Complex Care Patient Management

Evaluation Report

Fraser Northwest Division of Family Practice

June 2018

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Executive Summary

Introduction

The Complex Care Patient Management program aims to support family physicians in caring for complex patients by providing them with the necessary skills to accurately identify and register complex care patients in their EMR and bill for the appropriate care provided. Through one-on-one coaching and interactive group learning sessions, GPs, together with their MOAs, learn how to implement systems and processes into their practice to optimize the functionality of their EMR and improve workflow to provide optimal care to patients with complex needs. The purpose of this evaluation is to provide evidence to understand the process and outcomes of the first two Complex Care Planning cohorts, and to gather learnings to inform the future strategic direction of this program.

Methods

The evaluation employed a mixed-methods design (i.e. collection of both qualitative and quantitative data). Quantitative data was collected from participants' EMRs by the PSP practice support coach and qualitative data was collected from participant self-reported feedback at the beginning and end of each cohort.

Conclusions

Evaluation of the first two cohorts showed favourable results, suggesting that the program is effective at showing physicians how to both identify and accurately code complex care and chronic disease patients, while increasing confidence and knowledge in EMR functionality.

1. Context

About Us

The Fraser Northwest Division of Family Practice encompasses family physicians in New Westminster, Coquitlam, Port Coquitlam, Port Moody, and parts of Burnaby, representing the traditional catchment area of the Royal Columbian and Eagle Ridge Hospitals. Together, the members work to improve patient access to local primary care, increase local physicians' influence on health care delivery and policy, and provide professional support for physicians.

Program Background

The Complex Care Planning initiative is a joint project between the Fraser Northwest Division of Family Practice and Fraser Health's Practice Support Program (PSP). Modeled after the North Shore Division's successful initiative, this program aims to equip family physicians with the necessary skills to accurately identify and register complex care patients in their EMR and bill for the appropriate care provided. Through one-on-one coaching and interactive group learning sessions, GPs, together with their MOAs, learn how to "analyze" and "clean up" their data while implementing processes to optimize the functionality of their EMR and define/refine their workflow with their MOA to provide care to patients with complex needs.

Patients who are deemed "complex" (i.e. have two or more comorbid conditions) or are frail and/or home bound require more and different care from other patients. Recognizing this, GPSC has implemented incentive fees for this work including managing patients with chronic disease(s). However, these fees are often underutilized due to complexities of the billing system and EMR (Patient) panels that are often not accurate and up to date. By differentiating between active and non-active patients and ensuring that every complex care patient and patients with chronic disease(s) are accurately identified and recorded in the EMR, the physician will be able to identify all patients fitting the complex care criteria and/or annual CDM care criteria. Once this is achieved, systems are put in place to:

- Provide guideline informed care that meets GPSC incentive requirements
- Record complex care and/or chronic disease conditions in each Patients' EMR ensuring accurate, consistent use of ICD9 codes as outlined by GPSC
- Bill for the care provided

- Establish recalls for care/billing
- Maintain ongoing accuracy of data and timeliness of care

Program Objectives/Goals

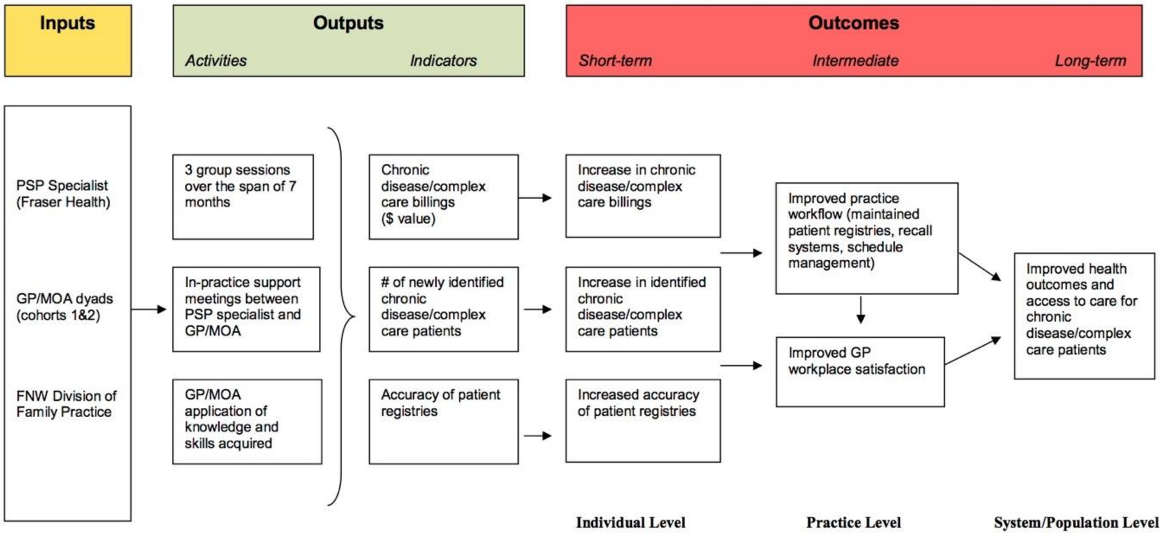
While the overarching goal was to improve physician skills and confidence in managing Complex Care patients, the program had several objectives:

- Improve physician/MOA communication & collaboration, empowering MOA to share responsibility for patient management, while establishing processes in support of this care /work, sustainability and spread
- Identify Patients with Complex Care requirements including Chronic Diseases
- Record said conditions in the Patient Medical Record (EMR) using accurate and consistent ICD9 codes as per GPSC, and ensure data is captured in the EMR accurately, consistently and in the most appropriate place
    - Ensure practice understands “Active” and “MRP” as key concepts, and that each doctor’s active patient panel is accurate
    - Ensure practice coding for chronic conditions follows best practice for their EMR and that all chronic condition coding is accurate (with ICD-9 codes) and up to date
- Ensure participants understand the benefit of CDM registries, know how to populate them and how to generate registry queries and reports
- Ensure participants have considered which of their patient populations need to be seen on a regular recurring basis and that they have used their EMR to set this in motion (interventions, ticklers, recalls, scheduling, reminders, etc.)
- Ensure participants are aware of the extra support (and time) needed to manage complex care and complex frail patients, and they have the appropriate systems in place to support practice and patient needs.
- Ensure that practice is aware of GPSC incentive fee codes related to complex and chronic disease patients and have appropriate systems in place to ensure that the physician is paid for work performed.
- Ensure participants are aware of the risk that data quality may decline over time

and that each participant has a personalized practice plan for maintaining data quality and patient care systems on a regular basis.

