

Title:

Socioeconomic inequalities in occupational, leisure-time, and transport related physical activity among European adults: A systematic review.

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Table A1: Summary of study findings examining associations between total or usual physical activity (TPA) and SEP[‡]

| Author (Date) | Direction of the associations between the socioeconomic indicator and physical activity | | | | | | | | Adjustment |
|--|---|-----------|--------------|---------------------------------|--------|-----------|--------------|---------------------------------|--|
| | Men | | | | Women | | | | |
| | Income | Education | Social class | Other | Income | Education | Social class | Other | |
| EU wide studies | | | | | | | | | |
| Ståhl <i>et al</i> , 2001[60] | | + | | | | + | | | age, gender, country, several cognitive factors |
| Western European region | | | | | | | | | |
| de Vries <i>et al</i> , 2008[78] | | (0) | | | | (0) | | | - |
| Eastern European region | | | | | | | | | |
| Frömel <i>et al</i> , 2009[80] | | | | 0 ¹ | | | | - ¹ | age, gender ^s , BMI, smoking, # residents in town, living status, dog ownership, participating in organized PA |
| Jurakić <i>et al</i> , 2009[81] | 0 | - | | | 0 | - | | | - |
| Zaletel-Kragelj <i>et al</i> , 2006[91] | | + | + | | | + | + | | age, gender, education, kind of work, social class, residence community, geographical region |
| Southern European region | | | | | | | | | |
| Borrel <i>et al</i> , 2000b[95] ^a | | | | | | | | 0 | age, gender ^s |
| Gal <i>et al</i> , 2005[97] | | - | - | | | - | - | | age, gender ^s |
| Panagiotakos <i>et al</i> , 2008[101] ^b | | + | | | | + | | | - |
| Santos <i>et al</i> , 2009[105] | - | - | | | - | - | | | gender ^s |
| Scandinavian region | | | | | | | | | |
| Barengo <i>et al</i> , 2006[109] [†] | | | | | | | | 0 | age, gender ^s |
| Bergman <i>et al</i> , 2008[110] | 0 | - | | | 0 | - | | | age, gender, education, income, employment status, BMI, residential community size, marital status, smoking, self-perceived health |
| Kivimäki <i>et al</i> , 2007[116] | | | | (+) ¹ | | | | (+) ¹ | - |
| Lagerros <i>et al</i> , 2009[120] | | - | | | | - | | | - |
| Leijon <i>et al</i> , 2010[121] | | + | | + ³ | | + | | + ³ | survey design, non-response |
| Norman <i>et al</i> , 2002[131] | | - | | | | | | | age, gender ^s , BMI, smoking, marital status, self-rated health |
| Novak <i>et al</i> , 2006[132] | | + | | | | 0 | | | age [†] , gender ^s |
| Orsini <i>et al</i> , 2007[133] | | | | | | | | - | age, gender ^s , BMI, postmenopausal status, alcohol consumption, smoking, employment status, urban/rural place in childhood |
| Pudarcic <i>et al</i> , 2000[139] | + | | | | 0 | | | | gender ^s |
| Anglo-Saxon region | | | | | | | | | |
| Adams, 2009[151] | | + | | | | + | | | age, gender, self-reported health |
| Allender <i>et al</i> , 2008[15] | | + | - | | | 0 | - | | age, gender ^s , education, social status, employment status |
| Amuzu <i>et al</i> , 2009[152] ^c | | | | | | | | + ¹ , + ² | gender ^s , individual SEP, neighb. SEP |
| Chaudhury & Shelton, 2010[155] ^d | 0 | | 0 | 0 | 0 | | 0 | 0 ² | age, gender ^s , income, social class, employment status, long-term illness, BMI, waist circumference, waist-hip ratio, smoking status, alcohol consumption, region, deprivation index |
| Harrison <i>et al</i> , 2006[157] | | | | + ⁴ , + ² | | | | + ⁴ , + ² | age, gender |
| Mullineaux <i>et al</i> , 2001[164] | | + | | | | + | | | age, self perception of being active, motivation to be active, self perception of doing adequate exercise, lifestyle problems |

| Author (Date) | Direction of the associations between the socioeconomic indicator and physical activity | | | | | | | | | |
|---|---|-----------|--------------|-------|--------|-----------|----------------|-------|------------|---|
| | Men | | | | Women | | | | Adjustment | |
| | Income | Education | Social class | Other | Income | Education | Social class | Other | | |
| Myint <i>et al</i> , 2006[166] ^e | | | - | | | | - | | | age, gender ^s |
| Popham & Mitchell, 2007[16] | | | 0 | | | | + ¹ | | | age, gender ^s , health status, employment status |

[‡] The symbols in the table should be read as follows: '+' means that a high SEP is associated with a high TPA, a '-' means that a high SEP is associated with a low TPA. A '0' means that there was no association found. When the symbol is between brackets, no tests of significance were done.

† Results from most recent year (1997) reported. Associations in previous years were different.

a. Similar results found in the same sample population by Borrel *et al*, 2000a[94].

b. Similar results found in the same sample population by Panagiotakos *et al*, 2008a[100].

c. Similar results found in the same sample population by Hillsdon *et al*, 2008[159] and by Watt *et al*, 2009[173].

d. The association between social class and TPA was also reported by Allender *et al*, 2008[15] but since Chaudhury and Shelton[155] report about an older subsample (age 60-69), the results were different and therefore reported here as well.

e. Only the results for people under 65 are presented here.

s. Results were stratified according to gender.

t. All respondents were the same age.

