HEPA Europe
European network for the promotion of health-enhancing physical activity

Physical activity and the built environment

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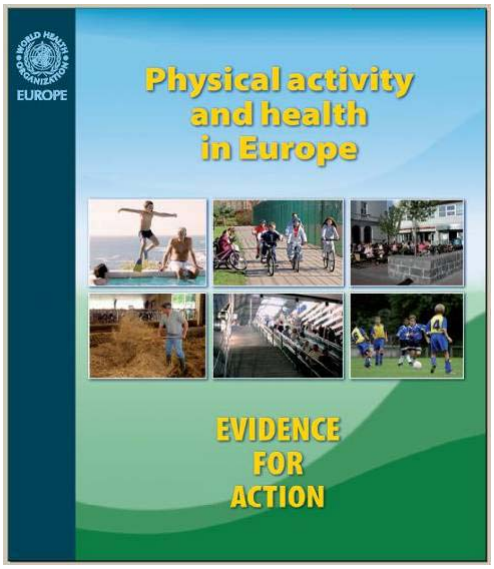
1st Plenary Meeting of the EURO PREVOB Project, 17.04.2008



Cavill N, Kahlmeier S, Racioppi F. Physical Activity and Health in Europe. Evidence for Action. Copenhagen: WHO, 2006.

Health

Physical Activity Behaviour

1. Why is physical activity important for health?

© European Union in Spain

Although the effects of diet and physical activity on health often interact, particularly in relation to obesity, there are additional health benefits to be gained from physical activity that are independent of nutrition and diet …

– Global Strategy on Diet, Physical Activity and Health *(6)*

In 2002, two thirds of the adult population (aged 15 years and over) in the European Union (EU) did not reach recommended levels of activity *(8)*. Across the WHO European Region as a whole, one in five people takes little or no physical activity, with higher levels of inactivity in the eastern part of the Region. Physical inactivity is estimated to cause 600 000 deaths per year in the Region (5–10% of total mortality, depending on countries) and leads to a loss of 5.3 million years of healthy life due to premature mortality and disability per year *(9)*.

Physical activity is a critical public health issue because:

- adequate physical activity is important for many aspects of health; and
- few people participate in regular health-enhancing physical activity.

Health effects

Physical activity has major beneficial effects on most chronic diseases (Table 2). These benefits are not limited

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Cavill N, Kahlmeier S, Racioppi F. Physical Activity and Health in Europe. Evidence for Action. Copenhagen: WHO, 2006.

Physical activity and health - effects

- ⇧ Life expectancy
- ⇩ Cardiovascular disease
- ⇩ Diabetes type II
- ⇩ Overweight and obesity
- ⇩ Symptomatic gallstone disease
- ⇩ Colon cancer
- ⇩ (Breast cancer)
- ⇩ (Prostate cancer)
- ⇩ (Pancreas cancer)
- ⇩ Osteoporosis
- ⇧ Independence in old age
- ⇩ Depression
- ⇧ Stress tolerance

Current research topic:

? Cognitive functioning

2. What is known about current levels of physical activity and inactivity?

Only in recent years have internationally comparable data on levels of physical activity across the European Region begun to be collected. Thus, few comprehensive figures are available about trends and prevailing patterns of physical activity in many countries.

How active are people in the European Region?

Current activity levels

An analysis of a survey of EU countries in 2002 (8) showed that two thirds of the adult population did not reach recommended levels of physical activity. On average, only 31% of respondents reported sufficient physical activity (Fig. 1).

A survey of health behaviour among young people aged 11, 13 and 15 years across Europe, in 2001–2002, measured participation in physical activity (54). It found that about a third (34%) reported enough physical activity to meet current guidelines: one hour or more of at least moderate intensity on five or more days a week. In most countries, boys were more active than girls and activity declined with age in both sexes. Activity varied widely between countries, however, ranging from 11% of girls and 25% of boys in France to 51% of girls and 61% of boys in Ireland among 11-year-olds. Similar variations existed among all age groups; for example, the proportion of active 15-year-old boys was 49% in the Czech Republic and 25% in Portugal.

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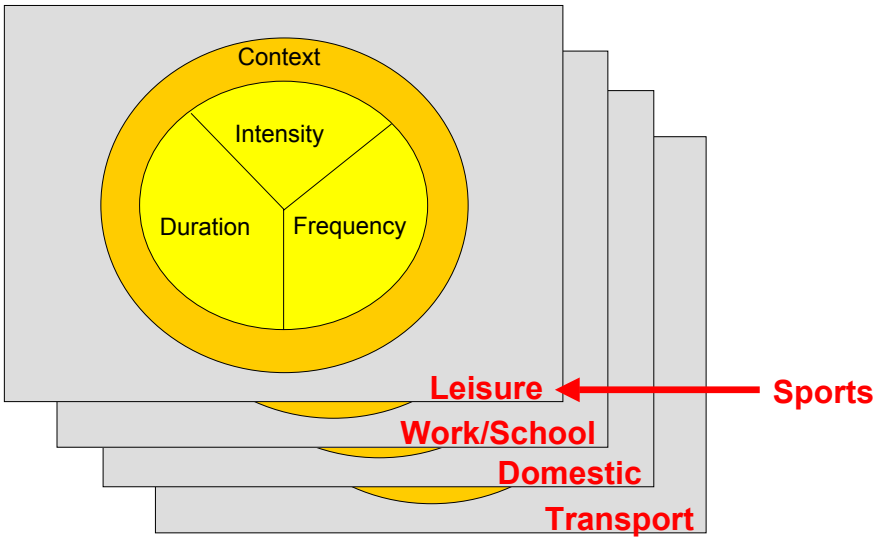
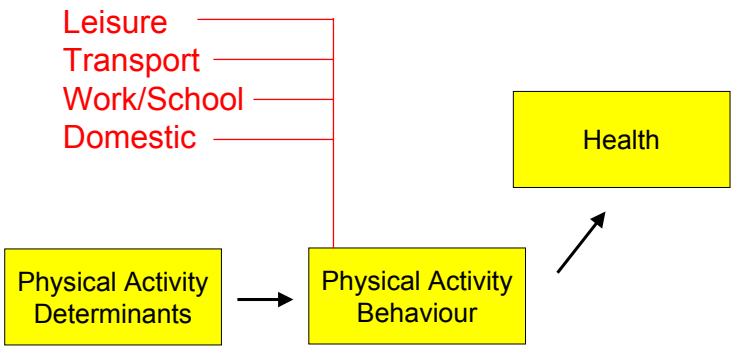
Cavill N, Kahlmeier S, Racioppi F. Physical Activity and Health in Europe. Evidence for Action. Copenhagen: WHO, 2006.

