BC HEALTH SERVICES PURCHASING ORGANIZATION

Annual Report for 2011/12

June 2013
1. Introduction

The BC Health Services Purchasing Organization (HSPO) commenced operation in April 2010 to introduce Patient Focused Funding (PFF) to 23 of the largest hospitals in British Columbia. PFF provides financial incentives for the hospitals to deliver high quality patient care and improve patient access to hospital services.

The objectives of PFF are to improve the timeliness of patient access to care, reduce hospital occupancy and congestion, and to improve quality by reducing complication rates. The explicit financial methods that come with Activity Based Funding (ABF) are a means of achieving these goals while slowing the growth of health costs at the same time.

Access to care is improved in several settings. Access within the emergency departments (ED) has been improved through the setting of clear targets in Emergency Department Pay for Performance (EDP4P) for transit times for both non-admission visits and ED admissions to hospital. The program started with four hospitals in 2007 and has expanded to 14 hospitals in 2011/12. The total number of patients whose treatment was completed on time in 2011/12 was 117,048 above baselines at the provincial level. The additional funds provided by EDP4P are re-invested in infrastructure, process improvements and staff, and the transparency this brings at the hospital level helps to keep motivation high. The best performing hospitals involved have been able to increase the percentage of their patients meeting access targets from their original baseline of 50% in 2007 to 70% or more in this latest fiscal year. This improvement came in spite of an increase of almost 20% in patient volume during the same four year period (see Section 4 for results in 2011/12 fiscal year).

Improving the access to procedures is achieved by supporting additional case volume through better use of marginal capacity. For example, an additional 41,809 procedures were completed over baseline during this last fiscal year through two PFF programs: Activity Based Funding and the Procedural Care program (excluding MRIs – see below). The procedures selected for additional funding were those with the longest waitlists and the significant impact on quality of life, such as pain reduction and cancer surgery (see section 3). The effects are visible through the reduction of 10% or more in the numbers of long-waiting cases within the targeted groups (see Section 3.1).

Access to Magnetic Resource Imaging (MRIs) services has been a known bottleneck that delays timely access to proper diagnosis and definitive care. Additional funding by HSPO has helped to make better use of installed MRI capacity by increasing the number of MRI’s by 29,558 exams, a 30% increase over baseline (see Section 3.4).

Hospital occupancy across Canada remains at one of the highest levels in the organization of economic co-operation and development, and B.C. is no exception. A big part of the problem is due to the alternate level of care population (i.e., those patients who remain in acute care hospital beds after their acute care
has finished). PFF in itself reverses the pre-existing incentive under fixed budgets to leave these patients in hospital. In addition, HSPO funding this year helped to create a new group of community based programs that work to reduce in-hospital stay for those who no longer need it, and to give these patients the help they need to live comfortably at home (see Section 6).

**Quality improvement** has long been an important objective of all hospitals, but measureable progress has been slow. HSPO’s contribution to fund National Surgical Quality Improvement project (NSQIP) (see Section 5) puts a powerful new force to work that has been demonstrated in major U.S. hospitals to lower surgical complications, thereby improving the quality experience of patients, at the same time as it lowers total cost. The program is managed by the B.C. Safety and Quality Council. This is a risk-adjusted, outcome based program to measure and improve the quality of surgical care. The infrastructure phase of NSQIP is now complete and the first set of risk adjusted data was available as of July. The benefits of NSQIP are expected to become apparent in the following fiscal year (2012/13).

In order to achieve these goals in fiscal year 2011/12, HSPO administered the following programs:

- Activity Based Funding
- Procedural Care program
- Emergency Department Pay for Performance
- American College of Surgeons National Surgical Quality Improvement program
- Community initiatives

Total expenditure on the five programs amounted to $114 million which was $55 million below the HSPO budget. These programs are explained in more detail below.

### 2. Activity Based Funding – ($23 million)

In the fiscal year 2011/12, the five regional health authorities allocated approximately $6 billion to fund their acute sector health care services. Most of the funding the health authorities receive is in the form of a block or global grant. The grant is not tied specifically to individual hospital performance.

In 2011/12, a portion of the funding (approximately 18%) for each health authority was converted to Activity Based Funding (ABF). The ABF hospitals earn this funding based on combination of the number of patient cases it completes in the year and the complexity of each individual inpatient case. HSPO paid for additional patient cases and greater complexity per patient up to a maximum for all health authorities of approximately $23 million.
The table below summarizes the ABF for participating hospitals in 2011/12.

