



What lessons did we learn from implementing GetCheckedOnline?

BC's digital testing program for sexually transmitted and blood-borne infections

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This project was conducted by an external evaluator (Janice Duddy) working closely with Mark Gilbert and Hsiu-Ju Chang with ongoing consultation with the core team implementing GetCheckedOnline at the BC Centre for Disease Control, including Devon Haag, Heather Pedersen, Mark Bondyra and Ihoghosa Iyamu. In addition, feedback on findings was provided by Oralia Gomez-Ramirez, Daniel Grace, and Cathy Worthington.

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Introduction

The year 2024 marked the 10 year anniversary of <u>GetCheckedOnline.com</u>, BC's digital testing service for sexually transmitted and blood-borne infections (STBBI). GetCheckedOnline has gone from being in one community with just over 240 completed test visits in its first year, to being in nine communities in each region of the province with over 3,000 test visits per month ten years later.

GetCheckedOnline is a highly successful intervention, leading to many positive population, public health and health system impacts. For example, our research has demonstrated the service increases the uptake of STBBI testing and treatment, reduces barriers people face getting tested, and improves health equity in the population (to learn more, please see our companion report (*Ten years later: The impacts of GetCheckedOnline*).¹ The service has been recognized as a Leading Practice by Accreditation Canada and was awarded the UNIVANTS of Healthcare Excellence Award.

GetCheckedOnline is also a highly complex intervention. The program model has many components, crossing across multiple aspects of healthcare delivery and systems (from clinical, laboratory, information technology, public health, and community sectors). It also requires the collaboration and partnership of a range of different partner agencies working together to implement the program. As a new innovation with little guidance to draw on at the time, much had to be learned on the ground by the people involved as they implemented the program.

Our aim in this report is to document these key implementation lessons learned across GetCheckedOnline's timeline – from the early days of planning through to the end of 10 years of implementation and scale-up.

How does GetCheckedOnline work?

GetCheckedOnline aims to reach populations facing barriers to accessing testing, diagnose infections earlier, and improve the capacity of clinical testing services. GCO was designed to reduce barriers to accessing STBBI testing (i.e., a "low-barrier" model) by eliminating the need to visit a health care provider.

In brief, users of the service create an account, complete a risk assessment, consent to testing, print or download a lab form, visit a lab location to provide specimens, and get results online (if negative) or by phone. GCO offers comprehensive testing, according to a user's demographics and risk profile including blood tests for HIV, hepatitis C and syphilis, and urine, throat, rectal and vaginal swabs for chlamydia and gonorrhea.

GetCheckedOnline is a virtual extension of the provincial STI clinic operated by the BC Centre for Disease Control in partnership with many other agencies and is integrated with public health, clinical and laboratory systems.

¹ Gilbert M et al. (2024). Ten years later: The impacts of GetCheckedOnline, BC's digital testing program for sexually transmitted and blood-borne infections. Digital & Sexual Health Initiative, Vancouver, BC. (link)

Methods

The lead author of this report was brought on as an independent evaluator to carry out this project, supported by a core team at the BC Centre for Disease Control. These are staff and leaders of GetCheckedOnline who have a detailed understanding of project implementation (including several who have been part of the project since initially funded in 2009). An initial meeting was held with the evaluator and the core team to identify all key timepoints and decisions related to the planning and implementation of GetCheckedOnline. Key lessons were summarized from this initial meeting with the core team to support the consultation with other implementers.

From October 2024 – January 2025, the evaluator led a series of online consultations with 45 staff from multiple regional and provincial organizations involved in implementing GetCheckedOnline from initial planning (2009) to current scale-up (2024). Nineteen different organizations/teams were engaged spanning clinical, public health, laboratory, government and community sectors. Both early implementers (who may no longer be connected to the project) and current implementers were engaged. Participants were asked about what had worked well around implementation of GetCheckedOnline, what was challenging, what they would do differently now if designing the program from scratch, and key lessons that should be shared with others. Data collected through these conversations was documented through observer notes taken during each session.

