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Family Physician Remuneration for Substance Use Disorders Care

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Conflicts of Interest

The authors have no conflicts of interest to declare.



Abbreviations

Abbreviation	Definition
CCSA	Canadian Centre on Substance Use and Addiction
CDM	chronic diseases management
COPD	chronic obstructive pulmonary disease
FFS	fee-for-service
SUD	substance use disorders



Executive Summary

Introduction

Canadian family physicians provide important care for persons with substance use disorders. Evidence suggests that the compensation models of family physicians shape the services they provide to their patients. Most Canadian family physicians work with the fee-for-service remuneration model, using service-based codes to assess, diagnose, treat and refer patients. These codes are negotiated with the provinces. Consequently, there is variability in how they deliver care to their patient populations.

To date, we have little understanding of how fee-for-service remuneration shapes the delivery and quality of primary care to patients with substance use disorders, or how family physicians in different provinces manage care for these patients using available billing codes. Understanding how fee-for-service family physicians use provincial billing codes to care for this patient population and where they encounter challenges can generate opportunities to strengthen care.

The results of this study are intended to provide policy makers and physician organizations with a portrait of how Canadian family physicians deliver care to patients with substance use disorders within fee-for-service remuneration models. The results also identify challenges to this care and provide options to support improved management of substance use disorders in primary care.

Objectives and Method

The purpose of this study was to understand how family physicians working in primary care settings within a fee-for-service model use provincial billing codes and incentives to care for patients with substance use disorders. Two other chronic healthcare conditions, diabetes and schizophrenia, were included to generate comparative data. Diabetes was chosen because physicians' remuneration for patient treatment is well supported by chronic disease management incentives. The team included schizophrenia because it is chronic mental health condition.

The specific objectives were:

- To understand family physicians' awareness, interpretation and use of billing codes and incentives for the care of substance use disorders across Canada;
- To understand physicians' perceptions of current billing codes and incentives to assess whether they are adequately designed to provide comprehensive care to patients with substance use disorders;
- To identify cross-cutting thematic issues within the fee-for-service system raised by physicians' narratives, both within each province and across Canada; and
- To generate options to improve remuneration for the care of substance use disorders and encourage more family physicians to take on this care.

The team developed a qualitative interpretative design with purposive sampling and recruited 22 family physicians from ten provinces. Using an interview guide with 11 questions in five domains, one team member conducted one-on-one telephone interviews with each key informant physician. Interviews were conducted between October 2017 and March 2018, and lasted 32 minutes on average. Three team members analyzed interview transcripts using NVivo software, and performed inductive analysis to identify themes and options for change.



Findings and Options for Change

Participants delivered five strong messages from the interviews:

1. Patients with substance user disorders have medical and social complexity.
2. The work of caring for patients with substance use disorders is invisible and not always billable.
3. Formal education and ongoing support for billing are weak.
4. Fee-for-service is not structured in a way that fully supports substance use disorders care.
5. Fee-for-service generates tensions and ethical dilemmas.

They also made explicit suggestions to address the dual challenges of improving care for patients with substance use disorders and compensating physicians fairly for their time and acquired expertise with this population:

1. Fee-for-service remuneration: New billing codes and incentives

Participants recommended three types of changes to billing codes and incentives:

- (1) Introduce a chronic disease management incentive and supplemental codes for substance user disorders;
 - (2) Introduce codes to incentivize and compensate patient intake, initial assessment and consulting; and
 - (3) Introduce codes to support the ongoing management of patients with substance use disorders.
2. Proposal for an alternative remuneration model: A blended model

Participants recommended the introduction of a blended remuneration model to encourage more physicians to provide care for substance use disorders and to sustain physicians currently delivering this care for these patients. Specifically, they proposed a base pay with supplemental billing codes to offer physicians predictable revenue that is independent of service-based codes, while incentivizing them to provide comprehensive care to patients with substance use disorders. A blended model could also compensate physicians for off-site work.

3. Other changes

Participants made three additional recommendations to improve billing practices and care for this patient population from a health systems perspective:

- (1) Improve formal training in medical school or residency to adequately prepare physicians for the work of billing as soon as they begin to practice, and strengthen provincial billing resources to support physicians in their ongoing billing practices;
- (2) Provide funding for allied health professionals so that physicians can deliver team-based clinic care to their patients, instead of providing it on their own; and
- (3) Strengthen community psychosocial services so that physicians can refer their patients to experts who can provide specialized treatment, and increase anti-stigma education to challenge attitudes that create barriers for patients seeking primary care.



Conclusion

This study is the first to solicit Canadian physicians on their experiences and perspectives on using fee-for-service billing codes to care for patients with substance use disorders. The family physicians interviewed for this study are deeply committed to providing comprehensive care to this patient population.

By acknowledging that substance use disorders are chronic diseases, the provinces can support family physicians in their work. A major step forward is to make incentives and adequate compensation available to family physicians in each of the provinces, so that they can provide comprehensive, evidence-based care within their clinics. It is also vital for the provinces to strengthen the infrastructure and systems around family physician care.



Introduction

According to the 2016 *Surgeon General's Report on Alcohol, Drugs, and Health*, a substance use disorder (SUD) is “a medical illness caused by repeated misuse of a substance or substances.” These disorders can vary in type and severity. The term “addiction” is generally used more specifically to describe a chronic and severe SUD (Office of the Surgeon General, 2016).

Substance use-related morbidity and mortality place significant strains on healthcare systems (Degenhardt & Hall, 2012; Klimas et al. 2017), and research into the treatment of this disease has been systematically neglected (Holmes, 2012). The prolonged use of psychoactive drugs can adversely affect the health of individuals (United Nations Office on Drugs and Crime, 2017). Substance use can also generate significant costs. In 2014, the overall costs of substance use in Canada was \$38.4 billion, equivalent to approximately \$1,100 for every Canadian regardless of age (Canadian Substance Use Costs and Harms Scientific Working Group, 2018).

Primary care provides accessible treatment to this patient population (Kennedy-Hendricks et al., 2016; Storholm et al., 2017), and family physicians play a vital role in managing SUD (Kaner et al. 2013; Kennedy-Hendricks et al., 2016; Klimas et al. 2017; Saitz & Daaleman, 2017). SUD treatment delivered in the primary care setting has been linked to improved health outcomes (Bowman, Eiserman, Beletsky, Stancliff, & Bruce, 2013; Kaner, Brown, & Jackson, 2011; Pilowsky & Wu, 2012). Screening and timely interventions can slow the progression of SUD (Tai & Volkow 2013).

There is variability in how family physicians care for and manage SUD in their practice (Jamison, Sheehan, Scanlan, & Ross, 2014; Hutchinson, Catlin, Andrilla, Baldwin, & Rosenblatt, 2014; Tai & Volkow, 2013). One known variable that shapes the delivery and quality of patient care is remuneration models (also known as payment models). There is evidence that payment models for family physicians influence the type, continuity and intensity of services they provide their patients. Most Canadian family physicians generate revenue from the fee-for-service (FFS) remuneration model. What is unknown is how FFS in particular shapes delivery of care for SUD.



Background

Family Physician Remuneration

In the publicly funded healthcare system, family physicians are gatekeepers. They provide primary care services, which are covered by the public insurance system. This means that patients do not face out-of-pocket payments for services that are defined as “medically necessary.” In January 2018, the Canadian Medical Association reported a total of 84,260 physicians in Canada (excluding residents). More than half were family physicians (52%) (Canadian Medical Association, 2018).

Family physicians are independent contractors who receive nearly all their income from provincial Medicare agencies. In 2015–2016, family physicians generated an average of \$275,294 average gross clinical payment in 2015–2016 (Canadian Institute for Health Information, 2017a). However, what is often overlooked is that as independent contractors, family physicians must pay all overhead costs (e.g., clinic rent and supplies), salaries and practice insurance out of their gross FFS billings. These billings must also cover their benefits and pension.

Because healthcare in Canada is administered by the provinces, the delivery and compensation of patient care varies between and within provinces and territories (Marchildon, 2013; Miedema et al., 2016). Several models are used to pay family physicians for their services:

- **Fee-for-service model:** The physician bills for each service they provide to treat a patient using service-based codes (Canadian Medical Association, 2015). The unit of payment is the number of services that the physician delivers to a patient during a visit (e.g., physical exam, immunization, etc.).
- **Salaried model:** The physician is paid regularly based on an employment contract. The unit of payment is the physician’s time, as a fixed financial amount is attributed to a specific time period (Canadian Medical Association, 2015).
- **Capitation model:** An alternative payment plan in which the physician is guaranteed a fixed payment amount for delivering annual care to rostered patients (Canadian Medical Association, 2015). The unit of payment is the number of patients under a physician’s care.
- **Blended capitation model:** The physician receives a guaranteed base payment annually for the number of patients in their care plus fee-for-service payments for treating non-enrolled patients (Canadian Medical Association, 2015).

Other physician remuneration schemes include hourly, sessional and shadow billing. Physicians who participate in alternative payment schemes, such as salaried or hourly payments, practice shadow FFS billing, in which they submit their invoices with FFS billing codes to their provincial Medicare for their services (Canadian Medical Association, 2015). Physicians who practice shadow billing are therefore familiar with FFS billing codes and incentives schemes.

Fee-for-Service Compensation

Although the proportion of Canadian family physicians who are compensated by the FFS remuneration model is declining, FFS has been the dominant remuneration model of most family physicians since the 1960s (Dahrouge et al., 2013; Devlin & Sarma, 2008; Sarma, Devlin, Belhadji, & Thind, 2010). In 2015–2016, almost all physicians (97%) received some payments through FFS and more than two-thirds of all physicians (69%) received some payments through alternative remuneration schemes (Canadian Institute for Health Information, 2017b).



FFS offers many benefits to family physicians and to the delivery of care. These include higher patient volume within practices (Sørensen & Grytten, 2003) and more patient contact (Basu & Mendelzys, 2008). According to an analysis of the 2004 Canadian National Physician Survey for the number of weekly patient visits in different remuneration schemes, FFS physicians saw more patients per week compared to physicians in alternative remuneration schemes (Devlin & Sarma, 2008; National Physician Survey, 2004).

FFS also has limitations. These can adversely affect the quality of patient care, particularly for patients with chronic conditions. FFS remuneration incentivizes patient volume over time spent with a patient. This structure can discourage physicians from spending extra time with complex patients because they are financially penalized if a patient appointment lasts longer than the amount of time indicated in the fee schedule (Devlin & Sarma, 2008). Insufficient time during patient visits is a significant barrier to quality patient care, particularly for patients with chronic conditions who require longer appointments (Barry et al., 2010; Beaulieu et al., 2013; Russell et al., 2009; Storholm et al., 2017).

Two Ontario studies assessed the efficiency of the FFS model in the delivery of diabetes care for patients. Kiran, Victor, Kopp, Shah, and Glazier (2014) found that patients aged 40 years and older enrolled in team-based and non-team-based capitation models were more likely to receive recommended diabetes monitoring tests than patients enrolled in a blended FFS model. Patients receiving care from FFS physicians who were not enrolled in any remuneration model were least likely to receive optimal diabetes testing. Another study by Liddy, Singh, Hogg, Dahrouge, and Taljaard (2011) that assessed 82 primary care practices in Eastern Ontario found that community health centres with salary-based physicians offered better diabetes care compared to practices operating under the FFS model.

Non-FFS models can offer several benefits to patients. One benefit is improved access to providers (Miedema et al., 2016). A second benefit is that they can support interdisciplinary group practices (Brcic, McGregor, Kaczorowski, Dahramshi, & Verma, 2012) and team-based care (Clelland 2016). Team-based care practices in turn are associated with higher quality care for chronic diseases (Beaulieu et al., 2014; Kiran, Kopp, Moineddin, & Glazier, 2015; Tricco et al., 2012).

Newer physicians are expressing a preference for non-FFS remuneration models. A survey of 430 newly practicing family physicians in British Columbia with 133 respondents assessed their remuneration model preferences (Brcic et al., 2012). The majority of respondents (81%) reported that remuneration models influenced their decisions about future practice. Although some physicians felt that the FFS model motivated them to work hard, 71% preferred non-FFS remuneration models, as they felt that non-FFS models provided better patient care, improved the quality of their work life and generated less frustration with billing systems.

How Fee-for-Service Compensation Works

FFS payment structures vary by province. Every clinical encounter must have a diagnostic code and a service code associated with it (MD Physician Services, 2012). A **diagnostic code** refers to the reason for the medical consultation or procedure. Most provinces employ an adapted three-digit version of the International Classification of Diseases to identify how to numerically code the diagnosis. A **service code** refers to the type of service provided during a patient encounter. Service codes that are commonly used by family physicians include regular office visits, complete assessments, counselling, interviews, prenatal visits, well baby exams, house-call visits and limited consults. Furthermore, a specific code may be required for the place of service (MD Physician Services, 2012).

The available codes and associated physician fees are detailed in the Schedule of Benefits published by each province. These fees are established through negotiations between the provincial



insurer (e.g., Ontario Ministry of Health and Long-Term Care) and the provincial medical association (e.g., Ontario Medical Association). Fees are reviewed every few years.

Chronic Disease Management Incentive Payments

Chronic disease management (CDM) incentive payments are an additional component available in the FFS model in all provinces except Prince Edward Island (P.E.I.). Appendix G summarizes the CDM codes available in each province.

Providing primary care physicians with additional incentives can increase their willingness to care for patients with chronic diseases (Steele, Durbin, Sibley, & Glazier, 2013). Incentives can also enhance the supply of services available to more complex or disadvantaged populations, as these patients tend to rely more heavily on primary care to address their chronic health needs (Ferrer, 2007).

Diabetes is an example of a chronic condition for which CDM codes exist in all provinces except P.E.I. Comprehensive care management for diabetes in primary care settings has been linked to improved patient health outcomes and reduced risk of complications (Dusheiko, Doran, Gravelle, Fullwood, & Roland, 2011; Laberge & Kone Pefoyo, 2016; McGovern et al., 2008). However, CDM programs for diabetes vary in their design and ability to improve patient care (Campbell et al., 2013). A systematic review of randomized trials conducted by Shojania et al. (2006) examined the effectiveness of CDM programs for diabetes care, categorizing programs into 11 distinct strategies. Overall, most CDM programs improved glycemic control in diabetic patients, although some programs were more effective than others. Another study looked at the effects of incentive payments to primary care physicians caring for hypertension, chronic obstructive pulmonary disease (COPD) and diabetes patients in British Columbia (Lavergne et al., 2017). The researchers observed improved health outcomes for patients with hypertension, but found no significant changes in health outcomes for COPD and diabetes patients.

Increased incentives might not always translate into better quality care (Gavagan et al., 2010; Kiran, Victor, Kopp, Shah, & Glazier, 2012; Laberge & Kone Pefoyo, 2016). Town, Kane, Johnson, & Butler (2005) assessed the impact of financial incentives on physicians' delivery of preventive care in a systematic review of randomized trials. The authors found that most trial interventions they reviewed identified a positive association between delivery of preventive care and financial incentives. Although smaller financial incentives might not impact physicians' practice choices, the authors noted that larger incentives might be better motivators (Town et al., 2005).

Substance Use Disorder Care

Only 4.5% of Canadian family physicians practice addiction medicine (National Physician Survey, 2013). In Canada, most treatment for SUD is delivered by primary care physicians who are non-specialists. Primary care delivery of SUD treatment can be challenging for physicians because of the complexity of the disorders, and could be further complicated for individuals with concurrent chronic conditions (Khan, 2017; Wu et al., 2018).

Stigma related to substance use is a known barrier to both SUD treatment (Stringer & Baker, 2015) and to the quality of services delivered by healthcare providers (Van Boekel, Brouwers, Van Weeghel, & Garretsen, 2013). Because language can influence clinicians' attitudes and behaviours towards patients (Goddu et al., 2018), certain terms used to describe substance use and SUD have the potential to elicit negative explicit bias (Ashford, Brown, & Curtis, 2018). A randomized vignette study conducted by Goddu et al. (2018) assessed whether stigmatizing language within a patient's medical records influenced physicians-in-training's decision making and attitudes towards a patient. A total of 413 physicians-in-training were recruited with a response rate of 54%. Findings from the



study revealed that exposure to stigmatizing language was associated with greater negative attitudes towards the patient and less aggressive management of the patient's pain (Goddu et al., 2018).

