THE LANCET

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

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PHYISCAL ACTIVITY 3
WEB APPENDICES

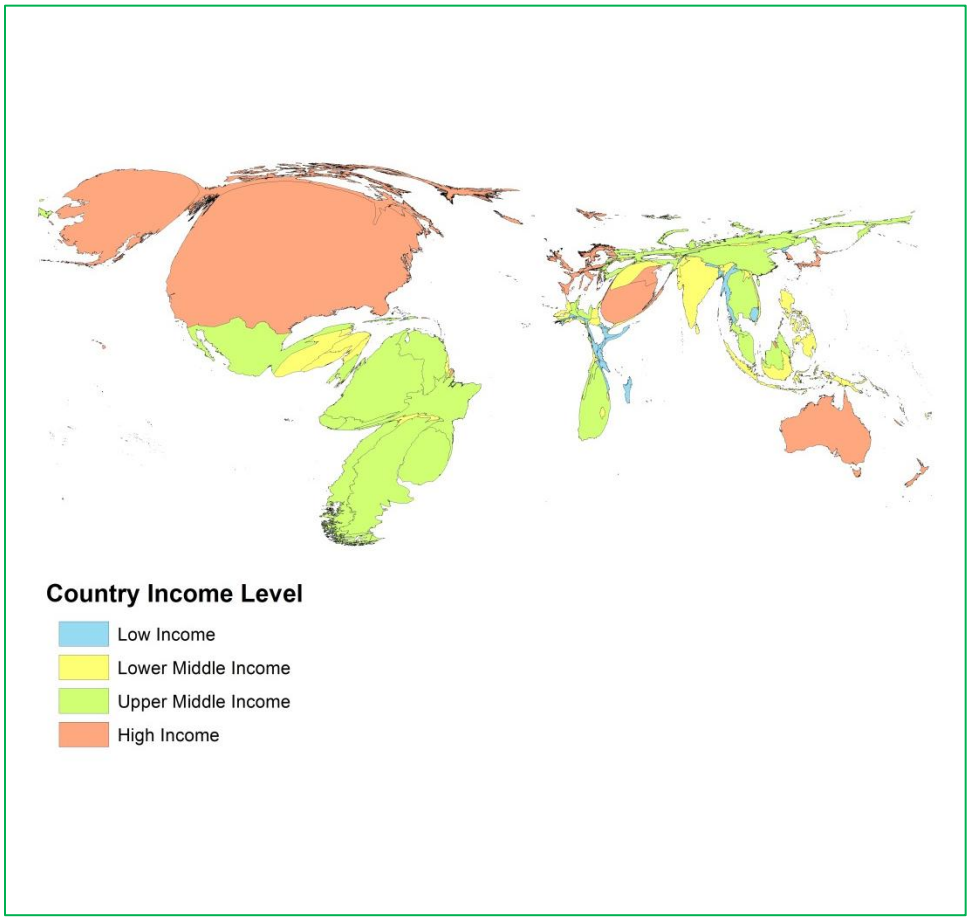
Table of Contents

Systematic review of reviews search methods (see summary table 1)

We conducted a systematic search to identify the latest reviews of the literature regarding interventions to increase physical activity in order to provide input for a simulation model of physical activity interventions and megatrends (Web Summary Review Evidence Table 1). We used the following electronic databases, websites, and published sources for our search: Clinical Evidence, Cochrane Library, Centre for reviews and dissemination (DARE admin database, HTA, NCCHTA), EMBASE, National Guidelines Clearinghouse, MEDLINE, PUBMED, NICE, PsycINFO, SIGLE, Sociological Abstracts, and TRIP. We searched the databases for systematic reviews or meta-analyses related to interventions and physical activity in human subjects, published from January 1 2001 to July 31 2011 and PUBMED from January 1 2000 to December 20 2011 (see Pratt et al paper of this series appendix). Reviews were classified according to setting and type of intervention (clinical, community, schools, workplace, or other). We analyzed 100 reviews of physical activity interventions (see Pratt et al., [1] Web Appendix). Five systematic reviews were reviews-of-reviews, 19 were meta-analyses, and 76 were narrative reviews that did not provide quantitative effect estimates results from pooled effects or meta-regressions. Eighteen reviews covered interventions in clinical settings, 14 described community settings, 5 covered school settings, five described workplace settings, and the remaining reviews included multiple settings or reported not having a setting restriction (table 1). Sixty reviews included studies conducted only in high-income countries, while only eight included studies conducted in low and middle income countries; 32 reviews did not include country specific information. Fifty reviews included studies of adults; 19 of children and adolescents; 11 of adults and children; three of older adults; 13 of any age group; and four did not specify the age group. Five reviews focused only on minorities including Latino women, African American, and low socioeconomic (SES) populations; 43 reported studies that included minority groups such as African American, Hispanic, Native Americans, Asian immigrants, Pacific Islanders immigrants, individuals living in rural areas, and populations from low SES; 52 did not specify whether studies did or did not include minority populations.

- **DARE and HTA** searched September 14 2011 (limited from January 2001 to July 3, 2011)
- **The Cochrane Library** searched September 14 2011 (limited from 2001 to 2011)
- **Trip** searched September 14 2011 (limited from 2001 to 2011)
- **SIGLE (OpenGrey)** searched September 14 2011 (limited from 2001 to 2011)
- **National Guidelines Clearinghouse** searched September 14 2011 (limited from 2001 to 2011)
- **APA** (includes Psycinfo, Psycbooks, Psycarticles) searched September 14 2011 (limited from 2001 to 2011
- **PUBMED (Medline)** searched until December 20 2011

Figure 1: Number of physical activity and public health courses and/or workshops conducted over the past 10 years by country income level.



Each country in this density-equalising map is resized according to the number of public health courses and/or workshops conducted over the past 10 years with the Gastner and Newman algorithm. [2]

Effective Physical Activity InterventionCase Studies

Case Study #1: An environmental intervention in Odense Cycle City, Denmark. In a four-year period (1999 – 2003) the City of Odense, Denmark, made 50 different interventions to promote commuter cycling.[3,4] Interventions included changes of the environment, traffic rules and campaigns. The total price invested during the four years was $4M. Environmental changes included a) new bike lanes on main roads, b) bike lanes in 20 right turns were changed so that cyclists could turn before the actual cross, and so they did not have to stop at traffic lights, c) bike lanes in 5 T-crosses were changed so that cyclists could pass without stopping for a traffic light, d) traffic lights were synchronized, so that cyclists cycling at 22 km/h or more would hit a green light. For this 6 Doppler radar sites were installed, which measured the speed of cyclists, e) stop signs were set up for cars giving cyclists priority in crossings, f) lockers for bikes were installed at the central railway station and shelters for 2000 bikes were built around the city. In addition, street lights were installed on bike lanes where needed. Other interventions included city employees cycling around the city taking photographs of bike lanes to identify places where maintenance was necessary coupled with an increase in the municipality budget for maintenance of the lanes. Cyclists could send SMS to the municipality to report poor bike lanes. Installation of 16 electronic trip counters showed how many bikes had passed on a daily, weekly, monthly, and yearly basis. These counts were also used in the evaluation of the intervention in terms of increased number of trips. Additionally, high pressure bike pumps were placed beside the electronic counters. An internet page was constructed where cyclists could plan the fastest, the shortest or the most appealing route. The project was evaluated in 2003 after four years of intervention by comparing the number of trips in the city with trends in other major cities in Denmark. Further, hospital records including accidents that involved cyclists were obtained. During the four years of the intervention the number of cycle trips increased gradually by 20%, while the number of cycle trips decreased slightly in the rest of the country. A 20% decrease was found in the number of accidents involving cyclists. This decrease may partly be due to safer bike lanes and higher awareness of drivers. Perceived safety was evaluated via questionnaire; both cyclists and drivers reported feeling safer than before the intervention. The mean cycle commuter speed increased by 2% and the commuter cyclists experienced 15% fewer stops.

