issue of stigma.[24] For instance, multiple clients expressed how transportation posed a significant barrier to their access to HCV treatment and care. One client shared:

> The availability to be able to go to and keep appointments. At the time I lived in these different places that it was hard for me to get around because it was expensive. And I didn't have a vehicle at that time. So **it was hard for me to get around, and my health wasn't great.**
> -TLC Client

Photo supplied by Sofia Bartlett

Availability and accommodation are crucial in ensuring equitable access to healthcare services for all clients. Overcoming these barriers is possible with support from clinicians and PHMs who can offer transportation assistance and facilitate access to healthcare services. One PHM articulated this approach, stating:

> Yeah, I give the clients rides to their doctor's appointments or anything pertaining to the treatment. I also give them rides to see other doctors like their general practitioner or any hospital visits and I also take them to any legal obligations as well.
> -Peer Navigator

Qualitative Analysis Results cont.

Theme 4: Affordability – the ability to pay.

Affordability, in the context of healthcare, denotes an individual's capacity to access necessary medical services without incurring financial strain or hardship.[19] Promoting health equity hinges on affordability, as those unable to bear the costs of HCV care and treatment are at a higher risk of being disproportionately impacted by the disease.[25] All clients highlighted the benefits of having a phone and a connection to a PHM, which extended beyond healthcare. These benefits included increased social connection, self-worth, and an enhanced sense of safety. One participant expressed:

> ...having a phone, it **makes you feel a heck of a lot safer** too!
> -TLC Client

Another client shared:

> **It definitely opened up a lot more opportunities.** Not having to pay a phone bill. It got me on track a little bit.
> -TLC Client

Through collaborative efforts with clients, both clinicians and PHMs ensure that HCV care and treatment remain accessible and affordable, regardless of an individual's financial status. These healthcare professionals actively discuss the significance of HCV treatment, emphasizing the potential long-term savings associated with curing the disease. These benefits encompass reduced healthcare costs and enhanced productivity. Additionally, clinicians and PHMs express empathy towards clients facing financial constraints, particularly in acquiring a phone. One PHM encapsulated this sentiment, stating:

> I'm just happy to be involved. It's kind of cool to give the guys a phone. Some of these guys don't have a whole lot to begin with, right? It's kind of cool to say here, and they're like, whoa... **It's a positive thing for sure.**
> -Peer Navigator

This collective effort underscores the commitment to ensuring that all individuals, regardless of their financial situation, have the opportunity to access essential HCV care and treatment.

Qualitative Analysis Results cont.

Theme 5: Appropriateness – the ability to engage.

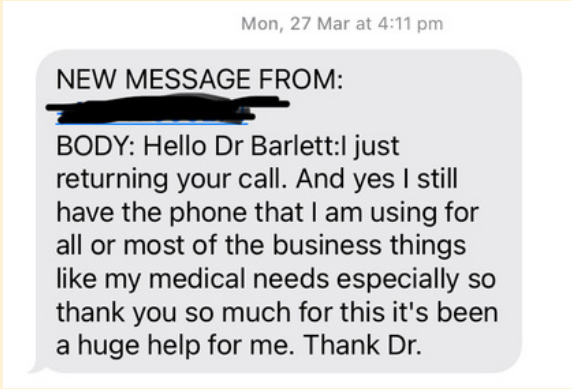
Ensuring the appropriateness of HCV care and treatment involves adopting a patient-centered approach that recognizes and addresses the unique needs and circumstances of each participant.[19] Collaboratively working with clients to overcome barriers to engagement is key for improving outcomes among individuals affected by criminalization and living with HCV.

We sought feedback from participants regarding their experience with TLC, and several highlighted the significant benefits of having a phone in their lives. One client expressed:

> "I think by you initiating a phone **it really helps people give them initiative**, right? And it's not just a phone, it's a high-quality phone too.
> -TLC Client

Clinicians and PHMs played a pivotal role in tailoring HCV care and treatment to the specific needs of each client. They actively collaborated with patients to create personalized care plans that took into account individual preferences and requirements, working towards the achievement of their health goals. This comprehensive approach often involved addressing concurrent health issues, such as HIV or addiction, which could significantly impact the outcomes of HCV treatment. For instance, one clinician expressed the importance of this approach, saying,

> "I think it would be great. **I have a few clients who have loved ones with HIV and are struggling right now with the lack of resources for them.**
> -Peer Navigator



Screenshot of text message sent by TLC client provided by Sofia Bartlett

Quantitative Analysis Results

Outcomes

Of those who were enrolled, **144 collected a cellphone.**

Peer-involved clients had **14.93 higher odds** (p = 0.042) of collecting a phone and being engaged in care.