Individuals with SUD are generally less likely to report a need for care (Meadows et al., 2002; Sunderland & Findlay, 2013). A study by Urbanoski, Inglis, & Veldhuizen (2017) investigated help seeking and perceived unmet needs for substance use and mental health care in Canada using the 2012 Canadian Community Health Survey on Mental Health, which included 25,133 respondents. Findings revealed that among individuals with SUD, 65% did not seek any services or supports to treat their condition in the year prior to the survey. Those who chose to seek care were more likely to use informal supports. The authors also reported that unmet needs were greater among individuals with SUD, in comparison to those with co-occurring disorders or mood and anxiety disorders.

Studies have shown that CDM can help improve the quality of care for individuals with addictions (Kim et al., 2011), as well as improve addiction outcomes (Kim et al., 2012). Therefore, a long-term patient-centred model of care might better address the needs of this patient population (Saitz, Larson, LaBelle, Richardson, & Samet, 2008).

Study Objectives

The purpose of this study was to understand how family physicians working in primary care in a FFS remuneration model use the billing codes and incentives available to them in their province to care for patients with SUD. The FFS remuneration model was selected as the main focus of this study because the majority of Canadian family physicians are compensated with this model. In this report, we focus on the remuneration of physician providers as one of the many systemic factors that can impact overall care for patients with SUD. Diabetes and schizophrenia were included to generate comparative data. Diabetes was chosen because physicians' remuneration for patient treatment is well supported by incentive schemes and schizophrenia was chosen because it is chronic mental health condition.

The specific objectives were:

- To acquire a well-rounded understanding of family physicians' awareness, interpretation and use of billing codes and incentives for SUD care across Canada;
- To acquire an understanding of physicians' perceptions of current billing codes and incentives to assess whether they are adequately designed to provide comprehensive care to patients with SUD;
- To identify cross-cutting thematic issues within the FFS system, both within each province and across Canada; and
- To generate options for change to improve remuneration for SUD care and to encourage more family physicians to deliver this care.

The results of this study are intended to provide policy makers and physician organizations with a portrait of how Canadian family physicians deliver care to patients with SUD in the FFS remuneration models, identify challenges to delivering comprehensive care, and provide options for change to support improved management of SUD in primary care.



Methods

The team developed a qualitative interpretative design and used purposive sampling to recruit family physicians from the ten provinces. Using an interview guide, one team member conducted one-on-one telephone interviews with 22 key informant physicians. Both closed-ended and open-ended, semi-structured questions were developed to capture a range of data that included demographics and perspectives. Given the sensitive nature of the questions on remuneration, individual interviews were conducted to ensure privacy, obtain an in-depth understanding of the practices and perspectives of individual physicians, and solicit options for change for improvements to the current system. This study received ethics approval from the Chesapeake Institutional Review Board Services.

Developing the Interview Guide

In consultation with several physician leaders, CCSA developed an interview guide with 11 questions in five domains (See Appendix A):

Questions 1–3: Demographics (length of time in practice, practice setting[s]):

1. What is your current position?
2. How long have you been practicing medicine in your current role as [CURRENT POSITION]?
3. Can you tell me about the setting where you see patients in [CURRENT POSITION]?

Questions 4–5: Scope of practice (relevant compensation model[s], patient populations)

4. Can you tell me more about the type of compensation model you work with?
5. I'd like to ask you about three areas of practice: Do you currently provide care for patients with [CHRONIC DISEASE BELOW] as part of your scope of practice?

Questions 6–7: Compensation practices and billing education (how physicians are compensated for chronic disease care for each patient population, how physicians learned how to bill; who performs billing)

6. Can you explain how your compensation works?
7. Can you tell me what education you received for billing codes and incentive schemes?

Questions 8–10: Assessments and options for change (satisfaction/dissatisfaction with billing codes and incentive schemes; recommendations to improve care)

8. Are [billing codes, incentives, other payment schemes] structured in a way that allows you to provide the care that you'd like to patients?
9. Is there anything that you would like to see changed in the billing codes for problematic substance use and addiction?
10. What type of remuneration scheme do you feel would encourage physicians to do more chronic care for substance use disorders?

Question 11: Invitation to provide additional comments and recommendations

11. That was the last question I had for you. Is there anything that you wanted to mention that we didn't touch on, or you didn't have a chance to tell me? Do you have any questions for me?



Piloting the Interview Guide

Three test interviews were conducted with the draft interview guide to test the validity of questions, the feasibility and acceptability of the oral consent process, the acceptability of interview length, the comprehensiveness of the interview, and the quality of the resulting audio files. All test participants found the questions to be valid, the interview length acceptable and the oral consent process to be feasible and acceptable. Two test participants recommended that participants receive both the interview guide and oral consent form in advance of the interview for review. Based on comments by one participant about lack of formal training in billing, the interview guide was modified to introduce an additional question (Question 7) about the formal and ongoing training of participants for billing. The sound quality from the test interviews was found to be low, prompting a decision by the team to use a third-party audioconferencing firm for the remaining interviews. This produced excellent sound quality on the remaining audio files. The interview guide was modified and finalized (Appendix A).

Recruitment Strategy

Family physicians in the 10 provinces providing comprehensive family medicine in community settings were targeted for recruitment into the study. Physicians in the territories were excluded because most are not compensated with FFS remuneration. The recruitment target was four physicians per province to generate diverse perspectives and ensure feasibility within the time frame for completion of the study. Email was the primary contact channel for recruitment. Twitter and phone calls were also used to recruit participants. CCSA leveraged its relationship with partners such as the Canadian Society on Addiction Medicine, the Canadian College of Family Physicians, the Canadian Medical Association, several provincial medical associations, provincial contacts and study participants to recruit participants via an email invitation (Appendix B). Additional outreach to specific provinces followed the initial round of recruitment. (See Appendix D for a complete list of organizations approached to help circulate invitation.)

The team contacted 40 organizations to assist with reaching family physicians from their networks into the study. In total, 29 physicians expressed interest in participating, and 22 were recruited into the study and completed interviews. The seven physicians who were not recruited or interviewed were unavailable for an interview, did not show for a scheduled interview, or were no longer required because the maximum number of participants per province (four) had already been met.

Participants

Twenty-two family physicians in 10 provinces participated in telephone interviews between October 2017 and March 2018. Interviews ranged in length from 16 to 58 minutes, with a mean length of 32 minutes.

Procedure

Participants received two documents by email prior to the interview: the key informant interview guide (Appendix A) and the oral consent form (Appendix C). Given that the study was minimal risk and the research team could not be in the same room with participants to conduct the interviews, a waiver of written consent was sought, with a substitution of oral consent delivered through a telephone script. Oral consent and interviews were conducted in the same call at a date and time chosen by the participant.

All participants consented to be quoted. One participant requested that a small segment of the interview not be quoted because it included identifying information. The research team noted this



request during the audio-recording of the interview, in the transcript of the interview and in all analytical materials generated from the interview transcript.

Two interviews were interrupted briefly: one by a poor phone connection, the other because the participant had a meeting midway through the interview. Both interviews were resumed and completed within the same hour. A third participant was available for only 15 minutes because of a conflict and could not reschedule. Consequently, the team member conducting this interview did not ask three questions (Questions 7, 8 and 9).

All participants were invited at the end of the formal interview questions to elaborate further on their responses, provide additional information and identify additional issues or concerns not covered within the scope of the questions. All expressed satisfaction with the comprehensiveness of the interview. Several asked if they would receive feedback on the findings or a copy of a publication. Participants were informed they would receive a copy of the report.

Data Analysis

Interviews were analyzed using an inductive, grounded theory approach to identify themes within and across participant narratives (Corbin & Strauss, 2015). Inductive thematic analysis allows researchers to make interpretations of the data rather than use the data to support previous theoretical conceptions, as with a deductive approach (Patton, 2002). NVivo 10 software was used to manage all aspects of the thematic analysis in the current study.

To generate the codebook, two team members independently performed first-order coding of three interviews by identifying short segments of the interview transcripts that corresponded to the domains and questions in the interview guide. To generate the codebook, they performed a line-by-line comparison of coding choices, reconciled differences and performed a second-order coding that added emergent parent and child codes. A third team member reviewed the codebook before it was finalized. Using the finalized codebook, two team members independently coded all 22 interviews and compared coding choices. All team members met to identify themes and illustrative quotes using an iterative approach.

The team lightly edited participant quotes for brevity and clarity. Three questions (Questions 8, 9, and 10), which invited participants to share their perspectives on remuneration for chronic disease care, generated sustained narrative responses that were rich in evaluative content. These provided much of the material for thematic analysis and most of the content for the options for change.

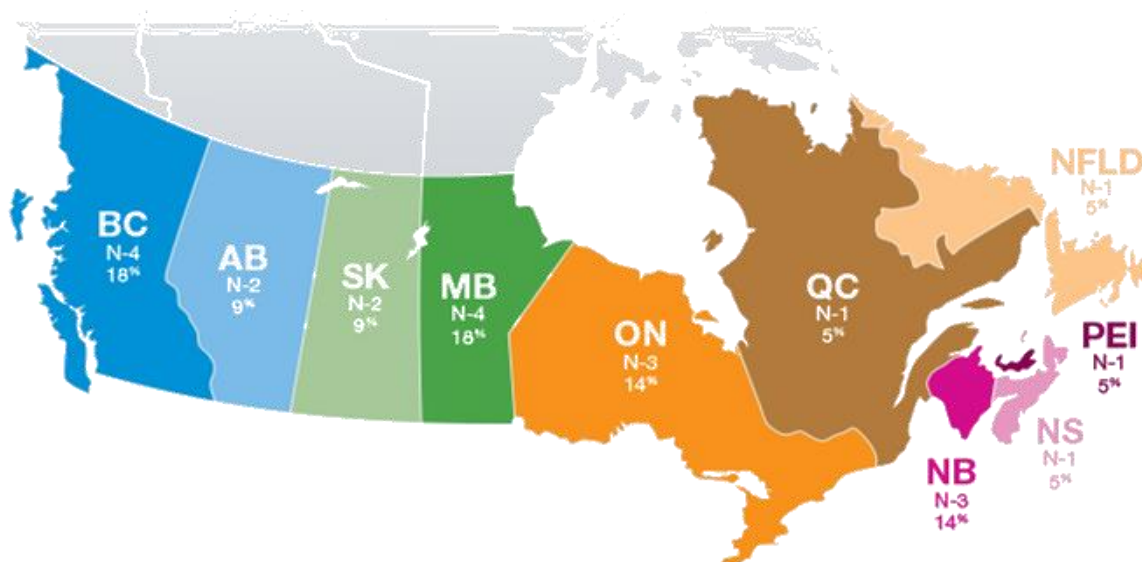


Results

Study Participants

The team conducted twenty-two interviews with family physicians across the 10 provinces using purposive sampling. Figure 1 provides an overview of the number of participants by province. In four provinces (Quebec, Nova Scotia, P.E.I. and Newfoundland), the team was able to recruit only one participant. Between two and four participants were recruited from the other six provinces. Participants had an average of 14.5 years of practice experience (ranging from four months to 40 years); 64% held more than two different roles (e.g., consultant, family medicine physician, hospitalist, specialist in addiction medicine, etc.); and 55% worked in more than one type of setting (e.g., inpatient hospital, inpatient other, outpatient community practice, outpatient private practice). The majority identified their main geographic setting as urban (64%) with the remaining split at 18.2% each for suburban and rural. Six participants (27.3%) reported working in more than one geographic setting (e.g., urban and Northern/remote). Patients who cared for patients with SUDs most frequently mentioned opioids, alcohol and cannabis. Table 1 summarizes the participant characteristics.

Figure 1. Distribution of Participants by Province



**Table 1. Participant Characteristics**

	Number (%) N=22	Range
Gender	Female: 14 (64%) Male: 8 (36%)	---
Years of experience	0–10 years: 11 (50.0%) 11–20 years: 4 (18.2%) 21–30 years: 4 (18.2%) 31 years +: 3 (13.6%)	4 months–40 years
Number of roles	1 role: 8 (36.4%) 2 roles: 6 (27.3%) 3 roles: 5 (22.7%) 4 roles: 3 (13.6%)	1–4 roles (e.g., consultant, family medicine physician, hospitalist, specialist in addiction medicine)
Geographic setting (identified as their main setting)	Urban: 14 (63.6%) Suburban: 4 (18.2%) Rural: 4 (18.2%) Northern/Remote: 0	---
Number of work settings	1 setting: 10 (45.4%) 2 settings: 7 (31.8%) 3 settings: 3 (13.6%) 4 settings: 2 (9.1%)	1–4 settings (e.g., inpatient hospital, inpatient other, outpatient community practice, outpatient private practice)

Remuneration Schemes

Seven (32%) participants are remunerated exclusively through FFS. Ten (45%) are remunerated through FFS plus at least one other remuneration scheme (salaried, sessional, hourly or other provincial funder). The remaining five (23%) participants are remunerated primarily through alternative billing models (salaried, sessional or hourly), but perform shadow billing using FFS coding for each patient encounter, which they submit to the provincial payer. Table 2 outlines remuneration schemes by participant.

Table 2. Participant Remuneration Schemes

	Fee-for-service	Shadow Billing	Hourly	Daily	Salaried	Sessional	Stipend	Other Provincial
001-NS		✓						
002-BC	✓							
003-ON	✓							✓
004-ON	✓			✓				
005-BC	✓							
006-BC	✓							
007-SK	✓							
008-MB	✓	✓	✓					
009-MB		✓				✓		



	Fee-for-service	Shadow Billing	Hourly	Daily	Salaried	Sessional	Stipend	Other Provincial
010-BC	✓					✓		
011-MB		✓	✓					
012-NFLD	✓				✓			
013-AB	✓							
014-AB	✓							✓
015-MB	✓							
016-PEI		✓			✓			
017-NB	✓				✓	✓		
018-NB	✓							
019-NB	✓							✓
020-QC	✓		✓					
021-ON	✓	✓	✓		✓	✓	✓	
022-SK		✓						

Legend:	N	%
Only FFS	7	32
Alternative remuneration scheme with shadow billing	5	23
FFS + one or more alternative remuneration schemes	10	45
TOTALS	22	100

Themes

The research team identified five themes in participants' narratives. These themes highlight the benefits and challenges of caring for patients with SUD and other chronic illnesses (diabetes, schizophrenia and other mental health problems) using FFS billing codes:

1. Patients with SUD have medical and social complexity.
2. The work of caring for patients with SUD is invisible and not always billable.
3. Formal education and ongoing support for billing are weak.
4. FFS is not structured in a way that fully supports SUD care.
5. FFS generates tensions and ethical dilemmas.

These five themes capture features across four levels of analysis: (1) the SUD patient population; (2) physician knowledge and practices in using billing codes; (3) provincial availability and characteristics of billing codes (including physician education in using these codes); and (4) FFS as the dominant remuneration scheme for Canadian family physicians.



Theme 1: Patients with Substance Use Disorders Have Medical and Social Complexity

The most striking feature of the population of patients with SUDs, according to participants, is their medical and social complexity. This complexity manifests itself in a number of ways in practice settings. Patients can present multiple problems during a single visit. They might present with chronic pain or underlying mental health problems and have more than one type of SUD. They could lack social supports or a stable family. They may be homeless or have a history of incarceration or unemployment.

