THE COLLEGE OF FAMILY PHYSICIANS OF CANADA

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BEST ADVICE

Physician Remuneration in a Patient's Medical Home

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BEST ADVICE – PHYSICIAN REMUNERATION IN A PATIENT'S MEDICAL HOME

How physicians are paid—commonly referred to as physician remuneration—is a key component of family practices and the health system as a whole. Physician remuneration can be used to encourage certain physician behaviours, and can influence care outcomes for patients. Depending on the province or territory of practise, there are different compensation models and incentives available.

As part of the CFPC's ongoing advocacy for the Patient's Medical Home* and its pillars, this guide examines the extent to which certain models for physician remuneration can encourage benefical patterns of care and practise, and improve patient health outcomes. This guide also aims to provide policy-makers with a greater understanding of the family medicine perspective when analyzing how remuneration models best fit different communities.

As each remuneration model has its own set of strengths and weaknesses, it is important to understand which model works best to meet the needs of a particular community. Although physicians may not have direct control over the model in their practice at the individual level, discussing the various facets of the models will guide the development of future policies. Recommendations in this guide discuss examples of how various remuneration models can be applied to different settings, based on their specific goals.

There are many different types of remuneration models in Canada, with some being specific to certain areas. The most common models and payment mechanisms in Canada include:

- **Fee-for-service (FFS):** Physicians are compensated by the insurer (the government) for each service rendered (eg, office visit, procedures, etc.)
- **Salary:** Physicians receive a wage, similar to other workers in the formal economy. It is often based on units of time, and paid in regular instalments. This arrangement is often accompanied by a contract stipulating practice responsibilities and privileges
- **Capitation:** Physicians receive a set fee for each patient on their roster, which may be adjusted by age, sex, morbidity, or other modifiers
- **Sessional/Locum:** Contract-based; physicians receive pay for increments of time spent performing patient care

*Patient's Medical Home, http://patientsmedicalhome.ca.

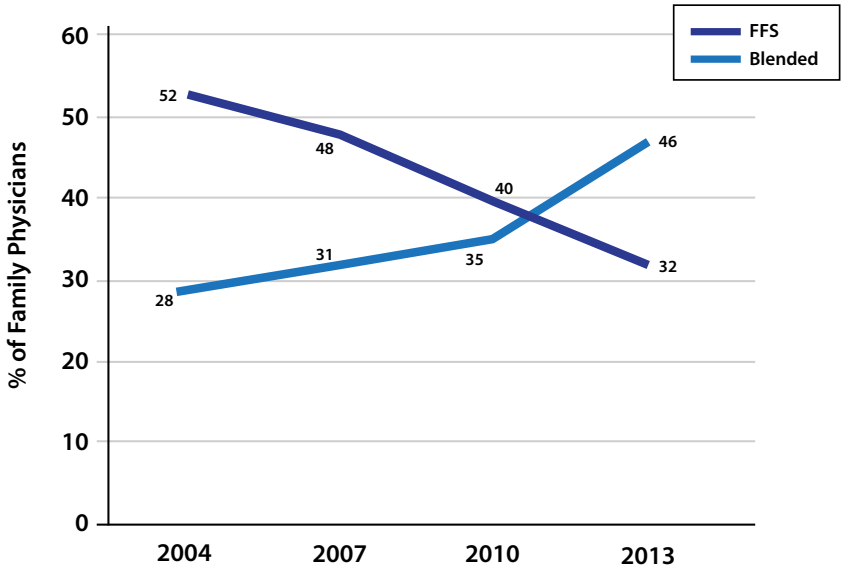
- **Incentives and premiums:** Many jurisdictions modify the previous methods by providing incentives or premiums on top of the base funding arrangement to encourage preventive care and complex case management
- **Mixed/blended models:** Payment arrangements are available through different model combinations, including capitation, FFS, and salary

Other models that have been proposed or tested in other jurisdictions include, but are not limited to, fund-holding and group-based profit sharing.[1]

It is important to note that remuneration models can be part of an organizational practice model that is already in place. For example, physicians in community health centres across Canada are compensated through salaries. Although physicians may be able to choose the practice model type they would like to practise in (eg, through a community health centre, a family medicine group, etc.), there is little flexibility when choosing a specific remuneration model at the individual level. This guide is intended to help policy-makers determine types of remuneration that would achieve their particular goals.

