The Impacts on the Public Health Function with Integration with Regionalized Healthcare Systems

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About the Author

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Over the past 17 years, he has led numerous consulting projects involving public health organizations and systems across the country. These include: preparing national reports on the desired design features of public health systems;\textsuperscript{1,2} multiple rounds of key informant interviews with public health leaders regarding their experience with regionalization, which are summarized in a 2007 discussion paper for the Ontario Public Health Association;\textsuperscript{3} the independent review of the public health systems of multiple provinces; and, a recent survey of the structure of all provincial public health systems.

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Highlights

- Ontario’s ‘Patients First’ discussion paper proposes increasing the linkage between local public health agencies (LPHAs) and Local Health Integrated Networks (LHINs)
- The integration of public health into Regional Health Authorities (RHAs) elsewhere in the country provides insights into potential opportunities and risks of Ontario’s proposed direction
- Conceptually, public health's formal involvement with the healthcare system could bring a population health perspective to the understanding of health issues and the planning of healthcare services. Where this has occurred best, RHAs have had strong and interested leadership combined with strong public health leadership and epidemiological capacity.
- However, the focus of healthcare systems is frequently on service provision and costs versus the overall health of the public. In general, a relatively small complement of public health professionals and their population health expertise cannot by themselves be expected to influence a much larger and more powerful set of illness care-oriented organizations and professionals. The result is often for the larger illness care culture to influence public health to a more clinical orientation.
- Integration of services is another potential opportunity. However, LPHAs have limited involvement in delivery of clinical services and these were often developed to address historical gaps in the availability of primary care services on a population-wide basis, particularly for more vulnerable populations. Nevertheless, there can be opportunities for greater coordination and collaboration with other service providers for specific services.
- While these potential opportunities for greater public health linkages with healthcare systems have been realized in some RHAs, adverse impacts on public health have frequently occurred including loss of funding, fragmentation of capacity, diversion of staff through re-orientation to clinical issues, and barriers to engagement with community and municipal partners. These adverse experiences may have been exacerbated by public health systems lacking a combination of comprehensive public health standards, protected public health budgets, dedicated governance and leadership, and accountability agreements.
- England has a longer experience with public health integration in a regional healthcare system. For public health, the experience has been similar with public health's budgets having been squeezed, staff disempowered and the system fragmented. The current plan is to realign public health to local municipalities.
- In summary, the opportunities provided by greater linkages between LPHAs and LHINs need to be actively supported to be realized and the repeatedly demonstrated risks need to be recognized and actively mitigated in a comprehensive fashion. The main body of this report provides specific recommendations for achievement of both of these intentions.
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Introduction
Ontario’s ‘Patients First’ discussion paper (December 17, 2015) identifies four proposed changes to strengthen patient-centred care including: i) more effective integration of services and greater equity; ii) timely access to primary care and seamless links with other services; iii) improved home care; and, iv) stronger links between population and public health and other health services. With respect to the latter, the relationship between Ontario’s system of local public health agencies (LPHA) and the rest of the healthcare system coordinated by the province’s Local Health Integrated Networks (LHINs) would change in several ways including:

- Create a formal relationship between MOHs and each LHIN empowering the MOHs who work with LHIN leadership to plan population health services.
- Transfer provincial funding for local public health agencies to the LHINs for allocation to these agencies. The LHINs would ensure that all transferred funds be used for public health purposes.
- LHINs would assume responsibility for the accountability agreements with LPHAs.
- Local boards of health would continue to set budgets and continue to be managed at a municipal level.

The discussion paper identifies the following anticipated performance improvements:

- Health service delivery better reflects population needs.
- Public health and health service delivery better integrated to address the health needs of populations and individuals.
- Social determinants of health and health equity incorporated into health care planning.
- Stronger linkages between disease prevention, health promotion and care.

In addition, the discussion paper indicates that the ministry would appoint an Expert Panel to advise on opportunities to deepen the partnership between LHINs and LPHAs and how to further improve public health capacity and delivery.

The purpose of this report is to consider the experience of the public health function in regionalized health systems to inform the identification of potential opportunities and threats to transforming Ontario’s current system.