Modes of physical activity





3. What factors and conditions influence physical activity?

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Why are some people active and others not? A complex range of factors – in the individual and the micro and macro environments (Fig. 2) – influences the likelihood that an individual, group or community will be physically active. Factors in the macro environment include general socioeconomic, cultural and environmental conditions. Influences from the micro environment include the conduciveness of living and working environments to physical activity, and the supportiveness of social norms and local communities. Such individual factors as attitudes towards physical activity, belief in one's ability to be active or awareness of opportunities in daily life can influence the likelihood that someone will try a new activity (60).

Some of the determinants of active living – such as the weather or people's genetic make-up – are difficult or impossible to modify. A combination of short- and long-term action, however, can be used to tackle most factors. Bringing these actions together in a comprehensive strategy should be a key priority for policy-makers (see spotlight on Finland).

Macro environment

Socioeconomic status

Socioeconomic conditions can affect physical activity in many ways. Participation in leisure-time physical activity tends to be directly related to socioeconomic status. Poorer people

Cavill N, Kahlmeier S, Racioppi F. Physical Activity and Health in Europe. Evidence for Action. Copenhagen: WHO, 2006.

Determinants of Physical Activity Behaviour

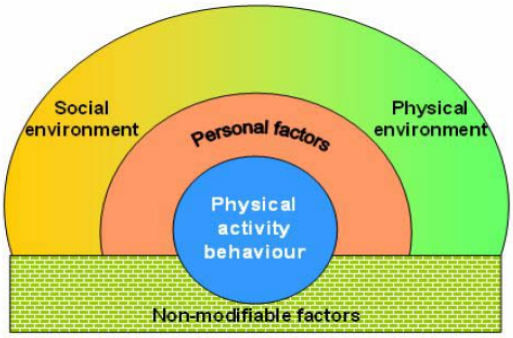


Figure 3.
Factors influencing sport and physical activity behaviour (determinants). Behaviour is influenced by factors that cannot be changed (e. g. gender, age, cultural background). And also by factors that can be changed. These include personal factors and factors in the social and physical environment.

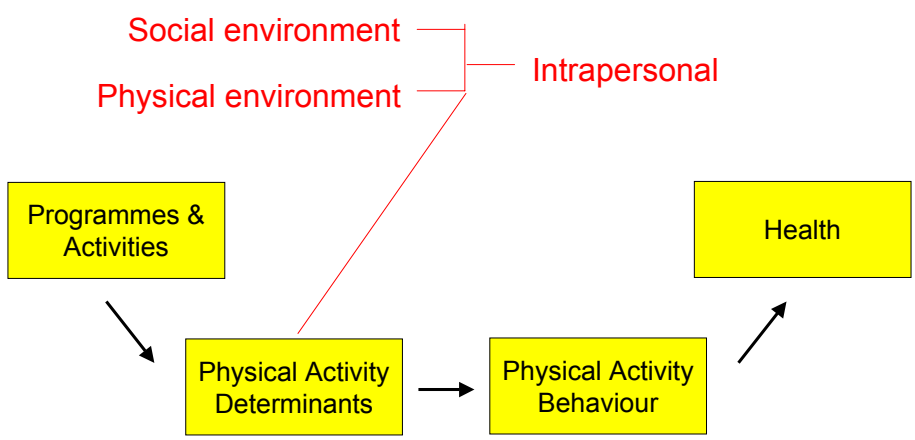
Modifiable Determinants of Physical Activity

Social environment	Physical environment
Family environment *Extended social environement* *Structured offers*	*Access to activity spaces* *Land use mix and distance to destinations* *Road design and well-designed public spaces*

Positive expectations *Skills and capabilities*

Attitudes and values

Personal factors



4. What can the health sector and others do to increase physical activity?

Strategies

Action on physical activity should be based on a number of key principles, adapted from a Swedish plan *(1)*:

1. taking a population health approach;
2. using a broad definition of physical activity;
3. engaging multiple sectors;
4. improving the environment for physical activity;
5. working at multiple levels;
6. basing programmes on the stated needs of the population;
7. improving equity; and
8. using the best available evidence.

