Beyond the Hospital Walls

Activity Based Funding Versus Integrated Health Care Reform

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by Marcy Cohen,
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Iglika Ivanova and
Chris Kinkaid

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January 2012

ABOUT THE AUTHORS

MARCY COHEN, recently retired as Director of Research & Policy at the Hospital Employees' Union, is an adjunct faculty member at Simon Fraser University. As a research associate with the CCPA, she has co-authored a number of research and policy studies looking at public solutions to the current challenges in our health care system.

DR. MARGARET MCGREGOR is a family physician at the Mid-Main Community Health Centre, a clinical associate professor with the UBC Department of Family Practice, and a research associate with the UBC Centre for Health Services Policy Research and the Vancouver Coastal Health Research Institute's Centre for Clinical Epidemiology & Evaluation.

IGLIKA IVANOVA is an economist and the Public Interest Researcher at the BC Office of the Canadian Centre for Policy Alternatives.

CHRIS KINKAID is the Director of Research & Policy at the Hospital Employees' Union. He has had research and bargaining roles in both private sector and public sector unions in Ontario and BC over the last 10 years.

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CCPA
CANADIAN CENTRE
for POLICY ALTERNATIVES
BC Office

1400—207 West Hastings Street
Vancouver BC V6B 1H7
604.801.5121 | ccpabc@policyalternatives.ca

www.policyalternatives.ca

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The controversial new plan for federal transfer payments to the provinces makes it clear that the current federal government will not use its spending authority to take a leadership role in ensuring the long-term sustainability of our public health system.

DEBATE ABOUT THE CHANGES NEEDED to encourage better, more cost-effective health care in Canada heated up over the past year, spurred by anticipated negotiations on a new Health Accord between the federal and provincial governments. The prospects of a new Accord were sidelined in December 2011, however, when Finance Minister Jim Flaherty announced a controversial new plan for federal transfer payments to the provinces over the next 12 years (transfer payments will go up by 6 per cent per year until 2016/17, and after that will be tied to economic growth rates).

Flaherty's announcement makes it clear that the current federal government will not use its spending authority to take a leadership role in ensuring the long-term sustainability of our public health system. It also puts considerably more pressure on the provinces to find ways to improve quality of care, increase access to health services and minimize cost increases.

Given the changed federal context, it is more important than ever for citizens in BC and across Canada to understand the policy options available to us, and what the research evidence tells us about their effectiveness. It is also important for provincial governments to find new ways to work together (e.g., to share expertise and knowledge, pool resources) to increase the impact of reform strategies designed to improve care and control costs.

This paper examines two policy options now being introduced in BC, both of which are relevant to other provinces; the first a more integrated approach to health care, and the second a new model for hospital funding known as activity based funding.

Under activity based funding, or ABF, health care providers like hospitals are funded based on the number and type of "activities" they actually perform. In the case of BC, the focus is primarily on encouraging hospitals to carry out more surgical procedures. For these services ABF replaces *global funding,* which gives health care providers a set budget each year.

We review the international evidence about the effectiveness of these two approaches, and propose concrete recommendations for BC to pursue in the coming years.

WE CAN AND MUST GET BETTER VALUE FOR OUR HEALTH CARE DOLLARS

Like the rest of Canada, BC faces significant health care challenges, including:

- Lack of coordination between the three parts of the system (primary, acute and community health care);
- Inadequate funding for community health care;
- Inappropriate and ineffective use of hospitals, the most expensive part of the system:
    - Hospital beds taken up by patients who no longer require hospital services—most often the frail elderly who cannot be discharged because of the shortage of community services like residential care and home support;
    - Patients with chronic conditions going to emergency for problems that could be treated in primary care;
    - Seniors admitted to hospital for preventable adverse drug reactions; and
    - Lower-income people hospitalized for chronic conditions that could be treated in the community if these services were available and affordable.

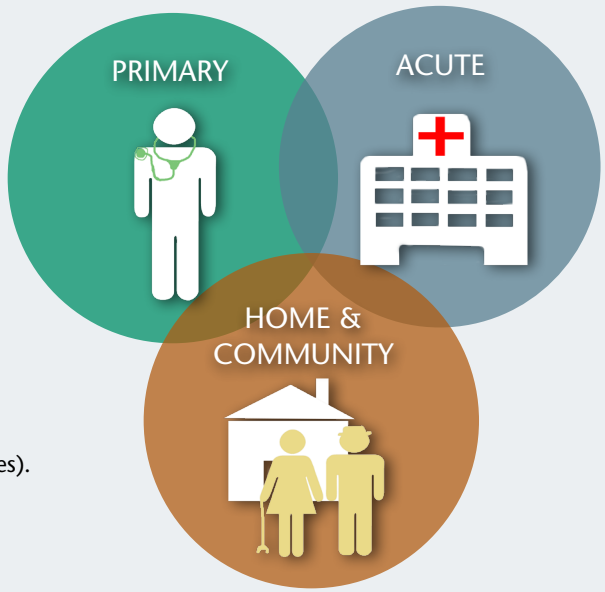
All of these examples point to ineffective and inappropriate use of the most expensive part of our health system—hospitals—and to the importance of creating more adequately funded and better integrated primary and community care services. This would reduce pressure on hospital services and alleviate the problems we constantly hear about in the media: overcrowding and long wait times in emergency and wait times for surgical procedures. It could also reduce the need to expand hospital services in the future.

This paper examines two policy options now being introduced in BC, both of which are relevant to other provinces; the first a more integrated approach to health care, and the second a new model for hospital funding known as activity based funding.

Health Care in Canada

Canada's health care system is made up of three intersecting parts:

- primary care (family doctors);
- acute care (e.g., hospitals and emergency services, the most expensive part of the system); and
- home and community care (e.g., residential care for seniors, home support services).



BC'S COMPETING APPROACHES TO HEALTH CARE REFORM: INTEGRATED CARE AND ABF

BC has been experimenting with two very different approaches to improving health care.

On the one hand, the province has made small steps toward integrating all three parts of the health care system, in order to reduce hospital use and provide better continuity of care. This includes the Integrated Primary and Community Care Initiative, which brings together hospitals, primary care, home and community care, and mental health services in the health care planning process for high needs populations, such as the frail elderly and people living with chronic health conditions.

However, there is no dedicated provincial funding for this initiative, and efforts at integration have been hampered by the erosion of funding for community-based services over the past 15 years.

BC has made small steps toward integrating all three parts of the health care system, but has put most of its focus on introducing activity based funding.

In contrast, the province has put most of its focus on introducing activity based funding. In April 2010, BC's Ministry of Health announced a new three-year strategic agenda that included a plan to shift approximately 20 per cent of hospital funding from the global model to ABF.

As noted above, under global funding, hospitals receive a fixed yearly budget to cover all of the services they provide. To stay within budget, hospitals sometimes reduce activity levels or close operating rooms and beds during holidays or over the summer. These measures may save money, but can result in longer surgical waitlists and inefficient use of hospital resources.

Under ABF, health providers receive funding based on the number and type of "activities" they perform.

According to its proponents, ABF improves hospital efficiency by increasing the number of day surgeries as opposed to overnight procedures, and shortening the lengths of stay for other in-hospital services. ABF proponents view it as a key means to address surgical waitlists and over-crowded hospitals.

PROBLEMS WITH ABF

The BC government has made activity based funding a priority, at the very time that senior researchers and policy advisors in countries like the US and Britain—where ABF schemes have been in place for many years—are proposing alternatives that are more compatible with service integration and quality improvement strategies. This shift follows studies showing that because ABF narrowly focuses on reforming hospital funding, it cannot resolve system-wide problems, and may actually inhibit overall system coherence and service integration.

Some of the key concerns about ABF include:

- ABF DOES NOT ADDRESS THE REAL CAUSES OF HOSPITAL PROBLEMS

  The current problems in BC hospitals – overcrowding, long wait times – are primarily due to pressures from other parts of the health care system, not lack of "activity" in hospitals. For example, in Canada one in nine hospital beds are occupied by "alternate level of care" or ALC patients, most often the frail elderly who need residential care or other community services, but are stuck in hospital because these services are not available. A recently released report from the Wait Time Alliance argues that reducing the number of hospital beds

occupied by ALC patients is "the most important action that could be taken to improve timely access" to both emergency and elective surgical services.

This suggests that system-wide reforms, particularly improving community care, will have the greatest impact on quality and costs.

- EFFICIENCY GAINS UNCERTAIN; ADMINISTRATIVE COSTS INCREASE WITH ABF

The goal of ABF is to encourage greater efficiency by promoting more activity at a lower cost per patient admission (i.e., per unit). However, contradictory and inconclusive findings in the international literature have led researchers to conclude that the evidence of improved efficiency (i.e., reduced per admission costs) with ABF is, at the best, mixed.

At the same time there is little question that ABF leads to higher administrative costs. Because hospitals are no longer guaranteed a certain level of funding under ABF, but instead are paid based on the number and type of surgical activities they perform, there is an incentive to manipulate the reporting (or coding) of procedures. For example, a hospital administrator can use the coding system to claim that procedures they performed were more complex than they actually were. This practice is referred to as "gaming" the system or "up-coding." Because of this risk, ABF requires increased monitoring and auditing, and thus leads to higher administrative costs.

The BC government has made activity based funding a priority, at the very time that senior researchers and policy advisors in countries like the US and Britain — where ABF schemes have been in place for many years — are proposing alternatives that are more compatible with service integration and quality improvement strategies.

- ABF ENCOURAGES OVER-TREATMENT OF SOME POPULATIONS AND UNDER-TREATMENT OF OTHERS

There is a great deal of evidence from many countries to show that the volume incentives built into ABF create a preference for treating high-volume, low-risk patients over higher-needs, less predictable patients. This means that decisions about whether to provide care may not be based on the potential of that care to improve the health of the patient, but rather on whether the patient is likely to move through the system quickly and without complications. This perverse decision-making can result in over-treating some patient populations and under-treating others. Patients with complex needs and physical disabilities are particularly disadvantaged, because of the difficulties hospitals experience in getting reimbursed for the full costs of caring for these patients under ABF.

- INCREASES IN DAY SURGERIES MAY HAVE NEGATIVE CONSEQUENCES

In BC, the first priority for ABF is to increase the number of day as opposed to overnight procedures. This may be problematic given the inadequacy of funding for home health services in BC to support patients post-surgery and the absence of any process for monitoring patient safety and quality of care. Encouraging more day surgeries also opens the door to increasing the role of for-profit clinics, which are allowed to perform surgeries requiring less than 24 hours' stay.

- ABF CAN CREATE A MARKET FOR HOSPITAL SERVICES, AND POSSIBLY INCREASES THE ROLE OF PRIVATE PROVIDERS

By creating a pricing mechanism for individual activities, ABF establishes a quasi-market (internal market) for hospital services, where non-profit hospitals may be expected to compete with each other, and potentially with the private sector, to provide health services based on a set price paid by the government or health authority.

INTEGRATED HEALTH CARE REFORM: A BETTER WAY TO THINK ABOUT CARE

Tremendous strides have been made in recent years in understanding how to introduce large scale change into health systems, with the goal of providing safe, effective, patient-centred, timely, efficient and equitable care. A growing body of international evidence demonstrates that high performing health care systems can simultaneously improve quality, ensure access, and achieve lower rates of overall expenditure growth.

Some of the best examples of how to apply a systems approach to health services transformation can be found in the 2008 report, *High Performing Healthcare Systems: Delivering Quality by Design.* The report was part of a project designed to inform Canadians about regional health systems that have been recognized as outstanding in providing both efficient and equitable care. The report featured five case studies: Jonkoping County Council (Sweden), Birmingham East and North Primary Care Trust (England), and three not-for-profit regional health organizations in the US.

