## Characteristics of the sample

*Supplementary Table S1: Sample characteristics and comparison with Year 10 population (% absolute difference)*

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
<th>Age</th>
<th>Sex</th>
<th>School Decile</th>
<th>Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>14 years</td>
<td>15 years</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>2002</td>
<td>28088</td>
<td>13161</td>
<td>14927</td>
<td>13911</td>
<td>14177</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>47%</td>
<td>53%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>-1%</td>
<td>1%</td>
<td>-4%</td>
<td>2%</td>
</tr>
<tr>
<td>2003</td>
<td>31377</td>
<td>14585</td>
<td>16792</td>
<td>15492</td>
<td>15885</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>46%</td>
<td>54%</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>-2%</td>
<td>2%</td>
<td>-3%</td>
<td>3%</td>
</tr>
<tr>
<td>2004</td>
<td>30807</td>
<td>18668</td>
<td>12139</td>
<td>14996</td>
<td>15811</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>61%</td>
<td>39%</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>-2%</td>
<td>2%</td>
<td>-1%</td>
<td>1%</td>
</tr>
<tr>
<td>2005</td>
<td>31833</td>
<td>15901</td>
<td>15932</td>
<td>15211</td>
<td>16622</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>50%</td>
<td>50%</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>-3%</td>
<td>3%</td>
<td>-3%</td>
<td>2%</td>
</tr>
<tr>
<td>2006</td>
<td>31690</td>
<td>19996</td>
<td>11694</td>
<td>15642</td>
<td>16048</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>63%</td>
<td>37%</td>
<td>40%</td>
<td>51%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>-2%</td>
<td>2%</td>
<td>-4%</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>pop</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>N</td>
<td>25109</td>
<td>16213</td>
<td>8896</td>
<td>11988</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>65%</td>
<td>35%</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>-4%</td>
<td>4%</td>
<td>-4%</td>
<td>-2%</td>
</tr>
<tr>
<td>2008</td>
<td>N</td>
<td>29682</td>
<td>18395</td>
<td>11287</td>
<td>14462</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>62%</td>
<td>38%</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>-3%</td>
<td>3%</td>
<td>-2%</td>
<td>0%</td>
</tr>
<tr>
<td>2009</td>
<td>N</td>
<td>24755</td>
<td>15977</td>
<td>8778</td>
<td>11607</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>65%</td>
<td>35%</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>-4%</td>
<td>4%</td>
<td>-5%</td>
<td>1%</td>
</tr>
<tr>
<td>2010</td>
<td>N</td>
<td>31696</td>
<td>19725</td>
<td>11971</td>
<td>16636</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>62%</td>
<td>38%</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>1%</td>
<td>-1%</td>
<td>-2%</td>
<td>1%</td>
</tr>
<tr>
<td>2011</td>
<td>N</td>
<td>26028</td>
<td>21390</td>
<td>4638</td>
<td>12462</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>82%</td>
<td>18%</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>-3%</td>
<td>3%</td>
<td>-4%</td>
<td>-1%</td>
</tr>
<tr>
<td>2012</td>
<td>N</td>
<td>30396</td>
<td>25098</td>
<td>5298</td>
<td>14918</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>83%</td>
<td>17%</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>-2%</td>
<td>2%</td>
<td>-1%</td>
<td>-2%</td>
</tr>
<tr>
<td>2013</td>
<td>N</td>
<td>27014</td>
<td>22126</td>
<td>4888</td>
<td>13546</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>82%</td>
<td>18%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>-1%</td>
<td>1%</td>
<td>-3%</td>
<td>-2%</td>
</tr>
<tr>
<td>2014</td>
<td>N</td>
<td>29303</td>
<td>24206</td>
<td>5097</td>
<td>14164</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>82%</td>
<td>18%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>dif from pop</td>
<td>-1%</td>
<td>1%</td>
<td>-3%</td>
<td>-2%</td>
</tr>
<tr>
<td>%</td>
<td>83%</td>
<td>17%</td>
<td>48%</td>
<td>52%</td>
<td>15%</td>
</tr>
<tr>
<td>--------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>dif from pop</td>
<td></td>
<td>-3%</td>
<td>3%</td>
<td>-3%</td>
<td>2%</td>
</tr>
<tr>
<td>2015</td>
<td>N</td>
<td>20443</td>
<td>16630</td>
<td>3813</td>
<td>10155</td>
</tr>
<tr>
<td>%</td>
<td>81%</td>
<td>19%</td>
<td>50%</td>
<td>50%</td>
<td>17%</td>
</tr>
<tr>
<td>dif from pop</td>
<td></td>
<td>-2%</td>
<td>2%</td>
<td>-2%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Notes: Population data is based on Ministry of Education (MoE) records which are available online at: https://www.educationcounts.govt.nz/statistics/schooling/student-numbers/6028.

