Summary

The total number of active applications monitored by UBC’s affiliated Research Ethics Boards (REBs) has increased by almost 1,500 (20%) over a five year period. The number of post-approval activities (PAA’s) handled by the Boards increased by approximately 23% from 11,682 to 14,406. This is reflective of the increasing length and complexity of studies. As is reflected in the volume statistics by board staff, the number of staff remained relatively stable over that period of time. PHC REB added a .5FTE as did BC Cancer REB. The number of industry sponsored studies continues to decline with BCCA and the CREB being the most impacted (38% and 18% declines respectively).

Full Board review turn-around times remained relatively consistent for the CREB, BCCA and the PHC REB. Principally due to the fact that the CREB meets twice a month and has a shorter lead time requirement for submission of studies for the full board agenda, the CREB continues to have the shortest turn-around times for full board studies. This stayed at approximately 2 months for 2016. BREB’s times increased by about 10 days, CW REB increased by about 15. UBC-O’s turn-around times increased substantially however, their average is heavily impacted by the low number of studies they have that go to full board review. In 2016 there were only six studies submitted for full board review, five of which were approved. Of the 5 studies, two of the studies had review times within the previous years’ norm (40 and 60 days) whereas the other 3 had significantly longer review periods which in two of the three studies was related to extremely lengthy delays in researchers responding to board provisos. Full board review times ranged from 61 to 115 days. Last year they ranged from 54 to 107.

Expedited review turn-around times increased slightly for CREB, BCCA, CW REB and BREB. They declined by 8.5 days at the PHC REB and stayed basically the same at UBC-O REB. Times ranged from 20 days (BCCA) to 40 days (PHC REB). Last year they ranged from 18 to 48. When Investigator response time is removed from consideration, time spent being processed by the boards ranged from 8 days to 26.5

With the single exception of UBC-Okanagan expedited reviews, time spent in researcher-investigator hands preparing responses to provisos is the lengthiest part of the application to approval process.

Included this year for additional information are statistics related to number of transactions processed by board staff. It needs to be noted that the nature of applications and post-approval activities varies widely between boards, and that these numbers are not reflective of the length or the complexity of the various submissions. For example, BCC REB has added staff so that the number of transactions handled per staff has declined, however the length and complexity of BCC REB applications, informed consent forms and post-approval activities is amongst the highest for all the boards. As noted, the general trend for all studies is that they are increasingly complex.
Volume Statistics (Fiscal)
Active Human Ethics Applications Monitored during the year

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CREB</th>
<th>BREB</th>
<th>BCCA</th>
<th>CWREB</th>
<th>PHC</th>
<th>UBCO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012/13</td>
<td>1593</td>
<td>2478</td>
<td>932</td>
<td>1162</td>
<td>797</td>
<td>293</td>
<td>7255</td>
</tr>
<tr>
<td>2013/14</td>
<td>1561</td>
<td>2462</td>
<td>950</td>
<td>1174</td>
<td>824</td>
<td>323</td>
<td>7294</td>
</tr>
<tr>
<td>2014/15</td>
<td>1666</td>
<td>2603</td>
<td>982</td>
<td>1250</td>
<td>898</td>
<td>351</td>
<td>7750</td>
</tr>
<tr>
<td>2015/16</td>
<td>1771</td>
<td>2747</td>
<td>1016</td>
<td>1357</td>
<td>986</td>
<td>379</td>
<td>8256</td>
</tr>
<tr>
<td>2016-17</td>
<td>1960</td>
<td>2723</td>
<td>1097</td>
<td>1512</td>
<td>1053</td>
<td>380</td>
<td>8725</td>
</tr>
</tbody>
</table>

Trend: Number of monitored applications increased for all board except the BREB. The percentage increase over 5 years for all boards is 20%.