A growing body of international evidence demonstrates that high performing health care systems can simultaneously improve quality, ensure access, and achieve lower rates of overall expenditure growth.

In Canada, regional health systems include many distinct services, each with different care processes and limited capacity to share information or work together toward a common goal. This was true in the five case studies as well. In each case a very strategic and quality focused change agenda was initiated by a senior leadership team, working across the entire system, to develop a common purpose, improve care co-ordination, reduce wait times and standardize care processes based on the best available evidence and an integrated approach to information technology. Funding was realigned to population needs in order to make visible the ways in which inadequate care for a patient population in one part of the system (e.g., primary care) resulted in higher costs in another part of the system (e.g., hospitals).

The Story of Two Swedish Counties: Better Results with Service Integration than ABF

Sweden provides an excellent example of the relative benefits of systems integration as compared to ABF for improving care and containing costs. ABF was introduced in some Swedish counties, and not others. In 1992, Stockholm was the first county to shift to an ABF model and to encourage competition by creating an internal market for hospital services. Initially the so-called Stockholm model was very successful, resulting in productivity improvements of 20 per cent in two years. But these improvements proved temporary. By 1997, productivity had declined to the levels observed in 1991, prior to ABF's introduction. Evaluation studies revealed that over the same period greater productivity improvements were achieved in counties that focused on quality improvement and care integration rather than on greater service volume and competition via ABF. In fact, the most marked productivity increases occurred in the county of Jonkoping, one of the high performing regional health systems described in this paper. By 2005, Jonkoping County Council had the best overall ranking (among all 21 county councils in Sweden) in terms of efficiency, timeliness, safety, patient centredness, equity and effectiveness.

Two related system changes were central to the quality improvement strategies in all five case studies:

- A commitment to decision making at all levels (the practitioner, service, and system level) based on quality guidelines/performance measures that are evidence-based and focused on clinical outcomes, care co-ordination and patient experience; and
- A focus on service integration to improve care for people with ongoing chronic conditions and/or complex needs in the community, and to reduce the inappropriate use of high-cost emergency and in-patient hospital services.

Throughout the case studies there are examples showing that improved quality of care leads to more effective use of health care dollars. These include:

- A 50 per cent reduction in hospital readmission rates as a result of lowering the levels of post-operative infections in Intermountain Healthcare in Utah;
- A 50 per cent decline in unplanned hospital visits by mental health clients receiving more consistent and comprehensive care in the community in Birmingham, UK; and
- A 20 per cent reduction in hospital utilization due to improved care co-ordination for people with chronic conditions in Jonkoping County, Sweden.

Health reform in BC can build not only on the experience of high performing health systems internationally, but also on a number of successful smaller-scale initiatives already underway in BC.

RECOMMENDATIONS FOR BC HEALTH CARE REFORMS

Our review of best practices in health system reform points to many opportunities for BC to improve quality and access to health care, while also controlling the rate of expenditure growth. Health reform in BC can build not only on the experience of high performing health systems internationally, but also on a number of successful smaller-scale initiatives already underway in BC. These include the regional improvement strategy in the Northern Health Authority, the integration initiatives in communities around BC, and the pre-surgery hip and knee programs in the Lower Mainland. What is needed now is provincial leadership to support system-wide transformation and the scaling up of the successful local and regional initiatives.

Based on the international evidence of best practices in health reform, we have developed the following seven recommendations for the BC government:

- Develop clear and consistent goals that promote collaboration across health services and providers, and work toward these goals at multiple levels simultaneously.
- Determine the root causes driving hospital overcrowding and long wait times and use this information to guide provincial and regional improvement initiatives.
- Develop and report on broad-based performance measures related to patient clinical outcomes, care coordination, and patient experiences. Patient reported outcome measures, or PROMS, are particularly important to consider given the growing recognition internationally of the value of patients' perspectives in quality improvement initiatives.
- Provide adequate provincial funding to support the integration of community care with primary care.

- Provide more opportunities to introduce population-based funding and to test different mechanisms for sharing accountability and working across services and providers, beginning with specific high needs populations (i.e., the frail elderly and people living with serious mental illness).

- Ensure that at least a portion of savings from any quality improvement are retained and reinvested by the organizations/providers involved in initiating the change. This is seen as one of the best ways to ensure buy-in and momentum for change among health care providers.

- Avoid initiatives, such as ABF, that do not explicitly promote system integration and coherence, but instead increase the costs and activity in the most expensive part of the health system: hospitals.

Many of these recommendations would have even greater impact if they were part of the larger national (and to begin with inter-provincial) discussion about how to ensure the long-term sustainability of our public health system. The capacity to implement broad based performance measures, integrate community health services under the Medicare umbrella, and develop new ways of sharing accountability across services and providers would be greatly enhanced if these initiatives were part of a national effort to improve the quality and cost-effectiveness of Canada's public health care system.

We need to shift the debate from a discussion of single issues to a broader discussion of how to improve both the quality and cost-effectiveness of our overall health system.

Health system change and innovation is the main focus of the premiers' health summit planned for Victoria in early 2012. In a summit-related news conference in July 2011, Saskatchewan premier Brad Wall talked about the benefits of contracting out orthopedic procedures to private clinics, and BC premier Christy Clark talked about activity based funding as a way to drive down wait times for hospital procedures. Instead of focusing on the broader question of how to transform Canada's public health system into a high performing system, the Saskatchewan and BC premiers focused on a single issue—wait times for hospital procedures. And yet we know from the international evidence that wait times frequently reflect broader system problems related to the interface between acute, primary and specialist services and inadequate funding and coordination within the community health system. The failure to address these broader systemic issues will only exacerbate the wait time challenge.

We need to shift the debate from a discussion of single issues to a broader discussion of how to improve both the quality and cost-effectiveness of our overall health system. We recommend that more emphasis is placed on understanding the patient's experience across the continuum of care, and on developing a funding mechanism that allows an integrated set of providers to be accountable for providing appropriate and cost-effective care.

The Imperative for Change

IN 2004, IN RESPONSE TO SIGNIFICANT PRESSURE from the public and provincial governments, the federal government agreed to increase transfer payments for health care by 6 per cent a year for 10 years. This agreement (referred to as the Health Accord) expires in 2014, and discussions about how to structure the new Accord to encourage change and innovation were to kick off at a January 2012 meeting of Canada's premiers. But in a surprise move on December 19, 2011, Finance Minister Jim Flaherty pre-empted those discussions with an announcement that the federal government will provide 6 per cent annual increases in funding for health care for the next five years (to fiscal year 2016–17), and after that the increases will be tied to economic growth rates (at least to 2024).

The surprise federal government announcement puts considerably more pressure on the provincial governments to find ways to improve quality and access to health services and at the same time control rising health expenditures.

Flaherty's announcement effectively put an end to negotiations on the Accord before they could formally begin, which means the federal government will not use its spending authority to take a leadership role in introducing the system changes needed to ensure the long-term sustainability of our public health care system. It also puts considerably more pressure on the provincial governments to find ways to improve quality and access to health services and at the same time control rising health expenditures. These are very legitimate concerns, given the prospect of slower rates of economic growth for the foreseeable future and the limited progress that has been made to date on reforming our public health services. This lack of progress was already a concern because the 2004 Accord did not tie annual increases in federal spending to changes that would promote better, more cost-effective care (see *We Can and Must Get Better Value for Our Public Health Care Dollars* on page 12).

Over the past year, as media and public discussion focused around the anticipated Accord negotiations, debate intensified on the merits of different policy options for encouraging change and innovation in the health system. Some politicians and senior health care leaders called for more private financing and/or delivery, while others argued that Medicare should be expanded to include long-term care, home care and pharmaceuticals.

We Can and Must Get Better Value for Our Public Health Care Dollars

There is a great deal of evidence that we can do better in terms of how we spend our public health care dollars:

- In Canada, more than one in nine beds are occupied by patients (most often the elderly) who do not require hospitalization, but who are unable to access the community care services they need (such as long-term care)—referred to in the literature as "Alternate Level of Care" or ALC patients.[a] A recent report from the Wait Time Alliance argues that reducing the number of hospital beds occupied by ALC patients is "the most important action that could be taken to improve timely access" to both emergency and elective surgical services.[b]
- In Canada, more patients with chronic conditions reported going to emergency departments for conditions that could be treated in primary care than in seven other countries—Australia, France, Germany, New Zealand, Netherlands, the United States and the United Kingdom.[c]
- Many hospital admissions for seniors (by some estimates one in six) are due to adverse drug reactions. The vast majority of these admissions are preventable.[d]
- A 2008 Canadian Institute for Health Information study found that people with low socioeconomic status were more than twice as likely as people of high or average socioeconomic status to be hospitalized for chronic conditions (such as diabetes or mental illness) that could potentially be more effectively treated in the community.[e]

All of these examples point to ineffective and inappropriate use of the most expensive part of our health system—hospitals—and to the importance of creating more adequately funded and better integrated primary and community care services. This is particularly critical today, when two thirds of health care expenditures go to the care of people with chronic conditions, and there is evidence that better outcomes and lower costs can be achieved with a greater focus on community (as opposed to hospital) care.[f] Reducing pressure on hospital services would alleviate the problems we constantly hear about in the media—overcrowding[g] and long wait times in emergency and for surgical procedures. It could also reduce the need to expand hospital services in the future.

Health care is by far the largest publicly financed program in the country, and finding solutions that will improve the quality and cost-effectiveness of the health system is essential to retain continued government and wider public support for Medicare.[h] This is particularly important today given the ongoing uncertainly about the strength of the economy and competing demands for limited public resources (such as housing, child care or education).

[a] Wait Time Alliance 2011:1. In 2008-9, 5 per cent of patients and 13 per cent of hospital days were used by patients classified as ALC.

[b] Ibid.

[c] Schoen et al. 2008.

[d] Mannesse 1997; Canadian Institute for Health Information 2007.

[e] Canadian Institute for Health Information 2008.

[f] Morgan et al. 2007; Hollander et al. 2009b; Nesmith et al. 2010.

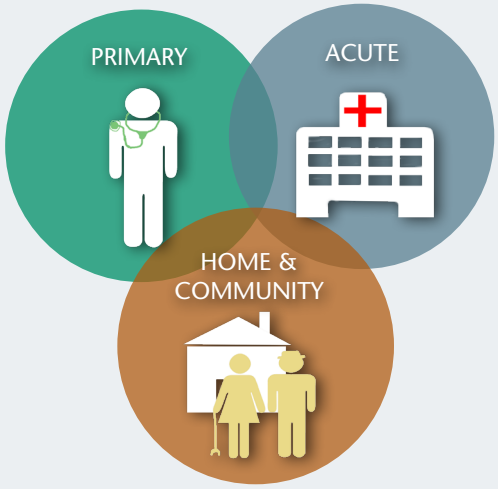
[g] Ontario Health Coalition 2011; Interior Health Authority 2005:3.

[h] Health Council of Canada 2009:16.

Health Care in Canada

Canada's health care system is made up of three intersecting parts:

- primary care (family doctors);
- acute care (e.g., hospitals and emergency services, the most expensive part of the system); and
- home and community care (e.g., residential care for seniors, home support services).



Despite clear evidence that private payment for services reduces equity of access, and that private insurance and delivery increases costs for the health system as a whole,[1] the political debate about public versus private health care is not settled. In July 2011, an advisory panel to the Canadian Medical Association recommended that Canadians should be open to considering more private delivery of publicly funded services, additional user fees, and increased competition among providers.[2] Beyond the debate over privatization, there is no agreement on the way forward in health care reform or on the specific policy, funding and governance changes needed to ensure a more effective use of public health dollars.

