MEASURING AND INCENTIVIZING ACCESS TO PRIMARY CARE:

Studying access in Ontario and the pay-for-performance “Access Bonus”

Kamila Premji, MD, CCFP, PhD Candidate

Presented at the Annual Health Policy Conference
UBC Centre for Health Services & Policy Research
March 7, 2019
Vancouver, BC
Outline

• Overview: Ontario’s primary care reforms and access
• Measuring access: Broadening our metrics
• The pay-for-performance (P4P) “Access Bonus”
Acknowledgements and Disclosures

- Part 1: Clinician Scholars Fellowship, University of Ottawa.
  - Premji K, Ryan BL, Hogg WE, Wodchis WP

- Part 2: PSI Research Trainee Fellowship, Unnur Brown Award for Leadership in Health Policy, ON-MOHLTC INSPIRE PHC2
Context

Pre-primary care reform in Canada
Recession fallout pre-primary care reforms: A worrisome state of affairs in Canada

“During the 1980s and 1990s, primary health care reform in Canada was characterized by false starts, myriad small-scale pilot and demonstration projects, futile advocacy of fundamental system-wide change, and failure to embrace the alternative strategy of progressive incremental change.” - Hutchinson 2011, referencing Hutchison, Abelson, and Lavis 2001

By the early 2000s....
Doctor shortage hitting Ontario

LISA PRIEST
PUBLISHED FEBRUARY 15, 2001

The problem of physician-starved Canadian communities has hit Ontario hard, with roughly one in five people saying they had trouble last year finding a family doctor.

That figure jumps to 26 per cent for patients living outside major urban centres, according to the telephone survey of 662 adults done in December by the Ontario
Ontario’s primary care reforms

• Aims of primary care reforms:
  – Improve patient access to primary care
  • Grow the primary care workforce
  • Key indicator: attachment
  – Improve the quality and continuity of primary care
  – Improve provider and patient satisfaction
  – Increase cost-effectiveness

References: MOHLTC 2011; Sweetman & Buckley 2014; Kralj & Kantarevic 2012
Ontario’s primary care reforms

• Strategies:
  – Transition from the fee-for-service model to a capitation-based payment model
  – Transition from solo or small groups to team-based care
  – IT support

Ontario’s primary care reforms

– Financial incentives:
  • Pay-for-performance – quality, services:
    – Bonuses for preventive care targets
    – Bonuses for targets on medical services (prenatal care, procedures)
  • Other financial incentives around access:
    – Officially enrolling (“rostering”) patients
    – Mandatory after-hours services
    – Bonus for home visits
    – Pay-for-performance: Access Bonus
Did Ontario’s primary care reforms improve access?

– Grow the primary care workforce
– More patients with a family doctor
– Access to primary care when needed
  • Commonwealth Fund Study
  • Health Quality Ontario
  • Cost-effectiveness
OUR STUDY: PART ONE
When we measure access...

Are we asking the right questions?
• Commonwealth Study, Health Quality Ontario: same day/next day
  – Canada/ON rank very poorly

• Many dimensions and definitions of access in the literature
Reference: Levesque et al 2013
How do Ontario primary care patients perceive access to primary care?

• Cross-sectional study
• Multiple dimensions of access
• Data source: Quality & Costs of Primary Care (QUALICO PC) Patient Experiences Survey – Ontario arm
  – 11 dimensions
Results

Composite Access Score

- Highest possible score 2.0, lowest possible score 1.0
- Mean Composite Access Score: 1.78 (SD 0.16)
  - Lowest score: 1.1
  - Highest score: 2.0
Results

Acceptability of appointment: Although 68% waited more than 1 day…

- 96% stated it was easy to obtain their appointment
- 87% said they obtained that appointment as soon as they wanted
PART TWO: ACCESS AND “P4P”
RECALL: Ontario’s primary care reforms

– Financial incentives:
  • Pay-for-performance for care indicators:
    – Bonuses for preventive care
    – Bonuses for certain medical services (prenatal care, procedures)
  • Other financial incentives around access:
    – Officially enrolling (“rostering”) patients
    – Mandatory after-hours services
    – Bonus for home visits
    – Pay-for-performance: Access Bonus
How the Access Bonus works

Maximum possible Access Bonus based on patient roster

Dollar value of patients’ “outside use” visits (e.g., walk-in (WI) clinics). Emergency Department (ED) visits do not count

Final Access Bonus payment
How the Access Bonus works

- Provincial spending on the Access Bonus to date > $200M

Criticisms of financial incentives in health care

• Are financial incentives necessary in health care?
  – Already high intrinsic motivation

• Unintended, negative consequences?
  – Decreased provider professionalism
  – Reduced intrinsic motivation
  – Increased health inequities
  – Excessive focus on incentivized conditions at the expense of other important conditions or interventions

Criticisms of financial incentives in health care

- Evidence that financial incentives improve quality of care in primary care settings is lacking
  
  - Two Cochrane reviews, a systematic review, a cost-benefit analysis, multiple Ontario studies: Little to no improvement in quality
  
  - Evidence of unintended negative consequences (disrupted continuity of care and detrimental effects on non-incentivized aspects of care in the U.K.)
  
