Primary Care Team Funding, Compensation and Practice Models Across Canadian Jurisdictions: An Environmental Scan

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Abstract

Introduction: Successive waves of primary care reforms have focused on expanding team-based care across Canada, frequently through the addition of registered nurses (RNs). Reforms have varied, however, in teams' funding, compensation and organization.
Methods: In this environmental scan, we sought to identify and describe existing primary care compensation and practice models across Canada.
Results: Through structured and snowball searching, we identified and extracted data from 189 sources, yielding 44 compensation models and 55 practice models.
Discussion: While information on RNs' compensation was lacking, physician remuneration and practice model descriptions indicate substantial variation in funding, compensation and practice models where integration of RNs is occurring. This reflects ongoing primary care reforms that build upon heterogenous plans and existing systems.
Conclusion: Amidst ongoing calls to expand team-based primary care, the lack of clarity around existing funding, compensation and practice models challenges our ability to evaluate the aspects of team-based care that contribute to their overall functioning and effectiveness.

Introduction

Over the past 20 years, Canadian provinces and territories have implemented successive waves of primary care reforms. Between 2000 and 2006, the federal government created the Primary Health Care Transition Fund, allocating $800 million to support provinces and territories in meeting the healthcare needs of Canada's aging population and addressing growing rates of chronic disease via primary care reform (Health Canada 2007). The primary care reforms that followed varied in each jurisdiction but have generally focused on key areas such as quality improvement, collaborative practice and organizational restructuring (Breton et al. 2011; Carter et al. 2016). More recent federal funding initiatives have focused specifically on team-based care, such as a $45.3 million grant in 2023 for a training initiative to enhance the capacity of primary care teams (Team Primary Care 2023).

The focus on the transition to and expansion of team-based care recognizes that appropriate primary care delivery requires a diversity of healthcare professionals working together with intention (Green and Johnson 2015; Health Canada 2007; Health Council of Canada 2009). Likewise, evidence supports that team-based care enables comprehensive care by increasing continuity and coordination and is an appropriate means of addressing the healthcare needs of the Canadian population (Contandriopoulos et al. 2018; Lowe and O'Hara 2000; Wranik et al. 2017). Accordingly, in 2004, as part of a 10-year plan to strengthen healthcare, provincial and territorial governments committed to providing half of Canadians with primary care teams by 2011 (Health Council of Canada 2009). Despite this commitment and substantial investments, physician-only models of care rather than interprofessional teams – defined as two or more professions working collaboratively toward common objectives (Green and Johnson 2015) – remain the dominant model of primary care delivery across Canada (Aggarwal and Williams 2019; CMA 2019; Hutchison et al. 2001). Where primary care teams have been instituted, family physicians (FPs) frequently remain the key figure(s) around which clinic teams (1) are funded and (2) operate, with major reforms being negotiated and implemented through master payment or physician services agreements between provincial and territorial governments and medical associations (McKay et al. 2022).

Between federal funding initiatives and provincial and territorial commitments to team-based care, primary care reforms have not consistently defined what a team looks like, how it works, or what it should do, resulting in the proliferation of various team-based care structures across Canada (Hutchison et al. 2011; Strumpf et al. 2012). Despite the variation, one element of primary care teams has been relatively constant – registered nurses (RNs) form the core of interprofessional primary care teams across many jurisdictions in Canada (Ardal et al. 2007; CNA 2013). The enactment of RNs' roles and scope in the context of primary care, however, can vary depending on the practice model in which they work, the funding model of the team and the compensation models of the FPs with whom they work, all of which can impact the functioning and performance of team-based care (Basu and Mandelzys 2008; Montesanti et al. 2022; Wranik et al. 2017).

In the present work, we distinguish between funding, compensation and practice models (Figure 1). "Funding models" are the mechanism(s) by which primary care organizations are financed while "compensation models" are the arrangements that determine how individual healthcare providers are remunerated for their work. The terms "compensation" and "funding model" are often used interchangeably in the primary care literature to describe the mechanisms used to generate revenue; compensation, however, refers more specifically to the physicians' income after overhead costs (including, in applicable models, the remuneration

of RNs, medical office assistants and other staff). The incorporation of practices or corporate ownership of practice chains may further blur the lines between individual physician compensation and funding model. In addition, we define "practice models" as the different types of organizations (e.g., clinics) that deliver primary care and their organizational attributes, including administrative structures; how they are governed, staffed and resourced (financially and physically); and how their delivery of care is organized.