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1 While local public health agencies (LPHAs) in Ontario are commonly referred to as ‘public health units’, under the Health Protection and Promotion Act, the ‘health unit’ is the geographic boundary within which the LPHA, specifically its Board of Health, has its mandated responsibilities.
Approach
There is limited information in the public domain on the design and functioning of the public health component of regionalized health systems in other provinces. This paper utilizes the author's 20 years of experience working for and consulting with the staff and leadership of regionalized health systems across the country. Where possible, examples and references are provided. While focussing primarily on the experience in Canada, additional information regarding recent reforms in England is also provided.

Public Health Experience with Regionalization in Canada
There is a more than 25-year experience with integrating public health into regionalized healthcare systems in other provinces. These systems have been comprised of several RHAs, each with the responsibility to plan and deliver a comprehensive range of healthcare and public health services. While the experience elsewhere is highly relevant to the analysis for Ontario, this province's LHIN model has key differences from regional models established elsewhere. These differences are summarized in Table 1.

Table 1: Comparison of RHAs and LHINs

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Typical RHAs</th>
<th>LHINs</th>
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<tbody>
<tr>
<td>Governance structure</td>
<td>Single governance board for all health services</td>
<td>Boards of component organizations retained in addition to overall LHIN board.</td>
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<tr>
<td>Executive management</td>
<td>Single executive team to lead organization</td>
<td>Executive team retained in each component health organization</td>
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<tr>
<td>Range of services</td>
<td>Relatively comprehensive. Generally all health services except physician services</td>
<td>Has been less comprehensive. Patients First discussion paper has proposed inclusion of public health.</td>
</tr>
<tr>
<td>Funding</td>
<td>Global budget from province from which public health is funded.</td>
<td>Patients First discussion paper has proposed that provincial component of public health funding be routed through LHINs. Note that most public health programs funded 75/25 with municipalities.</td>
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These regionalized models have a fundamental difference with Ontario's LHINs in that as part of the regionalization process, the individual boards and executives of individual organizations have been eliminated resulting in a single healthcare system-wide executive team for the RHA accountable to one overall governance board. In contrast, many organizations within LHINs have maintained their own boards and executive teams. While the system designs vary among and within provinces, and over time, the experiences of other provinces provide important information regarding the potential opportunities and risks of public health becoming part of a regionalized health system. It is particularly important to distinguish potential, conceptual benefits from what has actually occurred on a wide scale basis.
**Increased Health System Emphasis on Prevention and Promotion**

At the time of healthcare reforms, provinces have emphasized that the changes would enable an increased emphasis on disease prevention and health promotion. However, depending upon the implementation context, there are a number of regionalization-related factors that could either increase or decrease the emphasis on disease prevention and health promotion (see Table 2).

**Table 2: Regionalization Factors Influencing the Emphasis on Disease Prevention and Health Promotion**

<table>
<thead>
<tr>
<th>Factors Supporting Increased Emphasis</th>
<th>Factors Supporting Decreased Emphasis</th>
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<tr>
<td>- Provincial and RHA commitment to these activities</td>
<td>- Public preoccupation with acute and medical care</td>
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<td>- Explicit and high-profile mandate to pursue these activities</td>
<td>- Weak provincial commitment</td>
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<td>- Strong RHA leadership and buy-in from significant constituencies</td>
<td>- Weak RHA commitment</td>
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<td>- Accountability for performance in these areas</td>
<td>- Lack of provider interest</td>
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<tr>
<td>- Mechanisms to ensure voices of the dispossessed are heard</td>
<td>- Impatience with long-term time frame for achievement of goals</td>
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<td>- Lack of public and media interest</td>
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Source: Lewis and Kouri, 2004.⁴

The challenge is that the items that favour a positive influence demand active leadership and management, whereas those that favour decreased emphasis tend to be the default state. While system transformation is accompanied with the rhetoric of increasing attention on prevention and promotion, the reality is that the primary driver of system reforms has generally been to address the financial pressures of illness care, which creates a focus on service provision and costs versus the health of the public. As such, organizational structures and their leadership are typically driven, dominated and rewarded for the delivery of timely illness care,⁵ which is sometimes referred to as the 'tyranny of the acute'.⁶ Even when a Board and executive have been particularly interested in population prevention and promotion, having approximately 97% of the budget focussed on individual-level care drives the organization's attention. By the end of the first decade of regionalization, a Federal/Provincial/Territorial (F/P/T) Committee's study that was prepared but not released concluded that reductions in province-wide programming had occurred as a result of the transfer of funding and responsibility to regional structures.⁷