81% (58/72) of eligible TLC participants **started curative HCV treatment.**

Compared to **52% of PWID** and **66% of non-PWID** from the 2019 BC provincial care cascade.[5]

Clinic-only involved clients had **6.128 higher odds** (p = 0.028) of completing bloodwork.

Collaboration between peers and clinics **improves engagement** and **progression** along the care cascade

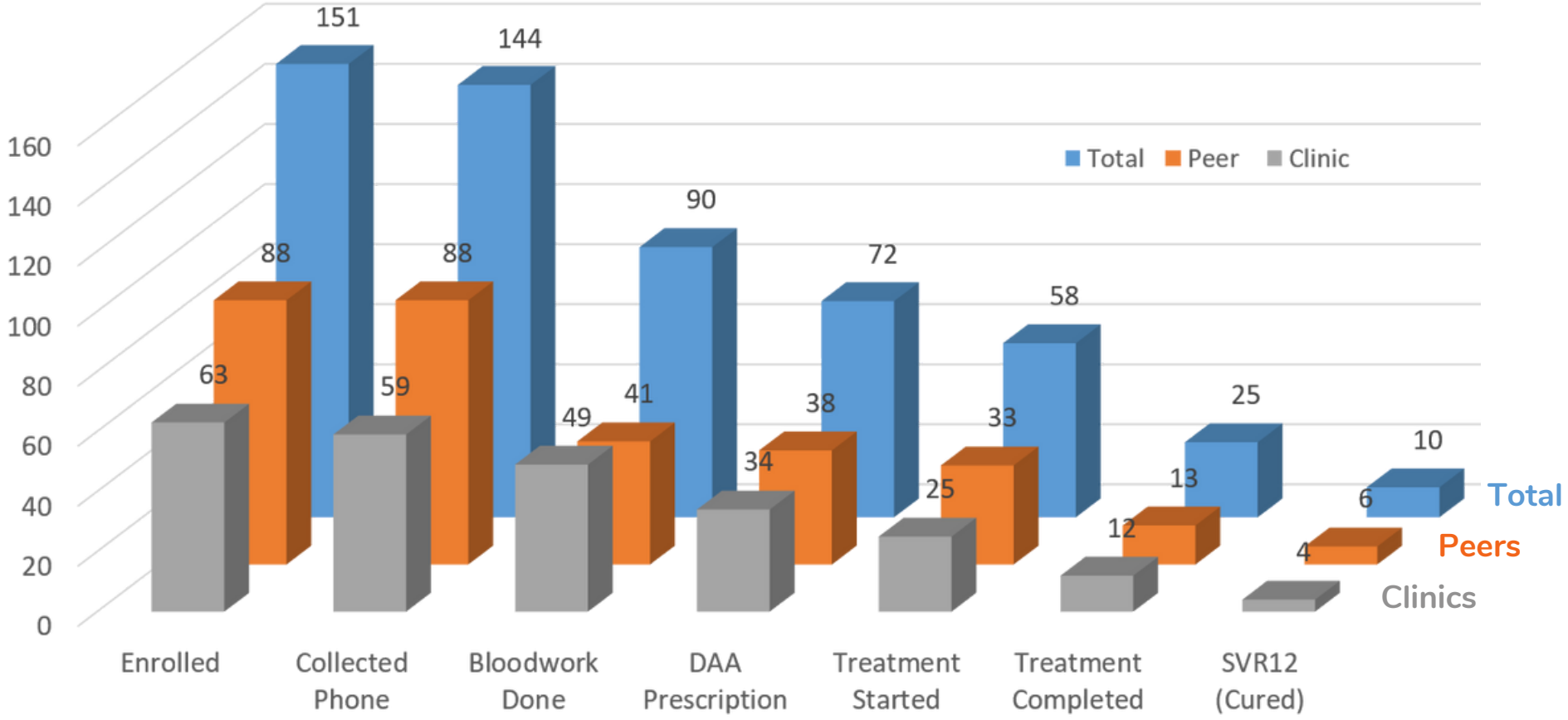
52% of eligible PWID from the provincial care cascade started curative HCV treatment.[5]

81% of eligible TLC participants started curative HCV treatment.