1. Individual SEP (composite measure).

2. Neighbourhood SEP.

3. Self-reported economy.

4. Home ownership.

Table A1: Summary of study findings examining associations between occupational physical activity (OPA) and SEP[‡]

| Author (Date) | Direction of the associations between the socioeconomic indicator and physical activity | | | | | | | | Adjustment | |
|---|---|-----------|--------------|----------------|--------|-----------|--------------|----------------|------------|---|
| | Men | | | | Women | | | | | |
| | Income | Education | Social class | Other | Income | Education | Social class | Other | | |
| EU wide studies | | | | | | | | | | |
| Van Tuyckom & Scheerder, 2010b[55] | | + | | | | + | | | | - |
| Eastern European region | | | | | | | | | | |
| Jurakić <i>et al</i> , 2009[81] | 0 | 0 | | | 0 | 0 | | | | - |
| Mišigoj-Durakovia <i>et al</i> , 2000[84] | | - | | | | - | | | | gender ^s |
| Scandinavian region | | | | | | | | | | |
| Mäkinen <i>et al</i> , 2010a[126] | | | - | | | | - | | | age, gender ^s |
| Suadicani <i>et al</i> , 2001[42] | | | - | | | | | | | age, gender ^s |
| Wang <i>et al</i> , 2010[34] ^a | | - | | | | - | | | | age, gender ^s , study year |
| Anglo-Saxon region | | | | | | | | | | |
| Mutrie & Hannah, 2004[165] | | | - | | | | 0 | | | gender ^s |
| Poortinga, 2007[167] | | | - | | | | - | | | - |
| Popham & Mitchell, 2007[16] | | | | - ¹ | | | | - ¹ | | age, gender ^s , health status, employment status |

[‡] The symbols in the table should be read as follows: '+' means that a high SEP is associated with a high OPA, a '-' means that a high SEP is associated with a low OPA. A '0' means that there was no association found. When the symbol is between brackets, no tests of significance were done.

- a. Similar results found in the same sample population by Hu *et al*, 2003[37].
- s. Results were stratified according to gender.
- 1. Composite individual SEP measure.

Table A3: Summary of study findings examining associations between total leisure-time physical activity (TLTPA) and SEP⁺

| Author (Date) | Direction of the associations between the socioeconomic indicator and physical activity | | | | | | | | Adjustment |
|---|---|-----------|--------------|----------------|--------|-----------|--------------|----------------|--|
| | Men | | | | Women | | | | |
| | Income | Education | Social class | Other | Income | Education | Social class | Other | |
| EU wide studies | | | | | | | | | |
| Van Tuyckom & Scheerder, 2010a[62] ^a | | | + | | | | + | | age, gender, marital status, geographical status |
| Van Tuyckom & Scheerder, 2010b[55] ^a | | + | | | | | + | | - |
| Varo <i>et al</i> , 2003[56] ^b | | + | | | | | + | | age, gender ^s , education, marital status, smoking, weight change |
| Western European region | | | | | | | | | |
| Bertrais <i>et al</i> , 2004[64] | | 0 | | | | | + | | age, gender ^s , smoking, urban/rural location, TV viewing |
| Chaix & Chauvin, 2003[65] | + | + | | | + | + | | | age, gender, education, income, occupation, employment, marital status |
| Dragano <i>et al</i> , 2007[66] - DEU | | + | | + ⁵ | | | + | + ⁵ | age, gender, education, economic activity, social isolation, neighbourhood unemployment |
| Drieskens <i>et al</i> , 2010[67] | | (+) | | | | | (+) | | gender ^s |
| Kamphuis <i>et al</i> , 2009[51] | 0 | + | | | 0 | + | | | age, gender |
| van Lenthe <i>et al</i> , 2005[47] | | | | + ² | | | | + ² | age, gender, educational level |
| van Oort <i>et al</i> , 2004[71] | | (+) | | | | | (+) | | age, gender |
| Rathmann <i>et al</i> , 2005[72] | + | 0 | + | | + | + | + | | age, gender ^s |
| Ribet <i>et al</i> , 2001[73] – GAZEL | | | + | | | | + | | age, gender ^s , own and spouses occupation |
| Ribet <i>et al</i> , 2001[73] – MONICA | | | + | | | | + | | age, gender ^s , own and spouses occupation |
| Van Dyck <i>et al</i> , 2010[23] | | + | | 0 ² | | | + | 0 ² | age, gender, education, employment status, BMI, walkability of neighbourhood, neighbourhood SEP, walkability*neighbourhood SEP |
| Verdaet <i>et al</i> , 2004[77] | | + | | | | | | | gender ^s |
| Wagner <i>et al</i> , 2003[79] - FRA | | 0 | | + ³ | | | | | age, gender ^s , marital status, obesity, reported disease, centre |
| Eastern European region | | | | | | | | | |
| Dragano <i>et al</i> , 2007[66] – CZE | | + | | 0 ⁵ | | | + | 0 ⁵ | age, gender, education, economic activity, social isolation, neighbourhood unemployment |
| Drygas <i>et al</i> , 2009[31] | 0 | + | | | + | + | | | age, gender ^s , place of residence, education, income, marital status, active commuting, occupational PA |
| Jurakić <i>et al</i> , 2009[81] | + | 0 | | | + | 0 | | | - |
| Kaleta & Jegier, 2005[32] ^m | + | + | | | 0 | + | | | age, gender ^s , education, income, job characteristics (mental/physical work), occupational PA |
| Kaleta & Jegier, 2007[82] ^m | 0 | + | | | + | + | | | age, gender ^s , education, income, job characteristics (mental/physical work), occupational PA |
| Mišigoj-Durakovia <i>et al</i> , 2000[84]<45 years | | 0 | | | | | 0 | | gender ^s |
| Mišigoj-Durakovia <i>et al</i> , 2000[84] >45 years | | - | | | | | 0 | | gender ^s |
| Pomerleau <i>et al</i> , 2000[87] – EST | + | + | | | 0 | + | | | age, gender ^s , education, income, nationality, area of residence |
| Pomerleau <i>et al</i> , 2000[87] – LTU | + | 0 | | | 0 | + | | | age, gender ^s , education, income, nationality, area of residence |
| Pomerleau <i>et al</i> , 2000[87] – LVA | + | + | | | 0 | + | | | age, gender ^s , education, income, nationality, area of residence |