Logic Model

Fig. 1
Complex Care Planning Logic Model



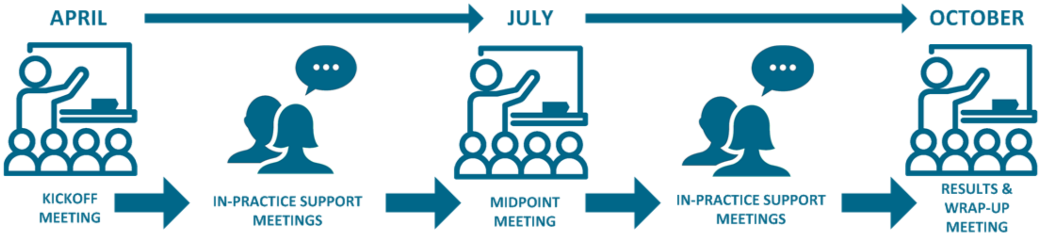
Program Implementation

The pilot cohort launched in April 2017, with registration limited to 15 physicians. 2 of the initial registrants withdrew before session 1 (one physician did not yet have a patient panel and the other physician transferred to cohort 2). All of the remaining 13 physicians participated throughout the entire 6 month process.

14 Physicians registered for the 2nd cohort, with 85% bringing along their MOA/Manager to support them and this work; registration was limited to 15 physicians. In total, 14 physicians participated.

The structure for both cohorts consisted of three group sessions, with individual in-practice support meetings in between.

Fig. 2
CCPM Cohort Trajectory



Through one-on-one coaching with the PSP coach/facilitator, physicians first gain an understanding of their patient panel and learn how to analyze and clean their data. This involves:

- Individual panel assessment with each GP to establish a baseline and action plan
- Review and understanding of current GPSC ICD9 codes and fees pertaining to Complex Care and/or Chronic Diseases (including diagnostic criteria)
- Recording said eligible conditions in Patient Medical Records (EMR) for ALL APPROPRIATE patients with this diagnosis
- Addressing any other data or knowledge gaps

Once an understanding of their current patient panel is achieved, physicians are coached on establishing processes to optimize efficiency and utilization of their EMR for chronic disease management. This involves:

- Establishing registries for each CDM group and complex patients
- Establishing recall cycles
- Following up on overdue appointments and scheduling future follow up visits
- Ensuring appropriate billing for each visit

As a team-based care model, the participants' success in this project is highly dependent upon the ability and willingness of the GP and MOA working together to achieve common goals. Separate roles and responsibilities are assigned to each to ensure smooth workflow:

GP:

- Consistent coding (ICD9), chart and/or disease registry
- Documenting diagnosis and care; clinical decision support, CDM forms/flowsheets, care plans etc.
- Proactive care; activate recalls for care and billing

MOA:

- Manage/maintain patient status, MRP, demographics
- Run disease registry and/or billing reports to find eligible billings
- Manage patient recalls; scripts to call patients back for care

3. Evaluation Overview

The following evaluation was conducted throughout the duration of the first two cohorts. Data collection and analysis was carried out jointly by the Division evaluator and the PSP specialist.

Purpose

The purpose of this evaluation is to provide evidence to understand the process and outcomes of the first two Complex Care Planning cohorts, and to gather learnings to inform the future strategic direction of this program.

As a 'Process/Outcome' evaluation, this will serve to assess both the effectiveness of the program itself at achieving its intended goals, as well as how well the program was delivered.

The evaluation is intended for distribution among the project's key stakeholders, including the Fraser Northwest Division of Family Practice board of directors and Patient Medical Home Advisory Committee, Fraser Health Practice Support Program, and the GPSC/Doctors of BC evaluation team.

Evaluation Goals and Objectives

1. Provide evidence to understand and articulate the process and outcomes of the first two Complex Care Planning cohorts
2. Gather learnings to inform QI initiatives and future strategic direction
3. Determine how Complex Care Planning aligns with FNW Division's Patient Medical Home landscape

Evaluation Questions

Program Effectiveness:

1. How effective was the program at enabling family physicians to identify complex care and chronic disease patients?
2. To what extent did the program improve the accuracy of how complex care and chronic disease conditions are coded in the patient record/chart?
3. To what extent did the program contribute to an increase in physician (and MOA) knowledge and use of the EMR features and functionality?

Program Delivery:

1. To what extent was the program delivered as intended?
2. To what extent were the participants satisfied with the mode of delivery and experience throughout the duration of the course?

Indicators

The following indicators were measured, according to the relevant questions and data sources:

Evaluation Question	Indicator(s)	Data Source
1. How effective was the program at enabling family physicians to identify complex care and chronic disease patients? **2.** To what extent did the program improve the accuracy of how complex care and chronic disease conditions are coded in the patient record/chart?	• # of newly identified complex care patients • # of newly identified chronic disease patients • increase in accuracy of patient registries	EMR data results
3. To what extent did the program contribute to an increase in physician (and MOA) knowledge and use of the EMR features and functionality?	• increase in EMR functionality assessments (meaningful use scores)	EMR meaningful use scores
4. To what extent was the program delivered as intended?		Program documentation
5. To what extent were the participants satisfied with the mode of delivery and experience throughout the duration of the course?	• Physician satisfaction scores	Participant self-reported feedback

Methodology

The evaluation employed a mixed-methods design (i.e. collection of both qualitative and quantitative data). Quantitative data was collected from participants' EMRs by the PSP practice support coach and qualitative data was collected from participant self-reported feedback at the beginning and end of each cohort.