<table>
<thead>
<tr>
<th></th>
<th>Same Day Care ($ Million)</th>
<th>Inpatients ($ Million)</th>
<th>Total ($ Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline for 2011/12</td>
<td>154</td>
<td>581</td>
<td>735</td>
</tr>
<tr>
<td>Actual activity for 2011/12</td>
<td>164</td>
<td>609</td>
<td>773</td>
</tr>
<tr>
<td>Increase in funding</td>
<td>10</td>
<td>28</td>
<td>38</td>
</tr>
</tbody>
</table>

**Use of Increase in Funding**

- Additional 17,000 cases completed: $9, $15, $24
- Increase in patient / case mix complexity: 1, 13, 14
- Additional funding provided by HSPO: $10, $28, $38
- Less: Health Authority growth cap *: -4, -20, -24
  
- Direct Discharge from Emergency Dept: 1
- Decrease in Long Stay Patients: 8
  
- Total: $23

*Note: Earnings for ABF growth was limited to 3% inpatient and 10% same day activities for each acute care facility.

The following is a breakdown of the additional cases\(^1\) completed and acuity changes.

<table>
<thead>
<tr>
<th></th>
<th>Additional Cases over Baseline</th>
<th>Percent Change over Baseline</th>
<th>Percent Change in Acuity Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDC</td>
<td>11,589</td>
<td>5.5%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Inpatients</td>
<td>5,272</td>
<td>2.6%</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

### 3. Procedural Care Program - ($47.8 million)

The Procedural Care program was established to reduce the wait times for patients waiting the longest for care. HSPO contracted with each participating health authority for an agreed number of additional patient procedures for completion in 2011/12 at a specific price per procedure.

Of the $47.8 million spent on the Procedural Care program, $12 million was for funding to off-set additional Medical Services Plan (MSP) fees incurred from procedural care program activity.

\(^1\) These were in addition to those cases performed by the Procedural Care program (see Section 3).
3.1 Top 10 Day Surgeries - ($6.7 million)

This program targeted patients waiting for the following common procedures with the longest wait times:

- bladder surgery
- breast reduction
- cholecystectomy
- fallopian/ovarian surgery
- foot/ankle surgery
- hand/wrist surgery
- hernia repair - abdominal
- knee arthroscopy
- nasal surgery
- shoulder surgery

In fiscal year, 2011/12, $6.7 million (excluding MSP fees) was spent for an additional 4,455 procedures over a 12 month period. With a base of 12,668 procedures performed in the same period, this meant a 35% increase above baseline in procedures performed. In fiscal year 2010/11, $9.0 (including $2.9 million for MSP fees) was spent for an additional 4,599 procedures above a baseline of 7,318 over a six month period.

In terms of cases waiting for top 10 day surgeries at contracted facilities:

1. Total cases waiting dropped by 7% from 7,769 cases waiting on March 31, 2011 to 7,190 cases waiting on March 31, 2012.

2. Total cases waiting more than 52 weeks dropped 15% from 768 cases waiting on March 31, 2011 to 654 cases waiting on March 31, 2012.
Note: The facilities contracted to do the top 10 day surgeries and the procedures done at each facility changed between March 31, 2011 and March 31, 2012.

For total cases waiting more than 52 weeks, the contracted facilities had 35% of the total waitlist in British Columbia for these top 10 day surgeries as at March 31, 2012.

3.2 Health Authority Selected Procedures - ($12.5 million)

This program funded surgeries selected by each of the health authorities as priorities for wait time reduction in their regions such as daycare ENT (ear, nose, and throat), urology and gynaecology procedures.

In fiscal year 2011/12, $12.5 million (excluding MSP fees) was spent for an additional 4,041 procedures over a 12 month period. With a base of 12,216 procedures performed in the same period, this meant a 33% increase above baseline in procedures performed. In fiscal year 2010/11, $7.4 million (including $1.4 million for MSP fees) was spent for an additional 2,036 procedures above a baseline of 4,593 over a six month period.

In fiscal year 2011/12, BC Children’s Hospital was added to this program and funded for 390 procedures, which principally were hip and spinal surgical cases. Vancouver Coastal Health and Fraser Health were funded for 2,927 procedures, while Interior Health, Northern Health and Vancouver Island Health Authority were funded for 724 procedures.

In terms of cases waiting for Health Authority Selected Procedures, the health authority selected procedures changed from fiscal year 2010/11.

1. Total cases waiting dropped by 7% from 3,459 cases waiting on March 31, 2011 to 3,225 cases waiting on March 31, 2012.
2. Total cases waiting more than 52 weeks increased 9% from 615 cases waiting on March 31, 2011 to 670 cases waiting on March 31, 2012.

