Evaluation of the Residential Care Program in White Rock-South Surrey

White Rock-South Surrey
Division of Family Practice
A GPSC initiative

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Published March 2015

Executive Summary

Overview of Program

The Residential Care Program in White Rock-South Surrey (WRSS) was launched in March 2011 to help address the complex needs of the frail elderly living in long term care facilities and support physicians in providing care to residents. The program is delivered by the WRSS Division of Family Practice, in partnership with Fraser Health (FH), and the British Columbia Ministry of Health (MoH). Intended outcomes of the program include:

- More appropriate use of health care services
- Improved patient care
- Improved practice environments for physicians and residential care facility staff.

The program ensures a Site Medical Director for each Fraser Health residential care facility in WRSS who oversees the care needs of all residents. The physician ensures that regular physical assessments are completed, documented and integrated into care plans. The physician also attends case conferences between patients, families and facility staff. A centralized answering service ensures that facility staff have access to a Site Medical Director for immediate care needs. Facility physicians attend regularly scheduled educational sessions (nine per year) to gain knowledge, skills and share expertise in the care of the residents and frail elderly. In addition to listening to guest speaker talk about a topic of relevance to the physicians, the physicians use these sessions to troubleshoot and share ideas related to their work within the long term care facilities. The program is supported by a physician lead and administrative personnel.

Purpose of Evaluation

The evaluation of this program was undertaken to document its implementation, determine its impact, and identify lessons learned. The evaluation report will be used by the Division to improve the program, support knowledge dissemination, and support uptake of this model by other communities.

The following questions were addressed in the evaluation:

1. How was the Residential Care Program implemented in WRSS?
2. To what extent is the program contributing to appropriate health care utilization?
3. To what extent is the program contributing to improved patient care?
4. To what extent is the program contributing to improved practice environments for physicians and residential care facility staff?
5. How does the Residential Care Program contribute to the objectives of the Attachment Initiative?
6. What is working well, what are the challenges, and what can be improved?
7. Is the program still needed?
8. How can the program be sustained?

Evaluation Approach

A mixed method design was used to explore the implementation, effectiveness and lessons learned. The findings draw on document reviews, quantitative data from facility administrative records, and qualitative data from interviews and focus groups with facility staff, physicians, Division staff, and program administrators. The evaluation was guided by a steering committee composed of Division physicians and staff. The interviews and focus groups took place in June and July 2014 and administrative data from covering the period 2009 to the second quarter of 2014 was used.

Findings

Appropriate Use of Health Care Services including Reduced ER Transfers

The findings show that the Residential Care Program was able to contribute to more appropriate use of health care services. The program has resulted in more timely access to residential care for patients who did not have a family physician and has eliminated prolonged stays in hospitals for patients waiting for residential care due to the lack of a family physician. Further, the program has resulted in a reduction in the number of ER transfers from facilities. An analysis of the trends in ER transfers before and after the implementation of the program shows that across all nine intervention facilities in White Rock-South Surrey, right after the implementation of the intervention, there was on average a 45% decrease in the number of ER visits per 100 residents. A 45% reduction in the average ER visits per 100 residents post implementation equals approximately 21 less ER visits per month across all of White Rock-South Surrey intervention facilities. By one year after intervention, there is an estimated 60% decrease in the number of ER visits per 100 residents. Over the same time period, all other residential care facilities in Fraser Health were seeing an increase in ER transfers per 100 residents.

Improved Patient Care

Physicians, facility staff and program administrators believe the program has resulted in improved patient care through increased access to care, enhanced continuity of care, better coordination between care providers, and increased ability to manage medications. Administrative data on the rate of patients on nine or more medication suggests that the percent of patients on nine or more medications has decreased in two facilities and remained stable in two facilities. Due to the small sample size, it is not possible to determine if these changes are statistically significant.

Improved Practice Environments

Physicians and facility staff report the program has improved their practice environments. Physicians feel supported through their community of practice and education sessions and report increasing their knowledge of caring for facility residents. This in turn, has increased their job satisfaction. Facility staff feel very supported by the Site Medical Directors and this has resulted in increasing their satisfaction with their jobs.

Key Success Factors

Most elements of the program appear to be working well and are seen as key success factors, including the availability of funds to support a physician lead, administrative support, and compensation for physicians to attend the education/community of practice sessions. The education/community of practice sessions were noted by physicians as one of the most positive and beneficial aspects of the program. Residential facility staff appreciate and value the increased access to physicians that is available to them for their residents.

Suggestions for Improvements

Suggestions for improvements to the program were noted in areas such as better adherence to ER transfer protocols and more effective communication of patient health status. Facility staff suggested that Site Medical Directors make regularly scheduled visits to the facilities and encourage succession planning for Site Medical Directors. The Division has begun succession planning efforts by hiring additional physicians who are currently being mentored by current Site Medical Directors.

Limitations

The main limitations of this evaluation include:

- Lack of patient/family perspective – Because of timelines, budget, and logistical issues, the perspectives of residents of long term care facilities and family members were not explored in this evaluation.
- Limited ability to draw conclusions from medication data – The small sample size (n=4) limited our ability to conduct inferential statistics on the trends related to patient medication. Thus the findings are suggestive of improvements but not conclusive.

Conclusions

According to stakeholders, this program is successful in meeting its objectives and furthering Triple Aim objectives (improved patient experience and outcomes, improved provider experience, and improved system sustainability). The Residential Care Program has had a positive impact on:

Patient care:

- Increased access to care
- Increased continuity of care
- Improved coordination between care providers, and
- Improved medication management, to some degree.

Providers:

- Increased physician capacity to meet the needs of long term care residents and improved the support and remuneration available to them, and
- Improved practice environments for Residential Care Facility staff.

Health system functioning:

- Eliminated delays to long term care facilities due to lack of a family physician
- Increased access to physicians in facilities
- Reduced ER transfers
- Eliminated funding disincentives for physicians to provide care to long term care facilities, and
- Enables physicians through their community of practice to generate community-wide solutions to community-based health care needs.

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1 Introduction

1.1 Overview of Residential Care Program

The Residential Care Program in White Rock-South Surrey (WRSS) was launched in March 2011 to help address the complex needs of the frail elderly living in long term care facilities and support physicians in providing care to residents. The program is delivered by the WRSS Division of Family Practice, in partnership with Fraser Health (FH) and the British Columbia Ministry of Health (MoH). The program was designed to address a number of challenges faced by the residential care system, including fragmented care, poorly supported health professionals and increasingly complex patients. Each of the nine residential facilities in White Rock-South Surrey is assigned a Site Medical Director who oversees the care needs of all residents. The Residential Care Program answering service allows facility staff to reach a Site Medical Director on evenings and weekends for immediate care needs. The program also aims to increase supports to physicians by creating a community of practice and offering regular education sessions on health concerns facing the frail elderly (e.g., polypharmacy).