Case Study #2: Kinder-Sportstudie (KISS) School-based Intervention – Switzerland. The Kinder-Sportstudie (KISS) is a randomized school-based physical activity program among 1st and 5th grade children.[5] The intervention was targeted at both the cluster and the individual level with the aim of increasing daily physical activity. Children in both groups had three physical education (PE) lessons each week. The intervention group had two additional physical education lessons on the remaining school days. A team of expert PE teachers prepared all five PE lessons for the children in the intervention group. The three compulsory 45 minutes of weekly PE lessons were delivered by regular classroom teachers according to the specified curriculum, whereas the two additional weekly 45 min lessons were taught by PE teachers mostly outdoors. In addition, three to five short activity breaks (two to five minutes each) during academic lessons—comprising motor skill tasks such as jumping or balancing on one leg, power games, or coordinative tasks—were introduced every day. Further, children received daily physical activity homework of about 10 minutes' duration. This included aerobic, strength, or motor skill tasks. Children and parents in the control group were not informed about the existence of the intervention program in other schools. The teachers in the control group knew about the intervention arm but were not informed about its content. No incentives for participating in the study were offered to the children. Mean age was 6.9 (SD 0.3) years for first grade, and 11.1 (0.5) years for fifth grade children. After adjustment for grade, sex, baseline values, and clustering within classes, children in the intervention arm compared with controls showed significant reductions in measures of fatness determined through skinfolds, increased aerobic fitness, increased moderate-vigorous physical activity in school, all day moderate-vigorous physical activity, total physical activity in school and overall. In addition, other biological risk factors for the development of chronic disease such as HDL, glucose and triglycerides, improved significantly. This school based multi-component physical activity intervention including compulsory elements improved physical activity and fitness and reduced adiposity in children.

Case Study #3: Effects of "10,000 Steps Ghent": A Whole-Community Intervention. Currently there is a great deal of interest in multi-component community-based approaches directed towards changing physical activity or health behaviors. The opportunity to objectively assess the impact of multiple and synergistic

intervention strategies, including policy, environmental, social, and behavioral approaches was provided with the initiation of the "10,000 Steps Ghent" project. A multi-component community-based intervention was implemented in 2005 with follow-up measurements in 2006 to promote physical activity among adults living in the city of Ghent, Belgium.[6] The intervention components included the following: A local media campaign where press conferences were organized at the beginning of the project and six other times throughout the intervention, along with newspaper coverage, mailed periodicals, newscasts, and billboards; a website was created to provide information about the project along with physical activity and health messages and tips on physical activity and commonly asked questions and answers; environmental approaches which included street signage identifying walkable distances and destinations; the sale and loan of pedometers along with a booklet with "how-to" information and a step-count log available at a variety of retail outlets including sporting goods stores, pharmacies, health insurance companies, schools, and recreational/sport centers; workplace physical activity program kits were made available to health/personnel departments of all companies; programming targeting older adults in community centers and the local town park; dissemination of information such as flyers, posters, and information about the pedometer sale/loan to schools, health care providers, associations, and societies. In 2005, 872 randomly selected subjects (aged 25 to 75), from the intervention community (Ghent) and 810 subjects from a comparison community, participated in the baseline measurements. Of these, 660 intervention subjects and 634 comparison subjects completed the follow-up measurements in 2006. After one year of intervention there was an increase of 8% in the number of people reaching the "10,000 steps" standard in Ghent, compared with no increase in the comparison community. Average daily steps increased by 896 in the intervention community versus no increase in the comparison community. Results are supported by self-reported measures of physical activity as assessed by the International Physical Activity Questionnaire (IPAQ). The "10,000 steps/day" message successfully reached the Ghent population as evidenced by an increase in pedometer-determined physical activity levels following 1 year of multi-component interventions. These results support the practice of combining policy and environmental approaches to promoting physical activity, along with informational and social/behavioral approaches to ensure overall success of a community-based effort to promote physical activity.

References:

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6. De Cocker KA, De Bourdeaudhuij IM, Brown JM, Cardon GM. Effects of "10,000 Steps Ghent" a whole-community intervention. Am J Prev Med. 2007; 33(6):455–463). (www.10000stappen.be).

Summary Review Evidence Table 1

Reference	Year of publication	Year of the systematic search	Language for the systematic search	Objective	Age group	Setting	Type of studies reviewed	Countries/region of studies	Effect size estimates	Type of systematic review
Eakin EG et al. Review of primary care-based physical activity intervention studies: effectiveness and implications for practice and future research. Journal of Family Practice. J Fam Pract. 2000;49(2):158-68.	2000	1980 to 1998	English	To summarize the literature on primary care-based interventions for increasing physical activity and make recommendations for future research and for integrating successful strategies into practice.	Adults (≥ 18 years)	Health care	RCT and QE	NS	Intervention 0-11 months: SMD range= 0.003-0.26; OR range= 1.04-3.73. Intervention≥ 12 months SMD ES= 0.09; OR range= 0.09-1.39	Narrative review
Marshall SJ. The transtheoretical model of behavior change: a meta-analysis of applications to physical activity and exercise. Annals of Behavioral Medicine. 2001; 23(4) 229-246.	2001	1983 to 2000	English	To summarize the findings from empitrical applications of TTM in the physical activity domain.	Adults (<25 to +55 years)	Community, health care, worksite, education	Cross-sectional cohort study, RCT and QE	USA, Canada, UK, Australia	ES= SMD for preparation to action=0.85; SMD for precontemplation to contemplation=0.34	Meta-analysis
Lawlor DA. The effect of physical activity advice given in routine primary care consultations: a systematic review. J Public Health Med. 2001;23(3):219-26.	2001	1966 to 2000	NR	To determine the effect of advise given in routine primary care consultations on levels of physical activity.	Adults (≥ 18 years)	Health care	RCT and QE	USA, Australia	NAES	Narrative review
Dunn C. The use of brief interventions adapted from motivational interviewing across behavioral domains: a systematic review. Addiction. 2001; 96(12):1725-42.	2001	1983 to 1999	English	To examine the effectiveness of brief behavioral interventions adapting the principles and techniques of Motivational Interviewing to four behavioral domains: substance abuse, smoking, HIV risk and diet/exercise.	NS	Health care	RCT	NS	ES range SMD=0.00 95% CI (-0.29, 0.29)-0.42 95% CI (-0.09, 0.93)	Narrative review
Fogelholm M. Community health-promotion interventions with physical activity: does this approach prevent obesity? Scandinavian Journal of Nutrition. 2002;46 (4): 173–177.	2002	Since 1990	English	To summarize results of community interventions for prevention of cardiovascular diseases, with dietary changes and increased physical activity as target behaviours, and change in obesity as one outcome variable.	NS	Community	Cross-sectional, cohort, QE	USA, Germany, England, Wales	NAES	Narrative review
Banks-Wallace JA. Interventions to Promote Physical Activity Among African American Women. Public Health Nursing. 2002;19(5): 321–335.	2002	1984 to 2000	English	To review interventions trials designed to promote increased physical activity among African American women.	Adults	Community, health care, center based, churches, neighborhood recreation centers	RCT, QE, pre-post-test, cohort	USA	NAES	Narrative review
Conn VS. Interventions to Increase Physical Activity Among Aging Adults: A Meta-Analysis. Ann Behav Med 2002;24(3):190–200.	2002	1966 to 1999	English	To integrate primary research findings that test interventions to increase activity among aging adults.	Adults (mean age 60 to 77,2 years)	Community, health care, home-based	RCT, QE, pre-post-test, cohort	NS	ES=SMD=0.26.	Meta-analysis