| Author (Date) | Direction of the associations between the socioeconomic indicator and physical activity | | | | | | | | Adjustment |
|--|---|-----------|--------------|-------------------|--------|-----------|--------------|-------------------|---|
| | Men | | | | Women | | | | |
| | Income | Education | Social class | Other | Income | Education | Social class | Other | |
| Puska <i>et al</i> , 2003[88] – EST | | 0 | | | | 0 | | | age, gender ^s , place of residence, year of measurement |
| Puska <i>et al</i> , 2003[88] – LTU | | 0 | | | | 0 | | | age, gender ^s , place of residence, year of measurement |
| Shapo <i>et al</i> , 2004[89] | 0 | 0 | | | 0 | 0 | | | age, gender ^s , education, income, smoking, vegetable intake, alcohol intake, # unhealthy behaviours |
| Stelmach <i>et al</i> , 2004[90] | + | 0 | | | 0 | 0 | | | age, gender ^s , education, income, marital status, chronic illnesses, self-rated health |
| Southern European region | | | | | | | | | |
| Bolívar <i>et al</i> , 2010[93] | | | | 0 ⁶ | | | | 0 ⁶ | age, gender ^s , unemployment in municipality, illiteracy in municipality |
| Bolívar <i>et al</i> , 2010[93] | | + | 0 | 0 ^{5,+7} | | + | + | 0 ^{5,+7} | age, gender ^s , education, occupational class, employment, children <15yrs, status, obesity, smoking status, self-rated health, sufficient green spaces in neighbourhood, unemployment in municipality, illiteracy in municipality |
| De Vogli <i>et al</i> , 2005[96] | | | + | | | | + | | gender ^s |
| Gal <i>et al</i> , 2005[97] | | + | + | | | + | + | | age, gender ^s |
| Meseguer <i>et al</i> , 2009[99] | | + | | | | + | | | age, gender, occupational physical activity |
| Pascual <i>et al</i> , 2007[102] | + | + | + | + ² | 0 | + | + | + ² | age, gender ^s , education, social class, income, neighbourhood income, # sports facilities/1000 inhabitants, rurality, density |
| Schröder <i>et al</i> , 2004[106] | | 0 | | | | 0 | | | gender ^s |
| Scandinavian region | | | | | | | | | |
| Henriksson <i>et al</i> , 2003[115] | | + | | | | | | | gender ^s |
| Komiloff <i>et al</i> , 2010[117] | + | + | | | + | + | | | age, gender, education, income, marital status, smoking, presence of metabolic syndrome or depressive symptoms |
| Lahelma <i>et al</i> , 2010[160] – FIN | | | + | | | | 0 | | age, gender ^s , job strain, working overtime, work-family conflicts, marital status, social relations |
| Lindström <i>et al</i> , 2001[122] | | | + | | | | + | | age, gender ^s , country of origin, previous/current diseases, social participation |
| Lindström <i>et al</i> , 2003a[123] ^c | | + | | | | + | | | - |
| Mäkinen <i>et al</i> , 2009[125] ^{d,e} | + | + | 0 | | + | + | 0 | | Age, gender ^s , income, education, occupation |
| Mäkinen <i>et al</i> , 2010b[127] ^f | + | + | + | | + | + | + | | age, gender ^s |
| Molarius, 2003[129] | | (+) | | | | (+) | | | gender ^s |
| Nielsen <i>et al</i> , 2006[130] | | + | | | | | | | age, gender ^s |
| Norman <i>et al</i> , 2002[131] | | 0 | | | | | | | age, gender ^s , BMI, smoking, marital status, self-rated health |
| Osler <i>et al</i> , 2001[135] | | 0 | | | | 0 | | | age, gender ^s , own and parent's education, occupational physical activity, smoking status |
| Osler <i>et al</i> , 2000[134] | | 0 | | | | | + | | age, gender ^s , height, weight, BMI, SPB, DPB, Total cholesterol, HDL cholesterol, smoking, heavy smoking, healthy eating, multiple risk index |
| Osler <i>et al</i> , 2008[136] | | + | | | | | | | age ^t , gender ^s , father's social class, cognitive function, labour market participation, divorce |
| Petersen <i>et al</i> , 2010[137] | | + | | | | | + | | age, gender ^s |