Figure 1. Funding, compensation and practice model definitions

Funding model	Compensation model	Practice model
The mechanisms by which primary care organizations are financed	The arrangements that determine how individual healthcare providers are remunerated for their work	The different types of organizations that deliver primary care and their organizational attributes
e.g., global budget	e.g., provider time	e.g., health authority clinic

While existing academic and grey literature have described select primary care funding, compensation and practice models in certain jurisdictions, a comprehensive listing and description of these is not currently available for all provinces and territories. To build on existing theories and evidence regarding the impact of different funding, compensation and practice models on the function and performance of primary care teams, we sought to identify which models best support primary care teams in Canada, specifically focusing on those that integrate RNs. As an initial step within a larger research project with a purpose of examining the impact of compensation and practice models on team function and performance (Mathews et al. 2022), the objective of this environmental scan is to identify and describe existing primary care team models (that include RNs) in place across Canadian jurisdictions. Identifying and synthesizing this information will set the foundation for subsequent analyses of the impact of these models on the integration and optimization of the roles of RNs within team-based primary care.

Methodology

Study Design

We conducted an environmental scan (Graham et al. 2008) to describe current primary care compensation and practice models across Canadian health jurisdictions, specifically focusing on FPs and RNs. In the absence of a standardized method for conducting and reporting environmental scans (Charlton et al. 2021), we have relied on approaches used across various projects by members of our study team (Bodner et al. 2022; Lukewich et al. 2018, 2024) that we adapted for this project. We sought out publicly available policies, web pages, reimbursement data and peer-reviewed and grey literature through systematic searches and confirmed results through consultation with regional subject area experts.

Search Strategy

We conducted a series of searches in English and French using a combined approach of string term, targeted website and snowball searches between March and September 2022. String term searches were constructed using combinations of broad terms for primary care funding, compensation and practice models and individual provinces and territories. We provide a full list of our search terms and the search string configurations in Appendix 1 (available online at longwoods.com/content/27552). These string term searches were run through Google, Google Scholar and PubMed databases until results were exhausted (i.e., ongoing searches produced no new sources containing relevant information). We also conducted manual searches of targeted websites for provincial and territorial governments, ministries of health and nursing and physician organizations (e.g., unions and colleges/regulators) during the same period (Appendix 2, available online at longwoods.com/content/27552). From these string term and targeted searches, we also followed links and references in previously identified web pages and documents to locate additional sources. We saved sources using the Zotero reference management software (Corporation for Digital Scholarship).

Screening

Prior to extraction, the research team reviewed the saved sources to eliminate duplicates and screen for relevance. We included sources that mentioned or described compensation models for primary care physicians and RNs and practice models where primary care teams can operate – provided RNs are eligible to practise as a member of the team. We also included compensation and practice models for specialized primary care clinics targeting specific populations and those for clinics that require primary care-relevant postgraduate training (e.g., certification in family practice, diabetes educator). We excluded sources that described models that have been phased out or are no longer in use, for clinics or programs where the focus is not primary care and for clinics specifically designed for nurses with graduate-level nursing education (beyond that of an RN), unless RNs can be integrated into those practices as well. We did not limit our search or inclusion of sources based on publication dates, though we did make efforts to identify the most up-to-date sources for every model.

Extraction

The final set of sources ($N = 136$) were then extracted for each compensation and practice model they identified or described. Using Google Forms, researchers entered the following information to the extent it was available in a source: the name of the compensation/practice model, jurisdiction and year it was introduced; the scope of availability of a model (i.e., whether the model is available province- or territory-wide, only in specific health or geographic regions or is specific to eligible clinics) and the number of providers or clinics implementing

a certain model; the nature of clinic funding and the basis of funding level (e.g., volume, population, hours or a combination of these); and the basis and the source of compensation for FPs and RNs (e.g., activity, patients, time or a combination of these). We also extracted information about any team supports that were included with a compensation or practice model (e.g., financial, human or practice resources) and any eligibility conditions. Sources could be extracted multiple times depending on the number of compensation or practice models they described.