The FFS remuneration model has difficulty accommodating this complexity. For example, service-based codes for a regular office visit can fall short of the time required to adequately address all of the problems that patients bring to an appointment, even with the addition of modifiers. Physicians may need to conduct a physical exam to look for signs of injection drug use even when the appointment is not scheduled as a full physical. One physician interviewed expressed it this way:

The reality is there is just no capacity to [provide SUD care] on a fee-for-service basis because there just aren't adequate billing codes to reflect the complexity of the patient population, as well as the instability. (008-MB)

Participants mentioned that it can be difficult for physicians to classify SUD for their billing because SUD can have multiple etiologies and patients present with comorbidities. Participants described SUD variously as a problem of chronic pain, a mental health disorder and a manifestation of emotional distress. These diverse representations of SUD reflect the different etiologies of the illness and the varied demographics of patient populations. The sum effect is layers of complexity that make it difficult to choose the appropriate billing codes:

Some people are straight substance use disorder, some people have chronic pain and end up being substance use disorders. (018-NB)

Your initial visit, even if you're not billing psychotherapy, you end up doing a pretty comprehensive sort of physical because you're looking for track marks and making sure you don't see any obvious signs of IV drug use, even if the patient denies that. (015-MB)

Most of the people that are going to these clinics are there with chronic pain issues, anxiety issues, many of which are related to addictions. (009-MB)

Sometimes there's a very subtle difference between a chronic pain patient and an addiction patient. For instance, what I mean is the addiction patient may well have the addiction because they were treated for chronic pain, and then they become really, really complicated patients. (012-NFLD)

Because SUD is stigmatized, patients can experience guilt and shame, which can affect their adherence to appointments. Some patients experience cognitive effects and impairment from their substance use, which can impact their decision making and time management. These are potential barriers for patients to seeking care and following treatment plans. Participants singled out the high no-show rate of patients, as high as 20–30%, as a significant challenge in their practice. Within a FFS remuneration model, a physician is only compensated if they see the patient. The inherent risk of no-shows with this population can force physicians either to over-book their patients or, alternatively, to forfeit billable hours if patients do not show. Patients who do not show for their appointments might be doing well or they might be in crisis. These inconsistencies and unknowns can make long-term care planning difficult:



It's a patient population that has a lot of very complex needs. That can translate into people not showing up for their appointments. So you have to overbook yourself in order to hopefully end up with a full day of patients. But then [you] run the risk of ending up with too many patients and feeling like you actually don't have the time to spend with each of them individually, with a patient population that actually requires a fair bit of time. Or you try to book a normal clinic day and then run the risk of having a number of people not show up and then that becomes difficult to sustain financially over time. (004-ON)

I have a family of patients where the mom has significant substance abuse problems, and there's a lot of incarceration. The father's been incarcerated; the mother's been incarcerated; there's three kids with complex needs; and they no-show probably 70 percent of the time. But I don't want to stop booking them because I think the kids really need the access. If I was really concerned about my no-show rate, I might have fired them by now because they've likely missed 100 appointments. But I don't think that's best care for their family. (016-PEI)

Theme 2: The Work of Caring for Patients with Substance Use Disorder Is Invisible and Not Always Billable

A significant challenge for physicians using service-based billing codes is receiving adequate compensation for the time they spend caring for this population:

I do long hours trying to get everything done for these patients, and you can't bill for it. (013-AB)

There is a lot of stuff that happens with this patient population that is non-billable and doesn't get caught anywhere. So the only things we bill for essentially are direct patient-to-clinician contact. (004-ON)

There is often lots of extra time that is spent calling the pharmacy and talking to other people who are involved in the care. Particularly when you are talking about somebody who is on opiate replacement therapy, there are lots of phone calls to pharmacies and arranging dispensing schedules for the medication. (008-MB)

The main area that I and my colleagues feel frustrated about is non-face-to-face clinical time. On the phone with the patient or on the phone with family members or on the phone with counsellors. The time spent tracking down a specialist when someone needs to be seen urgently. That really doesn't get captured anywhere. (016-PEI)

A key distinction that one participant made is between procedural work and communication-based work. By procedural work, she was referring to the work performed by the physician during the face-to-face patient visit to the clinic. By communication-based work, she meant work the physician performs for patient care outside of the face-to-face patient encounter:

We don't get paid enough for some of the things that require conversation and interaction with patients. That's been an issue we've had for a large number of years between procedural-type medical codes and communication-type medical codes. (014-AB)

Participants reported that much of the work they perform that is critical to comprehensive patient care takes place after the procedural work is over. It is invisible because it is not perceived as part of the clinical encounter and is usually not captured in the billing codes.



Communication-based work constitutes a significant portion of the invisible and non-billable work that physicians perform with patients with SUDs. Phone calls were identified as the greatest expenditure of unbillable time. Family physicians who care for this population spend time beyond the clinical encounter calling pharmacies, talking to allied health professionals who are also caring for their patients, case conferencing, talking to family members or tracking down specialists when patients must be seen urgently. Physicians caring for patients on opiate replacement therapy make multiple phone calls to pharmacies to arrange dispensing schedules for the medication. These calls include consultations that physicians provide at the behest of other physicians. In six provinces — British Columbia, Alberta, Saskatchewan, Manitoba, Ontario and Quebec — family physicians can bill for phone calls they make to other physicians. However, each province has different eligibility criteria for these codes (e.g., only certain specialty consults apply or documentation is required for the phone call). Therefore, not all phone consultations are eligible for reimbursement. This ineligibility is a constraint when the family physician who has expertise with this patient population is the only one practicing in their community or within a large region of the province.

Participants voiced frustration that it is not simply their time that is non-billable. They observed that a high level of energy is required to provide care for this population relative to their compensation. The energy they invest into this care is not always visible:

I really feel like the mental energy and time we put in just doesn't show up. You sort of feel like, "Oh my God, after five days of that, this is all I got?" (O15-MB)

You come home, and you're reading about these patients. It's not just another check box or another name in my schedule for the day. I think about those people. I bring them home. I ponder over their cases. And I have to look things up for them. (O15-MB)

Physicians' expertise with this population is also not always recognized. One participant likened family physicians to generalists who provide specialized care, but are compensated like generalists. While their expertise in caring for this population is vital to the patients and Canadian society, it is not recognized in the billing codes:

I think that we have to recognize that these are patients with complex needs, and I think that in the long term, we have to make compensation for treating these patients equivalent to compensation that some of our other colleagues are getting for some of the specialized work that they're doing. (O14-AB)

It bothers me that we aren't paid as well as some of the other specialties, especially when you consider that the work that we do is really important, and not just life-changing for patients but potentially socially, too, if we can help our patients live productive lives again. (O09-MB)

Theme 3: Formal Education and Ongoing Support for Billing Are Weak

Billing accurately is critical to sustaining the practice of FFS physicians because it generates revenue for clinic expenses and salaries. Accurate billing also permits physicians to fully benefit from the incentives available for providing care to patients with complex illness. However, many participants felt unprepared to begin billing after residency or discovered their billing practices were not always well-supported once established in their practice:

To be honest, I don't really know how to bill. I hire a company to do the billing because I know that that would be impossible for me. (O01-NS)



You never get feedback [on billing during training]. The only time I have ever had feedback on my billing is [when] I worked in an emergency room in Hawkesbury. The chief of the department was very efficient with billing. He would give you a huge handout of anonymous data and tell you your numbers so that you could see “How do I bill compared to my colleagues.” (003-ON)

There’s an organization called the Society of General Practitioners of B.C., and it’s like a division of the Doctors of B.C., which is our provincial association. They have a really good website resource that breaks down all the different billings and how to do it for family doctors, so I use that a lot. (010-BC)

When asked whether they had received any formal training for billing, many emphatically answered, “None.” In our sample, only 31.8% reported receiving any formal education for billing, either in medical school (4.5%) or during residency (27.3%). One participant commented on the variability in the training that physicians receive during residency:

There is very little formal education. The other problem is that most family doctors are trained in larger academic settings, unless they are specifically a rural or community resident. Because of the way that the doctors in an academic centre are paid, they are notoriously bad billers. So, it is very variable what peoples’ experiences would be with learning how to bill. (003-ON)

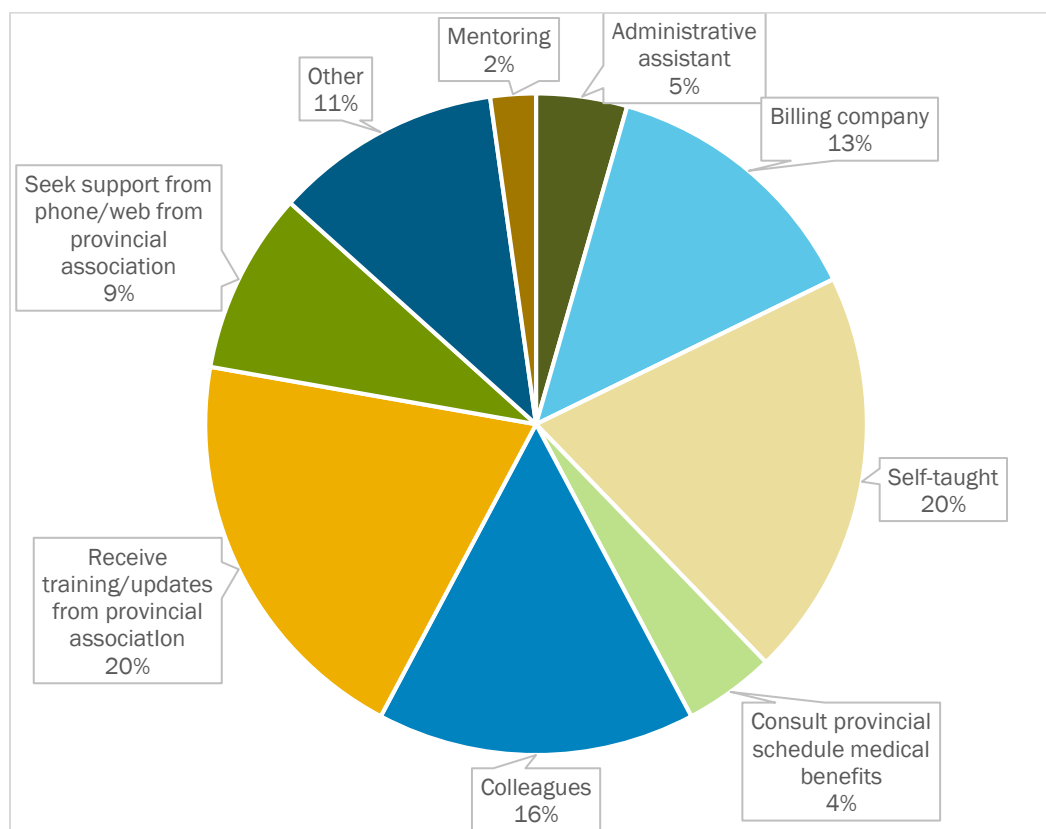
Participants described entering practice without having billing experience, particularly for chronic diseases. Because of the complexity of SUD patients and the absence in most provinces of specific codes for SUD care, participants learned to improvise in their billing practices by using codes in combination to cover the length of the appointment or by using specific codes (e.g., counselling or psychotherapy codes) that do not always correspond with the care they provided to these patients.

The limited amount of training provided in medical school and residency for billing impacted how participants manage the business aspect of medicine in several ways. Most participants have learned how to bill on the job. They described “learning on the fly” and “learning from the ground up.” Some learned how to bill from colleagues after they entered practice. Others, particularly older participants, are self-taught. They have relied for decades on the provincial fee schedules as their primary resource. Still others, like the Quebec participant, mentioned they did not consult the fee schedule because it was too complicated. The fee schedule is not necessarily a cost-free resource. One participant commented that physicians in her province must purchase a membership to obtain the schedule with annual updates. There is another cost to teaching themselves how to bill: participants do this on their own time. One participant, who had just entered her practice, said she would teach herself how to bill over the upcoming Christmas holiday.

Physicians need to stay current with changes to payment structures through continuing education. Participants identified their top three sources for education about billing as training and updates from their provincial association (20%), self-teaching (20%) and colleagues (16%) (see Figure 2).



Figure 2: Sources of Continuing Education



Study participants identified their provincial medical associations as the primary source for learning about updates to codes and obtaining real-time support for using specific codes. Medical associations offer continuing education sessions (one- or two-hour occasional billing seminars), a general mailing, newsletters, and website and telephone support. Participants gave these resources mixed reviews. One British Columbia participant lauded a continuing education model that pays physicians to attend as a best practice. However, more participants found these resources to be inadequate or frustrating. One participant said that the provincial website provided excellent support, but could only be accessed through a \$500 membership. Another said that the continuing education seminars she attended had glossed over billing for chronic illness and mental health care. A third mentioned that he was more knowledgeable about billing for SUD than the provincial Medicare representatives who staffed the telephone information service.

3.1 Who performs billing?

Participants manage the work of billing in different ways. In our sample, 12 (54.5%) of participants perform their own billing, five (22.7%) rely on a billing clerk or administrative assistant and four (18.2%) use a private billing company. One participant (4.6%) was not asked who performed billing and did not volunteer this information.

In reflecting on their ability to perform billing, there was a wide range in knowledge and confidence. One participant, who has been in practice for four months, said: “I have to bill myself, and I’m a fresh graduate. So, I haven’t even gotten the time to go through the online courses and extra trainings to get familiar with what I can do” (006-BC).



By contrast, participants who have assigned the billing functions to their staff or outsourced billing felt more confident about billing:

Our EMR [electronic medical record] has all the codes embedded in the billing program, so that's quite nice to be able to do that. My staff manage that. I couldn't tell you the billing code for an office visit right now because they do that for me. I know that they keep on top of it when there's any new changes or any diagnosis. One of my newer staff members questioned me just this week on a code. She wondered if I knew the code for that, but she found it and put it in. (O19-NB)

I have a wonderful person who knows all about [billing]. That's a good thing because we don't get a lot of education about it. I can tell you what is being done now for the residents. This wonderful billing person that we have, she gives them about an hour per year. Before they go out and practice, she will sit with them and explain to them the billing. I don't think I have got any formal training or instruction on [billing codes]. I just discuss with this person who knows everything. (O20-QC)

3.2 Challenges and disincentives to bill for work performed

Participants who performed their own billing characterized it as time consuming and frustrating. Some said they are unsure of whether they could use certain codes in their care of patients with SUD. Others mentioned that they know the province will deny claims for certain work. These were disincentives to bill for their SUD work:

What ends up happening functionally is, because [billing is] so much work to do, and you know you're going to be audited, no one bills it. (O12-NFLD)

I'm sure each doctor every week does at least two hours or so of just trying to bill, and that's why we don't bother reconciling. (O13-AB)

Several participants mentioned they had encountered discrepancies between the provincial fee schedule for codes and Medicare's determinations of their claims. Claims denied by Medicare translated into more uncompensated time for participants who perform their own billing. Some said they were in the habit of not billing for certain services provided to their patients with SUD, such as psychotherapy, because Medicare did not accept their claims:

It's a matter of what Medicare will tolerate. It's what you know you'll be audited on. Medicare has a personality, and after you've worked with them for a while, you know what you can do and what's acceptable and what you're going to get called out on. (O17-NB)

3.3 Being resourceful with psychotherapy and counselling codes

The standard remunerated office visit lasts 15–20 minutes in most provinces. Given the short duration of this visit and the complexity of patients with chronic conditions, many participants identified psychotherapy and counselling codes as the most important billing resources to build more time into appointments for remunerating the care they provide to patients with SUD.

Some participants find psychotherapy and counselling codes to be excellent resources with no limitations on their use, and encounter no obstacles in reimbursement for claims submitted with these codes. One Alberta participant said he felt fortunate that he could use the psychotherapy code as often as he wished, and he understood this was not the case in other provinces. The P.E.I. participant was satisfied with the availability of health promotion and psychotherapy codes, and with how Medicare adjudicates claims for her time.



However, others described ambiguity in the scope of the psychotherapy and counselling codes or in how provincial Medicare adjudicates claims for them. In the following paragraphs, we elaborate on four limitations that participants associated with using these codes.

Patient complexity: Although psychotherapy codes offer the possibility of adding more billable time to the appointment, the codes do not necessarily capture the complexity of the patient. In other words, patients might need different kinds of care beyond simply more time in the appointment coded as “psychotherapy”:

I don't know that that complexity always fits under psychotherapy, 30 minutes, because I'm not always sitting there doing psychotherapy for 30 minutes. I'm not going to pretend I was and bill for it. So then, what do you do? You're still spending time, but you're not necessarily being a counsellor. So that's where it gets a little bit more confusing in terms of billing for it. (O15-MB)

Revenue limits: Participants identified a second limitation, this one with the fees associated with the codes. Psychotherapy and counselling codes might not provide additional revenue to physicians in some provinces. For example, two New Brunswick participants said they would not use the counselling codes for patients with SUD because these codes pay the same amount or less than an office visit.