| Author (Date) | Direction of the associations between the socioeconomic indicator and physical activity | | | | | | | | Adjustment | | |
|---|---|-----------|--------------|----------------|--------|-----------|--------------|-------|---|--|---|
| | Men | | | | Women | | | | | | |
| | Income | Education | Social class | Other | Income | Education | Social class | Other | | | |
| Pulkki <i>et al</i> , 2003a[140] | | | | 0 ¹ | | | | + | age, gender ^s | | |
| Pulkki <i>et al</i> , 2003b[141] | | 0 | | | | | | + | age, gender ^s , parental education | | |
| Puska <i>et al</i> , 2003[88] – FIN | | + | | | | | | 0 | age, gender ^s , place of residence, year of measurement | | |
| Salonen <i>et al</i> , 2010[142] | | + | + | | | | | 0 | age, gender ^s | | |
| Schnohr <i>et al</i> , 2004[143] ^g | | + | | | | | | + | gender ^s | | |
| Sjögren & Stjernberg, 2010[145] | | 0 | | | | | | + | age, gender ^s , being able to bath or shower independently, age*having access to areas for country walks | | |
| Strand & Tverdal, 2004[146] | | + | | | | | | + | gender ^s | | |
| Strandhagen <i>et al</i> , 2010[147] | | + | | | | | | + | age, gender ^s | | |
| Suadicani <i>et al</i> , 2005[148] ⁿ | | | | + | | | | | gender ^s | | |
| Tammelin <i>et al</i> , 2003[149] ^l | | + | | | | | | + | age ^t , gender ^s , children, education, employment status, place of residence, several sports related factors at age 14 | | |
| Wang <i>et al</i> , 2010[34] ^j | | + | | | | | | + | age, gender ^s , study year | | |
| Wemme & Rosvall, 2005[150] ^k | | + | + | | | | | + | age, gender ^s | | |
| Anglo-Saxon region | | | | | | | | | | | |
| Allender <i>et al</i> , 2008[15] | | + | 0 | | | | | + | 0 | age, gender ^s , education, work activity status, social status | |
| Heslop <i>et al</i> , 2001[158] | | | | | | | | 0 | 0 | 0 ² | age, gender ^s |
| Mein <i>et al</i> , 2005[163] ^l | | | | + | | | | | + | age, gender ^s , marital status, month of questionnaire completion | |
| Mutrie & Hannah, 2004[165] | | | | + | | | | | + | gender ^s | |
| Popham & Mitchell, 2006[168] | 0 | 0 | 0 | 0 ⁴ | 0 | + | 0 | + | + | 0 ⁴ | age, gender ^s , income, education, occupation, school type, marital status, self-rated health, general health questionnaire, health limits daily activities, GP consultations, smoking, year, housework hours, employment status, children |
| Wagner <i>et al</i> , 2003[79] - IRE | | + | | + | | | | | | + | age, gender ^s , marital status, obesity, reported disease |

⁺ The symbols in the table should be read as follows: '+' means that a high SEP is associated with a high TLTPA, a '-' means that a high SEP is associated with a low TLTPA. A '0' means that there was no association found. When the symbol is between brackets, no tests of significance were done.

- Similar results found in the same sample population by Van Tuyckom & Scheerder, 2008[61].
- Similar results found in the same sample population by Martinez-Gonzalez *et al*, 2001[54].
- Similar results found in the same sample population by Lindström *et al*, 2003b[124].
- Results from the most recent data were reported (1998-2002).
- Similar results found in the same sample population by Laaksonen *et al*, 2002[118] and Laaksonen *et al*, 2008[119].
- Similar results found in the same sample population by Mäkinen *et al*, 2010a[126].
- Similar results found in the same sample population by Andersen *et al*, 2000[108].
- Similar results found in the same sample population by Suadicani *et al*, 2001[42].
- Similar results found in the same sample population by Häkkinen *et al*, 2006[114].
- Similar results found in the same sample population by Borodulin *et al*, 2008[111], Mäkinen *et al*, 2010c[128], and Hu *et al*, 2003[37].
- Similar results found in the same sample population by Ali & Lindström, 2006[107].

- l. Similar results found in the same sample population by Stringhini *et al*, 2010[3], Bartley *et al*, 2004[154], and Lahelma *et al*, 2010[160] (data from Great-Britain).
- m. Both studies of Kaleta & Jegier[32, 82] are reported here. Although they report the same association in a similar dataset, they provide different results with respect to the association between income and TLTPA in the adjusted model.
- s. Results were stratified according to gender.
- t. All respondents were the same age.
 1. Composite individual SEP measure.
 2. Neighbourhood SEP.
 3. Household wealth (material conditions).
 4. Fee paying versus public school.
 5. % unemployment in neighbourhood/municipality.
 6. Economic level of municipality.
 7. Illiteracy in municipality.

