

**Table 1: Number of student participants at the start of each year in the cohort study and the percentage retention at each year of follow-up**

| <b>Year of Measurement</b>                       | <b>2004/05</b> | <b>2005/06</b> | <b>2006/07</b> | <b>2007/08</b> | <b>2008/09</b> |
|--|----------------|----------------|----------------|----------------|----------------|
| Number of students at start of year              | 759            | 740            | 712            | 630            | 585            |
| Number lost to follow-up (n=174)                 | 174            | 19             | 28             | 82             | 45             |
| Moved to another schools (n=93)                  |                | 9              | 5              | 63             | 16             |
| Changed home address or migrated overseas (n=36) |                | 9              | 4              | 9              | 14             |
| Refused to continue in the study (n=45)          |                | 1              | 19             | 10             | 15             |
| Percentage of students retained compared to 2004 |                | 97%            | 94%            | 83%            | 77%            |

**Table 2: Baseline characteristics of the study participants by gender**

|  | Boys            |            | Girls           |            | Total           |            |        |
|--|-----------------|------------|-----------------|------------|-----------------|------------|--------|
|  | Mean<br>(n=364) | SD         | Mean<br>(n=395) | SD         | Mean<br>(n=759) | SD         | P*     |
| Age in years                           | 11.8            | 0.6        | 11.9            | 0.7        | 11.8            | 0.6        | 0.5    |
| Height in cm                           | 155.7           | 9.7        | 153.4           | 8.1        | 154.5           | 9.0        | <0.001 |
| Weight in kg                           | 44.6            | 9.6        | 41.0            | 7.4        | 42.7            | 8.7        | <0.001 |
| BMI                                    | 20.1            | 3.9        | 18.1            | 3.1        | 19.1            | 3.7        | <0.001 |
|  | %               | CI 95%     | %               | CI 95%     | %               | CI 95%     |        |
| BMI status                             | (n=364)         |            | (n=395)         |            | (n=759)         |            | 0.0001 |
| Normal                                 | 80.8            | 76.6, 85.0 | 90.3            | 87.4, 93.3 | 85.8            | 83.3, 88.4 |        |
| Overweight non obese                   | 16.9            | 12.9, 20.8 | 8.6             | 5.8, 11.4  | 12.5            | 10.1, 14.9 |        |
| Obese                                  | 2.3             | 0.7, 3.9   | 1.0             | 0.0, 2.1   | 1.7             | 0.7, 2.6   |        |
| Pubertal status                        |                 |            |                 |            |                 |            | <0.001 |
| Prepubescent                           | 45.9            | 40.6, 51.2 | 22.1            | 18.0, 26.3 | 33.6            | 29.9, 36.8 |        |
| Pubescent                              | 54.1            | 48.8, 59.4 | 77.9            | 73.7, 82.0 | 66.6            | 63.2, 70.1 |        |
| Maternal education                     | (n=329)         |            | (n=367)         |            | (n=696)         |            | 0.4    |
| No school or incomplete primary school | 6.1             | 3.5, 8.7   | 7.4             | 4.7, 10.0  | 6.7             | 4.9, 8.6   |        |
| Incomplete junior high school          | 18.5            | 14.3, 22.8 | 19.3            | 15.3, 23.4 | 19.0            | 16.0, 21.9 |        |
| Incomplete senior high school          | 21.6            | 17.1, 26.0 | 22.3            | 18.1, 26.6 | 22.0            | 18.9, 25.1 |        |
| Complete senior high school or higher  | 53.8            | 48.4, 59.2 | 50.9            | 45.8, 56.1 | 52.3            | 48.6, 56.0 |        |
| Paternal education                     | (n=329)         |            | (n=367)         |            | (n=696)         |            | 0.2    |
| No school or incomplete primary school | 5.8             | 3.2, 8.3   | 7.1             | 4.4, 9.7   | 6.5             | 4.6, 8.3   |        |
| Incomplete junior high school          | 13.4            | 9.7, 17.1  | 15.5            | 11.8, 19.2 | 14.5            | 11.9, 17.1 |        |
| Incomplete senior high school          | 20.1            | 15.7, 24.4 | 21.0            | 16.8, 25.2 | 20.5            | 17.5, 23.5 |        |
| Complete senior high school or higher  | 60.8            | 55.5, 66.1 | 56.4            | 51.2, 61.5 | 58.5            | 54.8, 62.1 |        |
| BMI status of parents                  | (n=291)         |            | (n=326)         |            | (n=617)         |            | 0.9    |
| Both not overweight/obese              | 71.1            | 65.9, 76.4 | 72.1            | 67.2, 77.0 | 71.6            | 68.1, 75.2 |        |
| Father Overweight/obese                | 7.6             | 4.5, 10.6  | 7.1             | 4.3, 9.8   | 7.3             | 5.2, 9.4   |        |
| Mother Overweight/obese                | 17.9            | 13.4, 22.3 | 16.6            | 12.5, 20.6 | 17.2            | 14.2, 20.2 |        |
| Both overweight/obese                  | 3.4             | 1.3, 5.5   | 4.3             | 2.1, 6.5   | 3.9             | 2.3, 5.4   |        |
| Socioeconomic status                   | (n=364)         |            | (n=395)         |            | (n=758)         |            | 0.4    |
| Poorest (1 <sup>st</sup> tertile)      | 33.6            | 28.7, 38.5 | 33.1            | 28.4, 37.7 | 33.4            | 30.0, 36.7 |        |
| 2 <sup>nd</sup> tertile                | 31.4            | 26.6, 36.2 | 35.9            | 31.2, 40.7 | 33.8            | 30.4, 37.1 |        |
| Richest (3 <sup>rd</sup> tertile)      | 35.0            | 30.1, 39.9 | 30.9            | 26.3, 35.5 | 32.8            | 29.5, 36.2 |        |