Level of comfort with providing counselling: A third limitation lies more with physicians' confidence in providing counselling to their patients. Short-term counselling is within the scope of primary care, and family physicians routinely provide counselling to their patients. However, they might not always feel confident in their counselling skills for patients with SUD. Some participants insisted that they were not trained to provide counselling:

As a physician, I'm not trained to do psychotherapy. I don't often bill that kind of diagnosis. And that's not my job in the work that I do right here. Physicians who are comfortable in that might bill that more often. (O11-MB)

I would say for the mental health [care], it's lacking quite a bit. Adding on a little bit of money and saying that you have these four counselling sessions, it doesn't really [help]. I think the idea was to try to help improve access to counselling, but we are not trained counsellors, so it's [a] Band-Aid solution in my opinion. (O10-BC)

Interpretation of billing codes: A fourth limitation participants mentioned is the difficulty of adhering precisely to the scope of psychotherapy codes as outlined in the fee schedule. They encounter discrepancies in how provincial Medicare interprets psychotherapy codes compared to the work they perform. The Newfoundland participant described these challenges and how policy in the fee schedule did not match with payment:

What they're primarily looking for — and you only know this after you've been audited 100 times because they don't tell you — is the time in and the time out has to exceed 20 minutes. If it doesn't exceed 20 minutes, then you didn't deliver psychotherapy. You have to have a diagnosis, a treatment plan, and some sort of a structure that's available, even if you just mention that you delivered cognitive behavioural therapy or [dialectical behaviour therapy] or something. You can bill it as frequently as you wish on the same patient in the same day, but I've never been paid for more than one when I've submitted more than one. So if I spent an hour and 10 minutes with the patient, I would put in three units of that [psychotherapy] billing code. And of those three, they will only pay for one, even though the preamble says they will pay for more. (O12-NFLD)



Physician Billing for Substance Use Disorders Care: Three Vignettes

These vignettes excerpted from the interviews illustrate out how participants in three provinces (Sask., Ont. and P.E.I.) used the billing codes available to them to seek remuneration for SUD patient care. Physicians in these province do not have CDM codes as a resource for this care.

- The Saskatchewan participant describes the use of counselling codes in 15-minute intervals.
- The Ontario participant specializes in addiction medicine in addition to providing family medicine care. He supplements the office visit code with counselling and assessment codes for SUD patients. As an addictions medicine specialist, he also has methadone rostering codes available to use if he chooses to build that practice area.
- The P.E.I. participant reflects on using an office visit code and supplementing it with psychotherapy and health promotion codes to SUD care. She also uses a diagnostic and therapeutic interview code to gather more information from the patient or a family member.

Vignette 1: Saskatchewan Participant (022-SK)

In Saskatchewan, most mental health gets billed under a set of counselling codes. The base code is a 40b. That is a billing code for any type of counselling. So it would count for depression, it would count for anxiety, it would count for bipolar, it would account for substance abuse disorders, it would count for schizophrenia as well. That is considered for the first 15 minutes' worth of time spent on counselling or mental health care with that patient. Then there is a subsequent code which is a 41b, which you can bill for each 15 minutes of time that is spent after. So if you spent 30 minutes you would bill a 40b and a 41b. And if you spent 45 minutes you would bill the 41b twice.

So it's mostly a time-based code, and then you can bill it with a diagnostic code that would be appropriate for it. So if you billed the 40b and then billed it with acute myocardial infarction, it would probably get rejected, but as long as it comes with sort of a mental health diagnostic code, then that's where it is allowed.

I'm not sure if there is a cap on using code 41b in a single appointment. I can't say that I've ever had it be rejected, but I don't know that I have ever tried to bill more than one hour of time.

In [practice location] right now, to get access to a psychiatrist there is at least a 12-month wait. So we kind of need those extra supports [through counselling codes]. The lack of supports for somebody that is complex, coupled with the lack of recognition in the payment structure, is very frustrating for a lot of people.



Vignette 2: Ontario Participant (021-ON)

The main [codes] are the K codes for counselling. That's a 20-minute session. If we're doing two sessions, then it has to be 46 minutes in total. And then, there's the assessment code. So, if I'm assessing a person for the first time, and it's been at least a year since I last assessed them, there's the A680. So, it's basically the K680; usually it's one or two units of time, and the A680 if I'm assessing someone.

Although I don't really have that large of a methadone cohort of people, for [those patients], there's a rostering code. Because I don't have a large amount, and I'm not actively building a roster of patients, I've yet to bill that code. So, I don't know what it is, but that is available. There are also G codes for urine drug screens, but I actually don't bill the G codes.

There's one other code I use. It's the A957, and that's for an encounter that isn't 20 minutes. You're delivering essentially the same care, but it's not "counselling." It compensates us at the same level as your basic GP encounter, which could be five minutes, 10 minutes. It really could be anything; it could be two minutes. I find that to be a shortfall because there are times when we see a person, we actually provide great counselling, a great value encounter, and it's less than 20 minutes, but we're not compensated as such. I don't think that appointment is 50% of the value. But I understand why that's being done. In some ways, it helps. There's a self-limiting component there that inadvertently discourages the overuse of that code, and people manipulating it because it's not time-based, and thus seeing much larger numbers of people.

I think that where we fall short is when we're doing actually multiple encounters in the day for the same person to help with things like withdrawal management, and we cannot bill for more than one encounter. Whether that's for Suboxone® initiations or withdrawal management from alcohol or benzodiazepines in an outpatient setting, all of these things can be done in various situations in an outpatient setting. But there's a clinical responsibility to see them multiple times during the day. That's not reflected in anything that we can do codes-wise. Because even if we did a non-time-based encounter, an A957, we can't bill multiple A957s in a day.



Vignette 3: Prince Edward Island Participant (016-PEI)

If I were to be seeing someone for alcohol abuse or alcoholism or alcohol withdrawal or opiate abuse, we have a few codes that we can use. They're not specific to diagnoses; they're more specific to sort of what you're doing in the encounter and how long the encounter takes.

Our basic office visit, which would be what we would bill if the encounter lasted less than 15 minutes, is fee code 0113. As of April 1, 2018, will be \$36.40. That would be what you would bill if it lasted less than 15 minutes. If it was more than 15 minutes, the psychotherapy code is 2501, billed per 15-minute interval at \$44.20 per 15 minutes.

If I spend more than 15 minutes with somebody, there's a couple of codes that I have the option of billing. We have one code that's for psychotherapy. So, if we're specifically doing psychotherapy, we can bill that code, and it bills per 15 minutes.

With some of the codes there is [a limit]. [Psychotherapy] is not limited. It just can't be billed with any other fee code on the same day. So, that would be one option if you're actually doing psychotherapy. The other counselling-type fee is fee code 2505, and that is health promotion counselling. That's meant for when you get into preventative or psychosocial parts of health or lifestyle issues around health. Common ones that it gets used for is like counselling about diet, smoking cessation, weight or exercise. Most physicians are using it because it's not limited to those conditions. They're using it for when you do any kind of counselling for patients that wouldn't fall under psychotherapy. That is billed in five-minute blocks, but you have to have done at least 15 minutes in order to bill it. You can do a maximum of 45 minutes per session and a maximum of one hour per month per patient. And that one bills \$14.73 per five minutes.

There's another code that would be used much less frequently. That is fee code 2588, and that's called a diagnostic and therapeutic interview. You have to do at least 15 minutes. It's billed in 15-minute increments, and it's \$44.20 per 15 minutes. There's no limit to the number of times that can be done per month. To qualify for that one, it has to be a scheduled interview with a patient or a patient's family, or other persons who might have relevant information for the purpose of obtaining a collateral history and discussing treatment, management or intervention.

I use the psychotherapy one less frequently, the health promotion one more frequently. That would probably be the primary one. The diagnostic and therapeutic [codes] would be, if you were having a conversation with a spouse or a child, or getting collateral information, or making a treatment plan if you've talked to the patient, then they want to go to detox, and you've been calling detox and sort of setting all that up.

Our Medicare is relatively flexible about billing those counselling codes. I feel personally that they're reasonable compensation for time spent. They don't decline those very much, so I feel like that's sort of adequate compensation.



Theme 4: Fee-for-service Is Not Structured in a Way that Fully Supports Substance Use Disorders Care

Participants were invited to indicate whether they felt that FFS billing codes and incentives schemes for the three categories of chronic disease patients were structured in a way that supports their patient care. Five participants (23%) answered “Yes,” 10 (45%) answered “No,” five (23%) answered “Yes and No,” and two (9%) were not asked or did not offer a clear response (see Table 3).

Table 3. Responses to Question #8

“Are [billing codes, incentives, other payment schemes] structured in a way that allows you to provide the care that you’d like to patients?”	
Responses	Number of responses (N=22)
Yes	5 (23%)
No	10 (45%)
Yes and No	5 (23%)
No response	2 (9%)

There was agreement, even among those who have had a positive experience with FFS remuneration, that FFS has difficulty accommodating patients with SUD and mental illness. Many participants who care for patients with chronic illness within the FFS remuneration model mentioned that diabetes care is more adequately structured and compensated through provincial billing codes and incentive schemes.

The five who answered “Yes” observed that FFS is sensitive to patient volume and offers physicians tremendous versatility and value in treating non-complex patients. Two said they are satisfied with the compensation schemes available for diabetes care, particularly the billing codes. One participant said that the billing codes are not optimal, but are “better than they ever were” (O17-NB). Another participant, who mentioned that she and her colleagues struggle to manage a large volume of patients, has billing codes available to treat patients with chronic complex illness, including SUD. She said, “If we can put in the time certainly the fees are there to compensate us” (O20-QC).

Participants who answered both “Yes” and “No” indicated that they are satisfied with the compensation and incentive schemes available for treating patients with diabetes, but that remuneration for SUD and mental health disorders care, including schizophrenia, is lacking. One participant describing FFS as having “great value” because the codes encourage volume and ensure access, but felt that the model itself discourages quality of care (O21-ON).

Those who answered “No” to Question 8 were emphatic and characterized FFS as a flawed model for chronic disease patient care. Reasons they offered included the complexity of SUD patients, the challenge of a high no-show rate, the absence of billing codes for mental health and the uncompensated time they spend outside of the direct clinical encounter with the patient (“non-face-to-face time”). One participant said that “fee-for-service discourages good care” (O09-MB). Another said that there is “not enough time to do a good job and get paid properly” (O14-AB).



4.1 Fee-for-service does not accommodate complex patient populations

Across all interviews, participants identified three primary areas in which FFS billing codes and incentive schemes in their provinces are not structured optimally for care of patients with mental illness and SUD. Here we focus on how these are inadequately structured to provide SUD care.

The first way in which the FFS model falls short for providing care to this patient population is that time-based billing codes do not readily accommodate patients who are complex. As outlined in Theme 1, patients with SUD have co-morbidities that require more time and a wider range of resources than non-complex patients. Their condition is usually chronic, which means they require ongoing care for a long duration. Yet the complexity of this patient population is rarely reflected in routine billing codes (such as regular office visits). Psychotherapy and counselling codes may be available to physicians in some provinces to extend a regular office visit. But as already illustrated, there can be limits to these codes. The codes might not provide physicians with the flexibility they need in appointment length, follow-ups or communication-based work. Physicians might have to piece together existing billing codes. Alternatively, they might decide not to bill for their time:

When we talk about diabetes, when we talk about substance use disorder, about chronic disease management strategies, we're being told that that's incredibly important in this day and age to get that done properly. But in order to do it properly, you have to take some time to be able to do it. In this culture, in terms of overheads and other costs that are involved, even with added resources of having other medical personnel around, you still don't feel like you have enough time to spend with a patient to do a class-A job and get paid appropriately. (O14-AB)

Getting a billing code might help the doctors see them a little bit more often, [but] the main thing [is to] manage comorbidities and [provide] support. It is a disorder that warrants continuing care, but I'm not one hundred percent sure most doctors would be able to provide that continuing care or know what to provide. It's a lot of emotional support, a lot of spiritual searching. And most of us would be more inclined to [say], "Yeah, I see you've got a stubbed toe; I'll fix that for you." Or, "Your blood pressure's high; I'll give you a pill." You know, fixing problems we can see rather than dealing with runaway emotions or spiritual questions. (O07-SK)

Participants acknowledged the importance of providing incentives, particularly the CDM codes, to helping family physicians to "care properly" for patients with SUD, as one participant put it. These can facilitate the delivery of more comprehensive care for patients with chronic disease, particularly diabetes, by providing some capacity to schedule more frequent appointments and annual health planning visits. Yet CDM codes for SUD are available in only three provinces: British Columbia, Quebec and Newfoundland and Labrador. Moreover, they have limitations. Even with these incentives available, some physicians choose not to care for this patient population. For example, one of the British Columbia participants who cares for patients with diabetes and schizophrenia has chosen not to care for patients with SUD because the CDM code for SUD does not provide additional revenue for these patients. He characterized the lack of this incentive as "a major factor" in his decision:

These are normally complex patients. So if you take on a patient like this then there should be an incentive. In B.C., we used to have that incentive, [where] if you take on a patient who is complex you get an initial \$200 for intake. But they scratched it off. So if there were some incentives like that then I think I would definitely look into doing substance use and addiction. (O05-BC)



Another potential resource that was identified by an Ontario participant is the rapid access addiction medicine model in Ontario. Under this model, according to the participant, the province has introduced a code that pays for the full assessment of a new patient. However, patients must be scheduled for the physician to use this code. As this participant said, “I see people on a walk-in basis so I can’t actually use the consultation code because people aren’t pre-booked into my schedule” (004-ON). This can pose a problem for SUD patients, who might prefer to walk in instead of scheduling an appointment.

4.2 Fee-for-service alone does not support team-based care

A second way in which FFS remuneration falls short for providing care to this patient population is that it does not support the provision of multidisciplinary, team-based care at the clinic. The dominant practice models for primary care are the solo practitioner and the group-based practice. Some participants felt that these practice models do not work well for SUD care:

You can’t do substance use management on your own. You really need collegial support to make sure that there’s somebody there to back you up when you’re not out there or if emergencies happen. You can’t do it alone. (009-MB)

I can’t, in some cases, give the care just by myself. I can do a good evaluation. But if there is no good service or if there is nobody out there who can actually approach this person or help them through a difficult time, then I’m left feeling that I’m alone in the situation. And that’s not very comfortable. Whatever you are being paid, it’s not comfortable. (020-QC)

I’m part of a team. I’m not the counsellor. I’m the primary care physician, but the other people are the counsellors. And we all have different jobs to do. So that’s one of the problems with the fee-for-service model. Doctors work in a clinic with just doctors, and they don’t work with a social worker down the hall or another mental health counsellor. (011-MB)

Family physicians need support in their efforts to educate patients and families, to provide ongoing care for patients between appointments with their provider and to perform case management. Case management activities include retrieving and communicating results of urine screens and EKGs, making phone calls to patients, helping patients to find housing and helping patients with income and food security. Participants who endorsed the multidisciplinary team model felt that it is not realistic to expect administrative staff to perform these functions. These participants felt that SUD care is optimal when family physicians work closely with allied health professionals in the clinic and with community-based social service providers. They identified a range of allied health professionals who could provide this support within the clinic setting, including nurses, nurse practitioners, social workers, health educators and counsellors.

One participant identified the wrap-around care at the Vancouver Health Clinics in B.C. as an optimal model for multidisciplinary care for SUD patients. Two participants identified in-clinic diabetes care as a model for multidisciplinary care, and drew attention to the benefits of having a diabetic educator who supported the family practitioner and patients with monthly appointments at the clinic.