Ethnicity data is not available from MoE prior to 2006, so ethnic comparison of population and sample is not possible 2002-2005.

Comparison between sample and population on age of students (14 or 15 years) is not shown since MoE data is measured at the midpoint in the year, whereas survey fieldwork dates differ slightly from year to year, and as a result meaningful comparison is not possible.
Smoking prevalence by ethnicity, school decile and gender

Supplementary Figure S1: Prevalence of regular smoking in 14-15 year olds by prioritised ethnicity, 2002 to 2015

Supplementary Figure S2: Prevalence of regular smoking in 14-15 year olds by school decile, 2002 to 2015
Notes: Low decile = most deprived. High decile = least deprived.

School decile is calculated by the Ministry of Education for purposes of funding allocation, and is a school-level measure of the socioeconomic position of a school’s student community. Details of how school decile is calculated are available on the Ministry of Education website:

Supplementary Figure S3: Prevalence of regular smoking in 14-15 year olds by gender, 2002 to 2015
Changes in exposure to risk factors over time, by ethnicity and school decile

Supplementary Figure S4: Proportion reporting at least one parent smokes by ethnicity, 2002 to 2015

Supplementary Figure S5: Proportion reporting at least one parent smokes by school decile, 2002 to 2015
Supplementary Figure S6: Proportion reporting older sibling(s) smoke, by ethnicity, 2002 to 2015.

Supplementary Figure S7: Proportion reporting older sibling(s) smoke, by school decile, 2002 to 2015.
Supplementary Figure S8: Proportion reporting best friend smokes, by ethnicity, 2002 to 2015.

Supplementary Figure S9: Proportion reporting best friend smokes, by school decile, 2002 to 2015.
Supplementary Figure S10: Proportion reporting daily exposure to smoking in the home, by ethnicity, 2002 to 2015.

Supplementary Figure S10: Proportion reporting daily exposure to smoking in the home, by school decile, 2002 to 2015.
Trend analysis for regular smoking in Māori adolescents

To test whether trend analysis results for Māori (indigenous) adolescents differed from those for the adolescent population as a whole, we stratified the sample by ethnicity (Māori/non-Māori) and re-ran our trend analyses on the Māori sub-sample. Table S2 shows ORs for each survey year relative to 2003 (baseline), adjusted for age, gender, and decile (Model 1); then for each named risk factor separately, and finally adjusted for all risk factors together. The final row shows the results for all years combined, with year entered in the model as a continuous variable.