Table A4: Summary of study findings examining associations between vigorous leisure-time physical activity (VLTPA) and SEP[†]

| Author (Date) | Direction of the associations between the socioeconomic indicator and physical activity | | | | | | | | Adjustment | |
|--|---|-----------|--------------|---------------------------------|--------|-----------|--------------|---------------------------------|------------|---|
| | Men | | | | Women | | | | | |
| | Income | Education | Social class | Other | Income | Education | Social class | Other | | |
| Western European region | | | | | | | | | | |
| Addor <i>et al</i> , 2003[63] – <45 years | | + | | | 0 | | | | | gender ^s |
| Addor <i>et al</i> , 2003[63] – 45+ years | | + | | | + | | | | | gender ^s |
| Galobardes <i>et al</i> , 2003[68] | | | + | | | | + | | | age, gender ^s |
| Kamphuis <i>et al</i> , 2008[52] | + | + | | | + | + | | | | age, gender |
| van Lenthe <i>et al</i> , 2005[47] | | | | + ² | | | | + ² | | age, gender, educational level |
| Meyer <i>et al</i> , 2005[69] | + | + | | | + | + | | | | age, gender, education, income, size of household, urban/rural residence, language |
| Nocon <i>et al</i> , 2008[70] ^a | + | + | + | | + | + | + | | | age, gender, income, education, occupation |
| Scheerder <i>et al</i> , 2005[75] ^b | | + | + | | + | + | | | | gender ^s |
| Wagner <i>et al</i> , 2003[79] - FRA | | + | | + ³ | | | | | | age, gender ^s , marital status, obesity, reported disease, centre |
| Eastern European region | | | | | | | | | | |
| Frömel <i>et al</i> , 2009[80] | | | | 0 ¹ | | | | 0 | | age, gender ^s , BMI, smoking, # residents in town, living status, dog ownership, participating in organized PA |
| Leskosek <i>et al</i> , 2002[83] | | + | | | | + | | | | age, gender, employment, marital status/family status |
| Mišigoj-Durakovia <i>et al</i> , 2000[84] | | + | | | | + | | | | age ^t , gender ^s , |
| Nowak, 2010[85] | | | | | | + | | | | gender ^s |
| Paulik <i>et al</i> , 2010[86] | | + | | + ³ | | + | | + ³ | | - |
| Pomerleau <i>et al</i> , 2000[87] – EST | + | 0 | | | + | + | | | | age, gender ^s , nationality (native, Russian, other), area of residence (rural, urban), education, income |
| Pomerleau <i>et al</i> , 2000[87] – LTU | + | 0 | | | 0 | + | | | | age, gender ^s , nationality (native, Russian, other), area of residence (rural, urban), education, income |
| Pomerleau <i>et al</i> , 2000[87] – LVA | + | 0 | | | 0 | 0 | | | | age, gender ^s , nationality (native, Russian, other), area of residence (rural, urban), education, income |
| Southern European region | | | | | | | | | | |
| Artazcoz <i>et al</i> , 2004[92] | | | | | | (+) | | | | gender ^s |
| Borrel <i>et al</i> , 2000a[94] | | | 0 | | | | | 0 | | age, gender ^s , employment status, family structure |
| Lera-López & Rapún-Gárate, 2005[98] | 0 | 0 | | | 0 | 0 | | | | age, gender, education, size of household, income, degree of urbanization, employment status |
| Pascual <i>et al</i> , 2009[103] | + | + | | | + | + | | | | age, gender ^s |
| Pitsavos <i>et al</i> , 2005[104] | 0 | 0 | + | | 0 | 0 | + | | | age, gender ^s |
| Schröder <i>et al</i> , 2004[106] | | 0 | | | | 0 | | | | gender ^s |
| Scandinavian region | | | | | | | | | | |
| Andersen <i>et al</i> , 2000[108] | | (+) | | | | (+) | | | | gender ^s |
| Cubbin <i>et al</i> , 2006[112] | | | | + ¹ , + ² | | | | + ¹ , + ² | | age, gender, urbanization, deprivation, marital status, immigration status, individual SEP |
| Engström, 2008[113] | | + | | | | + | | | | age ^t |

| Author (Date) | Direction of the associations between the socioeconomic indicator and physical activity | | | | | | | | Adjustment |
|--|---|-----------|--------------|----------------|--------|-----------|--------------|----------------|--|
| | Men | | | | Women | | | | |
| | Income | Education | Social class | Other | Income | Education | Social class | Other | |
| Piro <i>et al</i> , 2007[138] | + | + | | + ² | + | + | | + ² | age, gender, marital status, education, employment status, income |
| Simonen <i>et al</i> , 2003[144] | | 0 | | | | 0 | | | - |
| Anglo-Saxon region | | | | | | | | | |
| Bartley <i>et al</i> , 2000[153] ^c | | | + | | | | | + | age |
| Ecob & Macintyre, 2000[156] | | | | + ² | | | | + ² | age, gender, social class, education, marital status, whether recently moved, household material deprivation |
| Livingstone <i>et al</i> , 2001[161] | | | 0 | | | | | + | gender ^s |
| Lunn, 2010[162] | + | + | | | + | + | | | gender, cohort, parent's participation in sports, education, income, occupation, occupation*gender |
| Popham & Mitchell, 2007[16] | | | | + ¹ | | | | + ¹ | age, gender ^s , health status, employment status |
| Popham, 2010[169] | | | (+) | | | | | (+) | age, gender |
| Stamatakis & Chaudhury, 2008[170] ^d | + | + | + | | + | + | + | | - |
| Wagner <i>et al</i> , 2003[79] - IRE | | 0 | | 0 ³ | | | | | age, gender ^s , marital status, obesity, reported disease |
| Wardle & Steptoe, 2003[172] ^e | | | + | | | | | + | age, gender, self-rated health |

[†] The symbols in the table should be read as follows: '+' means that a high SEP is associated with a high VLTPA, a '-' means that a high SEP is associated with a low VLTPA. A '0' means that there was no association found. When the symbol is between brackets, no tests of significance were done.