![Active Applications Chart]

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### New Human Ethics Applications

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CREB</th>
<th>BREB</th>
<th>BCCA</th>
<th>CWREB</th>
<th>PHC</th>
<th>UBCO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012/13</td>
<td>506</td>
<td>1043</td>
<td>261</td>
<td>329</td>
<td>251</td>
<td>153</td>
<td>2543</td>
</tr>
<tr>
<td>2013/14</td>
<td>451</td>
<td>1051</td>
<td>244</td>
<td>339</td>
<td>269</td>
<td>146</td>
<td>2500</td>
</tr>
<tr>
<td>2014/15</td>
<td>560</td>
<td>1000</td>
<td>262</td>
<td>334</td>
<td>269</td>
<td>145</td>
<td>2570</td>
</tr>
<tr>
<td>2015/16</td>
<td>541</td>
<td>970</td>
<td>226</td>
<td>366</td>
<td>286</td>
<td>149</td>
<td>2538</td>
</tr>
<tr>
<td>2016/17</td>
<td>604</td>
<td>978</td>
<td>223</td>
<td>379</td>
<td>298</td>
<td>149</td>
<td>2631</td>
</tr>
</tbody>
</table>

Trend: CREB, BREB, C&W REB and PHC REB experienced higher volumes of new applications this year. UBC-Okanagan remained steady with BC Cancer REB staying relatively consistent as well. Total increase over 5 years is relatively insignificant (3%), although the CREB saw a 19% increase from 2012-13.
### Post-Approval Activities

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CREB</th>
<th>BREB</th>
<th>BCCA</th>
<th>CWREB</th>
<th>PHC</th>
<th>UBCO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012/13</td>
<td>3063</td>
<td>3059</td>
<td>2104</td>
<td>1754</td>
<td>1286</td>
<td>406</td>
<td>11,682</td>
</tr>
<tr>
<td>2013/14</td>
<td>3134</td>
<td>3167</td>
<td>2295</td>
<td>2052</td>
<td>1449</td>
<td>415</td>
<td>12,512</td>
</tr>
<tr>
<td>2014/15</td>
<td>3225</td>
<td>3355</td>
<td>2370</td>
<td>1898</td>
<td>1461</td>
<td>480</td>
<td>12,789</td>
</tr>
<tr>
<td>2015/16</td>
<td>3555</td>
<td>3424</td>
<td>2432</td>
<td>2116</td>
<td>1690</td>
<td>481</td>
<td>13,698</td>
</tr>
<tr>
<td>2016/17</td>
<td>3812</td>
<td>3436</td>
<td>2519</td>
<td>2226</td>
<td>1888</td>
<td>525</td>
<td>14,406</td>
</tr>
</tbody>
</table>

**Trend:** All Boards experienced increasing numbers of PAA’s in 2016-2017. Over five years, numbers of PAA’s have increased by 2,724 (23%) reflecting increasing length and complexity of research studies.
### Industry Sponsored Studies

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CREB</th>
<th>BREB</th>
<th>BCCA</th>
<th>CWREB</th>
<th>PHC</th>
<th>UBCO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012/13</td>
<td>93</td>
<td>4</td>
<td>61</td>
<td>19</td>
<td>37</td>
<td>0</td>
<td>214</td>
</tr>
<tr>
<td>2013/14</td>
<td>65</td>
<td>7</td>
<td>43</td>
<td>25</td>
<td>38</td>
<td>0</td>
<td>178</td>
</tr>
<tr>
<td>2014/15</td>
<td>87</td>
<td>1</td>
<td>47</td>
<td>20</td>
<td>47</td>
<td>0</td>
<td>202</td>
</tr>
<tr>
<td>2015/16</td>
<td>85</td>
<td>4</td>
<td>47</td>
<td>22</td>
<td>42</td>
<td>1</td>
<td>201</td>
</tr>
<tr>
<td>2016/17</td>
<td>76</td>
<td>2</td>
<td>38</td>
<td>21</td>
<td>34</td>
<td>1</td>
<td>172</td>
</tr>
</tbody>
</table>

Trend: All Boards experienced a decline in industry sponsored studies in 2016-2017. The percentage decline over five years for all boards is just under 20%. The 5 year percentage decline for the CREB was approximately 18%, for BCCA it was approximately 38%.