Taking a population health approach

Physical activity promotion should focus on the health needs of the population as a whole, rather than particular high-risk groups. Creating more opportunities for activity for everyone and improving the environment to support it are likely to lead to greater public health benefit than programmes that target only small groups. Multilevel, coordinated action is urgently needed to improve participation in health-enhancing physical activity (see spotlight on Spain).

Using a broad definition of physical activity

Using a broad definition offers far greater potential to engage a range of sectors. Physical activity includes

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Cavill N, Kahlmeier S, Racioppi F. Physical Activity and Health in Europe. Evidence for Action. Copenhagen: WHO, 2006.

Overview and highlights of effective approaches

Spotlight. A community on the move: the experience of San Mauro Pascoli, Italy *(120)*

This project targeted sedentary women and elderly people, to pr the number of sedentary peop about the health benefits of p provide an opportunity for social organized physical activities. The outdoors during spring and su during autumn and winter. Nea part, mostly middle-aged wom implemented for the long-term tinuation of the programme. T GPs, community representativ tions, social workers, local grass and the private sector.

A key finding was that, while mo reported to be well aware of th physical activity, they lacked physically active in their own co ple, using the local parks). They the opportunity for social intera cluded that information and m cient to prompt changes in behaviour without being accompanied by interventions that facilitate physical activity.

Spotlight. National sport concept in Switzerland *(78)*

A new concept for a national sports policy in Switzerland was prepared in 2000. a strategy document for enhancing physical activit of the scientific evidence f

When the Federal Governm at the end of 2000, it defin ity of the national sports "more physically active pe This was in line with publ consistently shown that m population know that ph for health. The concept new partnerships across ernment, and between g sector and mass media.

Spotlight. Odense, Denmark's national cycling city *(102)*

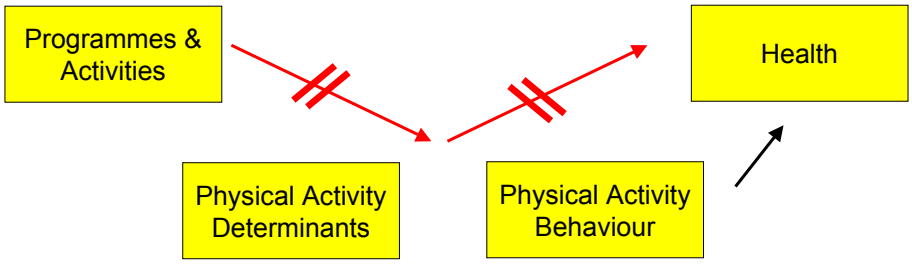
Odense was Denmark's official National Cycle City from 1999 to 2002. The Ministry of Transport and the National Road Directorate invested significant funding to demonstrate how coordinated effort could increase cycling. During the four years of the overall programme, 50 projects were developed and implemented, including physical improvements, campaigns and changes in regulations, with an emphasis on trying out innovative ideas.

By the end of 2002, cycling traffic in the municipality of Odense had increased by 20% and the number of accidents involving cyclists had been reduced by 20%, compared to 1996/1997. The evaluation estimated savings for the health sector, mostly attributed to increased safety and reduced noncommunicable diseases.

Spotlight. The congestion charge in London, United Kingdom *(100,101)*

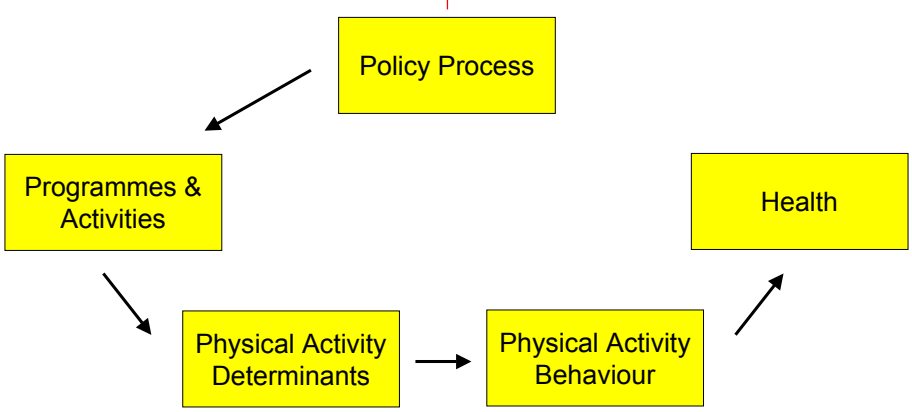
In 2003, London introduced a congestion charging scheme in which cars were charged to enter a zone in the centre of the city. In 2006 the charge is €11.60 per day. The primary objective of the scheme was to reduce traffic congestion in and around the charging also affected physical activity: there erved 20% increase in cycle journeys ion in crashes. There may also have in journeys walked – both as trips of the increased number of journeys ort. London's example shows how ntions can have positive (and some- n) benefits to public health.

Cavill N, Racioppi F, Kahlmeier S. Physical Activity§ and Health in Europe. Evidence for Action. Copenhagen: WHO, 2006.