Kahn EB.The effectiveness of interventions to increase physical activity. A systematic review. Am J Prev Med. 2002;22(4 Suppl):73-107.	2002	1980 to 2000	English	To evaluate the effectiveness of various approaches to increasing physical activity: informational, behavioral and social, and environmental and policy approaches.	Children and adults	Community, health care, schools, college, worksites, churches, community centers, environment	RCT, QE, cohort	USA, England, Scotland, Wales, Sweden, Australia, Denmark, Greece.	Point of decision prompt: Net increase range ES: 5.5%-128.6%. Community-wide campaigns: Net increase range ES: -2.9%-21.4%. School-based of class time in MVPA: Net increase range 3.3%-125.3%. Social support change in frequency of exercise or physical activity: median net :19.6% (IQ range 14.6% to 57.6%). Individually-Adapted Health Behavior Change Programs: time spent in physical activity median net increase 35.4% (IQ range, 16.7% to 83.3%). Environmental and Policy Approaches: leisure-time physical activity: median increase 2.9% (IQ range, 6.0 to 8.5%).	Narrative review
van der Bij AK. Effectiveness of Physical Activity Interventions for Older Adults: A Review. Am J Prev Med. 2002;22(2):120–133.	2002	1985 to 2000	English, Dutch	To evaluate the effectiveness of physical activity interventions among older adults	Older adults (51-88 years).	Community, home based (residential or nursing homes), health care	RCT	USA, Europe	NAES	Narrative review
Smith BJ. Do primary care interventions to promote physical activity work? A systematic review of the literature. Dec 2002, Report NºCPAH 03-0002. The National Institute of Clinical Studies, Melbourne, Australia. NSW Centre for Physical Activity and Health.	2002	Since 1966	English	To determine whether interventions undertaken with patients in primary care settings can be effective in increasing their physical activity participation	Adults (18-65+ years)	Health care	RCT, QE	UK, Sweden, USA, Australia	NA	Narrative review
Eden KB. Does counselling by clinicians improve physical activity? A summary for the U.S. Prevention Services Task Force. Annals of Internal Medicine. 2002;137(3): 208-15.	2002	1994 to 2002.	NR	To determine whether counseling adults in primary care settings improves and maintains physical activity levels.	Adults (18-75+ years)	Health care	RCT, QE, Case control, observational	USA, Australia, New Zealand	NAES	Narrative review
Petrella RJ. Does counseling help patients get active? Systematic review of the literature. Can Fam Physician. 2002;48:72-80.	2002	1972 to 2002	NS	To determine the effect of counseling patients to become more physically active.	Adults (18-75+ years)	Health care	RCT, QE	USA, Australia, New Zealand, UK, Canada.	NAES	Narrative review
Proper KI. Effectiveness of physical activity programs at worksites with respect to work-related outcomes. Scand J Work Environ Health. 2002;28(2):75-84.	2002	1980 to 2000	English, German, Dutch	To systematically review the literature on the effectiveness of physical activity programs at worksites with respect to work-related outcomes.	Adults	Workplace	RCT, QE	NS	NA	Narrative review

Conn VS. Integrative Review of Physical Activity Intervention Research with Aging Adults. J Am Geriatr Soc. 2003;51(8):1159–68.	2003	1960 to 2000	English	To conduct an integrative review on studies that tested interventions to increase general physical activity or aerobic exercise among aging adults.	Older adults (65-90 years)	Community, health care, home-based, senior centers, churches, library	RCT	NS	NA	Narrative review
Adams J. Are activity promotion interventions based on the transtheoretical model effective? A critical review. Br J Sports Med. 2003;37(2):106–114.	2003	1982 to 2011	English	To critically review published reports of transtheoretical model based, activity promotion interventions.	Adults (≥ 16 years)	Community, health care, workplace	RCT, QE, pre-post-test	USA, UK	NAES	Narrative review
Proper KI. The Effectiveness of Worksite Physical Activity Programs on Physical Activity, Physical Fitness, and Health. Clinical Journal of Sport Medicine. 2003;13(2):106–117.	2003	1980 to 2000	English	To critically review the literature with respect to the effectiveness of worksite physical activity programs on physical activity, physical fitness, and health.	Adults	Workplace	RCT, QE	NS	NAES	Narrative review
Foster C. Changing the environment to promote health-enhancing physical activity. Journal of Sports Sciences. 2004; 22(8):755-76.	2004	Up to December 2001	English	To present the results of a systematic review of studies that used environmental interventions to increase health-enhancing physical activity.	Adults (≥ 18 years)	Community, environment	QE, pre-post-test, cross-sectional	UK, USA, Australia, Switzerland, Finland	NAES	Narrative review
Ogilvie D. Promoting walking and cycling as an alternative to using cars: systematic review. BMJ. 2004 Oct 2;329(7469):763.	2004	NS	NR	To assess what interventions are effective in promoting a population shift from using cars towards walking and cycling and to assess the health effects of such interventions.	All (>10 years)	Community, environment	RCT, QE, cohort, cross-sectional	UK (Scotland, England), Denmark, USA, Australia, Netherlands, Germany, Norway, Finland	Percentage share of all trips that were shifted from cars to walking and cycling=5%	Narrative review
Shilts MK. Goal setting as a strategy for dietary and physical activity behavior change: a review of the literature. Am J Health Promot. 2004;19(2):81-93.	2004	1977 to 2003	NR	To estimate effectiveness of goal setting for nutrition and physical activity behavior change and investigate effectiveness of interventions containing goal setting.	All	Community, health care workplace, school	RCT, QE, pre-experimental	Italy, USA, Switzerland	NAES	Narrative review
Jago R. Non-curricular approaches for increasing physical activity in youth: a review.Prev Med. 2004; 39(1):157-63.	2004	1970 to 2002	English	To examine the effectiveness of noncurricular interventions for promoting physical activity in youth.	Children and adolescents (5-18 years)	Community, school, summer camps	RCT, QE	USA, UK, Australia	NAES	Narrative review
Goldstein MG. Multiple behavioral risk factor interventions in primary care. Summary of research evidence.Am J Prev Med. 2004;27(2 Suppl):61-79.	2004	1990 to 2004	NS	To review the evidence of interventions of separate or multiple risk behaviors in primary care.	Adults	Health care	RCT, QE, observational	NS	NA	Narrative review

