



## Article Appraisal

**Article:** British Columbia's pay for performance experiment: Part of the solution to reduce emergency department crowding?

**Date of Journal Club:** February 20th, 2018

**Resident Reviewer Name(s) and Residency Affiliation:** Ben Millar RCPS-EM R3, Jake Wilkins RCPS-EM R3

**Faculty Methodology/Bio-statistics Resource Person:** Dr. Les Vertesi

NB: Dr. Vertesi was involved in the P4P program and provided indepth background information that was not available in the study.

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### Background and Study Objective(s):

In 2007 BC introduced a pay for performance strategy where meeting targets set for ED LOS for individual patients resulted in increased funding for the hospitals participating. More specifically, each hospital had floor level targets where once the hospital had reached a threshold of patients meeting the EDLOS criteria for that month, for each individual patient above that threshold money would be paid to the hospital, which differentiated between if patients were discharged home (\$100) or if they were admitted (\$600).

The objective of this study was to look over a 3 year study period if the pay for performance model was correlated with hospitals increasing the number of patients meeting the target.

### Study Design:

This study analysed ED LOS data over a 3 year study period from 4 hospitals in Fraser Health and 4 hospitals in Vancouver Costal Health. No controls or pre intervention data was included. They used regression model to analyse the patients meeting the discharge criteria over a period of time and see if there is a correlation with the onset of the pay for performance model.

### Results:

Variable results were presented, for example , discharged patients from Vancouver Costal Health, the rate of patients meeting the discharge targets was unchanged despite increasing volumes, where as with admitted patients there was a statistically significant improvement. Fraser Health had a statistically significant negative correlation in both admitted and discharged patients.

### **Validity of Results:**

Generally speaking the results of this study have poor validity. There were numerous methods for how the hospitals operated their spending and projects undertaken with their funding which are not detailed in the article. Likewise there were numerous changes that were occurring to the system they were not captured by the results in terms of barriers to spending money earned as well as not accounting for increasing volumes when speaking to annual funding.

### **Generalizability of Results:**

As mentioned with the validity, the results on an economic study such as this with many variables unaccounted for in the analysis are not well generalizable.

### **The Bottom Line:**

Pay for performance programs in Canada has not had conclusive effects demonstrated in the literature and therefore deserves further study, particularly on the effect of design features and contextual factors.

### **Background not included in the article:**

During this journal club due to the different nature of the article being reviewed, a discussion ensued with information that was not directly from the journal article and contrasts somewhat to what was included in the article. For example, there was pre-implementation data available for setting targets. In addition, from unpublished data, the program seemed to have had more of an effect in VCH in its initial implementation as they allowed transparent use of funds whereas FHA had more restrictions placed on funds meaning allocated money was not being spent. Discussion at journal club centered around the differences between implementation in the two health authorities as well as changing targets due to changing volumes and allotment of money having to be spread to cover more hospitals without a proportional increase in funds. This section is to say that while difficult to capture in writing, a significant discussion was had that that included information kindly provided by Dr. Vertesi's experience with the P4P.