

# Electronic Patient Portals: Impact on traditional health care usage & provider clerical workload

K Ferguson<sup>1,2</sup>, M Fraser<sup>2</sup>, M Tuna<sup>3</sup>, C Bruntz<sup>4</sup>, S Dahrouge<sup>1,5</sup> <sup>1</sup>University of Ottawa, <sup>2</sup>West Carleton Family Health Team, <sup>3</sup>OHRI, <sup>4</sup>QIDSS, <sup>5</sup>Bruyère Research Institute

## Background

Electronic portals allow patients to view test results, renew prescriptions, book appointments & message providers. Portals are expected to contribute to more authentic collaboration between clinicians and patients, but their impact on patient usage of traditional health care services and provider clerical workload is unclear.

## Objectives

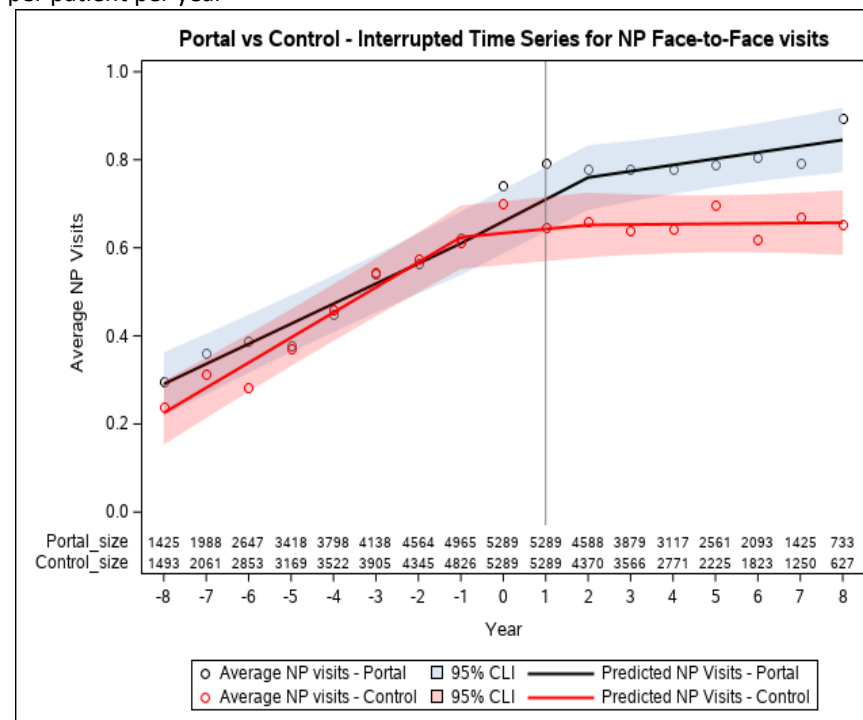
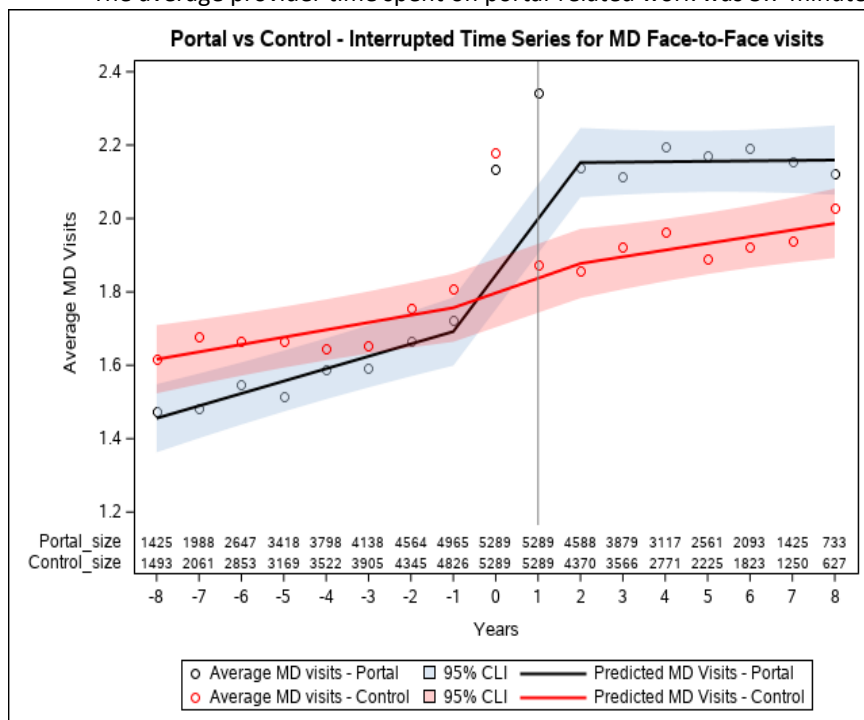
- Assesses the impact of electronic patient portal on traditional face-to-face patient encounters in primary care.
- Estimate the impact of an electronic patient portal on the clerical workload of primary care providers.

## Methods

- EMR based, propensity-score matched, longitudinal open-cohort evaluation limited to individuals  $\geq 18$  years of age.
- Family health team practice in Southeastern Ont.
- Data: age, sex, education, income, FHT enrolment, and diagnoses at index date, and # medications, and # face-to-face encounters in previous year.
- Outcomes: # face-to-face visits with physicians (MD), nurse practitioners (NP) or physician assistants (PA) annually for at least one, and up to 8 years pre and post index date.
- Collection of providers time spent on secure messaging

## Results

- 7247 eligible portal and 7647 eligible potential controls were identified, 5289 patients were matched one to one
- Balance tables show that propensity-matched patients were similar with respect to age, diagnoses, medications and usage in the 12 months prior to the index date
- The average provider time spent on portal-related work was 5.7 minutes per patient per year



\* Years = Year from index data (Time of portal registration for portal patients and corresponding year for controls)

## Conclusions

- Portal enrollment led to an **increase in annual # of MD and NP/PA encounters.**
- Provider time spent on portal-related work was < 6 min per patient per year. This may be significant when considered in the context of an entire primary care practice.
- Portals have tremendous potential to truly engage patients as partners in their own health care, but their impact on usage of traditional health care services and clerical burden must also be considered.

West Carleton