After completing the consultations, factors perceived as key implementation lessons for GetCheckedOnline were identified from observer notes. We chose sustainability as an organizing concept for this analysis, as referring both to the continuation and maintenance of GetCheckedOnline and its outcomes, as well as the processes taken to adapt and develop the program in response to emerging needs of the health system.² We conducted a framework analysis using a Consolidated Framework for Sustainability Constructs in Health Care, which includes six general themes each with related sustainability constructs.²

To conduct the analysis, the evaluator first engaged ChatGPT to provide a first summary of lessons learned according to the framework, which the evaluator then revised, added to, and cross-referenced with consultation notes. (see Appendix A for the details on how ChatGPT was used). The final summary of lessons learned was reviewed by the evaluator with the project team, and feedback incorporated.

The key lessons learned were categorized according to each framework theme and are presented below. For each, a source is identified or the main groups or teams that spoke to the point is named. These included: Early Implementers (people who were involved with early planning and implementation who are no longer engaged with the project); Community Partners (such as non-profit, community-based organizations); Regional Health Authority (RHA) Partners; Labs (included public and private labs involved with GetCheckedOnline); Information Technology (IT) & Privacy; and the Core Team (key staff and leaders of GetCheckedOnline), Clinical Team, and Surveillance Team at

² Lennox,L et al. (2018). Navigating the sustainability landscape: a systematic review of sustainability approaches in healthcare. Implementation Science, 2018; 13(27).

BCCDC. Two prior studies of the implementation of GetCheckedOnline were also reviewed and included as sources (Kopp, 2018; Gómez-Ramirez et al, 2021).^{3,4}

In consultation with the UBC Behavioural Research Ethics Board, we determined that ethics approval was not required as this project was aligned with a quality improvement paradigm (not research).

Lessons Learned



Theme: Initiative Design and Delivery

<u>Includes the constructs</u>: Demonstrating effectiveness, evidence base for the initiative, expertise, improvement methods, monitoring progress over time, project duration and type, the problem, training and capacity building.

The Problem - Health Equity and Accessibility:

- GetCheckedOnline significantly improved access to STBBI testing for underserved populations, reducing barriers related to geography, language (as community-based organizations were able to support users in languages other than English), and systemic inequities. It has created an alternative for STBBI testing that doesn't require people to directly access a healthcare provider. Access to GetCheckedOnline's STBBI testing is quick, simple and user friendly and is especially appreciated when access to providers or STBBI appointments can be limited. It supports people who have had negative experiences accessing healthcare (i.e. because of discrimination or not wanting to discuss sex with providers) or people who are regular testers and want a quick way to access regular STBBI testing. It is a good option for people who require confidentiality or anonymity. Some suggested that people that are new to STBBI testing or had limited knowledge would be better served through an appointment with a provider especially for their first testing experience. (SOURCE: Community Partners, RHA Partners, Labs, IT & Privacy)
- Moving beyond the pilot phase, expansion to other locations, especially outside of urban areas, has been a challenge within currently limited laboratory and budgetary resources even though the demand for expansion and a full provincial rollout is high. Some partners recommended the GetCheckedOnline program explore equitable onboarding of sites across regional health authorities (in terms of start-up and specimen collection costs, which were not required of all health authorities with communities where GetCheckedOnline was available). *(SOURCE: Community Partners, RHA Partners, Labs)*

³ Kopp, Shannon. (2018). The BCCDC Provincial Expansion of GetCheckedOnline: Fostering Collaborative Partnerships with Public Health Stakeholders. Master of Arts in Leadership Capstone. Royal Roads University, BC.