In the absence of a national consensus—and with the federal government having effectively put an end to national negotiations for a new Accord—the provinces will chart their own way forward, experimenting with different health care reforms. British Columbia recently launched a controversial experiment in activity based funding (ABF), a model designed to reward health care providers (in BC's case, hospitals) for increasing the volume of activities they perform (e.g., surgeries). Alberta plans to introduce ABF in long-term care. Ontario and Quebec are also seriously considering ABF models. And many provinces, including BC, are experimenting with different approaches to caring for people with ongoing chronic conditions and complex needs (e.g., the frail elderly and people living with mental illness) in community instead of hospital settings.

Given the refusal of the federal government to take leadership on health care reform, it becomes more important than ever for citizens in BC and across Canada to have a better understanding of these policy options.

Given the refusal of the federal government to take leadership on health care reform, it becomes more important than ever for citizens in BC and across Canada to have a better understanding of these policy options, how they work, and what the research evidence tells us about their potential to improve the quality and cost-effectiveness of our public health services.

This policy paper contributes to the current health reform debate by analyzing the international evidence related to two policy options now being introduced in BC: first, an ABF model for funding hospital surgical procedures; and second, an integrated model for caring for people with chronic conditions and complex needs in the community.

1 Woolhandler et al. 2003; Lasser et al. 2006; Devereaux et al. 2004.
2 Canadian Medical Association 2011b.

COMPETING DIRECTIONS IN BC HEALTH CARE REFORM

In April 2010, BC's Ministry of Health announced a new, three-year strategic agenda that included a plan to shift approximately 20 per cent of hospital funding from the current global funding model to ABF.[3] Under global funding, hospitals receive a fixed budget (i.e., known as a global budget) to cover all of the services they provide on a yearly basis. To stay within budget, hospitals have sometimes have to reduce activity levels (through mandated "reduced activity days") or close operating rooms and beds during holidays or over the summer. These measures, while saving money, can result in longer surgical waitlists and inefficient use of hospital resources.

In the past, global funding was viewed quite positively by government and health policy analysts because it is a very effective cost containment strategy. However, with growing media attention about backlogs in emergency departments, unacceptably long waitlist for many surgical procedures, and overcrowding on hospital wards, global funding is increasingly being recast as the source of these problems.

ABF is focused on encouraging activity in only one part of the system, most often in hospitals. It fails to consider the costs or adequacy of services received by a patient across the health system, and thus cannot identify where improvements in community care would reduce wait times and overcrowding in hospitals.

Activity based funding (ABF) is seen by the provincial government as the solution to the perceived problem with global funding.[4] Unlike global funding, under ABF, health providers receive funding based on the number and type of "activities" they actually perform, which creates a financial incentive for hospitals to increase the volume of service in these areas. In the case of BC, the focus is primarily on surgical procedures. The more of these procedures a hospital or surgical clinics performs, the more funding it gets.

ABF encourages more activity and, according to its proponents, increases hospital efficiency via faster "throughput"—that is, by increasing the number of day surgeries (as opposed to overnight procedures), and shortening the length of stay for other in-hospital services. ABF proponents view it as a key means to address surgical waitlists and overcrowded hospitals.

Yet it is not at all clear that these problems are primarily due to shortcomings in the global funding model. As noted at the beginning of this paper (see *We Can and Must Get Better Value for our Public Health Care Dollars* on page 12), long waitlists and the inappropriate use of hospital services can best be understood by looking beyond the four walls of the hospital—at the inadequate level of funding for community health services and the lack of co-ordination between primary, community and hospital care.[5]

ABF is focused on encouraging activity in only one part of the system, most often in hospitals. It fails to consider the costs or adequacy of services received by a patient across the health system (e.g., in a physician's office, long-term care facility, emergency department or community mental health agency), and thus cannot identify where improvements in community care could be implemented that would reduce wait times and overcrowding in hospitals.

In this paper we argue that to address the most pressing challenges in health care, system-level reforms are needed. We find that because ABF is narrowly focused on reforming the hospital funding model and increasing activity in the most expensive part of our health system, it may actually inhibit overall system coherence and service integration.

3 BC Ministry of Health Services 2010e.

4 Ibid.

5 Nasmith et al. 2010; Hollander et al. 2009; Cohen, et al. 2009b.

The paper begins with a review of the international evidence on best practices in system-level health reform. We then look at the context of ABF's introduction in BC, explain in more detail how ABF works, review the international literature on ABF, and highlight some BC-specific challenges in using ABF to fund surgical services. To assess ABF within the context of broader system-level health reforms, we compare the expected impact of ABF in BC with the impact of strategies focused on service integration identified in the international literature. We conclude with recommendations for the types of policy changes needed in BC (and Canada) that are in line with best practices from high performing health systems, including population-based funding mechanisms designed to facilitate greater service integration and the accountability of providers for the care of populations, not just procedures.

HEALTH SYSTEMS TRANSFORMATION STRATEGIES — WHAT WORKS

Tremendous strides have been made in recent years in understanding how to introduce large-scale change into health systems based on the goal of providing safe, effective, patient-centred, timely, efficient and equitable care (see *The Six Dimensions of Quality* on page 17). A growing body of international evidence on best practices in health system reform show these goals are attainable — that high performing health care systems can simultaneously improve quality, ensure access and achieve lower rates of overall expenditure growth.[6]

A growing body of international evidence on best practices in health system reform show that high performing health care systems can simultaneously improve quality, ensure access and achieve lower rates of overall expenditure growth.

Health care is a complex, adaptive system that operates at multiple levels simultaneously, which means (among other things) that change in one area may have unintended consequence on the system as a whole. High performing health systems are successful because they take a systems approach to introducing change — working at multiple levels simultaneously to develop clearly articulated, consistent goals that promote collaboration across the system (inclusive of all providers, services and patients).[7] As noted in the introduction to this paper, this approach to system-level change is needed in BC and Canada, where lack of co-ordination and accountability across service providers has resulted in service fragmentation and care that is often inappropriate and ineffective.

Some of the best examples of how to apply a systems approach to health services transformation can be found in the 2008 report, *High Performing Healthcare Systems: Delivering Quality by Design*.[8] The report was part of a project designed to provide Canadians with a better understanding of regional health systems internationally that have been recognized as outstanding in terms of providing both efficient and equitable care. The report featured five case studies of high performing regional health systems that succeeded in significantly improving quality (i.e., defined in terms of the six core goals of health care) by creating effective frameworks for system change, applicable in different settings with diverse populations and sustainable over time.[9] The five case studies, selected by a panel of 14 international experts, include Jonkoping County Council (Sweden), Birmingham East and North Primary Care Trust (England), and three not-for-profit regional health organizations in the US — the Veterans Health Administration, Intermountain Healthcare and the

6 Baker et al. 2008 (Afterword by Steven Lewis on pages 267-273); Fisher at al. 2009; Ham 2008:805-807; Institute for Healthcare Improvement website.

7 Baker et al. 2008:271.

8 Ibid., 10.

9 Ibid.,13.

Henry Ford Health System. In three of the five cases (Birmingham, Veterans Health and Henry Ford) a high proportion of the population served is economically and socially disadvantaged.

In Canada it is common for regional health systems to include many distinct services, each with different care processes and limited capacity to share information or work together towards a common goal (often referred to as "silos"). This was true in the five case studies as well. In each case a very strategic and quality focused change agenda was initiated by a senior leadership team, working across the entire system, to develop a common purpose, improve care co-ordination, reduce wait times and standardize care processes based on the best available evidence and an integrated approach to information technology. Funding was realigned to population needs in order to make visible the ways in which inadequate care for a patient population in one part of the system (e.g., primary care) resulted in higher costs in another part of the system (e.g., hospitals). Team members at all levels and from different organizations were involved in learning from each other, from the local community, and from high performing health systems internationally.

Two related system changes were central to the quality improvement strategies in all five case studies:

- A commitment to decision making at all levels (the practitioner, service and system level) based on quality guidelines/performance measures that are evidence-based and focused on clinical outcomes, care co-ordination and patient experience; and
- A focus on service integration to improve care for people with ongoing chronic conditions and/or complex needs in the community, and to reduce the inappropriate use of high-cost emergency and in-patient hospital services.

Throughout the five case studies there are examples showing that improved quality of care leads to more effective use of health care dollars.

Throughout the case studies there are examples showing that improved quality of care leads to more effective use of health care dollars. These include:

- A 50 per cent reduction in hospital readmission rates as a result of lowering the levels of post-operative infections in Intermountain Healthcare;
- A 50 per cent decline in unplanned hospital visits by mental health clients receiving more consistent and comprehensive care in the community in Birmingham; and
- A 20 per cent reduction in hospital utilization due to improved care co-ordination for people with chronic conditions in Jonkoping County.[10]

The strongest evidence of the link between improvements in quality and cost controls is found in the case studies from Jonkoping County and Intermountain Healthcare.

In the face of an economic downturn in Sweden in the early 1990s, Jonkoping County Council embarked on a bold change agenda, empowering front line teams to find better ways to integrate care for people with complex needs, and to use performance measures to monitor their progress in achieving these goals (see *Improved Care Co-ordination—The "Esther" Project in Jonkoping* on page 18). In 2005, Jonkoping County Council was awarded the best overall ranking on Sweden's six health goals (efficiency, timeliness, safety, patient-centredness, equity and effectiveness). That same year, the county reported a net cost savings of 2 per cent.[11] One of the many reasons behind its success was the decision of the leadership in Jonkoping County to allow organizations and units that achieved savings through improvements in practice to reinvest them in further

10 Ibid., 33, 123, 158.
11 Ibid., 121-122.

The Six Dimensions of Quality

In March 2001, the Institute of Medicine in the United States published *Crossing the Quality Chasm: A New Health System for the 21st Century*. The report identified how the health delivery system had "fallen short in its ability to translate" research evidence into practice and "to apply new technology safely and appropriately."[a] Its authors argued that a fundamental transformation of the system is required and that this transformation should be built around the core need for health care to be:

- SAFE: avoiding injuries to patients from the care that is intended to help them.
- EFFECTIVE: providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit.
- PATIENT-CENTRED: providing care that is respectful of and responsive to individual patient preferences, needs and values, and ensuring that patient values guide all clinical decisions.
- TIMELY: reducing waits and sometimes harmful delays for both those who receive and those who give care.
- EFFICIENT: avoiding waste, including waste of equipment, supplies, ideas and energy.
- EQUITABLE: providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location or socioeconomic status.[b]

These six dimensions of quality have since been adopted by health systems around the world and used to define the key quality indicators (performance measures) for guiding health system transformation and improvement strategies.

[a] Institute of Medicine 2001:1.

[b] Ibid., 3.

improvements, instead of clawing back the savings to the global budget (as was the practice previously). The decision to leave cost savings with local health providers created a buy-in and momentum for change.

The second example is Intermountain Healthcare (IHC), a regionally integrated network of 23 hospitals and 160 clinics in Utah. It has been nationally recognized, year after year, for excellence in the areas of "integration, information systems, clinical care and financial performance." It has also achieved significant cost savings through quality improvements (see *Working Together to Reduce Variations in Practice—Intermountain Healthcare's Approach* on page 18).[12] For every

12 Ibid., 151-152.

Improved Care Co-ordination: The "Esther" Project in Jonkoping

Sweden has one of the oldest populations in the world. In Jonkoping County, the clinicians created "Esther" — a hypothetical older woman with multiple chronic conditions — to better follow the challenges elders face in navigating the health care system. Using Esther as the starting point, the county redeployed resources to the community to improve management of congestive heart failure and other chronic diseases. In so doing, the county was able to reduce the days in hospital for congestive heart failure by 30 per cent, overall hospital admissions by 20 per cent, and waiting time to see a neurologist by 30 days.[a]

Working Together to Reduce Variations in Practice: Intermountain Healthcare's Approach

With Intermountain's approach, elective inductions fell from 28 to 2 per cent. The hospital is now able to accommodate an additional 1,500 more labour and deliveries per year with no additional beds or nursing staff.