This guide is not meant to provide an exhaustive review of compensation models. Instead, it aims to present family physicians and health policy decision makers with general information about compensation choices, how a remuneration model can address different community needs, and the outcomes associated with the models in different scenarios.

Figure 1. Use of remuneration models by family physicians in Canada, 2004–2013



Source: National Physician Survey 2004, 2007, 2010, 2013

OVERVIEW OF REMUNERATION MODELS IN CANADA

There are varying rates of use of the different remuneration models throughout Canada. Some provinces and territories have many compensation options, while others have a limited selection. In the past decade, there has been a shift in which compensation methods are used most often.

The 2013 National Physician Survey (NPS) results provide the most recent picture of Canadian family physician compensation available. At the national level, most family physicians are compensated using the FFS model. However, this method's prevalence as the sole source of a physician's income is changing.

As the proportion of physicians paid primarily through FFS declines, the prevalence of blended remuneration is increasing (see **Figure 1**). Of those reporting blended income models, at least 42% of income came from FFS, 17% from sessional/per diem/hourly, and 13% from capitation.[2,3]

Younger physicians and female doctors tend to prefer non-FFS remuneration, while older physicians tend to prefer FFS. Due to preferences among senior physicians and a greater proportion of women, particularly in the most junior cohort, alternative and blended payment models are becoming increasingly popular. Interestingly, a survey of newly practising family physicians in British Columbia found that more than 70% of respondents preferred non-FFS (alternative payment) remuneration, including salaried, capitation, or blended models.[4]

As each remuneration model has its own strengths and weaknesses, there is no clear answer as to which model is the "best." Analyzing each respective model can provide a greater understanding of which ones best fit different practices and communities, and support the principles of the Patient's Medical Home. For example, as demographics shift in Canada, the needs and health concerns of the population will also change. Policy-makers need to ensure that remuneration models in the organizational practice models that provinces and territories have in place can address changing health concerns, such as focusing on preventive care and chronic disease management.

This guide focuses on the FFS, salary, and capitation payment models, as they are the most prevalent and well-studied models in Canada.

Fee-for-service

Historically, fee-for-service (FFS) was the most popular remuneration method used by family physicians. Recently, there has been a greater focus on shifting to blended models. In traditional FFS, physicians are self-employed professionals who are compensated for each service rendered (eg, office visit, procedures, etc.). Each province and territory has a schedule of benefits that outlines the fees paid for the many services and procedures that a family physician provides.

Some provinces and territories also offer family physicians enhancements and bonuses on top of the existing FFS fee schedule. These may be for complex and chronic disease management, for guaranteed

block funding to complement the FFS payments in more rural areas, or for physicians who are providing care to special-needs populations.[5]

FFS can be augmented with incentives and premiums to encourage desired reform to primary care practice. For example, the Family Health Group model in Ontario, a form of enhanced FFS, is associated with higher physician productivity (panel size, patient visits, and services provided), decreased referrals to other specialists, and increased complex care management.[6]

FFS also targets care outcomes through performance-based incentives, including preventive care bonuses (Pap smears, mammograms, childhood immunizations, flu shots), special payments (hospital services, palliative care, prenatal care, home visits), chronic disease management fees (diabetes, congestive heart failure), and incentives to enrol patients who have no regular family doctor.[6,7]

It is clear that FFS is associated with more hours per week worked in direct patient care than alternative remuneration schemes (FFS: 30 hours, mixed: 21 hours, non-FFS: <15 hours).[8] Interestingly, there is a slight relationship between higher physician income shares from FFS and decreased physician satisfaction with their professional lives.[9] These results were echoed in another study that found higher levels of professional satisfaction among physicians working in capitation- and salary-based settings, compared with those practising in FFS settings.[10] These results could also be related to the respective features found in the organizational practice models to which the remuneration models are connected.

The most common concern of FFS is its theoretical capacity to encourage overuse of services and overtreatment of patients. There is also the concern of supplier-induced demand, which occurs due to the inherent imbalance of power and knowledge in the physician-patient relationship.[11]

FFS is also said to encourage a "one problem per visit" approach to family medicine.[12] While this may be an issue for some patients, there do not appear to be any formal studies that substantiate a direct relationship between FFS remuneration and this practice pattern. **Table 1** summarizes the FFS payment model.