Intended outcomes of the program include:

- More appropriate use of health care services
- Improved patient care, and
- Improved practice environments for physicians and residential care facility staff.

1.2 Purpose of the Evaluation

At the time of the evaluation, the Residential Care Program was in its fourth year of implementation. The Division was interested in an evaluation to learn about how the program operates, the impact of the program, and how the program can be improved. This information will help the Division to better understand how to best support this program moving forward. Findings from the evaluation will also be used for knowledge dissemination to inform the uptake of the model in other communities.

In addition to the Residential Care evaluation, the WRSS Division of Family Practice is concurrently evaluating a number of programs under its Attachment Initiative. The information from the evaluations will help the Division make decisions about how to continue to support Attachment goals in the midst of funding changes.

Although the Residential Care Program was not originally part of the Attachment Initiative, the goals of the program are consistent with the Attachment goals. Attachment goals include:

1. Confirming and strengthening the GP-patient relationship – including better support for the needs of vulnerable patients;
2. Enabling patients that want a family doctor to find one; and
3. Increasing the capacity of the primary care system.

As can be seen, the Residential Care Program supports all three Attachment Goals. In addition to exploring the implementation, impact and lessons learned from the Residential Care Program, the evaluation will show how the program supports the goals of the Attachment Initiative within this Division.

1.3 Evaluation Questions

The following questions are addressed in the evaluation of the Residential Care Program:

1. How was the Residential Care Program implemented in WRSS?
2. To what extent is the program contributing to appropriate health care utilization?
3. To what extent is the program contributing to improved patient care?
4. To what extent is the program contributing to improved practice environments for physicians and residential care facility staff?
5. How does the Residential Care Program contribute to the objectives of the Attachment Initiative?
6. What is working well, what are the challenges, and what can be improved?
7. Is the program still needed?
8. How can the program be sustained?

2 Methods

A mixed method design was used to explore implementation, effectiveness and lessons learned. The findings draw on document reviews, quantitative data from facility administrative records and qualitative data from interviews and focus groups with facility staff, physicians, Division staff and management, and program administrators. A brief description of each of these methods is provided below.

Review of Program Documents

A review of program documents was conducted to gain a comprehensive understanding of the program goals, activities and intended outcomes. Information from program documents, along with interviews with program staff were used to inform the development of a program logic model and descriptions of the program functions (see section 3.1).

Documents consulted in the review included:

- WRSS Division of Family Practice Residential Care Contract (Term March 2011 to December 2011)
- Residential Care Evaluation Report 2011-2012
- Residential Care Program PowerPoint, December 2012, and
- WRSS Division of Family Practice website[1]

[1] https://www.divisionsbc.ca/white-rock-south-surrey/residential

Review of Administrative Data

The evaluation used existing administrative data from the Resident Assessment Instrument Minimum Data Set 2.0 (RAI – MDS 2.0) and Pathways Data to explore trends in health care utilization (i.e., reduction in the number of ER transfers) and medication management (i.e., reduction in the number of residents on 9 or more medications.

It should be noted that although there are nine residential facilities under the WRSS Residential Care Program, RAI-MDS reports on eight facilities as it combines data from two facilities into one.

Analysis of ER data - Intervention facilities

Intervention facilities include all eight residential care facilities in WRSS that implemented the Residential Care Program in 2011. Monthly RAI – MDS 2.0 reports from January 2010 to September 2014 provided data related to ER visits (includes scheduled and unscheduled transfers). Poisson Regression was used to explore trends in ER visits before and after the implementation of the program. This mixed effects model estimates whether the overall trends across sites could have been due to chance, and takes into consideration that much of the error in the overall trend can be explained by the variation in the individual facility level series'.

Analysis of ER data - Non-intervention facilities

Non-intervention facilities include residential care facilities in regions[2] within Fraser Health that did not implement the Residential Care Program. Quarterly Pathways reports from January 2010 to June 2014 provided data related to unscheduled ER transfers only. This unit of analysis varies slightly from the unit used for the intervention facilities analysis, but is considered to be highly related due to the fact that scheduled ER transfers are very rare. Poisson Regression was again used to explore trends in unscheduled ER transferred before and after the implementation of the program.

Analysis of medication data

Quarterly Pathways reports from January 2009 to June 2014 provided the data related to medication management. The unit of analysis used was the percent of patients on nine or more medications. A linear regression analysis was used to explore trends in the data before and after the implementation of the Residential Care Program. Four intervention facilities in WRSS were included in this analysis. It was not possible to include all eight facilities in the analysis because four of the facilities do not collect medication data.

[2] Regions include Burnaby, South Delta, New Westminster, Coquitlam, Port Coquitlam, Port Moody, Mission, Langley, Aldergrove, Ridge Meadows, Surrey, and North Delta.

Interviews and Focus Groups with Program Staff, Physicians, and other Program Stakeholders

In June and July 2014, interviews and focus groups were conducted to explore staff and stakeholders' perceptions of the program. Respondents were asked to share their perspectives on the impact of the program as well as strengths, challenges and areas for improvement. In total, 20 people participated in interviews or focus groups including:

- Nine Site Medical Directors
- The lead physician of the WRSS's Residential Care Program
- Six staff members from two residential care facilities
- The Program Medical Director, Fraser Health, and
- The Executive Director and two staff from the WRSS Division of Family Practice.

A content analysis of qualitative data was conducted to identify themes across and within groups. When possible, these themes were then triangulated with the administrative data in order to answer each evaluation question.

3 Findings

This section presents the evaluation findings according to the evaluation question addressed.

3.1 How was the Residential Care Program implemented in WRSS?

Program Inputs

The Residential Care Program is funded by the British Columbia Ministry of Health (MoH) and is delivered in partnership with Fraser Health. The Division of Family Practice is contracted to administer the program in WRSS. Funding is based on the number of beds ($350 per Fraser Health funded bed) which the Division distributes to the Site Medical Directors using a pre-determined formula. When physicians visit patients in the facilities, they are compensated through fee-for-service formula.

Funding is also available for administrative costs. The Physician Lead, for example, is compensated for time spent on program administration and a small amount of funding is set aside for the educational/community of practice sessions (meeting space, refreshments and fees for guest speakers, if required) and administering the answering service. Site Medical Directors are also compensated for the time they spend at the continuing education/community of practice sessions.

The human resources required to deliver the program include:

> *Physician Lead* – Responsible for program planning, development, oversight, and coordination.

