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WRSS Division of Family Practice GP/SP Referral Process Project

EVALUATION REPORT

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1. Executive Summary

About the Project

This report presents the results of the evaluation of the White Rock South Surrey (WRSS) Division of Family Practice GP/SP Referral Process Project that began in early 2017. The project was intended to improve the referral process for General Practitioners (GPs), Specialists (SPs), and patients in the WRSS area. Through extensive engagement with WRSS GPs, SPs, and clinic managers, it was decided that an electronic referral and patient notification system would best meet the needs of patients, GPs and SPs. A partnership was established with Pathways BC to develop the electronic referral and patient notification system, known as the Pathways Referral Tracker (PRT). The PRT was designed to provide patients with electronic notification of their SP appointments, allow GP offices to send and track referrals, and enable SP offices to acknowledge the receipt of a referral and communicate with patients and GPs offices electronically.

About the Evaluation

The evaluation was designed to collect information on the effectiveness of project implementation; the uptake and use of the PRT; barriers to PRT uptake; the impact of the PRT on patients, GP and SP offices; and to surface lessons learned and offer advice to other communities wanting to implement the PRT. The evaluation used mixed methods including focus groups; interviews; an online survey of WRSS GP, SP, and MOA PRT users and non-users; and analysis of PRT administrative data and project tracking data. It should be noted that the findings may not be reflective of all WRSS physicians, PRT users, or patients because of small sample sizes for the online surveys and a limited number of patient interviews.

Findings

Implementation

The project was managed by a WRSS Division Project Manager and supported by a Steering Committee lead by a GP and a SP and composed of additional physicians and Medical Office Assistants or clinic manager from GP and SP offices.

The project involved five phases:

1. Developing a common understanding of and vision for the referral process and assessing needs.
2. Researching and selecting a solution to identified needs.
3. Developing the chosen solution, the PRT.
4. Pilot testing the PRT with a limited number of GP and SP clinics, and
5. Community-wide onboarding onto the PRT.

Stakeholder Engagement

Extensive engagement of GPs, SPs, and MOAs took place at every phase of the project. In addition, the project used a quality improvement approach involving Plan-Do-Study-Act (PDSA) cycles to support communications, engagements, and clinic onboarding. Over 27 separate events were held to connect with the community including direct e-mails, notices in the Division Newsletter, notices on Pathways website, notices on the Division website, consensus building meetings, meet and greet meetings for MOAs, presentations to SPs, hand-delivery of promotional materials, phone calls, and at least two in-person visits to every GP and SP office in the Division (pre-COVID!). The majority of GPs and SPs were "very satisfied" with the information provided about the project (63% or 12/19). More engagement was needed by SPs than GPs before agreeing to use the PRT. In addition, separate engagement tactics were needed for physicians and MOAs as both need to be brought onboard and their needs will be different.

Clinic Onboarding

A foundational element of clinic onboarding was in-person visits to GP and SP offices and standardized onboarding protocols were developed for GP and SP clinics. The onboarding session with the early adopters typically lasted between 45 to 60 minutes. Later adopters were less comfortable with the process changes and required additional support. More time was required to work with clinics to assess current workflow and support change to the new workflow. These sessions typically lasted between 1.5 to 2 hours. Regardless of the onboarding process used, the majority of SP and GP MOAs (7 out of 10) reported the onboarding process was "very helpful."

Implementation Success

Stakeholders unanimously agreed that the project was well implemented and were able to point to several factors that contributed to its success:

- Having a clear vision for the project that spoke to and was endorsed by all stakeholders.
- Stakeholder engagement in all phases of the project.
- Being agile and adapting strategies and tactics in response to real time feedback.
- Division leadership to leverage existing relationships.
- Prototyping of the PRT as it was being developed and making changes based on user feedback and pilot testing with a small group of clinics to test out the onboarding and support process.

Uptake

As of the end of March 31, 2020, 67% of WRSS GPs and 39% of WRSS SPs were using the PRT. This rate of uptake is consistent with what is known about the diffusion of innovations. The PRT has been used to send and acknowledge close to 3,500 referrals which represents an average of 11% of referrals send by GP offices. Sixty percent of the referrals were acknowledged within 24 hours by SP offices. It is noteworthy that uptake among GPs is higher than among SPs. This and

other data show that there are more barriers to overcome for SP adoption of the PRT than for GP adoption.

Impact

As mentioned, the PRT was designed to improve the referral process. It was expected to:

- Improve patient experience.
- Improve information about the status of the referral, and
- Enable more efficient management of referrals by GPs and SPs.

The referral process project was also intended to improve communications between GPs and SPs. The evaluation found that the PRT has improved patient experience and significantly improved information on the status of referrals. Furthermore, the PRT has begun to improve the efficiency of the referral process for GP and SP offices and has improved communications between GPs and SPs.

Patient Experience

Although the evaluation engaged only four patients, the full range of intended benefits was mentioned. Patients spoke about the **timeliness** of hearing back from the SP about their appointment, their ability to **confirm the appointment** through text or email, the **usefulness of information received** about the appointment, the value of the **automated reminders**, and the **peace of mind** the appointment confirmation provided. This shows that patients have active and informed involvement in the referral process.

Impact on GP-SP Communications

GP and SP offices are communicating with each other through the secure messaging feature of the PRT. Since the community-wide roll-out, on average SP offices initiate 30 messages per month and GP offices initiate 14. The finding that SP offices are initiating more messages than GP offices suggests that the PRT may be solving one of the challenges with the existing referral process by enabling SP offices to obtain more fulsome information on the referral for the SPs to triage effectively.

The majority of GP MOAs and GPs who were able to assess the impact of the PRT on communications with SP offices reported improvements in communication (71% or 5/7). In contrast, fewer SP offices (40%) reported improvements in communications. Secure messaging was also seen as contributing to community building between GP and SP offices.

Impact of Referral Acknowledgement

One of the most significant impacts of the PRT is that it has virtually eliminated one of the main problems with the existing referral process: the lack of acknowledgement of referrals. Analysis

of the PRT administrative data showed that almost every referral send by GP offices is acknowledged by SP offices (99% of referrals). Further, almost one quarter of referrals are acknowledged within an hour from when the referral was sent and another 38% are acknowledged within one day. This means that 60% of referrals are acknowledged within 24 hours.

Impact on No-Show Rate

The PRT has also significantly decreased the no-show rate for SP appointments. It was estimated to be 10% prior to the PRT and has decreased to an average of 3.7% for referrals made through the PRT.

Impact on Efficiency - GP Offices

The majority of GP offices who were able to assess the impact of the PRT on the referral process reported improvements in:

- Time spent tracking down referrals.
- Time spent contacting patients, and
- Time spent re-sending referrals.

The average time to complete a referral went from 6 minutes pre-PRT to 5.3 minutes with PRT.

Impact on Efficiency - SP Offices

Efficiency improvements for SP offices were less frequently reported than improvements for GP offices. Improvements were noted in two areas: time spent contracting or answering patient questions about appointments and ability to communicate with GP offices.

Summary of Impact

Even at this early stage of uptake, the PRT has revolutionized the referral process, especially for patients. The PRT has virtually eliminated one of the most pressing challenges with the current referral process: the lack of GP and patient knowledge about the status of referrals.

The PRT has:

- Improved patient experience, including the timeliness of receiving information, ease of confirming appointments, reminders, and the receipt of information about the appointment.
- Provided patients peace of mind about the status of their referrals.
- Enabled patients to have active and informed involvement in the referral process.
- Guaranteed the receipt of acknowledgment of the referral by GP offices.
- Reduced no-shows in SP offices.
- Improved communications between GP and SP offices.
- Improved the relationship between GPs and SPs, and

- Begun to decrease the time spent on contacting patients about their SP appointments.

The PRT and this project were also seen as enhancing connections between the WRSS Division of Family Practice and WRSS specialists which sets the stage for further improvement projects in this community. The PRT is viewed as a valuable asset for further transformations of the health care system as it provides timely and accurate data on the functioning of the system and offers proof of concept for digital health and system integration.

Sustaining and Increasing Use

Survey respondents reported that increasing uptake by SPs, EMR interoperability, and exclusive use of the PRT would support increased and sustained use of the PRT.

Barriers to Uptake

Barriers to adoption included:

- Limited uptake by SPs.
- Perception that the PRT adds additional steps to the referral process.
- Perception that the PRT offers limited benefits for SPs.
- Lack of existing SP MOA community.
- Resistance to change.
- Lack of integration with EMR.
- The need to maintain two referral processes (in the short term until PRT is widely adopted), and
- Not using EMRs.

While each barrier is unique, many are interdependent so efforts to address one barrier may have positive effects on other barriers. Some of these barriers are being addressed through upgrades to the PRT. Others need to be addressed through change management processes and tailored messaging to users. The findings from this evaluation may prove useful in crafting messaging to convey the advantage of the PRT over current practice.

Advice to Others/Recommendations for Implementation in other Communities

1. Hire a Project Manager to support project implementation and make personal connections with GP and SP offices.
2. Use a committee to guide implementation. Ensure the committee includes GP, SP, MOA, and patient representatives.
3. Engage champions to work with GPs, SPs, and MOAs, do not minimize engagement with each user group, and make sure to tailor the engagement for each group.

4. Know your users and understand variations in workflows and support needs. Tailor and adapt messaging and support for each group and each adoption category within each group (i.e., early adopters versus later adopters). Consider supporting a SP MOA community of practice.
5. Include patient awareness and education so patients are aware of the PRT and know to expect e-mails or texts from Pathways.
6. Work with SPs in the same area of practice or in neighboring Divisions. This could increase uptake by SPs which would then increase uptake by GPs.

Conclusion

The evaluation found that the project has met its objective of improving the referral process for patients, GPs, and SPs and strengthening the relationship between GPs and SPs. Some of the improvements are revolutionary (e.g., timely and consistent acknowledgement of receipt of referral in GP offices, and automated, timely and enhanced patient notification), while others are still emerging (e.g., improvements in the efficiency of referrals and full uptake by GPs and SPs).

