Performance Measurement and Reporting in Primary Care

June 2016
General Uses of Performance Measurement

- Practice Quality Improvement
- Pay for Performance
- Reporting and Accountability
- Research to Improve the understanding of best practices
The Result? 
Representative timeline of a patient’s experience in the U.S. health care system

Source: Best care at lower cost: the path to continuously learning health care in America. Institute of Medicine, 2012
Current focus: Measurement of health and healthcare indicators

• “A health indicator is a single measure that is reported on regularly and that provides relevant and actionable information about population health and/or health system performance and characteristics. An indicator can provide comparable information, as well as track progress and performance over time”
  
  (Canadian Institute for Health Information, 2016)

• Indicators should:
  • be important and actionable;
  • capture the essence of the issue;
  • have a clear and accepted normative interpretation;
  • be valid and reliable;
  • use data that are available at national, provincial, territorial, and regional and sub-regional levels, or which are feasible to develop”

  (Population Health Promotion Expert Group, Healthy Living Issue Group, & Pan-Canadian Public Health Network, 2010).
Primary care performance measurement: Examples of indicators

• Lots of work happening across provincially, nationally, the world.
  • CIHI your health
    http://yourhealthsystem.cihi.ca/indepth?lang=en#/ 
  • QOF
    http://qof.hscic.gov.uk/search/
  • UK health profiles
  • My Healthy Communities
Performance Measurement and Reporting

CIHI’s Strategic Plan 2016 to 2021

**Vision**

**Mandate**
Deliver comparable and actionable information to accelerate improvements in health care, health system performance and population health across the continuum of care.

**Strategic goals**
- Be a trusted source of standards and quality data
- Expand analytical tools to support measurement of health systems
- Produce actionable analysis and accelerate its adoption

**Priority themes and populations**
- Themes
  - Patient experience
  - Quality and safety
  - Outcomes
  - Value for money
  - Health system performance

- Populations
  - Seniors and aging
  - Mental health and addictions
  - First Nations, Inuit and Métis
  - Children and youth

**Foundation**
- Our people
- Stakeholder engagement and partnerships
- Privacy and security
- Information technology

**Values**
Respect • Integrity • Collaboration • Excellence • Innovation
Related CIHI initiatives & National Considerations

• Measurement & Reporting
  • Pan-Canadian Primary Health Care Indicators, 2012
  • Chartbooks/Reports and Accompanying Products
  • Tools: Your Health System, OECD, Health Inequalities,
  • HSP Measurement Framework

• Data and Data Standards
• Capacity Building Partnerships

• Measurement
  • Core Set of Pan-Canadian Indicators at all system levels
  • Evolution of PHC indicators
  • Reporting, Patient Learning System
    • Lessons to inform future work

• Data – Collect once, use many
• Patient/Citizen Engagement & Partnerships
Despite some variation among provinces, access to timely primary care in Canada is significantly lower than the international average in all reporting provinces.

Proportion of primary care practices who

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<tbody>
<tr>
<td>Were able to provide a <strong>same- or next-day</strong> appointment to <strong>almost all or most</strong> of their patients</td>
<td>56%</td>
<td>53%</td>
<td>54%</td>
<td>52%</td>
<td>66%</td>
<td>34%</td>
<td>45%</td>
<td>56%</td>
<td>51%</td>
<td>53%</td>
<td>72%</td>
</tr>
<tr>
<td>Have an arrangement where patients can see a doctor or nurse if needed when the practice is closed <strong>(after hours)</strong> without going to the hospital emergency department</td>
<td>31%</td>
<td>52%</td>
<td>43%</td>
<td>26%</td>
<td>67%</td>
<td>37%</td>
<td>39%</td>
<td>41%</td>
<td>33%</td>
<td>48%</td>
<td>75%</td>
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</tbody>
</table>

**Compared with the CMWF average results**

- **Above average**
- **Same as average**
- **Below average**
Most provinces are below the CMWF average in receiving and reviewing data on clinical performance, though variation is substantial in preventive care monitoring.