4.3 Lack of community resources

A third way in which the FFS model falls short of supporting comprehensive care is tied to the limited availability of community resources for ongoing psychosocial care of this patient population. Family physicians can provide short-term counselling or psychotherapy in the clinic, but many patients with SUD need ongoing support in their communities. These community resources are often limited or



difficult to access. Participants recognized the limits in their own ability to provide long-term support to patients and felt hamstrung by the lack of community resources. They observed that changes to remuneration are necessary but not sufficient to ensure that patients have long-term support:

We should be compensating family doctors better to manage those people in the community, because to do it well and keep them well takes as much time as giving a diabetic management. So we need those mental health educators, we need the counsellors, we need the psychiatrists. In [practice location] right now, to get access to a psychiatrist, there is at least a 12-month wait. The lack of supports for somebody that is complex, coupled with the lack of recognition in the payment structure, is I think very frustrating for a lot of people. (022-SK)

People with substance use go in with anxiety, and they come out with benzos, as opposed to a real problem solver, like “Hey, how about we talk to addiction treatment people and get you over to the detox unit or the crisis stabilization unit or something.” That takes time and that’s not paid. (009-MB)

We need to push toward the original harm reduction model that included counselling and all of the support that these people need in order to get them back on their feet, get them back as productive members of society. What we’re doing now is just giving them drugs and keeping them marginalized. That behaviour would have to be changed by bringing in new billing codes that are specific to that model. (017-NB)

Persons with SUD can encounter multiple barriers to obtaining community psychosocial care and treatment. Participants in Alberta, Manitoba, Quebec, Nova Scotia and New Brunswick mentioned that treatment programs for SUD and pain are inadequate or have long wait times for entry. The Quebec participant observed that SUD treatment programs in her community were staffed by counsellors who have life experience with addictions but not professional training. She lamented the absence of treatment programs credentialed by the province, saying “they do have the competencies that come from their own substance use disorder that they conquered, but sometimes it’s a little bit difficult to interact with people who have no professional training and who are sometimes asking for things that aren’t reasonable” (020-QC). The Nova Scotia participant mentioned that the province had committed to treating all patients with opioid use disorder, but because of the long wait times for community treatment programs, the province introduced billing codes for medication-assisted treatment as a proxy:

In the past few months, the provincial government said [about] opioid use disorder, “we are going to cover everybody.” Prior to that, there were only a select few patients who met the criteria [for treatment]. So they have changed the billing codes to get physicians to prescribe Suboxone® and methadone, because the opioid treatment recovery programs in the province are just dying under the wait time.” (001-NS)

The stigma associated with SUD and treatment are also potential barriers to seeking treatment. Several participants commented on the high no-show rate of patients with SUD as a key challenge of patient management within the FFS model. Some attributed this stigma as a barrier to seeking treatment and attending appointments. Participants recommended further educational efforts to reduce the stigma associated with SUD, and to focus these efforts on physicians as well as the public.

Some participants expressed the view that FFS is not simply a poor fit for care for this patient population, but that it also incentivizes forms of care that might harm patients. FFS remuneration is structured to provide rapid visits focused on medication-assisted treatment, not whole-person care. What troubles these participants is the introduction of billing codes, such as for urine screens, which



facilitate rapid visits focused on delivering medication-assisted treatment in methadone clinics. They expressed concern that these billing codes foster a pharmaceutical approach to a complex psychosocial and societal problem, in lieu of harm reduction and ongoing psychosocial support. A related concern they identified is that the codes incentivize some physicians to generate revenue by seeking a high volume of patients, which shortchanges patients with SUD the time they require for comprehensive care.

Theme 5: Fee-for-service Generates Tensions and Ethical Dilemmas

Providing SUD care within a FFS remuneration model generates systems-level tensions. These in turn create ethical dilemmas for physicians who strive to honour the professionalism mandate, to place the welfare of their patients above financial interests.

FFS maximizes patient volume and access to care. These vital functions are informed by the principles of equity and justice. But patients with SUD present more complexity than can be adequately addressed in the 15–20 minute office visit, even with additional modifiers. The fee structure of office visits and psychotherapy codes may not adequately compensate for the time physicians spend in the clinic with the patient, or for the non-procedural work they perform when the billable clinical encounter is over. In addition, the FFS clinic is a business. Physicians must generate enough revenue to manage their business — to pay overhead and staff, and to compensate themselves. Billing accurately for these patients requires time, knowledge and revenue that physicians may not have. Consequently, FFS remuneration can force some physicians into a moral calculus over two potentially competing duties: providing quality care to patients with chronic illness and managing the business of running a clinic:

I know that if I don't hit a certain number of patients or a certain amount of billings there's a fairly substantial amount of my income that I'm not going to get. (O16-PEI)

In the fee-for-service payment model, there is always a tension between spending the time with the patient and billing appropriately. You can spend an hour with the patient and do the best care, but you are still only going to be able to bill \$30.92 for that visit, for diabetes. Or you can spend 10 minutes with them and bill the same amount. So, it really comes down to the physician's comfort level and interest and motivation to what kind of care they want to provide. I don't think it is really completely tied to how they are paid. It is more to do with the physician's values. (O02-BC)

Several participants mentioned that they find these duties to be difficult or impossible to reconcile. They expressed frustration and resentment at trying to reconcile these duties, and worry they may be jeopardizing comprehensive care:

The fee code itself is less than the amount for an actual regular visit, for opioid replacement therapy specifically. I think their idea is that if all you are seeing them for is for methadone refills, then it shouldn't take a long time, but it's a bit presumptuous. (O10-BC)

I want to see people because I'm supposed to see them, not because I should bill another visit. And I don't want to not book something complicated because I'm not going to be able to see as many patients. (O16-PEI)

I am really giving the care [that I want], and I'm fighting my way to keep it. So right now, despite not having the money coming in, I'm doing the same thing that I should do. I don't know if I can sustain it with the pressure. But I think if the clinic is okay with me



spending time with these patients, and the money comes in for them, it would be sustainable. Otherwise, probably I have to go through a lot of pressure of putting everything into a very short visit, which I think is not the right thing to do. (006-BC)

Participants' values and capacities shaped their ethical decision making on this dilemma. One of the strategies to generate more revenue is to take on more practice roles. Fourteen (64%) participants hold two or more roles at different sites to generate income in addition to their primary clinical income. Others have accepted that they will make do with less revenue if it means delivering what they feel is proper care:

Because the work is so important, I'm willing to take a pretty significant pay cut because I want to help those people, and there's a need for addiction consultants in probably a lot of provinces but definitely in [practice location]. (015-MB)

I've decided over the years that I am more comfortable being more thorough and taking more time with people, and earning less income than other physicians. (002-BC)

5.1 Physicians' commitment to patients with substance use disorder

Participants' narratives illustrate how their values and commitment to professionalism shape their practice decisions and care for this vulnerable patient population. They recognize that SUD care rarely provides adequate remuneration for their time. Despite this, they characterize performing this care as both a duty and a calling. Their commitment to this patient population and the knowledge that they are the frontline providers for these patients drives them, even though for some it means taking a pay cut, being overloaded with patient volume and work, or taking on additional roles. Their commitment extends to training the next generation to practice addiction medicine in a manner that they believe is "responsible":

It's hard to recruit docs that want to do the work. And it's not something you can like force somebody to do. If they're not motivated to do addictions work, well, then, forget it. That being said, it would take a lot for me to stop doing it. I hope the compensation comes around, but at this point, the compensation hasn't prevented me from doing the work. (015-MB)

I have a big patient load, because our government has centralized a lot of the power here in Quebec. In my area, there are 14,000 people waiting for a family physician. And in my clinic there are four physicians waiting to retire, and they have 5,000 [patients] they are looking after. They can't retire because the government won't allow us to recruit a new physician. So this is an issue of overload of work. We try not to neglect any patients, but patients with substance use disorder can sometimes be difficult. They make appointments and don't show up, or they show up when they don't have appointments. In an environment where you are completely overwhelmed with the amount of work, you can lose your motivation to try and help. It's a physician fatigue and overload issue. (020-QC)

I feel part of my job is to do extra work and send extra information. I've got much more experience now in mental health, post-traumatic stress and substance use. So I'm always sending letters coaching other doctors to be better prescribers and more carefully look after people, rather than being drug providers to some of them. (011-MB)

Participants expressed hope they might have better resources and supports for their patients. They conveyed their optimism with comments about working with their provincial billing authorities to introduce new billing codes for chronic disease. These were positive points in the interviews, and



participants sounded hopeful that the fee structures would change to reflect the burdens of their work with these patients. They also expressed hopefulness in comments about family physicians who decide to provide this care:

I think the largest percentage of physicians are ethical. They want to take care of their patients and do it the right way and get good outcomes. By allowing the physician to spend that time, they will get better care. (O19-NB)



Discussion

The participants in our sample are diverse. Their practice experience ranges from a few months to more than 40 years. Their practices are located in urban, suburban, rural and Northern/remote communities, and they provide care to general and specialized populations, in both out-patient and in-patient settings. Some have held a single practice role in one clinical setting for their entire career; many hold two or more roles. Their relationships with FFS billing are also varied. Eight work solely within a FFS remuneration model. Nine are compensated by FFS and other models. Five work outside of FFS, but have worked within the FFS model and are currently using shadow billing.

Remuneration models influence the delivery of quality patient care (Liddy et al., 2011). This influence was reflected in the interviews. Participants offered a range of perspectives on the benefits and challenges of FFS that are shaped by their experience with different remuneration schemes. Some physicians feel supported by the FFS model and voiced satisfaction with it. Participants who have worked with more than one remuneration model – FFS and sessional, salaried, or hourly payments – were more critical of the shortcomings of FFS. Most participants are somewhere in the middle: they are satisfied with the flexibility that FFS offers them and comfortable working within the FFS model, but they are dissatisfied or frustrated with other features (Brcic et al., 2012). Some expressed the view that they would only take on care of patients with SUD if there were specific incentives. This view aligns with evidence that greater monetary incentives for treating patients with specific illnesses can increase the attractiveness for family physicians of treating them (Blomqvist & Busby, 2012).

We heard clearly that caring for patients with SUD within the FFS model is challenging (Themes 1 and 5). One implication of the observation that SUD patients are complex and challenging to treat is that these patients represent a financial risk for family physicians. The non-billable nature of some of this work and the lack of incentive schemes are disincentives for family physicians to take on the care of patients with SUD.

Participants also expressed the view that systems-level changes, such as making available allied healthcare professionals for team-based clinical care, are needed to support treatment and care of the whole person (Theme 4). We know from the literature that it is more optimal to provide continuous SUD treatment, yet patients with SUD find it challenging to access specialized services through primary care (Saitz & Daaleman, 2017).

Billing education, support and management seemed to shape participants' experience with SUD care through the FFS model. These variables are independent of SUD care, but they have a profound impact on physicians' ability to manage this care and their satisfaction with providing it.

We can highlight two additional findings on billing from the interviews. First, while many participants acknowledged the inadequacy of their formal training for billing for patients with chronic disease, some seemed to struggle more with the management of billing. Their satisfaction or dissatisfaction with FFS billing codes seemed to reflect their billing management strategies (e.g., performed by self or staff, or outsourced). For example, physicians who perform their own billing more often characterized billing as invisible and uncompensated work. They portrayed it as an unwelcome task that detracts from their main activity, providing good care to their patients.

Secondly, some participants expressed resentment towards the business dimensions of primary care within FFS. They rejected the notion that they are business owners when they perceived that this duty conflicts with their professionalism and commitment to providing quality care to patients. As discussed under Theme 5, this tension is inherent to family practice within the FFS model. However,



caring for the SUD patient population brings this tension to the fore. The reasons for this increased tension include the need to combine billing codes in ways that adequately capture the time spent caring for complex patients, the ambiguity inherent to certain billing codes, the time required to resubmit denied claims and the inconsistencies in how provincial Medicare interprets some codes. By contrast, participants who have contracted their billing to a third-party service or have assigned billing to their administrative staff spent less time discussing the work of billing during their interviews. When they did discuss it, they expressed less frustration.



Options for Change

Participants were invited to propose changes to billing codes, incentives and remuneration that would encourage more family physicians to provide care to patients with SUD (Question 9). They were also invited to identify remuneration models that would achieve the same goal (Question 10).

In recommending changes that would improve care to this patient population and encourage more family physicians to offer this care, participants identified one pressing need and one change that might have high yield. The most pressing need is for provincial authorities to acknowledge that SUD is a chronic illness that requires more resources across multiple domains: billing codes, incentive schemes, multidisciplinary in-clinic care, community care and educational initiatives. There were many recommendations that referenced their desire to see SUD recognized as a chronic illness, which are outlined in the next section.

Participants were aware of the tensions that arise from providing care to a population with a complex, chronic illness within the FFS remuneration model. They articulated these tensions forcefully, and made clear statements about the need to address them in their proposed changes. These tensions include the challenge of incentivizing volume while ensuring adequate time for the complexities of this patient population, and the inherent risks of losing revenue to patient no-shows or shortchanging patient care by overbooking. Tensions also include the need to compensate physicians for the extensive work of caring for these patients, which extends beyond an office visit, and incentivize both ongoing and more comprehensive care for them.

Some described promising efforts to negotiate with their province to revise the fee structure and introduce CDM codes to provide care for patients with mental illness. Others offered health systems perspectives on the challenges of fulfilling the professionalism mandate, while also generating sufficient revenue to pay for running a clinic. Participants were acutely aware of perceptions of family physicians as well-compensated for the work they do. They contrasted public perceptions of physician affluence with their experience that much of their work in treating this patient population is unrecognized and uncompensated.

The one high-yield change participants suggested is improving the support for billing provided by provincial Medicare and medical associations. Physicians who work solely within the FFS model rely on provincial resources for training in how to bill. If they are doing the billing themselves for this complex patient population, they seek support on their own time from Medicare representatives. Types of support they seek include identifying which codes to use, learning how to submit claims and process denials of claims, and staying current with changes to codes. Participants portrayed the resources available to them in their provinces as good to excellent, but not adequately resourced to support their learning, continuing educating or routine billing work. They identified limitations with the resources: continuing education is not available often enough or with enough specificity (e.g., seminars do not touch on billing for chronic disease); there are barriers to accessing phone or web support (e.g., web support is available only through a membership); and personnel available through phone support are not sufficiently knowledgeable about billing for chronic disease. There might be low-cost opportunities to increase access to these sources and to strengthen or expand them.

Participants proposed three classes of change that could lead to improved care for patients with SUD and fair compensation of physicians for their time and acquired expertise with this population:

1. Fee-for-service Remuneration: New Billing Codes and Incentive Schemes
2. An Alternative Model: Blended Remuneration
3. Other Options



1. Fee-for-service Remuneration: New Billing Codes and Incentive Schemes

Participants outlined three types of changes to billing codes and incentive schemes to address the needs of patients with SUD and the physicians who treat them. The primary proposal was specific: (1) each province should introduce a CDM incentive scheme and supplemental codes for SUD. The other two proposed changes were broader: (2) introduce codes to incentivize and compensate patient intake, initial assessment and consulting; and (3) introduce codes to support the ongoing management of patients with SUD.

1.1 Introduce a chronic disease management incentive scheme for substance use disorder

Many participants felt there is inadequate structure built into the FFS model to ensure both comprehensive care of the complexity of the whole patient and continuity of care. In most provinces, there are no incentives for physicians to take on these patients or provide care beyond seeking revenue through volume. Furthermore, the billing codes that do exist do not adequately compensate for their time or work, leaving physicians either to try to bill for their work by cobbling together different codes and hope that the province will accept their claims, or simply to not bill for the care they provide. Given the medical and social complexity of patients with SUD and the time demands of caring for them, participants generally felt they are poorly compensated by the codes they use with this patient population.

Diabetes care provides a comparable model that participants used to identify the shortcomings of existing FFS remuneration schemes for SUD, and to recommend changes to improve care for SUD patients. Based on their positive experience with the remuneration schemes available for diabetes care, participants recommended that provinces bring SUD under the umbrella of CDM, as with diabetes. Seven participants explicitly recommended that provinces introduce CDM incentive schemes for SUD patients to support the provision of comprehensive care to these patients, and also introduce supplemental billing codes that compensate physicians for the non-procedural work they perform.

Comprehensive diabetes care is structured by the use of flowsheets, which are in turn informed by clinical practice guidelines for diabetes care in some provinces. Family physicians are required to complete these flowsheets and complete annual assessments to obtain the CDM incentive payment. Based on their positive experience of using this flowsheet for diabetes care, several participants suggested it would be beneficial to have a similar standardized flowsheet, populated with clinical practice guidelines, available as a tool to assess SUD care. The second part of their recommendation was for the flowsheet to be integrated with an electronic medical record as part of CDM.

Participants identified two benefits to introducing a standardized flowsheet for SUD care. First, it could promote the use of evidence-based, standardized care for individuals with SUD. The integration of clinical practice guidelines in an electronic flowsheet would facilitate evidence-based care because it removes the need for physicians to search for the guidelines manually. The other benefit is that it could support physician's billing claims to the province and provide evidence of care completed in the event of an audit. The administration of claims, particularly when they are denied or audited, is a time-consuming activity on which many participants commented. For physicians who perform their own billing, it is particularly burdensome and a disincentive to bill. Automating a flowsheet for SUD care provides a means to reduce some of this administrative burden and the potential for error.

One barrier to introducing an integrated, standardized flowsheet is the absence of electronic patient records in some provinces. Several participants noted that they or their administrative staff enter



patient data manually. They described this process as inefficient and time-consuming, with the potential to introduce error. Manual systems make both retrieval of patient information and billing justification difficult, especially during audits. For these participants, their wish list of changes included more provincial funding for an electronic medical record to manage patient care and billing more efficiently.