  - Evidence of decreased quality of care once incentives are removed

Criticisms of the Access Bonus

– Patient factors
  • Accountability, choice, convenience

– Physician factors
  • ED use doesn’t “count”
  • Deroster high “outside users”
  • Rural vs Urban
    (“Accident of geography”)
  • Practice amalgamation

– Is it actually resulting in good access?

Does Access Bonus achievement correlate with patient-reported access to primary care?

- Builds on our work on access from patient perspective and as a multidimensional metric, and by Glazier et al on the Access Bonus

- Access Bonus strongly correlates with rurality
  - Deeper dive into urban and suburban settings

- Patient-reported access: Health Care Experiences Survey
  - Link patient respondents (2013-17) belonging to AB-eligible practices to their rostering physician, practice, and other HA data (ICES) including physician AB achievement
PATIENT FACTORS:
Age, gender, education, income, language, health, immigration status, ED use, WI use

PRACTICE FACTORS:
Group size, location, model

PHYSICIAN FACTORS:
Roster size, age, gender, access bonus
PATIENT FACTORS:
Age, gender, education, income, language, health, immigration status, ED use, WI use

PRACTICE FACTORS:
Group size, location, model

PHYSICIAN FACTORS:
Roster size, age, gender, access bonus
EARLY RESULTS
## Practice Descriptions

### Organization Types by Geography (n = 495)

<table>
<thead>
<tr>
<th></th>
<th>Major Urban n = 335</th>
<th>Non-Major Urban n = 97</th>
<th>Both* n = 63</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-FHT</td>
<td>233 (69.6%)</td>
<td>43 (44.3%)</td>
<td>35 (55.5%)</td>
</tr>
<tr>
<td>FHT</td>
<td>102 (30.4%)</td>
<td>54 (55.7%)</td>
<td>28 (44.4%)</td>
</tr>
</tbody>
</table>

*Some organizations have multiple practice sites across geographies

Mean number of physicians per practice:
- Major Urban: 8.87 (SD 8.78)
- Non-Major Urban: 7.61 (SD 6.87)
Physician Descriptions

Total: 4,578
Major Urban = 3,411 (74.5%)
Non-Major Urban = 1,167 (25.5%)

Mean physician age in years:
Major Urban = 51.5 (SD 11.4)
Non-Major Urban = 51.5 (SD 11.1)

Mean number of years in practice:
Major Urban = 26.7 (SD 3.1)
Non-Major Urban = 27.0 (SD 3.5)

Roster size: range 1200-1500
Physician Descriptions

Proportion of maximum potential Access Bonus achieved

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Major Urban</th>
<th>Non-Major Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quintile 1 (0-20%)</td>
<td>25% (81.1)</td>
<td>70% (25.1)</td>
</tr>
<tr>
<td>Quintile 2 (21-40%)</td>
<td>0%</td>
<td>55% (20.1)</td>
</tr>
<tr>
<td>Quintile 3 (41-60%)</td>
<td>15% (80.1)</td>
<td>50% (20.1)</td>
</tr>
<tr>
<td>Quintile 4 (61-80%)</td>
<td>20% (80.1)</td>
<td>45% (20.1)</td>
</tr>
<tr>
<td>Quintile 5 (81-100%)</td>
<td>25% (81.1)</td>
<td>60% (20.1)</td>
</tr>
</tbody>
</table>

Access Bonus Achievement
Patient Descriptions

Total N = 22,333

- Major Urban: 69% (N=15,300)
- Non-Major Urban: 31% (N=7,033)