Physicians who **routinely** receive and review data on

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</tr>
</thead>
<tbody>
<tr>
<td>Clinical outcomes</td>
<td>21%</td>
<td>23%</td>
<td>26%</td>
<td>26%</td>
<td>32%</td>
<td>9%</td>
<td>33%</td>
<td>23%</td>
<td>15%</td>
<td>23%</td>
<td>51%</td>
</tr>
<tr>
<td>Surveys of patient satisfaction and experiences with care</td>
<td>11%</td>
<td>21%</td>
<td>31%</td>
<td>23%</td>
<td>24%</td>
<td>7%</td>
<td>11%</td>
<td>19%</td>
<td>10%</td>
<td>17%</td>
<td>47%</td>
</tr>
<tr>
<td>Percentage of patients who have received recommended preventive care</td>
<td>32%</td>
<td>23%</td>
<td>25%</td>
<td>38%</td>
<td>72%</td>
<td>6%</td>
<td>13%</td>
<td>26%</td>
<td>22%</td>
<td>37%</td>
<td>38%</td>
</tr>
</tbody>
</table>

**Compared with the CMWF average results**
- [ ] Above average
- [ ] Same as average
- [ ] Below average
Challenges with current work

• “Indicator chaos” – but indicators without context may not help improvement
• Little work on measuring attributes of high quality primary care—especially in the area of equity
• Specific disease focus does not capture breadth of primary care
• Vulnerable and complex population groups

**Figure 1. Typology of complex patients.**

<table>
<thead>
<tr>
<th>Medical Complexity</th>
<th>Socioeconomic Factors Exacerbating Medical Condition</th>
<th>Mental Illness Exacerbating Medical Condition</th>
<th>Patient Behaviors and Traits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discordant conditions</td>
<td>Inability to afford medications, transportation</td>
<td>Depression leading to poor medication adherence</td>
<td>Demanding (tests, medication)</td>
</tr>
<tr>
<td>Chronic pain</td>
<td>Family stressors</td>
<td>Addiction</td>
<td>Argumentative (with staff or physicians)</td>
</tr>
<tr>
<td>Medication intolerance</td>
<td>Poor health care literacy</td>
<td>Anxiety confusing clinical picture</td>
<td>Anxious (regarding symptoms)</td>
</tr>
<tr>
<td>Unexplained symptoms</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cognitive issues</td>
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</tbody>
</table>
MEASURING AND IMPROVING THE PERFORMANCE OF PRIMARY HEALTH CARE IN CANADA
**Goal:** To demonstrate the feasibility and usefulness of comparative and comprehensive CBPHC performance measurement and reporting to inform innovation of the Canadian PHC system.

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**Study 1**

- Year 1: Compare comprehensive measures of primary health care performance and health care equity between regions.

**Study 2**

- Year 2: Examine contextual facilitators and barriers that may explain variation in regional performance.

**Study 3**

- Year 3: Develop and evaluate an approach to national reporting of primary health care performance for different stakeholder groups.

**Study 4**

- Year 4: Identify innovations associated with better primary health care and healthcare equity.

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**Integrated knowledge translation and exchange**
Where we’re going...

- Comprehensive performance portrait
- Datasets from individual study components
- Integrated dataset for comprehensive comparisons of performance across study regions
How we get there...

- Practice surveys
- Case studies
- Deliberative dialogues
- Linkage to health administrative data
- Vulnerability index
- Population segmentation
- Stakeholder engagement throughout
Developing a primary care data infrastructure

Deliberative dialogues with patients

- Patient surveys
- Provider surveys
- Organizational surveys

Performance portrait

Regional contextual information from case studies

Administrative data (e.g., hospitalization records, prescriptions, physician visits, home and community care)
Our study fills an important knowledge gap

CIHI Primary Health Care (PHC) Indicators Chartbook: An Illustrative Example of Using PHC data for Indicator Reporting—released 28 April 2016

<table>
<thead>
<tr>
<th>2012 Primary Health Care indicators excluded</th>
<th>Intended audience, 2012</th>
<th>Proposed data source in 2012</th>
<th>Rationale for exclusion from this chartbook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope of PHC Services</td>
<td>Policy-makers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uptake of Information and Communication Technology (ICT) in PHC Organizations*</td>
<td>Providers</td>
<td>Canadian Practice-Based Primary Health Care Survey Tools: Organization component</td>
<td>Pan-Canadian practice-based survey data not available</td>
</tr>
<tr>
<td>Collaborative Care With Other Health Care Organizations</td>
<td>Policy-makers</td>
<td></td>
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<tr>
<td>PHC Needs-Based Planning</td>
<td>Policy-makers</td>
<td></td>
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<tr>
<td>PHC Provider Full-Time Equivalents</td>
<td>Providers</td>
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</tr>
<tr>
<td>Point-of-Care Access to PHC Client/Patient Health Information</td>
<td>Policy-makers</td>
<td>Canadian Practice-Based Primary Health Care Survey Tools: Provider component</td>
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<tr>
<td>PHC Team Effectiveness Score</td>
<td>Providers</td>
<td></td>
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<tr>
<td>Unnecessary Duplication of Medical Tests Reported by PHC Providers</td>
<td>Providers</td>
<td>Canadian Practice-Based Primary Health Care Survey Tools: Patient component</td>
<td></td>
</tr>
<tr>
<td>PHC Services Meeting Client’s/Patient’s Needs</td>
<td>Providers</td>
<td></td>
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<tr>
<td>PHC Support for Self-Management of Chronic Conditions</td>
<td>Providers</td>
<td></td>
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<tr>
<td>Wait Time for Immediate Care for a Minor Health Problem</td>
<td>Providers</td>
<td></td>
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</table>
Inputs, Strategies, Interventions

