

Focused policy is needed to reduce inequities in primary health care access for children

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■ Cite as: *CMAJ* 2018 April 9;190:E412-3. doi: 10.1503/cmaj.180220

See related article at www.cmaj.ca/lookup/doi/10.1503/cmaj.170676

In a linked population-based study,¹ Nakhla and colleagues show that among Quebec youth with new-onset diabetes, having no primary care visits in two years is associated with a more than 30% higher likelihood of presenting to medical services with potentially life-threatening diabetic ketoacidosis. This study serves to highlight the importance of focusing on interventions that are aimed explicitly at ensuring equitable access to high-quality primary care. Strong primary health care systems have been associated with increased equity in important population health outcomes across many jurisdictions.² Although the findings of ecologic studies likely also reflect the importance of other societal influences, such as economic and policy approaches that support investments in primary care, primary care reforms that fail to address existing disparities in access to care are unlikely to achieve equitable outcomes.

Some of the linked study's descriptive findings warrant attention. More than 40% of the cohort of 3014 children and youth had no visits to a "usual care provider" in the two years preceding their diabetes diagnosis. The Canadian Paediatric Society and the College of Family Physicians of Canada recommend annual primary care visits for preschool children and at least biennial ones for school-aged children. Not using primary care is not equivalent to having no access to care, and additional data (e.g., from surveys) would be required to establish rates of access. However, barriers to care can be inferred from the findings of additional analyses. Although the study's main analysis used a definition of usual provider of care as any pediatrician or family physician who was consulted in the two years to seven days before the diabetes diagnosis (to exclude the period when many of the cohort would have been showing symptoms related to diabetes onset), a sensitivity analysis that included providers seen up to one day before diagnosis showed similar estimates. The findings may also relate to parental beliefs or knowledge with respect to recognition of health problems and health care-seeking behaviour. Yet, a similar association between lack of primary care contact and diabetic ketoacidosis at diabetes presentation in children has been shown in other settings.³

Although 93% of Canadians report having a regular doctor or place of care, in a recent international comparison,⁴ Canada

KEY POINTS

- Access to timely primary care can mediate important child health outcomes.
- Across health systems, despite universal health care insurance, children experience inequities in both access to timely primary care and health outcomes related to family socioeconomic status.
- Without an explicit focus on health equity, current reform efforts in primary care across Canadian provinces may do nothing to address and even worsen these disparities.

ranked last and second-last of 11 Organisation of Economic Co-operation and Development countries on measures of access to same- or next-day primary care appointments and after-hours care. Quebec is below the national average for both metrics.⁴ Whether or not important socioeconomic disparities drive these access measures is not well understood. In the linked study, although children from lower income neighbourhoods were independently more likely to have diabetic ketoacidosis on presentation, no baseline characteristics linking socioeconomic with primary care status were provided.¹ However, other studies conducted in Beveridge-style universal insurance health care systems have suggested that there are important socioeconomic disparities associated with access to timely primary care.⁵⁻⁹ Canadian studies using health administrative data and primarily census-based measures of socioeconomic status have shown that children from more deprived neighbourhoods or vulnerable families are less likely to be fully immunized⁵ or attend routine developmental surveillance visits.⁶ They are also more likely to use emergency departments for nonemergency conditions or to be admitted to hospital for conditions considered to be "ambulatory care sensitive"^{7,8} — that is, conditions for which timely care could prevent the need for admission to hospital. The strongest evidence on the relation of self-reported access to care and deprivation comes from a recent British study that used an annual national household survey on multiple dimensions of access.⁹ In this study population involving over 9 million children, 56.8% of families of children in the most deprived neighbourhoods compared with 7.7% of

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those in the least deprived ones, reported having difficulties in seeing or speaking with their general practitioner or nurse. The mechanisms by which aspects of socioeconomic status (e.g., education, income) influence care-seeking and subsequent outcomes cannot be explored in observational studies. However, they provide a stark reminder that the mediating effect of access to health care on children's health outcomes remains inequitable, despite a context of universal health care insurance.