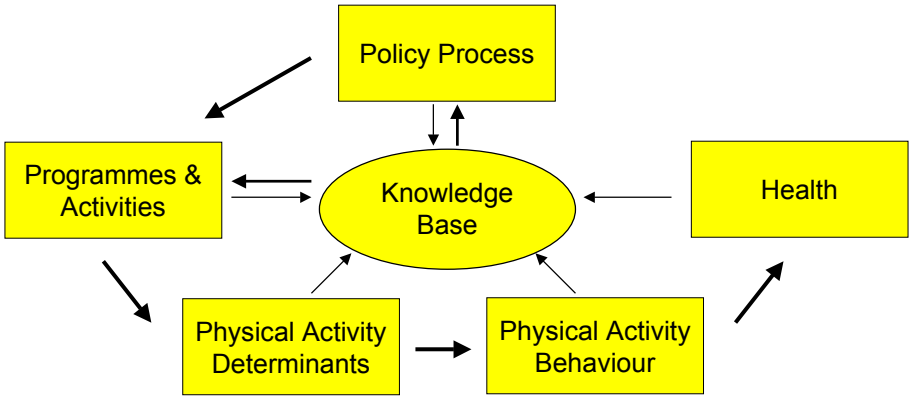


"Policy outcomes are formal written codes, regulations or decisions bearing legal authority, written standards that guide choices; guidelines or unwritten social norms"

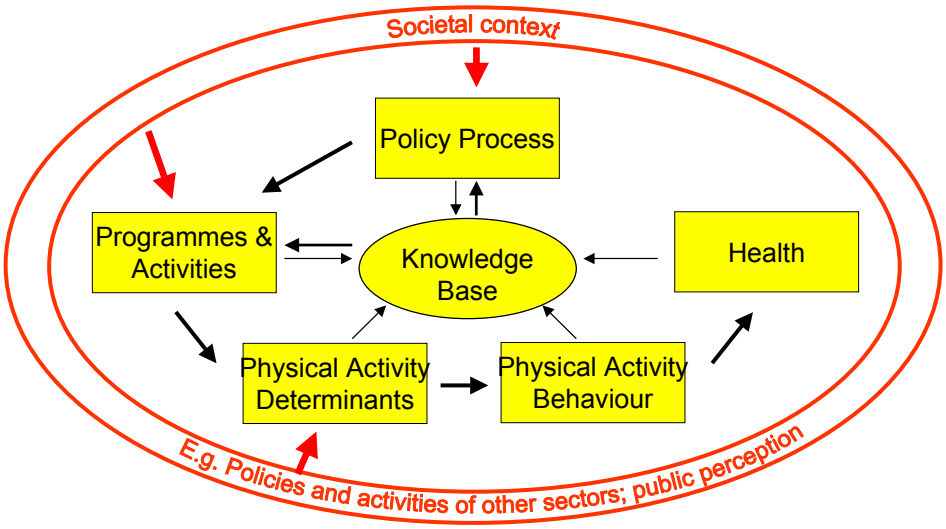
Schmid TL, Pratt M, Witmer L. J Phys Act Health, 2006, 3, S20-S29



Framework for evidence-based HEPA Promotion

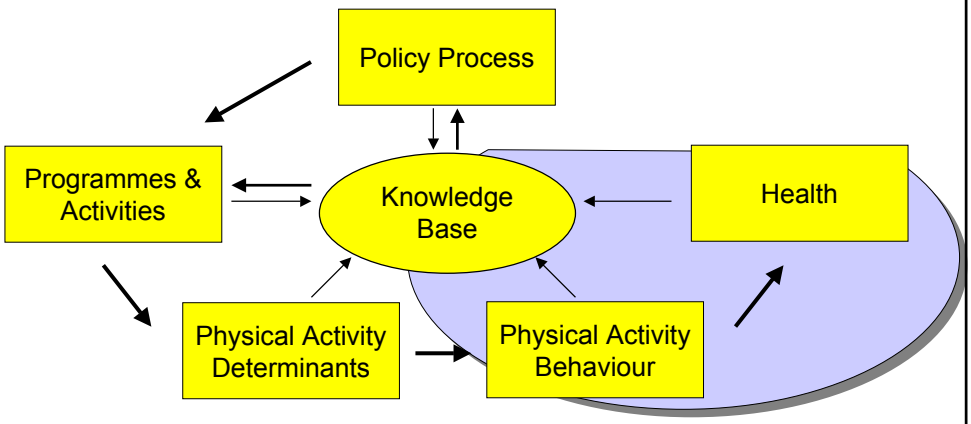


The HEPA Europe Framework



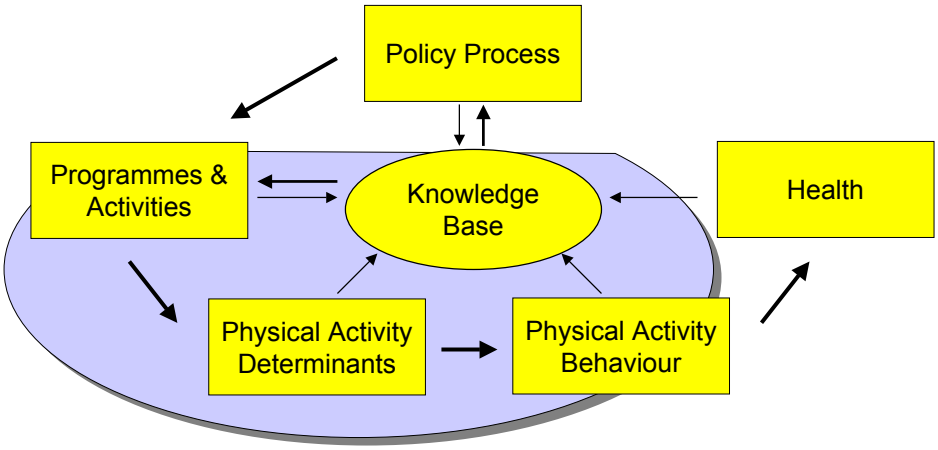
Framework for evidence-based HEPA Promotion