van Sluijs EM. Stage-based lifestyle interventions in primary care: are they effective?. Am J Prev Med. 2004;26(4):330-43.	2004	Up to July 2002	NR	To systematically review the literature concerning the effect of stages-of-change–based interventions in primary care on smoking, physical activity, and dietary behavior in primary care.	Adults (≥ 18 years)	Health care	RCT, QE	NA	NAES	Narrative review
Foster C. Interventions for promoting physical activity. Cochrane Database Syst Rev. 2005;25;(1):CD003180.	2005	1966 to 2005	NR	To assess the effectiveness of interventions designed to promote physical activity in adults aged 16 years and older, not living in an institution.	Adults (18-95 years)	Community, health care	RCT	NS	ES= SMD= 0.28, 95%CI(0.15-0.41) ; SMD=0.52, 95% CI (0.14-0.90); OR= 1.33 95% CI (1.03-1.72)	Meta-analysis
Matson-Koffman DM. A Site-specific Literature Review of Policy and Environmental Interventions that Promote Physical Activity and Nutrition for Cardiovascular Health: What Works?.Am J Health Promot. 2005;19(3):167-93.	2005	1970 to 2003	NR	To review the lilerature to determine whether policy and environmental inlerventions can increase people's physical activity or improve their nutrition.	All	Community, health care, schools, workplace, environment	RCT, QE, pre-post-test, cross-sectional	Ireland, Finland, Canada, USA, Switzerland, UK (Scotland, England)	NAES	Narrative review
Hillsdon M. The effectiveness of public health interventions for increasing physical activity among adults: a review of reviews. Evidence briefing (2nd edition), February 2005. Available at www.hda.nhs.uk/evidence	2005	1996 to 2004	English	To identify all relevant systematic reviews and metaanalyses of exercise promotion that are limited to interventions that target individual-level change and measure changes in physical activity at the level of the individual.	Adults	Community, health care, work place	Systematic reviews of RCT, QE	UK,USA, Australia	NA	Review of reviews
Blue CL. Synthesis of Intervention Research to Modify Physical Activity and Dietary Behaviors. Res Theory Nurs Pract. 2005;19(1):25-61.	2005	1993 to 2003	English	To examine conceptual and methodological issues related to research on physical activity and dietary behaviors.	Adults (≥ 18 years)	Community, health care, workplace	RCT, QE	UK, USA	NA	Narrative review
Ashwroth NL. Home versus center based physical activity programs in older adults.Cochrane Database Syst Rev. 2005;(1):CD004017.	2005	1966-2002	NR	To assess the effectiveness of 'home based' versus 'center based' physical activity programs on the health of older adults	Older adults (≥50 years)	Community, home-based, center-based	RCT, QE	USA, Spain, Netherlands	NAES	Narrative review
Morgan O. Approaches to increase physical activity: reviewing the evidence for exercise-referral schemes. Public Health. 2005;119(5):361-70.	2005	1966 to 2002	English	To review current evidence of effectiveness for exercise referral schemes.	Adults (>34 years)	Health care	RCT, QE	USA, UK, New Zealand	NAES	Narrative review
Finlay SJ. Physical activity promotion through the mass media: Inception, production, transmission and consumption.Prev Med. 2005; 40(2):121-30-	2005	1997 to 2002	English	To review mass media interventions to promote physical activity from a media studies perspective.	All	Mass media, community	QE, pre-post-test, experimental, cohort	USA, UK (England), Canada, Australia	NAES	Narrative review

Engbers LH. Worksite health promotion programs with environmental changes. Am J Prev Med. 2005;29(1):61-70.	2005	1985 to 2004	English, German, Dutch	To systematically assess the effectiveness of worksite health promotion program's with environmental modifications, on physical activity, dietary intake, and health risk indicators.	Adults	Workplace	RCT or CT	NS	NAES	Narrative review
Foster C. Interventions that use the environment to encourage physical activity. Evidence review. National Institute for Health and Clinical Excellence, September 2006. September 2006. Available at www.nice.org.uk.	2006	Up to May 2005	English	To undertake a review of primary studies of interventions that use the environment to encourage physical activity.	Adults (≥ 18 years)	Community, environment, military, workplace, policy	QE, pre-post-test, cross-sectional	USA, Australia, Finland, UK, Switzerland	NA	Narrative review
Heath GH. The Effectiveness of Urban Design and Land Use and Transport Policies and Practices to Increase Physical Activity: A Systematic Review. Journal of Physical Activity and Health. 2006;3,Suppl 1,S55-S76.	2006	1987-2003	NS	To increase physical activity through changing social networks, organizational norms and policies, the physical environment, resources and facilities, and laws.	Adults	Community, environment, policy	QE, pre-post-test, cohort, cross-sectional	USA, Canada, Australia, Belgium, UK (England), Germany	Community scale urban desig: median ES=161%. Street scale urban design and policies: median ES= 35% (IQ range 16%-36%)	Narrative review

205

NICE. Four commonly used methods to increase physical activity: brief interventions in primary care, exercise referral schemes, pedometers and community-based exercise programmes for walking and cycling. Public health guidance, PH2 - Issued: March 2006. Available at: www.nice.org.uk/page.aspx?o=PhysicalActivityandEnv.	2006	1990 to 2005	NS	This document constitutes a formal guidance on brief interventions in primary care, pedometers, exercise referral schemes and community-based exercise programmes for walking and cycling to increase physical activity	All	Community, health care	RCT;QE, pre-post-test	NS	NA	Narrative review
Kroeze W. A systematic review of randomized trials on the effectiveness of computer-tailored education on physical activity and dietary behaviors. Ann Behav Med. 2006;31(3):205-23.	2006	1965 to 2004	English	To systematically review the scientific literature on computer-tailored physical activity and nutrition education.	Adults	Community, health care, church	RCT	Netherlands, Belgium, USA, UK, Australia	NAES	Narrative review
Tulloch H. Physical activity counseling in primary care: Who has and who should be counseling? Patient Educ Couns. 2006;64(1-3):6-20.	2006	Since 2000	English	To examine the physical activity counseling literature in primary care in order to identify which intervention provider has been used to date and their relative effectiveness for increasing physical activity.	Adults (≥ 18 years)	Health care	RCT, QE	NS	NAES	Narrative review
Sorensen JB. Exercise on prescription in general practice: A systematic review.Scand J Prim Health Care. 2006;24(2):69-74.	2006	1980 to 2005	English	To address exercise on prescription using a health technology assessment perspective.	All	Health care	RCT, pre-post-test	NS	NAES	Narrative review
Vandelanotte C. Website-delivered physical activity interventions a review of the literature. Am J Prev Med. 2007;33(1):54-64.	2007	Up to July 2006	English	To systematically review the research findings and outcomes of website-delivered physical activity interventions and to identify relationships of intervention attributes with behavioral outcomes.	Adults	Community	RCT, QE, pre-post-test	USA, Australia, Canada, Belgium,	Range SMD=0.13 to 0.67. SMD=0.44.	Narrative review
van den Berg MH. Internet-based physical activity interventions: a systematic review of the literature. J Med Internet Res. 2007;30;9(3):e26.	2007	Up to July 2006	English, Dutch, German	To systematically assess the methodological quality and the effectiveness of interventions designed to promote physical activity by means of the Internet as evaluated by randomized controlled trials.	Adults (≥18 years)	Community	RCT	USA, Canada, Australia, Netherlands	NAES	Narrative review
Eakin EG. Telephone interventions for physical activity and dietary behavior change: a systematic review . Am J Prev Med. 2007;32(5):419-34.	2007	1965 to 2006	English	To systematically review the literature on interventions for physical activity and dietary behavior change in which a telephone was the primary method of intervention delivery, with a focus on both internal and external validity.	Adults	Community, health care	RCT, QE	USA, Australia, New Zealand	ES=SMD=0.50; range SMD=0.24-1.19	Narrative review