One example of how Intermountain Healthcare was able to improve quality and reduce costs was its approach to making decisions about when to induce labour when the procedure is elective (elective inductions) and not an emergency. Providers noticed a wide variation among clinicians as to how frequently each clinician booked elective inductions — a very costly procedure. And yet there was no obvious difference in the type of patients each clinician cared for that could explain this variation.

The clinicians discussed among themselves the conditions under which an elective induction was a sound decision, and drew up guidelines for everyone to follow. They also built in guideline adherence to the system so that when a woman presented to the birthing room for an elective induction and the guidelines were not being met, the clinician was expected to speak with the medical director to request an exemption.

With this approach, the percentage of elective inductions fell from 28 to 2 per cent. The hospital is now able to accommodate an additional 1,500 more labour and deliveries per year with no additional beds or nursing staff, and an estimate saving of $50 million per year in costs. It is estimated that if the entire country adopted a similar approach, there would be an additional $3.5 billion in annual savings.[b]

[a] Baker et al. 2008: 123.

[b] Ibid: 153.

$4 million invested in its clinical integration strategy, estimated cost savings of $15 million have been achieved.[13] In comparison to other insurers in Utah and across the United States, IHC's members pay lower health premiums for both in-hospital and out-patient services.

These high performing systems relied heavily on the work of the Institute for Healthcare Improvement (IHI), a non-profit institute in the US that provides support and training for health professionals to work together on quality improvement initiatives at the institutional and/or regional level.[14] In 2007, IHI launched a new initiative to "simultaneously accomplish three critical objectives," or what it refers to as the "Triple Aim": improved health of the population, enhanced patient experience of care, and reduced (or at least controlled) per capita cost increases.[15] Currently the IHI is working with 50 organizations in the US, Canada, England, Scotland, Australia, New Zealand, Singapore and Sweden, and regularly reporting out on the specific system improvements and cost savings achieved in each organization.[16]

The case studies of high performing health systems and the Triple Aim initiative represent many of the best practices in health system transformation internationally. It is important that health care reform in BC (and Canada) builds on this international experience of using a systems approach to change that includes the development of broad-based quality guidelines/performance measures and service integration strategies. As Steven Lewis notes in the report on the high performing case studies:

> *The greatest international successes seem to have abandoned flirtation with market concepts and pseudo-competition; instead, they have focused on cultural change supported by tools, relationships, and a powerful sense of common purpose.*[17]

The case studies of high performing health systems and the Triple Aim initiative represent many of the best practices in health system transformation internationally. It is important that health care reform in BC (and Canada) builds on this international experience

13 Ibid., 171-172.

14 Intermountain Healthcare had developed its own quality improvement processes internally beginning well before 1991 when the Institute for Healthcare Improvement was first established.

15 Institute for Healthcare Improvement website, "ICI Triple Aim" www.ihi.org/IHI/Programs/StrategicInitiatives/TripleAim.htm

16 Institute for Healthcare Improvement website, "Triple Aim—The Best Care for the Whole Population at the Lowest Cost," www.ihi.org/offerings/initiatives/tripleaim/Pages/default.aspx

17 Baker et al. 2008:271.

PART 2

Health Care Reform and ABF in BC

Concerns were raised about the effectiveness of the UK approach to using ABF. After the BC Conversation on Health consultations were complete, the Ministry of Health chose—temporarily as it turned out—not to move forward with ABF.

THE IDEA OF SHIFTING TO A NEW ABF MODEL for funding hospital services was first profiled in BC by Dr. Brian Day in the Fall of 2006, at the opening conference of BC's Conversation on Health. Dr. Day is an outspoken advocate of private health care, owner of a Vancouver-based private surgery clinic, and at the time was president-elect of the Canadian Medical Association.[18] Day promoted ABF as a solution to the perceived problems with global funding and unacceptably long waitlists for surgical procedures. His proposal borrowed heavily from health reforms undertaken in Britain, where National Health Service hospitals were mandated to compete with each other and with for-profit surgery clinics for patients and funding for elective surgeries.[19]

During the Conversation on Health, however, it became clear that the BC public was much more supportive of strategies for improving health services using public rather than private solutions. Specific concerns were raised about the effectiveness of the UK approach to using ABF.[20] After the Conversation on Health consultations were complete, the Ministry of Health chose—temporarily as it turned out—not to move forward with ABF.

In April 2010, BC's Ministry of Health outlined a three-year strategic plan for "change and innovation in the BC health system."[21] The plan's stated goal is to reduce the annual rate of growth in health system spending from 6 to 4 per cent, "while meeting demand and continuing to improve quality."[22] Three of the plan's core strategies are:

18 Day, 2007. The Conversation on Health was an initiative of the BC government designed to get input from British Columbians on the future direction for health reform in the province.
19 Priest et al. 2007:34-36.
20 Ibid.
21 Dyble 2010.
22 Ibid., slide 8.

- Reducing unnecessary tests, medicines and procedures by driving quality guidelines;
- Improving prevention and community management of frailty, chronic diseases and mental illness; and
- Improving access to elective surgeries through improved productivity via ABF.

The first two strategies are very much in line with the kinds of changes introduced in the high performing health systems, whereas activity based funding is not. Yet most of the public attention and Ministry of Health resources are focused on this third strategy rather than the first two. To date, $250 million has been allocated over two years for ABF and three other smaller but related initiatives, referred to by the government as "patient focused funding." No funding has been provided to develop quality guidelines (point one above). And while $127 million has been allocated to family physicians to support better community management of complex conditions (point two above), no new provincial funding has been provided to support overall integration of primary care with community care.

PATIENT FOCUSED FUNDING

BC's provincial government uses the term "patient-focused funding" to include four related but distinct initiatives:

- ACTIVITY BASED FUNDING (ABF), the most significant of the four, is described at the beginning of this paper and discussed at length in this report.
- PAY FOR PERFORMANCE (P4P) provides additional payments for meeting specified quality measures (e.g., clinical guidelines) and/or achieving certain performance targets (e.g., reduced wait times). With P4P, goals for improvement are set by the provincial government and providers/services receive an additional (i.e., bonus) payment if they meet these goals. BC's P4P incentives are provided to emergency departments that meet certain wait time reduction targets. For further discussion of how P4P works, see page 35.
- QUALITY IMPROVEMENT is an initiative designed to reduce surgical complication rates. In BC, savings from improvements in quality are to be retained and reinvested by the unit achieving the savings.[23] This initiative is much more in line with the quality improvement strategies described in the high performing health systems.
- BULK BUYING is a practice that, unlike the other three patient focused funding initiatives, has been in place for a number of years. Until recently, it was an add-on to global funding system, where extra funding for a certain number of additional surgeries in specific high-priority areas was negotiated on top of annual budgets in order to reduce wait times. This practice is now being integrated with ABF, and the price paid for the additional high-priority procedures are to be based on the ABF formula. (See *The Link Between Bulk Buying, Reduced Wait Times, and For-Profit Delivery* on page 22.)

To date, BC has allocated $250 million over two years for ABF and three other smaller but related initiatives, referred to by the government as "patient focused funding." No funding has been provided to develop quality guidelines.

23 Vertesi 2011, slide 9.

The Link Between Bulk Buying, Reduced Wait Times, and For-Profit Delivery

Since 2006, BC has provided over $170 million to regional health authorities for bulk buying of high-priority surgical services.[1] As a result of this infusion of additional funding, BC is among the national leaders in reducing wait times in four targeted areas (as recognized by the Canadian Institute for Health Information and in the Wait Time Alliance 2010 Report Card).[2] In other words, BC has made considerable progress in reducing wait times (at least in the areas identified as priorities) without introducing ABF.

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Bulk buying can be done through existing public and not-for-profit hospital infrastructure or, in the case of day surgeries/procedures, by private for-profit providers as well. (Private surgical clinics are not allowed to keep patients for more than 23 hours, as the BC's Hospital Health Act sets out that all hospitals are defined as not-for-profit institutions.) Many day surgery procedures funded through bulk buying since 2006 have been tendered through a competitive bidding process to for-profit providers. While there is limited information on the quality of care provided in for-profit clinics in BC (due in part to the rules around commercial confidentiality), significant deficiencies in quality in for-profit clinics has been identified in the research literature from other jurisdictions.[3] And in BC problems have emerged related to the higher costs of for-profit compared to not-for-profit delivery.[4]

In an interview immediately following the announcement of the BC government's patient focused funding initiative, then-Minister of Health Kevin Falcon indicated that for-profit clinics would have the "same opportunity" as hospitals to compete for public funding to perform the common set of selected day surgery procedures, although he was quick to add that these clinics would continue to be a "pretty small piece of the pie."[5]

1 Email from Alison Dormuth, Director, Surgical Access and Wait Times, Acute Care Performance and Accountability Branch, BC Ministry of Health Services, October 18, 2010.
2 BC Ministry of Health Services 2010d.
3 Priest et al. 2007:35.
4 Atkinson 2008. The Interior Health Authority cancelled its contract with the Okanagan Surgical Centre in 2008 when the centre increased their rates by 20 per cent. This resulted in a delay for more than 1000 patients awaiting orthopedic, gynecological and general surgery procedures; Koehoorn et al., 2011, page 57.
5 Mickleburgh 2010.

Responsibility for implementing the four patient focused funding strategies rests with the BC Health Services Purchasing Organization (HSPO), an independent organization created and funded by the Ministry of Health.[24] Its first priority is to use ABF incentives to increase the number of day surgeries as opposed to in-hospital surgeries. Given that day surgeries can be tendered to for-profit clinics through a competitive bidding process, the patient focused funding initiative could serve to further entrench the role of for-profit providers in the provincial health care system (see *The Link Between Bulk Buying, Reduced Wait Times, and For-Profit Delivery* on page 22).

Over the last 20 years, there has already been a significant shift in BC from in-hospital to day surgeries and shortened lengths of stay for in-hospital procedures in large measure due to advances in medical technologies. In 1988 there were 3.9 beds per 1,000 people and by 2008 it was only 1.8.[25] This raises concerns about the extent to which further efficiency gains can be achieved without risking patient safety. This is particularly problematic in the BC context, where shortfalls in funding for home health services have reduced access to the appropriate level of post-operative care and supports.[26] To date, the HSPO has not made a commitment to monitor these patient safety and quality of care concerns.[27]

Whether ABF will continue as strategic priority for more than three years (i.e., beyond 2013), and whether it will be used to foster competition among public hospitals and/or with for-profit clinics, is not yet certain. It is still in its early days and there is still time for the Ministry of Health to reconsider whether ABF is the best strategy for reducing wait times and improving quality.

Whether ABF will continue as strategic priority for more than three years is not yet certain. There is still time for the Ministry of Health to reconsider whether ABF is the best strategy for reducing wait times and improving quality.

24 Interview with Ian Rongve, BC Ministry of Health Services, May 14, 2010. The Health Service Purchasing Organization (HSPO) is a stand-alone entity funded by the MOH with five board members: three are ministry staff (the deputy and two assistant deputies) and two are representatives from the regional boards. The HSPO decides on the priority areas for funding and writes the contracts with the providers. The Ministry of Health is in a supportive role. Les Vertesi, an emergency room physician and BC's representative on the Health Council of Canada, is the CEO of HSPO.

25 BC Ministry of Health Services 2008.

26 Cohen 2009a:38-42.

27 Vertesi 2011.

PART 3

Lessons from the International Experience with ABF

International experiences offer lessons about the efficiency and quality implications of ABF and raise questions as to whether ABF is compatible with broader strategies for health system transformation.

