Balancing Equity Issues in Health Systems: The Example of Vancouver Coastal Health

EQUITY

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Introduction
Canada's public health system is committed to providing necessary healthcare services to all Canadians. This principle is so simple – as well as morally and practically appealing – that it has become embedded as a fundamental part of what it means to be Canadian. It is, of course, much more complex to follow through on the principle than to support its philosophy.

An ideal world would be one in which the need or demand for health services were fully matched by resources and the system’s capacity to deliver desired activities. However, as we all know this ideal state does not exist in any public healthcare system in the developed world. This gap between ideals and reality gives rise to the challenge of allocating scarce resources so as to fulfill “most-needed” services.

At the health system delivery level, this drama is played out every day – nowhere more so than in the territory overseen by Vancouver Coastal Health (VCH). In this region, Canada's highest per-capita income postal code lies within a few kilometres of the Downtown Eastside, the country’s lowest per-capita income postal code. VCH staff decisions about who receives care and how much, and – perhaps more importantly – who does not, are in constant and stark relief.

British Columbia’s Health Authorities
In 2001, the British Columbia (BC) government created a regional healthcare delivery structure by forming six health authorities across the province. This restructuring was motivated by the belief that integrating public healthcare services would result in improved quality outcomes and greater efficiencies.
Rather than focusing on just hospitals, residential care beds or community clinics, policymakers argued that a regional system would break down silos and allow a continuum-of-care approach. Under this new system, early detection, treatment and ongoing disease management would be coordinated across a continuum supported by evidence-based practices, accepted protocols and pathways and multidisciplinary teams. The intent was to bring a more holistic approach focusing on the “whole” human being rather than fragmented care characterized by redundancy and the hand-off of patients between practitioners.

As one of BC’s health authorities, VCH’s mandate is “To improve health outcomes for the people we serve through appropriate care, education and research.” Particular emphasis is placed on three objectives:

- Increasing quality of life and longevity through high-quality medical and clinical care
- Improving the patient experience through increased access, responsiveness and support
- Promoting informed choice, self-care and self-responsibility

**Demand and Supply**
The regional structure is an important component in addressing the imbalance between demand and supply in healthcare delivery. In itself, however, it clearly is not the solution. Given that there are two elements to the equity challenge (i.e., too much demand and/or too little supply), finding a balance implies adjusting or rationing one or the other element – or, more usually, both. The strategy for on-the-ground healthcare deliverers, then, involves both a quest to define and optimize the need for healthcare services and a rigorous improving of the efficiency of how those services are delivered.

The demand for healthcare services continues to grow at a rate that exceeds the expectations of Canadian governments and the public. Wait lists, delays and access issues are symptomatic of demand not being fully met, despite growth in funding levels in excess of 6% per annum in most jurisdictions. The following factors influence demand for services:

- Population growth
- Population aging
- New treatments and technologies
- The health status of the populations served
- Other non-medical factors:
  - Economy
  - Employment
  - Housing
  - Education
  - Culture

Across Canada the expanding and aging population can be predicted with relative accuracy and represents an annual growth factor of between approximately 1.5% and 2.5%. It has proven much more difficult to make accurate forecasts for new treatments and technologies – areas that have seen much greater increases. In BC, for example, the number of hip and knee replacements rose from 2,430 procedures in 1991 to 4,775 in 2005. Less than 15% of that increase can be

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attributed directly to population growth and aging. Improvements in outcomes, length of stay, technology/treatment and surgeon proficiency were the biggest growth drivers (Ministry of Health, Health Economics and Analysis, Information and Modernization Branch 2007).

In a system in which demand exceeds supply, rationing becomes a time-honoured and sometimes desperate response. All health authorities and healthcare providers put enormous effort into initiatives that will avoid the need to ration services. On the demand side, strategies include the following:

- Continuum-of-care design, including chronic disease management, prevention, early detection, appropriate primary care and community-based care, including rehabilitation and home support
- Evidence-based practices guided by outcomes
- Adoption of new discoveries, therapies and treatments
- Individual self-care and self-responsibility
- Initiatives to reduce hospital admissions and re-admissions
- Timely access to diagnosis and assessment
- Streamlined navigation through the healthcare system
- Partnerships with other organizations that entail housing, income assistance and education

These strategies must accompany improved efficiencies and optimization of the supply or delivery side of the healthcare system.

Resource Allocation

Over the past decade, a concerted effort has been made across Canada to create a public healthcare system that is more efficient, costs less and is more effective. To achieve these goals, many public health providers have adopted private sector best practices aimed at delivering more services for the funding provided. Among the most important and frequent measures undertaken, hospitals and health authorities have consolidated sites and activities, altered supply-chain logistics, adopted “lean” and “quality” redesign techniques, introduced patient-flow modelling and scenarios, outsourced to the private sector and improved costing and performance systems.

Despite these efforts, the reality for most public health providers is that the demand for services still outstrips the capacity to deliver. Therefore, decisions must be made regarding how and where to allocate funds and resources more effectively.

Resource Allocation Decision-Making

Resource allocation decisions are usually made at two levels. The first is at the level of government policy, where regulations, legislation and political directives determine public priorities and, frequently, where funds are directed. Federal–provincial agreements on waitlist times for selected surgeries and other procedures, and decisions regarding approvals of – and funding for – new, experimental and often high-cost drugs are recent high-profile examples of such resource allocation decisions.