Campbell KJ. Strategies which aim to positively impact on weight, physical activity, diet and sedentary behaviours in children from zero to five years. A systematic review of the literature. Obes Rev. 2007;8(4):327-38.	2007	1995 to 2006	English	To assess the effectiveness of interventions designed to prevent obesity, promote healthy eating and/or physical activity and/or to reduce sedentary behaviours in 0–5-year-old children.	Children (0-5 years)	Community, health Care, pre-school, child care, home based	RCT, QE, pre-post-test	USA, Canada, UK, Finland	NAES	Narrative review
Bravata DM. Using Pedometers to Increase physical Activity and Improve Health: A systematic review. JAMA. 2007;298(19):2296-304.	2007	1966 to 2007	English	To evaluate the association of pedometer use with physical activity and health outcomes among outpatient adults.	Adults (mean age= 49 years)	Community, health care, work, church	RCT, observational	NS	Pooled estimate from RCT=2491; 95% CI (1098-3885) steps per day. Pooled estimate from observational studies=2183; 95% CI (1571-2796) steps per day.	Meta-analysis
Norman GJ. A review of eHealth interventions for physical activity and dietary behavior change. Am J Prev Med. 2007;33(4):336-345.	2007	2000 to 2005	English	To review eHealth intervention studies for adults and children that targeted behavior change for physical activity, healthy eating, or both behaviors.	Children and adults	Community, health care, workplace, military, schools	RCT, QE	Australia, USA, Canada, South Korea, Belgium	ES range: r= -0.03-0.43	Narrative review
Ogilvie D. Interventions to promote walking: systematic review. BMJ. 2007;334(7605):1204.	2007	1990 to 2007	NR	To assess the effects of interventions to promote walking in individuals and populations.	Children and adults	Community, health care, workplace, schools	RCT, QE	USA, Australia; UK (Scotland), Brazil, Netherlands, Canada	ES= range -11-146 minutes/week. Most promising studies ES= 30-60 minutes/week	Narrative review

210

Williams NH. Effectiveness of exercise-referral schemes to promote physical activity in adults: Systematic review. British Journal of General Practice. 2007;57(545):979-86.	2007	Up to March 2007	NR	To asses whether exercise-referral schemes are effective in improving exercise participation in sedentary adults.	Adults (≥ 16 years)	Health care, community, church	RCTs, QE, observational studies, process evaluation, qualitative.	UK, Sweden	Pooled RR= 1.20 (95%CI 1.06 to 1.35).	Meta-analysis
van Sluijs EM. Effectiveness of interventions to promote physical activity in children and adolescents: Systematic review of controlled trials BMJ. 2007;335(7622):703.	2007	Up to 2006	NR	To review the published literature on the effectiveness of interventions to promote physical activity in children and adolescents.	Children and adolescents (≤18 years)	School, community, family	RCT, QE	Greece, USA, Ireland, UK, Finland, Canada, Belgium, Netherlands, Australia,	ES= 2.6-83 minutes per week of physical education related physical activity of overall physical activity.	Narrative review
Salmon J. Promoting physical activity participation among children and adolescents. Epidemiol Rev. 2007;29:144-59.	2007	1985 to 2006	NR	To summarize the evidence of the effectiveness of interventions that report physical activity outcomes in children aged 4–12 years and adolescents aged 13–19 years.	Children (4–12 years) and adolescents (13–19 years)	School, health care, community, family, Internet-based	RCT,QE	USA, Canada, UK, Ireland, Greece, Belgium, Finlad, France, Spain, Australia.	NAES	Narrative review
Kang M. Effect of Pedometer-Based Physical Activity Interventions: A Meta-Analysis. Physical Education, Recreation and Dance. 2008; 80(3):648–655.	2008	2000 to 2007	NS	To determine the magnitude and direction of effects in pedometer-based interventions.	Chldren, adults and older adults	Any	RCT, QE, Pre-post	NS	ES=SMD=0.68 (95% CI = 0.55, 0.81) ; average increase in 2,000 steps in the intervention group.	Meta-analysis
Lee MC. Systematic review of active commuting to school and children's physical activity and weight. J Phys Act Health. 2008;5(6):930-49.	2008	Up to 2007	NR	To evaluate interventions among schoolchildren that promoted the positive effects of active commuting on physical activity and overweight.	Children and adolescents	Community	Cohort, cross-sectional	Germany, Russia, UK (Scotland), USA, Australia, Denmark, China, Canada, Portugal, Netherlands,	ES= mean: 28 minutes of MVPA per day; range: 4.7 to 45 additional minutes of MVPA per day .	Narrative review

211
212

								Philipines		
Sharma M. Physical activity interventions in Hispanic American girls and women. Obes Rev. 2008;9(6):560-71.	2008	1994 to 2007	English	To review physical activity interventions done with Hispanic American girls and women.	Girls and Women (>10 years)	Community, Health care, home based, school	RCT, pre-post-test	USA	NAES	Narrative review
Müller-Riemenschneider. Long-term effectiveness of interventions promoting physical activity: A systematic review. Preventive Medicine. 2008; 47(4):354–368	2008	2001 to 2007	English, German	To evaluate the long-term effectiveness of physical activity interventions targeted at healthy adults.	Adults (> 18)	Community, health care, work place	RCT	NS	ES=increase in 975 kcal/wk in the intervention group. ES= increase of 11% in physical fitness in the intervention group compared with control group. ES= OR to meet PA targets were 3.31 (1.99–5.52) and 1.52 (1.07–2.14) compared to no-intervention and minimal-intervention control, respectively.	Meta-analysis

Hoehner CM. Physical activity interventions in Latin America: a systematic review. Am J Prev Med. 2008 ;34(3):224-233.	2008	1980 to 2006	English, Portuguese, Spanish.	To assess the current evidence base concerning interventions to increase physical activity in Latin America.	Children and adults	Community, schools, university, worksite, environment , policy	RCT, pre-post test, cross-sectional	Brazil, Chile, Colombia, USA	ES=percentage net change: -50% to 307%	Narrative review
NICE. Promoting and creating built or natural environments that encourage and support physical activity. Public health guidance, PH8 - Issued: January 2008	2008	1990 to 2006	English	To provide information for the formal guidance on promoting and creating built or natural environments that encourage and support physical activity.	All	Environmen t, community	RCT, QE, pre-post, observatio nal	NS	NA	Narrative review
Breckon JD. Physical Activity Counseling Content and Competency: A Systematic Review. J Phys Act Health. 2008;5(3):398-417.	2008	1995 to 2006	English	To examine the theory on which the intervention is based and the level of treatment fidelity applied at all stages of the intervention.	Adults (≥ 16 years)	Health care	RCT, QE	UK, USA	NAES	Narrative review
Robertson LR. What works with men? A systematic review of health promoting interventions targeting men. BMC Health Serv Res. 2008;8:141.	2008	1990 to 2006	English	To appraise the available evidence of effective interventions aimed at improving men's health.	Adults (≥ 18 years)	Health care	RCT, QE, pre-post-test	USA, Australia, New Zealand	NAES	Narrative review