A NUMBER OF OTHER JURISDICTIONS INTERNATIONALLY have experimented with ABF. Their experiences offer lessons about the efficiency and quality implications of ABF and raise questions as to whether ABF is compatible with broader strategies for health system transformation. To understand these lessons, it is first necessary to understand in more detail how ABF works in practice.

ABF Terminology

Several terms are variously used to describe the same funding approach. This paper uses the term activity based funding (ABF) because this phrase is descriptive of the practice of setting a price for specific activities (procedures) and then paying the provider (most often hospitals) based on the volume and type of cases actually treated. In Britain, the same practice is called service-based funding or case-mix funding; in the US, it is known as the prospective payment system (PPS), and elsewhere as volume-based funding.

ABF IN PRACTICE

In recent years, ABF has replaced global funding in a number of countries, including the US, Britain, France, Germany, and parts of Scandinavia and Australia. However, the portion of hospital services covered by ABF varies from country to country, as does the methodology for introducing it.[28]

When services are funded through ABF, hospitals no longer receive a guaranteed fixed (global) budget each year for providing these services. Instead they are paid based on the volume and mix of patients actually treated. The price paid for specific activities varies depending on the type and complexity of the clinical intervention required (e.g., hip replacement, hysterectomy) and patient characteristics (i.e., age, gender, and the presence of other conditions/co-morbidities). Because hospitals are no longer guaranteed a certain level of funding, but instead are paid based on the number and complexity of activities/interventions, there is an incentive not only to increase volume, but also to manipulate the reporting (or coding) of procedures. This practice is referred to as "gaming" the system or "up-coding." Because of the potential for hospitals to inflate the coding of procedures to increase revenues, the administrative and technical infrastructure required to implement and monitor ABF is considerably higher than for global funding.[29]

Because hospitals funded under ABF are no longer guaranteed a certain level of funding, but instead are paid based on the number and complexity of activities/interventions, there is an incentive not only to increase volume, but also to manipulate the reporting (or coding) of procedures.

In its aggregate, ABF is a price-setting mechanism used to determine how much money a government will pay all hospitals (in a province/state or country) to perform a particular procedure for a specified patient population. The price can be based on the average cost of performing the procedure (the most commonly used price), the marginal cost, or the "best practice" (meaning lowest) cost. Depending on how the price is set, ABF can be used to push down the funding provided to hospitals.[30]

By creating a pricing mechanism for individual activities/interventions, it becomes possible to establish a quasi-market (internal market) for hospital services, where non-profit hospitals may be expected to compete with each other, and potentially the private sector, to provide health services based on a set price paid by government/health authority.[31] The form and level of competition that results from ABF varies from country to country. In the UK and the US, competition between the public and private sector is built in as a key a component of ABF, while in other jurisdictions like Australia, Norway and Sweden, ABF is used primarily in public hospitals, and the extent to which competition is fostered varies from jurisdiction to jurisdiction based on both policy choice and practical considerations.[32] It is, for example, much easier to encourage competition in jurisdictions where there is a large urban population and multiple providers than in small communities where there is only one provider.[33] In fact, there are many challenges related to introducing ABF in rural communities and regions because ABF schemes results in funding uncertainty that can easily de-stabilize small rural hospital facilities.[34]

28 The US was the first country to introduce ABF, in 1983. Britain, Germany and France have each introduced ABF, but using very different methodologies. Australia, Sweden and Norway have introduced ABF in some counties/states, but not others.

29 Sutherland 2011.

30 Ettelt 2006; Street 2007.

31 Directorate for Financial and Enterprise Affairs, Competition Committee OECD, 2005.

32 Ettelt et al. 2006:8-10.

33 Sutherland 2011:5-6.

34 OECD Competition Committee 2005: 11; Congressional Budget Office 1991.

EFFICIENCY IMPROVEMENTS WITH ABF UNCLEAR

In the international research literature on ABF there is little evidence to show it is an effective cost-containment strategy compared to global funding.[35] This should not be surprising given that ABF has been designed to encourage and reward increased hospital activity, which has an associated cost. The more relevant question is whether this funding mechanism is more efficient—in other words does ABF promote activity at lower cost per patient admission (i.e., per unit)?

A 2010 systematic review of 12 studies looking at ABF in hospitals in Denmark, Norway and Sweden found no strong empirical support for a relationship between ABF and improved efficiency.[36] Similarly, contradictory and inconclusive findings in the international literature led Jason Sutherland—author of a 2011 international review of hospital funding for the Canadian Health Research Foundation—to conclude that evidence of improved efficiency (i.e., reduced per admission costs) with ABF is mixed.[37]

The only study that did compare the "transaction costs" before and after ABF was introduced found that while per-unit costs went down, overall costs increased. This was due to the higher administrative costs associated with data collection, monitoring and enforcement.

Some reports from the UK suggest that ABF does, in fact, contribute to reduced per admission costs through shorter length of stay for in-hospital procedures and increased use of day surgeries.[38] Most of these studies, however, do not take into account the higher administrative overhead and monitoring costs associated with the implementation of activity based funding. The only study that did compare the "transaction costs" before and after ABF was introduced found that while per-unit costs went down, overall costs increased.[39] This was due to the higher administrative costs associated with data collection, monitoring and enforcement.

Every activity funded under ABF has to be priced, checked, recorded and monitored to ensure that the coding practices are accurate and have not been manipulated to increase hospital revenues. A 2008 report from the Audit Commission in the UK, looking at the system-wide implementation of ABF, noted the ongoing challenges of poor data quality and the importance of investing in "robust information" to ensure "the effective operation" of ABF.[40]

Jason Sutherland has raised similar concerns about the poor quality of clinical data reporting in Canada, particularly in smaller community hospitals.[41] His research points to the importance of introducing audits or other measures to counteract the tendency of hospital administrators to inappropriately code patient conditions to make them seem more serious then they are in reality in order to garner additional revenues.[42] In a more recent 2011 report, Sutherland suggests there are other challenges as well due to the "lack of standard costing methodology across systems, regions and provinces" which adds an "additional layer of complexity" (and presumably costs) to the implementation of ABF in Canada in comparison to other countries.[43]

While there is no unequivocal evidence of efficiency improvements with ABF, it is clear that overall expenditures on hospital services will be higher due to the increased levels of activity that ABF promotes.[44] Britain and Australia have recently introduced expenditure controls (e.g., caps on total

35 Street et al. 2007:42; Change Foundation 2010:12-13.
36 Jakobsen 2010.
37 Sutherland 2011:10.
38 Audit Commission UK 2008; Farrar et al. 2009; Bell 2009.
39 Marini and Street 2006.
40 Audit Commission UK 2008:30.
41 Sutherland and Steinum 2009:325.
42 Sutherland 2009.
43 Sutherland 2011:7-8.
44 Ibid.

expenditures) in order to limit activity levels.[45] This brings us back full circle and suggests that one of the primary benefits of ABF — incentivizing increased activity — has significant limitations. It also points to the importance of ensuring that the added volume is about more than hospitals seeking to increase revenues, and that the interventions funded lead to real improvements in patient health status (i.e., care that is effective/appropriate). These issues are explored in the section to follow.

QUALITY CONCERNS WITH ABF — OVER-TREATMENT OF SOME PATIENTS AND UNDER-TREATMENT OF OTHERS

ABF is promoted as a way to make health care more efficient, not as a quality improvement strategy; as a result, its proponents seldom claim that ABF improves quality of care. Yet, it is important to assess what, if any, impacts ABF has on quality, including any unintended consequences related to the effectiveness and appropriateness of care.

The number of studies that examine ABF's impact on quality of care is quite limited. Most of these studies emphasize the fact that there is no evidence that ABF negatively impacts quality.[46] However, concerns have been raised about the efficacy of these studies because the measures available with which to assess quality of care (most often mortality rates) are quite limited.[47] One recent study did suggest that ABF may reduce the incidence of in-hospital complications, but due to limitations in the data, it was impossible to independently confirm these findings.[48]

There is considerable evidence from many countries that the volume incentives built into ABF create a preference for providers to treat high-volume, low-risk patients over higher-needs, less predictable patients.

There is, on the other hand, considerable evidence from many countries that the volume incentives built into ABF create a preference for providers to treat high-volume, low-risk patients over higher-needs, less predictable patients.[49] In other words, decisions about whether to provide care may not be based on the potential of that care to improve the health of the patient, but rather on whether the patient is likely to move through the system quickly and without complications. This perverse decision-making can result in over-treating some patient populations and under-treating others — or what is referred to in the research literature as "inappropriate care." Inappropriate care has very significant quality of care implications. As the British Medical Association explained, ABF creates profitable and unprofitable patients and services.

> *The result is overdiagnosis and overtreatment of some patients and neglect and under treatment of others. Particularly vulnerable are people who have chronic care or physical and/or learning disabilities.*[50]

45 Street et al. 2007:42.

46 Sutherland 2011:11; Farrar et al. 2009:1; Dismuke 2002.

47 Forgione et al. 2005; Dismuke 2002.

48 Sharma 2008:25-26.

49 Sutherland 2011:12; Canadian Health Services Research Foundation 2010b:3; Mikkola et al. 2001:42. The authors of this report review the experience with activity based funding in Australia, Denmark, Norway and Sweden and draw on the experience in both the US and Britain. They conclude that with ABF there is a danger that quality will be compromised because of the financial incentives to increase revenues by engaging in "risk selection" (favouring less complex over more complex patients), "quality skimping" (e.g., cutting corners on safety) and "cost-shifting" (e.g., shifting costs to other providers such as GPs).

50 Letter from the National Health Service Consultants Association to Dr. Brian Day, August 15, 2007, http://cupe.ca/health-care/NHSCAletter

Researchers in both the United States and Britain have looked specifically at the impact of ABF payments for hospital care on the frail elderly with physical disabilities—patients with low functional status who need assistance with activities of daily living (ADLs).[51] These studies found that patients with physical disabilities had longer hospital stays even after controlling for their clinical diagnosis, age, gender and co-morbidities—the factors that determine the level of funding under ABF.[52] As a result, the full costs of serving these patients are not covered under the ABF formula. One British study found that the actual hospital length of stay for elderly disabled patients was 40 per cent longer than would be predicted by the ABF formula.[53] A similar study in the US showed much the same results: patients who required assistance with activities of daily living had longer stays and the costs of treating them were not fully covered under an ABF formula. The authors point out:

> *There are incentives for hospitals to discriminate against patients with lower functional status (i.e., physical disabilities)...decreasing the number of patients dependent in ADLs admitted...or rationing resource to ADL-dependent patients during their hospital stays.*[54]

Studies have found that patients with physical disabilities had longer hospital stays even after controlling for their clinical diagnosis, age, gender and co-morbidities—the factors that determine the level of funding under ABF.

