


University of Zurich
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Correlates of Physical Activity in the Lancet Physical Activity Series

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CORRELATES OF PHYSICAL ACTIVITY: WHY ARE SOME PEOPLE PHYSICALLY ACTIVE AND OTHERS NOT?

Adrian E Bauman, Rodrigo S Reis, James F Sallis,
 Jonathan Wells, Ruth J F Loos, Brian W Martin,
 for the Lancet Physical Activity Series Working Group

Lancet 2012;380(9838):258-71

Categories of correlates and determinants of PA

Individual	Interpersonal	Environment	Regional or national policy	Global
<ul style="list-style-type: none"> Psychological Intrapersonal <ul style="list-style-type: none"> • cognitions • beliefs • motivation Biological <ul style="list-style-type: none"> • Genetic factors • Evolutionary physiology 	<ul style="list-style-type: none"> Social support <ul style="list-style-type: none"> • From family • From friends • at work Cultural norms and practices 	<ul style="list-style-type: none"> Social environment <ul style="list-style-type: none"> • Seeing others active (behavioural modelling) • Crime, traffic, incivilities • Organisational practices Built environment <ul style="list-style-type: none"> • Community design • Neighbourhood walkability • Public transport • Parks and recreation facilities • Aesthetics and pleasantness • Walking and cycling facilities • Building location and design • Pedestrian safety, crossings Natural environment <ul style="list-style-type: none"> • Vegetation, topography, weather • National parks, trails, walking routes 	<ul style="list-style-type: none"> Transport systems Urban planning and architecture Parks and recreation sector Health sector Education and schools sector Organised sport sector National physical activity plans National physical activity advocacy Corporate sector 	<ul style="list-style-type: none"> Economic development Global media Global product marketing Urbanisation Global advocacy Social and cultural norms

Figure 1: Adapted ecological model of the determinants of physical activity
 demographic and biological environmental

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Role of the lifecourse for correlates and determinants of PA

Individual	Interpersonal	Environment	Regional or national policy	Global
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Figure 1: Adapted ecological model of the determinants of physical activity
 children adolescents adults older adults

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Correlates and determinants of domains of PA

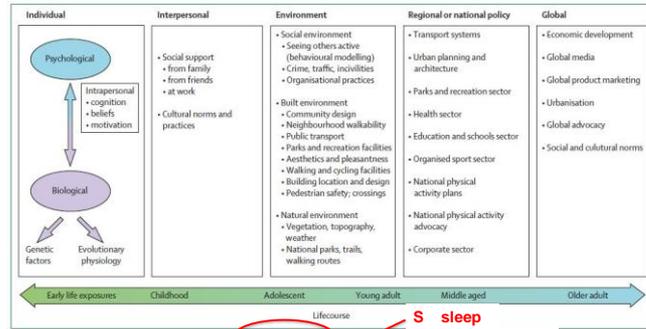


Figure 1: Adapted ecological model of the determinants of physical activity

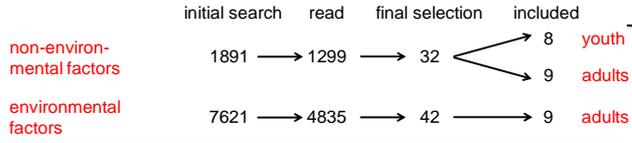
S sleep
L leisure time
O occupational
T transport
H home

Objectives of the “correlates” article

- Summary of present knowledge and its development
- Examination of correlates and determinants research in countries of low and middle income
- Discussion of “hot topics” in the field

Methods

Systematic review of systematic reviews and meta-analyses



Existing recent systematic review

environmental factors Ding D et al, Am J Prev Med 2011; 41: 442–55 youth

Systematic review of original articles low and middle income countries

all factors 1360 → 988 → 68 → 68 all ages

Review of topics of growing interest

Genetics – evolution – obesity - tracking

Condensed Tables 1 and 2 on non-environmental factors

Full tables in annex

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Concept of consistent evidence

Consistent evidence for role as determinant:

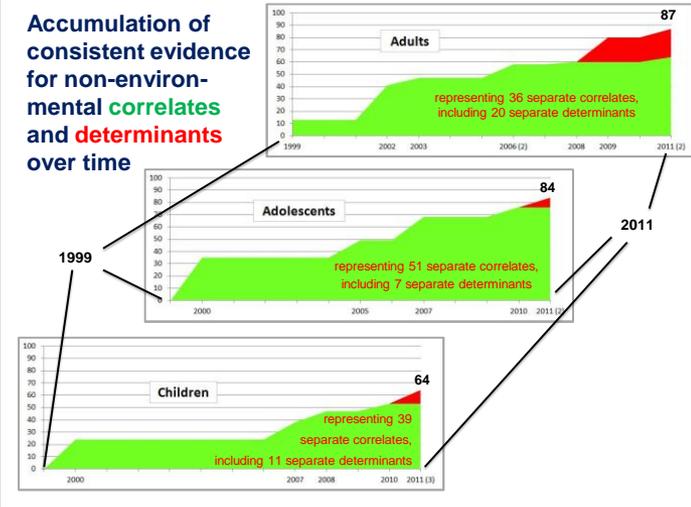
- three or more original reports cited in review
- review based exclusively on longitudinal design studies
- at least 60% of them show the same association (direct, inverse or consistently no association)

Consistent evidence for role as correlate:

- three or more original reports cited in review
- review based on cross-sectional design studies
- at least 60% of them show the same association

Sallis JF, Prochaska JJ, Taylor WC. Med Sci Sports Exerc 2000; 32: 963.

Accumulation of consistent evidence for non-environmental correlates and determinants over time



Examples of variables identified as consistent correlates

Non-environmental factors

	children	adolescents	adults
Reported health			direct
Male sex	direct	direct	direct
Intention to exercise			direct
Self-efficacy	direct	direct	direct
Previous physical activity	direct	direct	direct
Social support		direct	

Environmental factors

	children	adolescents	adults
Neighbourhood design		direct	
Recreation facilities and locations		direct	direct
Transport environments		direct	direct
Aesthetics			direct

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Conclusions

- Field well advanced, but room for improvement
- More longitudinal studies with better methodology
- More research in low and middle income countries
- More research on subgroups with low activity levels
- True multilevel studies needed
- Inclusion of correlates in public health surveillance systems

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