Even the terms 'prevention and promotion' can create considerable misunderstanding. While public health will typically view such terms with respect to creating supportive environments and healthy public policy, as well as non-clinical individual and group interventions (e.g., support a community kitchen), clinical audiences will tend to focus on education, counselling and clinical preventive interventions. Similarly, public health's interest in how social determinants of health (SDOH) create health inequities considers not only their effect on access to services, but even more importantly, how these determinants affect the occurrence of ill health by increasing exposure to health risks, as well as increasing vulnerability to their effects.⁸ Reflecting its
primary sphere of influence, healthcare services will predominantly focus on inequities in access to healthcare.

Viewed broadly, the public health and clinical perspectives are complementary. However, with a dominant clinical orientation in RHAs, the understanding and valuing of a broader population perspective to prevention and promotion can be limited. The result can often be a re-orientation towards clinical-type interventions of existing public health staff, as well as actual loss of public health positions. For example in recent consultations with health promoters in four other provinces, a common theme was that RHA managers of public health services and more senior decision-makers did not understand or value health promotion. To the frustration of the health promoters, expectations for practice were often limited to individual-level service delivery and a focus on education-type approaches versus addressing broader health determinants and public policy. In one province, it was difficult to identify dedicated health promoters to consult with and in another, there was concern that individuals without any training in health promotion were being hired for these positions.

In an earlier national consultation on public health action on health inequities, identified barriers to greater action included a continuing preoccupation with behaviour and lifestyle approaches; regionalization processes that had hindered traditional linkages between public health and municipalities; as well as a priority for individual service delivery and harder-type outcomes with less time and support for the development of strategic relationships with other organizations and the community. Even in recent years, public health staff in some areas have been actively dissuaded from working with external community groups following broader healthcare system reforms.

Conceptually, public health's formal involvement with the healthcare system could bring a population health perspective to the understanding of health issues and the planning of healthcare services. Reflecting the factors in Table 2, some RHAs with strong and interested leadership combined with strong public health leadership and capacity have made greater progress. Key features have included:

- Routine participation of public health leader (Medical Officer of Health) in RHA executive management team meetings and regular access to the Board
- Population data analysis capacity to provide health status outputs to inform decision making.

For example, the CEO of the former Capital Health Authority in Halifax describes how their Medical Officer of Health has helped their thinking and understanding of upstream prevention to prevent risk factors for disease ever existing, which requires targeting of the whole population and the use of comprehensive health promotion tools. The result has been greater clarity.

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ii The current government is in the process of amalgamating the previous 9 District Health Authorities into a single province-wide health authority.
regarding the unique contribution of public health toward population health, the bulk of their work, and only a small contribution toward clinical care. Furthermore, the public health division's Understanding Communities Unit provides reports to assist the health authority to understand where and what needs attention.  

Similarly, in Saskatoon, the Medical Health Officer is a member of the RHA executive team and a Public Health Observatory has been established. The Observatory analyzes and integrates information on health status, determinants of health and health service utilization in order to provide analysis to inform health system decision-making and public health practice including reducing health inequalities. The Observatory has been producing regular reports for several years on health status, health equity, determinants of health, and equity in healthcare services.  

While these examples illustrate the favourable potential for positive public health involvement in regionalized systems, they are not typical. Despite the stated intent to increase emphasis on prevention and promotion, in most provinces, public health's involvement in providing a population health perspective was not achieved by design, but left to the discretion of individual RHAs. The result is to find many Medical Officers of Health with limited routine access to the RHA's executive team and Board, and little involvement in overall system planning. Furthermore, with a change in RHA leadership, public health's structure and reporting relationship can change literally overnight. As described in one province, in the absence of public health representation at the RHA executive table, and in some RHAs having Medical Health Officers with no direct influence on budgets, program implementation and staff deployment, "public health was marginalized and often invisible within the system and public health was unfairly targeted for cost cutting measures."  