Type I evidence - *"Why should something be done?"*



Framework for evidence-based HEPA Promotion

Type II evidence - *"What should be done?"*



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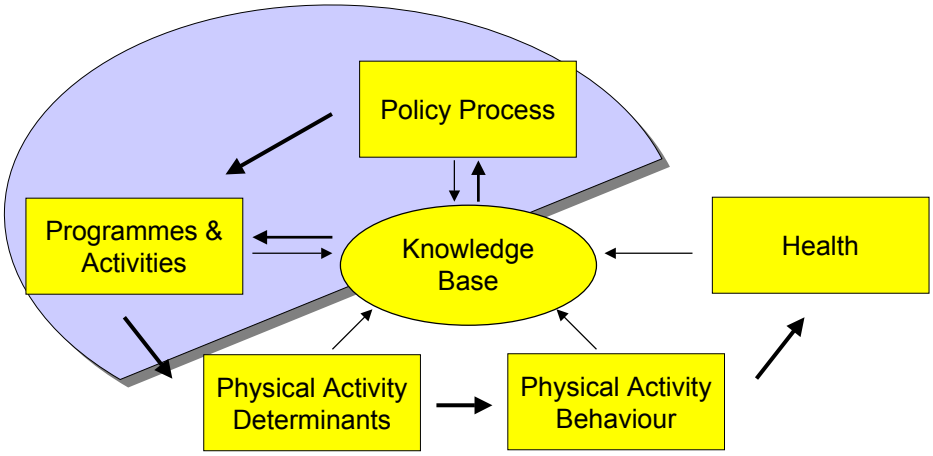
Type III evidence - *"How can be done what should be done?"*



Evaluation of Finland's HEPA policies and programmes

Table 2. Evaluations of Finland's policies and programs related to health-enhancing physical activity

Object of evaluation	*Main findings*
First Sports Act, Juppi 1995[a]	Summary of several evaluations; status, stability, and resources increased, planning and division of tasks improved, effect of participation in sports and exercise not known
Quantity and quality of sites and related services, Suomi 2000[b]	Availability, accessibility, and affordability to various population groups rather good except persons with disabilities
Quantity and quality of outdoor recreation sites and connected services, Suomen Latu 2002[c]	Number of sites rather sufficient, need to improve condition, quality, and marketing
Perceptions of the success of the public physical activity promotion actions, Ståhl and Kannas 2002[d]	Policies perceived by the people as at least satisfactory
Finnish policy on health promotion, international group of experts 2002[e]	Physical activity promotion not mentioned
Research related to sports and exercise, international group of experts 2003[f]	Health-related research very good from both scientific and practical point of view
Policy and actions promoting cycling recommended in the program of 1993, working group 1999[g]	Great part of the recommended measures had materialized or were progressing; substantial decrease of fatal accidents; effect on amount of cycling not known
Finland on the Move promotion program, Pyykkö et al. 1995[h]	Favorable results (support of local ideas and actions by "seed money" and other means, networking, multisectoral actions, etc.); effect on participation in physical activity not known
Fit for Life program, Anttila 1999[i] and Helakorpi et al. 2000[j]	Favorable and important experiences, the goal of increased participation in the target population was met
Action Program for Finnish Heart Health, Reunanen 2003[k]; Recommendations for local promotion of health-enhancing physical activity	Substantial progress in the direction of the recommended actions especially concerning physical activity; the recommendations for local promotion of physical activity were rather poorly known; influence on physical activity not known

Vuori I, Lankenau B, Pratt M. Physical Activity Policy and Program Development: The Experience in Finland. Public Health Reports 2004; 119: 331-345

Evaluation of Finland's HEPA policies and programmes

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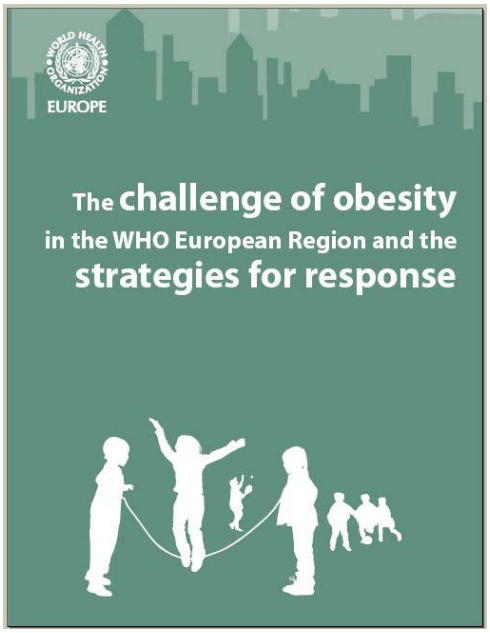
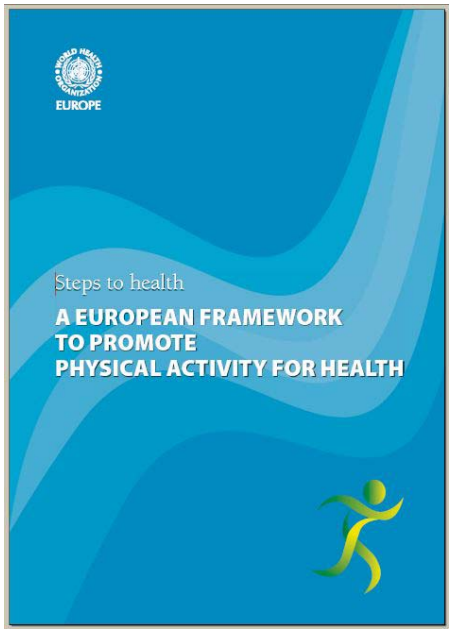
Vuori I, Lankenau B, Pratt M. Physical Activity Policy and Program Development: The Experience in Finland. Public Health Reports 2004; 119: 331-345