HCV treatment uptake is substantially higher among clients in TLC.

Quantitative Analysis Results cont.

TLC Program Care Cascade, October 1st 2021 to September 30th 2022



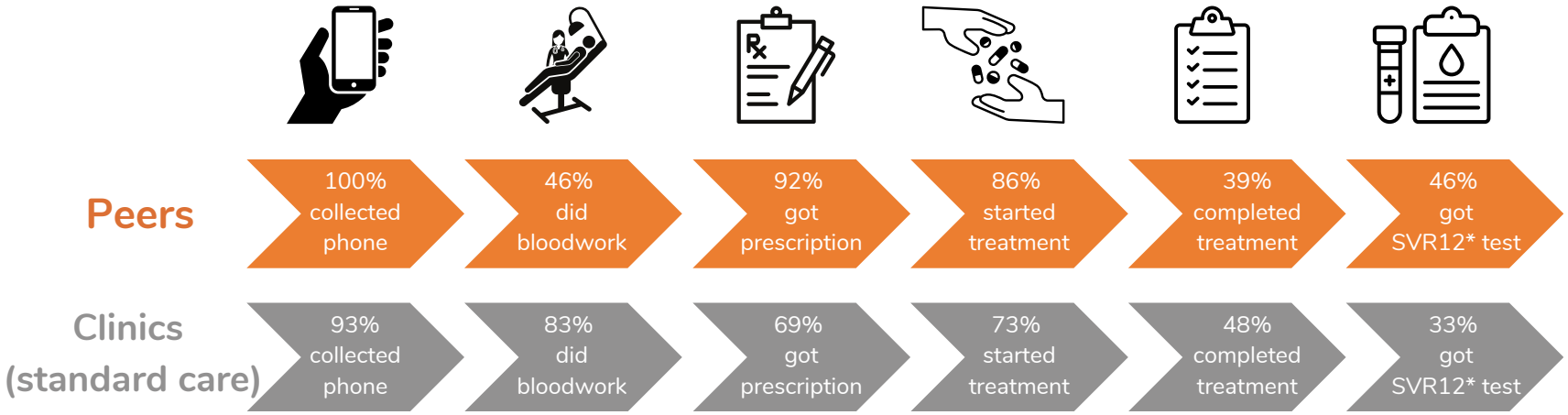
TLC Program Overall

- 95% collected phone
- 63% did bloodwork
- 80% got prescription
- 81% started treatment
- 43% completed treatment
- 40% got SVR12* test

*SVR12 = sustained virologic response (ie undetectable viral load, or viral cure) 12 weeks after finishing curative treatment

Quantitative Analysis Results cont.

TLC Program Care Cascade Discussion



Peer-involved clients had **14.93 higher odds** (p = 0.042) of collecting a phone and being engaged in care

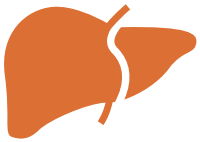
Clinic-only involved clients had **6.128 higher odds** (p = 0.028) of completing bloodwok

TLC client progression along the care cascade was compared for participants enrolled by peers versus those enrolled only by clinics (standard care). For the enrollment stage of the care cascade, 58.3% (88/151) of participants were enrolled by peers, compared to 41.7% (63/151) who were enrolled by clinics. At the “bloodwork done” stage of the cascade, 83.0% (49/59) of clinic-enrolled participants progressed from the previous stage, compared to 46.6% (41/88) of peer-involved participants. This highlights the importance and benefits of close collaboration between healthcare providers and peers for improving client engagement and progression along the care cascade.

