February 17, 2022

Recruitment and Retention of Rural and Remote Physicians

The Role of Alternate Payment Models

Differences in health status between Canadians living in urban and rural areas are well documented. One of the reasons for this is the difficulty in physician recruitment and retention to rural regions. This brief presents evidence and potential policy options to enhance recruitment and retention strategies in rural areas.

O'Brien Institute for Public Health
University of Calgary
University of Calgary | The School of Public Policy

Lay Summary

A recent study that conducted a series of interviews with 13 Alberta rural physicians highlighted the importance of professional and personal factors (e.g., rural background or previous experience). Physicians emphasized the challenges associated with rural practice, which may impact retention (e.g., heavy on-call burden and poor locum physician support). These findings further indicate that a combination of alternate payment models (non-fee for service models) and non-financial incentives might play a role in addressing these challenges. For example, in some cases, alternate payment models make access to other health professionals easier, which lightened the workload for some physicians and allowed them to spend more time with patients with complex medical needs. Also, clinics staffed with a variety of healthcare providers (e.g., dieticians; nurses; pharmacists) that can provide a full scope of services to patients will minimize patient travel to get the healthcare that they need.

In Alberta, these alternate payment models include:

- Blended capitation which consists of 85% capitation (pre-set fees per patient irrespective of number of services provided to each patient) and 15% fee-for-service (payment of a set fee for each service provided); and
- Salary-like payments: a fixed regular payment that is independent of quantity of service provided or number of patients.

However, some physicians are hesitant to consider these alternate payment models because they did not think the terms of the contracts will be fair or transparent.

Based on the findings of our work, and in light of current policy options, we present four key considerations (Box 1).

(Box 1) Key Considerations

1. Prioritize strategies that target physicians most likely to remain in rural settings (e.g., those with rural backgrounds), rather than incentivizing recruitment for physicians unlikely to remain long-term. For example, a significant proportion of the funds committed by the Government to fund/incentivise medical students and residents to work in rural Alberta could be reserved for people with rural backgrounds.
2. Facilitate the uptake of existing and new alternate payment models by advertising alternate payment options, highlighting features that may appeal to physicians, including flexibility to practice based on community needs, income security, and team-based care
3. Enhance non-financial incentives that could address practice challenges in rural areas. These could include funding towards provision of appropriate locum physician support, and clinics staffed with allied health professionals, which may be particularly attractive to new recruits.
4. Co-design and pilot new alternate payment models with rural physicians. Including rural physicians in the development and implementation of alternate payment models will ensure they are perceived to be flexible, fair, and tailored to the specific needs of the community. Newer payment models can integrate value-based payment or performance-based payment as an added incentive to practice in rural communities. However, accountability mechanisms will need to be put in place to minimize perverse incentives.

Description of the issue

The health disparities between urban and rural populations in Canada are well documented[1,2]. There are many factors influencing these health disparities, including limited access due to shortage of family physicians in rural communities.[2] Given these health disparities, having a strong primary care presence in rural communities is even more important. The proportion of the population living in rural communities in Alberta and Canada are 16.4%[3] and 18.7%[4], respectively. This is not matched by the proportion of family physicians practising in rural settings (12.9% and 13.1% respectively)[5]. One of the main drivers of this mismatch is the difficulty in recruiting and retaining physicians in these rural communities.[6]

The interest in physician recruitment and retention in rural or remote communities is not new. There are decades worth of evidence supporting strategies to increase and improve recruitment and retention, including global policy recommendations by the World Health Organization.[7] Factors influencing the decision to practice outside urban centers are abundant and multifaceted which includes personal, community, education, and policy factors. In addition, recent policy changes to

physician compensation have triggered concerns about recruitment and retention of physicians in Alberta. These policy changes include discussion of reduction in fee codes, and billing number restrictions, and unilateral termination of the master agreement with the Alberta Medical Association (AMA). Although many of these fee code reductions were reversed by the government in March 2020, and there is no current timeline for restricting billing numbers, this has led to additional tensions between physicians and the government; and uncertainty about remaining in rural or remote practice in Alberta for some physicians. [8]

Background

The overarching aim of this brief is to provide a clearer understanding of factors that influence rural and remote physician recruitment and retention; in particular, what role payment models (Box 2) may play in influencing physicians' decision to choose and stay in a rural community in Alberta.