Program Assistant – Provides support to the Physician Lead (e.g., prepares schedules for physician coverage, organizes educational sessions for physicians, takes minutes at meetings) and manages the Residential Care Program's answering service.

Eleven Site Medical Directors (including Physician Lead) – Provide enhanced clinical care to nine long term care facilities is WRSS. Attends six to nine meetings for Site Medical Directors per year.

Long Term Care Facility staff – Work in collaboration with Site Medical Directors to provide enhanced clinical care to patients.

Program Medical Director/Medical Health Officer for Residential Care, Assisted Living and Special Populations (Fraser Health) – Oversees residential care across the region. Works collaboratively with medical directors at over 80 long term care sites across the region. Provides oversight of the Residential Care Program in WRSS on behalf of Fraser Health.

Activities

The key activities of the Residential Care Program include:

Enhanced Clinical Care – Each of the nine participating residential facilities is assigned a Site Medical Director who oversees the care needs of all residents. The physician ensures that regular physical assessments are completed, documented and integrated into care plans. The physician also attends case conferences between patients, families and facility staff. This physician is not meant to replace the Family Physician/Most Responsible Physician (MRP) role, but may provide MRP services when required. Patients who do not have a family physician in the community that attend the facility can choose to become attached to the facility's physician.

Centralized answering service – For immediate care needs, facility staff can contact their Site Medical Director. If the facility's Site Medical Director is not available, staff can call a centralized answering service that will put them in touch with another Medical Director. Facility staff are encouraged to consult with a Medical Director before arranging an unscheduled ER transfer. In cases where a transfer is necessary, the Medical Director facilitates the transfer to hospital and back to the facility, thereby reducing the inappropriate use of health care personnel involved in the transfer and supporting optimal care in both locations.

Physician Education Sessions: Facility physicians attend regularly scheduled educational sessions (six to nine per year) to gain knowledge, skills and share expertise in the care the frail elderly. These sessions are organized by the program lead and usually include a guest speaker such as a Doctor of Pharmacy or psycho-geriatrician, who provides education and advice to the physicians. The physicians also use these sessions to network, trouble shoot and share ideas related to their work within the long term care facilities.

A program logic model was created to succinctly capture these program activities and intended outcomes as well as situate the program within the Attachment Initiative. The development of the logic model was informed by program documentation with input from the Division. A copy of the logic model can be found in Appendix A.

3.2 To what extent is the program contributing to appropriate health care utilization?

The findings show that the program is contributing to the appropriate use of health services. The analysis of ER transfers found that the program has resulted in a decrease in ER transfers. This appears to be happening in the midst of an overall increase in ER transfers within Divisions in Fraser Health. The program has also resulted in more timely access to residential care for patients who did not have a family physician and has eliminated prolonged stays in hospitals for patients waiting for placement in a facility due to the lack of a family physician.

Timely access to physicians helps prevent unnecessary ER transfers

As mentioned, analysis of ER data shows that the program has resulted in a reduction in ER transfers. This finding was also reported by a variety of stakeholders.

Staff at the facilities who participated in the focus groups noted that having timely access to the Site Medical Directors to discuss and resolve residents' health issues helps avoid ER transfers. They explained that many of the residents have family physicians in the community who can be difficult to reach as they are typically involved in their own clinics or may live very far from the facility. Through the Residential Care Program's answering service, facility staff can be connected with a Site Medical Director within minutes.

"If something happens in the morning and we don't hear back from the doctor [in the community], we can call the doctor on-call instead of sending the patient to the hospital." – Facility staff member

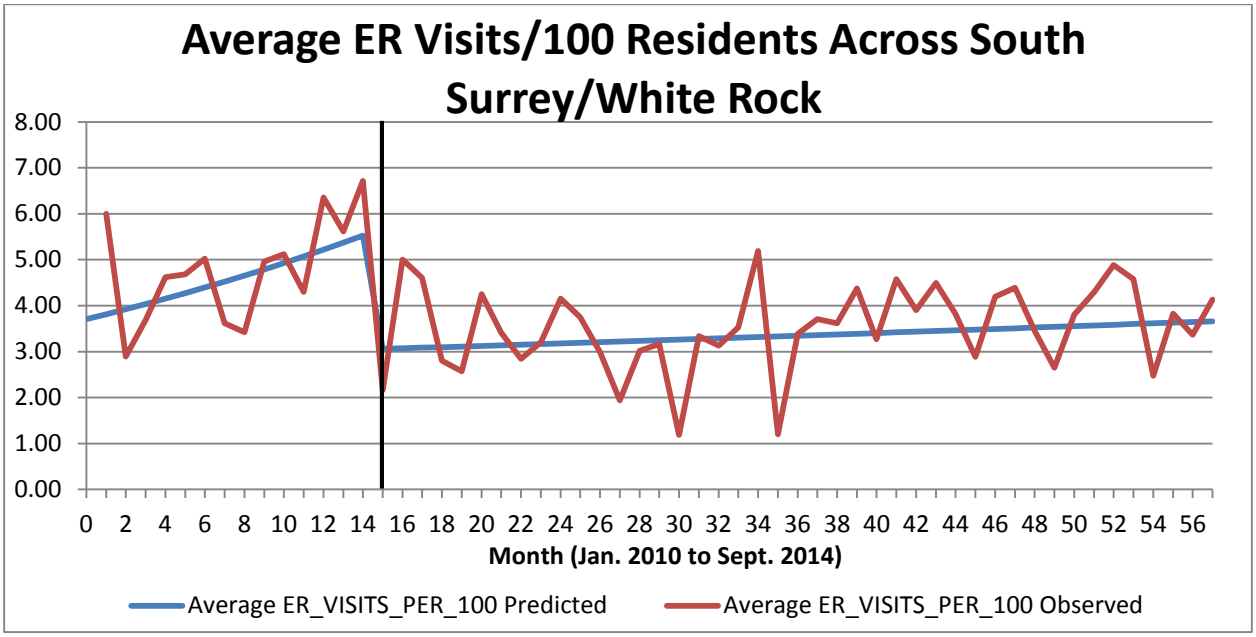
Division staff and program administrators also feel that the enhanced clinical care is helping physicians and facility staff avoid ER transfers. One interviewee explained that, if a resident is showing end of life symptoms and the facility staff can't get a hold of the resident's family physician in the community, they may err on the side of caution and send the resident to the ER. Because of the enhanced clinical care, facility staff can get a hold of a Site Medical Director at any time. As stated by a facility staff member:

"If an assessment needs to be done, the on-call doctors will come over at night and do the assessment rather than the resident having to go to acute care. We find that transfers [to the ER] are not necessary".