*SVR12 = sustained virologic response (ie undetectable viral load, or viral cure) 12 weeks after finishing curative treatment

Cost-Benefit Analysis Results

Costs of untreated HCV and TLC program



liver transplants
= **$170,641** per person[26]

liver-related hospitalizations
= **$20,000** per person[27]

liver cancer
= **$94,419** per person[28]

TLC program costs
= ~**$1000** per person

TLC program cost savings and returns on investment

We estimate that about **30% of people with chronic HCV infection will develop cirrhosis** if they don't receive HCV treatment, and 10% of those with cirrhosis will develop either end-stage liver disease or cancer, requiring a liver transplant, which **equates to roughly 1 in every 100 people with chronic HCV.**[29]

Based on the costs of untreated HCV, numbers of expected liver-related sequela, and TLC program costs, we estimate that for every participant linked to HCV care through TLC:

HCV treatment uptake	60%	70%	80%
Cost saving per person	$1,703	$3,832	$5,961
Return on Investment per $1 invested	$1.70	$3.83	$5.96

Total Cost Savings = $425,818 - $1,490,364
for every 250 people supported through TLC to connect to HCV care, with 60-80% treatment uptake

Interpretation

Impact

The findings of this mixed-methods program evaluation demonstrate that **HCV treatment uptake among clients enrolled in the Test, Link, Call (TLC) project is significantly higher** than HCV treatment uptake seen for the overall population in BC and among PWID without access to TLC.

The **TLC program is connecting with priority populations needed to reach HCV elimination targets** and increasing access to HCV care for people who use drugs (PWUD), people experiencing unstable housing, and people who are incarcerated (PWAI).

Integration of Peer Health Mentors in program delivery helped to support program engagement and connection to HCV care, and was associated with improved progression along multiple stages of the care cascade.

Further integration of Peer Health Mentors in HCV models of care may achieve additional long-term cost savings, due to achieving higher rates of HCV treatment uptake, with modest additional associated costs.

Expansion of novel service delivery models like TLC that incorporate the expertise of people with lived experience, and that address equitable access to digital technology, are important strategies to improve the accessibility and quality of HCV care for priority populations in BC.

Expansion of TLC across BC is predicted to be an important strategy to support the province's progress in achieving the World Health Organization's goals of HCV elimination by the year 2030, and may be an important service delivery model to **improve treatment uptake and service accessibility for other Sexually Transmitted and Blood-Borne Infections** (STBBIs) such as HIV, Hepatitis B Virus (HBV), and infectious syphilis.

Photo supplied by Sofia Bartlett

Limitations

Program Limitations

The program has notable limitations, including susceptibility to theft due to the provision of phones. Moreover, it grapples with underlying poverty issues, and concerns that providing phones may be a temporary fix without addressing deeper challenges related to substance use and poverty. Additionally, issues related to tech literacy, an aging homeless population, and cognitive impairments further compound the program's effectiveness. Feedback from service providers and clients underscores the difficulties faced by older clients in adapting to this model, as documented during the interviews.

Qualitative Evaluation Limitations

The evaluation design and the specificity of the research questions may have restricted the ability to investigate how perceptions and experiences with the TLC project vary across and within subpopulations of people who experience criminalization (e.g., across axes of race and ethnicity, socio-economic status, sexuality, and gender identity). Future evaluations should consider a more inclusive and diverse sampling strategy, as well as evaluation questions that explicitly explore variations in perceptions and experiences across subpopulations. This would provide a more nuanced understanding of how the TLC project impacts individuals from different backgrounds and identities.

Quantitative Evaluation Limitations

Because of limitations in how the data was collected and due to collinearity between the predictor variables, we were not able to calculate an adjusted logistic regression for any stages beyond the first two stages of the care cascade. Between 9-37% of data collection points could not be used for statistical analysis since they were returned as “unknown” and thus were treated as missing data. The majority of unknown data came from data returned early in TLC program rollout, with data collection improving over the course of the collection period. Missing data received early in the program was related to how data was collected at that point in time and was unrelated to participant characteristics. The chosen data collection time frame also limited the amount of follow-up time that was available for participants enrolled later in the program, as they may have only progressed to early stages of the care cascade or might have been mid-treatment. We anticipate that future rounds of data collection will have fewer missing unknowns, higher sample sizes, and longer follow up periods. Additional benefits of TLC, such as impact on housing or overdose prevention were not able to be comprehensively assesed in this evaluation, as the data collection and evaluation plan were not tailored to thiese objectives.