† Reported for age group <45 and >45. They found the same association in both age samples.

a. Similar results found in the same sample population (employed subsample) by Schneider & Becker, 2005[76].

b. Similar results found in the same sample population by Scheerder *et al*, 2002[74].

c. The results reported here are from the sample from HALS 1984.

d. Similar results found in the same sample population by Poortinga, 2007[167] and Bartley *et al*, 2000[153] (sample HSfE 1993).

e. Similar results found in the same sample population by Wardle & Griffith, 2001[171].

s. Results were stratified according to gender.

t. All respondents were the same age.

1. Composite individual SEP measure

2. Neighbourhood SEP.

3. Household wealth (material conditions).

Table A5: Summary of study findings examining associations between active transport (AT) and SEP[‡]

| Author (Date) | Direction of the associations between the socioeconomic indicator and physical activity | | | | | | | | Adjustment |
|---|---|-----------|--------------|----------------|--------|-----------|--------------|----------------|--|
| | Men | | | | Women | | | | |
| | Income | Education | Social class | Other | Income | Education | Social class | Other | |
| EU wide studies | | | | | | | | | |
| Van Tuyckom & Scheerder, 2010b[55] | | + | | | | + | | | - |
| Western European region | | | | | | | | | |
| van Lenthe <i>et al.</i> , 2005[47] | | | | - ² | | | | - ² | age, gender, educational level |
| Van Dyck <i>et al.</i> , 2010[23] – walking | | + | | - ² | | + | | - ² | age, gender, education, employment status, BMI, walkability of neighbourhood, neighb. SEP, walkability*neighb. SEP |
| Van Dyck <i>et al.</i> , 2010[23] – cycling | | + | | - ² | | + | | 0 ² | age, gender, education, employment status, BMI, walkability of neighbourhood, neighb. SEP, walkability*neighb. SEP |
| Wagner <i>et al.</i> , 2003[79] - FRA | | 0 | | - ³ | | | | | age, gender ^s , marital status, obesity, reported disease, centre |
| Eastern European region | | | | | | | | | |
| Jurakić <i>et al.</i> , 2009[81] | - | 0 | | | - | 0 | | | - |
| Kwaśniewska <i>et al.</i> , 2010[28] – participation ^b | - | - | | | - | - | | | age, gender ^s , education, income, marital status, smoking, place of residence, LTPA, OPA |
| Kwaśniewska <i>et al.</i> , 2010[28] –minutes ^b | + | + | | | + | + | | | age, gender ^s , education, income, marital status, smoking, place of residence, LTPA, OPA |
| Scandinavian region | | | | | | | | | |
| Andersen <i>et al.</i> , 2000[108] | | (-) | | | | (-) | | | gender |
| Hu <i>et al.</i> , 2003[37] | | + | | | | + | | | age, gender ^s , study year |
| Mäkinen <i>et al.</i> , 2009[125] ^a | 0 | 0 | + | | + | 0 | 0 | | age, gender ^s , income, education, occupation |
| Wang <i>et al.</i> , 2010[34] | | + | | | | + | | | age, gender ^s , study year |
| Anglo-Saxon region | | | | | | | | | |
| Adams, 2010 – participation[29] ^b | | 0 | 0 | | | 0 | 0 | | age, gender, education, social class, employment status, car access |
| Adams, 2010 – minutes[29] ^b | | + | - | | | + | - | | age, gender, education, social class, employment status, car access |
| Wagner <i>et al.</i> , 2003[79] - IRE | | 0 | | 0 ³ | | | | | age, gender ^s , marital status, obesity, reported disease |

[‡] The symbols in the table should be read as follows: ‘+’ means that a high SEP is associated with a high AT, a ‘-’ means that a high SEP is associated with a low AT. A ‘0’ means that there was no association found. When the symbol is between brackets, no tests of significance were done.

- a. The results from the most recent data (1998-2002) are reported here.
- b. The outcome was split up according to whether someone participates in active commuting and among those who participate, how many minutes they were active.
- s. Results were stratified according to gender.
 1. Composite individual SEP measure.
 2. Neighbourhood SEP.
 3. Household wealth (material conditions).

Table A6: Distribution of positive, negative, and null associations by SEP indicator and PA domain in different subsets of the reviewed associations.^a