Based on the early success of the PRT, Pathways BC has moved forward and partnered with three other Divisions of Family Practice to implement the PRT in their communities. The White Rock South Surrey Division of Family Practice continues to work with their community to onboard the remaining physicians.

2. About the WRSS Division of Family Practice GP/SP Referral Process Project

With funding from the Shared Care Committee of Doctors of BC, the Doctors Technology Office, and the Peach Arch Hospital Facility Engagement Society, the White Rock South Surrey (WRSS) Division of Family Practice designed and implemented the GP-SP Referral Process Project. The project was intended to improve the referral process for patients, General Practitioners (GPs), and Specialists (SPs) in the WRSS area. The project began in February 2017 and was guided by a Steering Committee co-led by a GP and SP and composed of physicians, clinic managers, and GP and SP MOAs.

The project consulted widely with WRSS GPs, SPs, MOAs, and patients to understand the challenges with the existing referral process. The consultations revealed the following:

1. Lack of acknowledgement by the SP office that the referral was received from the GP office.
2. Incomplete information on the referral for the SP to triage effectively.
3. MOAs spending a significant amount of time contacting patients regarding their appointments with SP.
4. Patients and GP offices being "left in the dark" about the status of their patients' referrals.
5. GPs sending out referrals to multiple SPs for a patient because they did not know if a referral had been received by SPs.
6. High no-show rates for SPs estimated to be 10% on average.

Patients brought forward their perspectives on the challenges with the current system:

- Communication through fax is outdated and increases the chance of referral errors.
- Patients have no idea whether the GP referral was sent or not.
- SP wait-times (delay in booking an appointment and seeing the SP).
- Patient notification through the GP rather than the SP is inefficient (i.e. there no way to change appointment time).
- Lack of communication from the SP office to the patient (patient often has to contact the SP office directly to follow up).
- Patients need to be informed about the outcome of the SP appointment, good or bad.
- Communication flow between the SP to the GP is inefficient.
- Appointment reminders are inconsistent.
- SP pre-appointment instructions not always provided or clear, and
- Telephone communication is time consuming, inefficient, and ineffective (i.e., the back and forth between the GP office, SP office and patient does not work).

Based on the information collected through the consultations, the steering committee determined that an electronic referral system would best meet the needs identified by the community. After exploring a number of electronic referral systems, the WRSS Division chose to partner with Pathways BC to develop an electronic referral and patient notification system, known as the Pathways Referral Tracker (PRT). As its name implies, the PRT runs on the existing Pathways platform. Pathways is an online resource that provides physicians and their office staff access to current and accurate referral information, including wait times and areas of expertise of specialists and specialty clinics. Pathway also provides access to patient and physician resources, as well community service and allied health information. It seemed a natural fit to include the electronic referral and patient notification system on a platform that GPs, SPs, and patients were already using.

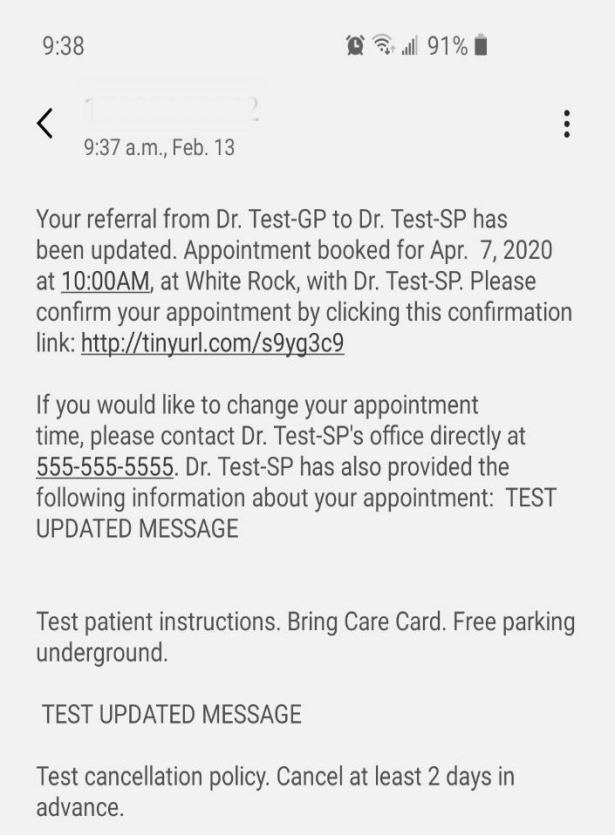
3. About the PRT

The PRT:

- Enables GP offices to send electronic referrals to SPs.
- Enables SP offices to send an acknowledgement of the receipt of a referral to the GP office.
- Enables tracking of the referral by GPs and SPs.
- Provides patients with electronic notifications via e-mail or SMS of the SP appointment, instruction sets, automated reminders, and allows patients to electronically confirm the appointment (see sidebar for screenshot of what patients see), and
- Allows GP and SP offices to securely direct message each other.

In short, the PRT is a communication portal with a common dashboard. A screenshot of the PRT dashboard is provided in Appendix A along with a brief description of some of the PRT functionality.

Figure 1: Example Text Message received by Patient



4. About the Evaluation

The evaluation was designed to provide information on:

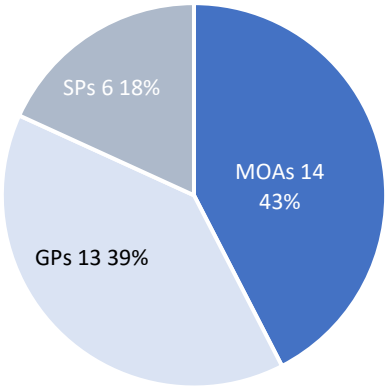
1. The effectiveness of project implementation including stakeholder engagement and clinic onboarding.
2. Uptake and usability of the PRT.
3. Impact of the PRT on patients, GP and SP clinics, GP and SP relationships, and the health system.
4. Barriers to implementation and lessons learned.
5. Suggestions for improvement to the PRT, and
6. PRT sustainability.

The evaluation used multiple methods and collected both quantitative and qualitative data. The methods included:

1. Analysis of the PRT administrative data covering the period October 2018 to March 31, 2020.
2. Analysis of engagement and contact data kept by the Project Manager.
3. An interview with the Project Manager.
4. A focus group with the Steering Committee.
5. A focus group with the Pathways PRT team.
6. An interview with the physician lead.
7. An online survey of MOAs, GPs, and SP (PRT users and non-users), and
8. Phone interviews with four patients.

Thirty-three people completed the online surveys. As shown in Figure 2, this included 14 MOAs, 13 GPs, and 6 SPs. Figure 3, shown on the next page, shows that the majority of survey respondents were PRT users (70%).

Figure 2 Online Survey Respondents

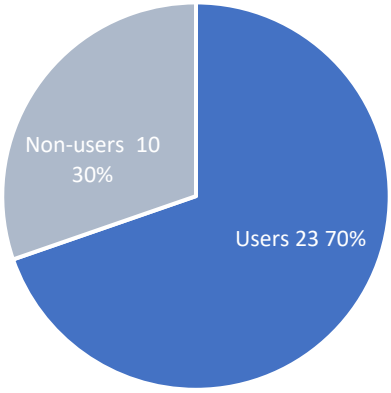


Although the online survey did include the perspectives of GPs, SPs, MOAs, and PRT users and non-users, the sample sizes were very small and this limits our ability to be confident that the responses are representative of the respective groups. For

example, responses were received from only 14% of WRSS GPs (13/94) and 12% of WRSS SPs (6/49), which represents 21% of GP RPT users and 32% of SP PRT users.

E-mail invitations to participate in a telephone interview were sent to 15 patients. These patients had been approached by one of the WRSS clinics and had consented to be interviewed and for their contact information to be given to the evaluator. In the end, only four patients responded to the e-mail invitations and scheduled telephone interviews.

Figure 3 PRT User and Non-User Survey Respondents



The quantitative data was analyzed with descriptive statistics and the qualitative data was analyzed through thematic analysis.

5. Limitations

The findings reported in this evaluation need to be viewed in context. The RPT cannot fully realize its value for GP and SP offices until there are sufficient numbers of GPs and SPs using it. Until that time, both GPs and SPs are required to use two referral processes: their existing referral process and the PRT. This problem may not fully disappear even with 100% uptake in any specific geographic location as GPs refer to specialists outside of their geographic area and SPs receive referrals from GPs outside of their communities.

A second limitation of the evaluation is the small sample size for the online surveys. As we saw, the response rate for WRSS GPs was 14% and 12% for WRSS SPs. We are unable to calculate the response rate for MOAs because the number of MOAs across all GP and SP clinics is not known. It is also not possible to determine the response rate for each clinic as a single survey link was sent out to all clinics and no identifying information was collected in the survey. While the sample includes higher percentages of PRT users (21% of GPs PRT users and 32% of SP PRT users), given these small sample sizes, the findings may not represent the views and experiences of all WRSS GP and SP PRT users and non-users.

This evaluation also does not reflect the experiences of many patients. As mentioned, it was not possible to conduct interviews with more than four patients.

6. Project Implementation

6.1 The Implementation Process

The project was managed by a WRSS Division Project Manager and supported by a Steering Committee lead by a GP and a SP. The committee included three additional GPs, three additional Specialists (OB/GYN and Orthopedics) and five Medical Office Assistants (MOAs) or clinic managers from both SP and GP offices.

The project involved five phases:

1. Developing a common understanding of and vision for the referral process and assessing needs.
2. Researching and selecting a solution to identified needs.
3. Developing the chosen solution, the PRT.
4. Pilot testing the PRT with a limited number of GP and SP clinics, and
5. Community-wide onboarding onto the PRT.

