



The 7th International Conference on Current and Future Trends of Information and Communication Technologies in Healthcare (ICTH 2017)

A Systematic Literature Review Comparing Primary and Community Health Care Indicators and Measurement Frameworks

Nour El Kadri*, Liam Peyton

School of Electrical Engineering and Computer Science (SECS), University of Ottawa, Ottawa, ON, K1N 6N5, Canada

Abstract

Measurement frameworks are essential in primary and community healthcare to help reduce unsustainable healthcare costs in many jurisdictions including Ontario, Canada. This paper presents a literature review of studies measuring the success of primary and community healthcare initiatives around the world carried out after 2003 in more than 15 countries. Some initiatives were fully deployed and others were in research or pilot mode. A comprehensive set of indicators is identified spanning four categories and nine domain areas. We discuss our observations showing the discrepancies that exist amongst the various studies and analyze the problems associated with these gaps. We proposed a new approach that we intend to pursue in more detail in future work. There is a lack of maturity in measuring the success of primary and community healthcare initiatives. There are opportunities in improving the situation by defining aggregate indices, working on standardization of indicators, and identifying measures that contribute to improving the system in place based on mining existing data and using a heuristics-based approach.

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Peer-review under responsibility of the Conference Program Chairs.

Keywords: Primary Healthcare; Community Healthcare; Performance Measurement; Models; Indicators; Metrics; Quality Improvement;

1. Introduction

“What gets measured gets managed”, has been articulated by many experts in their pursuit of measurement frameworks to emphasize the importance of performance indicators. While there is a need for measurement to tackle management issues, measurement alone is insufficient. There are initiatives that failed to realize efficiencies, many of them in healthcare (1)(2), where a certain framework with measurement at its heart has been used. Thus it is crucial to consider factors beyond mere measurement. Moreover, the Good Indicators Guide (3) reasons that “Lack of shared understanding is very often the root of inefficiencies in a system. Reaching a consensus about objectives has to start with constructive conversations between all the key partners within the team, system or organization.”

* Corresponding author. Tel.: +1-613-562-5800 x2170; fax: +1-613-562-5664.

E-mail address: nelkadri@uottawa.ca, lpeyton@uottawa.ca

The healthcare industry in Canada is around 200 Billion dollars and makes up around 11% of Gross Domestic Product (GDP) which is less expensive than the US at 17% GDP (2). However, Canada is ranked as the fourth most costly country in the world. The major issue is a continuing increase in the costs of health care in Canada where spending is almost 50% of non-debt public spending (2). Although Canada has lots of indicators that measure spending (inputs), it lacks indicators that measure expected outcomes (outputs) such as spending. Currently, decisions affecting the healthcare system are mostly political and their implementation is top-down, with few processes in place to enable feedback and corrective action in a continuous quality improvement framework. Nearly a third of the recommendations coming from the commission on the reform of public services (2) in Ontario (105 of 360 recommendations) pertain to healthcare. There are many guidelines at a strategic level from which lots of opportunities emanate, but they need translation and adoption. A performance framework is needed with indicators to measure primary and community health care, benchmark it, and compare it against other systems and standards to ultimately improve it. In this paper, we survey examples of performance management frameworks from many jurisdictions, but our focus is on improving Canadian healthcare and specifically Ontario.

Nomenclature

PSI	Patient Satisfaction Index.
PCG	Primary Care group
LHIN	Local Health Integration Network
CIHI	Canadian Institute for Health Information

2. Background

Starfield et-al (4) argue that “a greater emphasis on primary care can be expected to lower the costs of care, improve health through access to more appropriate services and reduce inequities in the population’s overall health.” In Ontario, we have the notion of Primary Care Groups (PCGs) whose mandate is clearly defined. Similar to accountability agreements between hospitals and regional health authorities (called Local Health Integration Networks (LHINs) in Ontario). Each PCG holds an accountability agreement with its LHIN, renewed annually. These accountability agreements include patient-level and population-level indicators. Some indicators may be common across all LHINs and PCGs in Ontario, while others may be specific to the unique needs of a region or population (5). Each LHIN has a Primary Health Care Council to provide a forum to disseminate best practices, address common problems and opportunities, and achieve economies of scale for common interests such as contracting, IT, etc... (5). Unfortunately, these councils do not define performance indicators to measure what they disseminate. We believe performance indicators should be selected in a way that monitoring and control is embedded into a process of improvement to insure continuous high quality of service for delivery of health care.

3. Problem Description

We survey successful primary and community care initiatives to identify the indicators being used and highlight differences among performance management frameworks from different countries. Our main research question is to identify the commonalities as well as the gaps in measuring success of primary and community care initiatives across various jurisdictions. We do that while keeping in mind that all quality initiatives in healthcare have different perspectives from the influences of the various stakeholders in the healthcare system whether they are the patient population themselves, political forces, insurance companies, healthcare providers or others.

3.1. Research Method

We conducted a comprehensive systematic literature search spanning Scopus, Web of Science, Medline, science direct, and NCBI (PubMed). At first we limited our search to refereed journals and conferences but later realized that the grey literature was relevant in terms of: governmental reports and data, the world health organization, and

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