Barriers in implementing PA promotion strategies

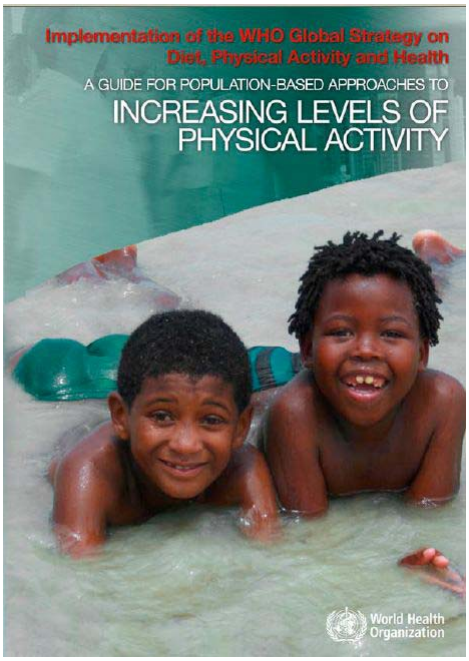
- Lack of governmental support
- Low profile of PA and poor understanding of its impact
- Lack of infrastructure
- Lack of leadership
- Inexperience in partnerships
- Competing demands
- Lack of resources and funding
- Need for training, guidelines and programme examples

Bull CF, Pratt M, Shephard RJ, Lankenau B. Implementing national population-based action on physical activity – challenges for action and opportunities for international collaboration. Promotion & Education 2006; 13: 127-132


EUROPE
The challenge of obesity
in the WHO European Region and the
strategies for response


EUROPE
Steps to health
A EUROPEAN FRAMEWORK
TO PROMOTE
PHYSICAL ACTIVITY FOR HEALTH

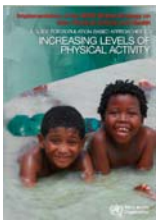
2007


Implementation of the WHO Global Strategy on
Diet, Physical Activity and Health
A GUIDE FOR POPULATION-BASED APPROACHES TO
INCREASING LEVELS OF
PHYSICAL ACTIVITY
World Health
Organization

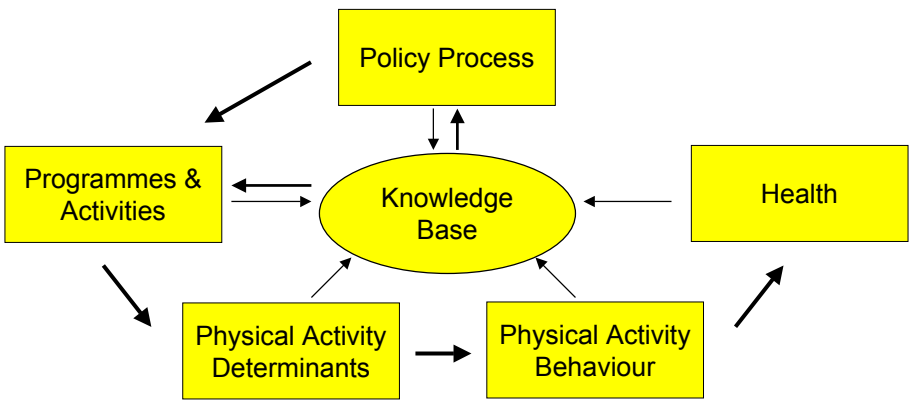
2007

Important elements of successful policies and plans

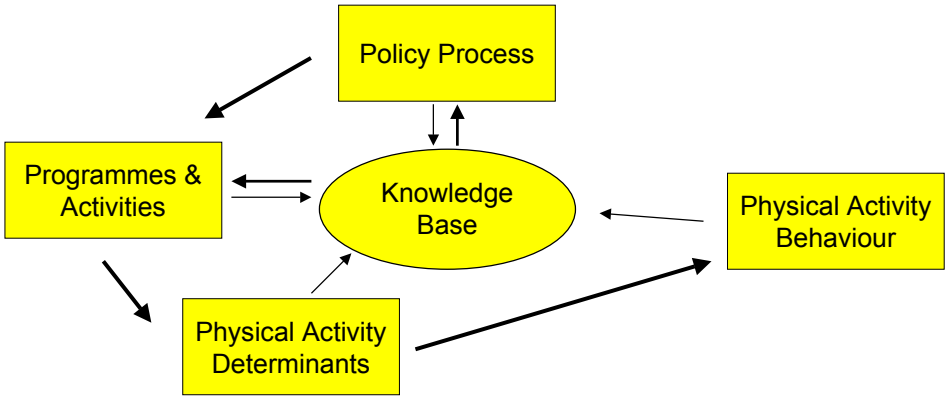
- High-level political commitment
- Integration in national policies
- Identification of national goals and objectives
- Overall health goals
- Objectives
- Funding
- Support from stakeholders
- Cultural sensitivity
- Integration of physical activity within other related sectors
- A coordinating team
- Multiple intervention strategies
- Target whole population as well as specific population groups
- Clear identity
- Implementation at different levels within "local reality"
- Leadership and workforce development
- Dissemination
- Monitoring and evaluation
- National physical activity guidelines



