

Title

Developing risk-adjusted primary care capitation payments in Ontario, Canada using the CIHI population grouper.

Introduction

In 2022 an agreement was reached, between the Ontario Ministry of Health and the Ontario Medical Association, to incorporate a risk-adjustment factor into the capitation payments for Family Health Organizations (FHOs), that uses the Canadian Institute for Health Information (CIHI) population grouping methodology. FHOs are the most common primary care physician payment model in Ontario. This group care model reimburses physicians via a combination of capitation payments, fee-for-service fees, and incentive premiums. The current capitation payments are based solely on the age and sex of the patients on their roster. The CIHI population grouper uses person level diagnostic information available in administrative data to classify people based on their morbidity level and health conditions, to facilitate prediction of their expected resource use and other outcomes. A significant implementation challenge is that due to a delay in the availability of data diagnostic information from the immediately previous year is not available at the start of a fiscal year and therefore risk adjustment measures must be based on data from two years prior to the payment year. This research evaluates the use of the CIHI grouper for risk adjusting FHO capitation payments.

Methods

The primary care physician service utilization of all residents of Ontario in fiscal year 2022/23 (April 1, 2022 to March 31, 2023) was modelled on their age and sex; and on their age, sex, and health conditions as identified by the CIHI population grouper in 2020/21 and in 2021/22. Based on this model each person was assigned to one of five Primary Care Utilization Bands (PCUB) which indicated their predicted level of primary care resource use. Next, the total primary care utilization of the patients on each physician's roster in fiscal year 2022/23 was modelled on the distribution of patients by age and sex; and age, sex and PCUB.

Results

The population model that included CIHI population grouper variables had an R^2 of 10%, compared to 0.2% based on age and sex alone. This was 1% less than the models based on CIHI grouper variables from one year immediately prior to the outcome variable. At the physician roster level, 77% of the variation in utilization was explained by age, sex, and 2020/21 PCUBs while 55% was explained by age and sex alone (the current approach). This was 3% less than the model using 2021/22 PCUBs.

Discussion

Adjusting FHO capitation payments using the CIHI population grouper would bring remuneration levels more aligned with the expected primary care utilization of rostered patients. Besides resulting in more equitable physician compensation, this would also

provide more of an incentive for physicians to enrol higher needs patients. There is minimal impact of using morbidity measures from two years prior compared to one year prior to the payment year.