- Creating the local level infrastructure
  - Data collection at regional level- practice based surveys:
    - NS: 38 (30%); ON: 26 (41%); BC: 24 (41%); case studies (key informant interviews, focus groups with clinicians)
    - Goal is 20 practices (minimum) per region
  - Data linkage (survey and administrative data)

- Early findings: Context variation (e.g., policy, practices) for primary care reform are different in NS, BC, ON. BC is focused on operations and implementation, less on research; 30% of documents about expanding number and types of providers and 35% about multi interventions; NS [Ruth]

- Strategy for Sustainability: Innovative technologies to collect data
  - Automated patient surveys (robocall, email)
  - Online surveys
  - Old school (face-to-face meetings)
Impacts and Outcomes

• **Sustainable Regional Performance Portraits**
  - Work to be done: identify key components (population segments, dimensions of primary care performance, analysis to present data on each component

• **Fair comparison of performance**
  - Work to be done: link data, statistical analysis (e.g. GEE)

• **Recommendations**
  - Work to be done: next steps for continued development of platform for performance measurement and reporting; produce actionable information for clinicians and policy makers; opportunities for scale-up of information system
Processes & Structures

• Comprehensive performance measurement portrait- Regional level

• Early findings: Tailoring to audience-using Deliberative Dialogues with patients, Case Studies to refine needed on multiple levels (policy, within sites and practices, across team, with individuals)

• Structure for sustainability: online and interactive format; could be used across different regions, engagement of practices-defining value to patients, clinicians, decision-makers
Principles for reporting - lessons from the UK

• Explicit clarity of purpose and audience

• Market research: Iterative and ongoing work to examine factors that increase usage of performance information

• Indicators for the public: thought should be given to a range of complementary methods for displaying information, as well as online resources. Such activity may be more effective around a ‘trigger point’, such as someone moving house.

• Indicators for professionals: The term ‘scorecard’ is divisive - recommend avoiding this terminology if a key purpose is for improvement.

Low awareness, among GPs in particular, of the main websites currently containing quality indicators for general practices. We recommend market research and engagement to understand how those working in general practice make use of online information.

• Composite scores and population grouping: Advise against composite measures for a public or professional audience.

Users should be able to select from a full menu of indicators by various groupings. Such an approach could readily be seen as responsive to the needs and aspirations of patients themselves, and thus offer additional credibility with the public. Such groupings could include age groups or other population groupings, or groupings by clinical condition or service.

Selection could also include comparison, allowing in part for context.
Principles for reporting - what we learned in BC, ON, NS (preliminary)

- Workshop, regional stakeholder advisory committee, deliberative dialogues with patients
  - Importance of comparisons with other regions

- Flexible
- Interactive
- Timely
- Support providers & decision makers
- Data for learning & action
- Mechanism for user feedback

- Comprehensive
- Accurate
- Easy to access
- Comparative: cross-sectional & longitudinal
- Integration with other systems e.g. EMRs
- Support education
### Ideas for organizing practice-based portrait:

**The patient’s medical home: College of FPs**

<table>
<thead>
<tr>
<th>Number</th>
<th>Goal Description</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td><strong>Patient-Centred Care</strong>&lt;br&gt;A PMH provides care that is focused on the individual patient and tailored to his or her specific needs.</td>
</tr>
<tr>
<td>2.</td>
<td><strong>Personal Family Physician</strong>&lt;br&gt;The patient’s own family doctor, the most responsible care provider, is at the core of the PMH.</td>
</tr>
<tr>
<td>3.</td>
<td><strong>Team-Based Care</strong>&lt;br&gt;A PMH offers a broad scope of services carried out by teams or networks of providers, including each patient’s personal family physician.</td>
</tr>
<tr>
<td>4.</td>
<td><strong>Timely Access</strong>&lt;br&gt;A PMH ensures timely access to appointments within the practice. The PMH also coordinates timely appointments with services outside the practice.</td>
</tr>
<tr>
<td>5.</td>
<td><strong>Comprehensive Care</strong>&lt;br&gt;A PMH provides each of its patients with comprehensive family practice services. A PMH also meets and supports the public health needs of the community.</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Continuity of Care</strong>&lt;br&gt;A PMH provides continuity of care, continuity of relationships, and information for its patients.</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Electronic Medical Records</strong>&lt;br&gt;A PMH maintains and meaningfully uses electronic medical records (EMRs) for its patients.</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Education, Training, and Research</strong>&lt;br&gt;A PMH serves as an ideal site for training medical students, family medicine residents, and those in other health professions. A PMH is also an ideal setting for carrying out medical research.</td>
</tr>
<tr>
<td>9.</td>
<td><strong>Evaluation and Quality Improvement</strong>&lt;br&gt;A PMH regularly evaluates the effectiveness of its services as part of its commitment to continuous quality improvement.</td>
</tr>
<tr>
<td>10.</td>
<td><strong>Internal and External Supports</strong>&lt;br&gt;A PMH has strong internal support, from practice-appropriate administration. A PMH also is supported by governments, the public, and other health professions.</td>
</tr>
</tbody>
</table>
**Executive Summary**

The Patient’s Medical Home (PMH) is the Canadian College of Family Physicians vision for what the future family practice in Canada will be. The information provided in this portrait shows your results compared to other participating practices in Fraser East and to all other practices in similar sites: Eastern Ontario, ON and Central Zone, NS. In order to become a PMH, family practices must strive to meet the following ten goals:

<table>
<thead>
<tr>
<th>1. Patient-Centered Care</th>
<th>6. Continuity of Care</th>
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<tbody>
<tr>
<td>2. Personal Family Physician</td>
<td>7. Electronic Medical Records</td>
</tr>
<tr>
<td>3. Team-Based Care</td>
<td>8. Education, Training, &amp; Research</td>
</tr>
<tr>
<td>5. Comprehensive Care</td>
<td>10. Internal &amp; External Supports</td>
</tr>
</tbody>
</table>

**About this Portrait**

This portrait provides an overview of information about a practice in NS. The information presented in this document was collected using an organizational and provider survey. This portrait is organized using the ten goals of the Patient’s Medical Home.
**Practice-based Portrait: Core Dimensions of Patient’s Medical Home**

**Patient-Centered Care** means that the care provided to patients is focused on their individual needs.

On a scale of 1-10, how important are the following goals for your practice?

<table>
<thead>
<tr>
<th>Goal</th>
<th>Your Practice</th>
<th>Central Zone Study Average</th>
<th>TRANSFORMATION Study Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consideration of environmental or occupational causes when assessing patients' health problems</td>
<td>8</td>
<td>8</td>
<td>8.2</td>
</tr>
<tr>
<td>Consideration of social problems when providing care for patients</td>
<td>9.3</td>
<td></td>
<td>9</td>
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</tbody>
</table>

**Internal & External Support** pertains to support provided to the practice by both internal and external support systems. The Patient’s Medical Home should also be supported by the public and other health professionals.

On a scale of 1-4 (with 4 representing total agreement), indicate your level of agreement with the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Your Practice</th>
<th>Central Zone Study Average</th>
<th>TRANSFORMATION Study Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>The clinic has explicit mission, values and objectives</td>
<td>4</td>
<td>3.2</td>
<td>4</td>
</tr>
<tr>
<td>In general, clinic professionals share the clinic’s mission, values and objectives</td>
<td>4</td>
<td>3.3</td>
<td>4</td>
</tr>
</tbody>
</table>
**Timely Access** refers to the ease at which patients are able to access appointments within your practice and the extent to which your practice coordinates appointments with other healthcare services.

In general, how long is the delay between the patient making an appointment and the visit? (mean days)

![Bar chart showing delay between appointment and visit for different categories.]

- **Non-urgent Cases:**
  - Your Practice: 21 days
  - Central Zone Study Average: 5.8 days
  - TRANSFORMATION Study Average: 6.4 days
- **Urgent Cases:**
  - Your Practice: 7 days
  - Central Zone Study Average: 0.6 days
  - TRANSFORMATION Study Average: 0.8 days

On a scale of 1-10, how important is the accessibility of the services offered by your practice?
How do our team climate scores compare with participating practices?

For each team climate dimension, a histogram is used to display the distribution of the overall dimension score from participating practices for which reliable data were available (N=42). The darker shaded area indicates where your overall team climate dimension score falls within the distribution.
Comprehensive Care refers to the scope of services provided by the practice to meet both the patient and public health needs.