From a broader perspective, healthcare provider structures and governance systems constitute the second level at which resource allocation decisions are made. In BC, funding for health authorities is largely based on a population needs-based funding (PNBF) formula. The strategic intent of this type of funding, as opposed to activity-based funding, is to create incentives for health authorities to provide the most appropriate and cost-effective services. The PNBF formula incorporates a per-capita dollar amount, with adjustments for age and socio-economic status. In many cases, it promotes greater investment in prevention, chronic disease management
and community-based services. The formula fosters a continuum-of-care approach and penalizes higher per-capita hospitalizations, re-admissions as well as in-patient and in-hospital procedures.

PNBF challenges policy-makers to find ways to generate incentives and discipline in order to bring about more efficient and lower-cost procedures. For example, it raises the issue of whether it is even possible to foster competition between hospitals and clinics that are likely to be awarded larger volumes of surgeries or diagnostic procedures on the basis of lower costs and greater productivity.

Performance Measurement
The other side of the funding picture is deciding which services or outcomes will be delivered. In BC, the Ministry of Health and health authorities are governed by a structure of contracts and agreements that spell out the provincial government’s expectations for the performance to be delivered. The agreements include performance metrics that address quality, access, outcomes and improvement targets as well as a requirement for balanced budgets. Within these parameters, health authorities must develop strategies and plans that encompass health outcomes for the populations they serve and efficiencies that optimize available resources.

Benchmark and comparative standards are important tools for making resource allocation decisions. These instruments help health system planners decide where resources should be focused and support healthcare organizations in a process of continuous improvement. Figure 1 shows that at VCH a continuum-of-care strategy has guided planning and investment since its creation in 2001. The main elements of this strategy are:

- A focus on health outcomes by providing the most appropriate services/treatments designed to ensure optimal quality of life and longevity
- Optimal healthcare delivery that crosses traditional boundaries

Performance indicators and measures that provide discipline and rigour across the organization support VCH’s plans and initiatives related to the continuum of care. These

Figure 1. VCH continuum of care

![VCH continuum of care diagram]
indicators and measures are captured in a balanced scorecard system that is reviewed at all levels, including VCH’s board and senior executive team. They are presented at quarterly public board meetings and posted on our Web site (www.vch.ca). Most importantly, they are used to provide direction and support for prioritization and improvement across the care continuum.

Given that the impact of interventions on outcomes often occurs years or even decades after an investment has been made, measures that focus on outcomes are the most challenging. Outcome measures considered by VCH include the following:

• Potential years of life lost for target populations
• Post-neonatal mortality rate
• Re-admissions for target populations (e.g., mental health, congestive heart failure)

Other indicators and measures focus on efficiencies and resource utilization. They include comparative measures designed to identify opportunities to exchange best practices among health providers in other parts of BC, Canada or the world. These include:

• Acute beds per capita
• Number of surgical cases per capita
• Residential care days per capita
• Alternate level of care days in hospitals
• Average length of stay (acute and rehabilitation)
• Number of cancellations
• Operating room and post-anaesthetic recovery productivity
• Cost per case/activity

Access is another key issue that can negatively impact health outcomes, workflow and costs. Waittime measures include the following:

• Emergency department measures, including the Canadian Triage and Acuity Scale (CTAS) measures and decision to admit
• Wait times for key surgical procedures, including hips, knees, oncology and cardiac care
• Wait times for diagnostic procedures
• Community care placements in residential care facilities
• Mental-health clients receiving follow-up within 30 days of discharge

Indicators also encompass the following public health and primary care effectiveness measures:

• The proportion of people experiencing difficulties in obtaining care
• The proportion of chronic diabetes patients receiving appropriate care (e.g., diabetes patients with HbA1C <7.0)
• The percentage of the population that is overweight or obese
• The percentage of the population that smokes

These indicators and measures help VCH to determine priorities, which then drive
resource allocation decisions. Within our health authority, a population health approach supports the goal of equity. Appropriate indicators and measures provide guidance and direction to support investments in services and activities. They also highlight areas of opportunity for improved efficiency and best-practice transfer.

**Sustainability**
While supply and demand pressures in the public health system are well recognized and much work is underway to find a balance between the needs of the population and the system’s capacity to meet them, a third – equally critical – element must also be addressed. That element is sustainability. The demands on the healthcare system in the future – driven primarily by an aging population and new technologies and treatments – will outstrip the potential for efficiencies and improvements to absorb these additional requirements. Public debate and policy development are required to define what the public healthcare system can – and will – provide, as well as how services will be funded. The dual questions of “what will be provided?” and “who will pay?” must be addressed in the coming new world of geriatric baby boomers.

Even in the shorter term, critical issues pertaining to sustainability require higher priority than they currently receive in most Canadian jurisdictions. Human resource shortages and lack of investment in information technology and infrastructure threaten the future viability of our health system. More and more frequently, particularly in larger centres, key issues are a lack of beds and surgical capacity. These issues are driven not by a shortage of funds but by a shortage of nurses and other healthcare professionals.

As we look toward the decades ahead, there appear to be many opportunities for vastly improved health outcomes. It behooves us to ensure that the policy and strategy decisions we make today will not only create a health system that will provide Canadians with the best healthcare possible but also create a system in which we will want to work.

**Reference**