| Physical activity ^{b,c} | Subset ^d | n | Total | | | n | Socioeconomic indicator | | | | | | | | | | | | | | |
|----------------------------------|---------------------|-----|-------|-----|------|----|-------------------------|------|-----|-----------|-----|-----|--------------|----|-----|-------|------|----|-----|-----|------|
| | | | TOTAL | | | | Income | | | Education | | | Social class | | | Other | | | | | |
| | | | + | 0 | - | | + | 0 | - | + | 0 | - | + | 0 | - | + | 0 | - | | | |
| % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | | | | | |
| TPA | all | 70 | 40% | 27% | 33% | 10 | 10% | 70% | 20% | 32 | 44% | 16% | 41% | 12 | 17% | 25% | 58% | 16 | 69% | 25% | 6% |
| | response | 47 | 47% | 19% | 34% | 6 | 17% | 50% | 33% | 21 | 48% | 14% | 38% | 8 | 25% | 13% | 63% | 12 | 75% | 17% | 8% |
| | adjusted | 46 | 37% | 30% | 33% | 4 | 0% | 100% | 0% | 20 | 50% | 15% | 35% | 12 | 17% | 25% | 58% | 10 | 50% | 40% | 10% |
| | sample size | 54 | 50% | 15% | 35% | 4 | 25% | 25% | 50% | 26 | 50% | 15% | 35% | 10 | 20% | 10% | 70% | 14 | 79% | 14% | 7% |
| OPA | all | 19 | 11% | 26% | 63% | 2 | 0% | 100% | 0% | 8 | 25% | 25% | 50% | 7 | 0% | 14% | 86% | 2 | 0% | 0% | 100% |
| | response | 7 | 0% | 0% | 100% | - | - | - | - | 2 | 0% | 0% | 100% | 3 | 0% | 0% | 100% | 2 | 0% | 0% | 100% |
| | adjusted | 7 | 0% | 0% | 100% | - | - | - | - | 2 | 0% | 0% | 100% | 3 | 0% | 0% | 100% | 2 | 0% | 0% | 100% |
| | sample size | 13 | 15% | 8% | 77% | - | - | - | - | 4 | 50% | 0% | 50% | 7 | 0% | 14% | 86% | 2 | 0% | 0% | 100% |
| TLTPA | all | 200 | 68% | 32% | 1% | 34 | 59% | 41% | 0% | 105 | 72% | 27% | 1% | 38 | 74% | 26% | 0% | 23 | 52% | 48% | 0% |
| | response | 147 | 70% | 30% | 0% | 26 | 58% | 42% | 0% | 78 | 77% | 23% | 0% | 28 | 71% | 29% | 0% | 15 | 53% | 47% | 0% |
| | adjusted | 171 | 67% | 33% | 0% | 32 | 56% | 44% | 0% | 83 | 75% | 25% | 0% | 33 | 70% | 30% | 0% | 23 | 52% | 48% | 0% |
| | sample size | 141 | 77% | 23% | 0% | 20 | 65% | 35% | 0% | 72 | 85% | 15% | 0% | 31 | 74% | 26% | 0% | 18 | 61% | 39% | 0% |
| VLTPA | all | 110 | 76% | 24% | 0% | 24 | 75% | 25% | 0% | 48 | 71% | 29% | 0% | 20 | 85% | 15% | 0% | 18 | 83% | 17% | 0% |
| | response | 82 | 77% | 23% | 0% | 18 | 78% | 22% | 0% | 36 | 69% | 31% | 0% | 16 | 88% | 13% | 0% | 12 | 83% | 17% | 0% |
| | adjusted | 78 | 74% | 26% | 0% | 22 | 73% | 27% | 0% | 28 | 68% | 32% | 0% | 12 | 83% | 17% | 0% | 16 | 81% | 19% | 0% |
| | sample size | 88 | 82% | 18% | 0% | 22 | 82% | 17% | 0% | 32 | 78% | 22% | 0% | 16 | 88% | 13% | 0% | 18 | 83% | 17% | 0% |
| AT | all | 48 | 38% | 29% | 33% | 8 | 38% | 13% | 50% | 26 | 54% | 31% | 15% | 6 | 17% | 50% | 33% | 8 | 0% | 25% | 75% |
| | response | 30 | 47% | 17% | 37% | 6 | 50% | 17% | 33% | 16 | 63% | 13% | 25% | 2 | 50% | 50% | 0% | 6 | 0% | 17% | 83% |
| | adjusted | 40 | 40% | 30% | 30% | 6 | 50% | 17% | 33% | 20 | 60% | 30% | 10% | 6 | 17% | 50% | 33% | 8 | 0% | 25% | 75% |
| | sample size | 36 | 39% | 31% | 31% | 6 | 50% | 17% | 33% | 20 | 50% | 30% | 20% | 6 | 17% | 50% | 33% | 4 | 0% | 25% | 75% |

^a PA = physical activity.

^b TPA = Total Physical Activity, OPA = Occupational Physical Activity, TLTPA = Total Leisure-time Physical Activity, VLTPA = Vigorous Leisure-time Physical Activity, AT = Active Transport.

^c The symbol '+' indicates the positive associations (a high SEP is associated with a high PA), the symbol '-' indicates negative associations (a high SEP is associated with a low PA), and '0' indicates the neutral associations (no association found).

^d All=Total set of studies and associations included in the review, Response=Subset of associations from studies with a reported response of 50% or higher, Adjusted=Subset of associations that were at least adjusted for age and gender, Sample size=Subset of associations from studies with a sample size of 2000 participants or higher.