### Deferred Studies

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CREB</th>
<th>BREB</th>
<th>BCCA</th>
<th>CWREB</th>
<th>PHC</th>
<th>UBCO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012/13</td>
<td>32</td>
<td>41</td>
<td>10</td>
<td>42</td>
<td>16</td>
<td>2</td>
<td>143</td>
</tr>
<tr>
<td>2013/14</td>
<td>28</td>
<td>28</td>
<td>8</td>
<td>54</td>
<td>14</td>
<td>2</td>
<td>134</td>
</tr>
<tr>
<td>2014/15</td>
<td>30</td>
<td>11</td>
<td>12</td>
<td>58</td>
<td>4</td>
<td>2</td>
<td>117</td>
</tr>
<tr>
<td>2015/16</td>
<td>40</td>
<td>11</td>
<td>13</td>
<td>46</td>
<td>14</td>
<td>1</td>
<td>125</td>
</tr>
<tr>
<td>2016/17</td>
<td>30</td>
<td>8</td>
<td>13</td>
<td>46</td>
<td>13</td>
<td>2</td>
<td>112</td>
</tr>
</tbody>
</table>

Trend: There was a slight decline in deferred studies for the BREB, CREB and PHC this year. BC Cancer REB and C&W REB remained steady, with UBC-O having an increase from 1 to 2 studies out of a total of 149 received. Over five years, the total number of deferrals for all boards has declined from 143 to 112, a decrease of 21%.
### Turn Around Time Statistics (Annual)

Full Board Department Approval to Certificate of Approval Issued (avg. days)*

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CREB</th>
<th>BREB</th>
<th>BCCA</th>
<th>CWREB</th>
<th>PHC</th>
<th>UBCO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>90.60</td>
<td>52.63</td>
<td>104.61</td>
<td>NA</td>
<td>108.17</td>
<td>NA</td>
</tr>
<tr>
<td>(first year of statistics)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>66.72</td>
<td>52.98</td>
<td>118.30</td>
<td>78.17</td>
<td>86.29</td>
<td>57.16</td>
</tr>
<tr>
<td>2013</td>
<td>62.40</td>
<td>52.35</td>
<td>114.95</td>
<td>87.09</td>
<td>85.38</td>
<td>77.75</td>
</tr>
<tr>
<td>2014</td>
<td>61.76</td>
<td>59.88</td>
<td>119.39</td>
<td>88.87</td>
<td>96.13</td>
<td>67.50</td>
</tr>
<tr>
<td>2015</td>
<td>62.48</td>
<td>54.36</td>
<td>106.97</td>
<td>88.12</td>
<td>102.06</td>
<td>58.97</td>
</tr>
<tr>
<td>2016</td>
<td>61.36</td>
<td>64.11</td>
<td>107.65</td>
<td>103.67</td>
<td>96.41</td>
<td>115.41</td>
</tr>
</tbody>
</table>

**Trends:** CREB turn-around times have been relatively consistent at just over 2 months for the past four years. BREB turn-around times increased by about 10 days in 2016. BC Cancer REB turn-around times have declined from 2012-2014 numbers and are approximately 3.5 months. C&W REB turn-around times increased by about 15 days in 2016. PHC REB turn-around times declined in 2016 and are at about 3.1 months. UBC-O’s turn-around times were significantly affected by the small number of studies (n=6) received this year. More details are noted in the Summary.
### Expedited Department Approval to Certificate of Approval Issued (avg. days)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CREB</th>
<th>BREB</th>
<th>BCCA</th>
<th>CWREB</th>
<th>PHC</th>
<th>UBCO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>53.28</td>
<td>33.17</td>
<td>24.00</td>
<td>NA</td>
<td>30.65</td>
<td>NA</td>
</tr>
<tr>
<td>2012</td>
<td>27.68</td>
<td>25.09</td>
<td>27.28</td>
<td>44.97</td>
<td>41.61</td>
<td>27.44</td>
</tr>
<tr>
<td>2013</td>
<td>29.08</td>
<td>22.81</td>
<td>20.42</td>
<td>38.86</td>
<td>35.27</td>
<td>31.83</td>
</tr>
<tr>
<td>2014</td>
<td>32.25</td>
<td>22.21</td>
<td>18.47</td>
<td>32.65</td>
<td>43.03</td>
<td>25.60</td>
</tr>
<tr>
<td>2015</td>
<td>35.31</td>
<td>24.25</td>
<td>18.09</td>
<td>31.07</td>
<td>48.59</td>
<td>28.58</td>
</tr>
<tr>
<td>2016</td>
<td>37.45</td>
<td>30.72</td>
<td>20.07</td>
<td>35.87</td>
<td>40.67</td>
<td>28.44</td>
</tr>
</tbody>
</table>