Supplementary Table S2: Trend analyses for Māori sub-sample

<table>
<thead>
<tr>
<th>Year</th>
<th>Model 1 OR for Year, Partially adjusted</th>
<th>Model 1 + Best Friend</th>
<th>Model 1 + smoke in home</th>
<th>Model 1 + smoke parent4</th>
<th>Model 1 + smoke Sibling</th>
<th>Model 1 + all risk factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>0.73* (0.67, 0.79)</td>
<td>0.89* (0.81, 0.97)</td>
<td>0.68 (0.62, 0.74)</td>
<td>0.70 (0.65, 0.77)</td>
<td>0.72 (0.66, 0.78)</td>
<td>0.80 (0.73, 0.88)</td>
</tr>
<tr>
<td>2007</td>
<td>0.64 (0.58, 0.70)</td>
<td>0.78* (0.71, 0.87)</td>
<td>0.61 (0.55, 0.67)</td>
<td>0.62 (0.57, 0.69)</td>
<td>0.63 (0.58, 0.70)</td>
<td>0.73 (0.66, 0.81)</td>
</tr>
<tr>
<td>2008</td>
<td>0.57 (0.52, 0.62)</td>
<td>0.75* (0.68, 0.82)</td>
<td>0.55 (0.49, 0.60)</td>
<td>0.56 (0.51, 0.61)</td>
<td>0.56 (0.51, 0.62)</td>
<td>0.69* (0.62, 0.76)</td>
</tr>
<tr>
<td>2009</td>
<td>0.52 (0.48, 0.58)</td>
<td>0.70* (0.63, 0.78)</td>
<td>0.50 (0.46, 0.56)</td>
<td>0.51 (0.46, 0.56)</td>
<td>0.52 (0.47, 0.57)</td>
<td>0.65* (0.58, 0.72)</td>
</tr>
<tr>
<td>2010</td>
<td>0.46 (0.42, 0.50)</td>
<td>0.59* (0.54, 0.65)</td>
<td>0.45 (0.41, 0.49)</td>
<td>0.45 (0.41, 0.49)</td>
<td>0.45 (0.41, 0.49)</td>
<td>0.55* (0.50, 0.61)</td>
</tr>
<tr>
<td>2011</td>
<td>0.42 (0.38, 0.46)</td>
<td>0.58* (0.52, 0.64)</td>
<td>0.38 (0.34, 0.41)</td>
<td>0.42 (0.38, 0.46)</td>
<td>0.42 (0.38, 0.46)</td>
<td>0.51* (0.45, 0.56)</td>
</tr>
<tr>
<td>2012</td>
<td>0.34 (0.31, 0.38)</td>
<td>0.47* (0.42, 0.52)</td>
<td>0.31 (0.28, 0.34)</td>
<td>0.34 (0.31, 0.38)</td>
<td>0.35 (0.31, 0.38)</td>
<td>0.42* (0.37, 0.46)</td>
</tr>
<tr>
<td>2013</td>
<td>0.31 (0.28, 0.34)</td>
<td>0.44* (0.40, 0.49)</td>
<td>0.31 (0.28, 0.34)</td>
<td>0.31 (0.28, 0.34)</td>
<td>0.31 (0.28, 0.35)</td>
<td>0.42* (0.38, 0.47)</td>
</tr>
<tr>
<td>2014</td>
<td>0.28 (0.26, 0.31)</td>
<td>0.40* (0.36, 0.45)</td>
<td>0.27 (0.24, 0.30)</td>
<td>0.29 (0.26, 0.32)</td>
<td>0.29 (0.26, 0.32)</td>
<td>0.37* (0.33, 0.42)</td>
</tr>
<tr>
<td>2015</td>
<td>0.23 (0.21, 0.26)</td>
<td>0.34* (0.34, 0.39)</td>
<td>0.22 (0.19, 0.25)</td>
<td>0.23 (0.21, 0.26)</td>
<td>0.24 (0.21, 0.27)</td>
<td>0.32* (0.28, 0.36)</td>
</tr>
<tr>
<td>Linear trend 2003-2015</td>
<td>0.89 (0.88, 0.89)</td>
<td>0.92* (0.91, 0.92)</td>
<td>0.89 (0.88, 0.89)</td>
<td>0.89 (0.88, 0.90)</td>
<td>0.89 (0.89, 0.90)</td>
<td>0.91* (0.90, 0.92)</td>
</tr>
</tbody>
</table>

*OR > Model 1 OR (p < .01)