Summary

Conclusions

- Prescribing a cell phone plus connection to a Peer Health Mentor to people who experience criminalization is an effective strategy to enhance connection to HCV care.
- TLC is an example of a “wrap-around intervention” as it has many added benefits to individuals, in addition to enhanced access to HCV care.
- TLC is estimated to generate cost savings and a high return on investment to the health care system

Future Directions

- Continue to provided Kloshe Nanitch (‘take care’ in Chinook Jargon) medicine bundles created by Chee Mamuk with cell phones to Indigenous clients.
- TLC program continued into 2023, with further expansion to also include supporting people affected by HIV or chronic hepatitis B virus infection.
- Continue to hold HCV testing and linkage to care events in community to provide further outreach and support.

I was amazed how fast this happened this time. Years ago I tried on two separate occasions [to get connected to HCV care] and I **felt I like I was just jumping through hoops**... You just want them to say OK, you're starting, and give you some kind of hope. **And this time I got that**.
-TLC Client

The increased trust and relationship building has been really great. Even if we're talking to people about how to figure out how to get or use the phone, it **translates into trust and relationships**. When they're ready, they're going to call us and they're going to open up because **we have that relationship now**.
-Service Provider

Acknowledgements

Thank you to the following people for their continued support and efforts to improve STBBI care in British Columbia:

Project conception, oversight & leadership
Sofia Bartlett, Mo Korchinski & Pam Young.

Data collection, analysis, monitoring & evaluation
Julia Santana Parrilla, Amrit Tiwana, Priya Sian, Nicola Gale.

Staff from participating organisations & supporters
Nancy Desrosiers, Roy Ang, Zahida Esmail, Deanna Romm, Andrea Routley, Daryl Luster, Deb Schmitz, Cheri McBride, Dany Lagrange, Jason Wong, Sara Young, Naveed Janjua, Brenda MacDouglad, Jennifer Hawkes, Alnoor Ramji, Brian Conway, Shawn Sharma, Chris Fraser, Tamara Barnett, Mande Hay, Shayla Lewendon, Ankita Takkar, Kristy Kerr, Tracy Penner.

Project administration support
Mike Mahay, Margaret Kennedy, Susana DelRio, Ella Chan, Bonnie So.

Participants
Thank you to all the clients in TLC who have participated in this Quality Improvement project, especially those who participated in the interviews and shared their experiences with us.