Data from administrative records shows the extent of the reduction. Across all nine intervention facilities in White Rock-South Surrey, right after the implementation of the intervention there was on average a 45% decrease in the number of ER visits per 100 residents. A 45% reduction in the average ER visits per 100 residents post implementation equals approximately 21 less ER visits per month across all of White Rock-South Surrey intervention facilities. By one year after

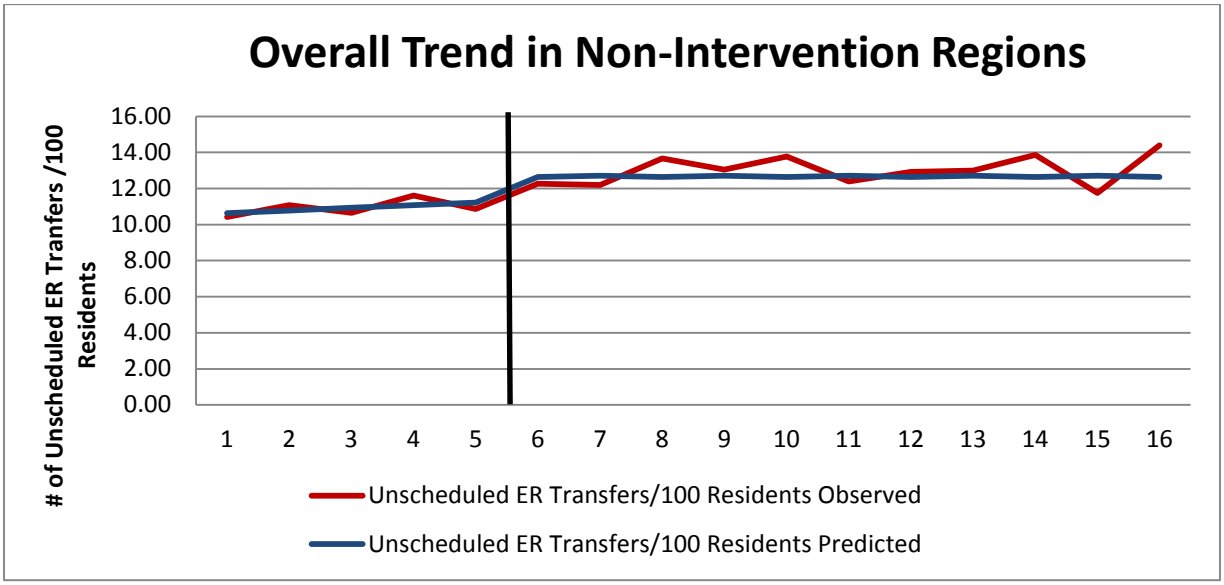
intervention, we see an estimated 60% decrease in the number of ER visits per 100 residents. These findings are statistically significant at the 0.1 level (p for change in level =0.051, p for change in slope = 0.028).

Figure 1: Average ER Visits/100 Residents across White Rock-South Surrey



Over the same time period, all other residential care facilities in Fraser Health were seeing an increase in ER transfers per 100 residents. Data based on the number of unscheduled ER Transfers per 100 residents (which is highly related to the ER Visits data) shows that ER Transfers were generally increasing across the regions that did not receive the intervention (by about 8% 1 year post-intervention).

Figure 2: Overall Trend in # of Unscheduled ER Transfers per 100 Residents in Non-Intervention Regions



The figure below shows the predicted difference in ER visits per facility one year after implementation (March 2012). The pre-implementation trend shows what would have been expected based on the trend line before implementation. The post-implementation is what actually happened.

Figure 3: Difference in ER Visits/100 Residents 1 Year Post-Intervention

Facility	Predicted # of ER visits/100 Residents 1 year after implementation (Mar. 2012)		Difference	
	Pre-implementation trend	Post-implementation trend	#	%
Facility 1	6.43	3.58	-2.85	44%
Facility 2	2.88	2.88*	0	0
Facility 3	10.06	4	-6.06	60%
Facility 4	13.11	2.67	-10.44	80%
Facility 5	5.74	4.17	-1.57	27%
Facility 6	2.88	2.88*	0	0
Facility 7	7.22	4.17	-3.05	42%
Facility 8	3.24	3.24*	0	0
White Rock-South Surrey (Overall)	8.01	3.22	-4.79	60%

* The Poisson Regression model did not find any significant trends in the # of ER visits per 100 residents for these facilities

As can be seen, five out of eight facilities showed a significant decreased in the number of ER visits/100 residents, while the other three facilities showed no significant change (i.e., any difference between pre and post implementation was likely due to chance). Within the region overall, there was a 60% decrease in ER transfers. A more detailed explanation of the analysis and findings can be found in Report Supplement #1 – Analysis of ER Transfer Data.

The Site Medical Directors provided reasons why unscheduled ER transfer rates may vary between facilities and in some cases increase. They noted an increase in the age of residents coming into facilities over the past few years and an increase in the complexity of their health care issues. ER transfers are sometimes inevitable, especially in the case of bone fractures and infections. In situations where ER transfers are potentially avoidable, there are many factors that affect the facility's capacity to treat the residents in-house. Site Medical Directors provided the following examples:

- The culture of care at the facility
- The staff's familiarity with the patients (influenced by staff turnover and the number of new/less experienced staff)
- Pressure from families to send the resident to the hospital
- Patients become aggressive or unmanageable (due to mental illness)
- Families not wanting physical restraints to be used
- Transferring the resident before consulting with the Site Medical Director, and
- Confusion about which physician to consult (Site Medical Director or Family Physicians in the community)

According to Site Medical Directors, additional staff training on protocols for emergency transfers, how to support end of life care within the facility, and the management of aggressive or agitated patients, as well as speedier referrals for psycho-geriatric consults would help further reduce the number of unscheduled ER transfers.

Facility staff also noted that it is not always possible to avoid unscheduled ER transfers. Staff from one facility noted that the Site Medical Director's ability to provide the support needed to avert an ER transfer varies depending on their familiarity with the residents' health history.

Site Medical Directors added that when they are contacted by facility staff through the centralized answering service, it can sometimes be challenging to obtain the information needed to accurately assess the situation. These challenges in communication generally happen when a staff member who is not very familiar with the resident makes the call and has to consult with other staff members regarding the medical history of the resident while the physician is on the phone. Site Medical Directors feel that more education with staff regarding consultation protocols is needed to ensure that they are prepared with vitals, lab results, and medication information before calling the centralized answering service.