(Box 2) **Definition of Payment Models**

Fee-For-Service (FFS): Physicians are paid a set fee for each service rendered

Alternate Payment Model (APM): All non-FFS models are considered alternate, and include:

- **Capitation:** Physicians are paid pre-determined fees per patient enrolled per period of time
- **Salary:** A fixed regular payment, typically paid on a monthly or bi-weekly basis independent of quantity of service provided or number of patients
- **Value based payment models (e.g., Pay-for-performance):** Physician payment is based on predetermined performance measure, outputs, or targets.

Traditionally, the Fee for Service (FFS) is the predominant payment model for primary care physicians in Alberta. Policy reform over the last two decades has led to the development of alternate payment models (APMs); including blended capitation and salary-based models for primary care physicians, which are aimed at improving recruitment and retention, access, quality, and fiscal sustainability. [9] Understanding the main factors of recruitment and retention can influence strategies to facilitate an increase in family physicians choosing rural practice, and simultaneously mitigate barriers. This policy brief also provides pragmatic considerations for Alberta Health and Alberta Health Services that could be considered to improve recruitment and retention of physicians in rural or remote settings, including exploring the role of alternate payment models[*].

[*] During this period there were tensions between primary care physicians and the government due to recent changes to physician compensation. The Alberta Government also enacted its initial public health restrictions due to COVID-19 during this time.

Findings of an Alberta study examining factors associated with recruitment and retention

A recent Alberta study interviewed 13 rural physicians on factors that influence recruitment and retention between February and May 2020[+]. Evidence from this study is summarized in figure 1.