Table 1. Summary of FFS model of payment

Strengths	Weaknesses
• Incentives and premiums (enhanced FFS) that alter family practice to desired ends (complex and chronic care management, preventive care, formal patient enrolment) are considered • Hours for direct patient care (compared with non-FFS and blended models) increased • More patients served (in visits and services rendered, including diagnostic tests and curative services)[13]	• Limited fee schedule, which does not reflect complex case management, collaboration, and non-face-to-face encounters • Overuse of services and overtreatment of patients • "One problem per visit" approach may be encouraged • Professional satisfaction may be decreased

Capitation

In a capitated payment system, physicians are compensated based on a set fee for each person on their roster, rather than a payment per service provided. The set fee may be adjusted by age, sex, morbidity, or other modifiers. Capitation encourages physicians to see more patients, although low-risk patients are typically preferred.

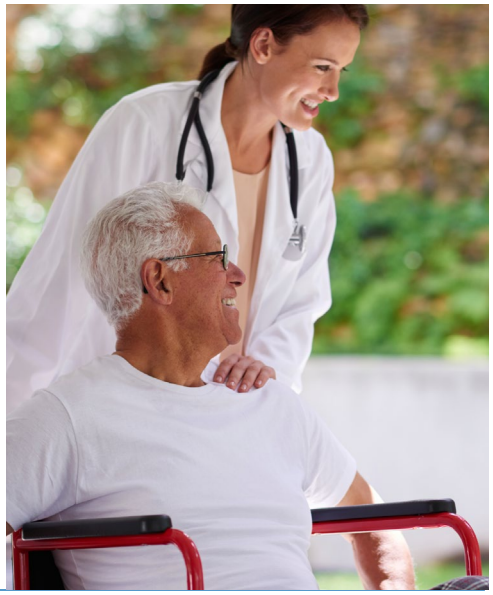
Capitation can help increase collaboration between physicians and other health care providers, increase the delivery of preventive care services, and/or increase health promotion.[14] Chronically ill patients switch providers less often in settings where providers are paid via capitation, compared with FFS settings, suggesting an increase in patient satisfaction and continuity of care.[15]

Capitation requires formal patient rostering, also known as patient enrolment or patient registration. As discussed in the CFPC *Best Advice Guide: Patient Rostering in Family Practice*,† patient rostering can yield benefits that positively affect many aspects of a practice. For physicians and teams, rostering enables practices to more readily define their panel size, organize appointment scheduling, track health indicators and outcomes, and potentially increase team member and patient satisfaction.[16] For patients and the health system, rostering increases the likelihood for continuity of care, enables more timely appointments, and links patients formally to their own family doctor and team.[16]

Where capitation has been introduced, its fee structure was planned to encourage its adoption. Contrary to common concerns regarding lost potential income, a study from Ontario suggests otherwise. The study found that compared with family physicians in practices with either an FFS or salary model, a greater proportion of family physicians in Family Health Network (FHN) practices (blended capitation) reported an increase in their net incomes over 5 years. These findings were also echoed in the 2011 Auditor General's Report.[18]

From a system perspective, capitation can also provide stable and predictable expenditures, which makes it advantageous for insurers and payers. However, this also means that if costs rise—for example, due to inflation—they might be shifted onto providers rather than payers (depending on the model). This is especially true for physicians, where overhead expenses are estimated to be as much as 28% to 36% of gross income.[19] However, in models where fixed capital costs and overhead costs are largely covered by government, this factor is less of a concern.

It is interesting to note that a review of capitation-based practices found that despite an additional incentive payment to encourage low hospital-utilization rates, capitation did not appear to reduce hospital use by patients.[20] Another study also found that capitation-based models are associated with an increase in visits to emergency departments, a higher proportion of visits that were semi-urgent and non-urgent, and a lower proportion of visits to emergency departments that were after hours.[21] It is important to note that because both studies were conducted in Ontario, these findings may be limited locally, as these results have not yet been replicated elsewhere.



†*Best Advice Guide: Patient Rostering in Family Practice*, available from: http://patientsmedicalhome.ca/files/uploads/PMH_Best_Advice_Rostering.pdf.

Moreover, patients in capitation practices had lower scores on morbidity and comorbidity indices.[21] However, weighing capitation costs based on morbidity and age can be used to encourage physicians to enrol patients who are considered more complex versus those who are healthier and easier to care for. **Table 2** summarizes the capitation payment model.