Attachment to Site Medical Directors expedites the transfer of new residents from acute care to long term care facilities

In order to be accepted into a FH funded long term care facility, a resident must be attached to a family physician. According to facility staff and program administration, patients waiting for placement in a long term care facility who are without a family physician are often held in acute care until a family physician can be found. In the past in WRSS, locating a physician in the community willing to take on the patient required substantial effort on the part of healthcare providers. In addition, keeping the patient in an acute care bed when a place was available in a long term care facility is an inefficient use of expensive health care resources. As a result of the Residential Care Program, these patients can now become attached to a facility's Site Medical Directors, which expedites the transfer from acute care to the facility.

Summary

We can conclude that the Residential Care Program is contributing to more appropriate use of health care services. The findings show that:

- The program has been successful in increasing timely access to residential care facilities for patients who did not have a family doctor.
- The program has resulted in a reduction in ER transfers.

3.3 To what extent is the program contributing to improved patient care?

Physicians, facility staff and program administrators believe the program has resulted in improved patient care through increased access to care, enhanced continuity of care, better coordination between care providers, and increased ability to manage medications. Unfortunately, the administrative medication data is unable to confirm the finding related to improved medication management, however, it only speaks to the number of patients on 9 or more medications which is only one indicator of medication management and one indicator of improved care.

The Residential Care Program increases access to physicians

All of the facility staff interviewed agreed that the answering service increases their access to physicians. One facility noted that the average response time when paging the Site Medical Director was 2-5 minutes.

"The process of the residential physicians' on-call group has made a huge positive difference. Often, doctors are busy with their practice and don't have time to respond. With this process we can call anytime and we get a response right away."

Staff and patient access to physicians is also facilitated by:

- The Site Medical Directors involvement in care conferences
- Regular patient visits/assessments by the Site Medical Director, and
- Attachment of residents to Site Medical Directors.

The interviews with physicians also supported this finding. As one physician stated, *"I think that patients and families are better supported because they have better access to physicians. The quality of care they get from the physicians is better. There is more of a focus on coordinated care plans, rather than episodic crisis"*. Building on this, staff from one facility noted that they rarely have to call the doctor on-call because the majority of their residents receive care from the Site Medical Directors.

Enhanced Clinical Care improves continuity of care for facility residents

Care conferencing

Staff at both facilities reported that their facility's Site Medical Directors participate in care conferences for every resident, regardless of whether or not the resident is attached to a family physician in the community. This allows the Director to get to know the patients and work collaboratively with facility staff and family physicians in the community.

"Dr. X is quite helpful. He does care conferences with all of our residents, even if they already have physicians in the community. I look at it as a second consultation about the medication. He is really helpful with the families in conferences."

Coordinated care

Examples were also offered of how the program facilitates coordinated care between different providers:

- Site Medical Directors consult with the resident's family physicians in the community before ordering medications, especially for complex cases.
- Site Medical Directors follow residents through to hospital when a transfer occurs, interacting with ER doctors as the transfer is happening. The Division is currently rolling out new guidelines to further assist Site Medical Directors in supporting the ER transfer process.
- Residents' family physicians call the Site Medical Director to discuss patients' health.
- Facility staff consult with the Site Medical Directors regarding patient specific care needs during regularly scheduled visits to the facility.

Feedback from facility staff was very positive regarding the consistent attention received by residents from the facility's Site Medical Director. However, staff identified some gaps in communication across providers as well as with on-call Site Medical Directors. For example, it was mentioned that sometimes staff receive two different orders from the resident's family physician and the Site Medical Director. Similarly, on-call Site Medical Directors who are unfamiliar with the resident's medical history are sometimes reluctant to provide an order.

"When another doctor is on-call they aren't familiar with our residents, we have experienced a reluctance to provide us with the information we're looking for. It might be that they don't want to step on somebody else's toes. Like if we're asking for a medication, they are concerned to give us the order because they're not sure. We try to avoid calling the on-call service as much as we

can, but sometimes people need a medication after hours. For the most part they are pretty good, but there are one or two who aren't as helpful" - Facility staff member

Facility staff added that the challenge often starts on their end when a casual nurse (who doesn't know the patient) contacts the on-call Site Medical Director and is unable to adequately answer questions about the patient's health status. The challenge of staff turnover and the role of casual personnel was also mentioned by a Site Medical Director who stated, *"You can educate the staff at the facility on the goals of care and they have no problem managing the patient. Then two days later a casual is called in and the patient is sent to the hospital. That continuity of care in the facility is gone. It's a challenging task to have all of that education and information trickle down with so many staff changing in and out of those roles".*

Medication management

According to the Site Medical Directors, there are a number of program elements that help them manage resident medications. These include:

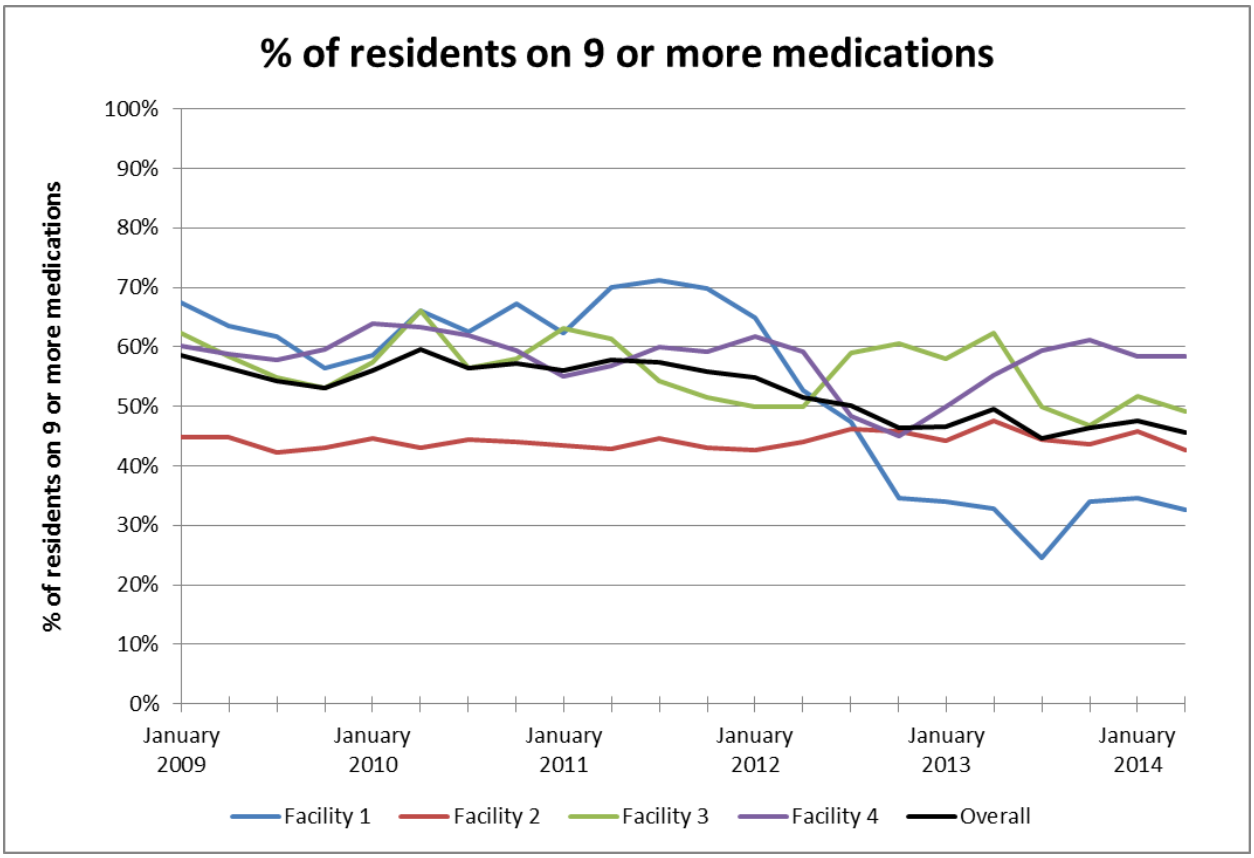
- Medication reviews for residents – provides opportunity to reduce unnecessary medications
- Education sessions on polypharmacy – provides opportunity to gain a deeper understanding of which medications to prescribe and which to avoid, and
- Care conferences - provides opportunity to get to know the care needs of each patient.