Consolidation and Validation

Once all sources were extracted, one researcher organized and consolidated all extracted data first by province and territory and then by compensation or practice model. A spreadsheet with the consolidated jurisdictional extractions was then shared with the relevant regional study team members and local subject area experts outside the research team to both verify the extracted information and fill in missing data points. Two researchers then worked model by model to further identify and fill in the missing information by conducting targeted web searches for previously identified funding, compensation and practice models between June and October 2023. During regional validation and targeted data searches, we identified and drew data from 53 additional sources. We then used content analysis (Graneheim and Lundman 2004; Vaismoradi et al. 2013) to consolidate and describe the extracted information from all sources ($N = 189$) into comparable categories across models and jurisdictions.

Positionality

Our interdisciplinary study team is comprised of both academic and practising RNs, nurse practitioners and FPs, policy makers and researchers. The members of our team have expertise in primary care, nursing practice, health workforce policy and the Canadian health system.

Results

Search Results

Our original searches resulted in 264 individual extractions describing funding, compensation or practice models. These extractions, and our subsequent regional validation, identified 99 models across the 13 provinces and territories. Despite repeated efforts to fully describe each model, we were unable to obtain complete data for all models and jurisdictions. Notably, details on RN compensation in different primary care practice models are lacking. Our complete table of consolidated extraction results is included in Appendix 3 (available online at longwoods.com/content/27552). Below, we describe core details about current primary care compensation and practice models across Canadian jurisdictions, distinguishing between compensation models for FPs and RNs and the practice models in which

they work. While compensation of FPs is highly varied (based on their activity, patient population, time or some combination of these) within and across jurisdictions, RN compensation is predominately time based. The primary care practice models that incorporate RNs also vary, from traditional FP-owned and operated practices to health authority-run interdisciplinary care teams.

Compensation Models

FP compensation

The FP compensation models we identified in our search are listed by jurisdiction and the basis of compensation in Table 1. Provider activity-based models (e.g., fee-for-service) compensate FPs for each service rendered. In patient population-based models (e.g., capitation or population-based funding), FPs receive a set fee for each patient on their roster, which may be adjusted to account for patient complexity according to age, sex, morbidity or other factors. Provider time-based models (e.g., alternative payment plans, sessional or salaried arrangements) are contract-based payments to FPs that compensate providers for their time worked. Blended models arrange a combination of different models, often using one form as the base (e.g., capitation with fee-for-service for non-rostered patients) (CMA Joule n.d.). While these compensation models are often framed from the perspective of individual physician remuneration, they can also represent clinic funding – though this relationship is infrequently delineated or described in the sources we reviewed.

All provinces and territories, except Nunavut, have a compensation model based on provider activity (i.e., fee-for-service billings) for FPs. Fee-for-service payments accounted for between 39.2% (Nova Scotia) and 90.7% (Alberta) of payments to FPs in 2021–2022, with an average of 64.7% across the 11 jurisdictions for which the Canadian Institute for Health Information (CIHI) reports data (i.e., excluding Nunavut and Northwest Territories) (CIHI 2023).

Fewer than half ($N = 6$) of the jurisdictions in Canada have a compensation model based on the primary care physicians' patient population (CIHI 2006; FMNB n.d.; GPSC 2017; Health and Wellness 2022) or a blend of patient population and physician activity (Abrar and Friesen 2019; Alberta Health n.d.; McKay et al. 2022) or time (HealthForceOntario 2019). Though the basis of compensation is similar in these patient population-based models, they vary by name and structure across jurisdictions (e.g., for which patient complexities FPs are provided additional compensation).

Conversely, all provinces and territories have at least one compensation model for FPs that is based on their time worked. These time-based models vary by name and their application as well as the method of provider payment (e.g., hourly or

sessional versus salaried payments). These compensation models are frequently associated with health system-operated clinics (as opposed to private, physician-owned and operated ones), with contracts governed by health authorities for providers working in specific practice models (AGNB 2012; Doctors Manitoba 2024; HCS n.d.; Health Canada 2009, 2022; HealthForceOntario 2019; Katz et al. 2016; Nova Scotia Health Authority n.d.; Peckham et al. 2018a, 2018b). Time-based compensation schemes are not commonly available to FPs working in independently owned and operated primary care practices. In 2021–2022, these alternative payments to FPs ranged from a low of 9.3% in Alberta to a high of 60.8% in Nova Scotia, with a national average of 35.3% across all jurisdictions (excluding Nunavut and Northwest Territories) (CIHI 2023).