Table 2. Summary of capitation model of payment

Strengths	Weaknesses
• Collaboration within health teams, delivery of preventive care services, and/or health promotion increased • Formal patient enrolment, which is associated with continuity of care, patient satisfaction, and facilitating chronic disease management • Higher physician incomes where introduced	• Patients with better health status may be selected, denying care to those who need it most • Hospital/emergency room use did not decrease, despite incentives • Negation to avoid shifting responsibility of care to other settings or providers may be required; shifts responsibility for patient behaviour to physicians

Salary

In a salary model, physicians receive a wage, similar to how other workers in the formal economy would be paid. The salaries are often based on units of time, and paid in regular instalments. This method of payment is often accompanied by a contract stipulating practice responsibilities and privileges, in the case of hospital medicine.

Salaries can be a useful tool for recruiting and retaining physicians in rural and remote areas. Incomes in an FFS system would be less useful in attracting physicians to these low-density areas. Instead, salaries offer a stable, predictable, and sufficient income for those working in areas with a low population density.[14]

Salary reimbursement is associated with the lowest use of tests and referrals compared with FFS and capitation.[22] In addition to a lower number of procedures performed per patient, the salary method is associated with a lower throughput of patients per doctor, longer consultations, more preventive care, and different patterns of consultation compared with FFS payment.[22] As the prevalence of patients with comorbidities rises, longer and more comprehensive consultations are preferred to single-issue visits.

It is interesting to note no significant evidence has been presented that evaluates how the reduction in tests and procedures rendered under a salary model affects patient health outcomes. Most of the evidence has been concerned with examining the trend in practice outcomes rather than how those changes influenced patient health or other measures of patient satisfaction.

However, there are qualitative data that suggest salaries as a payment model might negatively affect physician productivity. Salaries are criticized for motivating physicians to spend more time with each individual patient. The concern is that the model costs more money, while not leading to a greater level of service, defined by officials as access to all patients.[23] **Table 3** summarizes the salary payment model.

Table 3. Summary of salary model of payment

Strengths	Weaknesses
• Stable and predictable income for physicians is offered • Recruitment and retention of physicians in rural and remote areas may increase • Longer patient consultations and increased preventive care compared with FFS • Lowest use of tests and referrals compared with FFS and capitation; could be considered a strength in terms of system cost and evidence-based provision of diagnostic tests	• Detailed terms and conditions of employment and performance monitoring systems are required • Physician productivity, in terms of volume of services administered, may be reduced

Blended models

There is increasing interest in blended remuneration, which combines the advantages of different funding methods while minimizing the potential for negative behavioural incentives.

Some commonly used blended payment methods include:

- FFS combined with capitation: Depending on the proportions of the system, the payment methods will differ. For example, if FFS is the main model, physicians bill FFS while receiving a small fee for each patient in the practice. However, if capitation is the main model, physicians receive a fee to cover predefined services for each patient in the practice, while other services can be billed FFS.
- Salary combined with FFS: Physicians receive a fixed lump fee for practising, and can bill FFS while receiving a percentage of the billings as additional remuneration.[23]

Other models

Few regions in Canada have diverged from these main forms of remuneration for primary care physicians. The exceptions are Nunavut and other rural and remote regions of provinces and territories that experience difficulty in attracting and retaining physicians. To mitigate physician supply issues, payment is often contract-based and short term. Sessional contracts can provide flexibility for managing complex or time-consuming patient care, or for the short-term relief of physician supply issues. Data on these payment models are scarce due to their lack of widespread use and sample size issues.

THE IMPACT OF PAY STRUCTURES ON PATIENT AND COMMUNITY NEEDS

Physician remuneration schemes can affect patient health outcomes, and be used to meet the needs of a community. Factors include the number of patient visits, resource efficiency, chronic disease management, and challenges to addressing social determinants of health.

Patient visits

A study found that physicians paid primarily by FFS spent an average of 37 hours seeing approximately 134 patients every week.[24] In comparison, salaried physicians spent 30 hours seeing 72 patients per week. Physicians compensated through capitation fell between these figures, spending 33 hours seeing 96 patients.[24]

Physicians in different pay model practices also have a differing number of average patient visits:

- FFS practices have the highest number of patient visits per week
- Blended payment FHN models have an intermediate number of visits per week
- Salaried Community Health Centres (CHCs) have the fewest visits per week[8]

A Cochrane Review[17] concluded that FFS, compared with capitation, results in more primary care visit contacts and more diagnostic and curative services but fewer hospital referrals and fewer repeat prescriptions. A Norwegian study[25] also found that physicians paid via FFS conduct a higher number of patient visits and other consultations than salaried physicians. The authors concluded that a change in physician payment schemes from salary to FFS would increase service production in the range of 20% to 40%.[25]