Extensive engagement of GPs, SPs, and MOAs took place at every phase of the project. In addition, the project used a quality improvement approach involving Plan-Do-Study-Act (PDSA) cycles to support communications, engagements, and clinic onboarding. Many different engagement strategies were used to connect with the community including direct e-mails, notices in the Division Newsletter, notices on Pathways website, notices on the Division website, consensus building meetings, meet and greet meetings for MOAs, presentations to SPs, hand-delivery of promotional materials, phone calls, and at least two in-person visits to every GP and SP office in the Division (pre-COVID!). Over the course of the project, 27 separate learning events took place. This does not include the in-person outreach for PRT onboarding that will be discussed later in the report.

Key project milestones included:

- February to May 2017 - Formation of the Steering Committee and development of common understanding and referral process vision.
- June to August 2017 – Engagement of GPs and SPs in confirming vision, documenting needs, and identifying solutions.
- September 2017 – SPs, GPs, and MOAs agreed that an electronic referral and patient notification system would best meet their needs and the Steering Committee began to examine existing systems.
- December 2017 – Further consultations with GP clinics and SP offices to collect baseline data and validate the decision to adopt an electronic referral and patient notification system.

- January 2018 - Pathways BC began to develop an electronic referral and patient notification system (now known as the Pathways Referral Tracker).
- April through November 2018 – Pilot testing of the PRT with three GP clinics and four specialist offices. Weekly check-in calls were implemented with clinics to identify issues and solve problems.
- June 2018 – Community demonstrations of the PRT.
- August 2018 – Focus groups with 19 patients who had seen a Specialist within the past year. The focus groups gathered patient feedback on the existing referral process and introduced the proposed new referral process using the PRT.
- November 2018 – Community-wide roll out of the PRT.

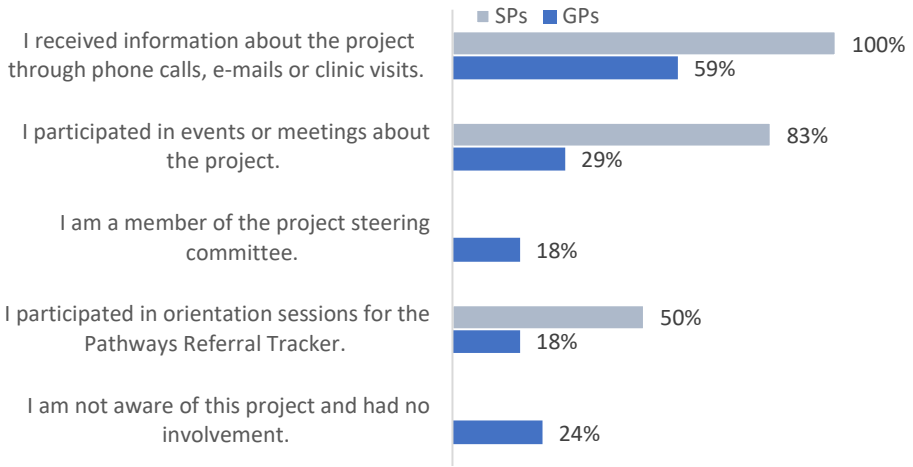
6.2 Stakeholder Engagement

A key feature of project implementation was stakeholder engagement. The opportunities for engagement went beyond receiving project communications and included:

1. Attending an in-person meeting to discuss the referral process and identify options for improvements.
2. Participating on the project steering committee, and
3. Attending meetings or orientation sessions to learn about the PRT.

Information on the effectiveness of stakeholder engagement was obtained from the online GP and SP surveys. All SP respondents and most GP respondents reported receiving information through phone calls, e-mails, or clinic visits, as seen in Figure 4.

Figure 4: Percentage of GPs and SPs Reporting Engagement in Different Aspects of the Project



More SP survey respondents had participated in events than GP survey respondents (100% of SP survey respondents versus 69% of GP respondents). Just over 30% of GP survey respondents (4/13) reported not being aware of the project and not being involved.

The majority of GPs and SPs were "very satisfied" with the information provided about the project (63% or 12/19), as shown in Figure 5.

One GP remarked:

''Your work and communication have been great."

Figure 5: GP and SP Satisfaction with Engagement and Information Provision

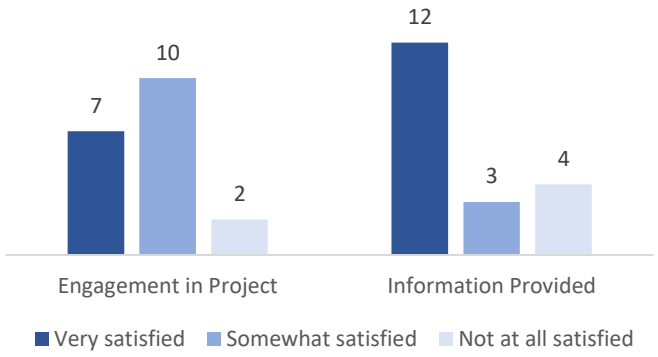


Figure 5 also shows that GPs and SP were more satisfied with the information provided than with their engagement in the project. Only about one third of GPs and SPs reported being "very satisfied" with their engagement in the project with the majority of GPs and SPs reporting being "somewhat satisfied" (53% or 10/12) with their engagement in the project. It is not clear why these stakeholders were more satisfied with the information provided than with their engagement in the project.

A few suggestions were offered by survey respondents for improving the engagement or communication process:

- Provide more opportunities for information reception
- Get more specialist engagement, and
- Provide more information via the Division Newsletter.

6.3 Clinic Onboarding

A foundational element of clinic onboarding was in-person visits to GP and SP offices. For the early adopters, these visits largely involved providing information on the PRT and demonstrating how it worked. Once the offices began using the PRT, troubleshooting was done through weekly check-in calls.

Standardized onboarding protocols were developed for GP and SP clinics.

Onboarding GP Offices:

- Complete Pathway profiles for each GP
- Prepare individual workstations in each office
- Define and implement the consent process within the clinic
- Train staff on how to use the Pathways Referral Tracker
- Support staff to redefine interrelated workflows

Onboarding SP Offices:

- Update Specialists profile pages on Pathways
- Prepare individual workstations in each office
- Review the consent process for the Specialist
- Train staff on the use of the Pathways Referral Tracker
- Support staff to redefine interrelated workflows

The onboarding process and support provided to clinics changed over the course of the onboarding work. According to the Project Manager, early adopters were more comfortable with workflow changes and were able to adapt with less support. The onboarding sessions with the early adopters typically lasted between 45 to 60 minutes. Later adopters were less comfortable with the process changes and required additional support. More time was required to work with clinics to assess current workflow and support change to new workflow. These sessions typically lasted between 1.5 to 2 hours. These second waves clinics needed:

- Longer onboarding sessions
- More extensive training guides, and
- More coaching on workflow changes and individual acceptance of change.

Regardless of the onboarding process used, the majority of SP and GP MOAs (7 out of 10) reported the onboarding process was "very helpful." The helpfulness is illustrated in the following quotes from MOAs:

"Personally, I work better with one on one training as opposed to watching videos/reading guides. I really ***appreciated having someone come to our office*** *for the orientation as well as the second visit to train us once the program was up and running."* – MOA

*"****I found the support AMAZING****. The team was super willing to help at every turn and made the learning curve much easier to handle."* – MOA

"Division is ***very helpful*** *with answering questions / tutoring."* - MOA

It was ***well explained*** *so that using the system was very easy."* - MOA

*"****Being shown what to do helped immensely****. If I was just provided the instructions, it would have been harder."* - MOA

The only suggestion offered to improve the onboarding process was for more support for closing cases:

"Going through our old referrals and showing us how to use close the cases." – MOA

In summary, clinic onboarding followed a standard protocol but was adapted for later adopters who needed more support. Overall, MOAs found the support for onboarding to the PRT "very helpful" and appreciated the hands-on approach used by the Project Manager.

6.4 Implementation Successes

Stakeholders were able to point to several factors that supported project implementation and contributed to the success of the project.

1. **Having a clear vision**. The Steering Committee worked hard at the beginning of the project to ensure there was a clear vision for the referral process that everyone could get behind.

"The initial physician engagement, bringing the specialists and the family physicians together and keeping the goal really clear and bringing us back to our vision: We want to improve this for all parties." - Steering Committee Member

"*We set out as a committee to have a very compelling, very strong clear vision. We actually spent a fairly long time saying what is it that we want, what is our vision. Even before we partnered with Pathway, we, as a committee really took the time to articulate the vision of what it is that we want*. - GP Lead

2. **Stakeholder engagement.** As mentioned, stakeholders were engaged in every phase of the project: establishing a vision, assessing needs, selecting a solution, developing the solution, and supporting onboarding. Multiple strategies were used to inform stakeholders about the project and ensure the solution would meet their needs. As we saw, clinic onboarding to the PRT was also done with extensive stakeholder engagement and in-person clinic visits. Stakeholder engagement was tailored to each stakeholder group as shown in the following quote:

"We used a two-pronged approach in terms of adoption especially with the specialists. First, we got the specialist physicians aware of what's happening. And then we got the staff to be aware. Adoption was a separate process." – GP Lead

3. **Being agile.** The ability to adapt as the project evolved was viewed as critical for this project. One example of this is the change that was made to the clinic PRT onboarding process after the first group of users was onboarded. The process was changed to better meet the needs of second wave clinics who needed more support.

4. **Division leadership.** The Division was able to open doors, broker partnerships and build on existing relationships. This was seen an important for moving forward with this project.

5. **Prototyping and pilot testing**. Prototyping the PRT with the Steering Committee allowed for user-driven changes and enhancements. Pilot testing with a smaller group of GP and SPs

also allowed for real-time troubleshooting and corrections before the community-wide launch. This was appreciated by the pilot testers:

> *"They listen and take your ideas and concerns and adapt them to the system."* – MOA pilot tester

6.5 Summary

Stakeholders agreed that the project was well implemented. A key feature of project implementation was extensive stakeholder engagement. Stakeholders were engaged in:

- Setting a vision for the referral process
- Surfacing needs and talking through solutions
- Steering the project
- Selecting a solution, and
- Designing, refining, and testing the PRT.