Some compensation models (e.g., fee-for-service) are broadly available within provinces and territories, while others are unique to specific regions, populations or clinics. For example, value-based compensation is a capitation-based model restricted to compatible Primary Care Network clinics in Fort St. John, British Columbia, that use a specific electronic medical record (EMR) system (i.e., Medical Office Information System or MOIS) (Abrar and Friesen 2019; BC Ministry of Health 2019).

Table 1. FP compensation models by jurisdiction and basis of compensation

Basis of compensation*	Jurisdictions												
	AB	BC	MB	NB	NL	NT	NS	NU	ON	PE	QC	SK	YK
Provider activity	•	•	•	•	•	•	•		•	•	•	•	•
Patient population		•		•			•				•		
Provider time	•	•	•	•	•	•	•	•	•	•	•	•	•
Blended: activity + population	•	•							•				
Blended: activity + time											•		
Blended: population + time									•				

* Provider activity–based models compensate FPs for each service rendered; in patient population-based models, FPs receive a set fee for each patient on their roster, which may be adjusted to account for patient complexity according to age, sex, morbidity or other factors; provider time–based models are contract-based payments to FPs that compensate providers for their time worked; blended models arrange a combination of different models, often using one form as the base (CMA Joule n.d.).
AB = Alberta; BC = British Columbia; FP = family physician: MB = Manitoba; NB = New Brunswick; NL = Newfoundland and Labrador; NS = Nova Scotia; NT = Northwest Territories; NU = Nunavut; ON = Ontario; PE = Prince Edward Island; QC = Quebec; SK = Saskatchewan; YK = Yukon.
Note: We have excluded an additional blended arrangement (activity + population + time) from this table since our data indicate no jurisdictions currently have such a compensation model available.

RN compensation

There is limited information on how RNs working in primary care settings are compensated across jurisdictions. Where information is available, however, this indicates that RNs in primary care are almost exclusively paid by salary, with activity-based compensation only available in one practice model (i.e., Family Medicine New Brunswick). The most detail about RN compensation comes via collectively bargained contracts between nursing and/or public sector unions and the provincial or territorial governments that serve as their employers (Health Employers Association and Association of Unions 2019). While these contracts are not specific to primary care settings, they set wage scales for RN compensation for those nurses working in government or health authority-operated primary care settings (e.g., health authority-operated Community Health Centres and Urgent and Primary Care Centres in British Columbia [Longhurst and Cohen 2019; Ministry of Health 2019]). Conversely, independently (physician and/or nurse practitioner) owned (e.g., fee-for-service practices [Magee et al. 2011]) and community-governed (e.g., community health centres [BCACHC n.d.; GHC n.d.] primary care settings have greater flexibility when they employ RNs to work as a member of their team with respect to the RNs' role enactment and compensation models. Given the independent (i.e., nonhealth system operated) nature of these primary care settings, the compensation models of staff are largely inaccessible given that clinics are not obligated to make public their private finances or internal operations.

Practice Models

The practice models we identified through our jurisdiction-specific searches are listed in Table 2 (and further detailed in Appendix 3, available online at longwoods.com/content/27552). In this table, we list the practice model name at the top of each cell, with the RN compensation model at the bottom left and the RN employer at the bottom right of each practice model cell. Here, the lack of information describing how RNs are paid and by whom in different primary care practice models is evident. Where we were able to identify this information, however, we see the prevalence of salaried arrangements across jurisdictions, practice models and clinic funding. While not always the case, where practice models are funded by the provider's activity, the clinic itself tends to be the RN's employer (Alberta Medical Association 2013; GPSC 2017; Katz et al. 2010; Magee et al. 2011; Ministry of Health and Long-Term Care 2023; NBMS and FMNB 2019). Conversely, where a practice model is funded by a global budget or block funding, it is more common that a (regional) health authority or a similar entity external to the clinic in which they work employs the RN directly (Breton et al. 2011; Hutchison and Glazier 2013; Longhurst and Cohen 2019; Ministry of Health 2019; OAGC 2017; Peckham et al. 2018a).

