Improving HPV Immunization Coverage in Vancouver Coastal

Strategies Tried, and True

Dr. M Dawar
On behalf of
VCH Regional Immunization Committee
Factors influencing HPV coverage

– Grade 6: Baseline acceptance* / vaccine hesitancy
– Actively consent and reoffer in school
  • Grade 9 catchup*
  • # of doses*
  • # of Grade 9 clinics*
  • Close off series in grade 10
– Pilots
  • Grade 12 catchup
  • In class education
– Next steps
HPV vaccine schedule has simplified over time

<table>
<thead>
<tr>
<th>Year</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td><em>Three dose</em> schedule: 0, 2 and 6 months</td>
</tr>
</tbody>
</table>
| 2010 | *Extended dose* schedule: 0, 6 months in grade 6, third dose in grade 11  
Third dose later changed to grade 9, implemented for one year in 2013 |
| 2014 | *Two dose* schedule for ages 9-14 years of age: 0, 6 months |
| 2017 | *Universal* program: grade 6 boys included (birth cohort 2006) |
HPV Vaccine Coverage among Grade 6 Female Students by CoCs
Vancouver Coastal Health, 2009/2010 - 2018/2019 Academic Year

CoC Coverage | VCH Overall | BC Overall

Data source: VCH Primary Access Regional Information System
Prepared by: Public Health Surveillance Unit, Vancouver Coastal Health, February 2020
Vaccine refusal versus hesitancy
(rates 2018-2019 school year)
Improving HPV coverage strategy #1:

REWOFFER IN GRADE 9
HPV Vaccine Coverage among Grade 9 Female Students by CoCs
Vancouver Coastal Health, 2009/2010 - 2018/2019 Academic Year

Data source: VCH Primary Access Regional Information System
Prepared by: Public Health Surveillance Unit, Vancouver Coastal Health, February 2020
VCH: HPV coverage increases for birth cohorts as girls progress from grades 6 to 9
Grade 9 one-dose coverage varies by number of in-school immunization clinics

- **2016-2017**

<table>
<thead>
<tr>
<th>Region (CoC)</th>
<th># of in-school immunization clinics</th>
<th>0 Dose</th>
<th>1 Dose</th>
<th>Up-to-date</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCH Overall</td>
<td>-</td>
<td>14%</td>
<td>10%</td>
<td>76%</td>
</tr>
<tr>
<td>Richmond</td>
<td>2</td>
<td>13%</td>
<td>7%</td>
<td>80%</td>
</tr>
<tr>
<td>Coastal Urban</td>
<td>1</td>
<td>8%</td>
<td>19%</td>
<td>73%</td>
</tr>
<tr>
<td>Coastal Rural</td>
<td>2</td>
<td>16%</td>
<td>5%</td>
<td>79%</td>
</tr>
</tbody>
</table>

- **2017-2018**

<table>
<thead>
<tr>
<th>Region (CoC)</th>
<th># of in-school immunization clinics</th>
<th>0 Dose</th>
<th>1 Dose</th>
<th>Up-to-date</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSDA</td>
<td>Zero Dose %</td>
<td>One Dose %</td>
<td>Up-to-date %</td>
<td></td>
</tr>
<tr>
<td>TOTAL (VCH)</td>
<td>12</td>
<td>10</td>
<td>78</td>
<td></td>
</tr>
<tr>
<td>Vancouver</td>
<td>12</td>
<td>8</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Richmond</td>
<td>8</td>
<td>13</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Coastal Urban</td>
<td>15</td>
<td>14</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>Coastal Rural</td>
<td>18</td>
<td>4</td>
<td>78</td>
<td></td>
</tr>
</tbody>
</table>

Analysis prepared by H Yu & T Chu, Public Health Surveillance Unit
REPORT GRADE 10 COVERAGE?
(AS WE CLOSE SERIES FOR THOSE PREVIOUSLY CONSENTED IN GRADE 9)

Y Hu, T Chu, K Bourhill, R Badh, P Caldwell, J Porter, C Salgado, and M Dawar, 2017-2019
HPV Immunization Coverage Change from Grade 9 (2016/17) to Grade 10 (2017/18)

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Grade 9 (2016/17)</th>
<th>Grade 10 (2017/18)</th>
<th>Coverage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 dose</td>
<td>13.1</td>
<td>13.9</td>
<td>0.8</td>
</tr>
<tr>
<td>1 dose</td>
<td>7.5</td>
<td>4.8</td>
<td>-2.7</td>
</tr>
<tr>
<td>2 doses</td>
<td>79.4 (→) 81.3</td>
<td></td>
<td>1.9</td>
</tr>
</tbody>
</table>

Vancouver

PUBLIC SCHOOL

Closing off series in grade 10 is important
• Protects individuals

However, it does not measurably improve coverage
• New students enrolled into the grade 10 cohort
• Expansion of denominator, but no consent based campaign to catch them up.
REOFFER IN GRADE 12?
Outcome of Pilot Grade 12 HPV vaccination campaign (2016-17)

Reached another 12% of the grade cohort

Coverage increased from 74% to 78%, could be as high as 86% (if all consented students immunized)

*Three out of four interested students were new enrolments since grade 9

Grade 12 campaign requires more resources:
- an influx of new students
- three dose series
- finding students for clinics is difficult

New resources required
Improving HPV coverage strategy #4

IN CLASS EDUCATION PILOT: 2015-16

K O’Connor and A Redding, 2016
Curriculum: Two, in-class sessions + I Boost Immunity website information for grades 5/6

Pilot school: Squamish Elementary

- Pre-pilot grade 6 HPV coverage (2015): 77% (95% CI, 65%-89%)
- Post-pilot grade 6 HPV coverage (2016): 89% (95% CI, 80%-98%)

Education is always an important strategy to consider.
Needs further evaluation, particularly with the new KBI curriculum.
Time intensive.
May be strategically employed in schools with low coverage.
Data to support local action
Next steps

• Evaluation of current *passive* in school-catch up campaign to identify increase in HPV rates for students in non target grades.

• Evaluate the pilot Grade 7 *active* (consent based, in school) HPV campaign.
Our vision: Strengthen the Grade 9 campaign

Increase opportunities to close series for 10% of grade 9 graduates who received one dose:

1. Start grade 9 clinics Sep to Dec
   1. Students need only two doses of vaccine
   2. Greater opportunity to fit in two clinics in the school year
   3. (Challenge: Need to schedule high school clinics around two grade 6 clinics per year)

2. Active follow up of one dose recipients near the end of school year

3. Promote vaccine in low coverage schools/areas using Kids Boost Immunity
With thanks

• A superb group of program administrative staff, immunizers, and nurse leaders who endeavour to reach every eligible student at every encounter.

• An amazing surveillance team without whom we would be shooting in the dark.