⁴ Gómez-Ramírez, Oralia et al. (2021). Beyond Initial Implementation: Barriers and facilitators to the scale-up, adaptation, maintenance & sustainability of GetCheckedOnline. Digital & Sexual Health Initiative, Vancouver, BC. (link)

• Applying a health equity approach in the planning process ensured people with greatest need and least access benefit from innovation first. Conducting health equity impact assessments helped identify and address barriers, prioritizing populations with the greatest need in accessing STBBI. (SOURCE: Core Team)

Effectiveness and Evidence Base:

- Research and evaluation were core components from the outset of GetCheckedOnline, with the team conducting ongoing assessments to support evidence-based decision-making. This, along with a close partnership with UBC scientists, bolstered project credibility and informed strategic choices throughout implementation. (*SOURCE: Early Implementers, Clinical Team*)
- Early on, embedding flexibility (the ability to make changes) into the website platform proved vital. This allowed the team to adapt to evolving clinical needs and user feedback, ensuring quick and responsive updates that improved the platform's relevance and usability. *(SOURCE: IT & Privacy Team)*
- The integration of scalability planning into initial tool development ensured that GetCheckedOnline was adaptable beyond the pilot phase. This required aligning program design with the organization's risk management, data standards, and policies, enabling long-term evaluation, including cost-benefit analyses. *(SOURCE: Core Team)*
- Working with a single private lab (already working within the BC healthcare system) for specimen collection may have complicated GetCheckedOnline implementation and added budgetary pressures to the project. It might have been more effective to allow for multiple options for specimen collection including at hospitals and through public health. This could also increase geographic reach and engagement in the program. (SOURCE: RHA Partners, Early Implementers)
- From a laboratory testing perspective, receiving STBBI testing specimens was efficient. When tests come from specimen collection sites to the BCCDC for testing they are shipped and tagged together, which makes them easy to receive. Once specimens are sent for testing, they are integrated seamlessly with other types of tests, so laboratory staff do not notice or are unable to differentiate GetCheckedOnline samples from other testing samples. (SOURCE: Labs)

Improvement Methods:

- Regular consultations with partners and users enabled iterative refinements. For instance, the private lab doing specimen collection and surveillance teams worked closely with the GetCheckedOnline team to identify inefficiencies in coding and data management, driving improvements that enhanced workflow. *(SOURCE: Labs, Surveillance Team)*
- The use of project phases planning/piloting phase and implementation/sustainability phase - allowed the team to address unforeseen challenges and refine processes. Early assumptions, such as prioritizing anonymity, were later reassessed based on user feedback, reflecting a flexible and adaptive approach. *(SOURCE: Clinical Team, Privacy Team)*
- The ability to design, implement and adapt web tools allowed for quick iterations or changes to the platform based on new requirements or user needs, such as adapting to emerging technologies. *(SOURCE: Core Team)*

Challenges with IT and Technology:

- IT systems, software, hardware and procedures changed over the course of the project. While newer technological processes emerged, this was balanced with tension between managing IT requirements and preserving equitable access to testing. Aligning procedures that were automated elsewhere was a challenge, for instance GetCheckedOnline required manual data entry of test results into the EMR. *(SOURCE: Gómez-Ramírez 2021)*
- Finding the right vendor to help build the GetCheckedOnline IT platform was important. Having IT team members who were willing to co-develop solutions together with project team members was a key element to success. It was important that clinical and community needs of the platform were clear before beginning building technology solutions. Community engagement takes time, while technology can be built quickly. But iterative development and engagement means you build the *right* technology. This needs to be considered and balanced in this type of project. *(SOURCE: IT & Privacy, Early Implementers)*
- Integration with public and private lab systems initially relied on paper requisitions, creating inefficiencies and barriers to use that required significant updates to transition to electronic processes. This challenge was compounded by evolving privacy requirements and the need to share information with regional health authorities, which demanded secure yet adaptable solutions. *(SOURCE: Labs, IT & Privacy Team)*
- Privacy and security were important considerations and required focus especially when building a new technology-based model with a goal of providing anonymity to service users. It was important to engage the privacy team early in the process. *(SOURCE: IT & Privacy)*
- The digital nature of GetCheckedOnline meant there were shifts in how test requisitioning and follow-up for STBBI testing and treatment happened. Sometimes this meant that service providers were unclear about service user processes or outcomes (i.e. whether they ordered the right tests, whether they received treatment). This new testing model shifts the onus of care more towards the patient and changes how system-level quality improvement, auditing and providers' knowledge of STBBI outcomes happens. *(SOURCE: Clinical Team, Labs)*