Note: HA Selected Procedures waits above excludes (i) deep brain stimulation, (ii) surgical oncology, (iii) varicose veins and (iv) Provincial Health Services Authority volumes. (i) and (ii) due to data collection issues and (iii) and (iv) due to procedure being added in late October 2011 and December 2011, respectively. $7.6 million was spent on these procedures of which a majority was spent on surgical oncology.

Based on health authority self-reported data (except varicose veins),
1. Total cases waiting for surgical oncology dropped 13% from 461 as of April 1, 2011 to 403 as of April 1, 2012.
2. Total cases waiting for varicose veins increased 27% from 575 as of March 31, 2011 to 732 as of March 31, 2012.
3. Total cases waiting for BC Children’s Hospital volumes dropped 12% from 1,396 as of April 1, 2011 to 1,233 as of April 1, 2012.

3.3 Surgical and Medical Procedures Mainly Performed in Procedure Rooms - ($8.5 million)

In fiscal year 2011/12, $8.5 million (excluding MSP fees) was spent for an additional 16,452 procedures over a 12 month period. With a base of 74,704 procedures performed in the same period, this meant a 22% increase above baseline in procedures performed. In fiscal year 2010/11, $7.9 million (including $2.7 million for MSP fees) was spent for an additional 9,215 procedures above a baseline of 27,422 over a six month period.

Endoscopies (including colonoscopies), which accounted for 95% of the procedures in this category, and pain management procedures are usually performed outside the operating room and therefore waitlists for these procedures are not reported to the Surgical Patient Registry.
3.4 Magnetic Resonance Imaging (MRI) Exams - ($8.1 million)

$8.1 million was spent for an additional 29,558 MRI exams over a 12 month period. With a base of 99,334 MRI exams performed in the same time period, this means a 30% increase above baseline in exams performed. In fiscal year 2010/11, $2.6 million was spent for an additional 12,473 procedures above a baseline of 42,849 over a six month period.

In fiscal year 2011/12, the Provincial Health Services Authority (PHSA) was added to this program. PHSA was funded for 380 exams. Vancouver Coastal Health and Fraser Health were funded for 19,350 exams, while Interior Health, Northern Health and Vancouver Island Health Authority were funded for 9,828 exams.

MRIs are usually performed outside the operating room and therefore waitlists for these procedures are not reported to the Surgical Patient Registry. However, the health authorities self-reported their numbers of cases waiting for MRI in 2011/12.

Total cases waiting dropped by 5% from 31,968 cases waiting as of the end of Quarter 4 fiscal year 2010/11 to 30,327 cases waiting as of the end of Quarter 4 fiscal Year 2011/12.

4. Emergency Department Pay for Performance – ($21.3 million)

The Emergency Department Pay for Performance program (ED P4P) is designed to improve patient access to care by reducing the amount of time that patients spend waiting in the emergency department. Participating hospitals receive funding incentives based on the number of patients treated and/or admitted within the time targets above baseline agreed upon by the health authority.

Vancouver Coastal Health and Fraser Health implemented the program in 2007/08 and 2008/09, respectively under the Lower Mainland Innovation and Integration Fund and this activity was sustained by the HSPO in 2011/12. The HSPO expanded ED P4P in 2010/11 to Interior Health and Vancouver Island Health Authority.
In 2011/12, $21.3 million was paid to the health authorities for providing care to 117,048 patients above baseline volume who were seen within the targeted wait times. The chart below shows the total number of patients meeting targets compared with the previous fiscal year. The number of participating hospitals went from 13 facilities in 2010/11 to 14 facilities in 2011/12.

Note: Six new sites at Interior Health and the Vancouver Island Health Authority joined near the end of FY2010/11. Full year results for all hospitals are shown for the sake of comparison.

5. American College of Surgeons National Surgical Quality Improvement Program (NSQIP) – ($8.1 million)

The American College of Surgeons National Surgical Quality Improvement program (NSQIP) is a program to measure and improve the quality of surgical care. HSPO funded the implementation of the NSQIP in B.C., managed by the B.C. Safety and Quality Council. In 2011/12, $8.1 million was spent to initiate or expand implementation of NSQIP at 22 hospitals across British Columbia. Another two hospitals were funded by their health authority.

NSQIP is a risk-adjusted, outcome based program to measure and improve the quality of surgical care. In October of 2002, the U.S. Institute of Medicine named NSQIP the best in the nation for measuring and reporting surgical quality and outcomes. Data can be used to help: (i) increase patient satisfaction; (ii) reduce the median length of stay; and (iii) reduce postoperative mortality rates. (Source: ACS NSQIP website)

Of the 24 participating hospitals, there are 18 that have fully implemented NSQIP. By October 2012, the remaining sites plan to be implemented.