An intrinsic problem is believing that a small complement of public health professionals and their population health expertise can influence a much larger and more powerful set of illness care-oriented organizations and professionals. Contrary to the intent for public health to bring a population health perspective to the healthcare system, the result is often for the larger illness care culture to influence public health to a more clinical orientation.  

Integration Among Services  
The benefits of 'integration' are commonly emphasized during health system transformations with the intent to have services be more seamless and responsive to local needs. Considering the complexity of healthcare services and the challenges for patients to navigate the system this focus on integration makes sense. However, public health has a limited proportion of its services that deliver a clinical service to an individual. Examples include sexual health and dental health clinics, although in some other provinces, public health directly provides all childhood immunizations, provides well-baby clinical assessments, and conducts clinical post-partum follow-up visits. Many of the areas of public health involvement in the provision of clinical services reflect historical gaps in the availability of primary care services on a population-wide basis, particularly for more vulnerable populations.
Being part of a regionalized system can allow for better collaboration among different service providers. Commonly identified examples of improvements include maternal-child programming such as post-partum follow-up, high-risk family follow-up, and breastfeeding support, as well as communication and coordination for follow-up of communicable diseases.\(^3,17,18\) The challenge is that in pursuing integration as a measure of success mixed with an incomplete understanding of public health practice and a greater valuing of clinical approaches tends to drive a re-orienting of public health practice to a clinical perspective. For example, in many health authorities, a strategy for chronic disease prevention and management has been pursued with often a leadership role for public health in providing a comprehensive approach to assessment and planning in addition to supplying primary prevention expertise. The increased visibility however, was accompanied with a risk of diversion of public health efforts towards individual-level interventions.\(^3\)

The Patients First discussion document emphasizes the intention for seamless links between primary care and other services. Generally, primary care has not been part of RHAs elsewhere and many of the examples of collaborative models between primary care and public health have occurred in smaller urban, rural and remote settings.\(^6\) In many other provinces, public health organizations deliver a greater proportion of individual-level services than in Ontario providing greater opportunities for integration efforts such as co-location and/or transferring of service responsibilities. A practical challenge is how to establish linkages for a LPHA serving many hundreds of thousands of people to comprehensive primary care organizations, if they exist, serving several thousand people.\(^11\)

An additional pragmatic challenge is that in those RHAs in which there has been active interest in having public health involvement in planning activities, this has created a significant participation burden since there is a potential prevention angle for every health condition. The result is having public health directors and managers involved in numerous integration and system-planning meetings, at the expense of working with community partners and focussing on their core programming.\(^3\)

**Adverse Consequences of Public Health Involvement**

Overall, there have been several types of adverse consequences that have been widely but not universally experienced in public health's involvement in regionalized health systems:\(^3,5,6,11,15\)

- Reductions in public health capacity and voice through a range of mechanisms:
  - Direct diversion of funding to other parts of health system
  - Indirect diversion by reorienting public health staff and programming to illness-related care
  - Fragmentation of public health capacity by:
    - Breaking up public health departments and distributing them to multiple, often non-public health managers within a RHA
- Transferring public health inspectors to non-health government departments, which have been associated with adverse impacts on health protection services\(^{19}\)
  - Limiting public health leaders' access to the RHA executive management team and Board
  - Creating too many health authorities in order to focus on individual care thereby limiting the covered population base and the support of a critical mass of public health expertise.
- Barriers to engagement with community and municipal partners for action on social determinants of health including:
  - Reorientation of focus to illness-related issues
  - Diversion of attention to planning healthcare services
  - Active discouragement of partnering with external agencies
  - Misalignment of RHA's service boundaries with municipal, education and social service agencies thereby impairing work on broader determinants.