Training and Capacity-Building:

- Staff training was identified as a critical component for success. Early gaps in engaging the clinical operations teams led to delays, emphasizing the need for comprehensive capacity-building efforts with staff doing specimen collection. The more that new processes could fit within already existing processes and procedures the less prone to error they were, for example follow-up became more standardized as more human resources and systems within the BCCDC clinic were put in place. *(SOURCE: Clinical Team, Labs, Early Implementers)*
- The centralized GetCheckedOnline efforts to invest in socializing and promoting GetCheckedOnline built community- and health system-support for new approaches to testing and health services. Centralized promotional efforts and user-focused communication materials helped build awareness and acceptance of the program among partners, leadership, and end-users. *(SOURCE: Clinical Team, Labs, Early Implementers, Core Team)*



Theme: Negotiating Initiative Processes

<u>Includes the constructs</u>: Accountability of roles and responsibilities, belief in the initiative, complexity, defining aims and shared vision, incentives, job requirements, workload

Roles and Responsibilities:

- Defining clear governance structures and accountability mechanisms was essential to managing relationships with multiple stakeholders, including private labs and regional health authorities. Flexible agreements were developed to accommodate evolving needs and ensure clarity in task allocation. *(SOURCE: RHA Partners, Kopp 2018, Surveillance Team, Labs)*
- The public health sector working in strategic partnership with private laboratories was a learning process for these partners. Prior to this project partners working in the public system did not have a clear understanding about where and how the private laboratory was working. By treating private laboratories as partners rather than competitors, GetCheckedOnline acted as a catalyst in building common understanding of each other's work and increasing work across siloes. *(SOURCE: Labs)*

Complexity Management:

- Early and ongoing engagement with senior leadership and funders at the BCCDC and public and private labs helped align project goals and address the complexities of navigating competing priorities in the healthcare system (SOURCE: Labs, Surveillance Team)
- Establishing agreements and involving decision-makers in the planning stages built a foundation for long-term support, even amidst changing leadership and priorities over time. *(SOURCE: Core Team, Labs, Surveillance Team)*

Challenges with Staff Resources:

- Insufficient staffing and undefined roles led to inefficiencies and burnout, particularly in areas such as data analysis, evaluation, and operational management. Addressing these gaps required communication between contributing teams and the GetCheckedOnline team, clearer definition of roles and targeted investments in human resources. *(SOURCE: Surveillance Team, RHA Partners)*
- Reliance on individual champions without institutionalized processes posed risks to program sustainability. The team recognized the need to transition from dependence on key individuals to a more systematized approach and is working on processes to improve this. *(SOURCE: Early Implementers, Core Team)*



Theme: People Involved

Includes the constructs: Leadership and champions, ownership, power, relationships and collaboration, networks.

Leadership and Collaboration:

- GetCheckedOnline's success heavily relied on the commitment and interpersonal skills of its leaders, who prioritized relationship-building and trust. This approach fostered strong partnerships across diverse teams and external organizations. *(SOURCE: Labs, Early Implementers)*
- It is important to get senior leadership, executive and key decision-makers (at BCCDC, public and private labs, regional health authorities, and Ministry of Health) onboard early to ensure system support and sustainability. Also having a leadership team that is tolerant of change and supportive of innovation is important. Finally, leadership turnover and inconsistent staffing created challenges, underscoring the importance of sustainable staffing models and succession planning to maintain momentum and continuity. GetCheckedOnline could have benefitted from thinking more strategically on how to engage senior leadership to create more long-term buy-in and support for the project. Perhaps outlining more clearly how GetCheckedOnline achievements align with each of these agencies' goals and performance measures or creating ways for leadership to take credit for GetCheckedOnline's success, could have increased commitment from leadership for this project. (SOURCE: Labs, Early Implementers)
- It is important to be deliberate about identifying when the pilot ends and the ongoing operational phase begins. This supports clear communication with agency leadership and allows for relevant and appropriate support for the program. *(SOURCE: Core Team)*

