

## Socioeconomic inequalities in physical activity in adolescents of six European cities

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### Background

Adolescents with a higher socioeconomic status are generally more physically active than those with a lower socioeconomic status, with some between-country variation in Europe. This study aimed to assess the magnitude of socioeconomic inequalities in physical activity in adolescents of 6 European cities.

### Methods

We used data of 9324 students from 47 schools in 6 European cities participating in the SILNE study. Each student was asked to fill in a questionnaire containing detailed information on socio-demographic characteristics, including parental education and employment status, family affluence, and health behaviours. Physical activity was measured on the basis of two questions: a first question asked about the time spent in vigorous physical activity (VPA) for each day of a typical week, whereas a second question asked about the usual way of transportation to and from school.

### Results

The median time spent practicing VPA per week was 7.5 hours (IQR 4.5 - 10.5) for males and 5.0 (IQR 3.0 - 8.0) for females. Median values were lowest for Belgium and Italy and highest for the Netherlands. Both family affluence and subjective social status were positively associated with VPA. This was consistent among both sexes and all countries, with few exceptions. Father educational level was positively associated with VPA too, whereas mother education and employment of either parent showed a positive association with VPA only in some countries. Socioeconomic differences in VPA were somewhat larger for weekdays compared to the weekend. The percentage of students who engaged in active commuting (AC) to and from school varied widely among cities, ranging from 13.3% in Italy to 90.6% in the Netherlands. Parental education was generally positively associated with AC, whereas parental employment and family affluence showed contrasting results.

### Conclusions

Socioeconomic inequalities in adolescent VPA were found in all cities under investigation, and they mainly derived from socioeconomic differences in weekday physical activity. AC was not consistently associated with adolescent socioeconomic status.