While several FP and RN compensation models are used across a variety of different practice models, practice models are limited in the compensation models with which they can remunerate members of their primary care team. Often, this is related to requirements or specifications for when certain practice models can be implemented. These requirements can also determine how RNs are integrated into primary care settings and how compensation models interact between different providers in that practice model. Just as with the compensation models mentioned earlier, though many are broadly available across their associated province or territory, several practice models are limited in their scope of availability to specific regions, clinics or providers. For example, Family Care Clinics in Alberta are intended for communities with populations over 2,500 and have a defined team composition of at least one FP, one nurse practitioner, two additional service providers and a business manager (Alberta Health 2013).

The practice models we identified do not always explicitly describe RNs as a required member of a team; rather, we included any primary care practice model where RNs could potentially be employed. This means that there is variation in the availability and extent of mechanisms for facilitating team-based approaches to care across practice models (see "Team supports" column in Appendix 3, available online at longwoods.com/content/27552). Where present, supports range from change management resources to facilitate integrating new members and professions into primary care clinics (Dinh 2012; Peckham et al. 2018a) to funding for: EMR infrastructure or EMR access to coordinate care across providers (Hutchison and Glazier 2013; Katz et al. 2010; Reichert and Associates 2020); making physical modifications to clinics (e.g., expanding or creating new exam rooms and/or office space) to accommodate additional team members (GPSC 2019); and hiring interprofessional healthcare providers and clinic support staff directly (Katz et al. 2016; Leslie et al. 2020; WRHA n.d.). In some models, funding is specifically allocated for a given resource (e.g., subsidies for the purchase and implementation of an approved EMR for Family Health Networks and Family Health Organizations in Ontario [Hutchison and Glazier 2013]). In other models, these supports fall under a broad umbrella of "overhead" and may be covered through clinics' annual business plans (e.g., Family Care Clinics in Alberta [Alberta Health 2013]) or a global budget (e.g., Community Health Centres in Ontario [Hutchison and Glazier 2013]).

Discussion

We conducted structured and snowball searches to identify and describe current primary care compensation and practice models in Canadian provinces and territories, specifically focusing on FPs and RNs. This is the first phase of a project to evaluate the impact of funding models on the integration and optimization of RNs' roles in primary care teams (Mathews et al. 2022). By identifying primary

care compensation and practice models across Canadian provinces and territories, health leaders and decision makers will be better able to discern those where RNs can be integrated, how FPs and RNs are compensated in those practices and how those team-based care settings are funded.

Despite our repeated searches (both broad and targeted), the availability and detail of information describing funding, compensation and practice models differed greatly by model and the province or territory. As a result, it is not possible to fully capture all the nuances of different primary care funding, compensation or practice models using publicly available sources. In part, this reflects a lack of detailed and clearly articulated descriptions of primary care models. It also reflects the constantly evolving primary care landscape across and within health jurisdictions, where incremental, layered reforms and policy legacies have created myriad funding and organizational features (Hutchison et al. 2001; Rudoler et al. 2019). That is, when new compensation or practice models are introduced, these rarely replace the models that preceded them; rather, existing models continue to operate alongside new models. This is exemplified by the handful ($N = 9$) of population-based funded clinics (Primary Healthcare Organizations) in British Columbia, the remnants of a 14-clinic pilot project that was introduced in 1999 (Abrar and Friesen 2019; British Columbia Medical Association 2005), or the persistence of independent fee-for-service clinics across Ontario despite that province's shift to a variety of team-based practice models. This suggests that, once a compensation or practice model is introduced, governments may be challenged in the future to revoke that mechanism of remuneration or structure of care delivery.

This also highlights the difficulty associated with implementing reforms in a sector dominated by independent businesses (Hedden and McGrail 2023; Nielsen and Sweetman 2018), where physicians and their professional associations remain influential in shaping primary care policy (McKay et al. 2022; Rudoler et al. 2019), not to mention the complexity of evaluating the impact of these models on patient and system outcomes. The traditional delivery of primary care through independent, physician-owned and operated small businesses in Canada and the implementation of reforms through negotiated agreements with physician associations may also explain why there is not more publicly available information describing RNs' compensation. However, the absence of these details also reflects the ongoing perception of nurses as ancillary to the provision of primary care. This corresponds with a lack of information detailing RNs' roles – both defined and enacted – in primary care practice (Lukewich et al. 2021).