- EMR data results
  - The PSP Understanding Your Patient Panel assessment was used to measure patient panel data at the beginning of the CCPM work and again just prior to the final workshop.
- EMR meaningful use
  - The PSP EMR Functionality Assessment was used to assess initial skill level and learning needs for each participant which were then addressed through the in-practice coaching sessions. The Assessments were redone during the wrap-up meeting to measure individual and group progress.
- Participant self-reported feedback
  - Physicians completed a short questionnaire at the beginning and end of the cohort to assess changes in knowledge, confidence, and MOA partnership. Opportunity for open-ended general feedback was also provided.

4. Results

Question 1: How effective was the program at enabling family physicians to identify complex care and chronic disease patients?

Question 2: To what extent did the program improve the accuracy of how complex care and chronic disease conditions are coded in the patient record/chart?

Before and after data from the participants' EMRs show that the CCPM program was effective at both identifying and accurately coding complex care and chronic disease patients. Between the two cohorts, a reduction of 12,352 patient records was achieved. The reduction in total active patients reflects the removal of transient, casual, deceased and transferred patients. The number of patients in each of the chronic disease registries increased, often significantly, as the EMR data was reviewed, cross-checked and validated through a variety of queries. Note that below is a small sub-set of the diseases and conditions that were reviewed:

Cohort 1:

	Before	After	Change
Total Active Patients	23,461	18,794	- 4,667
Total Complex Pairings	62	519	+ 457
Total Frail Patients	17	89	+ 72
Total Diabetes Patients	777	1,110	+ 333
Total CHF Patients	83	150	+ 67
Total Hypertension Patients	1,471	2,060	+ 589
Total COPD Patients	216	397	+ 181

Cohort 2:

	Before	After	Change
Total Active Patients	28,508	20,823	- 7685
Total Complex Pairings	146	523	+ 377
Total Frail Patients	0	45	+ 45
Total Diabetes Patients	956	917	- 39
Total CHF Patients	105	108	+ 3
Total Hypertension Patients	1,587	1,551	- 36
Total COPD Patients	162	258	+ 96

Note: In cohort 2, the change in chronic disease patients may be more significant than it appears due to attrition. A number of patients who were included in the “before” category became deceased, moved, or transferred care without their records being updated before the “after” count was conducted.

Question 3: To what extent did the program contribute to an increase in physician (and MOA) knowledge and use of the EMR features and functionality?

The Clinical Value Model developed by PITO was used to inform the assessment of foundational and optimal usage of the EMR, including GP clinical use, team member use/administration, and overall practice management. The five Meaningful Use (MU) categories include: (see Appendix D for further detail)

- MU 1 – Front office administration
- MU 2 – EMR basics
- MU 3 – Full EMR
- MU 4 – Proactive care/data driven practice
- MU 5 – Community shared care

Tables 1 and 2 below show increases in each of the MU scores, suggesting that the CCPM program is effective at increasing knowledge and use of EMR features and functionality.

Both cohorts saw the highest increase in MU 4 scores, highlighting the inherent clinical value of the EMR in a practice setting.

Table 1

Cohort 1:

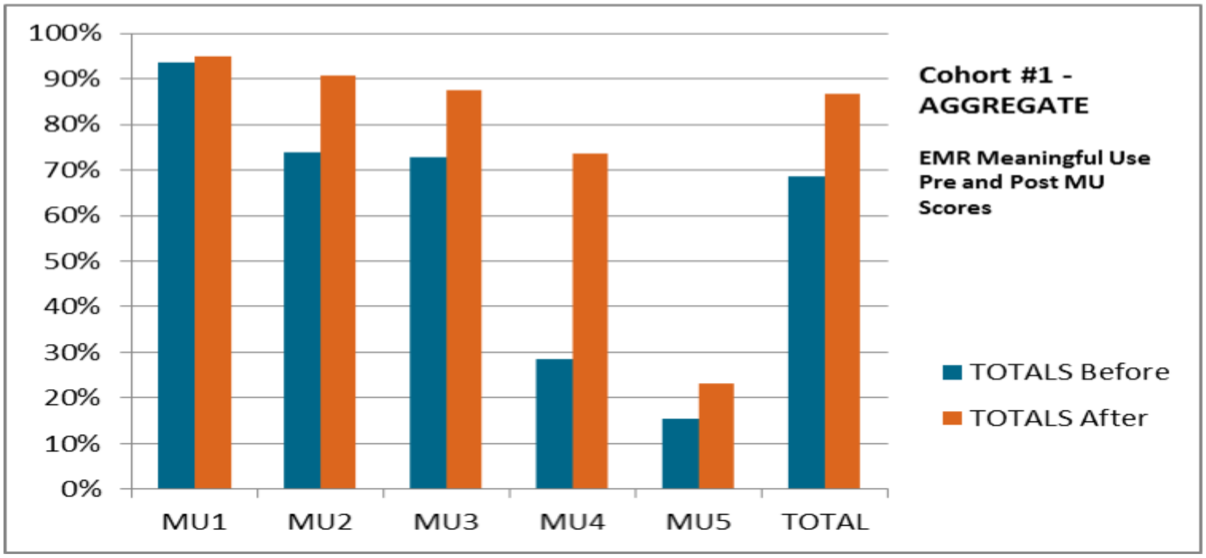
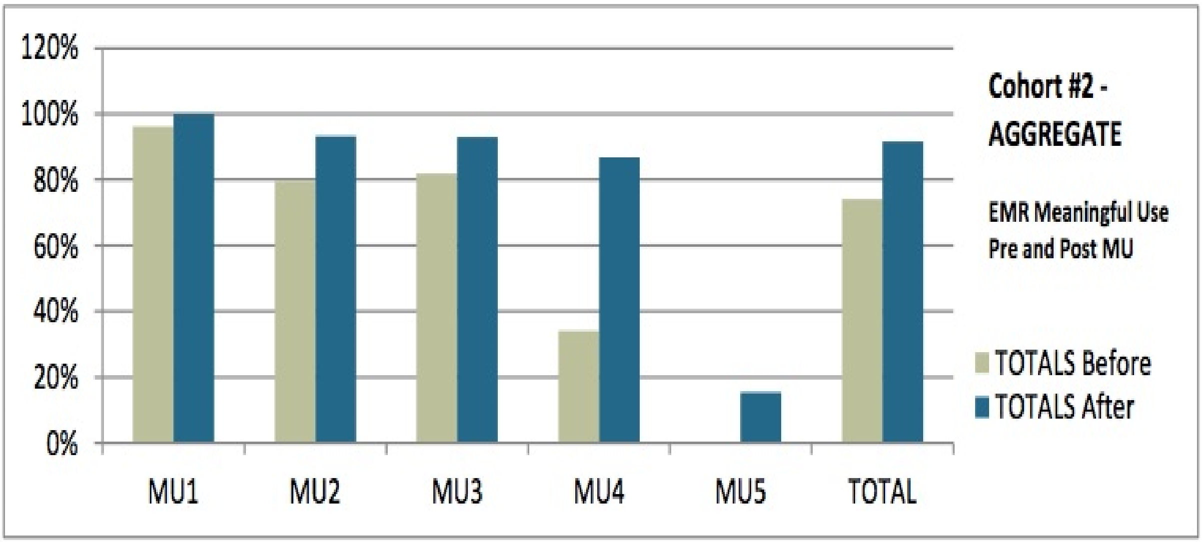


