



Hospital Funding Policies: Where are we on Hip and Knee Replacements?

BCHeaPR Study Data Bulletin #4 (May 2012)

Hip and knee replacement surgery

In April 2010, an activity-based funding (ABF) program was initiated in BC, under the direction of the Health Services Purchasing Organization (HSPO) and funded by the BC Ministry of Health. One aspect of the program creates financial incentives for hospitals to operate more efficiently and reduces the incentives for restricting services to meet budget targets. However, hip and knee replacement surgeries have a longer history with ABF in BC. As a result of the 2004 First Ministers Accord, BC allocated an additional \$16.7 million in 2004 to fund an increased number of hip and knee surgeries, and in 2006 allocated a further \$60.5 million for a number of hip and knee related initiatives (1). Hip and knee replacement surgeries were initially excluded from the April 2010 ABF program launch, but were added to the ongoing funding program by the end of the 2011/12 fiscal year.

As a result of changes in funding policies for hip and knee replacement surgeries, a variety of forces designed to increase the number of these surgeries are expected to influence the volume of hip and knee surgeries and their average length of stay.

International experiences show that ABF creates financial incentives that lead to a reduction in hospitals' average lengths of stay (2–5). Research from Finland suggests that changing the method of funding hospitals to ABF is associated with shortened length of stays for hip and knee replacements of 0.49 days and 0.55 days, respectively (6). These findings also suggest that, keeping the number of beds constant, these changes in length of stay would result

What is this research about?

The CIHR-funded *BC Hospitals: examination and assessment of Payment Reform (BCHeaPR)* study examines the impact of activity-based funding on acute care hospitals and related services in BC. Over time, the study team will release analyses on the effects of the change in funding policies. Check www.healthcarefunding.ca for updates and policy implications.

in an increase in the number of surgeries in Finland by 400 annually (6).

Impact of the ABF incentive

Length of stay

As illustrated in Figure 1 (next page), average length of stay for hip replacements has been trending downward in the Interior and Fraser health authorities. In Vancouver Coastal Health the average length of stay for hip replacements has stayed relatively constant. In Vancouver Island Health length of stay has been increasing since 2009. Trends for Northern Health are not shown due to a low number of cases.

Figure 2 depicts the average length of stay for knee replacements. This has been steadily decreasing in the Fraser and Interior health authorities since 2009, and in Vancouver Island Health since 2008. Vancouver Coastal Health has seen decreases in length of stay since 2010, seemingly aligned with the implementation of ABF.

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Figure 1: Average length of stay for hip replacement, 2006/07 to 2010/11, for hospitals beginning activity-based funding in April 2010, by health authority

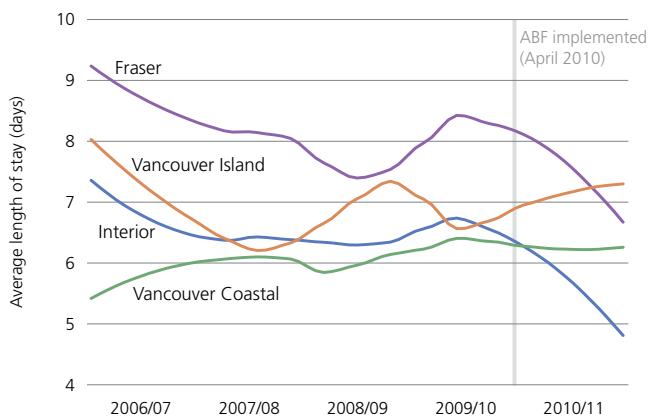


Figure 2: Average length of stay for knee replacement, 2006/07 to 2010/11, for hospitals beginning activity-based funding in April 2010, by health authority