Our search results also indicate substantial variation in types of primary care compensation and practice models between jurisdictions, even if they share the same name (e.g., Primary Care Networks in British Columbia and Alberta). The

only truly consistent model in name and structure across all jurisdictions is independent (physician-owned) group/solo practices funded by fee-for-service, which continues to be the dominant compensation model across Canada (CIHI 2022). These practices, however, are also the least likely to support RN integration in clinical practice since such practices and any RN positions they fill are funded by physician fee-for-service billings (through contributions to clinic overhead) and, where they do use RNs, are least likely to support RNs working to their full scope (Akeroyd et al. 2009; Mathews et al. 2022; Pearce et al. 2011; Pullon et al. 2009).

The provinces and territories that have made the biggest shifts toward team-based care share similar traits for compensation and practice models. These models, however, have inconsistent names and many implementation nuances that challenge comparison within and across jurisdictions. This may reflect the existing heterogeneity of provincial and territorial primary care structures as well as variation in population demographics, health needs and accessibility of health services. Given that healthcare is mainly a provincial and territorial responsibility in Canada, the variation in both terminology and approaches to primary care compensation and practice models are likely to persist.

Limitations

As noted earlier, despite our multiple search strategies and attempts to fill in missing information, there remain substantial gaps in information describing the compensation and practice models we identified. Given the focus of our search on RNs, the paucity of information on how these members of primary care teams are remunerated is a significant limitation in our scan. Our explicit focus on models that include RNs in primary care may also have resulted in the exclusion of models where other nurse professions (i.e., nurse practitioners or registered or licensed practical nurses) are members of a primary care team. Our focus on RNs means that there may be models that do not expressly mention RNs but nonetheless have important lessons about the connection between funding, compensation and practice models, and outcomes of team-based care are excluded. Furthermore, by focusing on models in each of Canada's provinces and territories, our searches did not capture models operating under federal jurisdiction. The results of our scan are also limited by the dates during which our searches were conducted (i.e., March to September 2022). Since then, new primary care compensation models have been introduced in British Columbia, Nova Scotia and Manitoba (Government of British Columbia 2022; Province of Manitoba 2023; Province of Nova Scotia 2023). Though we have not captured or detailed these models here, they are unlikely to alter our findings; like fee-for-service, these models are not likely to have formal mechanisms to support the integration of RNs in primary care practices.

Conclusion

Team-based primary care continues to be implemented and expanded across Canadian jurisdictions through iterative policy reforms. These reforms build upon an existing diverse primary care landscape of funding, compensation and practice models. In most cases, the practice model determines how the clinic is funded and healthcare providers are paid – whether by provider activity, patient population, provider time or a combination of these elements. Practices funded by provider time may be publicly operated or include public employees embedded in independent (physician-owned and operated) clinics. The source of compensation and employment of primary care RNs may have implications for their scope of practice and the availability of team-based care supports in the setting in which they deliver care. Though we were not able to identify complete information for all models identified during our environmental scan, this study provides ways to meaningfully group and begin to compare team-based primary care practices across Canada. The absence of complete data highlights the limited information on the structural components of team-based care and the need for more detailed descriptions of these models to support their implementation. Amid ongoing calls to expand team-based primary care in Canada, this limited understanding of how existing models operate and how they impact the function and performance of teams challenges policy makers' ability to evaluate and replicate effective structures, to the potential detriment of both provider experiences and patient care.

Implications for Nursing Leadership

Given the prevalence of RNs in primary care across Canada, the absence of details as to their compensation and the structures in which they work poses challenges for understanding RNs' roles in team-based primary care and the factors that shape these. This is compounded by the variation of primary care practice models within and across Canadian provinces and territories that reflect primary care reforms that prioritize team-based care but have not consistently defined the structure of a team, how it should be organized or the roles of its members (Hutchison et al. 2011; Strumpf et al. 2012). This inconsistency – both in how primary care teams are implemented and of information describing primary care teams – presents an opportunity for nursing leadership to advocate for a more deliberate approach to integrating nonphysician providers, such as RNs, in ongoing primary care reforms. With their ongoing challenges their primary care access and changes to FP compensation, nurse leaders have a responsibility not only to continue advocating for the role of RNs in primary care but also to define what that role is, how it fits within existing and future practice models and how that role may be impacted by the compensation models of other providers in those models.

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