In July 2012, 21 sites received the first valid semi-annual report measuring up to 68 distinct clinical outcomes. All sites are working on their responses to the reports and identifying areas of improvement. Plans are being developed and the tracking of improvement will take place. Trending information will be published over the next few years.
6. Community Initiatives – ($14 million)

In 2011/12, $14 million was spent to initiate 13 community projects at Fraser Health (FH), Vancouver Coastal Health (VCH) and the Vancouver Island Health Authority. This program did not exist in 2010/11. 1,800 patients entered the programs.

The patient populations that benefited from these programs included: psychosis; mental health and addictions; stroke and amputation rehabilitation; residential care diverted to home health; chronic obstructive pulmonary disease and/or congestive heart failure; geriatric; stroke; adverse drug effects.

Many programs were designed to reduce inpatient occupancy through alternatives using resources in the home or community. The aim of a majority of the initiatives was to reduce visits to the emergency department and/or admissions to acute care and residential care. Two examples of initiatives that achieved these goals are VCH’s Avoidance of Unnecessary Residential Admissions from Acute (AURAA, now named Home First) and FH’s Home First.

AURAA and Home First provided a comprehensive set of community-based services designed to provide proactive care in order to prevent exacerbation of known complex chronic care.

AURAA started in Period 3 (May 2011) of financial year 2011/12 in Vancouver, Richmond and Coastal. In Richmond, the number of acute patients waitlisted for residential care at the beginning of the financial year 2011/12 was 26. By the end of Period 13 (March 2012) of financial year 2011/12, the number waiting was reduced to six.

FH’s Home First started in July 2011 and reported promising improvements in their patient sub-groups, including a reduction in the number of visits to the emergency department (45%), a decrease in the number of acute care admissions (53%) and reductions for in-hospital length of stay (range from 42% to 83%) from their historical baseline.

In 2012/13, the Ministry of Health will manage the community initiatives, which will be expanded and also include Interior Health and Northern Health.
7. **HSPO Expenditure Summary**

The budgeted and actual expenditures of HSPO for the year ended March 31, 2012 is shown below. Actual administrative costs for the year amounted to $773,000 (0.6% of expenditure, compared to a budget of $850,000).

<table>
<thead>
<tr>
<th>Programs</th>
<th>Budget ($ Million)</th>
<th>Actual ($ Million)</th>
<th>Variance ($ Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Department P4P</td>
<td>$25</td>
<td>$21</td>
<td>$4</td>
</tr>
<tr>
<td>Quality Improvement (NSQIP)</td>
<td>5</td>
<td>8</td>
<td>-3</td>
</tr>
<tr>
<td>Community Initiatives</td>
<td>51</td>
<td>14</td>
<td>37</td>
</tr>
<tr>
<td><strong>Total for Procedural Care Program</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSP Reserve</td>
<td></td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>MRI</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Top 10 Day Surgeries</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Health Authority Selected</td>
<td></td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Surgical &amp; Medical in Procedure Rooms</td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td><strong>Total for Procedural Care Program</strong></td>
<td>58</td>
<td>48</td>
<td>10</td>
</tr>
<tr>
<td>Activity Based Funding</td>
<td>30</td>
<td>23</td>
<td>7</td>
</tr>
<tr>
<td>Administration</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Joint replacement and cataract surgeries</strong></td>
<td>$170</td>
<td>$115</td>
<td>$55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11</td>
<td>-11</td>
</tr>
<tr>
<td></td>
<td><strong>$170</strong></td>
<td><strong>$126</strong></td>
<td><strong>$44</strong></td>
</tr>
</tbody>
</table>

*Joint replacement and cataract surgeries were transitioned into the HSPO mid-year. $11 million was spent to support 1,035 additional joint replacements and 2,302 cataract surgeries.*
8. Outlook for 2012/13

The total funding allocated to services included within Patient Focused Funding (PFF) will increase from $773M (see page 3 of this report) to $980M. The Ministry of Health has allocated $50M for HSPO in fiscal 2012/13.

Emergency Department Pay for Performance will continue into 2012/13 unchanged with a $25M budget. The National Surgical Quality Improvement project costs for 2012/13 are being absorbed into health authority budgets as per the original agreement. Within the procedural care budget, support for MRI continues with a renewed budget of $8M.

The remaining three portions of the Procedural Care program are being combined with the general Activity Based Funding instead of being maintained as independent programs.

The third year of PFF will see continued efforts on waitlist reduction through improved waitlist management and an added stimulus for day procedures which will now be paid at 120% of resource intensity Wweight value. In addition, priority is being given to those PFF initiatives that result in lowering long in-hospital stays and in reducing the numbers of admitted patients held in emergency departments.