Staff:

- GetCheckedOnline has had a very stable leadership and staff team, which has allowed for consistent and long-term relationships with partners along with detailed institutional memory for the project. Questions were raised about the impact to the project if a key staff person left, highlighting the importance of succession planning. *(SOURCE: Surveillance Team, IT & Privacy, Early Implementers, Core Team, Kopp 2018)*
- GetCheckedOnline staff have strong inter-personal skills and can support relationship and trust building, active listening, and productive problem solving across partners. This is an important skill set for staff doing this multi-disciplinary work and should be planned for, sought after, and adequately resourced. *(SOURCE: Kopp 2018, Labs, IT & Privacy)*
- Project management is a key skill on a team of this nature. Keeping track of activities, deliverables, dependencies, and relationship was essential for success. *(SOURCE: Labs)*

Engagement, Relationship Building and Communication:

• Partner engagement and relationship building, particularly early in the project, was pivotal in generating buy-in and aligning goals among partners. Engaging and communicating with partners who were supporting implementation early and often built trust and allowed for real-time problem-solving. *(SOURCE: Early Implementers, IT & Privacy Team, Labs)*

- Some partners felt there was a lack of understanding and engagement about their role, how they might support activities relating to GetCheckedOnline and the resources required. Mapping roles and responsibilities across multidisciplinary teams early (including with operation leads and frontline providers), identifying gaps, and planning within team's competing priorities were identified as important and could be supported by creating formal agreements about roles and responsibilities between partners early in the process. *(SOURCE: Labs, Surveillance Team, Clinical Team, Early Implementers)*
- Consistent engagement with community organizations and service users was instrumental in ensuring that the program met diverse needs. This approach fostered trust and encouraged uptake among populations facing significant access barriers. There was organizational willingness to act on user's needs and feedback, engaging community and service users in consultations about how GetCheckedOnline technology and processes worked. *(SOURCE: Community Partners, Gómez-Ramírez 2021)*
- Feedback mechanisms allowed for continuous improvement and adaptation of program elements, such as multilingual resources and user-friendly processes. *(SOURCE: Gómez-Ramírez 2021, Labs)*



Theme: Resources

Includes the constructs: General funding, infrastructure, staff resources, and time resources

Funding and Infrastructure:

- GetCheckedOnline was expanded through a unique and targeted budget envelope (the STOP HIV program). While this created opportunity to innovate provincially and at the regional level it also created reliance on limited and targeted budget envelopes and with GetCheckedOnline growth required submitting business cases to secure ongoing provincial funding. *(SOURCE: Gómez-Ramírez 2021, Core Team)*
- GetCheckedOnline was established as a project outside of the regular funding system. This allowed it to be innovative and test out new approaches, such as non-nominal testing and required working with an external vendor whose policies did not always align with the PHSA's. It also created resourcing challenges during the maintenance and sustainability phases of work when testing through GetCheckedOnline became a more popular form of testing. Challenges included managing specimen collection costs, diagnostic testing costs and cost containment within the private sector. *(SOURCE: Core Team, Gómez-Ramírez 2021)*
- Early planning for permanent funding mechanisms and scalable infrastructure was identified as a key lesson but continued to be challenging to secure. This inability to secure long-term funding has been frustrating as the vision for GetCheckedOnline has not aligned with the funding. *(SOURCE: Early Implementers, Labs, IT & Privacy)*
- In terms of resourcing, having a centralized, provincial model vs. a regional model, supported and resourced by regional health authorities, has been challenging and has the potential to constrain future growth and sustainability of the program. Centralized funding models, such as provincial targeted pilot funds above, streamline operations but have limited adaptability

in regional contexts, highlighting the need for more equitable and flexible funding approaches. *(SOURCE: Core Team, RHA Partners)*

- Working to integrate GetCheckedOnline into existing programs at the BCCDC has supported feasibility and ongoing sustainability. This process has required the GetCheckedOnline team and contributing teams to examine human resource and other resources required to sustain GetCheckedOnline as the program become regularized. *(SOURCE: Surveillance Team, Core Team)*
- Perhaps GetCheckedOnline could have explored commercializing its product to support a return on investment and in support of sustainability. (SOURCE: Early Implementers)