Although there are variations in model type and the quantity of health services provided, it is important to note these differences do not take into account the quality of the service rendered. For example, salaried models may make up for the lower volume of services administered with the quality of the comprehensive care the patient receives. For example, patients have reported that capitation-based practices—compared with salary, FFS, and blended—provide them with the greatest access to primary care.[26] Alternatively, another study found that patients in capitation practices had less after-hours care and more visits to emergency departments compared with those in enhanced FFS practices.[21] Patients have also reported that they feel a decrease in the level of family-centred care[‡] for every 1,000 additional patients in a practice.[27] However, further evidence is needed to support these conclusions.

Resource efficiency

Resource efficiency is improved in models with fewer unnecessary consults, procedures, and testing. A study in Quebec[24] showed that although the number of services provided decreased with the rigidity of the payment scheme, the actual amount of time spent performing each service increased, supporting the notion that there may be an inherent balancing of quantity versus quality across payment schemes.

FFS models can create an incentive for physicians to provide more treatment to patients, as payment depends on the quantity of services delivered. FFS also encourages physicians to perform more procedures and tests that have greater fees attached to their provision.

Chronic disease management

Three of every five Canadians, ages 20 years or older, have a chronic disease and four out of five are at risk of developing a chronic condition.[28] Seniors with three or more reported chronic conditions accounted for 40% of reported health care use among seniors, even though they represented only 24% of all seniors.[29] Identifying and addressing the risk factors and determinants of chronic disease is central to the prevention of chronic disease.

Studies have shown that the way chronic disease management is delivered in general practice can be influenced by organizational factors, such as financial incentives, capitated payment structures, improved Internet technology infrastructure, and the wider use of non-medical health care professionals.[30]

A 2009 study[30] examined whether chronic disease management differed between the different practice models in Ontario. The study[31] found that CHCs[§] had higher overall performance of chronic disease management (by 10%–15%) compared with FFS, capitation, or blended payment models.[30] This can be attributed to better performance in evidence-based processes associated with diabetic care.[**] The clinicians surveyed reported that CHCs were easier than other models to promote high-quality care through longer consultations and interprofessional collaboration.[30]

[‡]Family-centred care (FCC) considers the family when managing a clinical case, as well as hereditary conditions in the patient's family, household income, and living situations.

[§]CHCs employ salaried physicians; are community governed; aim to respond to population needs; provide health promotion and education; and focus on populations that are underserved.

**Process measures included whether a foot examination was documented in the past 2 years; an eye examination occurred in the past 2 years; an ACEI/ARB occurred in the past 2 years; and whether two HbA_{1c} tests occurred in the past year.

A 2015 study evaluated the transition of primary care physicians to blended capitation models and team-based care in Ontario, and the effect this reform had on managing and preventing chronic disease.[32] The study found that over time, patients in medical homes with a team-based capitation setting were more likely than those in an enhanced FFS setting to receive diabetes monitoring (39.7% versus 31.6%), mammography (76.6% versus 71.5%), and colorectal cancer screening (63.0% versus 60.9%).[32] The switch to capitation payment and the addition of team-based care in Ontario were associated with moderate improvements in processes related to diabetes care, but the effects on cancer screening were less clear.[32]

As demographics shift in Canada, the prevalence of chronic diseases in patients will also shift. Models that focus on chronic disease management will help alleviate that rate and focus on preventing chronic diseases.

Social determinants of health

As discussed in the CFPC *Best Advice Guide: Social Determinants of Health*,[††] family physicians identified remuneration concerns as one of the most common challenges to doing more "upstream" health work and taking action on social determinants of health.[33] Almost all providers interviewed commented that FFS billing provided a disincentive to work with patients to improve their social determinants of health.[33]

Proper structural supports and incentives can help circumvent these barriers. A Patient's Medical Home model of care facilitates team-based patient management, which can free up time for complex cases, which are more likely to be present in marginalized populations. For example, Ontario CHCs feature team-based care and salary/alternative remuneration strategies instead of FFS payments. A 2012 Institute for Clinical Evaluative Sciences (ICES) study found CHCs were more likely to serve populations from lower-income neighbourhoods, including vulnerable populations such as recent immigrants and those on social assistance.[34]

[††]*Best Advice Guide: Social Determinants of Health*, available from: http://patientsmedicalhome.ca/files/uploads/BA_SocialD_ENG_WEB.pdf.