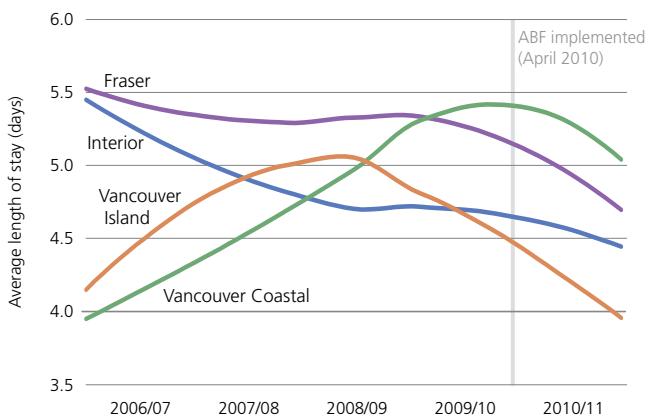


Figure 3: Number of hip replacement surgeries, 2006/07 to 2010/11, for hospitals beginning activity-based funding in April 2010, by health authority

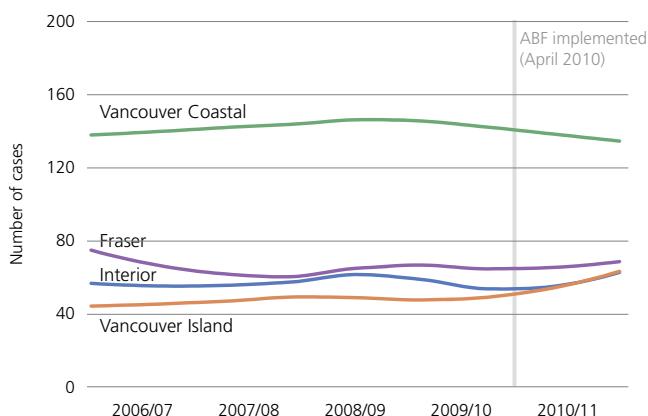
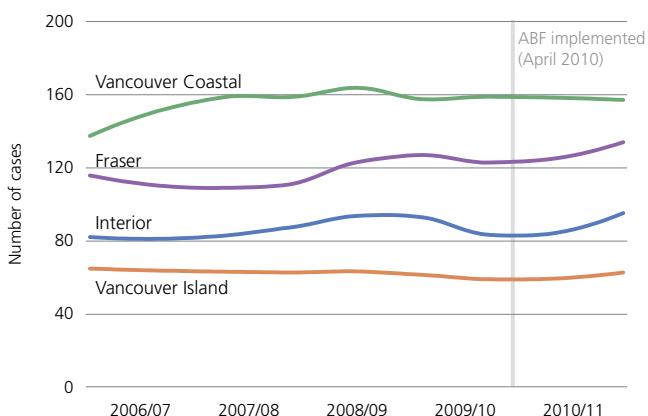


Figure 4: Number of knee replacement surgeries, 2006/07 to 2010/11, for hospitals beginning activity-based funding in April 2010, by health authority



Volume

Figure 3 illustrates the volume of hip replacement surgeries from 2006 to 2010. For the most part, the number of hip replacement surgeries in BC has remained constant. There has been a slight decrease in Vancouver Coastal Health since 2009 and slight increases elsewhere.

Figure 4 illustrates the volume of knee replacement surgeries from 2006 to 2010. The volume of knee replacements has also remained relatively constant, particu-

larly in Vancouver Coastal and Vancouver Island health authorities. Volumes for knee replacements in Fraser and Interior health authorities have increased since late 2010.

Discussion

Indicators of access—length of stay and volume—are improving for hip and knee replacement surgeries in BC. Whether these improvements can be attributed to the implementation of ABF policies in the province is difficult to ascertain. Lengths of stay for both surgeries were

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trending downward in some health authorities prior to the introduction of ABF. However, the financial incentives created by ABF could have perpetuated this trend.

Increases in the volume of hip and knee replacement surgeries, although small, do appear to align with the implementation of ABF. It is, however, still too early to determine if this trend will be sustained. Readers should be cautious in concluding too much from the results reported here.

As these are important indicators of the effectiveness of ABF's ability to change hospitals' behaviour and respond to financial incentives, these statistics will be monitored over time and reported periodically.

References

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