Technical Expertise:

- Addressing changing technology costs and building skilled multidisciplinary research and practice teams were critical to maintaining operational efficiency and program growth. Assembling a team with expertise spanning business management, product development, user experience, privacy, healthcare-IT integration, project management, operations, surveillance, clinical knowledge, and laboratory was essential for navigating the program's technical complexities. *(SOURCE: IT & Privacy Team, Labs, Gómez-Ramírez 2021, Core Team)*
- Expanding relationships beyond traditional healthcare partners to include new technical teams focused on emerging technologies and tools enhanced the program's capabilities. *(SOURCE: Core Team)*
- Because GetCheckedOnline was not a mainstream or integrated program at the BCCDC but started as a pilot working outside of clinical systems, it often required people to support program activities off the side of their desks, without dedicated GetCheckedOnline human resources. There needs to be a plan for growth and sustainability that is resourced for this type of work. Some noted the importance of having a clear understanding of roles, responsibilities, and scope of work required between each of the contributing teams and GetCheckedOnline. Having a detailed understanding of how the GetCheckedOnline activities impact potential workloads, competing priorities, and other external issues would support in planning for adequate dedicated human resources for GetCheckedOnline. (SOURCE: Core Team, Surveillance Team, Clinic Team)



Theme: Organizational Setting

Includes the constructs: Integration with existing program/policies, intervention adaptation and receptivity, opposition, organizational readiness and capacity, organizational values and culture, support available

Aligning GetCheckedOnline with Existing Systems:

• Aligning GetCheckedOnline with provincial policies and health frameworks ensured compliance but added layers of complexity that delayed implementation. Navigating these bureaucratic hurdles was a significant challenge. (SOURCE: IT & Privacy Team, Early Implementers)

• Early resistance to innovation within public health settings underscored the need for leadership willing to embrace change and advocate for the program's benefits. *(SOURCE: Early Implementers, Labs)*

Organizational Readiness:

• Engaging operational teams early in the planning process was crucial to avoiding delays and ensuring readiness for implementation. The integration of GetCheckedOnline as a "virtual extension" of existing clinics also facilitated smoother transitions. *(SOURCE: Clinical Team, Gómez-Ramírez 2021)*

Integration, Intervention Adaptation and Receptivity:

- For GetCheckedOnline, innovation was an opportunity and a challenge. Given GetCheckedOnline was creating something that had never been built before, there was need to think creatively and to build outside of the usual systems with the goal of improving STBBI testing and addressing health service gaps. Respondents stated this was probably the only way this type of program could have developed and led to a functioning and effective program. However, there are challenges with this approach. *(SOURCE: Core Team, Early Implementers)*
- Many of the challenges identified were with integrating with existing systems. Some reported challenges with integration with the Laboratory Information System (LIS) and others spoke to challenges due to the current operational requirement of manually entering data of GetCheckedOnline test results into the electronic medical record (EMR) systems. Finally, because STBBI testing through GetCheckedOnline has a centralized ordering provider, which is different than standard testing, this has negative impacts on efficiencies because of where results are reported. These remain persistent issues impacting clinic and surveillance activities and reflects tensions between meeting IT requirements and maintaining an efficient and streamlined testing service. *(SOURCE: Clinic Team, Surveillance Team, Labs)*
- At the same time, keeping service features over time has allowed for long-term evaluation including cost-benefit and impact analyses. *(SOURCE: Gómez-Ramírez 2021, Clinic Team, Surveillance Team)*
- GetCheckedOnline is a complicated project, involving multiple teams, processes and data sources. While the team did keep a strong historical record of the evolution of the project, this complexity does mean bringing new staff on to the project to support in various aspects of implementation can be challenging. *(SOURCE: Surveillance Team)*
- Because surveillance and evaluation systems were built iteratively, it does not allow the possibility of rebuilding components from scratch, if this is identified as a need. *(SOURCE: Surveillance Team)*



Theme: External Environment

Includes the sustainability constructs: Awareness and raising the profile, socio-economic and political considerations, spread to other organizations, urgency.