Clinic onboarding was also accomplished through direct stakeholder engagement through in-person clinic visits and follow-up supports.

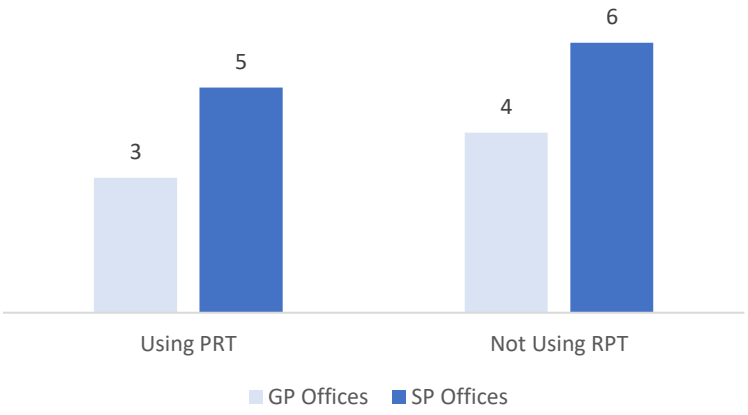
7. Uptake and Usability

7.1 Supporting Uptake

A multi-stage approach was used to promote the uptake of the PRT. An initial e-mail was sent to all GP and SP clinics to provide information about the PRT and request a time to conduct an in-person orientation. The e-mail was followed up by a phone call to schedule the in-person orientation. This multi-modal, proactive outreach was required to support decision making about adopting the PRT.

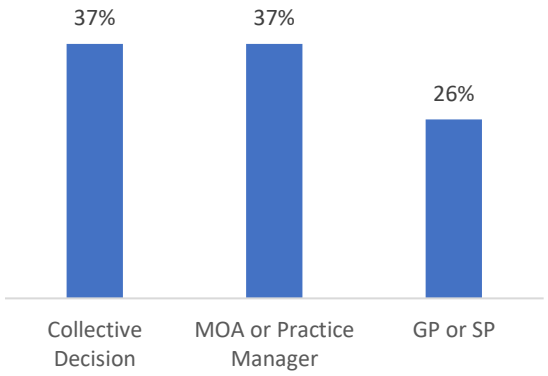
The number of contacts made to GP and SP offices to support adoption ranged from 2 to 10. As shown in Figure 6, on average, more contacts were required for SP offices than GP offices regardless of whether or not the eventual decision was to adopt the PRT. The additional contacts made to SP offices reflected a lack of response to previous Division communications and in some cases, requests to speak with the SP leads on the Committee. The project tracking data also shows that 41% of GPs made their decision to adopt or not adopt the PRT after 2 contacts with the project (initial e-mail and follow-up phone call). In contrast, only 8% of SPs made a decision after these two contacts. Taken together these data suggest there may be more barriers to overcome for SP adoption of the PRT than for GP adoption.

Figure 6: Average Number of Contacts Rounded to Whole Numbers



In most offices, MOAs manage referrals. It is therefore not surprising that among the survey respondents, the decision to use the PRT was most often either a collective decision between the physician (GP or SP) and the MOA or office manager, or made by the MOA or practice manager themselves as shown in Figure 7. About one quarter of survey respondents said the physician made the decision themselves. This finding reinforces the value of the strategy of separate engagement tactics for physicians and MOAs as both need to be brought onboard and their needs will be different.

Figure 7: Who Made the Decision to Use

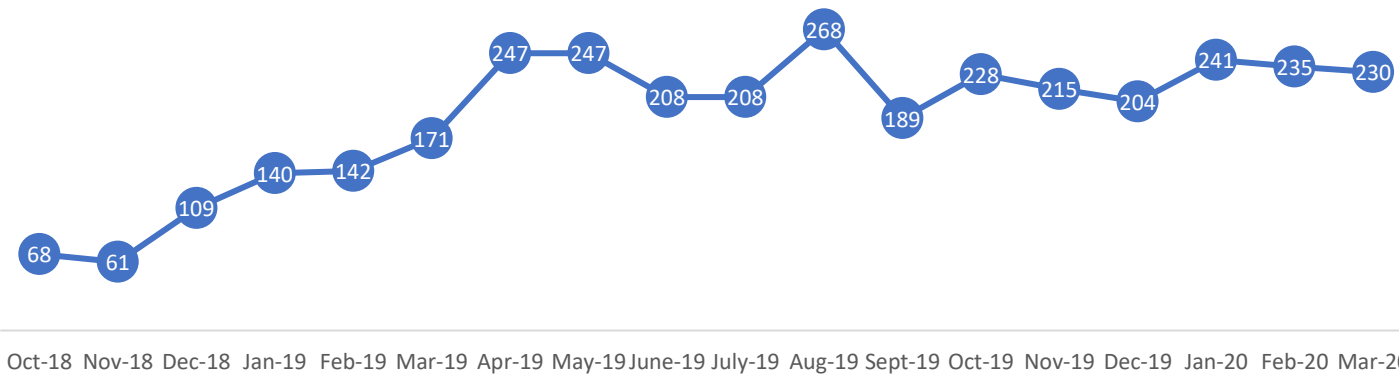


7.2 Uptake

The uptake of the PRT followed the known trajectory for diffusion of innovations beginning with a small group of early adopters (three GP clinics and four SP offices volunteered for the pilot test), followed by a larger set of adopters when the PRT was available for community-wide roll-out. At the beginning of the community-wide roll-out, 80% of GPs agreed to adopt the PRT and signed up for in-clinic orientations. As of March 31, 2020, which is about one and a half years after the PRT was available for community-wide adoption, 63 GPs and 19 SPs are using the PRT. This represents 67% of WRSS GPs and 39% of WRSS SPs. The drop in the percentage of GPs using the PRT from initial signup to March 31, 2020 is due to clinic closures and personnel changes that created workload issues.

Over the course of the initiative, GPs have sent 3,411 referrals through the PRT. Since the community-wide launch in November 2018, this works out to an average of 212 referrals per month and represents an average of 11% of referrals sent by GP offices. Figure 8 below shows the number of referrals sent per month.

Figure 8 - Number of Referrals Sent on Behalf of GPs



7.2.1 Why has there been less uptake by SPs than GPs?

The data as of the end of March 2020 shows that more GPs have adopted the PRT than SPs. One of the reasons for the reduced uptake by SPs is a perception that the PRT offers more benefits for GPs than SPs. This was specifically mentioned by a SP MOA:

> *"We believe it doesn't benefit us as a specialist office, we are doing it out of the convenience for referring offices." - SP MOA*

This perception is also reflected in the reasons cited for agreeing to use the PRT. When asked why they chose to use the PRT, SPs mentioned the intended benefits of facilitating communications and process improvements but also spoke about wanting to be collegial:

"I felt it was preferred by GP offices and I wanted to comply." - SP

"In order to be accommodating to GP offices who seemed to be keen on using the technology." - SP

In contrast, most of the reasons offered by GPs and GP MOA's for adopting the PRT spoke to the intended improvements such as acknowledgement of the receipt of the referral, reduced workload, and improved patient experience:

*"Enhanced **information availability**."* - GP

*"The hope of **improved efficiency** for the office, **improved patient care** with more prompt acceptance/refusal of referrals, automatic patient notification."* - GP

*"**Decrease the chances of lost referrals**. **Increase transparency to patient**. Hope that it would **decrease workload** to MOA."* - GP

*"To **help workflow** in the referral department. Also allow more time for MOA to do follow ups and time spent calling the patients regarding appointments be prioritized more efficiently. It also was a help to take off the pressure of having to wait for specialist to get back to us with appointments and then have us contact them, when the specialist once received the referral could contact the patient directly to book. **Huge time saver**."* – GP MOA

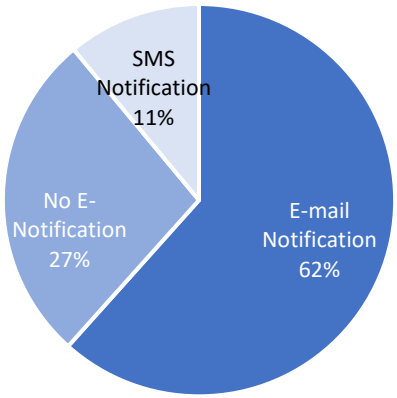
*"To **improve how patients are notified** of the appointments."* – GP MOA

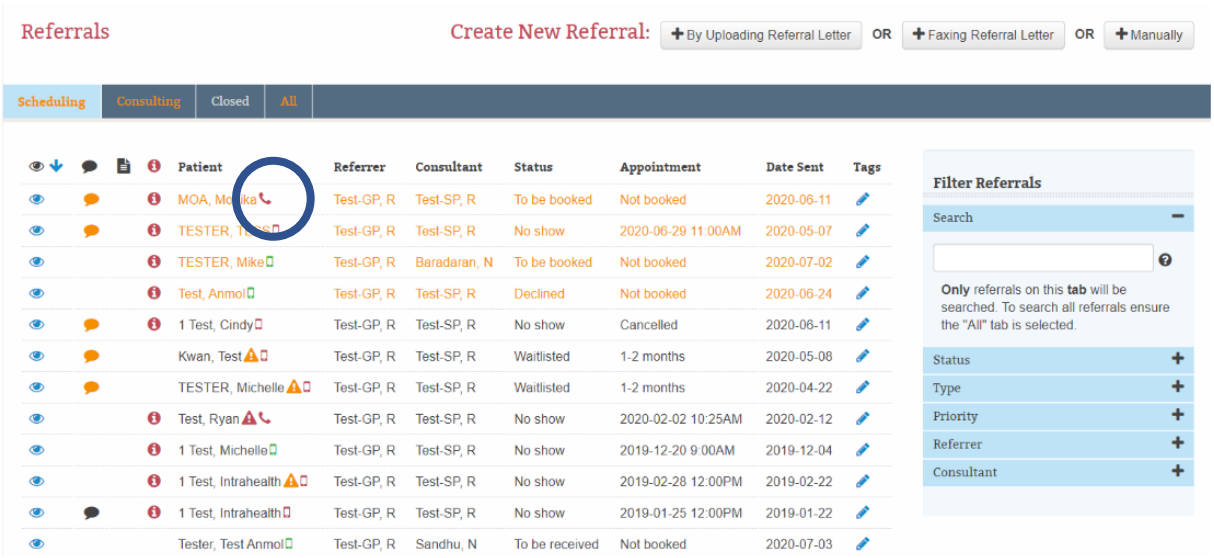
Other reasons for lower uptake by SPs will be discussed in the sections on barriers to uptake and sustaining and increasing use.

