



University of Zurich

Institute of Social and Preventive Medicine

Correlates of Physical Activity in the Lancet Physical Activity Series

Brian Martin, MD MPH
Physical Activity and Health Unit

Tutorial lecture: Lancet Series on Physical Activity and Public Health at BE ACTIVE 2012- ICPAPH, Sydney, 01.11.2012

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

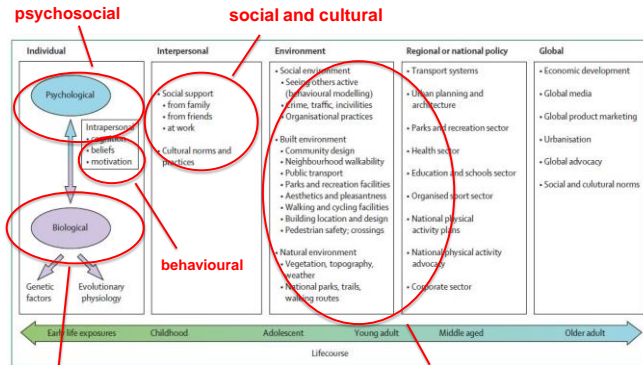


Figure 1: Adapted ecological model of the determinants of physical activity

demographic and biological

Bauman et al. Lancet 2012; 380 (9838): 258-71

Role of the lifecourse for correlates and determinants of PA

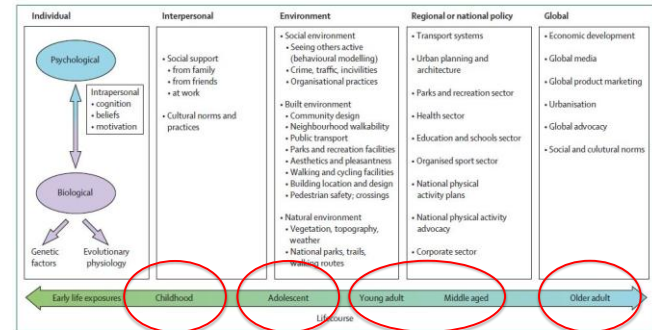


Figure 1: Adapted ecological model of the determinants of physical activity

children adolescents adults older adults

Bauman et al. Lancet 2012; 380 (9838): 258-71

Correlates and determinants of domains of PA

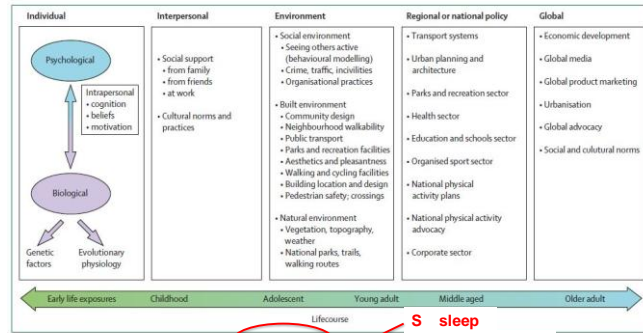


Figure 1: Adapted ecological model of the determinants of physical activity

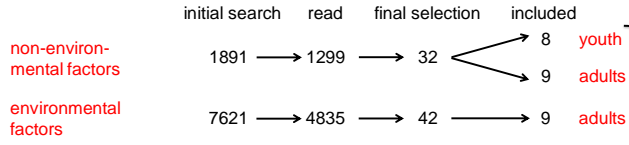
S sleep
L leisure time
O occupational
T transport
H home

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

Bauman et al. Lancet 2012; 380 (9838): 258-71

Concept of consistent evidence

Consistent evidence for role as determinant:

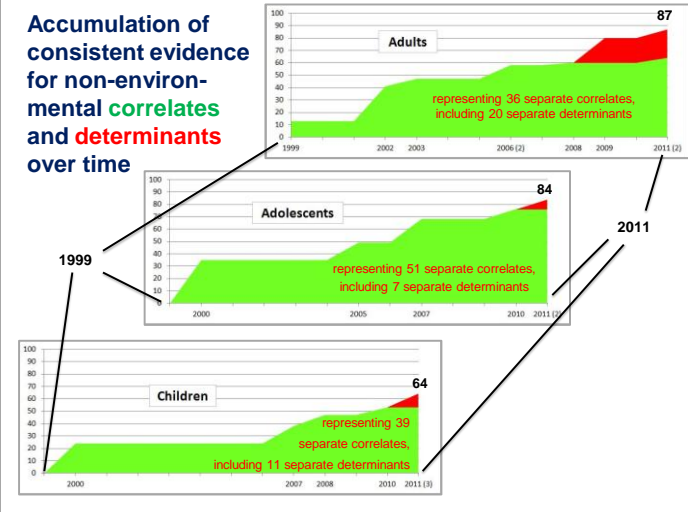
- three or more original reports cited in review
- review based exclusively on longitudinal design studies
- at least 60% of them show the same association (direct, inverse or consistently no association)

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

Bauman et al. Lancet 2012; 380 (9838): 258-71

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

Bauman et al. Lancet 2012; 380 (9838): 258-71