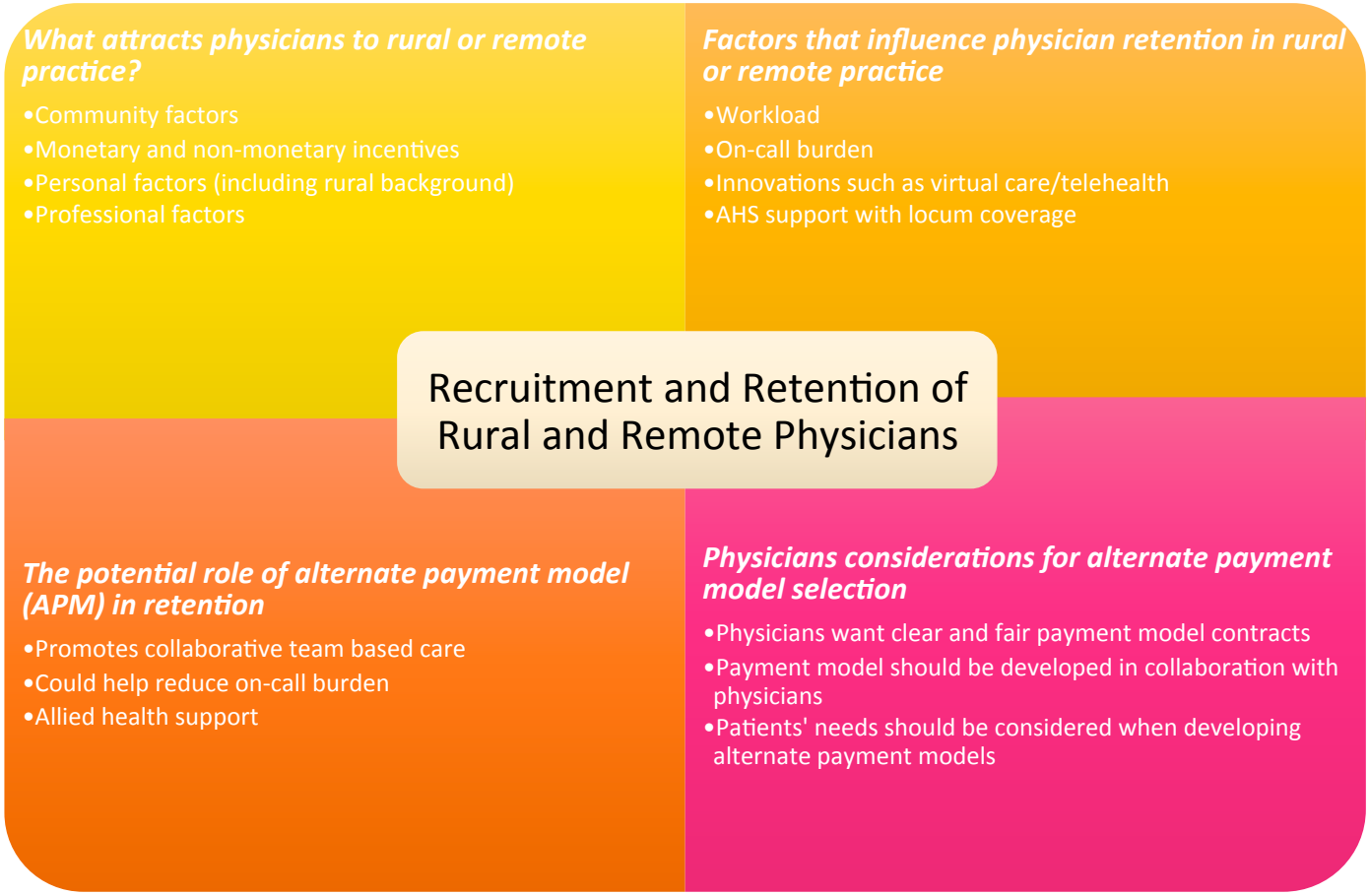

Figure 1. Facilitators and Barriers cited for Recruitment and Retention of Rural Physicians

[+] We acknowledge the critical role of primary care for rural Indigenous populations, whose needs are not fully met by primary care currently. We also acknowledge that Indigenous researchers, organizations and communities are best positioned to advance the needs of Indigenous communities. Thus, recruitment and retention for primary care for rural indigenous communities is beyond the scope of this current brief.

What attracts physicians to rural or remote practice?

In this study, physicians viewed the decision to pursue rural medicine as a "package deal" that included many factors. Of these factors, physicians emphasized that the broad scope of practice and having a rural background (e.g., graduated from rural high school, rural placement in medical school) shaped physician's decision of whether or not to stay in rural practice. Other reported factors that influence recruitment and retention included: (i) *community factors*, such as quality of life; (ii) *monetary and non-monetary incentives*, such as relocation support; and (iii) *professional factors*, including autonomy in practice and broad scope of practice.

Factors that influence physician retention in rural or remote practice:

Physicians in this study also identified several challenges associated with rural practice that hindered retention. The most commonly cited challenges were professional including workload and on-call burden, inadequate access to specialists, and equipment that was not up to date. Physicians further expressed a combination of factors that could improve retention. *Financial incentives* were viewed as helpful in recruitment, but insufficient to retain doctors over the longer term. Physicians expressed that government could undertake a number of actions to help them feel supported, which would, in turn, help them to tolerate the challenges associated with rural practice. Suggestions included innovative healthcare delivery options, such as virtual care and support from AHS around locum coverage. This was particularly the case for physicians practicing within FFS payment models who needed to cover overhead while on holidays.

The potential role of alternate payment model (APM) in retention

Physicians generally felt that alternate payment models (APMs) have some role to play in attracting and retaining rural physicians. In these cases, physicians perceived that certain attributes of APMs might appeal to doctors considering a move to rural practice, including facilitating a collaborative, "team-based" care model. They described how collaboration with other health care professionals in clinical practice could spread out the workload, such that more minor issues could be dealt with by nurse practitioners, or through phone follow-ups with physicians, while more serious issues could be reserved for in-person physician appointments.