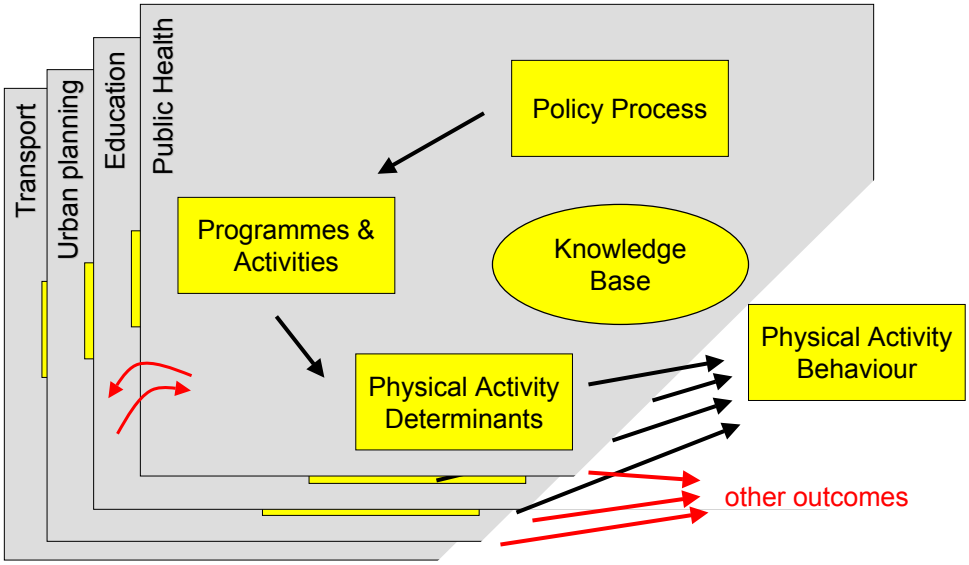
Framework for evidence-based HEPA Promotion



Framework for evidence-based PA Promotion



Framework for evidence-based PA Promotion



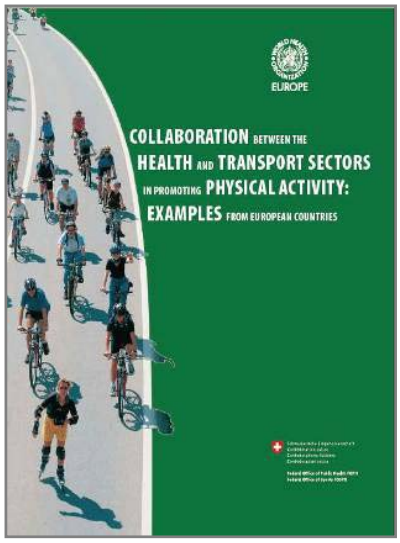
Examples of good practice in multi-sectoral approaches

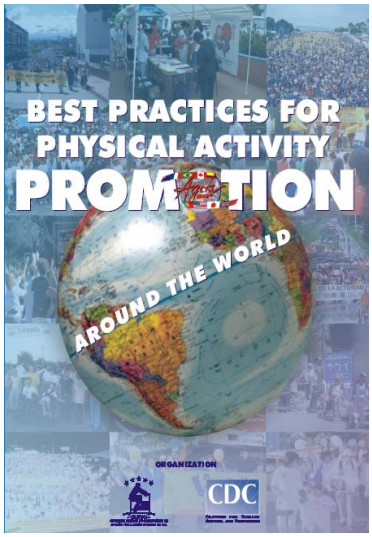
Sorocaba, Sao Paolo

Cortesia do Dr Vitor Lippi

Victor Matsudo in ICPAPH 2008 Symposium: Large scale and regional physical activity networks: getting the message through in developed and developing countries

Examples of good practice in multi-sectoral approaches





Multi-sectoral approaches in physical activity promotion

NICE guidance development as a multi-step process (similar to CDC community guide) including stakeholder involvement and fieldwork testing.

"Currently there is insufficient evidence to judge the impact of the evidence-based NICE guidance on the national level"

Fiona Bull. Evidence-based guidelines: policy and politics. In ICPAPH08 Symposium: Producing evidence-based guidelines on physical activity: a look behind the scenes

Multi-sectoral approaches in physical activity promotion

Qualitative study with 79 individuals from different sectors on the usefulness of the 2008 NICE guidelines.

"There is a risk of stating the bleeding obvious for our cross-sectoral partners"

→ how can we support and motivate other sectors to work with us?