How should health systems address these inequities? The limited evidence on policies and programs aimed at general improvement of access to primary care or other measures of the quality of primary health care suggests that they will not achieve goals of equity and may worsen disparities. An investigation of changes in early primary care follow-up of newborns after implementation of professional guidelines to improve detection of hyperbilirubinemia in Ontario showed that gains in timely follow-up were seen predominantly in the highest-income families such that the pre-existing disparities actually increased.¹⁰ Similar findings from an observational study evaluating the effect of a pay-for-performance primary care program to incentivize childhood immunizations in Manitoba showed modest improvements on immunization coverage overall but did not change socioeconomic differences that were noted at baseline.¹¹ An important analysis of the populations not enrolled in primary care reform models in Ontario that, among other things, seek to improve multiple dimensions of access to care, found those who were the most socially vulnerable (low-income and newcomer populations) were less likely to be enrolled and had worse measures of quality of care.¹² More direct evidence on the importance of equity-focused policy is reflected in a recent comparative study that compared amendable mortality rates in adults in Ontario and England, and found a significant improvement of 10% in the relative gap in mortality by income in England compared with Ontario.¹³ At the time of the study, England had an explicit primary care policy focus that targeted health inequality reduction,¹³ whereas primary care reform in Ontario focused on payment and organizational reform aimed at improving overall access (in addition to increasing screening and other specific services) for the population as a whole.

Primary care reform continues to be an important policy focus across a number of Canadian provinces. Nakhla and colleagues'

study serves as an example of one of many important child health outcomes that are both sensitive to access to timely care and independently related to socioeconomic status. Achieving equity in access and, ultimately, in health outcomes will require an explicit focus — both in the specific policies and programs that are implemented and in ongoing performance measurement.

References

1. Nakhla M, Rahme E, Simard M, et al. Risk of ketoacidosis in children at the time of diabetes mellitus diagnosis by primary caregiver status: a population-based retrospective cohort study. *CMAJ* 2018;190:E416-21.
2. Macinko J, Starfield B, Shi L. The contribution of primary care systems to health outcomes within Organization for Economic Cooperation and Development (OECD) countries, 1970–1998. *Health Serv Res* 2003;38:831-65.
3. Usher-Smith JA, Thompson MJ, Sharp SJ, et al. Factors associated with the presence of diabetic ketoacidosis at diagnosis of diabetes in children and young adults: a systematic review. *BMJ* 2011;343:d4092.
4. How Canada compares: results from the Commonwealth Fund's 2016 international health policy survey of adults in 11 countries. Ottawa: Canadian Institute for Health Information (CIHI); 2017. Available: www.cihi.ca/en/commonwealth-fund-survey-2016 (accessed 2018 Feb. 20).
5. Martens PJ, Chateau DG, Burland EMJ, et al.; PATHS Equity Team. The effect of neighborhood socioeconomic status on education and health outcomes for children living in social housing. *Am J Public Health* 2014;104:2103-13.
6. Guttman A, Cairney J, MacCon K, et al. Uptake of Ontario's enhanced 18-month well-baby visit: an AHRQ report. Toronto: Institute for Clinical Evaluative Sciences; 2016. Available: www.ices.on.ca/Publications/Atlases-and-Reports/2016/Well-Baby (accessed 2018 Feb. 20).
7. Guttman A, Shipman SA, Lam K, et al. Primary care physician supply and children's health care use, access, and outcomes: findings from Canada. *Pediatrics* 2010;125:1119-26.
8. Roos LL, Dragan R, Schroth RJ. Pediatric ambulatory care sensitive conditions: birth cohorts and the socio-economic gradient. *Can J Public Health* 2017; 108:e257-64.
9. Cecil E, Bottle A, Cowling TE, et al. Primary care access, emergency department visits, and unplanned short hospitalizations in the UK. *Pediatrics* 2016; 137:e20151492.
10. Darling EK, Ramsay T, Manuel D, et al. Association of universal bilirubin screening with socioeconomic disparities in newborn follow-up. *Acad Pediatr* 2017;17:135-43.
11. Katz A, Enns JE, Chateau D, et al. Does a pay-for-performance program for primary care physicians alleviate health inequity in childhood vaccination rates? *Int J Equity Health* 2015;14:114.
12. Kiran T, Kopp A, Glazier RH. Those left behind from voluntary medical home reforms in Ontario, Canada. *Ann Fam Med* 2016;14:517-25.
13. Cookson R, Mondor L, Asaria M, et al. Primary care and health inequality: difference-in-difference study comparing England and Ontario. *PLoS One* 2017;12:e0188560.

Competing interests: None declared.

This article was solicited and has not been peer reviewed.

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