Competing Priorities:

- Working within complex healthcare systems, with competing priorities and resource constraints limits external partners ability or willingness to engage. Mapping out competing priorities when working within complex health systems created awareness of partners' ability or willingness to engage with GetCheckedOnline program implementation. *(SOURCE: Early Implementers, Labs)*
- It remains unclear how you can create visibility for a small but important and effective program (i.e. GetCheckedOnline has won awards). Sometimes problematic programs receive more attention than programs that are running smoothly. This requires a larger, systematic shifts to refocus attention on successful programs. *(SOURCE: Labs)*
- It was felt that the overall system was risk averse and the project was initially met with resistance because of this. Building more of a culture of innovation or allowing space to incubate new ideas where teams could test, evaluate, and revise new approaches would have supported the project. *(SOURCE: Early Implementers)*
- An outstanding question for GetCheckedOnline, is how could the project have worked more closely with the Ministry of Health or other system partners to find an alternative funding model? This highlights a lack of creativity within the system to explore new and different funding models. There are other types of agencies in the health system with a bigger appetite for engaging with and sustaining innovation, i.e., hospitals, perhaps these could be an alternative for further exploration. *(SOURCE: Early Implementers)*
- In public health and population health work it is more challenging to show direct cost savings or economic benefits because of the longer-term nature of the work and because outcomes or cost savings happening in other areas of the system, i.e., in primary care. For instance, GetCheckedOnline is seen as everybody's cost pressure, but if it is able to prevent STBBI then it is cost saving to the system overall. Public health needs to get better at quantifying the impact and cost saving nature of its work. *(SOURCE: Early Implementers)*
- Being a small project that needed support from large agency-wide teams, like IT, who manage multiple request and requisitions was challenging. The GetCheckedOnline team had to readjust timelines based on access to IT resources. *(SOURCE: Labs)*

Shifts over 10 Years:

• There have been many societal and healthcare changes over the last 10 years including shifts in technology and access to digital resources. Also, the COVID-19 pandemic had a big impact on the public's perspective on digital testing. With COVID self-testing, the shift to accessing more care virtually and accessing test results online through Health Gateway people are much more comfortable with alternative testing and care models, which has impacted GetCheckedOnline and other innovative STBBI models. GetCheckedOnline has adapted and been flexible in finding alterative implementation methods through these shifts but in many ways GetCheckedOnline is catching up to the public's readiness for this kind of service (the public wants more and different options now). *(SOURCE: Clinic, IT & Privacy, Early Implementers)*

Awareness and Raising the Profile:

• A positive unintended consequence of GetCheckedOnline was after a clinic in one of the health authority partner sites began engaging with and promoting GetCheckedOnline

testing. This led to an increased focus on sexual health services more generally at the clinic and increased community access of these services. GetCheckedOnline acted as a catalyst for a more general expansion of sexual health services. (*SOURCE: RHA Partners*)

• Being early initiators, GetCheckedOnline had to solve a lot of problems that were not necessarily within their scope of work. Being the first is hard. However, GetCheckedOnline led the way and opened doors for other innovations and pilots in BC that may not have been able to happen without their leadership or early work, like BC's cervical self-screening program. (SOURCE: Labs, Early Implementers)

Summary

When it launched, the BC Centre for Disease Control's GetCheckedOnline program was an innovative, technology-based, low barrier approach to STBBI testing in BC - and one of the earliest digital STBBI testing programs globally. Being first is often challenging as there is a lot of uncertainty about how to proceed, and new implementation paths need to be forged. We clearly saw this in the lessons learned described in this report, with examples such as the importance of developing a team with the right expertise, having clear governance structures and accountability mechanisms, and developing relationships with new partners being key in early stages of implementation.