Flemming P. Lifestyle interventions in primary care: Systematic review of randomized controlled trials.Can Fam Physician. 2008;54(12):1706-13.	2008	1985 to 2007	English	To determine whether lifestyle counseling interventions delivered in primary care settings by primary care providers to their low-risk adult patients are effective in changing factors related to cardiovascular risk.	Adults (18 to 79 years)	Health care	RCT	UK (England), New Zealand, Finland, Australia	NAES	Narrative review
Carroll JK. Getting patients to exercise more: A systematic review of underserved populations. J Fam Pract. 2008;57(3):170-6, E1-3, 1 p following E3.	2008	1966 to 2005	English	To assess clinical trials of clinician initiated counseling interventions for promoting physical activity in underserved populations.	Children and adults	Health care	RCT, QE	USA	NAES	Narrative review
Priest N. Interventions implemented through sporting organisations for increasing participation in sport. Cochrane Cochrane Database Syst Rev. 2008; (3):CD004812.	2008	Updated the original 2004 systematic search 2007	NR	To determine the effects of interventions implemented through sporting organisations to increase (active and nonactive) participation in organised sport.	All	Multiple	RCT, QE, pre-post-test	NS	NA	Narrative review
Williams DM. Interventions to Increase Walking Behavior. Med Sci Sports Exerc. 2008;40(7 Suppl): S567–S573.	2008	Since 1980	NS	To review studies of walking promotion interventions.	Adults (≥ 18)	Workplace, health care, community	RCT	USA, Australia, UK	NAES	Narrative review

217

Jenkins A. The effectiveness of distance interventions for increasing physical activity: a review. Am J Health Promot. 2009;24(2):102-17.	2009	2004 to 2006	English	Evaluate the effectiveness of distance physical activity interventions.	Adults	Any	RCT	USA, Australia, Canada, UK (Scotland)	ES: range of SMD -0.2 to 0.45	Narrative review
Fjeldsoe BS. Behavior change interventions delivered by mobile telephone short-message service. Am J Prev Med. 2009;36(2):165-73.	2009	1990 to 2008	English	To review the current research examining mobile telephone short-message service for delivering health behavior change interventions via text messages.	Adults	Community	RCT;pre-post-test	UK	ES=SMD=0.82	Narrative review
De Meester F. Interventions for promoting physical activity among European teenagers: a systematic review.Int J Behav Nutr Phys Act. 2009;6:82.	2009	1995 to 2008	English	To summarize the effectiveness of interventions to promote physical activity among European teenagers.	Adolescents (mean ages:10 and 19 years)	Community, health care, school	RCT, QE, pre-post-test	UK (Scotland), Sweden, Grecee, Belgium, Ireland, France, Netherlands, Spain	ES=SMD range=-1.06-2.79	Narrative review
Hutchison AJ. Physical Activity Behavior Change Interventions Based on the Transtheoretical Model: A Systematic Review. Health Educ Behav. 2009;36(5):829-45	2009	1982 to 2007	English	To critically examine how the TTM is being applied to develop PA behavior change interventions and to determine whether these TTM-based interventions are effective in promoting PA behavior change.	All	Community, health care	RCT, QE	USA, UK, Australia, South Korea	NAES	Narrative review

218
219

Cobiac LJ. Cost-Effectiveness of Interventions to Promote Physical Activity: A Modelling Study. PLoS Med. 2009;6(7):e1000110.	2009	2001 to 2006	English	To evaluate the cost-effectiveness of interventions to promote physical activity.	Adults	Community, health care, environment	RCT, QE, meta-analysis	Australia	ES= target group range: 57-574Met/min/wk	Narrative review
Lubans DR. A systematic review of studies using pedometers to promote physical activity among youth. Prev Med. 2009;48(4):307-15	2009	Up to December 2008	English	To identify the effectiveness of pedometers in promoting physical activity among youth.	Children and adolescents (5-18 years)	Community, health care, school	RCT, QE	USA, Canada, Australia, New Zealanda, UK	NAES	Narrative review
O'Connor TM. Engaging Parents to Increase Youth Physical Activity: A Systematic Review. Am J Prev Med 2009;37(2):141–149.	2009	1980 to 2008	English	To identify how best to involve parents in physical activity interventions for children.	Children and adolescent	Community, health care, school, preschool, home, WIC	RCT, QE, pre-post-test, pilot study	USA	NAES	Narrative review
Whitt-Glover MC. Systematic Review of Interventions to Increase Physical Activity and Physical Fitness in African-Americans. Am J Health Promot. 2009;23(6):S33-56.	2009	1985 to 2006	NS	To identify characteristics of effective interventions designed to increase physical activity or fitness among African-Americans.	Children (7 to 17 years) and adults (18 to 91 years)	Community, health care, schools, churches, workplace.	RCT, QE, UCT	USA	NAES	Narrative review
Michie S. Effective techniques in healthy eating and physical activity interventions: a meta-regression. Health Psychol. 2009;28(6):690-701.	2009	1990 to 2008	English	To assess the effectiveness of active behavior change interventions designed to promote physical activity and healthy eating.	Adults (≥ 18 years)	Community, health care, work place	RCT, QE	UK ,USA, Australia, canada, Europe, Japan	ES=SMD: 0.31 (95% CI 0.26-0.38).	Meta-analysis
Neville LM. Computer-tailored physical activity behavior change interventions targeting adults: a systematic review. Int J Behav Nutr Phys Act. 2009;6:30.	2009	1996 to 2008	English	To provide a narrative systematic review describing the range of evidence on 'second' and 'third' generation computer-tailored primary prevention interventions for physical activity.	Adults	Community, health care, workplace, military	RCT, QE	Australia, USA, UK, Belgium, New Zealand	NAES	Narrative review
Rhodes RE. A Review and Meta-Analysis of Affective Judgments and Physical Activity in Adult Populations. Ann Behav Med. 2009;38(3):180-204.	2009	1989 to 2009	English	To review affective judgment constructs employed in physical activity research to assess the relationship with behavior.	Adults (≥ 18 years)	Community, health care., university	RCT, QE, cohort, pre-post-test, cross-sectional.	Australia, Canada, China, Europe, United States, New Zealand	ES= r: 0.42 (95% CI 0.37 to 0.46)	Meta-analysis
Brown AS. Promoting physical activity amongst adolescent girls. Issues Compr Pediatr Nurs. 2009;32(2):49-64.	2009	1994 to 2009	English	To review studies investigating physical activity interventions designed specifically for adolescent girls.	Adolescent girls (9-19 years)	Community, school, church, home.	RCT, QE	USA, Canada, Sweden, Australia	NAES	Narrative review
Faulkner GAJ. Active school transport, physical activity levels and body weight of children and youth: A systematic review. Prev Med. 2009;48(1):3-8.	2009	1945 to 2008	English	To conduct a systematic reto assess if children who actively commute to school more physically active than children who travel by motorized transport.	Children and adolescents (5-18 years)	Community, schools	Cross-sectional, cohort	UK (Scotland, England), Denmark, Cyprus,USA , Philippines, Australia, New Zealand	NAES	Narrative review

