

Oral presentation

OP-011 A NON-PARAMETRIC APPROACH TO SELECTION BIAS: EXAMINING THE ORGANIZATIONAL EFFECT OF FAMILY MEDICINE GROUPS ON ACCESS TO PRIMARY CARE AMONG DIABETICS IN QUEBEC

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Introduction Within Canada, Quebecers experience the greatest barriers in accessing primary care with over 25% of the population without a regular family physician and the highest rate of emergency department (ED) use. Family Medicine Groups (FMGs) were introduced in 2002 to provide greater access to care, namely for individuals with chronic conditions such as diabetes. Some key characteristics of the FMG organizational reform are: (1) it is based on voluntary physician take-up; (2) its regional variation in implementation; (3) its gradual deployment across the province. These factors may produce selection bias between early and late physician implementers.

Objectives To determine whether the regional rate of avoidable ED visits among diabetics co-varies with FMG wave of implementation distinguishing between early and late physician adopters of the model.

Methods An ecological analysis will be conducted to meet this objective. The outcome is access to primary care measured by the regional rate of avoidable ED visits among diabetics between 2003 and 2012. Regions are defined on an urban to rural continuum according to each administrative region's distance from the province's main city centers, Montreal and Quebec City. The study will be conducted using linked administrative health databases for which access has already been granted. Non-parametric spline regression will be used to distinguish between waves of FMG implementation. The spline knots, denoting a significant change in the rate of avoidable ED visits, will be estimated from the data. To improve internal validity, the analysis will incorporate a control series examining trauma visits to the ED that should not be affected by the FMG reform.

Results The analyses are in progress and results are expected by the end of May.

Conclusion This study will be the first to empirically define waves of FMG implementation and their effects on access to primary care among diabetics. These findings will inform future studies examining access to primary care at an individual patient level where failure to control for FMG waves may produce biased estimates of the reform's organizational effect.