Payment model impact on the resilience of rural communities

Exploratory study

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Abstract

Objective To explore rural physician perspectives on how remuneration impacted their experiences of contributing to community resilience during the COVID-19 pandemic.

Design Exploratory, qualitative subanalysis.

Setting Twenty-two rural communities in 4 Canadian provinces.

Participants Family physicians, other health care professionals, and patients in rural communities in British Columbia, Alberta, Saskatchewan, and Ontario.

Methods Semistructured, virtual interviews conducted between November 2021 and February 2022 were included in the subanalysis. Interviews were audiorecorded, transcribed, coded, and analyzed thematically.

Main findings Participants expressed working under an alternative payment plan (APP) model facilitated greater engagement in their communities and said they were generally fairly compensated for nonclinical duties. Increased time allotted to each patient re-centred care priorities to meet the long-term needs of the community. Finally, APP physicians stated their systems of care supported their own wellness throughout the pandemic.

Conclusion Findings suggest physicians working in an APP model felt they had increased ability to engage with the community and contribute to its resilience. The flexibility of APPs may allow for more physician involvement in community sustainability that is not directly related to patient care.

Impact du mode de rémunération sur la résilience des communautés rurale

Étude exploratoire

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Résumé

Objectif Explorer les points de vue de médecins ruraux sur la façon dont la rémunération a influé sur leurs expériences de contribution à la résilience communautaire durant la pandémie de la COVID-19.

Type d'étude Des sous-analyses qualitatives exploratoires.

Contexte Vingt-deux communautés rurales dans 4 provinces canadiennes.

Participants Des médecins de famille, d'autres professionnels des soins de santé et des patients, dans des communautés rurales de la Colombie-Britannique, de l'Alberta, de la Saskatchewan et de l'Ontario.

Méthodes Des entrevues virtuelles semi-structurées, effectuées entre novembre 2021 et février 2022, ont été incluses dans la sous-analyse. Les entrevues ont fait l'objet d'un enregistrement sonore, d'une transcription, d'un codage et d'une analyse thématique.

Principales constatations Les participants ont indiqué que le fait d'être rémunérés selon un mode de rémunération alternatif (MRA) avait facilité une plus grande implication dans leurs communautés et qu'en général, ils avaient été rémunérés adéquatement pour leurs fonctions non cliniques. Le temps accru accordé à chaque patient avait recentré les priorités en matière de soins pour répondre aux besoins à long terme de la communauté. Enfin, les médecins rémunérés selon un MRA ont mentionné que leurs systèmes de soins avaient soutenu leur propre bien-être durant toute la pandémie.

Conclusion Les constatations font valoir que les médecins qui travaillaient dans le cadre d'une rémunération selon un MRA étaient d'avis qu'ils avaient eu une plus grande capacité de s'impliquer auprès de la communauté et de contribuer à sa résilience. La souplesse des MRA pourrait permettre un plus grand engagement des médecins dans la durabilité communautaire qui n'est pas directement reliée aux soins aux patients.

Rural communities are small systems of care and vary based on local geographic and social characteristics. Recently, the impacts of the COVID-19 pandemic put increased pressure on health care infrastructure and support systems. These challenges revealed which communities have the strategies necessary to cope with these changes and which do not.

A community's susceptibility to change can be measured by resilience, which is defined as the process and capacity of a community to prepare for, mitigate, and respond and adapt to a stressor.[1] In the rural context, community resilience is multifactorial and includes a diverse economy, access to resources, optimism, strong leadership, and social support. Health care workers play an important role in resilience, as they can bring vocational expertise, are often trusted by the community, and may possess strong leadership skills. These are 3 important components of social capital to enhance resilience.[2] Many physicians acknowledge the importance of advocacy and engaging with communities and recognize community involvement as an essential factor attracting physicians to rural practice.[3] Rural health care teams were particularly influential in supporting rural community resilience during the COVID-19 pandemic.[4]