NICE. Promoting physical activity, active play and sport for pre-school and school-age children and young people in family, pre-school, school and community settings.	2009	1990 to 2007	English	To increase the number of children and young people who regularly walk, cycle and use other modes of physically active travel.	Children and adolescents (<19 years)	Family, school, community	Systematic reviews.	UK (England)	NA	Narrative review
Krishna S. Healthcare via cell phones: a systematic review. Telemed J E Health. 2009;15(3):231-40.	2009	1950 to 2008	NR	To evaluate the empirical evidence related to the role of cell phones and text messaging interventions in improving health outcomes and processes of care.	Children and adults	Health care	RCT, QE	USA, Australia, UK, South Korea, New Zealand, Spain, Austria, China, Croatia, Italy, France, Netherlands, Norway	NAES	Narrative review
Beets MW. After-school program impact on physical activity and fitness. A meta-analysis. Am J Prev Med. 2009;36(6):527-37.	2009	1980 to 2008	English	To summarize the research regarding the effectiveness of after school programs in increasing physical activity.	Children and adolescents (≤18 years)	School	RCT, QE	USA, Australia, Spain	ES=SMD: 0.44 (95% CI 0.28–0.60)	Meta-analysis
Dobbins M. School-based physical activity programs for promoting physical activity and fitness in children and adolescents aged 6-18. Cochrane Database Syst Rev. 2009;(1):CD007651.	2009	Up to July 2007	NR	To summarize the evidence of the effectiveness of school-based interventions in promoting physical activity and fitness in children and adolescents.	Children and adolescents (6-18 years)	School	RCT, QE, cohort	USA, France, Norway, Belgium, Germany, Greece, Australia, Russia.	NAES	Narrative review
Conn VS. Meta-Analysis of workplace physical activity interventions. Am J Prev Med 2009;37(4):330-9	2009	1969 to 2007	English	To integrate the extant wide range of worksite physical activity intervention research	Adults	Workplace	RCT, QE, pre-post-test, otros revisar	US, Australia, New Zealand	ES=SMD:0.21, 95% CI (0.11-0.31)	Meta-analysis
Johnson BT. Meta-synthesis of health behavior change meta-analyses.Am J Public Health. 2010;100(11):2193-8.	2010	1972 to 2003	English	To compare meta-analytic findings across diverse behavioral interventions to characterize how well they have achieved change in health behavior.	Adults	Community, health care	Meta-analysis	NS	ES=SMD:0.22, 95% CI (0.20, 0.23)	Review of reviews
Krebs P. A meta-analysis of computer-tailored interventions for health behavior change. Prev Med. 2010;51(3-4):214-21.	2010	1988 to 2009	English	To use meta-analytic techniques to assess the mean effect for computer-tailored interventions on four health behaviors.	Children and adults	Community, health care, work place, school	RCT, QE	USA, New Zealand, Australia, Europe	ES=SMD: 0.16, 95% CI=(0.10–0.21)	Meta-analysis
Ashford S. What is the best way to change self-efficacy to promote lifestyle and recreational physical activity? A systematic review with meta-analysis. Br J Health Psychol. 2010;15(Pt 2):265-88.	2010	1966 to 2007	English	To conduct a meta-analysis of the effectiveness of interventions to alter selfefficacy, in the context of physical activity interventions.	Adults (Mean age=43 years)	Community, health care, workplace, college/university,	RCT, QE, pre-post-test	Australia, New Zealand, UK, USA	ES=SMD for self-efficacy :0.16, IC95% (0.08-0.25)	Meta-analysis
Yang L. Interventions to promote cycling: systematic review. BMJ. 2010;341:c5293.	2010	Up to 2010	NR	To determine what interventions are effective in promoting cycling.	Children and adults	Community, school, work place	RCT, QE, observational	USA, UK (England), Australia, Denmark, Netherlands, Sweden, Germany	ES= net increases of up to 3.4 percentage points in the population prevalence of cycling or the proportion of trips made by bicycle. Net effect equating to an average of 8	Narrative review

									additional cycling trips per person per year.	
Pucher J. Infrastructure, programs, and policies to increase bicycling: an international review. Prev Med. 2010;50 Suppl 1:S106-25.	2010	1990 to 2010	English	To assess existing research on the effects of various interventions on levels of bicycling.	Children and adults	Community, Schools	QE, observational, case studies	Canada, USA, Denmark, Germany, Netherlands, Spain, France, UK, Australia, Japan, Colombia	NAES	Narrative review
Lin JS. Behavioral Counseling to Promote Physical Activity and a Healthful Diet to Prevent Cardiovascular Disease in Adults: Update of the Evidence for the U.S. Preventive Services Task Force. Evidence Synthesis No. 79. Agency for Healthcare Research and Quality (US). 2010; Report No.: 11-05149-EF-1.	2010	2001 to 2009	English	To assist the U.S. Preventive Services Task Force (USPSTF) in updating its 2002 and 2003 recommendations on counseling to improve physical activity and diet.	Adults	Health care	RCT, QE	UK, New Zealand, Sweden, USA, Japan, Canada, Finland, Netherlands, Spain, Australia, Belgium	ES=SMD= self reported PA: 0.16; 95%CI (0.10-0.22); RR: 1.23 95% CI (1-12-1.34); Minutes increased of PA per week: 38 minutes/wk; 95% CI (25.9-50.7) for medium intensity interventions.	Meta-analysis

225

Ruppar TM. Interventions to promote physical activity in chronically ill adults: Practice implications of clinical studies. Am J Nurs. 2010;110(7):30-7; quiz 38-9.	2010	Up to 2008	NS	To discuss the implications of those findings, describing the strategies and practices commonly used to promote physical activity in chronic illness and identifying those that are most effective.	Adults	Health care	Meta-analysis	NS	ES= 945 steps per day; 48 minutes/wk	Narrative review
Webb,TL. Using the Internet to Promote Health Behavior Change: A Systematic Review. J Med Internet A43Res. 2010. 12(1): e4.	2010	2000 to 2008	English	To investigate which characteristics of Internet-based interventions best promote health behavior change	Internet-based	NS	RCT	NS	ES=SMD=0.24	Meta-analysis
Nocon M. Increasing physical activity with point-of-choice prompts: a systematic review. Scandinavian Journal of Public Health 2010; 38(6): 633-638	2010	2001 to 2008	English	To assess the effectiveness of point-of-choice prompts for the promotion of stair climbing.	All	University, public transport stations, shopping malls, library, hospital, airport, parking garage, bank, and office buildings	Point of choice intervention to promote stair climbing	UK, USA, Australia, Hong Kong, Denmark	ES= increased: 0.3%-10.6%; OR range:1.05-2.93	Narrative review
Chau JY. Are workplace interventions to reduce sitting effective? A systematic review. Prev Med. 2010;51(5):352-6.	2010	Up to 2009	English, Chinese, Dutch, French, German, Italian, Norwegian, Spanish	To systematically review the effectiveness of worksite interventions for reducing sitting.	Adults (mean ages 39-45 years)	Workplace	RCT, QE, pre-post-test	Finland, Australia, Spain, UK, Belgium, Norway, Canada.	NA	Narrative review