Table 2.
Cohort 2:



Question 4: To what extent was the program delivered as intended?

Implementation of both cohorts was conducted as intended, with all timelines and objectives being met as initially outlined.

Question 5: To what extent were the participants satisfied with the mode of delivery and experience throughout the duration of the course?

Qualitative data on physicians' experience was collected through a short questionnaire, which was administered at the beginning and end of each cohort. Tables 3 and 4 below reflect the aggregate pre/post survey results for cohorts 1 and 2. (Note: 2 additional questions were added to the cohort 2 post-survey to include key feedback from physicians with respect to care planning and relevant billing incentives for complex care/chronic diseases.)

The data shows overall positive self-reported outcomes, with increases in confidence, knowledge, and MOA partnership across both cohorts.

Open-ended feedback also suggests that participants were satisfied with the overall experience and outcomes of the program, with many reporting improvements to workflow, efficiency, and billing opportunities.

Table 3.

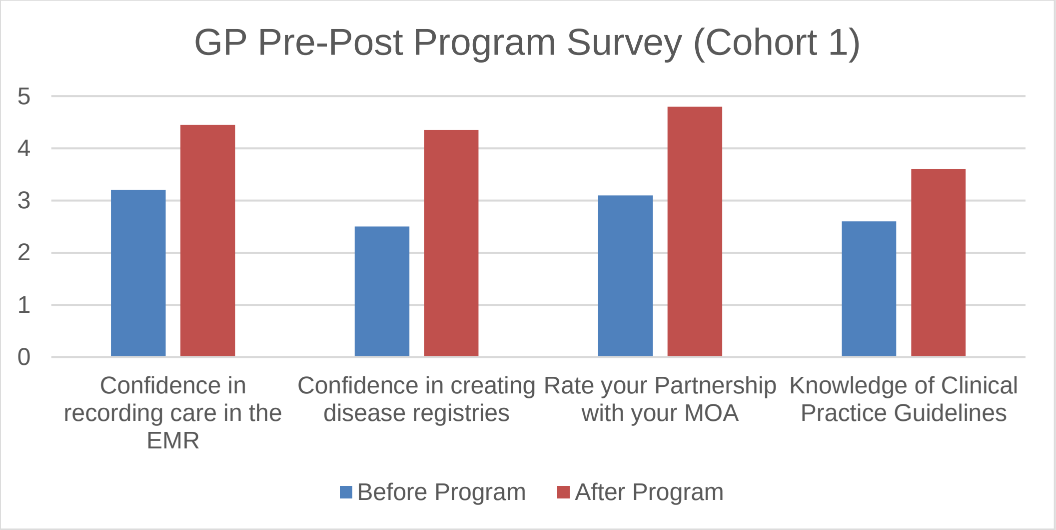
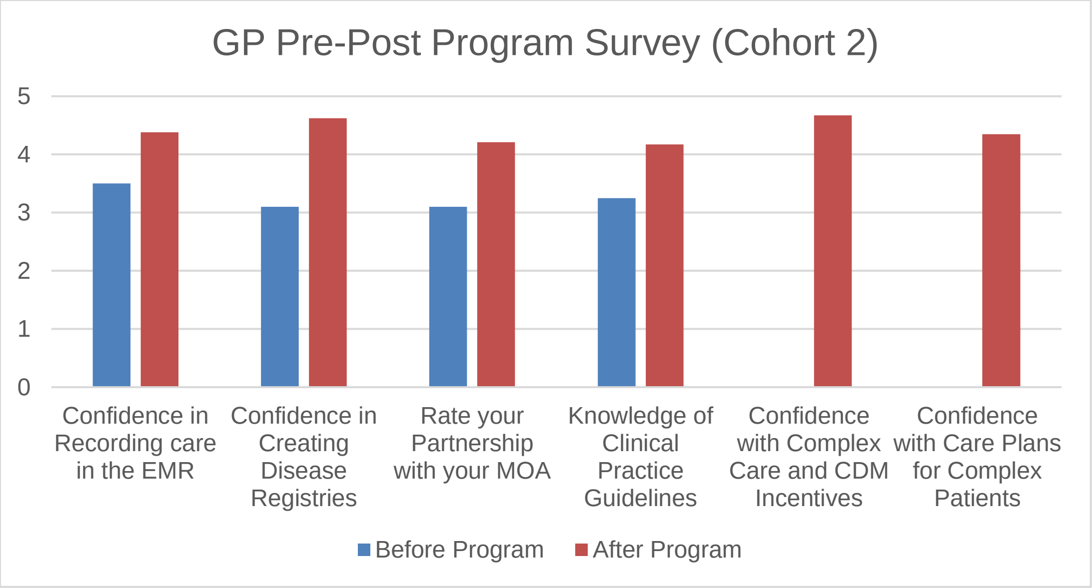


Table 4.