In terms of the relationship between resilience and payment model, there is no consensus among Canadian physicians on the ideal remuneration model, particularly in the context of rural practice. Fee-for-service (FFS) is the most common payment model in Canada and reimburses physicians a fixed amount for each medical service delivered.[5] Alternative payment plans (APPs) pay physicians for their time and include a range of models (Appendix 1, available from **CFPlus***). Existing literature demonstrated APPs can have a positive influence on long-standing patient-provider relationships and on rural physician recruitment and retention, and they offer better compensation for nonclinical duties when compared with FFS payment models.[4,6-10] Fee-for-service models have been recognized and supported as those that enhance physician productivity and privilege physician autonomy.[11-13] They are often more adaptable to increases in demand and service needs and allow for greater government capacity to negotiate service fees, particularly to reflect specific health priorities.[13] The pros and cons of various payment models are context- and implementation-specific and more nuanced than presented in this analysis.

The objective of this article is to explore the perspectives of rural physicians on the potential impact payment models had on community resilience to COVID-19 pandemic stressors. This study also provides implications for other communities in strengthening their own resilience.

Methods

Study design

Data used in this subanalysis were obtained from the exploratory, qualitative Climate Change and Ecosystem Disruption Adaptation Responses in Rural Canada (CCEDARR) study.[14] It aimed to identify characteristics of Canadian rural communities that demonstrated resilience during the COVID-19 pandemic and lessons to help mitigate future ecosystem disruptions (such as climate change). The full list of questions used in the semi-structured interviews are shown in Appendix 2, available from **CFPlus**.*

Harmonized ethics approval was obtained from the University of British Columbia Behavioural Research Ethics Board. Participants provided informed oral consent before interviews were conducted (H21-02207).

Participant recruitment

The CCEDARR study used snowball sampling, a recruitment technique that uses initial known participants to identify further points of contact, to recruit people from rural Canadian communities.[15,16] Initial participants were identified through the Society of Rural Physicians of Canada and CCEDARR study co-investigators. Attempts were made to include communities across a spectrum of perceived resilience based on expert opinion and initial key informant interviews to minimize bias.

Data collection

In-depth, semistructured interviews 50 to 80 minutes in duration were conducted via Zoom or telephone between November 2021 and February 2022. Interviews were audiorecorded with participants' informed consent and recordings were transcribed by Scriptastic Transcription Services. Semistructured interview questions were subject to iterative refinement, guided by emerging themes. Specific questions related to payment model were asked to explore the relationship between remuneration and perceived community resilience.

Data analysis

CCEDARR study. Interviews were uploaded to NVivo 12 software and coded by a team of rural health researchers. A coding protocol was developed to ensure consistent thematic definitions and coding consistency. Intercoder reliability was established by running coding consistency queries. References that were double coded were compared for congruence to ensure consistent data interpretation. Interview data were thematically analyzed using a combined technique of inductive and deductive coding.

Subanalysis. During the CCEDARR study interview process, physicians spoke about payment models in the context of ability to contribute to community resilience. A subanalysis of interview transcripts was created for the current study, focusing on those that discussed remuneration models. Of 65 total interviews,

*Appendices 1 and 2 are available from **https://www.cfp.ca**. Go to the full text of the article online and click on the **CFPlus** tab.

all 27 physician interviews were included in the subanalysis; the 30 interviews with health care team members and 8 interviews with community members were also searched for perspectives on physician engagement, payment model, and community resilience, with 7 community member interviews identified for inclusion. The research team followed Braun and Clarke's 6-phase approach to guide the thematic analysis.[17] Points of correlation between payment model and participant perception of community resilience were highlighted. Key quotes were identified and researchers collaboratively defined themes through an iterative process.

Results

A total of 65 interviews were conducted. Participants were selected from 22 rural communities in British Columbia (n=8), Alberta (n=6), Saskatchewan (n=2), and Ontario (n=6) (**Tables 1** and **2**). A total of 384 pages of interview transcripts were thematically analyzed for this study.

Three themes emerged in response to the subanalysis research question: community relationship building, compensation for nonclinical duties, and physician wellness. Each of these themes explored the extent to which rural physicians believed remuneration contributed to community resilience.