The graph below shows the proportion of all practices in the TRANSFORMATION study that reported offering a given procedure. The procedures shaded in purple are those currently offered at your practice; the services in light blue are not currently offered.

On a scale of 1-10, how important are the following goals for your practice?

Comprehensive approach to patients to address all of their individual health needs

Delivery of preventive and health promotion services
Practice-based Portrait: Core Dimensions of Patient’s Medical Home—Continuity

Continuity of Care refers to the consistency of care provided over time and the scope of services provided by the practice to meet both the patient and public health needs. On a scale of 1-10, how important is it for your practice to maintain a continuous relationship with patients?

The table below shows which formal and informal arrangements you have with other hospitals and future coordination opportunities.

With other hospitals:

- Planning services (e.g. on call)
- Manage patients together

Future coordination opportunities may include:

- Access to technical services (radiology, labs)
- Exchange of resources (e.g. loan of professionals)
- Follow-up for hospitalized or clinic patients
Evaluation & Continuous Quality Improvement refers to whether your practice regularly evaluates the effectiveness of the healthcare services you provide. This refers to the care provided to patients during and between visits.

Are you involved in quality improvement initiatives at your practice? (% respondents)

Your practice currently:

✓ Reviews patients’ hospital admissions or emergency department use

Future opportunities include:

• reviewing clinical outcomes
• completing surveys of patient satisfaction and experiences with care
• reviewing frequency of ordering diagnostic tests
Idea for organizing regional portrait:
Accreditation Canada Primary Care Services: sector and service based standards

Dimensions

- Population Focus: Work with my community to anticipate and meet our needs
- Accessibility: Give me timely and equitable services
- Safety: Keep me safe
- Worklife: Take care of those who take care of me
- Client-centred Services: Partner with me and my family in our care
- Continuity of Services: Coordinate my care across the continuum
- Appropriateness: Do the right thing to achieve the best results
- Efficiency: Make the best use of resources
Regional portrait-Patient Survey Data

• Intended to integrate and use all data sources (patient, provider/organizational, administrative data, case study)

• Patient survey data: (n=1,206 total; n=583 Central Zone; n=325 Eastern Ontario; n=298 Fraser East)
  • % female: 72, 56, 67 (CZ, EO, FE)
  • Mean age: 53, 52, 56
  • Education, % undergrad degree: 21, 14, 11
  • % born in Canada: 93, 91, 82
  • % depression: 40, 32, 33
  • % heart disease: 11, 14, 18
Regional portrait-O rganizational/Provider Survey Data

• Organizational data: (n=68 practices; n=35 Central Zone; n=17 Eastern ON; n=16 Fraser East)
  • Practices have been in operation for >10 years, few of whom have joined with other PHC organizations
  • % practices are group practices: 57, 47, 81 (CZ, EO, FE-no statistical significance)
  • % in only a single setting (vs. satellite sites, more than one setting, etc): 51, 41, 88
  • % practices only seeing pts with active record or registered: 64, 88, 93
  • % FFS: 79, 6, 100
  • % practices who routinely receive patient satisfaction data: 13, 53, 13
Regional portrait - Organizational/Provider Survey Data

- Organizational data: (n=68 practices; n=35 Central Zone; n=17 Eastern ON; n=16 Fraser East)
  - % practices improved clinical practice support: 9, 35, 79
  - % practices reporting quality of care to patients has improved: 32, 47, 93
  - % practices have improved possibility of one or more RNs: 6, 18, 20
Regional portrait

Fraser East British Columbia
Primary Health Care Performance Portrait

A stronger primary health care system is one that yields better health outcomes for Canadians at a lower cost. A key part of improving the primary health care system is to measure how it performs. This portrait provides comprehensive information on primary care performance in the Fraser East region of British Columbia. Information is compiled from a range of sources and perspectives, including patients, providers, and primary care organizations, and for multiple dimensions of primary care performance. This report is preliminary and shows results for three of these dimensions, access, continuity, and patient-centred care.

- Uses all data sources
- Comparisons across regions
- Comparisons within region
Regional portrait: Continuity [BC admin data]

Provider and Patient Views of Continuity: Majority Source of Care

<table>
<thead>
<tr>
<th>% of pts for whom GP is MSOC</th>
<th>% of pts who have MSOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraser East</td>
<td>TRANSFORMATION</td>
</tr>
<tr>
<td>(n=236,901)</td>
<td>(n=173)</td>
</tr>
<tr>
<td>(n=289)</td>
<td>(n=20)</td>
</tr>
</tbody>
</table>