



Hospital Funding Policies: Medical Average Length of Stay

BCHeaPR Study Data Bulletin #5 (June 2012)

Hospital Funding Policy and Average Length of Stay: The Evidence

When patients are hospitalized, some stay for short durations while others, suffering from severe or complex conditions, may be hospitalized longer. The length of time patients remains in hospital is an important indicator of availability of beds and hospital resources.

Historically, health authorities in BC are funded with a global budget—a single amount to care for all patients over a given period of time. This approach has drawbacks: hospitals funded by health authorities do not see any financial benefit to shortening lengths of stay, nor to shifting to outpatient or home-based care settings (1).

In April 2010, an activity-based funding (ABF) program was initiated in BC, under the direction of the Health Services Purchasing Organization (HSPO). While the program is still in its infancy, the anticipated changes in hospital activity should, if international research holds true in Canada, lead to a reduction in average lengths of stay (2–5).

Impact of the Incentive

It is early to expect changes as a result of ABF in BC—evidence from other countries suggests that there is a lag between the time when financial incentives are introduced and when the effects on medical length of stay at the hospital level are observed (6). Therefore, depending on the intensity of BC hospitals' response to the introduction of ABF in 2010, the effects should not be expected to emerge until 2012–2013.

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.

The most recent data shows that hospitals' average medical length of stay has been increasing over time in all health authorities (Figure 1). Length of stay of medical cases is an important indicator of efficiency of hospital care, and is expected to decrease over time. This indicator includes lengths of stay for patients hospitalized for conditions such as pneumonia, heart failure and Alzheimer's.

Figure 1 shows the average length of stay for all hospitals that began ABF in April 2010 by health authority (Northern Health has been excluded, as there is only one hospital being funded through ABF). Notably, Vancouver Island Health hospitals have experienced a steady increase in patient's average length of stay.

Figure 2 shows the number of medical cases over the same period, which has also been slowly increasing across most health authorities, with Fraser Health showing the largest increase, and Vancouver Island Health showing a slight decline.

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

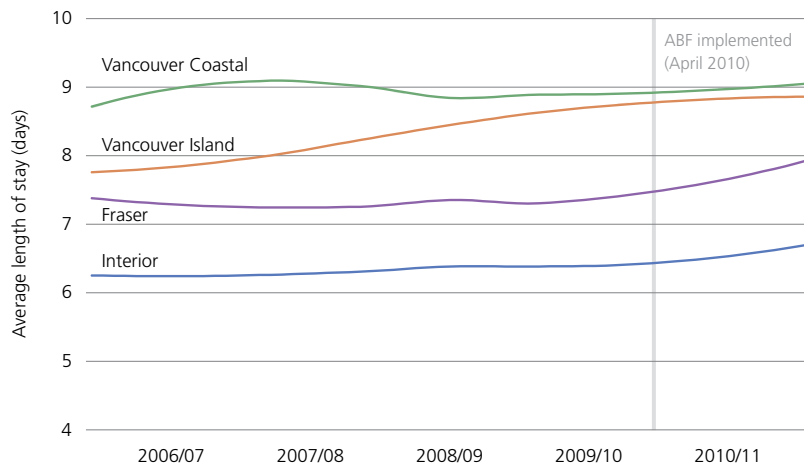


Figure 2: Number of medical cases, 2006/07 to 2010/11, for hospitals beginning activity-based funding in April 2010, by health authority

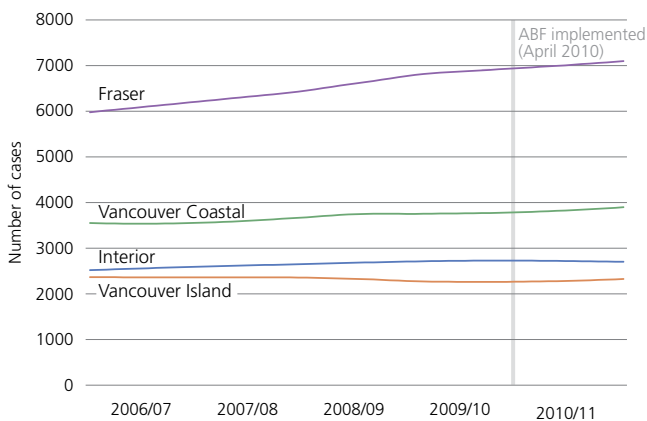
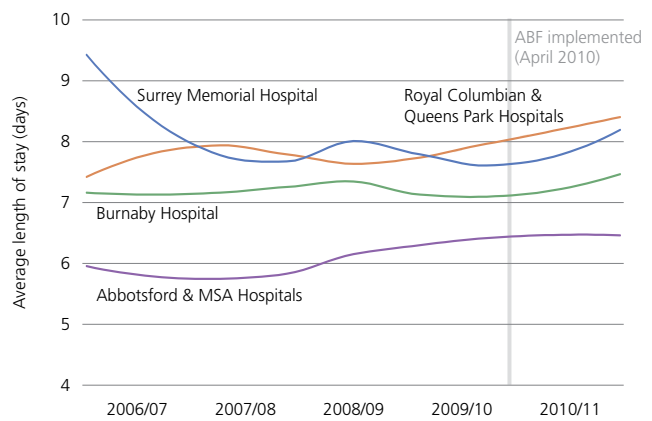


Figure 3: Average length of stay for medical cases, 2006/07 to 2010/11, for the four largest Fraser Health hospitals beginning activity-based funding in April 2010



Note: Hospital size was calculated based on the total number of cases for the 2010/2011 fiscal year.

Medical length of stay data for individual hospitals within the health authorities show that most hospitals are seeing increases in average medical length of stay. Figure 3 shows the trend of medical admissions for the largest hospitals within Fraser Health. For comparisons to average length of stay as a whole, please see *Data Bulletin #3 (April 2012): Average Length of Stay*.

Trends in average length of stay do not show evidence of the program having an effect on the health system; however, it may be too early to see the impact of ABF in medical length of stay data. As this is an important indicator of the effect of ABF on hospital behaviour (and response to financial incentives), these statistics will be monitored over time and reported periodically.

Technical Notes

Data source: The Discharge Abstract Database (DAD). The study population includes BC residents as well as non-BC residents who received hospital care in BC during the reporting period.

Average Length of Stay includes both Acute Care Days and Alternate Level of Care Days. Only hospitals that were included in the activity-based funding program are included. Medical Admissions were selected using the Clinical Category Partition, a CIHI-derived variable in the DAD. The graphs were smoothed to remove noise and reveal the real patterns in the data (see loess Smoothing and Data Imputation for more details) (7).

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