7.3 Patient Uptake

While we do not know the number of unique patients who are using the PRT, the administrative data from the PRT shows that over 3,400 referrals have been sent through the PRT. The majority of patient notifications are through electronic notification (73%). As seen in Figure 9, more patients chose e-mail notification than SMS notification (62% e-mail versus 11% SMS) with just over one-quarter opting out of electronic notification altogether. As shown below, an icon (a red telephone receiver) on the dashboard of the PRT shows when a patient has opted out of electronic notification. The cell phone icon indicates the patient has consented to electronic notification and it shows up as red or green depending on whether or not the patient has confirmed their phone number or e-mail address.

Figure 9 - Patient Preferences for Notification





7.4 Usability

As can be seen in Figure 10, the majority of MOAs rated ease of use, functionality, and appearance of the PRT as "good" or "excellent". Only one or two MOAs rated each these usability aspects as needing improvement. These ratings are based on the responses of 11 MOAs (3 GP MOAs and 8 SP MOAs).

Figure 10 - Usability Ratings by MOAs
n= 11

The ease of use is nicely captured in a quote from a MOA:

> *"I find the whole process itself is relatively simple to use and manageable for a referral MOA to maintain consistent flow."*

The majority of MOAs, GPs and SPs did not experience any challenges with the PRT. Of those that did, the most frequently reported challenge was the lack of interoperability with their EMR system:

> *"It's not connected to our EMR system so that adds a lot of extra time."* - SP MOA

Other challenges mentioned included needing to change workflow, inability of the system to auto populate patient phone numbers, more time consuming than the existing process, and the need to remember another password. These are shown below along with illustrative excerpts:

Area	Challenge
Workflow	Required change in workflow (GP MOA)

	Still need to fax referrals to office (SP MOA)
Communication challenges	Patient notification e-mails going to junk folders (SP MOA) Patients not told of referral by GP (SP MOA)
Efficiency	Takes more time (GP) and requires double entry (GP MOA)
Functionality	It is another password to remember (GP)

None of the four patients mentioned any usability problems. All spoke favourably about the PRT as shown in the quotes below:

"I think it's a really good system." - Patient

"Easy to use." - Patient

8. Impact of the Referral Process Project

As mentioned, the PRT was designed to improve the referral process. It was expected to:

- Improve patient experience.
- Improve information about the status of the referral, and
- Enable more efficient management of referrals by GPs and SPs.

The referral process project was also intended to improve communications between GPs and SPs. As will be seen in this section, it is clear that the PRT has improved patient experience and significantly improved information on the status of referrals. Furthermore, the PRT has begun to improve the efficiency of the referral process for GP and SP offices and has improved communications between GPs and SPs.

8.1 Patient Experience

Patient experience with the PRT is based on information provided by four patients. Despite this small sample, the full range of intended benefits was mentioned across the four patients.

As shown in the quotes below, patients spoke about the **timeliness** of hearing back from the SP about their appointment, their ability to **confirm the appointment** through text or email, the **usefulness of information received** about the appointment, the value of the **automated reminders**, and the **peace of mind** the appointment confirmation provided. Together this shows that the PRT has enabled patients to have active and informed involvement in the referral process.

> *"And so this time instead of waiting 10 weeks to get a call back the day before saying you're scheduled tomorrow, the report was **timely.** Oh, I was impressed that it was so prompt. Within two days I got the email from the venue I was to go to saying you are scheduled to this appointment, please confirm by clicking here, which I did. It told me that you were booked for this at that and where to go. And then please confirm that you are able to attend. It was good. And I saved the email in my file so that if I didn't hear back I could nag them. And it said to allow up to two hours, so in terms of the paid parking, **I was prepared**. And **it was reassuring** because when you have cancer you're always full of angst, it's the time waiting that drives you crazy."* - Patient

"I love it, absolutely love it. I am very digitally-oriented so I just get a text message and I just have to reply to confirm or whatever, then that works great for me. I absolutely love it. And it pops it into the calendar on my phone and it's all automated. I absolutely love it. I think it's ***much more efficient****, and then they also send reminders. I got several reminders of the appointment. And again that was all automated as well. So it's pretty much impossible to forget that you have an appointment coming up*." - Patient

"It was ***just better overall****. It's the wave of the future. I don't mind receiving information on my text. It's how my dentist actually does it. I receive a text. So I was also accustomed to it and I thought it was a really good idea."* - Patient

"It was ***quicker than in the past*** *when I've had referrals."* - Patient

"I've received multiple specialist appointments over the years. ***Sometimes you are kind of left wondering, waiting for the phone call, and waiting for a while****. I completely agreed to the process, because I thought it was a really good idea, and it feels like the technology is ready, and why not?"* - Patient

None of the patients reported concerns with the consenting process, privacy, or not having enough information to make an informed decision about opting for electronic notification.

The use of the PRT was also able to rapidly uncover a clerical error in patient contact information. One patient had expected to receive a text from the SP soon after the referral was made by the GP. When the text did not arrive within a few days, the patient checked back with the GP office where it was confirmed that the SP did receive the referral (the MOA was able to look up the status of the referral on the PRT and see that it was received by the SP). Knowing that the SP had received the referral, further investigations revealed that notification failure was due to a mistake in the patient's phone number. Under the old referral process, human errors like these may have taken weeks or months to surface.

Information on patient experience is also available from other sources. For example, a SP MOA noted that "*patients are able to confirm appointments quickly*."

One GP spoke about the reactions received from patients:

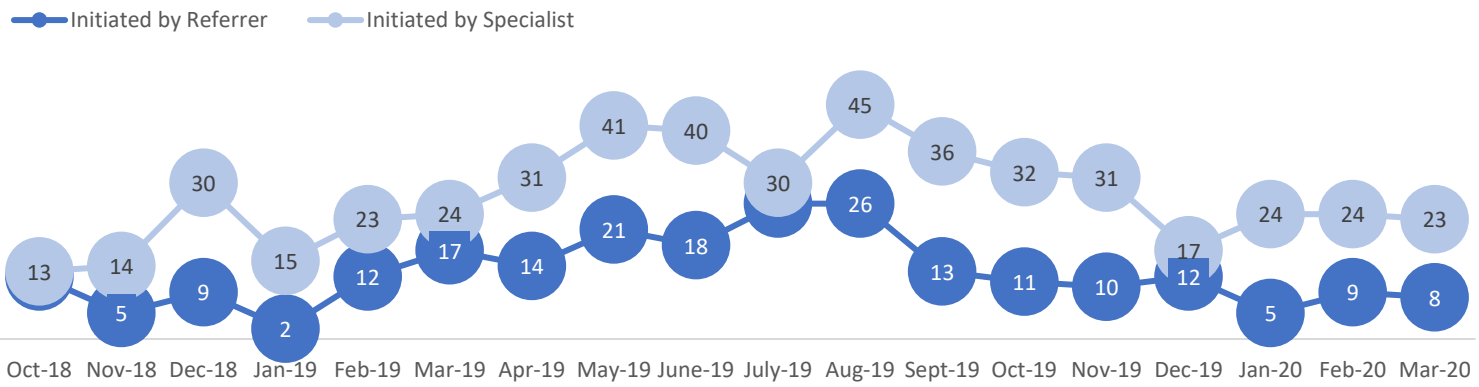
> *"I've had some patients they say look at the text or e-mail that I received …I received this to say this is my appointment and their appointment is six months away but they were totally "GPs have told me that they've had their own patients relay back to them how **thankful that they were getting the electronic communication and notifications** of their specialist appointments; just appreciating not being in the dark about it."*

Taken together, the data from patients and others shows that referral process for patients has been improved as a result of the PRT.

8.2 Impact on GP – SP Communications and Relations

As mentioned, the PRT allows GP and SP offices to send secure messages to each other. Data from the PRT shows that the secure messaging feature is being used by SP and GP offices. Figure 11 shows the number of messages initiated per month. Since the community-wide roll-out, on average SP offices initiate 30 messages per month and GP offices initiate 14.