Participants made the following specific recommendations:

- To introduce in each province CDM codes and incentive schemes for SUD care that match the compensation structure for diabetes, COPD or chronic kidney disease. Such an initiative would incentivize physicians to provide comprehensive, ongoing care to patients with SUD by ensuring a minimum number of annual visits for patients and comprehensive assessments.
- To make codes for complex assessment (or complex care planning) available at least twice per year to address the complexity of SUD patients, and to prevent physicians from having to add modifiers to generate adequate compensation.
- To consider introducing a quarterly bonus in the CDM incentive scheme for SUD patient care. Care for these patients is an ongoing responsibility that does not always fall within scheduled work hours. A quarterly bonus can incentivize ongoing care and compensate for labour outside of clinic hours.
- To introduce standardized flowsheets for SUD care that integrate clinical practice guidelines and are modelled on diabetes flowsheets.

1.2 Introduce codes to incentivize and compensate patient intake, initial assessment and consulting

Participants proposed the introduction of new billing codes to incentivize physicians to take on patients with SUD and compensate them for the often complex initial assessment of these patients. They also suggested introducing a billing code to compensate physicians for time spent on a consultation for a patient with SUD. In most provinces, billing for a consultation is only available to the physician initiating it, not the physician performing the consultation.

Participants made the following specific recommendations:

- To introduce an intake incentive to encourage family physicians to care for patients with SUD;
- To provide an incentive to physicians who treat patients with SUD who lack provincial health card numbers, as there is currently no incentive to take on these patients;
- To introduce a time-based initial fee to compensate for an extended-length (i.e., 45–90 minutes) initial assessment that would capture the medical and social complexity of patients, with modifiers to allow physicians to charge in 15-minute increments; and
- To increase consultation fees to a rate higher than an office visit plus psychotherapy to compensate family physicians for their in-office time as well as their training.

1.3 Introduce codes to support the ongoing management of patients with substance use disorder

Participants discussed the need for codes that can support physicians in the ongoing management of patients with SUD. They identified two dimensions to this need. One need is to compensate physicians for the work they perform that is critical to the care of these patients, but currently not



covered by existing billing codes (such as phone calls to pharmacies or to family members). The other need is to align the care of these patients better with the CDM model for other illnesses, such as diabetes, by building in codes for comprehensive and ongoing care.

Specific recommendations from participants were to introduce billing codes:

- For communication-based work required to provide comprehensive and ongoing care for patients, such as communications with allied health providers (such as pharmacists), patients and families, and community supports;
- To stabilize patients after recurrent use; and
- To pay for visits with in-office counsellors (such as social workers) and other mental health professionals (such as nurses or nurse practitioners).

2. An Alternative Model: Blended Remuneration

Fourteen participants recommended the introduction of a blended remuneration model to encourage SUD care and sustain physicians currently delivering this care for these patients. While participants differed on the details of a blended model, they agreed on its general structure: a base pay with supplemental billing codes that could be used to top up the base pay and introduce flexibility. Salary, stipend, sessional and hourly payment models were all proposed as base pay compensation.

Participants identified a wide range of benefits offered by a blended model. It could:

- Offer physicians predictable revenue independent of service-based codes, while incentivizing them to provide comprehensive care to patients with SUD;
- Provide capacity to absorb no-shows without resorting to double-booking patients to ensure adequate revenue; and
- Compensate physicians for off-site and non-face-to-face hours.

Some participants proposed variations of the blended model or additional refinements. One participant recommended a capitation-based model, where the complexity of the patient determines payment on a quarterly basis. Another proposed a flat half-day fee to provide physicians with more breathing room than fee-for-service alone. A third proposed a variable base pay compensation that rewards physicians for their level of experience caring for this population, along with supplemental billing codes that reward physicians for volume. A fourth proposed an hourly rate (e.g., \$175 per hour) to be competitive with the hourly rates of non-family physicians (such as internal medicine physicians), arguing that an hourly rate would attract more family physicians to substance use cases and provide collegial support for emergencies.

3. Other Options

Participants identified other gaps and opportunities to improve billing practices and care for this patient population from a health systems perspectives. Several identified best practices from their own training and professional experience. Participants made three types of proposals for change: (1) improve formal training for billing and provincial billing support; (2) provide funding for allied health professionals; and (3) strengthen community psychosocial services and anti-stigma education.

3.1 Improve formal training for billing and provincial billing support

One of the themes we identified in participant interviews was the lack of formal education and ongoing support for billing. Many participants noted that they received little or no formal education



for billing during their training, particularly for chronic complex illnesses. Their lack of preparation during medical school and residency for using billing codes for patients with chronic complex illnesses was compounded by inadequate billing codes to treat patients with SUD, and by inconsistent billing support from the province that was characterized as difficult to access, available infrequently or unhelpful. Participants described an ethos of “learning on the fly” in billing for SUD care. Several participants returned to this problem later in their interviews by making recommendations specifically on the need for better education for medical students and residents, and improved mechanisms to support physicians in their billing practices after entering practice.

Participants made two sets of recommendations to improve formal training for billing and provincial billing support. One set is for the provinces to ensure that medical students and residents receive comprehensive billing education that will prepare them to be knowledgeable in billing accurately as soon as they enter private practice. The other set is for provincial medical bodies (associations and Medicare) to address gaps in ongoing provincial billing support.

Specifically, they recommended that medical schools should:

- Provide formal training for billing to residents so that they graduate with some knowledge of these codes and can locate provincial supports once they start to practice;
- Build family practice rotation into residency to train residents how to bill different visits, including incentives, which are important to the sustainability of a physician’s practice; and
- Consider implementing a billing competition in residency as a method of teaching billing codes and practices.

They further recommended that provincial medical bodies should:

- Establish a compilation of easily accessible resources on billing, backed up by live support that is readily available; and
- Create continuing education billing modules on specific complex illness patient populations (e.g., SUD, schizophrenia, diabetes, geriatrics, fragile patients) to support billing practices.

3.2 Provide funding for allied health professionals

In addition to recommending that the provinces recognized SUD as a chronic disease and introduce new codes for the management of complex patients, participants also voiced the opinion that changes to incentive schemes and remuneration are necessary but insufficient to improve the quality of care for existing patients. They expressed the desire to have the resources to hire allied health professionals to provide multidisciplinary patient care within the clinic. Some participants specially recommended innovations taken directly from the model of diabetes care, such as introducing an addiction educator who can see patients at the clinic, for example.

3.3 Strengthen community psychosocial services and anti-stigma education

A final recommendation by participants was for the provinces to return to a harm reduction model, with the goal of supporting patients to become productive members of society. A core component of supporting patients is strengthening community treatment programs that provide psychosocial and other support services, such as vocational counselling. Participants from five provinces commented on the long wait times for opioid treatment recovery programs and pain clinics in their communities, and other problems with accessing services. The Quebec participant singled out the lack of accredited



personnel in community treatment programs to treat SUD patients and the challenges of working with counsellors who have only life experience in recovery from SUD. Another said that physicians in her province simply do not know to where to send patients for counselling. A third felt that physicians often do not know how to offer whole-person care. Given these concerns, the capacity of community psychosocial services should be increased. Counsellors should be credentialed so that they can work with primary care physicians. Because physicians or patients might be unaware of these services and how to access them, provinces should promote them. These efforts are needed to more closely link primary care in the clinic to the ongoing support of patients in the community.

A second component of supporting patients is anti-stigma education for physicians and allied healthcare professionals. Participants noted that stigma associated with substance use is a significant barrier to patients seeking treatment and attending scheduled appointments. Patients may experience guilt or shame, or fear being identified and labelled. More educational efforts are needed to reduce stigma and patient marginalization, they said, not only to encourage patients to seek treatment, but also to reduce physician bias towards this patient population.

These recommendations from participants to strengthen community psychosocial services and anti-stigma education align with their broader message that improving care for SUD means not only compensating family physicians for the work they perform and incentivizing comprehensive care, but supporting physicians to manage patients in their own communities. Providing proper care to this patient population takes as much time as diabetic management, as one participant reminded us. Delivering better care is achieved by restructuring the environment of care, not simply reforming billing codes, another said. Given these proposals for change, diabetes care may be a valuable model for improving care for patients with SUD because it is a chronic disease with high prevalence and there are well-established incentive schemes to encourage close, evidence-based patient management.



Limitations

The limitations of this study should be considered when interpreting its findings. Although the recruitment target for each province was four participants, we achieved this target in only two provinces (B.C. and Man.), and came close to it in two others (Ont. and N.B.). In two provinces (Alta. and Sask.), we recruited only half of our target (two participants), and in four provinces (Que., N.S., P.E.I., and N.L.), we recruited only one participant. Because of this variation, our study generated richer data from the provinces with three or four participants (B.C., Man., Ont. and N.B.), and relied on just one or two participants for data in six provinces (Alta., Sask., Que., N.S., P.E.I. and N.L.). It is probable that conducting the study only in English accounts for the difficulty we encountered in recruiting Quebec physicians. We did not recruit physicians from the territories because most physicians in those regions are not compensated with FFS remuneration.

There were a greater number of female participants compared to male participants in our final sample (14 and eight, respectively). This might have influenced our findings, as research suggests that female physicians practice differently than male physicians (Bertakis, Helms, Callahan, Azari, & Robbins, 1995; Hedden et al., 2014; Keane, Woodward, Ferrier, Cohen, & Goldsmith, 1991). Similarly, none of our participants indicated northern or remote as their main geographic work setting. This lack of representation might have influenced our findings as physicians working in remote areas might have different characteristics and practices than those working in urban settings (Hogenbirk, Pong, Tesson, & Strasser, 2004).

The research team used purposive sampling, a standard recruitment strategy in qualitative designs, to recruit up to four participants from each of the 10 provinces. Participant samples in qualitative studies are not intended to be representative of a larger population. The value of purposive sampling for this study lies in generating a diverse range of perspectives, practices, concerns and recommendations that substantively illustrate the “hows” and “whys” of physician remuneration. However, purposive sampling introduces the potential for self-selection bias. For example, it is possible that physicians who were highly motivated to share their remuneration experiences with the team or who hold polarized views on remuneration and SUD care were easier to recruit. In qualitative designs, this bias is expected and a benefit, because interviews are richer when participants are willing to provide detailed narratives, and when they are willing to reveal their perspectives on controversial subjects.

Across the sample, we observed that participants ranged in their outspokenness and strength of opinion. A few participants were very outspoken and expressed polarizing views. Others were more reserved or expressed moderate opinions. Most participants fell between these poles. Given that the team recruited at least one physician from each of the 10 provinces, the study was successful in presenting a range of perspectives and experiences from across Canada. However, because of the range in sample size between provinces, we are less confident that the study fully captured a diversity of perspectives, practices, concerns and recommendations within every province.

While several participants described the codes they would use in a typical visit to care for a patient with SUD, the team did not explicitly ask each participant to take us through a typical patient visit and identify their code choices and rationales. Had we asked every participant this question, we would have generated a more consistent portrait of provincial resources and gaps. Responses to this question would have permitted some comparison of physicians' knowledge of billing codes and incentive schemes within and between provinces.

The absence of any single publication that synthesizes the CDM codes from all 10 provinces was a gap in the background research and a limitation of data analysis. Before conducting the interviews,



the team had completed only a partial review of the provincial fee schedules to identify the CDM codes available to family physicians. In addition, because the design of each provincial fee schedule is different, we found it challenging to extract data on CDM codes. This challenge makes it difficult to be confident that we have been comprehensive. Only after we had completed data analysis from the interviews did we have the resources to complete our review of the 10 provincial fee schedules. As a result, the team was not able to cross-reference participants' representation of the CDM codes available to them in their provinces with an independently generated profile of these codes. This inability to cross-reference limited our analysis and discussion.

The audio quality of the first three test interviews was poor, and the transcripts from these interviews showed gaps where the transcriptionist could not identify words or fully transcribe some passages. We drew less on these three interviews for our analysis. Audio quality was resolved for the remaining interviews with the use of a third-party conferencing system. The quality of the phone connection was poor in some interviews when mobile phones and speakerphones were used. Participants called into the conferencing system from both office and home locations, and the flow of some interviews was occasionally interrupted by activity or noise at the participant's location, which also created gaps in the transcripts.



Directions for Future Research

Findings from this study suggest directions for research to address gaps in our understanding about how to improve SUD care within FFS and to support the options for change outlined in this report.

1. **Perspectives from patients with SUD disorder.** The experiences of SUD patients with accessing primary care and community supports are not known. Their perspectives and recommendations are essential to informing patient-centred comprehensive SUD care. What do SUD patients have to say about their access to primary care and community supports? What barriers do they encounter when scheduling and attending appointments, and when seeking referrals for treatment and counselling? What experiences have they had with multidisciplinary team primary care? Can they offer recommendations to reduce the stigma associated with seeking primary care and treatment?
2. **Physician education for providing comprehensive SUD care.** Family physicians are committed to providing care to this patient population. However, they may need more education and support to reduce the stigma that patients experience, and to connect primary care to ongoing community care. What are the best practices to support their patients to attend appointments? What information about community treatment and counselling do physicians need, and what are the best channels for delivering that information to them?
3. **Introducing blended remuneration models to incentivize and compensate for SUD care.** What are the benefits and costs of introducing different blended models for SUD care? What efforts are needed to attract new family physicians to providing SUD care with blended remuneration models? How can blended remuneration models be structured to facilitate multidisciplinary primary care?
4. **Introducing CDM incentive schemes for SUD care.** How have British Columbia, Quebec and Newfoundland and Labrador introduced CDM incentives to their fee schedules, and what can be learned from their experiences? What are the barriers to implementing CDM incentive schemes for SUD in provinces that currently do not have these incentives?
5. **Training family medicine residents in billing for CDM.** What are the minimal competencies in chronic disease billing that residents should have before graduating? What are the knowledge gaps that new family physicians identify in billing for chronic disease? Are there effective training models or best practices for teaching chronic disease billing to residents?
6. **Diabetes management as a potential care model for the delivery of comprehensive SUD care.** What best practices from diabetes management can be adapted for use with SUD care?
7. **Delivering SUD primary care and treatment in Northern and remote communities.** A significant limitation of this study is the lack of data and analysis on how the delivery of primary care and community treatment in Northern and remote communities differs from their delivery in urban, suburban and rural communities. What barriers do physicians encounter in delivering care in these communities? What additional supports do they need? Are there best practices in delivering primary care and treatment in Northern and remote communities that could be adapted to urban, suburban and rural communities?



Conclusion

Family physicians interviewed for this study are deeply committed to providing comprehensive care to patients with SUD. This patient population, however, often has medical and social complexities not seen in other chronic disease populations. Moreover, SUD is stigmatized, which impedes treatment. The interviews with primary care respondents conducted for this study lead to the conclusion that FFS remuneration is not adequately structured for delivering quality care to these patients. Physicians know this and are frustrated by it. The limitations of FFS remuneration for SUD care have existed for some time and should be addressed. The options for change outlined in this report provide starting points for the provinces to restructure the FFS model and create more capacity and flexibility for family physicians to deliver appropriate and comprehensive care to these vulnerable individuals.

The tensions that participants identified between treating patients with SUD and the FFS system of remuneration include the challenge of incentivizing volume while ensuring adequate time for the complexities of these patients, and the risk of losing revenue because of patients who do not show or, alternatively, shortchanging patient care by overbooking to make up for patients who do not show. They also identified the need to compensate physicians adequately for the extensive work of caring for these patients, which extends beyond an office visit, and the need to incentivize both ongoing and more comprehensive care for these patients.

One possible step is for all provincial fee schedules to acknowledge that SUD is a chronic disease characterized by stigma. The acknowledgement should be coupled with making provincial incentives and adequate compensation available to family physicians, so they can deliver comprehensive, evidence-based care in their clinics. These incentives and compensation should, at a minimum, correspond to those for other chronic diseases. But they should also accommodate the unique needs of the population with SUD and the challenges that comprehensive care for them poses. These needs and challenges include managing multiple problems in a single visit, accommodating an unpredictable work flow with these patients and providing multidisciplinary care within the clinic.