While adverse consequences experienced elsewhere appear to have resulted from factors described in Table 2, they have also been exacerbated by aspects of the overall design of public health in most provinces. Based on the best available information, an F/P/T report identified the key design features for public health systems including the required structural elements.\(^2\) Several of these have been missing from most provinces including a lack of explicit public health program standards; a lack of transparent, protected funding for public health; a lack of robust accountability mechanisms for fulfilment of the program standards; and, creating health authorities of too small a population base to support a critical mass of public health expertise.\(^3\) In contrast, Ontario's existing public health system exhibits all of these elements, except for supporting a critical mass of expertise in some parts of the province.\(^{20}\) Losing any of these design elements in Ontario's transformation efforts would be anticipated to increase the risk of adverse impacts on fulfilling public health's mandate.

**England**

England's experience with a regionalized health system pre-dates those in Canada. Public health's experience there provides further reason for caution with how to proceed with reforms in Ontario. Despite long-term integration efforts and public health's involvement in system planning, the result was that public health's budgets were squeezed, staff disempowered and the system fragmented.\(^{21}\) Based on England's experience, it has been observed that public health's focus on upstream determinants of health and community-level prevention can be 'easily kidnapped and displaced' by a focus on the clinical care system.\(^{15}\) The current plan has been to realign public health to local municipalities, although the implementation of this direction has been highly problematic.
Analysis and Implications
Based on the experience elsewhere to-date, there are two main arguments for public health’s greater linkage with the healthcare system.

First, since healthcare is a determinant of health, it would be beneficial to achieve a re-orientation of healthcare services towards improving population health and reducing health inequities.

a. Public health can support change in the healthcare sector just as it strives to support the creation of supportive environments for health in other settings.

b. Public health’s involvement alone will not achieve this re-orientation and too much unprotected exposure of public health to the healthcare system has been shown to pose a real risk of re-orienting public health to a clinical focus thereby losing action against social determinants of health.

c. The change in orientation needs to occur primarily from within the healthcare system (population level goals, leadership, performance measures, accountability, training, pilot projects, etc.)

There is limited evidence of what specific approaches are effective to support a healthcare system’s greater orientation to population health. Potential considerations include:\textsuperscript{15, 16, 22, 23}

a. Public health senior level involvement in LHIN strategic planning and decision-making. This should be for the broad system and not limited to primary care. Possible examples include:

 i. Apply a population health lens to important/recurring problems

 ii. Relationship building – e.g., joint training/exercises between clinical care and public health

 iii. Use of healthcare system’s voice to support broader advocacy efforts

b. Establish capacity/mechanisms to bring a population health perspective to clinical data. This might include:

 i. Identifying inequities in health status and service delivery (e.g., population coverage rates for preventive care interventions)

 ii. Adopt population health indicators

 iii. Linking social determinants, geography and healthcare delivery (e.g., high needs/service use -> partner with other agencies to resolve)

 iv. Use of simulation models to understand medium- and long-term impacts of investments.
The second main argument is that since public health provides some individual-level services, there may be opportunities for improving service coordination with other providers. Based on the experience elsewhere,\textsuperscript{11, 16}

a. Collaborate on real mutual areas of individual-level clinical services
b. Avoid broad and vague intentions of ‘integration’ and ‘strengthening prevention and promotion’, which will tend to be defined inconsistently. Be clear what the goal is (e.g., address a specific need, service gap or overlap).
c. Apply a continuous improvement approach to make valuable change. In other words, the value add should be named, measured and demonstrated
d. Avoid responses to short-term service pressures that thwart long-term preventive intentions.

While pursuing perceived opportunities, the risk of adverse impacts experienced elsewhere must be managed. This includes:

a. Maintain the existing critical design features of Ontario's public health system:
   a. Dedicated governance through a Board of Health
   b. Structural integrity (i.e., not fragmented)
   c. Transparent, protected budget to fulfill the LPHA's function
   d. Accountability linked to fulfillment of Public Health Standards
b. Manage the risk of participation burden – the healthcare system is very large and complex. It is possible for public health's focus to be diverted through extensive engagement efforts of its management staff with healthcare planning and integration efforts. The healthcare system is but one determinant of health. Public health's involvement with the healthcare system needs to be balanced with broader complementary action to address the other health determinants.
c. If there are increased expectations for public health involvement, these should be identified and resourced – otherwise reflects diversion of public health resources to healthcare system.
References