226

Fjeldsoe B. Systematic review of maintenance of behavior change following physical activity and dietary interventions. Health Psychol. 2011;30(1):99-109.	2011	2000 to 2009	English	To review the evidence for maintenance of physical activity and/or dietary behavior change following intervention (follow-up).	Adults	Any	RCT	Germany, USA, Netherlands, Switzerland, UK (Scotland), Australia, Canada	NA	Narrative review
Baker PR. Community wide interventions for increasing physical activity. Cochrane Database Syst Rev. 2011;(4):CD008366.	2011	1995 to 2009	NR	To evaluate the effects of community wide, multi-strategic interventions upon population levels of physical activity.	Adults	Community	RCT, QE, cohort, interrupted time series	Australia, USA, China, Iran, Pakistan, Belgium, Norway, Netherlands, Finland, Canada, Denmark, France	NAES	Narrative review
van Sluijs EM. The effect of community and family interventions on young people's physical activity levels: a review of reviews and updated systematic review. Br J Sports Med. 2011;45(11):914-22.	2011	2007 to 2010	NR	To review the effectiveness of interventions to promote PA in children and adolescents, delivered in the family and community setting.	Children and adolescents (≤18 years)	Community	RCT, QE	NS	NAES	Review of reviews
Perez A. Review of Intervention Studies Promoting Physical Activity in Hispanic Women. West J Nurs Res. 2010; 32(3): 341–362.	2011	1980 to 2010	English	To provide a comprehensive review and evaluation of intervention studies designed to promote physical activity among Hispanic women.	Women (24-70 years)	Community, health care, schools, home-based	RCT, participatory action research	USA	ES=0.21 to 1.4	Narrative review

227

Conn VS. Interventions to increase physical activity among healthy adults: meta-analysis of outcomes. Am J Public Health. 2011 Apr;101(4):751-8.	2011	1960 to 2007	English	To summarize the effects of interventions designed to increase physical activity among healthy adults.	Adults	Community, health care, work place	RCT, QE	NS	ES= SMD=0.19 95% CI(-0.14-0.53); minutes/wk=14.7 95 % CI (-11-40.3) minutes per week.	Meta-analysis
Williams SL. What are the most effective intervention techniques for changing physical activity self-efficacy and physical activity behaviour—and are they the same?. Health Educ Res. 2011;26(2):308-22.	2011	1966 to 2007	English	To estimate the association between specific intervention techniques used in physical activity interventions and change obtained in both self-efficacy and physical activity behaviour.	Adults (Mean age 43.17 years)	Community, health care, workplace, college/university, home-based	RCT, QE, pre-post-test	NS	ES SMD= physical activity self-efficacy = 0.16, 95% CI (0.08–0.24); SMD physical activity behaviour=0.21, 95% CI (0.11-0.31)	Meta-analysis
Webb OJ. A statistical summary of mall-based stair-climbing interventions. J Phys Act Health. 2011;8(4):558-65.	2011	1970 to 2008	English	To summarize the effectiveness of mall-based stair-climbing interventions, while controlling for, and examining, potential moderators of stair/escalator choice.	All	Environment	QE	UK	ES intervention vs baseline= OR=2.09, 95% CI (1.8–2.4)	Meta-analysis-pooled analysis
Greaves C. Systematic review of reviews of intervention components associated with increased effectiveness in dietary and physical activity interventions. BMC Public Health. 2011;11:119.	2011	1998 to 2008	English	To identify intervention components that are associated with increased change in diet and/or physical activity in individuals at risk of type 2 diabetes.	Adults (≥ 18 years)	Multiple	Systematic reviews	NS	ES=increased physical activity= 30-60 minutes of walking per week at 12-18 months; SMD around=0.30. Range of SMD of included studies= 0.28 95% CI (0.12-0.41) to 0.52 95% CI (0.14-0.90). OR 1.2 to 1.3	Review of reviews

228

Gourlan MJ. Interventions promoting physical activity among obese populations: a meta-analysis considering global effect, long-term maintenance, physical activity indicators and dose characteristics. Obes Rev. 2011;12(7):e633-45.	2011	1996 to 2010	English	To determine the global effect that interventions promoting PA among obese populations have on their PA behaviour	All	Multiple	RCT, QE	NS	ES= mean 0.54 (95% CI=0.39, 0.69))	Meta-analysis
Durand CP. A systematic review of built environment factors related to physical activity and obesity risk: implications for smart growth urban planning. Obes Rev. 2011;12(5):e173-82	2011	1990 to 2009	English	To utilize existing built environment research on factors that have been used in smart growth planning to determine whether they are associated with physical activity or body mass.	Children and adults	Other sectors	Cross-sectional, cohort study	Australia, Canada, Belgium	NAES	Narrative review
Medina-Blanco RI. Intervention programs to promote physical activity in school children: systematic review. Nutr Hosp. 2011;26(2):265-70.	2011	2000 to 2010	English, Spanish	To assess physical activity promotion programs in school children from 6 to 12 years old.	Children (6-12 years)	School	RCT, QE	USA, Belgium, Denmark, Sweden, Canada, Australia, Spain	NAES	Narrative review
Chillón P. A systematic review of interventions for promoting active transportation to school. Int J Behav Nutr Phys Act. 2011;8:10.	2011	Up to January 2010	English	To review intervention studies related to active school transportation to guide future intervention research.	Children and adolescents (6-18 years)	School	RCT, QE, pre-post-test	USA, Australia, UK	ES= SMD range= 0.07-1.21. Increase in the percentage of active transportation to school range 3% to 64%.	Narrative review
Kriemler S. Effect of school-based interventions on physical activity and fitness in children and adolescents: a review of reviews and systematic update. Br J Sports Med. 2011;45(11):923-30.	2011	2007 to 2010	NR	To summarise recent reviews that aimed to increase PA or fi tness in youth and carry out a systematic review of new intervention studies.	Children and adolescents (6-18)	School	RCT, QE	USA, Canada, Europe, Brazil, Iran	47%-65% of the studies were effective	Review of reviews
Hamel LM. Computer- and web-based interventions to increase preadolescent and adolescent physical activity: a systematic review. J Adv Nurs. 2011;67(2):251-68.	2011	1998 to 2010	English	To examine evidence regarding computer- or web-based interventions to increase preadolescent and adolescent physical activity.	Children and adolescents (8-18 years)	School, scout- troop, home, camp	RCT, QE	USA, Belgium	NAES	Narrative review

RCT= Randomized controlled trials. QE=Quasi-experimental design. UCT= uncontrolled trial. NA= Not available. NS= none specified. NR=No restriction on language was reported in the search strategy. ES= Effect size estimates. SMD= standardized mean difference. NAES=results from studies were presented but a summary of pooled or a range of comparable effect size estimates from all evaluated studies were not available due to different measurement scales. IQ range= interquartile range. MVPA= moderate to vigorous physical activity. USA= United States of America. UK=United Kingdom. ES= Effect estimates, OR: odd ratio. TTM=Transtheoretical Model.