Beyond changes in the FFS model, it is critical for the provinces to strengthen the infrastructure and systems around family physician care. A three-pronged approach would address billing education and support, alternative remuneration models and community psychosocial treatment. The first prong would provide medical students and residents across Canada with comprehensive training on billing for chronic disease during their formal education, and ensure that family physicians in practice have easy access to no-cost, up-to-date billing support. The second prong should consider which remuneration models, including a blended payment model, will incentivize physicians to deliver comprehensive care and adopt in-clinic multidisciplinary teams to care for patients with SUD. New physicians should be given their choice of remuneration models. The third prong would fund and expand community treatment facilities that offer psychosocial counselling to complement and sustain the limited counselling that family physicians can provide in the FFS clinic visit.

Family physicians are important caregivers in a healthcare system that is seeing an increase in complex patients with SUD. They want to inform change and have a great deal to say. They should be consulted and involved in developing and implementing solutions that will help them improve the treatment and support of their patients.



References

- Ashford, R. D., Brown, A. M., & Curtis, B. (2018). Substance use, recovery, and linguistics: The impact of word choice on explicit and implicit bias. *Drug and Alcohol Dependence*, 189, 131–138.
- Basu, K., & Mandelzys, D. (2008). The modes of physician remuneration and their effect on direct patient contact. *Cahiers de sociologie et de démographie médicales*, 48(1), 41–59.
- Beaulieu, M. D., Haggerty, J., Tousignant, P., Barnsley, J., Hogg, W., Geneau, R., . . . Dragieva, N. (2013). Characteristics of primary care practices associated with high quality of care. *Canadian Medical Association Journal*, 185(12), E590–E596.
- Beaulieu, M. D., Geneau, R., Del Grande, C., Denis, J. L., Hudon, É., Haggerty, J. L., ... & Hogg, W. (2014). Providing high-quality care in primary care settings: How to make trade-offs. *Canadian Family Physician*, 60(5), e281–e289.
- Bertakis, K. D., Helms, L. J., Callahan, E. J., Azari, R., & Robbins, J. A. (1995). The influence of gender on physician practice style. *Medical Care*, 33(4), 407–416.
- Blomqvist, A., & Busby, C. (2012). *How to pay family doctors: Why “pay per patient” is better than fee for service*. Toronto: CD Howe Institute.
- Brcic, V., McGregor, M. J., Kaczorowski, J., Dharamsi, S., & Verma, S. (2012). Practice and payment preferences of newly practising family physicians in British Columbia. *Canadian Family Physician*, 58(5), e275–e281.
- Bowman, S., Eiserman, J., Beletsky, L., Stancliff, S., & Bruce, R. D. (2013). Reducing the health consequences of opioid addiction in primary care. *American Journal of Medicine*, 126(7), 565–571.
- Campbell, D. J., Sargious, P., Lewanczuk, R., McBrien, K., Tonelli, M., Hemmelgarn, B., & Manns, B. (2013). Use of chronic disease management programs for diabetes: In Alberta's primary care networks. *Canadian Family Physician*, 59(2), e86–e92.
- Canadian Institute for Health Information. (2017a). *National physicians database 2015–16*. Retrieved from https://www.cihi.ca/sites/default/files/document/npdb_data_tables_phys2016_en.zip
- Canadian Institute for Health Information. (2017b). *Physicians in Canada, 2016: Summary report*. Retrieved from https://secure.cihi.ca/free_products/Physicians_in_Canada_2016.pdf
- Canadian Medical Association. (2015). *New in Practice*. Retrieved from <https://legacy.cma.ca//Assets/assets-library/document/en/practice-management-and-wellness/NewInPractice2015-e.pdf>
- Canadian Medical Association. (2018). *Basic physician facts*. Retrieved from <https://legacy.cma.ca/En/Pages/basic-physician-facts.aspx>
- Canadian Substance Use Costs and Harms Scientific Working Group. (2018). *Canadian substance use costs and harms (2007–2014)*. (Prepared by the Canadian Institute for Substance Use Research and the Canadian Centre on Substance Use and Addiction.) Ottawa, Ont.: Canadian Centre on Substance Use and Addiction.
- Clelland, C. A. (2016). Building the business case for allied health care professionals in family physician practices in British Columbia. *BC Medical Journal*, 57(1), 15–17.



- Corbin, J., & Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (Fourth ed.). Los Angeles: SAGE.
- Dahrouge, S., Hogg, W., Ward, N., Tuna, M., Devlin, R. A., Kristjansson, E., ... & Pottie, K. (2013). Delivery of primary health care to persons who are socio-economically disadvantaged: Does the organizational delivery model matter? *BMC Health Services Research*, 13(1), 517.
- Degenhardt, L., & Hall, W. (2012). Extent of illicit drug use and dependence, and their contribution to the global burden of disease. *The Lancet*, 379(9810), 55–70.
- Devlin, R. A., & Sarma, S. (2008). Do physician remuneration schemes matter? The case of Canadian family physicians. *Journal of Health Economics*, 27(5), 1168–1181.
- Dusheiko, M., Doran, T., Gravelle, H., Fullwood, C., & Roland, M. (2011). Does higher quality of diabetes management in family practice reduce unplanned hospital admissions? *Health Services Research*, 46(1 Pt 1), 27–46.
- Ferrer, R. L. (2007). Pursuing equity: Contact with primary care and specialist clinicians by demographics, insurance, and health status. *Annals of Family Medicine*, 5(6), 492–502.
- Gavagan, T. F., Du, H., Saver, B. G., Adams, G. J., Graham, D. M., McCray, R., & Goodrick, G. K. (2010). Effect of financial incentives on improvement in medical quality indicators for primary care. *Journal of the American Board of Family Medicine*, 23(5), 622–631.
- Goddu, A. P., O'Connor, K. J., Lanzkron, S., Saheed, M. O., Saha, S., Peek, M. E., ... & Beach, M. C. (2018). Do words matter? Stigmatizing language and the transmission of bias in the medical record. *Journal of general internal medicine*, 33(5), 685–691.
- Hedden, L., Barer, M. L., Cardiff, K., McGrail, K. M., Law, M. R., & Bourgeault, I. L. (2014). The implications of the feminization of the primary care physician workforce on service supply: a systematic review. *Human Resources for Health*, 12(1), 32.
- Hogenbirk, J. C., Pong, R. W., Tesson, G., & Strasser, R. (2004, October). *Do rural physicians practice differently than urban physicians? Evidence from a Canada-wide survey of family physicians.* Paper presented at the cinquième conférence de la Société canadienne de recherche en santé rurale et quatrième congrès international des infirmières et infirmiers spécialistes de la santé rurale, Sudbury, Ont.
- Holmes, D. (2012). Prescription drug addiction: the treatment challenge. *The Lancet*, 379(9810), 17–18.
- Hutchinson, E., Catlin, M., Andrilla, C. H. A., Baldwin, L. M., & Rosenblatt, R. A. (2014). Barriers to primary care physicians prescribing buprenorphine. *Annals of Family Medicine*, 12(2), 128–133.
- Jamison, R. N., Sheehan, K. A., Scanlan, E., Matthews, M., & Ross, E. L. (2014). Beliefs and attitudes about opioid prescribing and chronic pain management: Survey of primary care providers. *Journal of Opioid Management*, 10(6), 375–382.
- Kaner, E. F., Brown, N., & Jackson, K. (2011). A systematic review of the impact of brief interventions on substance use and co-morbid physical and mental health conditions. *Mental Health and Substance Use*, 4(1), 38–61.
- Kaner, E., Bland, M., Cassidy, P., Coulton, S., Dale, V., Deluca, P., ... & Newbury-Birch, D. (2013). Effectiveness of screening and brief alcohol intervention in primary care (SIPS trial): pragmatic cluster randomised controlled trial. *British Medical Journal*, 346, e8501.



- Keane, D., Woodward, C. A., Ferrier, B. M., Cohen, M., & Goldsmith, C. H. (1991). Female and male physicians: Different practice profiles: Will increasing numbers of female GPs affect practice patterns of the future? *Canadian Family Physician*, 37, 72–81.
- Kennedy-Hendricks, A., Busch, S. H., McGinty, E. E., Bachhuber, M. A., Niederdeppe, J., Gollust, S. E., ... & Barry, C. L. (2016). Primary care physicians' perspectives on the prescription opioid epidemic. *Drug and Alcohol Dependence*, 165, 61–70.
- Khan, S. (2017). Concurrent mental and substance use disorders in Canada. *Health Reports*, 28(8), 3–8.
- Kim, T. W., Saitz, R., Cheng, D. M., Winter, M. R., Witas, J., & Samet, J. H. (2011). Initiation and engagement in chronic disease management care for substance dependence. *Drug and Alcohol Dependence*, 115(1–2), 80–86.
- Kim, T. W., Saitz, R., Cheng, D. M., Winter, M. R., Witas, J., & Samet, J. H. (2012). Effect of quality chronic disease management for alcohol and drug dependence on addiction outcomes. *Journal of Substance Abuse Treatment*, 43(4), 389–396.
- Kiran, T., Victor, J. C., Kopp, A., Shah, B. R., & Glazier, R. H. (2012). The relationship between financial incentives and quality of diabetes care in Ontario, Canada. *Diabetes Care*, 35(5), 1038–1046.
- Kiran, T., Victor, J. C., Kopp, A., Shah, B. R., & Glazier, R. H. (2014). The relationship between primary care models and processes of diabetes care in Ontario. *Canadian Journal of Diabetes*, 38(3), 172–178.
- Kiran, T., Kopp, A., Moineddin, R., & Glazier, R. H. (2015). Longitudinal evaluation of physician payment reform and team-based care for chronic disease management and prevention. *CMAJ: Canadian Medical Association Journal*, 187(17), E494–E502.
- Klimas, J., Small, W., Ahamad, K., Cullen, W., Mead, A., Rieb, L., ... & McNeil, R. (2017). Barriers and facilitators to implementing addiction medicine fellowships: a qualitative study with fellows, medical students, residents and preceptors. *Addiction Science & Clinical Practice*, 12(1), 21.
- Laberge, M., & Kone Pefoyo, A. J. (2016). Assessing the effectiveness of policies to reduce diabetes hospitalizations before and after the reforms of physician payment and primary care organization in British Columbia and Alberta. *Canadian Journal of Diabetes*, 40(5), 406–410.
- Lavergne, M. R., Law, M. R., Peterson, S., Garrison, S., Hurley, J., Cheng, L., & McGrail, K. (2017). Effect of incentive payments on chronic disease management and health services use in British Columbia, Canada: Interrupted time series analysis. *Health Policy*, 122(2), 157–164.
- Liddy, C., Singh, J., Hogg, W., Dahrouge, S., & Taljaard, M. (2011). Comparison of primary care models in the prevention of cardiovascular disease — a cross sectional study. *BMC Family Practice*, 12(1), 114.
- Marchildon, G. P. (2013). Canada: Health system review. *Health Systems in Transition*, 15(1), 1–179.
- McGovern, M. P., Williams, D. J., Hannaford, P. C., Taylor, M. W., Lefevre, K. E., Boroujerdi, M. A., & Simpson, C. R. (2008). Introduction of a new incentive and target-based contract for family physicians in the UK: Good for older patients with diabetes but less good for women? *Diabetic Medicine*, 25(9), 1083–1089.



- MD Physician Services. (2012). *Module 8: Physician Remuneration Options* [PDF file]. Retrieved from <https://www.cma.ca/Assets/assets-library/document/en/practice-management-and-wellness/module-8-physician-remuneration-options-e.pdf>
- Meadows, G., Burgess, P., Bobevski, I., Fossey, E., Harvey, C., & Liaw, S. T. (2002). Perceived need for mental health care: influences of diagnosis, demography and disability. *Psychological Medicine*, 32(2), 299–309.
- Miedema, B., Easley, J., Thompson, A. E., Boivin, A., Aubrey-Bassler, K., Katz, A., ... & Wodchis, W. P. (2016). Do new and traditional models of primary care differ with regard to access? *Canadian Family Physician*, 62(1), 54–61.
- National Physician Survey. (2004). *2004 National Physician Survey (NPS): National demographics*. Retrieved from <http://nationalphysiciansurvey.ca/wp-content/uploads/2012/10/NPS2004-National-Binder.pdf>
- National Physician Survey. (2013). *2013 Results for Family Physicians*. Retrieved from <http://nationalphysiciansurvey.ca/result/2013-results-for-family-physicians/>
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Pilowsky, D. J., & Wu, L. T. (2012). Screening for alcohol and drug use disorders among adults in primary care: A review. *Substance Abuse and Rehabilitation*, 3, 25–34.
- Russell, G. M., Dahrouge, S., Hogg, W., Geneau, R., Muldoon, L., & Tuna, M. (2009). Managing chronic disease in Ontario primary care: The impact of organizational factors. *Annals of Family Medicine*, 7(4), 309–318.
- Saitz, R., Larson, M. J., LaBelle, C., Richardson, J., & Samet, J. H. (2008). The case for chronic disease management for addiction. *Journal of Addiction Medicine*, 2(2), 55.
- Saitz R., Daaleman T.P. (2017). Now is the time to address substance use disorders in primary care. *Annals of Family Medicine*, 15(4):306–308.
- Sarma, S., Devlin, R.A., Belhadji, B., & Thind, A. (2010). Does the way physicians are paid influence the way they practice? The case of Canadian family physicians' work activity. *Health Policy*, 98(2–3), 203–217.
- Shojania, K. G., Ranji, S. R., McDonald, K. M., Grimshaw, J. M., Sundaram, V., Rushakoff, R. J., & Owens, D. K. (2006). Effects of quality improvement strategies for type 2 diabetes on glycemic control: A meta-regression analysis. *JAMA*, 296(4), 427–440.
- Sørensen, R. J., & Grytten, J. (2003). Service production and contract choice in primary physician services. *Health Policy*, 66(1), 73–93.
- Steele, L. S., Durbin, A., Sibley, L. M., & Glazier, R. (2013). Inclusion of persons with mental illness in patient-centred medical homes: Cross-sectional findings from Ontario, Canada. *Open Medicine*, 7(1), e9–e20.
- Storholm, E. D., Ober, A. J., Hunter, S. B., Becker, K. M., Iyiewuare, P. O., Pham, C., & Watkins, K. E. (2017). Barriers to integrating the continuum of care for opioid and alcohol use disorders in primary care: A qualitative longitudinal study. *Journal of Substance Abuse Treatment*, 83, 45–54.



- Stringer, K. L., & Baker, E. H. (2018). Stigma as a barrier to substance abuse treatment among those with unmet need: An analysis of parenthood and marital status. *Journal of Family Issues*, 39(1), 3–27.
- Sunderland, A., & Findlay, L. C. (2013). Perceived need for mental health care in Canada: results from the 2012 Canadian Community Health Survey–Mental Health. *Health Reports*, 24(9), 3–9.
- Tai, B., & Volkow, N. D. (2013). Treatment for substance use disorder: opportunities and challenges under the Affordable Care Act. *Social Work in Public Health*, 28(3–4), 165–174.
- Town, R., Kane, R., Johnson, P., & Butler, M. (2005). Economic incentives and physicians' delivery of preventive care: a systematic review. *American Journal of Preventive Medicine*, 28(2), 234–240.
- Tricco, A. C., Ivers, N. M., Grimshaw, J. M., Moher, D., Turner, L., Galipeau, J., ... & Tonelli, M. (2012). Effectiveness of quality improvement strategies on the management of diabetes: a systematic review and meta-analysis. *The Lancet*, 379(9833), 2252–2261.
- United Nations Office on Drugs and Crime. (2017). *World Drug Report 2017*. New York: United Nations. Retrieved from www.unodc.org/wdr2017/
- Urbanoski, K., Inglis, D., & Veldhuizen, S. (2017). Service use and unmet needs for substance use and mental disorders in Canada. *Canadian Journal of Psychiatry*, 62(8), 551–559.
- Office of the Surgeon General. (2016). *Facing addiction in America: The Surgeon General's report on alcohol, drugs, and health*. Washington, D.C.: Department of Health and Human Services.
- Van Boekel, L. C., Brouwers, E. P., Van Weeghel, J., & Garretsen, H. F. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug & Alcohol Dependence*, 131(1), 23–35.
- Wu, L. T., Ghitza, U. E., Zhu, H., Spratt, S., Swartz, M., & Mannelli, P. (2018). Substance use disorders and medical comorbidities among high-need, high-risk patients with diabetes. *Drug and Alcohol Dependence*, 186, 86–93.



Appendix A: Key Informant Interview Guide

BEFORE THE INTERVIEW

Send the consent form and interview guide to the informant.