Other problems have emerged in the UK because of the preference for low-risk, more predictable procedures under the ABF formula. A few years ago the National Health Service decided to reduce the per-surgery reimbursement levels paid to hospitals to cover only the lowest system-wide cost of a surgery (referred to as the "best practices tariff"), rather than the actual, or even the system-wide average, cost. Derek Machin, a surgeon and chair of the British Medical Association Consultants Committee For Surgical Specialties Subcommittee, notes that with declining levels of reimbursement, "the more complex the surgery, the less likely it is that the [ABF] tariff will cover the costs."[55] He goes on to point out:

> *Hospitals are expected to cross subsidise [more complex and therefore expensive cases] from more lucrative work [less complex and less costly]. But if the more lucrative tariffs are being changed, as they seem to be, to "best practice" tariffs then the likelihood is there will be no lucrative tariffs and there will be nothing to cross subsidize most major operations. Major surgery is inadequately recognized in the current tariffs.*[56]

In 2009, the BMA raised similar concerns regarding the increasing number of low-risk, high-profit surgeries being provided through private for-profit Independent Sector Treatment Centres (ISTCs). They argue that this shift has disadvantaged and destabilized NHS public hospitals, which are now left to deal with the less predictable, more complex and costly cases.[57]

It is also important to note that not all additional health interventions are appropriate for a given patient population; some interventions can actually do more harm than good. A study in 2002 by Charles Wright looked at cataract surgery in BC as a case in point. Improvements in technology over a number of years had reduced the time and risks of performing cataract surgery, making it a very profitable procedure to perform at pre-existing fee-for-service rates. In Wright's study 26 per

51 Chuang et al. 2003:1729-1734; Covinsky et al. 1997:203-8; Carpenter et al. 2007:73-78.
52 The DRGs, Diagnostically Related Groups, in the US and the HRG, Health Related Groups in the UK are relatively equivalent to the CMG, Case Mix Groups in Canada. They take into account clinical diagnosis, co-morbidities, age, gender and other covariates.
53 Carpenter et al. 2007:77.
54 Chuang et al. 2003:1733.
55 Kaffash 2010.
56 Ibid.
57 British Medical Association 2009:5.

cent of cataract surgery patients reported that their eyesight was worse after their cataract surgery and some had operations even though they had very minimal or no problem with their vision.[58] A 2011 BC study replicating Wright's methodology suggests that the problem of over-treatment of people with high levels of visual function has actually worsened over time.[59] In 2009, Alan Hudson, the provincial lead for Ontario's wait time initiative, reported that more cataract surgeries were being performed than could be justified on medical grounds.[60]

In Norway one of the key problems identified with the introduction of ABF has been an "oversupply" of services that were "insufficiently justified on medical grounds" but were "financially most rewarding."[61] Given that there is not a system in place in BC (or elsewhere Canada) for routinely measuring quality in hospital care or for determining the appropriateness of that care, it is quite likely that volume incentives built into ABF will only serve to exacerbate the problem of over-treating less complex patients.

In 2009, a full six years after the introduction of ABF, the UK introduced patient reported outcome measures (PROMS) in four elective surgery areas, with plans to expand it to include care of six common chronic conditions.[62] PROMS are derived from standardized and validated surveys completed independently by patients, usually before and after a health care intervention (e.g., a surgical procedure). They provide the patient's perspective on their health and on the appropriateness of the intervention and "reflect a growing recognition throughout the world that the patient's perspective is highly relevant to efforts to improve quality and effectiveness of health care."[63]

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Some ABF proponents argue that bringing in quality measures like PROMS along with ABF mechanisms will help address concerns about appropriateness of the care provided with the increased service volume.[64] While such quality measures are important, and should indeed be introduced, they cannot resolve the inherent problems ABF poses to service integration and the perverse incentives it creates within the health care system. These issues are discussed in the next section.

COMPARING ABF TO OTHER STRATEGIES FOR SYSTEM TRANSFORMATION

Sweden provides a good case study for evaluating the relative benefits of ABF compared to other strategies for improving care and containing costs. ABF was introduced in some Swedish counties, and not others. In 1992, Stockholm was the first county to shift to an ABF model and to encourage competition by creating an internal market for hospital services.[65] Initially the so-called Stockholm model was very successful, resulting in productivity improvements of 20 per cent in two years. But these improvements proved temporary. By 1997, productivity had declined to the levels observed in 1991, prior to ABF's introduction.[66] Evaluation studies revealed that over the same period greater productivity improvements were achieved in counties that focused on

58 Wright et al. 2002:461-66.
59 Davis et al. 2011.
60 Hudson 2009.
61 Ettelt 2006:66.
62 Devlin and Appleby 2010:5.
63 Ibid., 1.
64 Sutherland 2011:11.
65 Mikkola et al. 2001:42.
66 Ibid.

quality improvement rather than and on greater service volume and competition via ABF. In fact, the most marked productivity increases occurred in the county of Jonkoping, one of the high performing regional health systems described at the beginning of this paper.[67] By 2005, Jonkoping County Council had the best overall ranking (among all the other 20 county councils in Sweden) on the six core aims of health care (efficiency, timeliness, safety, patient centredness, equity and effectiveness).[68]

Chris Hamm, executive director of the King's Fund, a prominent policy institute in the UK, has written a number of research articles describing the benefits of service integration for improving outcomes and controlling the rate of cost increases, including evidence showing that ABF can stand in the way of these reforms.[69] He focused, in particular, on three UK districts that drew on the success of Kaiser Permanente (a not-for-profit Health Maintenance Organization in the US) in integrating care for people with long-term chronic conditions in the community (as opposed to treating them in hospital). The innovations introduced in these districts—Birmingham and Solihull, Northumbria, and Torbay—have been recognized by the UK's Healthcare Commission and the Health Services Journal.[70] In reviewing their progress, Hamm and co-author Judith Smith point to certain strategies that facilitate integration and those that stand in its way. ABF is identified as a policy barrier or "perverse incentive" to service integration because it narrowly focuses on encouraging activity in hospitals and does not recognize the contribution of providers and services in the community, which are critical to providing care for people with chronic conditions.[71]

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A concrete example of the problems that arise under ABF when hospitals strive to increase revenues by increasing activity is featured in a 2010 article in *Public Finance*.[72] The article reports on the story of a doctor, Dr. Shirine Boardman, who was seconded to a community diabetes clinic. To ensure continuity of care she transferred her patients to the community clinic and was then fired by the Health Trust (the equivalent of a health authority) for doing so. Due to the ABF system of reimbursement, the hospital stood to lose £230 ($365 Cdn.) for every patient seen in the community clinic rather than in the hospital. Besides firing the physician in question, the hospital staff refused to provide the community diabetic clinic with access to the patient information it required.[73] Dr. Boardman told *Public Finance* that in her case, ABF deterred a collaboration that was in these patients' best interest.

Noel Plumridge, an accountant and former NHS finance director, similarly argues that ABF works against an agenda of quality improvement and cost savings:

> *Savings are likely to be realized not through budgetary control but through integration and innovation. But payment by results* [activity based funding] *gets in the way…and gives little support to service redesign aimed at eliminating variations in current clinical practice.*[74]

67 Ibid., 48; Baker et al. 2008:123.
68 Baker et al. 2008:121-122.
69 Ham 2006; Ham 2010; Ham and Smith 2010.
70 Baker et al. 2008:27.
71 Ham and Smith 2010:8,10.
72 Kaffash 2010.
73 Ibid.
74 Plumridge 2009:4.

In the US — the country that first introduced ABF in the 1980s — there is also increasing criticism of volume-driven funding mechanisms. Elliott Fisher, a leading US health care researcher, notes:

> *A consensus is emerging on the need for greater integration and coordination within the delivery system and on the importance of shifting the payment system from a focus on volume and intensity to a focus on value and performance.*[75]

To support this shift in direction, Fisher and his colleagues are developing a new payment system, the Accountable Care Organizations (ACO) program. The program is written into President Obama's health reform legislation. The goal is to provide a funding mechanism to support providers (including fee-for-service physicians) to become more accountable for the overall costs and quality of care for the populations they serve — whether in the community or hospital — and to ensure providers share the savings created by quality improvements that slow spending growth. The impetus for these changes is twofold: first, the widely acknowledged variations in practice across providers and between regions and the mounting evidence that many high cost practices, particularly in hospital care, do not improve health outcomes;[76] and second, the growing evidence that specific interventions to better organize and improve care co-ordination, particularly those focused on reducing hospital readmissions, do produce better care outcomes at significant cost savings.[77]

Another alternate payment mechanism, quite different from ABF, is also being trialed in the US and elsewhere. It is a bundled payment mechanism where all of the costs associated with a particular episode of care (e.g., a surgery or treatment of a chronic condition) in hospital and 30 days post-discharge are considered together. The goal is to encourage improved coordination between the hospital and community-based services and to reduce preventable readmissions.[78]

It is hard to miss the irony of the situation. The BC government has made ABF a priority at the very time that senior and well respected researchers and policy advisors in countries like the US and Britain — where ABF schemes have been in place for many years — are proposing alternatives to ABF that are more compatible with service integration and quality improvement strategies.

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75 Fisher et al. 2009:6.
76 Fisher et al. 2003.
77 Fisher et al. 2009:6.
78 Struijs et al. 2011; Hackbarth et al. 2008; Birkmeyer et al. 2010.

PART 4

System-Level Reforms in BC

Many of the efficiency and wait time challenges in hospitals are not hospital efficiency problems per se, but reflect instead broader system-level problems, particularly at the interface between acute care and community-based services.

ABF IS NOW THE BC GOVERNMENT'S KEY INNOVATION STRATEGY for increasing hospital efficiency and reducing surgical waitlists.[79] This is highly problematic because of the high administrative costs and multiple data challenges associated with ABF, and the likelihood that hospitals will focus a significant proportion of their increased surgical activity on high-volume, low-risk procedures, leaving complex patients underserved. More important still is the fact that many of the efficiency and wait time challenges in hospitals are not hospital efficiency problems per se, but reflect instead broader system-level problems, particularly at the interface between acute care and community-based services.

Even in the case of elective surgeries, the evidence shows that changes in community-level care in pre and post-surgical processes are at least as important to achieving efficiency gains and wait time reductions as changes in operating room and hospital procedures. Two innovative initiatives—one in BC and the other in Alberta—illustrate this point. Both achieved significant wait time reductions and efficiency improvements by changing how pre-surgical health care services in the community were organized and delivered to patients requiring hip or knee replacement surgery.[80] The changes included: more teamwork and better co-ordination among referring physicians and with other pre-operative services (e.g., lab tests, x-rays); pooling of patients on a common waitlist; improvements in patient education and pre-screening and assessment of 'high risk' patients; and, referrals to other services (e.g., smoking cessation, pain management, diet, exercise programs) as appropriate. The results were much shorter wait times from first diagnosis to surgery, and efficiency improvements related to a very significant reduction in cancellation rates and more adequate assessments of the appropriateness of the surgical intervention.[81] None of these improvements is incentivized under ABF because ABF narrowly focuses on the surgical

79 Dyble 2010.
80 Priest 2007:15-16,25-27.
81 Ibid.

procedure (i.e., activity) itself, and not on the improvements needed in the broader care process from the community to hospital and back again.

There are many other examples in the international literature on health care reform that point to the importance of looking beyond the hospital walls when trying to resolve wait time, quality and efficiency issues in hospital care. Two examples raised earlier in this report bear repeating. The first is the 2011 report from the Wait Time Alliance, which concludes that reducing the number of patients in Canada who remain in hospital longer than necessary because they are unable to access appropriate community care services is "the most important action that could be taken to improve timely access" to both emergency and elective surgical services.[82] The second is the evidence internationally and from BC showing that hospital admissions could be significantly reduced by establishing a more effective system of care in the community for people with chronic conditions and complex needs (e.g., the frail elderly or people living with mental illness).[83] The introduction of ABF will not lead BC's health system in the direction of these proven reforms. Neither of these changes can be achieved through ABF. Both require a systems approach where the focus is not on the individual activity or service but rather on the interface between acute, primary and community care. It is precisely because of this need for a systems approach in health care reform that senior policy advisers in countries like the US and Britain are developing alternatives to ABF that are compatible with service integration and quality improvement strategies.

There are many examples in the international literature on health care reform that point to the importance of looking beyond the hospital walls when trying to resolve wait time, quality and efficiency issues in hospital care.