One Site Medical Director believes that this leads to better medication management than residents would get from their family physician who doesn't see the patient as regularly as the Director and as a result may be *"judging from a distance".*

Staff from one facility noted that they appreciate the Site Medical Director participation in care conferences because it *"provides a second look at the medications".*

Data from Pathways administrative records (2009 to 2014) is presented in Figure 4.

Figure 4: Percentage of residents on 9 or more medications per 100 patients 2009 to 2014



While this data appears to show an overall decrease over this time period, linear regression reveals that across the four facilities, two years after the implementation of the program, the percentage of patients on nine or more medications has decreased in two facilities and remained relatively stable in two facilities. The medication dataset did not provide enough observation points to conduct a statistical test with enough power to accurately detect whether or not these differences are due to chance. The percentage change for each of the four facilities is presented in Figure 5.

Figure 5: Percentage change two years post-implementation (March 2013)

	Percentage change in % of residents on 9 or more medications[3]
Facility 1	33% decrease
Facility 2	3% increase
Facility 3	14% decrease
Facility 4	4% decrease

[3] Percentage difference in % of Residents on 9 or more Medications between predicted value based on pre intervention trend line and actual value in 2013 Q1.

Summary

The Residential Care Program has resulted in the following improvements in patient care:

- Increased access to care
- Enhanced continuity of care
- Better coordination between care providers, and
- Increased ability to manage medications.

We are not able to conclude whether or not there have been reductions in the percentage of patients on nine or more medications, as the data is available for only four facilities, shows a decrease for two facilities and no changes in two facilities, and we are unable to determine if these changes are statistically significant (i.e. not due to chance).

3.4 To what extent is the program contributing to improved practice environments for physicians and residential care facility staff?

Physicians and facility staff report the program has improved their practice environments. Physicians feel supported through their community of practice and education sessions and report increasing their knowledge of caring for facility residents. This in turn, has increased their job satisfaction. Facility staff feel very supported by the Medical Directors and this has resulted in increasing their satisfaction with their jobs.

Physicians and facility staff feel supported

Site Medical Directors appreciate the opportunity to share experiences and learn from each other through the physician education sessions. Sharing ideas, challenges and best practices with fellow Medical Directors as well as providing holiday coverage for one another helps them feel supported in their role.

"If you were left alone to make those decisions without anyone to share them with, it would be a much heavier burden on your shoulders" – Site Medical Director

Staff at the two facilities where interviews were conducted expressed appreciation for the support from Site Medical Directors. They explained that the Directors understand the challenges and regulations in long term care facilities and work with them to make improvements and ensure regulatory compliance. One staff member noted that residents are much more complex than they were just a few years ago and it is good to have the Site Medical Director to consult with. Although formal education sessions for facility staff are not currently offered, the Physician Lead noted that informal education opportunities arise on a daily basis either on the fly or during care conferences.

Increased expertise in caring for the elderly helps physicians provide better care

Through continuing education, sharing of best practices, and increased exposure to the long term care setting, Site Medical Directors are building expertise around caring for the frail elderly. According to the Directors, the benefits of this are twofold:

1) Directors are better equipped to provide quality care to residents.

   "In this program we deal more with residential care patients and dementia patients. You become better at treating these patients. You generate more experience and that makes us better doctors at the end of the day. That spills over to other patients on our rosters as well." – Site Medical Director

2) As a group, the Directors can draw on their knowledge and experience to optimize care.

   "It's allowed us to coordinate care amongst the facilities. Medical Directors working together to understand how each facility works, taking the best from each and putting together a model where we're all linked to support each other."- Site Medical Director

The Residential Care Program contributes to increased satisfaction among physicians and facility staff

Facility staff and Site Medical Directors reported that the program has increased their satisfaction with their work. When asked what aspect of the program increase their satisfaction, Medical Directors pointed to the learning opportunities and the relationships with the facilities. One facility staff member noted that the program helps staff feel supported.

"We're really happy working here. So that says something. [Has the program made a difference in your satisfaction?] Definitely! We feel very supported. It's the new face of complex care." – Facility staff member

3.5 How does the Residential Care Program contribute to the objectives of the Attachment Initiative?

As mentioned, the Residential Care Program was not originally part of the Attachment Initiative, however, the goals or objectives of the two programs are consistent and as revealed by these findings, the Residential Care Program is definitely achieving Attachment Goals in WRSS.

In terms of confirming and strengthening the GP-patient relationship – including better support for the needs of vulnerable patients, the first goal of the Attachment Initiative, the Residential Care Program has been shown to increase access to care for residents and has resulted in greater continuity of care for facility residents. The involvement of the Site Medical Directors in the case conferences also provides an opportunity for strengthening the GP-patient relationship. These relationships may be further strengthening through some of the spill-over effects mentioned by the physicians.

The Residential Care Program also supports the second goal of the Attachment Initiative, enabling patients that want a family doctor to find one. As mentioned, it has enabled unattached patients to gain more timely access to facilities and to become attached to the Facility Medical Directors.

Lastly, the Residential Care Program has also been found to advance the third goal of the Attachment Initiative by increasing the capacity of the primary care system. Capacity has been

increased through expanding physician knowledge of caring for residents in long term care facilities, enhancing connections and communication between different types of care providers and between physicians, and extending the support available to staff at facilities.