6. Impact of the CCPM Program

The results of this evaluation suggest improvements across 4 key areas:

- Accuracy of patient panels/registries
- Confidence and knowledge in EMR functionality
- GP/MOA partnership
- Patient-centered care

While the inherent benefits of these improvements to individual GPs and their practices are clear, there are broader implications for the future of primary care delivery and the healthcare system as a whole. Sustainability of primary care is vitally important to ensure continuous longitudinal patient care and ongoing provider satisfaction. Implementing systems and processes that reduce unnecessary burdens on physicians and increase opportunities for financial compensation for the work being done will help ensure GPs stay in practice longer while drawing more new graduates into family medicine.

> *"Because of you teaching us the CCPM program, I've been able to give my MOA some easy steps to help me with these patients such as billing and recall reports that used to be a burden on me." – Physician participant, Cohort 2*

Just as important as establishing an accurate panel is maintaining it and developing the skills and knowledge to effectively use one's EMR to its full functional capacity. The CCPM program introduces physicians and MOAs to new methods that they can sustain over the long term.

> *"During this program, we found there are many features in PROFILE EMR that are amazing for family physicians. If we use even some of them not all, our job is so easy (such as) using interventions, searching patients with certain conditions and cleaning up inactive patients." – Physician participant, Cohort 1.*

The development of the GP/MOA partnership is a crucial component of this program that cannot be overlooked. Consistent with the move towards more team-based care, the CCPM program incorporates the relationship between the GP and MOA as a key structural element. The majority of GPs in cohorts 1 and 2 attended the in-person sessions with their MOAs and included them in the one-to-one coaching sessions. Many reported that this teamwork significantly contributed to meaningful outcomes:

> *"Beyond actually being confident now that I am planning with all my complex care patients, this program helped me use my EMR to care for patients rather*

> *than just document. It also helped me to involve and trust my MOA to do more so I have more time for my patients" – Physician participant, Cohort 1.*
>
> *"Working with my doc, I helped him to identify patients with chronic disease and complex care needs that were eligible for some of the incentive fee codes. Seeing that dollar amount as I was billing was my favorite part of the project because I was able to help make this possible and now my doc is also getting paid for the care he provides these patients." – MOA participant, Cohort 1.*

7. Limitations and Recommendations

While the results of this evaluation suggest largely positive outcomes, it is important to acknowledge some of its limitations.

1 Assessing long-term impact is difficult

Given that this evaluation was conducted over a relatively short period of time (6 months for each cohort), monitoring ongoing change beyond the end of the program and assessing the long-term outcomes was not possible. Although the participants showed great promise of continuing the use of their newfound knowledge and skills and maintaining an accurate and updated patient panel, the limited timeline of this evaluation does not provide that insight into long-term impacts.

Recommendation: Evaluation of future cohorts should be extended beyond the initial implementation phase to include reassessment at 6 months, 1 year, and beyond.

2 Understanding financial implications

One of the outcomes that this evaluation was not able to fully assess is the financial impact and overall increase in billings that GPs were able to claim. Although the results suggest that increased revenue was generated from additional complex care fee codes that GPs were able to bill for throughout the duration of the program, we were limited in our ability to collect specific data on this. Having access to MSP billing data would allow for a more robust depiction of how the CCPM program benefits physicians.

Recommendation: Evaluation of future cohorts should include analysis of participants' change in ICD9 billing patterns from baseline to end of the program.

3 MOA feedback

Evaluation of the CCPM program incorporated substantial feedback from GP participants, including meaningful use scores, confidence in recording care and creating disease registries, knowledge of clinical practice guidelines, and partnership with the MOA. However, feedback from MOA partners was limited to optional written testimonials upon conclusion of the program. Although the CCPM program was developed mainly for the support and improvement of the physician and their practice, given that the MOA is an integral component to this, additional input and feedback from the MOAs would be valuable for understanding and improving future cohorts.

Recommendation: Evaluation of future cohorts should include more participant feedback from MOAs to inform future direction and quality improvement, and allow for better understanding of the program from the perspectives of all participants.