Physicians' considerations for alternate model selection:

A few physicians expressed that they would not be interested in APMs, as they were concerned that APM contracts might be vague or might be cancelled without due consultations. They further expressed some concerns about potential loss of income, flexibility, and autonomy. Physicians emphasized the importance of developing "fair contracts" that were clear, simple, and adequately compensated. Physicians also emphasized that APMs ought to be developed in collaboration with physicians according to the specific needs of the community to account for peculiarities such as population fluctuations or a more complex patient panel in some locales.

Recent policy announcements to address recruitment and retention of rural and remote physicians

The government has announced recent changes and commitments to address highlighted challenges with physician recruitment and retention in rural and remote Alberta. This includes:

- Government commitment of $6 million to fund medical students to work in rural Alberta over the next three years.[10]
- Increased investment in Rural Health Professions Action Plan (RhPAP) to ~$9 million annually. RhPAP supports the efforts of rural Albertans to maintain an accessible health workforce and plays a key role in attracting and retaining health providers to rural communities in Alberta.[10]
- The reversal of changes to physician compensation and billing that might have discouraged physicians practicing in rural or remote areas from leaving Alberta.[11]
- Billing number restrictions as a potential means of redirecting physicians to high need areas such as rural and remote Alberta. The province of New Brunswick experimented with billing number restriction for over 15 years, but recently eliminated this policy because it did not address physician supply challenges in rural or remote areas. Instead, it restricted the number of physicians practicing in the province, mobility of physicians, and made recruitment more difficult. [12,13.] While steps have not been taken to implement this in Alberta, available evidence suggest that this may have limited impact on recruitment and retention in rural areas. Instead, it may drive physicians to practice outside Alberta.

Policy Options for Consideration

In light of our findings and current policy directions, we propose four key policy recommendations for consideration. These recommendations are grouped into two categories: (i) simpler and short-term options and (ii) more complex and long-term options.

Simpler/ short-term options (priority interventions)

1. *The government should prioritize physicians with rural backgrounds or training for new recruitment strategies.* Recruitment strategies should target physicians most likely to remain in rural settings, rather than incentivizing recruitment for physicians unlikely to remain in the long-term. In particular, this consideration should inform part of the criteria for allocating additional resources committed by the government to fund/incentivize medical students and residents to work in rural Alberta. Medical students and residents with rural backgrounds could be prioritized to receive a significant proportion of the funds committed. Building a pipeline of physicians most likely to remain in rural settings would also include increasing positive exposure to rural experiences during medical school training, and increasing the number of rural primary care residency positions.

2. *Alberta Health and Alberta Medical Association (AMA) can facilitate the uptake of existing and new alternate payment models through advertisement and effective communication*. Currently, a relatively small proportion (17%) of Alberta's physicians are paid through APMs, [14] whereas in other provinces more than 40% of physicians are compensated (partially or fully) through APMs. [15] The government should advertise alternate payment options, ideally in collaboration with the AMA, by providing clear and concise information on APM benefits that may appeal to physicians, including the potential for alternate payment models, to help alleviate some challenges associated with rural practice, by providing flexibility and potential for team-based care, as well as contract expectations for physicians.

Long-term options

3. *Non-monetary incentives such as professional support should be provided by AHS, Alberta Health and the AMA.* Non-monetary incentives identified by physicians included professional support (e.g.: additional physician support including locums) to ensure on-call hours are manageable and to enable holidays; appropriate access to specialist support; and robust virtual health. For example, Alberta Health Services currently owns and operates clinics in some rural towns, but this does not extend to all rural and remote towns that might need the support. Allied health professionals are also available within primary care networks, but not enough to enable a comprehensive team approach in all primary care clinics. [16]

   To ensure that on-call hours are manageable, AHS, Alberta Health and the AMA should work with RhPAP to review and expand current locum coverage. In addition, with adequate funding

from the government, AHS could also facilitate provision of appropriate locum support, and AHS-operated community care clinics staffed with allied health professionals in rural and remote areas with the highest needs. Given that Alberta has more rural hospitals than other provinces per capita, including many with low occupancy rates, one consideration would be to modify these under-used hospitals into comprehensive community care centers staffed with multi-disciplinary teams.