Theme 1: community relationship building

Many participants spoke about the importance of community and the need for strong relationships. Physicians concurred these factors are important for resilience, regardless of payment model.

> I learned very early on in my career that trust might be the most important social determinant of health. (Participant 1, APP, BC)

Table 1. Participant characteristics

ROLE	FULL ANALYSIS (n)	SUBANALYSIS (n)
Physician	27	27
Health care team member	8	0
Community member	30	7
Total	65	34

Table 2. Physician participant payment model

PAYMENT MODEL	NUMBER OF PARTICIPANTS
Fee-for-service	3
Alternative payment plan	9
Blended model	6
Salaried	1
Not specified	8

Community trust and relationships were developed in several ways, such as frequently attending community meetings, supporting local art festivals, and playing basketball with youth. A cornerstone of relationship building was the community knowing they were important to physicians. A physician in an APP model noted that instead of focusing on the cost of running his practice, as may be required in an FFS model, he was able to put the needs of the community first.

> Physician leadership was at the table every single time. But it didn't become the driver. The driver is the community in place. (Participant 2, APP, BC)

Notable factors in developing trust and build relationships with a community were time and continuity of care. A physician working for many years in an FFS model indicated issues maintaining primary care physicians for more than a few months at a time. Switching to APP models stabilized the workforce and retained physicians, with similar reports of stability from other rural communities in British Columbia and Ontario. The appeal of increased work-life balance after switching to a blended capitation model from FFS and the associated potential for easier recruitment were noted by another participant.

One physician expressed how working in an APP model allowed for increased interactions with community members, which was more crucial than being financially remunerated:

> I think a more rewarding remuneration is that relationship building. Seeing your patients trust you more, because the Chief and Council will go back to their community and say, "You know what, the doctors have been reaching out to us and chatting to us. So, I think we can start trusting them." (Participant 3, APP, BC)

Theme 2: compensation for nonclinical duties

Many rural physician participants helped improve community health through methods distinct from direct clinical care. This included attending hospital, clinic, and community meetings; conducting policy work; and being involved in community projects, outreach, and advocacy. These nonclinical duties are likely more feasible in APP models than in FFS models because time spent on such tasks is often financially compensated. Physicians frequently remunerated for these activities under an APP found it increased their engagement and allowed them to feel valued for nonclinical work:

> We've chosen to invest some of our dollars in the things that make our collective practice life easier from a policy procedures practice standpoint. (Participant 15, APP, Ont)

Many APP participants indicated being flexible and adaptable to community needs during the COVID-19 pandemic. They described themselves and their colleagues taking on more tasks, such as checking on vulnerable populations, setting up testing and assessment centres, and attending extra meetings to discuss community response to the pandemic. In one community, a morning each week was allocated to meetings instead of clinical work to help the community "develop, and grow, and evolve" (Participant 10, APP, Ont). Some FFS physicians stated they lost substantial income during the pandemic because they were not booking as many patient appointments and provincial fee codes were slow to account for virtual appointments.[18] However, an APP physician participant was able to quickly adapt to the decrease in appointments by shifting their work focus to duties for which they previously did not have time, including increased community engagement and public health advocacy: "As a physician you don't mind being involved in community projects or clinic efforts and going to meetings during work time or having to go to the school to talk about vaccines" (Participant 5, APP, BC). Another said:

> We're going to pay people for their clinical time and we're going to pay people also for their nonclinical time. Of course at a lesser rate, because what we want people to be doing most is the clinical work. But it becomes a bit of an equalizer. We've agreed to distribute the funds that we receive and honour time that's spent that makes our collective life as clinicians better, safer, more efficient. (Participant 15, APP, Ont)

Theme 3: physician wellness

Physicians compensated by an FFS model noted longer working hours and more time on-call than colleagues under APPs, impacting their wellness.