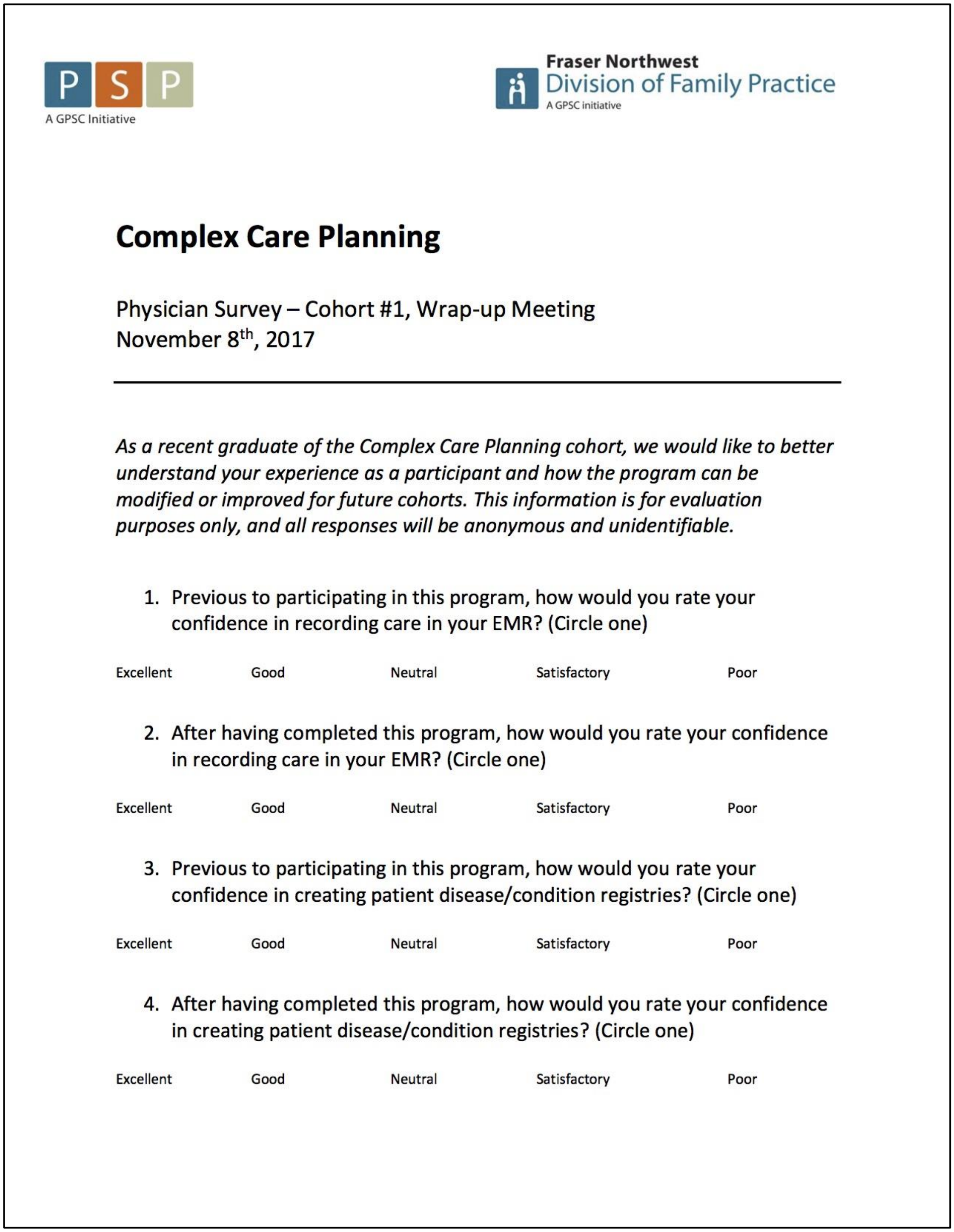
4 Collection of baseline data for cohort 1

Because the evaluation plan and baseline survey were not fully developed until after the launch of the pilot cohort, the self-reported feedback for cohort 1 participants was provided retrospectively at the end of the program. This is not ideal, as it can result in recall bias and threaten the validity of self-reported data.

Recommendation: Future evaluations should have fully developed frameworks and data collection tools prior to the launch of a program.

8. Appendices

A. Cohort 1 Pre-Post Survey



PSP
A GPSC Initiative

Fraser Northwest
Division of Family Practice
A GPSC initiative

Complex Care Planning

Physician Survey – Cohort #1, Wrap-up Meeting
November 8th, 2017

As a recent graduate of the Complex Care Planning cohort, we would like to better understand your experience as a participant and how the program can be modified or improved for future cohorts. This information is for evaluation purposes only, and all responses will be anonymous and unidentifiable.

1. Previous to participating in this program, how would you rate your confidence in recording care in your EMR? (Circle one)

Excellent Good Neutral Satisfactory Poor

2. After having completed this program, how would you rate your confidence in recording care in your EMR? (Circle one)

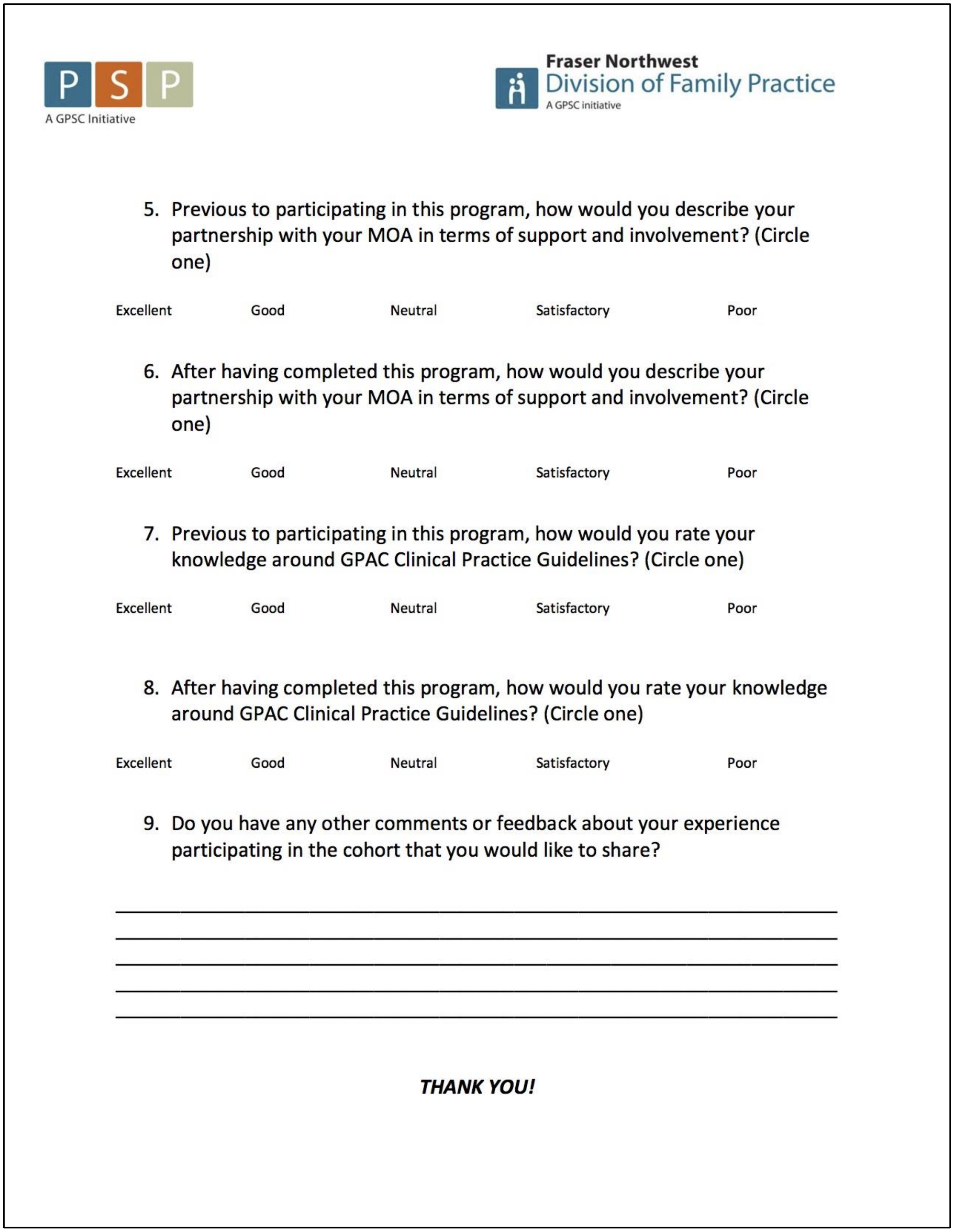
Excellent Good Neutral Satisfactory Poor