Screenshot of text message sent by TLC client provided by Sofia Bartlett

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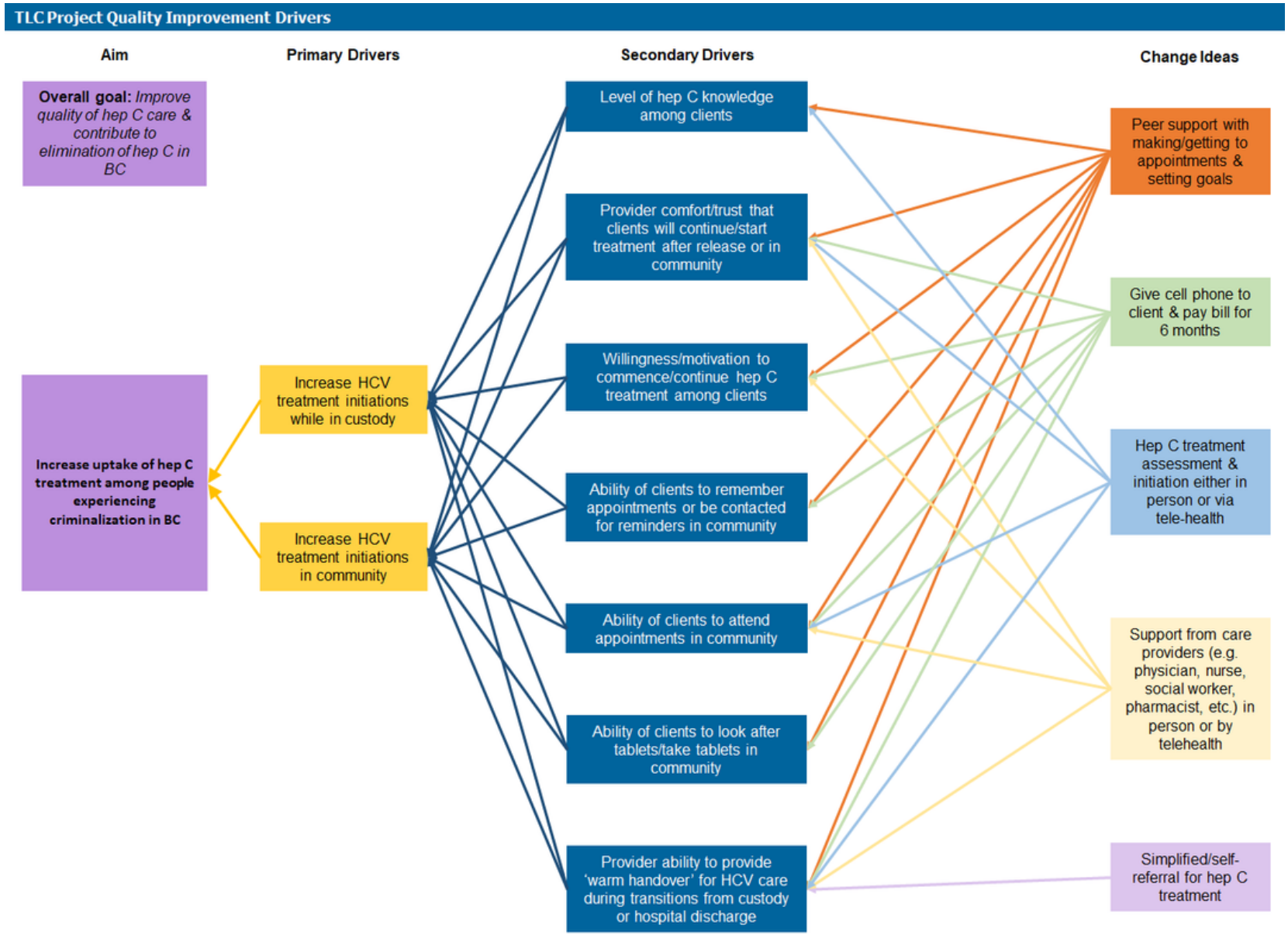
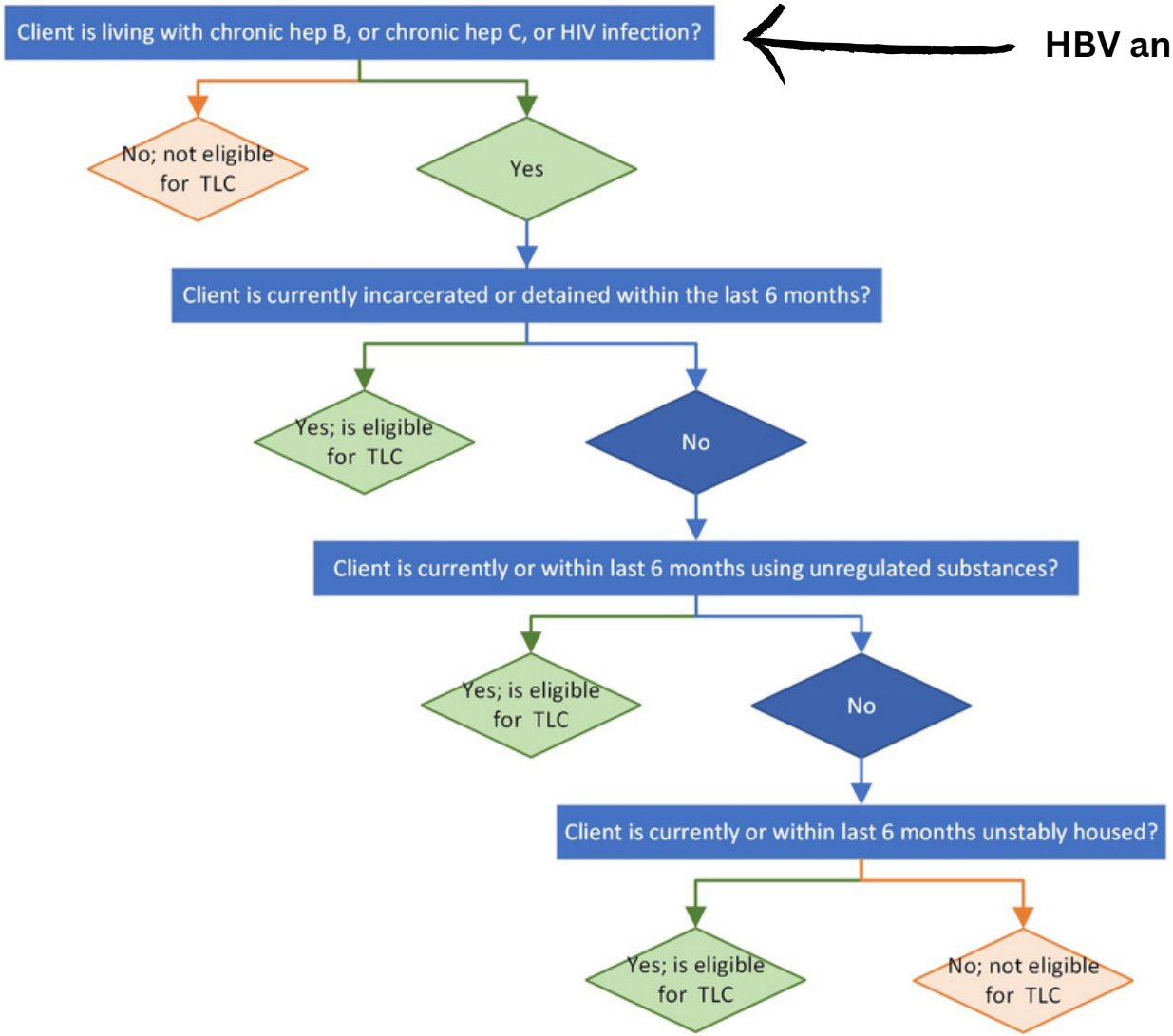
Appendix 1. Quality Improvement Driver Diagram