The lessons learned identified by these partners also illustrate how challenges (and strategies to overcome them) evolve over time through different implementation phases, such as needing to manage changing information technology requirements over the course of the program. One important learning was that the way GetCheckedOnline was originally resourced as a siloed, separately funded project tied to a provincial HIV strategy was effective at first in facilitating innovation and supporting early expansion but posed challenges during later phases of expansion when more a more integrated, sustainable funding and program model was needed. This also illustrates a tension heard in other sessions, where working "outside" the system was key to development and initial implementation of GetCheckedOnline but led to difficulties integrating "inside" the health system (e.g., regular funding mechanisms or integration with existing health information systems).

While many of the lessons learned are specific to a digital STBBI testing program like GetCheckedOnline, many also shed light on implementation processes that are relevant more broadly for complex digital health interventions. For example, throughout the consultations, many highlighted the importance of having a team that was able to build strong relationships and effectively communicate and problem-solve across a diverse group of partners. People with strong emotional intelligence and social skills are sometimes undervalued in public health programs but this led to many of the program's successes and is a lesson broadly applicable to similarly complex interventions.

We hope these lessons learned will be helpful to others involved in implementing digital STBBI testing or other digital health services. As a next step, our team will use this report to develop recommendations for a practical guide for implementers of these services. As little practical guidance to implementers of these services currently exists – especially any that encompass all aspects involved in implementation and its later stages - we hope developing this guidance will contribute to advancing innovation across the sector.

Appendix A – ChatGPT Synthesis Method

During the conversations with teams the evaluator took in-real-time notes to capture the key points.

ChatGPT – Supported a first synthesis of notes

The evaluator used ChatGPT like a research assistant – to pull the first round of synthesis from the consultation notes. These are the steps the evaluator used to outline the work to ChatCPT:

- 1. Data Merging & Cleaning: The evaluator collated/merged all the notes from the consultation by first removing any names, organizations, positions and second by sorting notes into high-level groups, labelling these as "SOURCE": PHL Team, BCCDC Surveillance Team, BCCDC Clinical Team, Community Partners, RHA Partners, PLMS, IT & Privacy Team, LifeLabs, Early Implementers. This would allow for cross-referencing and checking any ChatGPT output later on. (These were further aggregated for the purposes of this summary to further protect participant's identities). This ensured there was not personal information included in documents shared with ChatGPT.
- 2. Training ChatGPT: First ChatGPT was provided with some background about GetCheckedOnline and the consultation process using the information provided to participants of the consultation to inform them about GetCheckedOnline background and the consultation. Then ChatGPT was given a previous summary document that outlines the Consolidated Framework for Sustainability Constructs in Health Care and shows the evaluator's first work summarizing GetCheckedOnline documents, notes from the first Core Team meeting, notes from the SHAG consultation plus additional summary work the evaluator had completed for two abstracts that were developed after the first summary document was developed. Finally, ChatGPT was asked to summarize the Consolidated Framework for Sustainability Constructs in Health Care sections to make sure it understood the framework and how we wanted data summarized. It did a good job of outlining the framework and this laid its understanding/groundwork for summarizing the notes.
- 3. ChatGPT Generated Summary: Then the evaluator uploaded the edited notes and asked ChatGPT to summarize the notes using the framework and for each point identify where the SOURCE for that point came from (or which group spoke to the point). The evaluator explained that the SOURCE could be found at the top of each section following a page break and highlighted using bold font. ChatGPT made a relatively short summary and identified the source for each point in brackets following the point. However, it did not include any points from previous summary document provided during ChatGPT training, so the evaluator asked it to add in relevant points from the previous summary and to note the source – already identified in the earlier document. It completed this task. The summary was relatively short, so it was asked to provide more detail and examples. It completed this task.

This output was the starting summary for the evaluator's detailed review and synthesis of the consultation notes. The evaluator reviewed all notes and cross-referenced with the ChatGPT output and worked to re-arrange, edit, augment, add context and do further synthesis from the consultation notes.

4. **ChatGPT Settings:** The evaluator ensured that the data for this synthesis was not included for ChatGPT model improvement. The evaluator also deleted the chat after this method was run and synthesis was created so it would not be included on their account in future.