PLACE CALL TO INFORMANT

Good morning / afternoon. This is [name of researcher] calling, for the Canadian Centre on Substance Use and Addiction Physician Remuneration Study.

[Confirm identify of informant]

Is this still a good time to talk with you? Do you have 30 minutes right now?

[If not, reschedule consent and interview]

Before we start the interview, I'd like to explain the study and answer any questions you might have. We're using an oral consent process in place of written consent, I will review the consent form with you by reading from it verbatim, to obtain your consent to participate in this study. This is time-consuming, but the process will ensure that your consent is informed, and it will allow you to ask questions.

BEGIN ORAL CONSENT PROCESS

[Read verbatim from consent form. Explain study, pausing to answer questions, and obtain oral consent.]

[Interview questions begin on next page]

START OF INTERVIEW

DEMOGRAPHICS: I'd like to begin by asking you some questions about your current position as a family physician.

1. What is your current position?
2. How long have you been practicing medicine in your current role as [CURRENT POSITION]?
3. Can you tell me about the setting where you see patients in [CURRENT POSITION]?

PROBE: Hospital, private office, public office, university health centre or health authority

YOUR PRACTICE: Next, I'd like to ask you a few questions to understand the current scope of your practice:

4. Can you tell me more about the type of compensation model you work with?

PROBE: fee-for-service, sessional, bill privately to insurers or employers

5. I'd like to ask you about three areas of practice: Do you currently provide care for patients with [CHRONIC DISEASE BELOW] as part of your scope of practice?

- a. Substance use disorder
- b. Diabetes



c. Schizophrenia

[The responses to this question will determine the focus of the next set of questions]

COMPENSATION: We are interested in learning more about how you are compensated, in [type of compensation model specified above], for the care you provide for:

[As appropriate]

a. Substance use disorder

b. Diabetes

c. Schizophrenia

6. Can you explain how your compensation works?

PROBE: Billing codes, incentives, other payment schemes

7. Can you tell me what education you receive for billing codes and incentive schemes?

PROBE: in medical school? During residency? Through continuing education? Through annual bulletins?

8. Are [billing codes, incentives, other payment schemes] structured in a way that allows you to provide the care that you'd like to patients?

9. Is there anything that you would like to see changed in the billing codes for problematic substance use and addiction?

10. What type of remuneration scheme do you feel would encourage physicians to do more chronic care for substance use disorders?

CLOSING QUESTIONS

11. That was the last question I had for you. Is there anything that you wanted to mention that we didn't touch on, or you didn't have a chance to tell me? Do you have any questions for me?

I really appreciate you sharing some of your valuable time today for our study.



Appendix B: Sample Email Invitation

Dear Canadian Society on Addiction Medicine Members,

I am contacting you on behalf of at the Canadian Centre on Substance Use and Addiction (CCSA) to seek your assistance with a qualitative study about physician remuneration for chronic disease care.

This study will explore how family physicians like yourself are compensated for caring for patients with three complex conditions (addiction, diabetes and schizophrenia). The goals of this study are to understand how family physicians in all the provinces and territories use billing codes and incentives to care for patients with these conditions.

As a key informant, your participation is vital to helping us better understand the remuneration variability that we see across Canada. You can provide us with the relevant insight and expertise from your own practice experience to identify gaps in compensation, as well as best practices.

We are interested in knowing the following:

- Whether you care for any patients with these conditions (substance abuse disorders, diabetes, or schizophrenia);
- Whether billing codes and incentives are structured in a way that allows you to provide the care that you would like to your patients;
- Changes you would like to see to billing codes and incentives to care for your patients.

I would like to invite you to participate in a 30-minute telephone interview between November 3, 2017, and December 31, 2017, at a time of your choosing. Your responses will be kept confidential, and your identifying information will not be published or viewable by anyone except the research team.

If you are interested in supporting this research, please reply to jfairbank@ccsa.ca with three proposed 30-minute blocks when you are available.

Thank you very much.



Appendix C: Oral Consent Form

Project Title: Comparative study of physician remuneration for chronic disease care across Canada

Principal Investigator: Amy Porath, PhD

Director, Research and Policy, Canadian Centre on Substance Use and Addiction

Co-investigator: Jill Fairbank, MSc

Knowledge Broker, Canadian Centre on Substance Use and Addiction

Co-investigator: Janet Childerhose, PhD

Contractor, Canadian Centre on Substance Use and Addiction

Co-investigator: Sara Atif, MSc

Research and Policy Analyst, Canadian Centre on Substance Use and Addiction

Investigator: Amy Porath, B.A. Hons., M.A., Ph.D.

Telephone: 613-235-4048 (24 hr)

Additional Contact:

Address: Canadian Centre on Substance Use and Addiction

500-75 Albert St.

Ottawa, ON K1P5E7

EXPLANATION OF RESEARCH PROJECT

Purpose

We are conducting a qualitative study to understand how family physicians are compensated for seeing patients with three complex conditions: substance abuse disorders, diabetes, and schizophrenia. We know that there is wide regional variability in compensation of physicians across Canada for these three conditions. We wish to understand how physicians in different provinces who work within a fee-for-service model use billing codes and incentives for these conditions. We will interview several family physicians in each province and territory to understand this variability across Canada. Our goal is to interview 30 physicians across Canada. We expect your interview to last approximately 30 minutes.

Procedures

We will ask you if we can have your permission to conduct the interview and to audio-record the interview using a digital recorder. Recording the interview helps us to be accurate about what you tell us. It also allows us to create a transcript of the interview. The audio-recording of your interview will be used for this research and will not be published for any other reason.

We would also like the opportunity to quote you anonymously in any publication from this study. Your name and workplace will not be included in the study results. If you do not want us to quote you in our publication, you can tell us and we will not quote you.



To protect your privacy, we will remove all identifiers from the data we collect, and use a numerical code to identify each participant. Your name will not be mentioned in the audio recording or recorded in the transcript of your interview.

Everything you tell us will be confidential. To keep your information confidential, all data collected from your interview will be maintained on a password-protected computer. Only team members working on this project have access to this computer. Following the interviews, we will contract a transcriptionist to transcribe the audio recordings. Only the transcriptionist and the research staff directly affiliated with the project will have access to the audio recordings and the transcripts. In addition, the research ethics review board, which is provided by IRB Services, may need to see these data and the study records to monitor the research and verify the accuracy of the study data. IRB Services is an independent ethics committee that reviewed the ethical aspects of this study to help protect the rights and welfare of study participants. All written data, including completed oral consent forms and interview transcripts, will be securely stored by CCSA in a locked filing cabinet for five years. All audio-recordings will be securely stored on a Cloud-based remote storage data system. After five years, all of these data will be securely destroyed.

Benefits

There is no direct benefit to you from taking part in the study. Our intent is to use the insight obtained from these interviews to acquire a well-rounded understanding of physicians' awareness, interpretation and use of billing codes and incentives for substance use disorders, diabetes, and schizophrenia care across Canada. The findings from this study will be published in a peer-reviewed journal, and they will be used to advocate for policy interventions (e.g., revised billing procedures) to support family physicians.

Discomforts

At any time during the interview, you can ask me questions about the study. You can decline to answer any question. You can also stop the interview at any time for any reason.

Who to contact with questions

If you have questions, concerns or complaints regarding this study, you should contact the Investigator at the telephone number listed on the first page of this form.

If you have questions about your role and rights as a research participant, or if you have concerns, complaints or general questions about the research, you should contact IRB Services. IRB Services is not affiliated with this project or the research team. You can reach IRB Service by phone: 1-866-449-8591 or by email: subjectinquiries@irbervices.com

If you contact IRB Services, please reference the following number: Pro00023198.



Appendix D: Organizations Contacted

National

Canadian Society on Addiction Medicine and Canadian Society on Addiction Medicine Education Committee

Canadian College of Family Physicians (national and provincial chapters)

Alberta

Alberta Medical Association

Alberta Health Services

Manitoba

Addiction Foundation of Manitoba

University of Manitoba

Newfoundland and Labrador

Newfoundland and Labrador College of Family Physicians

Newfoundland and Labrador Medical Association

Faculty of Medicine, Memorial University of Newfoundland and Labrador

Primary Healthcare Research Unit

New Brunswick

New Brunswick Medical Society

New-Brunswick College of Family Physicians

Moncton Hospital

Nova Scotia

Doctors of Nova Scotia

Nova Scotia College of Family Physicians

Dalhousie Department of Family Medicine

Ontario

Ontario Medical Association

Department of Family and Community Medicine, University of Toronto

Centre for Addiction and Mental Health



Prince Edward Island

P.E.I. College of Family Physicians

P.E.I. Medical Society

Polyclinic Professional Centre

Centre for Health and Community Research, University of Prince Edward Island

Health P.E.I.

Quebec

Faculty from the Addictions Unit, McGill University Health Centre

Department of Family Medicine, McGill University

Primary Health Network, McGill University

Département de médecine de famille et de médecine d'urgence, Faculté de médecine, Université de Montréal

Département de médecine de famille et de médecine d'urgence, Université de Sherbrooke

Jewish General Hospital – Family Medicine

McGill University Health Centre Family Medicine Clinic

Fédération des médecins omnipraticiens du Québec

Saskatchewan

Department of Academic Family Medicine, University of Saskatchewan

Saskatchewan Medical Association

Saskatchewan Health Authority

City Centre of Family Physicians (Saskatchewan)



Appendix E: Chronic Diseases Treated by Participants

	Diabetes	Schizophrenia	Substance use disorders
001-NS	✓	✓	✓
002-BC	✓	✓	✓
003-ON	✓	✓	
004-ON	✓		✓
005-BC	✓	✓	
006-BC	✓	✓	
007-SK	✓	✓	✓
008-MB	✓	✓	✓
009-MB	✓	✓	✓
010-BC	✓	✓	✓
011-MB	✓	✓	✓
012-NFLD	✓	✓	✓
013-AB			✓
014-AB	✓	✓	✓
015-MB	✓		✓
016-PEI	✓	✓	✓
017-NB	✓	✓	✓
018-NB	✓	✓	✓
019-NB	✓	✓	✓
020-QC	✓	✓	✓
021-ON			✓
022-SK	✓	✓	✓



Appendix F: Participant Profiles

001-NS is a Nova Scotia family physician who has practiced medicine for less than five years and cares for patients with diabetes, SUD and schizophrenia. She is paid by contract and performs shadow billing.

002-BC is family physician with a practice in an urban centre in British Columbia. She has practiced medicine for more than 20 years. She cares for patients with diabetes, SUD and schizophrenia, and her payment is entirely FFS.

003-ON is a rural Ontario family physician who has practiced medicine for nearly five years. She cares for patients with diabetes and schizophrenia, but does not currently care for patients with SUD. She is compensated with a blended model that combines some FFS payments with alternative payments.

004-ON is an Ontario family physician with training in addictions. She has practiced medicine for nearly five years, and cares for patients with SUD and diabetes. She delivers care at an inpatient residential treatment facility, where she is paid a daily rate, and at an outpatient clinic, where her payment is FFS.

005-BC is a British Columbia family physician who has practiced medicine for nearly five years. He delivers care in a group practice and a residential nursing home. He cares for patients with diabetes and schizophrenia, but does not have patients with SUD. His payment is entirely FFS.

006-BC is a full spectrum British Columbia family physician with a private group practice who has practiced medicine for less than five years. She cares for patients with diabetes, SUD and schizophrenia. Her payment is entirely FFS.

007-SK is a rural Saskatchewan family physician who has practiced medicine for 20 years. He has a solo clinic practice where he cares for patients with diabetes, SUD and schizophrenia. His compensation is entirely FFS.

008-MB is a Manitoba family and addiction physician who has practiced medicine for nearly five years. She has four practice sites and is compensated differently at each site: an hourly stipend with shadow billing, a weekly stipend, an hourly rate and FFS. She cares for patients with diabetes, SUD and schizophrenia.

009-MB is a Manitoba family physician who has practiced medicine for 20 years. She has three roles at three practice sites, and two forms of compensation: an hourly rate with shadow billing and a weekly sessional fee. She cares for patients with diabetes, SUD and schizophrenia.

010-BC is a full-spectrum British Columbia family physician who has practiced medicine less than five years. He has four practice sites and is paid through two remuneration models: FFS and sessional payments. He provides care for patients with diabetes, SUD and schizophrenia.

011-MB is a Manitoba family physician who has practiced medicine for 30 years. She has three practice sites and is remunerated through hourly payments and shadow billing. She provides care to patients with diabetes, SUD and schizophrenia.

012-NFLD is a Newfoundland and Labrador family physician who has practiced medicine for 20 years. He is compensated with a salary, a stipend and FFS. He provides care to patients with diabetes, SUD and schizophrenia.



013-AB is an Alberta family physician who has practiced medicine for 30 years at one site. She provides care to patients with SUD, and her remuneration is entirely FFS.

014-AB is an Alberta community-based family physician who has practiced medicine for more than 30 years. He provides care to patients with diabetes, SUD and schizophrenia. His primary remuneration is FFS.

015-MB is a Manitoba family physician who has practiced medicine for nearly five years. She has three practice roles at three sites. She cares for patients with diabetes and SUD. Her compensation is entirely FFS.

016-PEI is a Prince Edward Island family physician who has practiced medicine for five years and is salaried. She has three practice roles at three sites, and cares for patients with diabetes, SUD and schizophrenia.

017-NB is a New Brunswick general practitioner who has practiced more than 10 years. He has two practice roles at two sites and is compensated by FFS and sessional remuneration. He cares for patients with diabetes, SUD and schizophrenia.

018-NB is a New Brunswick family physician who has practiced for 30 years and cares for patients with diabetes, SUD, and schizophrenia. Her compensation is entirely FFS.

019-NB is a New Brunswick family physician who has practiced for more than 40 years and cares for patients with diabetes, SUD and schizophrenia. His compensation is entirely FFS.

020-QC is a Quebec family physician who has practiced for more than 30 years. She cares for patients with diabetes, SUD and schizophrenia. Her primary remuneration is FFS payments. She also receives hourly payments.

021-ON is an Ontario family physician who has practiced medicine for more than five years. He has two practice sites where he cares for patients with SUD. His remuneration is entirely FFS.

022-SK is a Saskatchewan family physician who has practiced medicine for more than five years. She has three practice roles at two sites. Her compensation is through shadow billing in all three roles. She cares for patients with diabetes, SUD and schizophrenia.



Appendix G: Chronic Disease Management Codes by Province

(Last updated June 15, 2018)

	CDM Codes?	Diabetes	Substance Use Disorders	Schizophrenia	Other	Other Conditions
B.C.	X	X	X	X	X	Hypertension Chronic obstructive pulmonary disease Chronic respiratory condition Chronic kidney disease Cerebrovascular disease Heart failure Ischemic heart disease Chronic neurodegenerative diseases Chronic obstructive pulmonary disease Chronic liver disease
Alta.	X	X		X	X	Kidney disease Chronic bronchitis and emphysema
Sask.	X	X			X	Chronic obstructive pulmonary disease Coronary artery disease Heart failure
Man.	X	X			X	Asthma Congestive Heart Failure Coronary Artery Disease Hypertension Chronic obstructive pulmonary disease
Ont.	X	X			X	Congestive Heart Failure Asthma Chronic obstructive pulmonary disease Hypercholesterolemia Fibromyalgia



Que.	X	X	X	X	X	Chronic obstructive pulmonary disease Arterio-sclerotic heart disease Cancer HIV/AIDS Degenerative nervous system diseases Chronic inflammatory diseases Chronic renal insufficiency Thrombogenic diseases Atrial fibrillation Attention deficit disorders Intellectual deficiency Auditory deficiency Chronic pain Stroke
N.B.	X	X			X	Chronic obstructive pulmonary disease
N.S.	X	X			X	Ischemic Heart Disease Asthma Chronic obstructive pulmonary disease Chronic liver disease Hypertension Chronic renal failure Congestive heart failure Dementia Chronic neurological disorders Cancer
P.E.I.						None
N.L.	X	X	X		X	Chronic obstructive lung disease Cancer Inflammatory bowel disease Chronic kidney disease Chronic liver disease Congestive heart failure/Cardiomyopathy Chronic neurological disease Ischemic heart disease Cerebral vascular accident Complex chronic infection Chronic immune deficiency Chronic pain Complex endocrine disease Connective tissue disorder Peripheral vascular disease