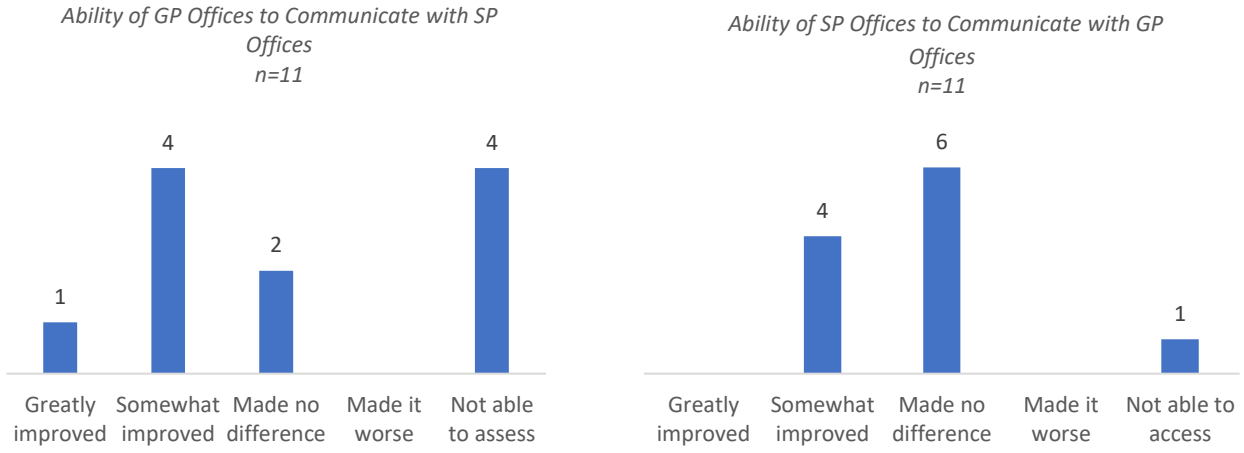
Figure 11 - Number of Messages Initiated by SPs and GPs



The finding that SP offices are initiating more messages than GP offices suggests that the PRT may be solving one of the challenges with the existing referral process by providing a way for SPs to get more fulsome information on the referral so the SPs can triage effectively.

The majority of GP MOAs and GPs who were able to assess the impact of the PRT on communications with SP offices reported improvements in communication (71% or 5/7). In contrast, fewer SP offices reported improvements in communications. Here only 40% (4 out of 10) reported improvements in communications with GP offices and 60% (6 out of 10) reported the PRT has not made a difference, as shown in Figure 12 on the next page. This supports the finding that the PRT offers more benefits to GPs than SPs.

Figure 12 – GP and SP Rating of the Impact of PRT on Communications



In addition to improving communications, secure messaging was also seen as contributing to community building between GP and SP offices:

> *"Some of the big comments that I've heard while visiting in clinics in White Rock from MOAs, saying they feel like the system itself and just having the **ability to send the interoffice messages** to one another and getting a quick reply has really made them feel like there's a **stronger sense of community**."* - Pathways Team

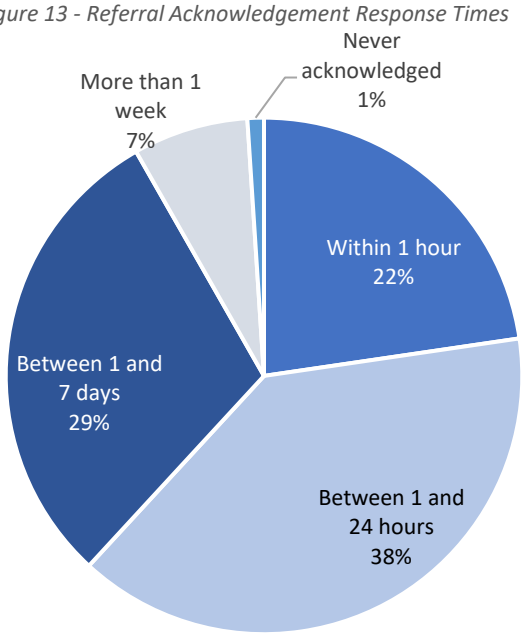
A few people also mentioned that the project itself contributed to improved relationships between GPs and SPs:

> *"I felt during the pilot and launch it was **an amazing community builder with the specialist offices**. It allowed us to understand the differences in our workflow and problem solve as a group".* – GP MOA
>
> *"It's just amazing that essentially a computer system, the PRT, has provided a space to **create relationships** in the respective communities."* – Pathways Team

8.3 Impact on Referral Acknowledgement

One of the most significant impacts of the PRT is that it has virtually eliminated one of the main problems with the existing referral process: the lack of acknowledgement of referrals. As shown in Figure 13, almost every referral send by GP offices is acknowledged by SP offices (99% of referrals). Further, almost one quarter of referrals are acknowledged within an hour from when the referral was sent and another 38% are acknowledged within one day. This means that 60% of referrals are acknowledged within 24 hours. This far exceeds the BC College of Physician and Surgeon Guidelines recommending SPs acknowledge referrals within two weeks.

Figure 13 - Referral Acknowledgement Response Times



The value of receiving an acknowledgement is revealed in the open-ended responses provided by various stakeholders:

*"Greatest benefit is that **we know a referral has been received.**"* - GP MOA

*"**No need to hound the specialist office** with stupid questions like "did you receive the referral letter?", "why no appointment date yet?", "who is going to communicate the appointment to the patient?*" etc." - GP

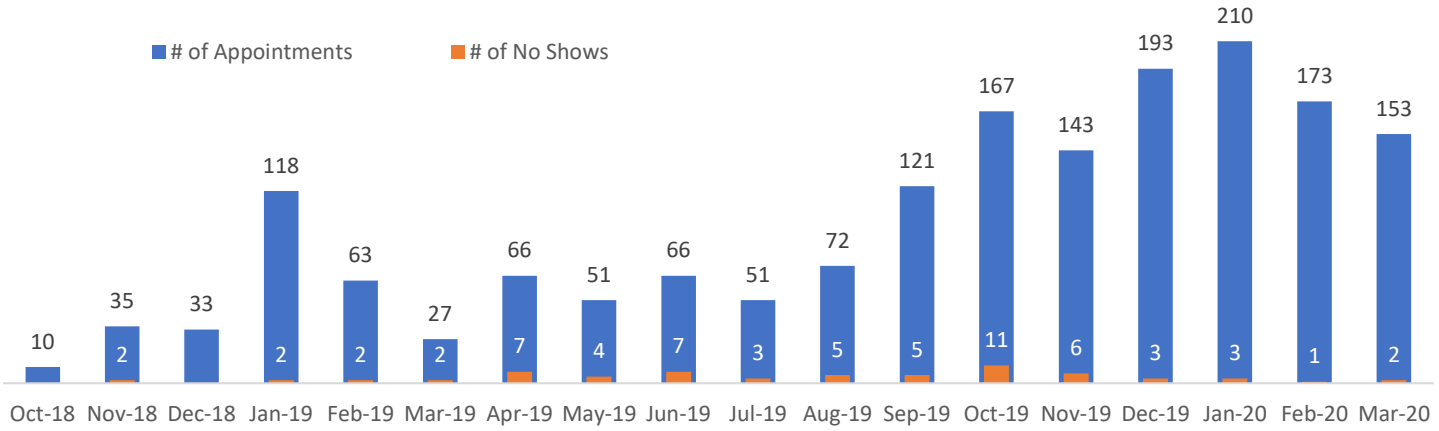
*"**Takes the guesswork out** of whether the specialist has received the referral and will his/her office respond to it in an appropriate time frame."* - GP

*That was the **biggest thing**….**just knowing that it was received**, and you could see it, you can attach things, you can see that they got all seven pages."* - Steering Committee Member

8.4 Impact on No-Shows

The PRT has also significantly decreased the no-show rate for SP appointments. It was estimated to be 10% prior to the PRT and has decreased to an average of 3.7% for referrals made through the PRT. The actual number of appointments and no-shows per month is shown in Figure 14.

Figure 14 - Number of SP Appointments and No-Shows per Month



When asked directly about the impact of the PRT on no-show rates, the majority of SPs completing the online survey (67% or 6 out of 9) reported the PRT has not affected their no-show rates. This discrepancy between the PRT administrative data and SP perceptions of no-show rates may reflect the fact that the majority of referrals received by SPs are not through the PRT and any impact of PRT referrals may be too small to detect.

8.5 Impact on Efficiency

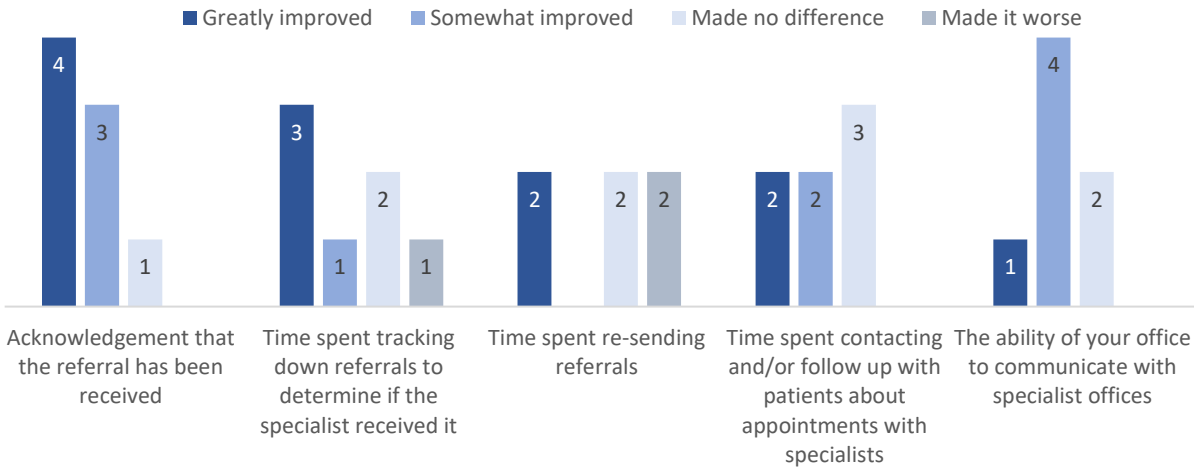
8.5.1 GP Offices

As shown in Figure 15, the majority of GP offices who were able to assess the impact of the PRT on the referral process reported improvements in:

- Time spent tracking down referrals.
- Time spent contacting patients, and
- Time spend re-sending referrals.

The average time to complete a referral went from 6 minutes to 5.3 minutes.