4. *New alternate payment models can be co-designed and piloted with rural physicians to encourage voluntary participation by rural physicians in APMs.* A new type of alternate funding model can be a blended package with (i) a contracted base rate; (ii) non-monetary incentives such as clinics staffed with a multi-disciplinary team of allied health professionals; and (iii) an additional rate that is tied to defined metrics related to physician retention and improved care for patients, and developed by physicians. Piloting other alternate funding models that integrate value-based payment could be an alternative to restricting physician billing numbers by providing an added incentive to practice in rural communities.

   Such funding options must be supported with better data systems to monitor/report physician performance fairly/accurately and physician participation should be voluntary. However, uptake can be improved by involving rural physicians in the development and implementation of alternate payment contracts. This will ensure that the payment models and or accountability mechanisms are fair and responsive to the needs of rural/remote physicians and the specific needs of the community.

Conclusion

A range of factors influences both recruitment and retention, including rural background of physician and/or spouse; professional factors including broad scope of practice; desirable recreational/social activities, previous rural background and experience, and monetary and non-monetary incentives. There are also many challenges associated with rural and remote practice that may impede retention, including practice and professional challenges, family-related and personal factors, challenges related to patient care, community challenges, and morale. Future recruitment and retention strategies should be prioritized for physicians with rural backgrounds or previous rural experience and should include strategies to mitigate challenges faced in rural practice.

Evidence suggests that though payment models are unlikely to address all these challenges, they can be part of the package deal that includes non-monetary incentives and other strategies to address challenges faced in rural practice, including time pressures. Alternate payment models can facilitate a collaborative, “team-based” care model, where allied health professionals deal with issues within their scope of practice. Similarly, non-monetary incentives such as support with locum physicians may help alleviate challenges with on-call burden.

REFERENCES

1. Soles TL, Ruth Wilson C, Oandasan IF. Family medicine education in rural communities as a health service intervention supporting recruitment and retention of physicians: Advancing Rural Family Medicine: The Canadian Collaborative Taskforce. Canadian family physician Medecin de famille canadien. 2017;63(1):32-38.
2. Subedi R, Lawson Greenberg, T., and Roshanafshar, S. Does geography matter in mortality? An analysis of potentially avoidable mortality by remoteness index in Canada. Health Reports. 2019;30(5):3-15.
3. Government of Alberta. 2016 Census of Canada - Population and Dwelling Release. In: Information OoSa, ed2017.
4. Statistics Canada. Census Indicator Profile, based on the 2016 Census short-form questionnaire, Canada, provinces and territories, and health regions (2017 boundaries). In: 17-10-0122-01 T, ed2016.
5. Canadian Institute for Health Information. Physicians in Canada, 2018. Ottawa, ON: Canadian Institute for Health Information, 2019.
6. Fleming, Patrick, and Mari-Lynne Sinnot. "Rural physician supply and retention: factors in the Canadian context." *Canadian Journal of Rural Medicine*, vol. 23, no. 1, 2018, p. 15+.
7. World Health Organization. Increasing access to health workers in remote and rural areas through improved retention: Global policy recommendations. Geneva, Switzerland: WHO Press;2010.
8. CBC News. Alberta government plans sweeping changes through 2 omnibus bills. Michelle Bellefontaine; 2019. Available from: https://www.cbc.ca/news/canada/edmonton/alberta-omnibus-bills-1.5338632
9. Alternative Relationship Plans (ARP). Government of Alberta. Available: www.alberta.ca/alternative-relationship-plans.aspx (accessed 2020 July 30).
10. $6M for medical students to work in rural Alberta (2021) Available from: https://rhpap.ca/news-events/6m-for-medical-students-to-work-in-rural-alberta/
11. CBC News. Alberta government backs down on forced changes to the way doctors bill province. Drew Anderson; 2020. Available from: https://www.cbc.ca/news/canada/calgary/alberta-doctors-complex-modifiers-changes-pandemic-1.5500748
12. CBC News. Province to eliminate physician billing number system. Cassidy Chisholm; 2019. Available from: https://www.cbc.ca/amp/1.5301606
13. CMAJ News. New Brunswick seeks better system for physician recruitment to rural areas. Brain Owens; 2018 D17;190:E1491-2. doi: 10.1503/cmaj.109-5693: Available from: https://www.cmaj.ca/content/190/50/E1
14. Physicians in Canada, 2019. Ottawa: Canadian Institute for Health Information; 2020. Available www.cihi.ca/sites/default/files/document/physicians-in-canada- report-en.pdf (accessed 2020 Aug. 4).
15. Profiling physicians by payment program: a closer look at three provinces [executive summary]. Analysis in Brief. Ottawa: Canadian Institute for Health Information; 2010. Available: https://secure.cihi.ca/free_products/physicians_payment_aib_2010_e.pdf (accessed 2020 July 30).
16. Alberta Health Services Annual Report 2018-2019: Available: https://www.albertahealthservices.ca/assets/about/publications/2018-19-annual-report-web-version.pdf (accessed 2021 July 9).