In addition to the concern about the lack of compatibility between the two initiatives, there is the very practical question of the capacity of the system to introduce change in both directions at once. Improved data collection and access to standardized information is required with both the introduction of ABF and system-level transformation strategies, but the priorities for data collection for each are quite different. With ABF, the data required is relevant to developing a pricing mechanism to incentivize additional volume and ensure that hospitals are providing accurate data on their activities. With broader system transformation initiatives, the emphasis is on gathering data for measuring progress in achieving the goals of service integration (e.g., reduced readmission rates, improved care coordination). Moving in either direction requires a significant investment in information infrastructure. At a purely practical level, in terms of the system's capacity in BC, it is very difficult to imagine moving in both directions at once, particularly given ongoing concerns in health care about high administrative costs taking funding away from direct care. Yet moving in both directions at once is exactly what the provincial government's three-year strategic plan for changing the health system prescribes. As the discussion below makes clear, we recommend that BC focus its limited public resources on the performance measures and data requirements needed to support broader strategies for system integration.

INTRODUCING BROAD-BASED PERFORMANCE MEASURES IN THE BC CONTEXT

Good information is critical to improving the quality and cost-effectiveness of care in a number of ways, including determining what types of change strategies are likely to be most effective, supporting practitioners to make the needed changes, and monitoring progress in achieving the desired results. In the high performing health systems discussed earlier in this paper, there was a commitment to making decisions at the practitioner, service and system level using broad-based

82 Wait Time Alliance 2011:1.

83 Hollander 2009; Hollander et al. 2009; Nasmith et al. 2010.

quality and performance measures focused on clinical outcomes, care co-ordination and patient experience.

Introducing such broad-based performance measures will be particularly challenging in the BC context because of the lack of standardized information, the limited application of the information that is available, and the multiplicity of different information systems currently in use. What follows are three examples of the type of information and information linkages needed to support greater co-ordination between acute, primary and community care.

First, BC currently has a limited capacity to collect information on emergency room admissions, hospital rehabilitation, and outpatient services. Emergency room information is available only in a limited number of hospitals, and no standardized information technology platform is in place for sharing information between the systems used by acute care providers (hospitals) and primary care providers (family physicians) other than in Northern BC.[84] Yet sharing of information is precisely what has proven so useful in other jurisdictions to improve system performance.[85] The Group Health Cooperative (a consumer-run, not-for-profit health organization based in Seattle) was able to show that increased costs associated with improving the quality of care and working conditions in one of its primary care practices were offset by savings achieved from reduced in-hospital and emergency room utilization.[86] As part of the initiative, information was provided electronically to the primary care practice as soon as a patient showed up in emergency or in an urgent care centre so the patient could be contacted for a follow-up visit by the primary care centre before their health deteriorated further.

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The second example relates to data on hospital re-admission rates. Currently, this information is collected in BC, but is not utilized in health care planning, despite a growing body of evidence that strategies focused on reducing hospital readmissions produce better care outcomes at significant cost savings.[87]

The third example relates to Alternate Level of Care (ALC) patients—that is, patients who no longer need a hospital bed, but remain in hospital because appropriate care (such as residential care, community mental health housing, home support or rehabilitation services) is not available in the community. In BC there is no provincially standardized process for collecting information on ALC patients.[88] Yet to effectively manage resources in the community and reduce emergency room and surgical wait times, it is vital to have an accurate picture of how many ALC patients are stuck in hospital, and which specific community services are in short supply.[89]

Quality measures currently in use in BC are primarily focused on testing and process indicators that are provider and disease specific (e.g., regular blood testing for patients with diabetes). If health system integration is to gain momentum in BC, there needs to be a much greater emphasis on developing and using broad system-wide measures of quality, such as patient clinical outcomes (e.g., hospital admissions from residential care for care sensitive conditions), care coordination

84 Cohen et al. 2009a:31.

85 Fisher et al. 2009:6.

86 Reid et al. 2010:1-8. Changes introduced ranged from lengthening in-person visits from 20 to 30 minutes, to expanding the role of the non-physician members of the team, to short daily all-team meetings, to greater encouragement to provide care outside of in-person visits.

87 Fisher et al. 2009:6; Cohen et al. 2009b:36; Jencks et al. 2009:1418.

88 Cohen et al. 2009a:28-31. In fact, the two Lower Mainland health authorities—Vancouver Coastal Health and Fraser Health—use a different measure for reporting ALC than the other three health authorities, and even within a single health authority reporting processes may vary between hospitals.

89 BC Auditor General 2008.

(e.g., hospital readmission rates) and patient experience (e.g., PROMS).[90] Such broad measures would provide senior leaders at the regional and provincial (and potentially national) level with an understanding of the system across multiple sites of care, and support them in deciding where and how to introduce improvement initiatives that have the potential to improve health outcomes and access, while controlling the rate of expenditure growth.

Developing performance and quality measures and collecting data is, however, only the first step. It is also necessary to ensure that these measures are actually put into practice and used on a day-to-day basis by health practitioners and system leaders. One of the strategies promoted internationally for ensuring adherence to quality measures is pay for performance (P4P); that is, providing financial bonuses to providers who meet certain performance targets. There is, however, little international evidence to show that P4P incentives are effective. In high performing health systems, a process for publicly reporting, rather than an incentive payment model, is seen as critical "to motivating providers and ensuring system accountability" on performance measures or quality guidelines.[91] A 2007 news report from Longwoods, a Canadian health policy and academic publication organization, aptly summarizes the evidence:

> *Despite growing enthusiasm for P4P programs in the policy and commercial sectors, the evidence to support their effectiveness is weak. Only a handful of studies have directly examined the impact of financial incentives on improving care processes and outcomes, and the results of those studies are mixed… Generally studies show that modest improvements can be achieved on the measures that are explicitly incentivized, at least for the short term. However, it is unclear whether the improvements are a result of the financial incentives themselves rather than simply the increased focus on services resulting from measurement of performance and publication of data.*[92]

Developing performance and quality measures and collecting data is only the first step. It is also necessary to ensure that these measures are actually put into practice and used on a day-to-day basis by health practitioners and system leaders.

In the UK, there is a well-funded and extensive P4P incentive program in place for family physicians to encourage them to meet specific clinical targets in caring for people with a range of chronic conditions. A January 2011 study published in the British Medical Journal found "the strongest evidence yet, that P4P does not offer any benefit to patients with hypertension, despite the enormous administrative costs required to maintain such as system."[93]

Given the evidence that financial incentives for providers are of questionable value and costly to implement, it would seem more prudent for BC to focus provincial resources on engaging physicians, other health care providers, and the public in developing a process for measuring and reporting on a broad range performance indicators related to clinical outcomes, patient experience and overall system coherence. This is exactly the type of investment that has proved so successful in the high performing health systems in improving health outcomes while controlling cost increases.

90 Shih et al. 2008:xii.
91 Change Foundation 2010:6.
92 Coleman and Hamblin 2007:1.
93 ScienceDaily 2011, based Serumaga et al. 2011.

BC'S STRATEGY FOR CARE INTEGRATION

There are already some initiatives underway in BC to support a more integrated approach to care delivery. The greatest gains have been made in the area of primary care reform and with family physicians in particular, to support the shift from episodic care to increased care continuity for people with ongoing chronic conditions. This is the result of more than 10 years of dedicated and increasingly generous public funding (first from the federal government and then from the provincial government) and provincial-level infrastructure to support these initiatives.[94]

There are already some initiatives underway in BC to support a more integrated approach to care delivery.

Between 2007 and 2011, the BC government allocated more than $450 million to individual family physicians, as incentives to provide ongoing caring for specific populations (e.g., complex patients, people living in residential care) and people with specific chronic conditions (e.g., diabetes and congestive heart failure).[95] Training has also been put in place—through the BC Medical Association's Practice Support Program—to support physicians to make changes in how they care for these patients. While this initiative has been very positive, there has been a much greater uptake of the incentives than the training.[96] Unfortunately, no process was put in place to measure and report on clinical outcomes, so it is impossible to know the extent to which incentives—as opposed to training or other features of family practice—have contributed to changing how family physicians care for people with complex needs and at what cost.[97]

More recently the provincial government allocated $127 million to Divisions of Family Practice, providing family physicians with an unprecedented opportunity to work together at a community level to identify areas where service gaps exist (e.g., where care is fragmented or where people with complex needs do not have a family doctor) and experiment with innovative solutions to these problems.[98]

In the community care sector—where most of the providers are nurses, allied health professionals (e.g., physiotherapists) or community and residential care workers, rather than physicians—a number of local, small-scale integration initiatives have shown considerable promise in providing better and less costly care for the frail elderly and people living with a mental illness living at home or in residential care.[99] There has, however, been much less financial and infrastructure support from the province to support these innovations, and in fact access to community care services has been significantly eroded over the last 15 years.[100]

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94 Provincial-level infrastructure includes programs dedicated to supporting better continuity of care for patients with chronic diseases, such as the Practice Support Program (PSP), Impact BC, and the Patient Voices Network. The PSP, housed at the BC Medical Association, offers practice enhancement learning modules to family physicians and their medial office assistants in three areas: clinical improvement, management and information technology. Impact BC supports the quality improvement initiatives of the health authorities and the PSP. It relies heavily on the approaches developed by the Institute of Health Improvement noted in this report). The Patient Voices Network is now part of Impact BC.

95 Cohen et al. 2009b:13.

96 As of November 2010, participation by family practice offices in the learning opportunities provided through the Practice Support Program was 55 per cent and in the chronic disease modules from 22 to 27 per cent. The uptake of the incentive program for family physicians was much higher still—86 per cent for diabetes, 88 per cent for complex care and 47 per cent for congestive heart failure (Hollander 2009a:iii).

97 Hollander et al. 2009:v,32.

98 General Practice Services Committee 2010.

99 Cohen et al. 2009b:17-38.

100 Cohen et al. 2009a.

One relatively small program, the Integrated Health Networks, focused on integrating primary care delivered by family physicians with community care services, from 2007/08 to 2009/10.[101] This program has since morphed into a much broader provincial integration initiative—Integrated Primary and Community Care (IPCC)—designed to move the entire health system to more population-based care. IPCC is a partnership between the BC Ministry of Health, the regional health authorities, the BC Medical Association and the Michael Smith Foundation for Health Research. The goal of the initiative is to include all sectors—hospitals, primary care, home and community care, and mental health services—in the health care planning and redesign process in order to better integrate all of the care relevant to a particular population (e.g., the frail elderly or people living with chronic health conditions). While the specifics of how services will be integrated may differ from community to community, the overall learning process and quality improvement strategy are based on the approach to system change developed by the Institute for Health Improvement.

The IPCC initiative is progressing more slowly than anticipated, but there are a number of communities around the province actively working on service integration initiatives with evaluation support from Michael Smith Foundation for Health Research.[102] It is clearly a very promising initiative very much in line with all the international evidence of best practices in health reform, but it faces a number of challenges. Unlike the Divisions of Family Practice initiative discussed above, there is no provincial funding to support this broader integration of primary and community care. Instead, health authorities are expected to find the necessary funding within their existing budgets. Another challenge facing IPCC is the erosion in community care services over the last 15 years.[103] Service integration and system-level quality improvements are not possible if service levels do not meet a reasonable standard.

BC's Northern Health Authority stands out in terms of how it has taken on the challenge of system transformation.

BC's Northern Health Authority (NHA) stands out in terms of how it has taken on the challenge of system transformation. The NHA very consciously embarked on a learning process to apply lessons from the high performing health systems to its health authority, and worked over 18 months to develop a common purpose at the board of directors' level, on the executive team, and throughout the organization.[104] The NHA has developed a clear regional framework to support population-based service integration and quality improvement strategies, and at the same time, has left room at the local level for communities to have input into the design of the services they provide.[105] Community developers (also known as community/primary care leads) have been introduced in six of the larger Northern communities and are leading integration initiatives that bring together staff from the health authority, mental health services, home and community care, acute care, physicians' groups, and the municipal government to develop a community plan for working with specific high-needs populations (e.g., the frail elderly and mental health clients).[106] The local administrators in these six communities, who were previously responsible only for hospital services, are now managing all local regionalized services, including home and community care, mental health and public health, as well as acute care.[107]

101 Cohen et al. 2009b:15. From April 2008 to March 2010, $12 million was allocated by the provincial government and matched by the health authorities (HAs) to pilot 25 Integrated Health Networks (IHNs). Since April 2010, the HAs have had carried these IHNs on their own.