3. Previous to participating in this program, how would you rate your confidence in creating patient disease/condition registries? (Circle one)

Excellent Good Neutral Satisfactory Poor

4. After having completed this program, how would you rate your confidence in creating patient disease/condition registries? (Circle one)

Excellent Good Neutral Satisfactory Poor



PSP
A GPSC Initiative

Fraser Northwest
Division of Family Practice
A GPSC initiative

5. Previous to participating in this program, how would you describe your partnership with your MOA in terms of support and involvement? (Circle one)

Excellent Good Neutral Satisfactory Poor

6. After having completed this program, how would you describe your partnership with your MOA in terms of support and involvement? (Circle one)

Excellent Good Neutral Satisfactory Poor

7. Previous to participating in this program, how would you rate your knowledge around GPAC Clinical Practice Guidelines? (Circle one)

Excellent Good Neutral Satisfactory Poor

8. After having completed this program, how would you rate your knowledge around GPAC Clinical Practice Guidelines? (Circle one)

Excellent Good Neutral Satisfactory Poor

9. Do you have any other comments or feedback about your experience participating in the cohort that you would like to share?

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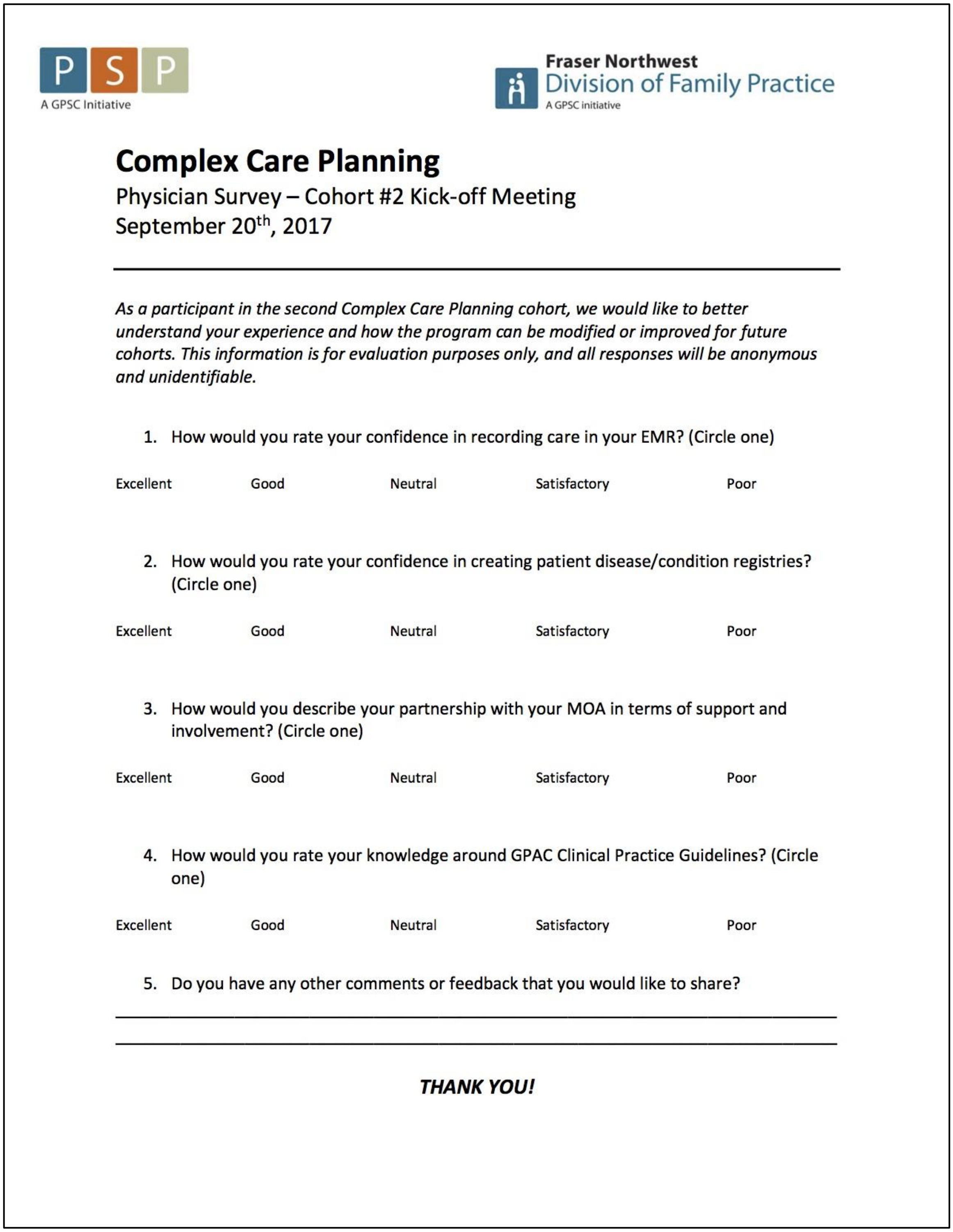
THANK YOU!