Table A7: Distribution of positive, negative, and null associations by European region and PA domain in different subsets of the reviewed associations.^a

| Physical activity ^{b, c} | Subset ^d | European Region | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---------------------|-----------------|------|----|-------------------------|----|------|-------------------------|-----|----|--------------------------|-----|-----|---------------------|-----|-----|--------------------|----|------|-----|------|----|------|-----|------|
| | | EU wide studies | | | Western European region | | | Eastern European region | | | Southern European region | | | Scandinavian region | | | Anglo-Saxon region | | | | | | | | |
| | | n | + | 0 | - | n | + | 0 | - | n | + | 0 | - | n | + | 0 | - | n | + | 0 | - | n | + | 0 | - |
| TPA | all | 2 | 100% | 0% | 0% | 2 | 0% | 100% | 0% | 10 | 40% | 30% | 30% | 12 | 17% | 8% | 75% | 20 | 40% | 25% | 35% | 24 | 50% | 33% | 17% |
| | response | 2 | 100% | 0% | 0% | - | - | - | - | 6 | 67% | 17% | 17% | 12 | 17% | 8% | 75% | 17 | 47% | 29% | 24% | 10 | 60% | 20% | 20% |
| | adjusted | 2 | 100% | 0% | 0% | - | - | - | - | 6 | 67% | 17% | 17% | 6 | 0% | 17% | 83% | 10 | 10% | 40% | 50% | 22 | 45% | 36% | 18% |
| | sample size | 2 | 100% | 0% | 0% | 2 | 0% | 100% | 0% | 6 | 67% | 17% | 17% | 12 | 17% | 8% | 75% | 14 | 50% | 14% | 36% | 18 | 67% | 11% | 22% |
| OPA | all | 2 | 100% | 0% | 0% | - | - | - | - | 6 | 0% | 67% | 33% | - | - | - | - | 5 | 0% | 0% | 100% | 6 | 0% | 17% | 83% |
| | response | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 0% | 0% | 100% | 2 | 0% | 0% | 100% |
| | adjusted | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 0% | 0% | 100% | 2 | 0% | 0% | 100% |
| | sample size | 2 | 100% | 0% | 0% | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 0% | 0% | 100% | 6 | 0% | 17% | 83% |
| TLTPA | all | 6 | 100% | 0% | 0% | 37 | 81% | 19% | 0% | 48 | 46% | 52% | 2% | 28 | 71% | 29% | 0% | 60 | 80% | 20% | 0% | 21 | 48% | 52% | 0% |
| | response | - | - | - | - | 32 | 84% | 16% | 0% | 28 | 46% | 54% | 0% | 18 | 83% | 17% | 0% | 52 | 81% | 19% | 0% | 17 | 35% | 65% | 0% |
| | adjusted | 4 | 100% | 0% | 0% | 34 | 79% | 21% | 0% | 40 | 50% | 50% | 0% | 24 | 75% | 25% | 0% | 50 | 76% | 24% | 0% | 19 | 42% | 58% | 0% |
| | sample size | 6 | 100% | 0% | 0% | 20 | 90% | 10% | 0% | 24 | 54% | 46% | 0% | 26 | 77% | 23% | 0% | 47 | 87% | 13% | 0% | 18 | 56% | 44% | 0% |
| VLTPA | all | - | - | - | - | 28 | 96% | 4% | 0% | 23 | 65% | 35% | 0% | 19 | 37% | 63% | 0% | 16 | 88% | 13% | 0% | 24 | 88% | 13% | 0% |
| | response | - | - | - | - | 22 | 95% | 5% | 0% | 20 | 60% | 40% | 0% | 14 | 42% | 57% | 0% | 10 | 80% | 20% | 0% | 16 | 100% | 0% | 0% |
| | adjusted | - | - | - | - | 20 | 100% | 0% | 0% | 18 | 56% | 44% | 0% | 16 | 38% | 63% | 0% | 10 | 100% | 0% | 0% | 14 | 86% | 14% | 0% |
| | sample size | - | - | - | - | 24 | 100% | 0% | 0% | 19 | 58% | 42% | 0% | 13 | 54% | 46% | 0% | 12 | 100% | 0% | 0% | 20 | 90% | 10% | 0% |
| AT | all | 2 | 100% | 0% | 0% | 12 | 33% | 17% | 50% | 12 | 33% | 17% | 50% | - | - | - | - | 12 | 50% | 33% | 17% | 10 | 20% | 60% | 20% |
| | response | - | - | - | - | 10 | 40% | 10% | 50% | 8 | 50% | 0% | 50% | - | - | - | - | 12 | 50% | 33% | 17% | - | - | - | - |
| | adjusted | - | - | - | - | 12 | 33% | 17% | 50% | 8 | 50% | 0% | 50% | - | - | - | - | 10 | 60% | 40% | 0% | 10 | 20% | 60% | 20% |
| | sample size | 2 | 100% | 0% | 0% | 4 | 0% | 25% | 75% | 8 | 50% | 0% | 50% | - | - | - | - | 12 | 50% | 33% | 17% | 10 | 20% | 60% | 20% |

^a PA = physical activity.

^b TPA = Total Physical Activity, OPA = Occupational Physical Activity, TLTPA = Total Leisure-time Physical Activity, VLTPA = Vigorous Leisure-time Physical Activity, AT = Active Transport.

^c The symbol '+' indicates the positive associations (a high SEP is associated with a high PA), the symbol '-' indicates negative associations (a high SEP is associated with a low PA), and '0' indicates the neutral associations (no association found).

^d All=Total set of studies and associations included in the review, Response=Subset of associations from studies with a reported response of 50% or higher, Adjusted=Subset of associations that were at least adjusted for age and gender, Sample size=Subset of associations from studies with a sample size of 2000 participants or higher.