Authors

Yewande Ogundeji, PhD

Postdoctoral Fellow in Health Economics

O'Brien Institute for Public Health

University of Calgary

Braden Manns, MD, MSc, FRCPC

Professor in Medicine and Health Economics

O'Brien Institute for Public Health

University of Calgary

Editorial board

Lynn McIntyre, CM MD MHSc FRCPC FCAHS

Professor Emerita, Community Health Sciences

Cumming School of Medicine

University of Calgary

Christine Friedenreich, PhD FCAHS FRSC

Associate Scientific Director, O'Brien Institute

University of Calgary

About *Health Horizons: Key Policy Issues in Alberta and Beyond*

The Health Horizons Policy Briefs Series is a collaboration between the University of Calgary's O'Brien Institute for Public Health and the School of Public Policy. It aims to provide focused context and options for a province and nation recovering from the COVID-19 pandemic. Experts in their respective fields, working with an experienced editorial board, have developed timely briefs addressing key issues in health and healthcare policy at the local, regional and federal levels. Additional expert briefs cover topics ranging from access to care and specialist payment models, to the health of Indigenous communities and equity for racialized patients. They lay out a roadmap for how Calgary, Alberta, and Canada can rebuild stronger.

About the O'Brien Institute for Public Health

The O'Brien Institute membership is multidisciplinary, and includes a combination of knowledge generators (who initiate and conduct research projects) and knowledge users (who incorporate new knowledge into policy and practice). O'Brien Institute members have their appointments within 17 Departments of the Cumming School of Medicine, and many are appointed within other University of Calgary Faculties and Schools, including the Faculty of Law, the Faculty of Social Work and the School of Public Policy, among others. Members are also employed by Alberta Health Services, municipal and provincial government agencies, community service organizations, and other educational institutions.

O'Brien Institute for Public Health
University of Calgary Teaching, Research and Wellness Building
3280 Hospital Drive NW
Calgary, Alberta T2N 4Z6
Email: iph@ucalgary.ca

About the School of Public Policy

The School of Public Policy has become the flagship school of its kind in Canada by providing a practical, global and focused perspective on public policy analysis and practice in areas of energy and environmental policy, international policy and economic and social policy that is unique in Canada.

The mission of The School of Public Policy is to strengthen Canada's public service, institutions and economic performance for the betterment of our families, communities and country. We do this by:

Building capacity in Government through the formal training of public servants in degree and non-degree programs, giving the people charged with making public policy work for Canada the hands-on expertise to represent our vital interests both here and abroad;

Improving Public Policy Discourse outside Government through executive and strategic assessment programs, building a stronger understanding of what makes public policy work for those outside of the public sector and helps everyday Canadians make informed decisions on the politics that will shape their futures;

Providing a Global Perspective on Public Policy Research through international collaborations, education, and community outreach programs, bringing global best practices to bear on Canadian public policy, resulting in decisions that benefit all people for the long term, not a few people for the short term.