Figure 15 – GP Ratings of Improvement to the Referral Process



The PRT was also seen as improving the ability of GP offices to manage referrals:

"Having the specialist contact the patient or email the patient has been a huge help and allows us to make sure referrals are well maintained especially for offices that have multiple doctors and only a few referral staff members to keep up with the flow." - GP MOA

The secure messaging feature in particular was seen as a positively impacting the efficiency of the referral process:

> *"**Inter-office secure messaging** is replacing phone calls and faxes, which is great. It happens in mere seconds; I make a referral; they'll request additional information. In the past it could be sometimes a couple of weeks where they say we need different imaging for this patient before they're seen, but there was a delay already, so they weren't even put into their waitlist or put into the system of bookings. They were in that grey area where they requested additional information; now if they request it, we can send it back, it's instantaneous, it's secure. We're not doing fax or phone text, where my staff calls and then waits. I love that feature*." - GP

> *"And even the back and forth between GPs and specialists now is instant, so there's a lot less back and forth faxing of "Do you have this?" "Have you received it?" You can do the instant messenger, which that alone has saved the staff hours of painful communication."* - Steering Committee Member

Despite these early successes, it was recognized that the full benefits of the PRT will require more adoption:

> *"I find it amazing when I can send off a referral when a patient has given consent to electronic communication. It is still a work in progress, and I can see the benefit when we have more consents collected."* - GP MOA

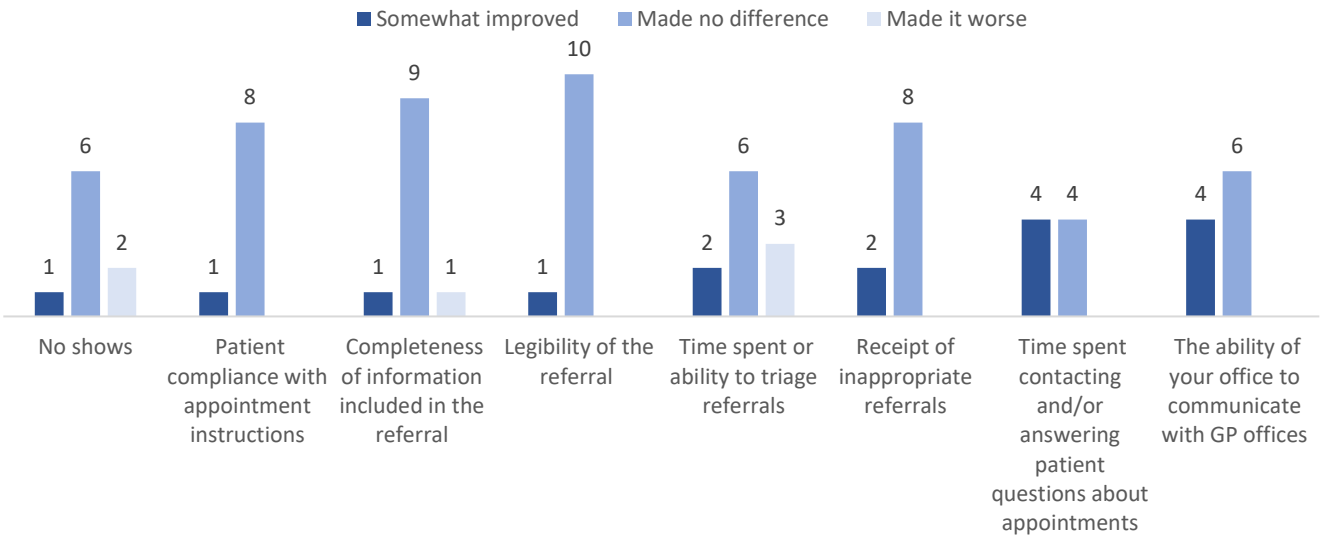
8.5.2 SP Offices

Efficiency improvements for SP offices were less frequently reported than improvements for GP offices, as shown in Figure 16 on the next page. None of the SP survey respondents reported that any aspect of the referral process had "greatly improved" and a minority of SPs reported "some improvements" in six areas. More improvements were noted in two areas: time spent contracting or answering patient questions about appointments and ability to communicate with GP offices, but as shown in Figure 16 on the next page, the majority of SP offices did not report differences in:

- Receipt of inappropriate referrals.
- Patient compliance with appointment instructions.
- Legibility of referrals.
- Completeness of information included in the referrals, or

- Time spend or ability to triage referrals.

Figure 16 - SP Ratings of Improvements to the Referral Process



As noted, improvements were mentioned by some SP MOAs. One SP MOA, for example, mentioned that the PRT does lessen her workload:

> *"Patients are able to confirm their appointments on the Pathways system which **reduces the number of phone calls we receive**. I am able to view reminder notices sent on Pathways so I no longer have to phone all patients."* - SP MOA

Another SP MOA mentioned the PRT improves the transparency of the entire referral process:

> *"The transparency about the referral, steps, wait times, etc. between the offices and patient."* - SP MOA

Overall, these findings show that the PRT is seen as providing more benefits for GP offices than SP offices. However, the findings from this evaluation show this is not an accurate perception of the PRT, as PRT data shows a substantial reduction in no-show rates and improved communications through SP offices using the PRT to send messages to GP offices.

8.6 Impact on Workload

GP MOAs had estimated that prior to the use of the PRT, each referral took on average 6 minutes of their time. With the PRT, GP and SP MOAs on average estimated that each referral

using the PRT takes 5.3 minutes. While this is based on the estimate of only 10 MOAs (3 GP MOAs and 7 SP MOAs), it is promising. When we extrapolate across all referrals, even this modest reduction in time spend by MOAs can result in saving about 400 hours of work across referrals.

A GP explained how this time savings can come about:

> *"Patients are getting electronic notification of their appointment date and place but they are also getting the additional information. So no longer does my staff have to – because I've overheard them on the phone, prior to the PRT telling them details of their appointment information, saying you need to bring your medication, this is the location, this is what you need to do, you have to pay for parking, no-show you have to give them 48 hours, you know, just taking the time. So no longer do they have to say you have to ABCD and spend minutes, sometimes even 10 minutes depending on the patient, especially the elderly because you need to say it a number of times to them, and they have lots of questions. So* ***I see so much time saved****. Then when the specialists are fully adopting this process, they're able to send attachments that are already in Pathways for patients, which they can individualize depending on what they're being seen for. So it's just a number of benefits that I see."* - GP

8.7 Impact on Sending Multiple Referrals

It was not possible to determine the impact of the PRT on the practice of GPs sending multiple referrals for the same patient. Most of the GPs participating in the survey indicated they did not send referrals to multiple SPs for the same patient before the PRT (6 out of 8 GPs). Two GPs chose the response "prefer not to answer". One GP MOA said they had stopped doing it and one said they continue to do it.

8.8 Summary of the Impact of the Referral Process Project

When asked directly about the overall impact of the PRT, 75% of survey respondents who were able to assess an impact reported the PRT had "somewhat improved" the referral process. Given the limited uptake by SPs and the limited number of overall referrals sent through the PRT, this finding is encouraging.

Even at this early stage of adoption, the PRT has:

- Improved patient experience, including the timeliness of receiving information, ease of confirming appointments, reminders, and the receipt of information about the appointment.
- Provided peace of mind to patients.
- Enabled patients to have active and informed involvement in the referral process.

- Guaranteed the receipt of acknowledgment of the referral send by GPs.
- Reduced no-shows in SP offices.
- Improved the relationship between GPs and SPs.
- Improved communications between GP and SP offices, and
- Begun to decrease the time spent on referrals.

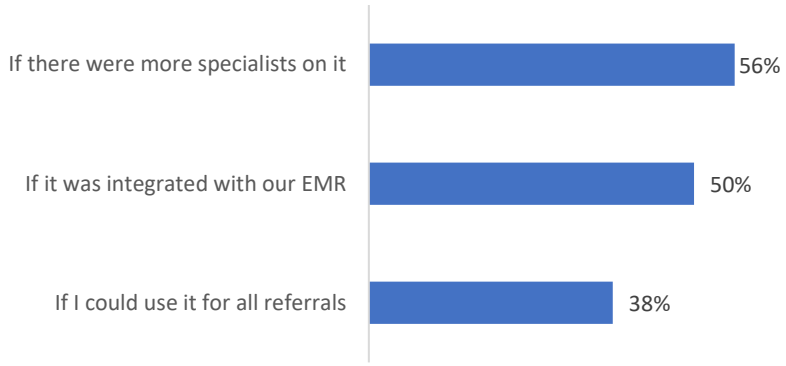
The PRT and this project was also seen as enhancing connections between the WRSS Division of Family Practice and WRSS SPs, which sets the stage for further improvement projects in this community. The PRT is seen as a valuable asset for further transformations of the health care system as it provides timely and accurate data on the functioning of the system and offers proof of concept for digital health and system integration.

> *"The Referral Tracker is potentially **capturing some very rich information** that has the potential to make an impact on other systems as well, provincially."* – Pathways Team

9. Sustaining and Increasing Use

When survey respondents were asked what would increase and sustain their use of the PRT, it is not surprising that increasing uptake by SPs, EMR interoperability, and exclusive use of the PRT would support increased use of the PRT, as shown in Figure 17.

Figure 17 - Increasing Use (GPs and MOA GPs)



Making the PRT mandatory was mentioned as another way to sustain and increase use. Paying attention to user feedback was also seen as valuable for supporting uptake:

> *"The improvements to PRT over the period of time that we've been implementing, if there can be continued effort on Pathways' part to continue to increase the number of benefits there are to specialists in particular, I think that some of those improvements have made yeses out of some nos. And part of that could be that they felt like they were heard. If Pathways Referral Tracker can pay attention to some of the feedback we're hearing, like them being able to use the system for the second appointment, so that they can experience that benefit of the patient notification.* ***If they keep using that specialist voice to fuel some of their development work, I honestly think that specialists will be like, wow, that's amazing."*** - Steering Committee Member

10. Barriers to Adoption

The main barriers that affected the uptake of the PRT are discussed below. While each barrier is unique, many are interdependent so efforts to address one barrier may have positive effects on other barriers.