Appendix 2. TLC Client Eligibility Criteria



HBV and HIV added in May 2023

Substance use or unstable housing added in April 2022

Appendix 3. Abbreviations

BC	British Columbia
BCCDC	BC Centre for Disease Control
BCMHSUS	BC Mental Health and Substance Use Services
COVID-19	Coronavirus Disease
DAA	Direct Acting Antiviral(s)
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
OAT	Opioid Agonist Therapy
PHSA	Provincial Health Services Authority
PWAI	People Who Are Incarcerated
PWID	People Who Inject Drugs
PWUD	People Who Use Drugs
RNA	Ribonucleic Acid
STBBI	Sexually Transmitted Blood-Borne Infection
SVR	Sustained Virologic Response (ie. viral cure)
TLC	Test, Link, Call Project
UTG	Unlocking The Gates Services Society
WHO	World Health Organization

Appendix 4. Evaluation Methodology

Quantitative Evaluation Methods

- Routine program data provided by peer organizations and clinical sites
- Program care cascade development
- Descriptive data analysis
- Logistic regression of factors associated with progression through care cascade stages

Quantitative data were received between October 1st to December 31st, 2022 on outcomes for anyone enrolled in the TLC program between October 1st 2021 to September 30th 2022.

Project data collection forms from all participating clinical and peer organizations were de-identified, collated, and organized into a TLC program care cascade modelled after the provincial care cascade from the BC Hepatitis Testers Cohort.[5] Stata64 was used for quantitative and subgroup analyses based on housing status, peer versus clinic involvement, and participant use of OAT.

The overall program care cascade was stratified by service delivery model and statistically analyzed to quantify client progression through the care cascade based on whether care was initiated and supported by a Peer Health Mentor (PHM) or was only clinic-led (standard care).

A paired samples z-test was used to calculate statistical significance across all outcome variables. Progression between each stage of the care cascade was compared between participants who were involved with clinics only versus peers, taking or not taking Opioid Agonist Therapy (OAT), and between housing status (housed versus unstably housed). Adjusted and unadjusted logistic regression was used to evaluate the relationship between predictor and outcome variables.

Appendix 4. Evaluation Methodology cont.