Female:
- Major Urban = 60.0%
- Non-Major Urban = 58.8%

Mean age in years:
- Major Urban = 53.5 (SD 17.1)
- Non-Major Urban = 55.2 (SD 17.1)
<table>
<thead>
<tr>
<th></th>
<th>Major Urban (%)</th>
<th>Non-Major Urban (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Language (n = 22,303)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>90.5</td>
<td>96.3</td>
</tr>
<tr>
<td>French</td>
<td>2.2</td>
<td>2.0</td>
</tr>
<tr>
<td>English &amp; French</td>
<td>0.2</td>
<td>0.3</td>
</tr>
<tr>
<td>Non-official language(s) only</td>
<td>7.1</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Education (n = 22,168)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school or less</td>
<td>9.5</td>
<td>14.2</td>
</tr>
<tr>
<td>High school</td>
<td>18.7</td>
<td>24.5</td>
</tr>
<tr>
<td>Some post-secondary</td>
<td>8.6</td>
<td>9.2</td>
</tr>
<tr>
<td>College</td>
<td>25.1</td>
<td>29.4</td>
</tr>
<tr>
<td>University</td>
<td>24.9</td>
<td>16.41</td>
</tr>
<tr>
<td>Post graduate</td>
<td>13.1</td>
<td>6.4</td>
</tr>
<tr>
<td><strong>Financial Situation (n = 21,725)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>2.1</td>
<td>2.3</td>
</tr>
<tr>
<td>Very tight</td>
<td>3.7</td>
<td>4.0</td>
</tr>
<tr>
<td>Tight</td>
<td>14.0</td>
<td>14.3</td>
</tr>
<tr>
<td>Comfortable</td>
<td>63.3</td>
<td>63.9</td>
</tr>
<tr>
<td>Very comfortable</td>
<td>16.9</td>
<td>15.5</td>
</tr>
<tr>
<td>Birth Country* (n = 22,240)</td>
<td>Major Urban (%)</td>
<td>Non-Major Urban (%)</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-----------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Canada</td>
<td>75.0</td>
<td>87.7</td>
</tr>
<tr>
<td>United States</td>
<td>1.5</td>
<td>1.1</td>
</tr>
<tr>
<td>Great Britain, Ireland</td>
<td>4.6</td>
<td>4.6</td>
</tr>
<tr>
<td>Other</td>
<td>18.9</td>
<td>6.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Self-Reported General Health (n = 22,246)</th>
<th>Major Urban (%)</th>
<th>Non-Major Urban (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>3.9</td>
<td>4.7</td>
</tr>
<tr>
<td>Fair</td>
<td>10.9</td>
<td>11.1</td>
</tr>
<tr>
<td>Good</td>
<td>27.9</td>
<td>28.0</td>
</tr>
<tr>
<td>Very good</td>
<td>38.3</td>
<td>38.2</td>
</tr>
<tr>
<td>Excellent</td>
<td>19.2</td>
<td>18.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Visited a Walk-In Clinic in the Past 12 Months (n = 22,236)</th>
<th>Major Urban (%)</th>
<th>Non-Major Urban (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>28.4</td>
<td>16.7</td>
</tr>
</tbody>
</table>

*Mean years since immigration (SD)
Major Urban = 35.8 (18.8)
Non-Major Urban = 45.3 (17.3)
Outcomes: Patient-Reported Access

- **Wait Time**
  - Major Urban: Favourable
  - Non-Major Urban: Unfavourable

- **Timeliness**
  - Major Urban: Favourable
  - Non-Major Urban: Unfavourable

- **Telephone Access**
  - Major Urban: Favourable
  - Non-Major Urban: Unfavourable

- **After-Hours Access**
  - Major Urban: Favourable
  - Non-Major Urban: Unfavourable
Does Access Bonus achievement correlate with patient-reported access?

For every 10% increase in a physician’s Access Bonus....

<table>
<thead>
<tr>
<th></th>
<th>Odds Ratio</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wait Time</td>
<td>0.975</td>
<td>0.742</td>
</tr>
<tr>
<td>Timeliness</td>
<td>0.981</td>
<td>0.843</td>
</tr>
<tr>
<td>Telephone Access</td>
<td>1.046</td>
<td>0.553</td>
</tr>
<tr>
<td><strong>After-Hours Access</strong></td>
<td><strong>41.141</strong></td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

*unadjusted
Next Steps

• Complete predictor variables
• Multivariable regression analyses
• Analyses of secondary outcomes
  – Evening/weekend/holiday access without going to ED
  – Email access
  – House calls
  – Quality of care when sick
  – Continuity of care
THANK YOU!

EMAIL:
KAMILA.PREMJI@GMAIL.COM
KPREMJI@UWO.CA

@PremjiKamila
References (1/4)


...


Canadian Institute for Health Information. How Canada Compares: Results From The Commonwealth Fund 2015 International Health Policy Survey of Primary Care Physicians. Ottawa, ON: CIHI; 2016.


References (4/4)


Responses to Access-Related Items

- Opening hours (1563)
- Telephone access (1630)
- Access to home visits (1649)
- Ease of getting an appointment (1540)
- Waited < 1 day to get this appointment...
- Appointment as soon as you wanted to...
- Distance from where I live or work (1635)
- Relational continuity (1631)
- Access to other doctors (1655)
- Access to other health professionals...

Favourable Response
Unfavourable Response