> There's no doubt that building resilience in terms of physician services in rural communities means you have to kind of accept that unless you want to have that one patient one doctor mentality where you just run multiple people through the system or you hope you get those dedicated lifelong physicians who will spend 24 hours a day being doctors. Fee-for-service doesn't really work for anyone else other than those types. (Participant 41, APP, Sask)

Nearly all participants discussed burnout from working long hours during the pandemic. While this was beyond the control of each physician, working in APPs may have lessened the burden. One participant said they were able to "build in for redundancy [within clinical practice] to prevent burnout" (Participant 11, APP, Ont). In physician interviews, protective factors mentioned were mental health supports, mentorship, time with family, and community connection.

Discussion

This subanalysis emerged from a larger study exploring the experiences of rural health care providers and community members during the COVID-19 pandemic to better understand rural physician involvement in community-level resilience in response to ecosystem disruptions.[14] This subanalysis specifically examined how remuneration impacted rural physicians' contributions to community resilience in the face of COVID-19. It is helpful to explore these themes within the context of the COVID-19 pandemic since these disruptions to health and community services amplified existing challenges in rural health care. Major stressors often expose unforeseen vulnerabilities and provide an opportunity for growth and development. With service diversions and closures all too common in struggling rural health systems, the data suggest APP models may be a more effective form of remuneration in these settings. Time not dedicated to patient care in an FFS model directly impacts a physician's income and disincentivizes participating in activities for community resilience. If rural physician involvement in community resilience is considered important, then APP models of compensation are likely the better option.

This analysis suggests APP models better support nonclinical duties related to community health and allow physicians to perform community holistic care, build community relationships, and have increased personal wellness. The resilience of rural communities also depends on community leadership, optimism, resource access, and social support.[19-21] It is these resilience factors that contribute to a community's response to stressors. Rural physicians can enhance community resilience through community involvement, and this is better afforded when working in a model that allows for fair compensation beyond clinical care. Although this engagement is possible in an FFS model, and was demonstrated to some degree by FFS physicians, it appears this was in spite of, rather than due to, their remuneration model.

There are many complexities and nuances of FFS and APP models not discussed in this analysis. For example, physicians who work in an FFS model generally see more patients than APP-remunerated physicians.[18,22] There is flexibility in an FFS model, allowing physicians to work their own hours; also, some physicians prefer to be business focused rather than contractually bound.[12] While APP models have been criticized for decreasing physician autonomy or financial compensation,[7] others argue APPs have limitations regarding recognizing patient complexity.[9] However, these distinctions between FFS and APP models were not explored in depth in this analysis and nuances are not at the forefront of the system adaptation needed in the face of unexpected community health challenges and threats. This subanalysis focused on the resilience of rural communities and the

association between remuneration model and physician-community engagement, excluding other complex factors related to the pros and cons of each payment model.

Canadian rural health care is in crisis, partly due to a shortage of physicians willing to practise in rural communities. With most rural physicians in Canada paid through an FFS system, policy initiatives like the Longitudinal Family Physician Payment Model introduced in British Columbia in 2023 need to be explored and evaluated.[23] Additionally, further system evolutions that strengthen physician resilience, community stability, and adaptation to the evolving challenges of climate change and ecosystem disruption should be prioritized.

Limitations

Participants were from 22 communities in 4 provinces across Canada. Sample size was limited, and many participants were found through previously known contacts or snowball sampling, which may lead to biased findings. This study collected data from participants who had available time and interest in participating in the work. Participants working in APP models represented the largest group of physicians and results are biased toward the views of this cohort. This reflects the availability and willingness of physicians to participate in the study rather than selection bias on the part of the researchers. Payment models were not a focus of the interviews, but rather an emergent theme uncovered as interviews progressed; thus, not all participants were asked directly about payment models.

Conclusion

This is an exploratory analysis conducted using qualitative research methods. It is hypothesis generating rather than testing and while the findings are rigorously achieved, further research needs to be conducted to test the correlation between payment model and community resilience. There are many blended models that may incorporate a mix of benefits of different payment methods. This analysis was not focused on distinguishing these nuances.

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Contributors

All authors contributed to conceptualizing and designing the study; to collecting, analyzing, and interpreting the data; and to preparing the manuscript for submission.

Competing interests

None declared

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