The School of Public Policy relies on industry experts and practitioners, as well as academics, to conduct research in their areas of expertise. Using experts and practitioners is what makes our research especially relevant and applicable. Authors may produce research in an area which they have a personal or professional stake. That is why The School subjects all Research Papers to a double anonymous peer review. Then, once reviewers comments have been reflected, the work is reviewed again by one of our Scientific Directors to ensure the accuracy and validity of analysis and data.

The School of Public Policy
University of Calgary, Downtown Campus
906 8th Avenue S.W., 5th Floor
Calgary, Alberta T2P 1H9
Phone: 403 210 3802

About this publication

Date of Issue

February 2022

Media Inquiries and Information

For media inquiries, please contact Morten Paulsen at 403-220-2540, or Pablo Fernandez at 403-836-4232.
Policyschool.ca, and obrieniph.ucalgary.ca contain information about events, publications, and staff.

Development

For information about contributing to the O'Brien Institute for Public Health, please contact Sharon DeBoer-Fyie by telephone at 403-852-6638 or by email at sharon.deboerfyie@ucalgary.ca.

For information about contributing to The School of Public Policy, please contact Catherine Scheers by telephone at 403-210-6213 or by e-mail at catherine.scheers@ucalgary.ca.

Distribution

Publications are available online at www.obrieniph.ucalgary.ca and www.policyschool.ca.

Disclaimer

The opinions expressed in these publications are the authors' alone and therefore do not necessarily reflect the opinions of the supporters, staff, or boards of The School of Public Policy.

Copyright

ISSN 2560-8312 The School of Public Policy Publications (Print)
ISSN 2560-8320 The School of Public Policy Publications (Online)

OTHER POLICY PUBLICATIONS BY THE O'BRIEN INSTITUTE

Raising Canada: The impact of COVID-19
Children First Canada, O'Brien Institute for Public Health, Alberta Children's Hospital Research Institute | 2020

A healthy Alberta through healthier policies: Provincial election primer
O'Brien Institute for Public Health and the Alberta Public Health Association | 2019

Public health matters: Federal election primer
O'Brien Institute for Public Health and the Alberta Public Health Association | 2019

Election 2019: A vote for children is a vote for Canada
Children First Canada and the O'Brien Institute for Public Health | 2019

Raising Canada: A report on children in Canada, their health and wellbeing
Children First Canada and the O'Brien Institute for Public Health | 2018

Economic commentary on Raising Canada: A case for investing in children
Children First Canada and the O'Brien Institute for Public Health | 2018

Raising Canada: Recovering from the impacts of COVID-19
Children First Canada, O'Brien Institute for Public Health, Alberta Children's Hospital Research Institute | 2021

RECENT PUBLICATIONS BY THE SCHOOL OF PUBLIC POLICY

Reversing the Decline of Canadian Public Markets
Bryce C. Tingle and J. Ari Pandes | April 2021

The U.K. Applies to Join CPTPP: What are the Implications for Canada?
Hugh Stephens | April 2021

Social Policy Trends: The Minimum Wage and Housing Affordability
Ron Kneebone and Margarita Wilkins | April 2021

The Oil Production Response to Alberta's Government-Mandated Quota
Amir Hallak, Adam Jensen, Gilbert Lybbert and Lucija Muehlenbachs | March 2021

Environmental Regulation and the COVID-19 Pandemic: A Review of Regulator Response in Canada
Victoria Goodday | March 2021

Energy and Environmental Policy Trends: Valuing Alberta's Renewable Electricity Program
Sara Hastings-Simon and Blake Shaffer | March 2021

Evidence-Based and Community Engaged Pandemic Responses for Calgary
Jessica Kohek, Meaghan Edwards, Katrina Milaney and Jennifer D. Zwicker | March 2021

The Impact of Property Taxation on Business Investment in Alberta
Bev Dahlby, Ergete Ferede and Mukesh Khanal | March 2021

Social Policy Trends: First Admissions to Homeless Shelters
Ali Jadidzadeh and Ron Kneebone | March 2021

Agricultural Policy Trends: Did Covid Support for Beef Cattle Producers Hit the Mark?
Karen Spencer | March 2021