Within WRSS, the Residential Care Program has clearly contributed to furthering the Attachment Initiative.

3.6 What is working well, what are the challenges, and what can be improved?

What works well?

Access to dedicated physicians

Facility staff indicated that they appreciate the timely access to physicians. Some noted the passion and dedication the physicians bring to these positions:

We often get our Director after hours on his cell phone and he's quite happy to have allowed us to call him. If he is aware that a patient has taken a turn for the worse, he will tell us to call him rather than the doctor on-call. We are very lucky to have him. – Facility Staff Member

Also noted as working well is the centralized answering service or the ability to page the facility's Site Medical Director directly. This allows staff to obtain orders and advise at any time of the day, thereby avoiding unnecessary ER transfers. Staff also indicated that they feel more supported in their work because of the weekly visits by Site Medical Directors to the facilities.

"Communication is the key…having regular, purposeful contact. Knowing that the rounds and care conferences are set up and really taking advantage of that." Facility staff member

Site Medical Directors and Division staff also noted the answering service and timely access to physicians as a strength of the program.

Continuing medical education through regular physician meetings

When asked what aspects of the program work well, Physicians Medical Directors, Division staff and the Program Medical Director all pointed to the learning and networking that happens at the physician meetings. Physicians gain knowledge about health issues facing the frail elderly (e.g., polypharmacy) that they are able to apply in their practice and share with facility staff.

Small dedicated group of physicians working towards a community goal

Program administrators noted the value of having a small dedicated group of professionals working towards a community-wide goal of improved care for the frail elderly. As mentioned in Section 3.4, Medical Directors draw on their knowledge and experience to optimize care within facilities. Program management noted that this expertise and commitment to residential care supports the implementation of other provincial initiatives (e.g., reducing anti-psychotic drug use in residential care).

Facility staff also appreciate having a small dedicated group of physicians who get to know the nurses and patients as well as the issues facing long term care facilities.

Funding for Site Medical Directors, Lead Physician, and administrative support

When asked about the key success factors that support the program, the program administrators pointed to compensation for Site Medical Directors and the lead physician and funding for administrative support. One physician stated *"before this program, I was asked to oversee a facility out of the goodness of my heart. There was no compensation for networking, education and the oversight portion. There was just fee-for-service".* Physicians appreciate having a dedicated person to handle administrative tasks such as organizing the physician meetings, bringing refreshments, booking speakers, paying fees, administering the call schedule, and managing the finances. The Physician Lead is also compensated for oversight and management of the program. This was noted as another role that is critical to the success of the program.

"You have to have someone who is a champion of the program...to communicate with the Division and create the accountability structure for the other physicians." Program Administration

The Physician Lead has also started attending Directors of Care meetings at participating long term care facilities. At these meetings, facility administration discuss the delivery of care at their facilities. These meetings provide an opportunity to assist facility management in the implementation of the Residential Care Program as well as identify and troubleshoot challenges.

What are the challenges?

Systematic education of front-line staff across facilities

When asked what challenges they face with respect to the Residential Care Program, Medical Directors and Division staff spoke about the difficulties of effectively communicating information (e.g., ER transfer protocols) to all staff across the nine participating facilities.

One Site Medical Director noted that he often gets calls from facility staff who do not have the required patient information at their fingertips. They are not aware of the clinical parameters required for the physician to provide a phone consultation.

Breaks in communication can happen at several levels:

> Program level – Inconsistent attendance at Directors meetings, can result in Site Medical Directors missing messages about program implementation. Program management also noted that there is variation in how messages are communicated to facility staff depending on the Medical Director's integration within the facility.
>
> Facility level – Currently there are no formal facility-wide education sessions for staff. Rather, informal education happens during care conferences and on-the-fly. According to Medical Directors, building knowledge and capacity of facility staff is challenging due

to the high degree of staff turnover within the long term care environment and the use of casual staff.

Staff level – Physicians noted that daily staffing change-overs and the use of casual staff can interrupt the continuity of care for a patient because the key information (e.g., patient health status, ER protocols) is not communicated between staff.

Working effectively with family physicians in the community

Respondents noted that medication management can be challenging especially when trying to coordinate with the residents' family physicians in the community, the Site Medical Director, and the facility staff. Sometimes there are differing opinions between the physicians about the most appropriate medication to prescribe. According to one Site Medical Director, the difference in opinion can be attributed to the fact that family physicians aren't generally able to visit the residents on a regular basis (due to competing demands on their time at their clinics) and may not have as much information about the patient as the Site Medical Director does (who has more regular contact with the residents). As mentioned earlier, sometimes these differences in opinion result in two different medication orders being sent to facility staff.

Physicians also noted that interfacing with emergency personnel when the patient is being transferred to and from the hospital has presented challenges. For example, when new patients are transferred from the hospital to the facility they may not receive thorough background information on the patient's health history:

"Another challenge is the interface with emergency when the patient is being transferred to and from the hospital. The challenge of trying to manage the care in between. There's been some key gaps. If they are coming from the hospital to our facility, we may not have any background on them. When they are coming back from the hospital, there can be gaps there as well." – Site Medical Director

How can the program be improved?

When asked how the program can be improved, **Physician Medial Directors and Division staff** suggest that clear protocols be put in place to ensure that facility staff:

a) Consult with the Site Medical Director before sending a resident to the ER, and
b) Obtain the appropriate patient health status information before contacting the Medical Director. One Medical Director suggested that a pocket size flip chart of critical protocols be printed for facility staff to use as a resource.

In the fall 2014, the WRSS Division of Family Practice is planning to roll out new guidelines for Site Medical Directors around handling hospital transfers. These guidelines will support the sharing of appropriate health information with hospital personnel, which should result in a reduction in unnecessary tests and interventions due to lack of information about the patients.

When asked how the program could be improved, **facility staff** suggested that a physician be stationed at the facility once a week at a scheduled time. That way the physician could get to know the staff that they spend so much time with on the phone.

"It would be wonderful to know that a doctor would be here once a week without having to be asked. They would see the most critical residents that need support." Facility staff member

Staff from one facility also mentioned that better access to specialists such as geriatric psychologists, internists and orthopedic doctors would be beneficial. They did recognize that this may be outside of the scope of the Residential Care Program.

Program administration would like the Site Medical Directors to be involved in the development of protocols and tools *(e.g., end of life care in the residence, polypharmacy*) so they can bring their knowledge and expertise of residential care to the development of these protocols. Enhanced engagement in protocol development can also support more consistent implementation.

3.7 Is the program still needed?

When asked if the Residential Care Program is still needed, all respondents were strongly in favour of keeping the program going. Responses from program administrators and facilities staff are presented in the figure below.