Qualitative Evaluation Methods

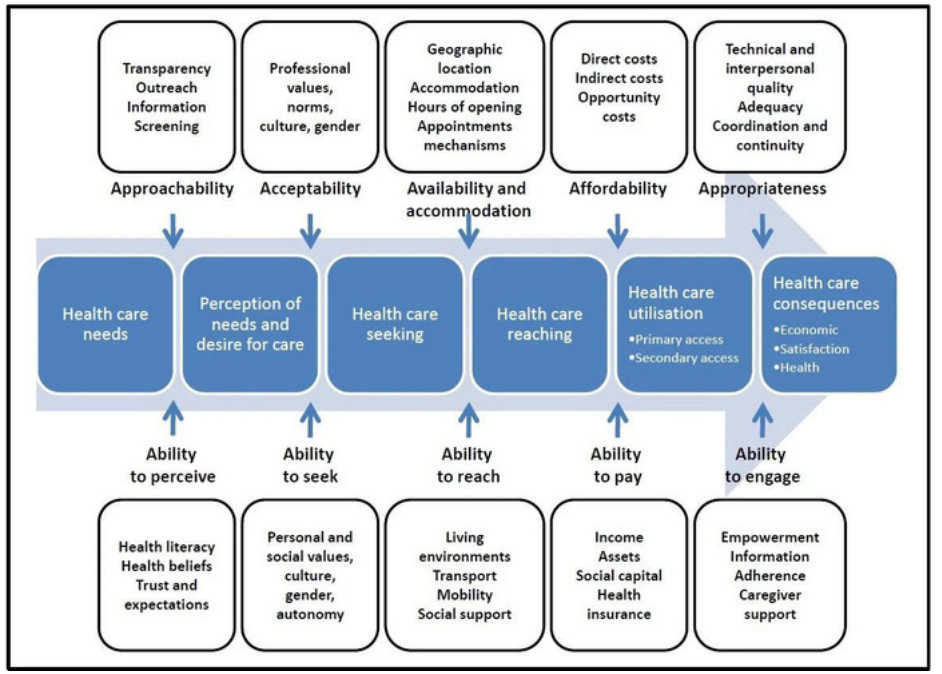
- Semi-structured interviews with peer health mentors, healthcare providers, and program participants
- Transcripts analyzed thematically

Qualitative data were received between May 1st to August 31st 2022.

Eighteen semi-structured interviews were conducted with clients (n=10), Peer Health Mentors (PHMs) (n=3), and HCV clinicians (n=5) to evaluate the impact of TLC. All interviews were recorded and transcribed. Interviews were held over the phone or online via Zoom and lasted 15-45 minutes.

All stakeholders interviewed received a $25 honorarium payment to compensate them for their time, with the exception of employees of a health authority as we were unable to offer them compensation.

Transcripts were approached inductively and analyzed thematically, informed by a critical interpretive framework and Levesque's 'Five A's of Access'[19]:



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Appendix 4. Evaluation Methodology cont.

Return-On-Investment Analysis Methods

Differences in costs between 4 scenarios with HCV treatment uptake varying from 50%-80% were used to determine the cost savings associated with program participation, while taking a long-term health system perspective by looking at downstream liver-related sequelae that would develop without HCV treatment..

Based on data from BC-HTC, we determined that the status quo of HCV treatment uptake is 52% among people with chronic HCV infection who have a history of injecting drug use. We assumed that 95% of people who start HCV treatment will achieve SVR, per current BC-HTC HCV care cascade. We then calculated the proportion of people who remain untreated in the status quo, as well as three different levels of HCV treatment uptake for TLC (60%, 70% and 80%).

Among those remaining chronically infected (untreated or did not achieve SVR) in each scenario, based on epidemiological data, we estimated the number who would be expected to develop major liver-related sequelae (cirrhosis, decompensation, variceal bleeding, liver cancer) as a result of untreated chronic HCV infection.

Health care costs in British Columbia (BC) for liver cancer treatment, liver transplants, and liver-related hospitalizations were determined from the literature. Where costs specifically in BC were not able to be obtained, a national Canadian estimate was used.

We determined that the cost of the TLC Project per person enrolled is $1000. This cost estimate includes the cell phone handset, monthly talk and text plan (including taxes), hourly wages for Peer Health Mentors, project administration costs, and evaluation costs.

To determine the cost savings of TLC, compared to the status quo, costs related to liver related sequela were added to the costs of TLC for each level of HCV treatment uptake. The total cost for each scenario was subtracted from the cost of the status quo, to calculate cost savings from TLC for each level of HCV treatment uptake.

Return on investment was calculated as total cost saving divided by total cost of TLC per person enrolled.

BC Centre for Disease Control
655 West 12th Ave., Vancouver
BC, V5Z 4R4

www.stbbipathways.ca
STBBI_Pathways@bccdc.ca

ISBN 978-1-7781841-8-5