\*test compared characteristics between boys and girls

**Table 3: Changes of anthropometric data, self-reported time in MVPA\*and sedentary behaviours, 2004-2009**

|  | Year<br>2004/05        | Year<br>2005/06        | Year<br>2006/07        | Year<br>2007/08        | Year<br>2008/09        | p+     |
|--|------------------------|------------------------|------------------------|------------------------|------------------------|--------|
|  | %<br>(CI 95%)          | %<br>(CI 95%)          | %<br>(CI 95%)          | %<br>(CI 95%)          | %<br>(CI 95%)          |        |
| BMI status   |                        |                        |                        |                        |                        |        |
| Not overweight/obese   | 85.8<br>(83.3, 88.4)   | 84.8<br>(82.2, 87.4)   | 83.9<br>(81.2, 86.6)   | 81.3<br>(78.2, 84.5)   | 78.2<br>(71.8, 84.6)   | 0.003  |
| Overweight   | 12.5<br>(10.1, 14.9)   | 12.7<br>(10.3, 15.1)   | 12.9<br>(10.5, 15.4)   | 14.5<br>(11.6, 17.3)   | 16.7<br>(13.6, 19.8)   |        |
| Obese  | 1.7<br>(0.7, 2.6)      | 2.5<br>(1.3, 3.6)      | 3.2<br>(1.8, 4.4)      | 4.2<br>(2.6, 5.8)      | 5.1<br>(3.3, 7.0)      |        |
|  | Median<br>(25th, 75th) | Median<br>(25th, 75th) | Median<br>(25th, 75th) | Median<br>(25th, 75th) | Median<br>(25th, 75th) |        |
| Time spent on MVPA*/day<br>(data from V-APARQ**)                     | 86.5<br>(48.0, 255.4)  | 79.9<br>(36.0, 228.1)  | 64.4<br>(29.5, 198.5)  | 57.3<br>(24.1, 209.6)  | 50.3<br>(25.5, 161.3)  | 0.0001 |
| Time spent on sedentary behaviours<br>(data from ASAQ <sup>§</sup> ) | 512<br>362, 632        | 554<br>412, 658        | 596<br>436, 699        | 607<br>443, 707        | 600<br>424, 682        | 0.001  |

\*MVPA: moderate to vigorous physical activity; \*\* V-APARQ: Vietnamese- Adolescent Physical Activity Recall Questionnaire; <sup>§</sup>ASAQ: Adolescent Sedentary Activity Questionnaire  
<sup>+</sup> test for changes