102 BC Ministry of Health Services and BC Medical Association 2010. The communities named in the press release were White Rock, Prince George and Cowichan Valley. The release noted plans to expand to 20 communities by Fall 2010, but these targets were not achieved.

103 Cohen et al. 2009a; BC Medical Association 2008; McGrail et al. 2008.

104 Horvat 2007, slides 6-8; Ulrich 2010. The health systems they have tried to emulate are Jonkoping County Council in Sweden, Intermountain Healthcare in Utah and South Central Foundation in Alaska.

105 Cohen et al. 2009b:42-43.

106 Interview with Tanis Hampe, Northern Health Manager of Research and Evaluation, January 24, 2011. The communities are Prince George, Fort St John, Prince Rupert, Valemount, Fraser Lake and Mackenzie.

107 Ibid.

The NHA has also been relatively successful in integrating its physicians into the change process. Seventy-eight per cent of the physicians in the NHA participate in BCMA's Practice Support Program (described above) compared to 55 per cent province wide.[108] Family physicians in Northern Health have done much more than physicians in other parts of the province to link provincial funding for an electronic medical record (EMR) to their improvement strategies. Based on the leadership of local physicians, they have developed a region-wide approach to the EMR, using non-proprietorial (open source) software to support quality improvement initiatives. They are just beginning to link the information in the physicians' offices with information on emergency room visits and hospitalizations.[109] This is in contrast to the other regions of the province where physicians are using one of five proprietorial software packages approved by the province, where few have implemented a quality improvement component in their electronic patient records, and where a direct linkage of electronic records between the hospital and community is not possible.

Northern Health is, quite clearly, far ahead of the other health authorities in developing strategies to maximize service integration, including offering local providers and community representatives the opportunity to have input into how these innovations are rolled out in their communities.[110]

FUNDING MECHANISMS THAT SUPPORT SERVICE INTEGRATION AND ACCOUNTABILITY

Despite the regionalization of BC's health care system, the multiplicity of distinct funding streams for different services continues.

When the idea of regionalizing BC's health care system was first introduced by the Seaton Royal Commission on Health Care and Costs 20 years ago, the goal was clear: move services and decision making to the community, "closer to home," in order to facilitate earlier interventions, reduce unnecessary hospitalizations and promote integration by merging budgets across service providers.[111] To support these changes the commissioners recommended a population-based funding formula inclusive of all services and incorporating local needs and broad population-based risk indicators.[112]

Despite the subsequent regionalization of BC's health care system, however, the multiplicity of distinct funding streams for different services continues. While most provincial and federal health care funding flows through the regional health authorities, BC has global funding (and now ABF) for public hospitals, one model of income-tested funding for residential care and another for home support, a fee-for-service payment scheme for physicians, and multi-year tendered contracts with for-profit providers. Many of these funding formulas were developed piecemeal over time and predate regionalization. To date, there is still no mechanism in place for realigning funding to population needs and, as a result, there is no accountability when inadequate care or access for a patient population in one service (e.g., long-term residential care) results in higher costs in another part of the system (e.g., hospitals).

108 Interview with Gayle Anton, Northern Health Regional Director for Primary Care, January 5, 2011.

109 Interview with Dr. Bill Clifford, Chief Medical Information Officer for Northern Health, March 15, 2011.

110 BC Ministry of Health, June 24, 2010; interview with Judy Huska, Executive Director Impact BC, November 12, 2010. Other health authorities are reportedly at much earlier stages of development and have only a few communities involved in integration initiatives. None of the other health authority leadership teams have undergone the same process of developing common purpose and focus regionally on service integration and quality improvement based on the lessons from high performing systems in other jurisdictions.

111 Seaton 1991:B38-42.

112 Ibid., B40.

BC's integrated health strategy is very much focused on moving towards population-based care, where all the services for a patient population—whether in hospital, community or primary care—can be considered together. This is commendable. However, this model requires that funding and accountability also be population-based, and not service or procedure-based. The question posed in many recent research studies[113] and discussed at the beginning of the paper—is ABF a solution to problems with global funding for hospitals?—is, in fact, the wrong question. The more appropriate question is what funding mechanism would most effectively support population-based care integration in BC (and nationally).

In all high performing health systems, the services required by a particular patient population—no matter the location (whether at home, at their family physician's office, at community care facility or in hospital)—are considered together. Where these high performing systems differ is in terms of how they structure integration on the ground.[114] In some cases, services are actually merged and funding pooled; in others, cross-organizational teams work together guided by a partnership agreement between the contributing organizations (sometimes referred to as virtual integration).[115] What is common in all cases is an accountability across sectors for care and budgets, an agreed upon mechanism for working across providers and settings, and a common technology platform for sharing information.

In all high performing health systems, the services required by a particular patient population—no matter the location (whether at home, at their family physician's office, at community care facility or in hospital)—are considered together.

One of the challenges to implementing shared accountability and health service integration in BC (and Canada more generally), is the difference in governance, payment regimes and accountability for physicians and all other health care providers. Physicians typically operate as small businesses, are organized provincially rather than regionally, and negotiate their funding directly with the Ministry of Health, most often through a fee-for-service payment mechanism. In contrast, other providers are either the direct employees of individual health authorities or work in services contracted to the health authority, and so have very different reporting and accountability structures. This makes it difficult to design a funding model that can enable better service integration and shared accountability between physicians and other health care providers.

There has been an ongoing discussion about how and to what extent physicians' payment regimes need to be reformed to bring them more in line with payment structures of other service providers, in order to achieve the goals of service integration. Are mechanisms such as partnership agreements that establish shared accountability for care for specific high-needs populations sufficient, or are more fundamental reforms in funding required?[116] More research and experimentation is needed to understand what type of population-based funding mechanisms and accountability structures might work best in the BC and Canadian contexts.

113 Sutherland 2011:2; Vertesi 2011:1.
114 Shih et al. 2008:8-18; Curry and Ham 2010:3-8.
115 Shil et al. 2008:8-18.
116 Shih et al. 2008:29-30.

PART 5

Conclusion and Recommendations

Health reform in BC can build not only on the experience of high performing health systems internationally, but also on a number of successful smaller-scale initiatives already underway in BC.

OUR REVIEW OF BEST PRACTICES IN HEALTH SYSTEM REFORM points to many opportunities for BC to improve quality and access to health care, while also controlling the rate of expenditure growth. Health reform in BC can build not only on the experience of high performing health systems internationally, but also on a number of successful smaller-scale initiatives already underway in BC. These include the regional improvement strategy in the Northern Health Authority, the integration initiatives in communities around BC, and the pre-surgery hip and knee programs in the Lower Mainland. What is needed now is provincial leadership to support system-wide transformation and the scaling up of successful local and regional initiatives.

Based on the international evidence of best practices in health reform, we have developed the following seven recommendations for the BC government:

- *Develop clear and consistent goals that promote collaboration across health services and providers*, and work toward these goals at multiple levels simultaneously. The changes in the Northern Health Authority show that much can be achieved when a regional health authority commits to developing a common purpose and strategic plan, based on lessons from high performing health systems, and then moves all of its resources and energy in that one direction.

- *Analyze existing and new standardized information sources to determine the root causes driving hospital overcrowding and long wait times* and use this information to guide provincial and regional improvement initiatives. This would include developing a standardized method for determining whether a patient is an Alternate Level of Care (ALC) patient and for assessing the community care they require. It would also include

a review of high users of hospital services to see if improvements in how community services are delivered could reduce their reliance on hospital care.[117]

- *Develop and report on broad-based performance measures related to patient clinical outcomes, care coordination, and patient experiences*. Patient reported outcome measures, or PROMS, are particularly important to consider given the growing recognition internationally of the value of patients' perspectives in quality improvement initiatives.

- *Provide adequate provincial funding to support the integration of community care with primary care.* To date all of the provincial funding for integration initiatives has been focused on supporting family physicians, despite evidence that some of the most cost-effective and appropriate strategies for health service delivery depend on increased resources and better co-ordination within the community care systems and between community care and primary care.

- *Provide more opportunities to introduce population-based funding and to test different mechanisms for sharing accountability and working across services and providers, beginning with specific high-needs populations* (e.g., the frail elderly and people living with serious mental illness). This work should build on the experience of high performing health systems and include opportunities for providers and the public to have input in the design of services provided in their communities.

- *Ensure that at least a portion of savings from any quality improvement are retained and reinvested by the organizations/providers involved in initiating the change.* This is seen as one of the best ways to ensure buy-in and momentum for change among health care providers.[118] Under the global funding system, savings from quality improvements in one area of hospital care would normally be clawed back to the global budget, which creates disincentives to improving quality.

- *Avoid initiatives, such as ABF, that do not explicitly promote system integration and coherence*, but instead increase the costs and activity in the most expensive part of the health system: hospitals. Given that the shift toward ABF for hospital funding is in early stages, we recommend putting a hold on further developments of ABF and focusing more attention and resources in the Ministry of Health on the development of broad-based performance measures and strategies for service integration. In the meantime, bulk buying of specific procedures in the public system should continue in priority high needs areas in order to continue to reduce wait times for selected surgeries.

The capacity to implement broad-based performance measures, integrate community health services under the Medicare umbrella, and develop new ways of sharing accountability across services and providers would be greatly enhanced if these initiatives were part of a national effort to improve the quality and cost-effectiveness of Canada's public health care system.

Many of these recommendations would have even greater impact if they were part of the larger national (and to begin with inter-provincial) discussion about how to ensure the long-term sustainability of our public health system. The capacity to implement broad-based performance measures, integrate community health services under the Medicare umbrella, and develop new ways of sharing accountability across services and providers would be greatly enhanced if these initiatives were part of a national effort to improve the quality and cost-effectiveness of Canada's public health care system.

117 Reid et al. 2003. This study shows that 5 per cent of the patient population used 64 per cent of hospital days. Understanding the needs of these patients could significantly contribute to an understanding of how to more appropriately care for this population.

118 Baker et al. 2008:137; Fisher et al. 2009:3.

Health system change and innovation is the main focus of the premiers' health summit planned for Victoria in early 2012. In a summit-related news conference in July 2011, Saskatchewan Premier Brad Wall talked about the benefits of contracting out orthopaedic procedures to private clinics, and BC Premier Christy Clark talked about activity based funding as a way to drive down wait times for hospital procedures.[119] Instead of focusing on the broader question of how to transform Canada's public health system into a high performing system, the Saskatchewan and BC premiers focused on a single issue—wait times for hospital procedures. And yet we know from the international evidence that wait times frequently reflect broader system problems related to the interface between acute, primary and specialist services and inadequate funding and co-ordination within the community health system. The failure to address these broader systemic issues will only exacerbate the wait time challenge.

We need to shift the debate from a discussion of single issues to a broader discussion of how to improve both the quality and cost-effectiveness of our overall health system.

We need to shift the debate from a discussion of single issues to a broader discussion of how to improve both the quality and cost-effectiveness of our overall health system. We recommend that more emphasis is placed on understanding the patient's experience across the continuum of care, and on developing a funding mechanism that allows an integrated set of providers to be accountable for providing appropriate and cost-effective care.

119 HealthEdition 2011.

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1400—207 West Hastings Street
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604.801.5121
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