GUIDING POLICY-MAKERS

Primary care practices do not follow a one-size-fits-all approach in terms of how to best meet the needs of a community. Depending on the practice, physicians may be limited to many factors, including whether a remuneration model is offered within a specific province, the geographical setting of the practice, the types of organizational practice models available, and the needs of the community the practice serves. As discussed, the different types of remuneration models each have their own set of limitations and benefits. With this information, it can be beneficial to understand which remuneration models work best in different types of scenarios.

As models of primary health care evolve, it is important that the payment methods that align with these systems also evolve to meet community needs. The following are just some examples that illustrate where certain remuneration models can thrive best.

1. Recruitment and retention/low population density

Family physicians in rural and remote regions have greater difficulty generating sufficient incomes when paid using FFS or capitation models due to a low population base of patients. FFS sets limits on integrated collaborative care as family physicians earn income only on the services provided. Thus, salaries offer family physicians a stable and predictable income for those looking to reside in northern, rural, or remote settings, with many salary contracts also offering additional benefits.[23]

2. Chronic disease management

Practices that emphasize chronic disease management, such as diabetes care, would benefit most from a capitation-based model. Research from Ontario shows that physicians in capitation models are more likely to make use of the province's Diabetes Management Incentive payment than FFS physicians, even when there is no difference in monetary value for both groups. The number of patients enrolled in diabetic care services in Ontario is also 8% higher in capitation-based practices.[7]

3. Complex and vulnerable populations

Physicians delivering health care under less variable payment schemes (eg, salary) tend to accept more complex patients, including Indigenous patients, low-income patients, and those suffering from substance abuse, mental health problems, and/or homelessness. Salaried physicians saw two to three times more complex patients on average than FFS physicians, while mixed compensation physicians saw approximately 1.5–2 times more than FFS physicians.[35] A 2012 ICES study found that CHCs, which feature salary remuneration strategies, were more likely to serve populations from lower-income neighbourhoods, including vulnerable populations such as recent immigrants and those on social assistance.[34]

4. Health promotion and preventive care

Collaborative, interdisciplinary models may work best when goals are to increase collaboration between physicians and with other health care providers, to increase the delivery of preventive care services, and/or to increase health promotion. One study found that physicians in CHCs (salary model) and Ontario Family Health Organization (FHO; blended capitation model) practices were more likely to view health promotion as an integral part of primary patient care versus physicians in traditional FFS practices.[36] Another study also found that FHO physicians are more likely to achieve targets for preventive care (eg, flu shots for seniors, mammograms, Pap smears, childhood immunizations, and colorectal-cancer screening) than are Family Health Group (FFS model) physicians.[7]

5. High activity clinics

FFS models may work best in activity-based clinics, such as urgent care clinics or walk-in clinics. When the goals are quantity of care and risk acceptance, the FFS may work best as this model encourages patient acceptance and increased service production. FFS practices have more patient visits than salary and capitation practices,[25] and FFS provides incentives for physicians to increase the volume of services provided to patients. This incentive positively affects physicians' productivity, which may improve patient access, especially in high activity clinics.[37]

6. Achieving multiple goals

While there is still minimal research on the full effects of blended payment methods, their mixed structure is designed to combine the advantages of multiple remuneration types into one funding model. For example, combining the capitation method with FFS may help increase health promotion and disease prevention while maintaining productivity and patient access equality.[38] In Prince Edward Island, a blended model offers family physicians working FFS additional payments for providing specific services, such as rehabilitation medicine, addiction care, and palliative care.[23]

As the population in Canada ages and the number of patients with complicated and chronic conditions increases, remuneration methods may also need to shift. Physicians should be able to work in a practice that encourages spending the most effective time with their patients, instead of feeling pressured to move on if a patient takes up "too much" time. Family physicians understand their patients' needs best, and remuneration models should evolve accordingly if required.

CONCLUSION

The CFPC maintains that a one-size-fits-all approach to physician remuneration limits the primary care system's ability to respond to contextual needs, be they geographic, demographic, or temporal. It is clear from the evidence discussed in this document that certain practice outcomes can be encouraged or structured through the model of remuneration. Each remuneration option has theoretical strengths and limitations. Blended remuneration models offer the greatest degree of flexibility in policy options for physicians, insurers, and patients. Each jurisdiction must first establish which care outcomes it seeks to prioritize, and tailor the remuneration to support those outcomes.

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