Figure 6: Comments Regarding Continuing Need for Program

Program administrators	Facility staff
Definitely! *I can't imagine that this isn't a good spend of money.* *There was huge worry that we were going to lose these. That would be heart breaking.* *It's reassuring that the government will spend money on this sometimes forgotten group.*	*You should continue to support this. It's a big help.* *Absolutely. This is a life saver. We don't ever want it to be taken away.* *It's working very well. Keep the program going!* *It's the new face of complex care.*

Respondents were asked what advice they would give to other communities considering a Residential Care Program. They recommended that all relevant community players be involved in the development of the program. These community players should meet to identify needs and care gaps in the community, and then devise a program specific to that community. They also suggested working closely with hospitals and long term care facilities so that everyone understands their roles.

According the Physician Lead, each community will need to develop a program that fits their particular needs, context, and community resources. In WRSS, their funding model is based on the number of beds in the community. For a smaller community, the same funding model may not adequately support the program (e.g., funding may not be able to support a separate call

service, instead, the community's existing call service may need to be adapted). For larger communities, different structures may need to be put in place to ensure the same level of coordination across the community.

Other recommendations from respondents included:

- Retaining the education meetings
- Obtaining more funding
- Ensuring physician engagement in program development and operations
- Establishing protocols and management strategies
- Identifying a physician champion in the community, and
- Ensuring regular, purposeful contact between the facility staff and the Site Medical Directors

3.8 How can the program be sustained?

When asked how the program can be sustained, Division staff stressed that funding from the province is crucial. The Division is contracted by the MoH and FH to administer the program until the end of September 2014. Bridge funding has been committed to the end of June 2015. In addition, planning is underway to develop and fund a province-wide Residential Care Program. A staff member at one facility noted that the program cannot function without physicians who have the capacity to continue to add patients to their rosters. Their facility's Site Medical Director has taken on many new patients who were transferred from family physicians in the community or who didn't have a family physician. He will soon exhaust his capacity to take on new patients. Program administration has recently started to mentor new physicians to move into Site Medical Director roles when additional personnel are needed.

4 Limitations

There are a number of limitations of this evaluation that warrant mentioning:

Limited ability to draw conclusions from medication data – The small sample size (n=4) limited our ability to conduct inferential statistics on the trends related to patient medication. Thus the findings are suggestive of improvements but not conclusive.

Lack of patient/family perspective – Because of timelines, budget, and logistical issues, we were not able to tap into the perspectives of the residents of long term care facilities and their family members. While there was general agreement among facility staff and physicians that patient care had been improved through this program, this finding was not verified by patients or family members. It should further be noted that the findings are based on the perspectives of staff at two residential care facilities and may not provide a full picture of the functioning of the program in other facilities.

Heavy reliance on perception data – The majority of indicators **s**elected to assess the outcomes of interest in this evaluation were based on the perceptions of different stakeholders. Perception data on its own is not inherently problematic, and is entirely appropriate for

addressing certain evaluation questions, especially when it is triangulated with the views of different stakeholder groups and different types of data (e.g., administrative data). For many of the evaluation questions, it was not possible to obtain more than one type of data and while the consensus among stakeholder groups does lend validity to the robustness of the findings that are based on perception data, some findings should be treated with caution as more reliable indicators were not available (e.g., the perceptions of improved patient care were not verified through chart reviews or patient perspectives).

5 Conclusions

Based on available data, the Residential Care Program is achieving its objectives of:

- contributing to more appropriate health care utilization,
- supporting improvements in patient care, and
- improving the practice environments for physicians and residential care facility staff.

The Residential Care Program also significantly contributes to the goals of the Attachment Initiative in White Rock-South Surrey.

Many elements of the program appear to be working well, including the availability of funds to support a physician lead, administrative costs, and compensation for physicians to attend education sessions. The education sessions and community of practice were noted by physicians as the most beneficial aspects of the program. Residential facility staff value the increased access to physicians. The program is also credited with contributing to increased satisfaction among participating physicians and facility staff.

Suggestions for improvements to the program were noted in areas such as adherence to ER transfer protocols and effective communication between and within facilities and across providers. Efforts to ensure the program is able to continue through succession planning were also mentioned as something the program should undertake.

According to stakeholders, this program was successful in meeting its objectives and furthering Triple Aim objectives (improved patient experience and outcomes, improved provider experience, and improved system sustainability). The Residential Care Program addresses a number of system-related issues that can negatively affect patient care:

- It eliminated delays due to lack of a family physician for timely entrance to long term care facilities,
- Increased access to physicians in facilities,
- Eliminated funding disincentives for physicians to provide care to long term care facilities, attend education sessions, and contribute to a community of practice, and
- Provided a platform for generating community-wide solutions to community-based health care needs.

The program also has practice level benefits such as increasing physician capacity to meet the needs of long term care residents and improving the support and remuneration available to

them. Practice-level benefits were also reported by Residential Care Facility staff. Finally, patient care has also been impacted through increased access to care, increased continuity of care, improved coordination between care providers, reduced ER transfers, and to some extent, better medication management.

Appendix A: Residential Care Program Logic Model

Attachment Objectives: (1) increase attachment; (2) confirm and strengthen GP/patient relationship; (3) increase capacity in primary healthcare system

Inputs	Activities	Short Term Outcomes & Indicators	Medium Term Outcomes & Indicators	Long Term Outcomes
Personnel 11 Site Medical Directors (including physician lead) Facility staff time Fraser Health staff time Division staff time **Space** Meeting space for Continuing Medical Education sessions **Funding** Fraser Health Ministry of Health, British Columbia	Enhanced Clinical Care provided by Site Medical Directors Management of answering service/physician coverage Physical Education Sessions (9 per year)	Patients Improved access to care Increased satisfaction with care Physicians Increase capacity (knowledge, skills attitudes) • Increased understanding of complex seniors needs (including chronic disease management, medication management and end of life planning) Improved interprofessional practice Staff Increased capacity • Increased understanding of complex seniors needs (including chronic disease management, medication management and end of life planning) Health Care System: Increased Attachment • # of patients attached	Patients Improved health and well being • Perception of improved symptom/condition management Physicians: Increased Satisfaction • % of physicians reporting increased satisfaction Improved care provision: • # of patients on 9 or more medications • Staff/family care conference held in Residential Care facilities • Medication reviews • Care visit done by Site Medical Director (consistency of care) Staff: Increased Satisfaction • staff report increased satisfaction Improved care provision • staff report improved care provision Health Care System Increased efficiency/ appropriate health care utilization: • # of unscheduled ER transfers	Increased patient-centred care Improved provider experience Improved population health Improved health system sustainability