B. Cohort 2 Pre-Survey



PSP
A GPSC Initiative

Fraser Northwest
Division of Family Practice
A GPSC initiative

Complex Care Planning

Physician Survey – Cohort #2 Kick-off Meeting
September 20th, 2017

As a participant in the second Complex Care Planning cohort, we would like to better understand your experience and how the program can be modified or improved for future cohorts. This information is for evaluation purposes only, and all responses will be anonymous and unidentifiable.

1. How would you rate your confidence in recording care in your EMR? (Circle one)

Excellent Good Neutral Satisfactory Poor

2. How would you rate your confidence in creating patient disease/condition registries? (Circle one)

Excellent Good Neutral Satisfactory Poor

3. How would you describe your partnership with your MOA in terms of support and involvement? (Circle one)

Excellent Good Neutral Satisfactory Poor

4. How would you rate your knowledge around GPAC Clinical Practice Guidelines? (Circle one)

Excellent Good Neutral Satisfactory Poor

5. Do you have any other comments or feedback that you would like to share?

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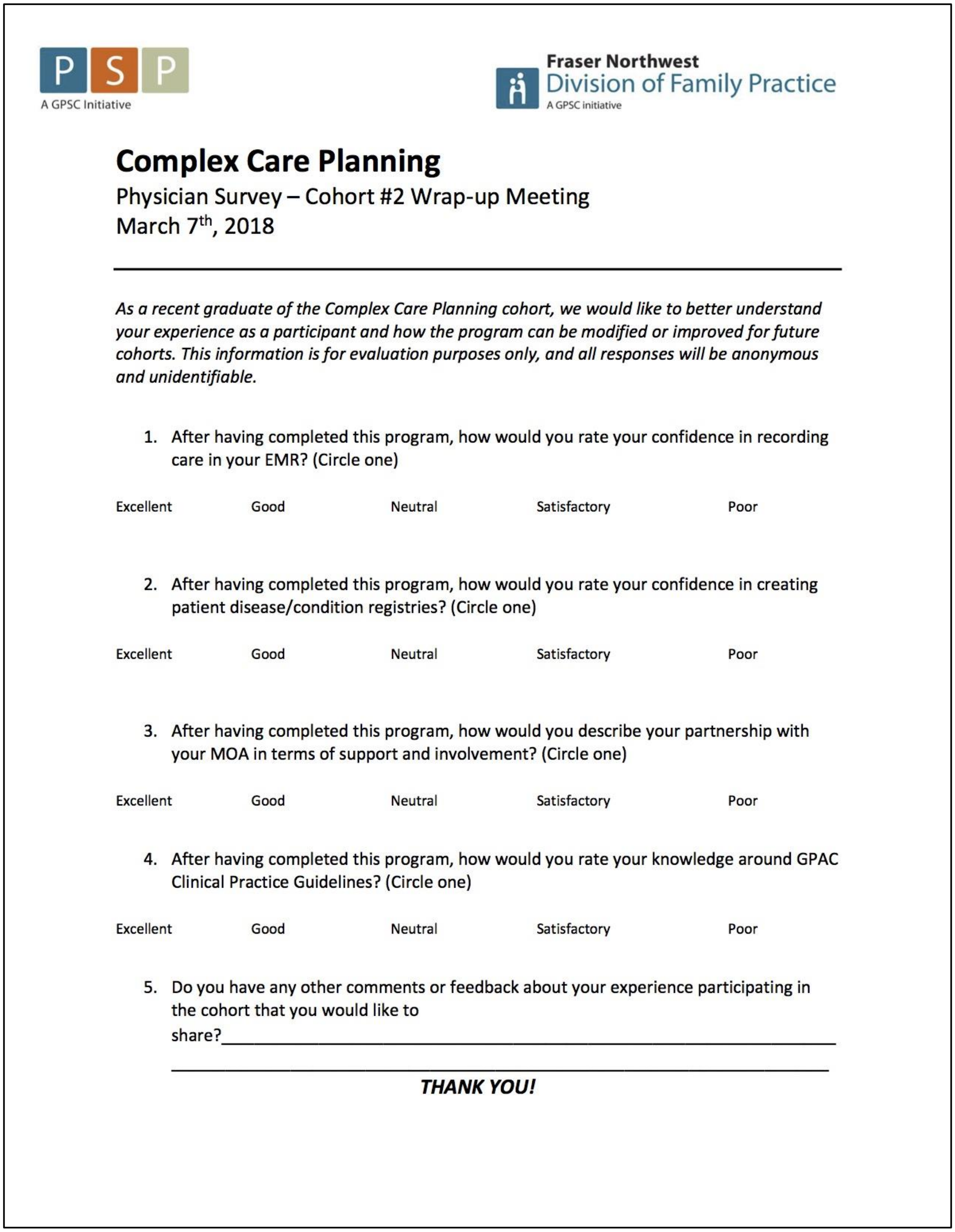
THANK YOU!

C. Cohort 2 Post-Survey



PSP
A GPSC Initiative

Fraser Northwest
Division of Family Practice
A GPSC initiative

Complex Care Planning

Physician Survey – Cohort #2 Wrap-up Meeting
March 7th, 2018

As a recent graduate of the Complex Care Planning cohort, we would like to better understand your experience as a participant and how the program can be modified or improved for future cohorts. This information is for evaluation purposes only, and all responses will be anonymous and unidentifiable.

1. After having completed this program, how would you rate your confidence in recording care in your EMR? (Circle one)

Excellent Good Neutral Satisfactory Poor

2. After having completed this program, how would you rate your confidence in creating patient disease/condition registries? (Circle one)

Excellent Good Neutral Satisfactory Poor

3. After having completed this program, how would you describe your partnership with your MOA in terms of support and involvement? (Circle one)

Excellent Good Neutral Satisfactory Poor

4. After having completed this program, how would you rate your knowledge around GPAC Clinical Practice Guidelines? (Circle one)

Excellent Good Neutral Satisfactory Poor

5. Do you have any other comments or feedback about your experience participating in the cohort that you would like to share?____

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THANK YOU!

D. Meaningful Use Model