1. **Limited uptake by SPs**. Some GPs did not want to sign on to the PRT because very few SPs were on it. Likewise, some SPs did not want to use it because not all GPs were on it. This catch-22 scenario was recognized by the Pathways team:

> *"It's a built-in challenge that **Referral Tracker's only going to become more useful the more people are using it.** And it's taking time to make that happen."* - Pathways Team

2. **The PRT was seen as adding additional steps to the referral process**. Even though the PRT involves MOAs performing the same steps they previously performed in their EMRs including attaching other documents to referrals, some MOAs believe the PRT adds additional steps to the referral process. For GP and SP MOAs, the PRT does not require additional steps, just different steps as illustrated in the quote below. The one exception to this is the need to also record the SP appointment in the SP EMR. This is explored below as it is a unique but related barrier.

> *"The staff see it as being more difficult or having to do additional work. So they're not understanding that yes**, it's different but it's not additional steps**"* - GP

3. The perception that the PRT offers **limited benefits for SPs**. In the existing referal process, the burden of responsibility and work falls mainly on GP offices so it is not surprising that there would be more resistance by SP offices to adopting the PRT. This was born out in the findings from this evaluation. As we have seen, the PRT is seen as less valuable to SPs. SPs reported fewer improvements to the referral process than GPs and SP specifically mentioned collegiality in addition to system improvements as a motivator for adopting the PRT. This perception was also articulated by other stakeholders as shown in the quotes below:

"We find ourselves often having to try and make the case to the specialist as to why this is something that's important to them." - Pathways Team

"We knew that it would be a challenge to get the specialists to adopt it. The GPs we knew that they were coming from a space where they really wanted a change, because prior to this, the burden of the referral was actually – the majority was on the GPs side and staff. So we knew that it would be a lot ***easier for GPs to adopt this process."*** - Physician Lead

"I think when I looked at that perhaps I would have ***done more engagement with the specialists*** *– it was very hard, when I looked back, to get them to come out to the community engagement meetings. We did try our best to visit the individual specialist offices. When I look back, what seemed to have made a difference in the last three to four months is I've presented to various venues where specialists already had meetings. So we did the general surgery meeting at the hospital where we knew that there were specialists there. And so I think if perhaps we had done that earlier on, then the numbers would be a little bit different."* - Physician Lead

As mentioned, this evaluation has shown that there are benefits for SPs and equally important, there are clear benefits for patients. Conveying the findings of this evaluation may help to change this perception of the PRT and improve SP uptake.

4. **Lack of an existing MOA SP community**. The adoption of a new system always has a learning curve. For GP MOAs, they were able to support each other in learning the system and learning how to optimize its use in their clinics. In contrast to GP MOAs, it was challenging to connect with the SP MOAs because many had no previous experience with the Division and no history of a community of practice that supports each other with office tasks. This lack of community prevented them from initially turning to each other to problem solve and share tips as they were learning the new system. This was noted as another barrier to uptake.

5. **Resistance to change and/or satisfaction with current system**. All innovations need to overcome resistance to change and show they are better than current practice. Roger's Theory of Diffusion of Innovations tells us that aspects of the innovation itself can help or hinder adoption:

"*Potential adopters evaluate an innovation on its relative advantage (the perceived efficiencies gained by the innovation relative to current tools or procedures), its compatibility with the pre-existing system, its complexity or difficulty to learn, its trialability or testability, its potential for reinvention (using the tool for initially unintended purposes), and its observed effects*." ("Diffusion of Innovation", nd).

Overcoming resistance to change may require more emphasis on the relative advantage of the PRT over the current state. As mentioned, findings from this evaluation may be of value in making the case.

6. **The lack of integration with EMR**. Currently the PRT is not operable with EMRs, meaning that the two systems are not fully integrated. For example, appointments booked through the PRT do not show up on SP booking schedules, which require SP MOAs to copy the appointment to the SP EMR booking schedule. As mentioned by one GP, once this problem is solved, it will eliminate one of the barriers to using the PRT:

> ***"Once we have that scheduling synchronization**, you know we're currently working with the vendors **– it's going to be a huge major advantage***." - GP

7. **Need to maintain two referral processes**. Because of the lack of interoperability, voluntary adoption, and community-by-community roll-out, until the PRT is fully adopted, GPs and SPs will need to maintain two referrals processes. Until there is widespread adoption, this will continue to act as a barrier to adoption.

An additional barrier mentioned by one clinic is being a paper-based office.

Some of these barriers are being addressed through upgrades to the PRT. Others need to be addressed through change management processes and tailored messaging to users (i.e., reinforce the message that the PRT does not add steps to the referral process and that the PRT does benefit SPs). The interoperability/EMR integration is an ongoing challenge with all IT projects and can be challenging to resolve as different stakeholders have different ideas of what interoperability means and should involve. As mentioned, the findings from this evaluation can be used to convince SPs and GPs of the value of the PRT.

11. Suggestions for Improving the PRT

PRT users and non-users offered suggestions for improving the PRT. Not surprising these suggestions reflect some of the identified barriers but they also go beyond current barriers and speak to additional functionality for the PRT.

1. Integrate with EMR.
2. Enable SP offices to edit patient information. Currently only GP offices can edit patient information.
3. Send notification when SPs leave Pathways or the PRT.
4. Enable scheduling synchronization so appointments scheduled in the PRT auto populate the appointment schedule in EMRs.
5. Allow follow-up appointment to be scheduled.
6. Streamline how information on PRT updates is provided.

Pathways BC is working on some of these improvements. For example, as mentioned, they are working on synchronizing scheduling. They are also putting together a provincial user's group to support other system upgrades so that they can streamline how information on PRT updates is provided.

12. Advice for Others/Recommendations

Stakeholders offered the following advice for other communities wanting to implement the PRT:

1. **Hire a Project Manager**. Implementing practice changes require dedicated efforts. A project manager can support relationship building, stakeholder engagement and clinic onboarding.

> *"It may go without saying, but I think that Cary did such an excellent job as the Project Manager of this project in White Rock, I think it's necessary to continue to have someone at that role in other communities."* - Pathways Team

2. **Use a committee** to guide engagement and implementation. As revealed in the quote below, there are many ways a steering committee can support adoption of the PRT beyond what an individual Project Manager can do.

> "*Whether it's to help us with creating awareness, advocating for the system, offering – even if it's just informal peer-to-peer support; having some kind of a **leadership committee** in place to help steer and guide the direction of the implementation in each community is huge"* - Pathways Team

3. **Engage champions** to work with GPs, SPs, and MOAs, **do not minimize engagement** with the user groups, and **tailor the engagement** for each group.

> *"**Don't minimize engagement** – so getting both the GPs and specialists really involved in the process from the beginning I think really will help them go far. Because then it becomes a community project. When you get to the grassroots and you get the physicians involved it really helps when it is adopted. So that's number one."* - Physician

4. **Know your users** and understand variations in workflows and support needs.

   Engagement with each user group should be tailored to that group. This means planning engagements for GPs, SPs, and MOAs and finding champions for each group. As mentioned by the steering committee, and confirmed by the survey data, in many offices, the MOA or office manager made the decision about whether or not to try the PRT and their needs to be understood and met. Support needs will not only be influenced by the user group, but also by the type of adopter (i.e., early adopters versus late adopters) and messaging and support need to reflect this as well. Consideration

should also be given to supporting the establishment of the SP MOA community of practice if one does not already exist in the community.

> *"Recognize that there might be certain specialties where you really have to understand the value for their particular practices. I think is part of **knowing who your users are** and how-to best position that for them."* – Pathways Team

5. **Include patient awareness/education**.

   The scope of patient awareness and education should include informing patients about a change in how they will be notified of their appointments. One clinic mentioned that prior to the PRT they routinely e-mailed patients about their specialist appointments. E-mails from SP clinics are now coming from Pathways and patients should look out for them. They suggested having posters in the GP offices that tell people that appointment notifications will be sent through Pathways.

6. To support uptake, work with SPs in the **same area of practice** and work with **neighbouring Divisions.** This could help getting a larger number of SPs and GPs on board and which will then help get more SPs and GPs on board.

13. Summary and Conclusions

The WRSS Division of Family Practice GP/SP Referral Process Project has achieved what it set out to accomplish: it has improved the referral process for patients, GPs, and SPs in WRSS and strengthened the relationship between GPs and SPs. Some of the improvements are revolutionary (e.g., timely and consistent acknowledgement of receipt of referral; and electronic patient notification), while others are still emerging (e.g., improvements in the efficiency of referrals and full uptake by GPs and SPs). As mentioned, the full value of the PRT for GP and SP offices will not be realized until the system is more widely used.

Even at this early stage of uptake, the PRT has:

- Improved the timeliness and information patients receive about the referral.
- Provided patients peace of mind.
- Enabled patients to have active and informed involvement in the referral process.
- Guaranteed the receipt of acknowledgment of the referral by GP offices.
- Reduced no-shows in SP offices.
- Improved communications between GP and SP offices.
- Improved the relationship between GPs and SPs, and
- Begun to decrease the time spent on contacting patients about their referral appointments.

The project was very well implemented, and its success was supported by extensive stakeholder engagement, the use of a project steering committee and a Project Manager, agile implementation, and user-based prototyping of the PRT as it was being developed. The PRT and this project were also seen as enhancing connections between the WRSS Division of Family Practice and WRSS SPs which sets the stage for further improvement projects in this community. The PRT is seen as a valuable asset for further transformations of the health care system as it provides timely and accurate data on the functioning of the system and offers proof of concept for digital health and system integration.

Based on the success of the PRT, Pathways BC has moved forward and partnered with three other Divisions of Family Practice to implement the PRT in their communities. The WRSS Division of Family Practice is continuing to work with their community to onboard the remaining GPs and SPs.

Appendix A – Screenshot of PRT Dashboard