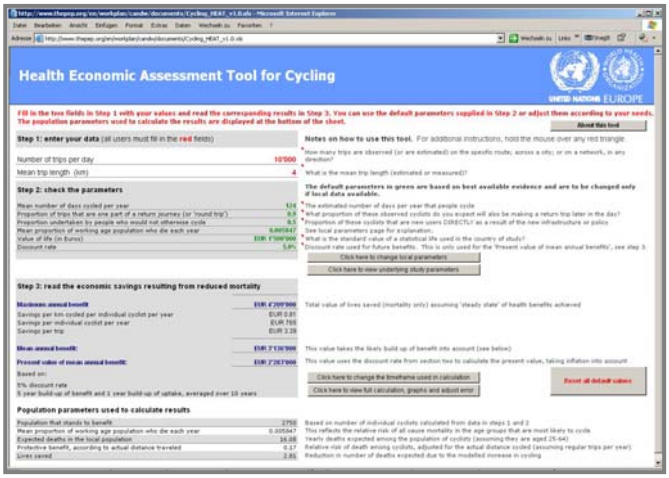
Nick Cavill. Turning evidence into guidance: exploring the views of stakeholders. In ICPAPH08 Symposium: Producing evidence-based guidelines on physical activity: a look behind the scenes

What do other sectors expect from us?

"Evidence on best practice and effectiveness of interventions"

Radomira Pliskova. Health promotion through implementation of the National Cycling Strategy and programs related to public health enhancement: the case of Czech Republic. In ICPAPH08 Symposium: Physical activity promotion: developments and directions for policy development in Europe

The role of evidence in multi-sectoral approaches



Harry Rutter. Economic appraisal of walking and cycling. In ICPAPH08 Symposium: Economic evaluation of physical activity interventions.

Comments to current state of EURO-PREVOB I

- Thorough review of literature on determinants and interventions covering most relevant sources
- Suggestion: reconsider structural approach
  - natural and built environment vs. built environment
  - Physical environment as determinant of obesity vs. physical environment as determinant of physical activity
- Limited number of publications on PA promotion policies, much ongoing work
- Suggestion: link up with ongoing PA projects
  - Content analysis of 27 national policy documents for PA promotion in the European region (HEPA Europe inventory)
  - HEPA Europe Conference Glasgow, 08.-10.09.08
  - NISB/HEPA Europe workshop on national PA promotion, November 2008, NL (preparation under way)

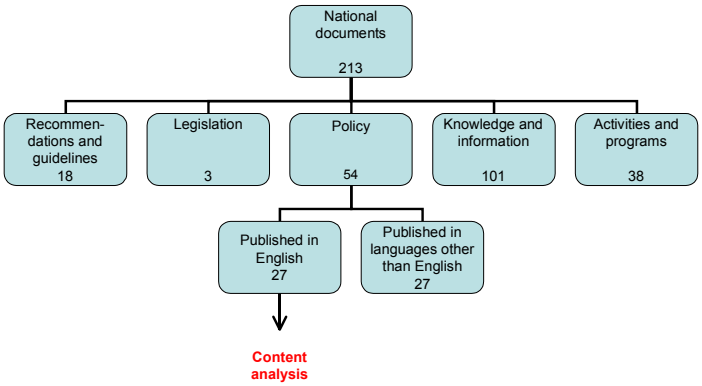
WORLD HEALTH ORGANIZATION EUROPE

Development of physical activity promotion policies in Europe: results of an analysis of 27 policy documents

Signe B. Daugbjerg[1], Sonja Kahlmeier[1], Francesca Racioppi[1], Eva Martin-Diener[2], Brian Martin[2], Pekka Oja[3], Fiona Bull[4]

1 WHO, European Centre for Environment and Health, Rome
2 Swiss Federal Office of Sports, Magglingen, Switzerland
3 UKK Institute for Health Promotion Research, Tampere, Finland and Karolinska Institute, Stockholm, Sweden
4 The British Heart Foundation's National Centre for Physical Activity and Health (BHFNC), Loughborough University, Loughborough, United Kingdom

Content analysis: methods (1)



Content analysis: methods (2)

Analysis grid

- Sectors and institutions involved
- Implementation
- Legal status
- Target groups
- Goals and targets
- Timeframe
- Budget
- Evaluation and surveillance

Content analysis: results (1)

Sectors and institutions involved in preparation of national policy	Nr.	%
	27	100
Collaboration between different sectors and institutions: **1) No collaboration (only one ministry and no other authority or body)**	**9**	**33**
2) Any collaboration between ministry and other ministry, authority or body a) between ministries, namely:	18	67
Ministry of Health/Sport* and Ministry of Transport	2	7
Ministry of Health/Sport*and Ministry of Environment	2	7
Ministry of Health/Sport* and Ministry of Education	3	11
Ministry of Health/Sport* and other Ministry	8	30
Only one Ministry (but possibly other forms of collaboration, see b) and c))	**18**	**67**
b) Any ministries and sub-national or local authorities	2	7
c) Any ministries and other body (NGO, project group, committee, private sector, experts etc.)	2	7

Annual Conference & Meeting of HEPA Europe

Glasgow, 08.-10.09.2008

www.sparcoll.org.uk

www.euro.who.int/hepa

Comments to current state of EURO-PREVOB II

- Policy analysis tools covers main areas
- However, consider:
  - Differences in role of political levels between countries, particularly role of the local level
  - Differences in roles of sectors
  - Differences in information flow between sectors
  - Differences in perception
  - Specificity of information on sectors
  - Specificity of information on legal status (binding vs. non-binding)
  - Budgetary implications
  - Operationalisation of questions
- Suggestion: Link up with similar PA-specific approaches

Comments to current state of EURO-PREVOB III

- Very ambitious timetable
- Suggestion: discuss objectives
  - e.g. establishment of structures for multi-sectoral approaches if no such structures exist
  - e.g. improvement of structures for multi-sectoral approaches if they exist
  - e.g. implementation if well-established structures for multi-sectoral approaches exist