Trends: CREB and BCCA REB expedited turn-around times increased by a couple of days this year. BREB turn-around times increased by about 7 days, whereas PHC’s declined by about 8. The C&W REB saw slightly increased turn-around times and the UBC-O REB’s stayed about the same. Compared to 2007, for those board operating at that time, CREB, BREB and BCCA have reduced turn-around times, PHC has increased.
Full Board Department Approval to Certificate of Approval Issued minus time spent by Investigator preparing response (avg. days)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CREB</th>
<th>BREB</th>
<th>BCCA</th>
<th>CWREB</th>
<th>PHC</th>
<th>UBCO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>68.36</td>
<td>40.61</td>
<td>76.22</td>
<td>NA</td>
<td>70.52</td>
<td>NA</td>
</tr>
<tr>
<td>2012</td>
<td>39.87</td>
<td>38.93</td>
<td>80.12</td>
<td>52.89</td>
<td>62.23</td>
<td>41.20</td>
</tr>
<tr>
<td>2013</td>
<td>38.24</td>
<td>35.15</td>
<td>69.17</td>
<td>64.38</td>
<td>57.71</td>
<td>41.07</td>
</tr>
<tr>
<td>2014</td>
<td>36.53</td>
<td>39.15</td>
<td>73.58</td>
<td>68.66</td>
<td>60.88</td>
<td>41.66</td>
</tr>
<tr>
<td>2015</td>
<td>36.96</td>
<td>34.44</td>
<td>63.84</td>
<td>59.85</td>
<td>65.22</td>
<td>47.08</td>
</tr>
<tr>
<td>2016</td>
<td>37.35</td>
<td>42.05</td>
<td>71.69</td>
<td>72.93</td>
<td>65.09</td>
<td>71.46</td>
</tr>
</tbody>
</table>

*Trends: When time spent by the researcher responding to Board requirements is taken out of the calculation full board turn-around times reduced by between 22 days (BREB) and 44 days (UBC-O). Time spent being processed by the boards ranged from 37 to 73 days. CREB investigators spend an average of 24 days to respond, whereas PHC, C&W REB and BCCA researchers ranged from 30.74 (C&W) to 35.96 (BCC) days.*
Expedited Department Approval to Certificate of Approval Issued minus time spent by Investigator preparing response (avg. days)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CREB</th>
<th>BREB</th>
<th>BCCA</th>
<th>CWREB</th>
<th>PHC</th>
<th>UBCO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>39.30</td>
<td>23.81</td>
<td>11.15</td>
<td>NA</td>
<td>19.01</td>
<td>NA</td>
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<tr>
<td>2012</td>
<td>16.01</td>
<td>15.84</td>
<td>16.16</td>
<td>28.66</td>
<td>29.54</td>
<td>17.34</td>
</tr>
<tr>
<td>2013</td>
<td>12.23</td>
<td>14.91</td>
<td>9.56</td>
<td>25.60</td>
<td>23.06</td>
<td>19.47</td>
</tr>
<tr>
<td>2014</td>
<td>16.36</td>
<td>14.4</td>
<td>9.06</td>
<td>21.76</td>
<td>28</td>
<td>16.8</td>
</tr>
<tr>
<td>2015</td>
<td>20.55</td>
<td>16.36</td>
<td>5.83</td>
<td>21.07</td>
<td>32.91</td>
<td>20.56</td>
</tr>
<tr>
<td>2016</td>
<td>21.8</td>
<td>18.89</td>
<td>8.25</td>
<td>22.23</td>
<td>26.49</td>
<td>21.47</td>
</tr>
</tbody>
</table>

Trend: When time spent by the researcher responding to Board requirements is taken out of the calculation, expedited turn-around times are reduced substantially. In BCC REB's case, it reduced expedited turn-around to 8.25 days. Time spent with investigators ranged from 6.97 days (UBC-O) to 15.65 days (CREB).