Les opportunités qu'offre une ville pour bouger davantage – Physical activity promotion in the city

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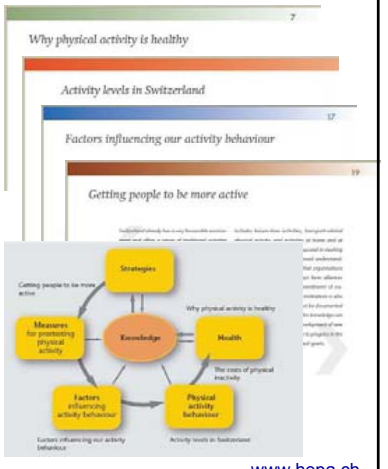
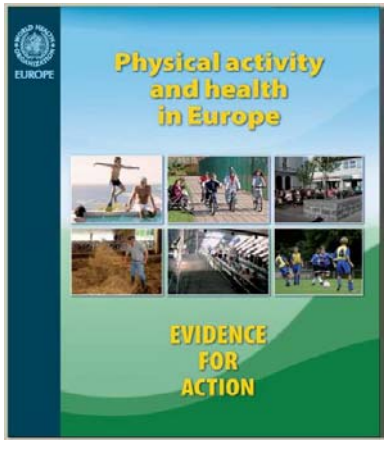
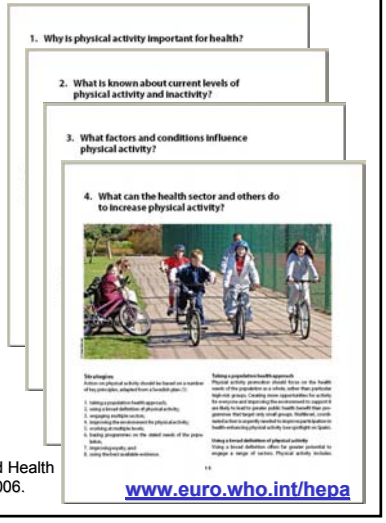
IUMSP - ISPA – LS série de colloques « Ville et santé», Lausanne, *29.09.2009*

Handout at www.physicalactivityandhealth.ch (-> presentations)



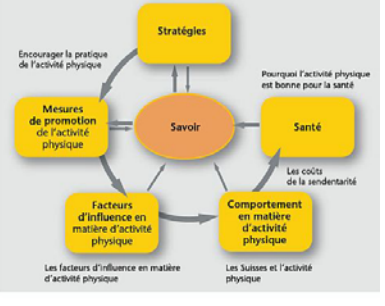
www.hepa.ch
www.physicalactivityandhealth.ch/documents





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

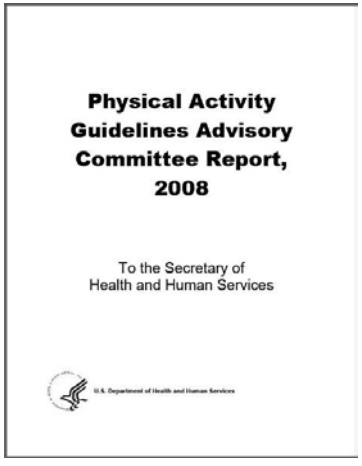
www.euro.who.int/hepa



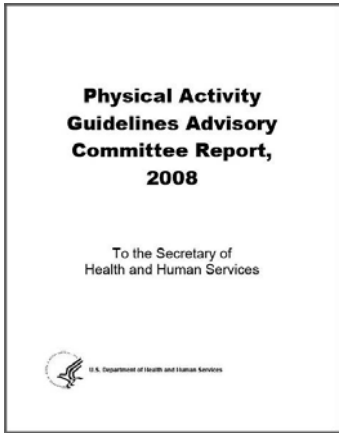
www.hepa.ch
www.physicalactivityandhealth.ch/documents

Physical Activity Guidelines Advisory Committee. Physical Activity Guidelines Advisory Committee Report, 2008. Washington, DC: U.S. Department of Health and Human Services, 2008.

www.health.gov/paguidelines



Overall Benefits of Physical Activity on Health



„Very strong scientific evidence based on a wide range of well-conducted studies shows that physically active people have higher levels of health-related fitness, a lower risk profile for developing a number of disabling medical conditions, and lower rates of various chronic diseases than do people who are inactive."

Health benefits of physical activity in adults

- ↑ Life expectancy
- ↑ Cardiorespiratory fitness
- ↑ Muscular fitness
- ↑ Healthy body mass
- ↑ Healthy body composition
- ↑ Bone health
- ⇧ Sleep quality
- ⇧ Health-related quality of life
- ↓ Coronary heart disease
- ↓ High blood pressure
- ↓ Stroke
- ↓ Diabetes type II
- ↓ Metabolic syndrome
- ↓ Colon cancer
- ↓ Breast cancer
- ↓ Depression

Additionally in older adults:

- ↑ Functional health
- ↑ Cognitive function
- ↓ Risk of falling

↑ *strong evidence*
⇧ *modest evidence*

Physical Activity Guidelines Advisory Committee. Physical Activity Guidelines Advisory Committee Report, 2008. Washington, DC: U.S. Department of Health and Human Services, 2008.

Health benefits of physical activity in children

- ↑ Physical fitness
  - ↑ Cardiorespiratory endurance
  - ↑ Muscular strength
- ↑ Health status
  - ↑ Favourable cardio-vascular risk profile
  - ↑ Favourable metabolic disease risk profile
  - ↑ Bone health
- ↓ Body fatness
- ↓ Anxiety symptoms
- ↓ Depression symptoms

↑ *strong evidence*
⇧ *modest evidence*

Physical Activity Guidelines Advisory Committee. Physical Activity Guidelines Advisory Committee Report, 2008. Washington, DC: U.S. Department of Health and Human Services, 2008.

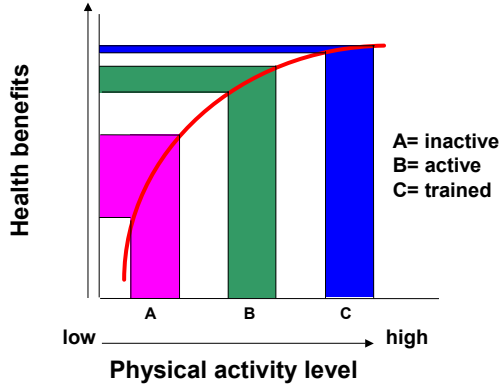
Pattern of Physical Activity and Health

- ⬆ "The dose-response curves for the major health benefits clearly indicate an inverse relation between the dose of activity and rate of disease."
- ⇧ "Although the minimum amount of activity needed to produce a benefit cannot be stated with certainty, nothing would suggest a threshold below which there are no benefits."
- ⬆ "Reasonably strong evidence demonstrates that participating in moderate to vigorous physical activity for more than 150 minutes per week is associated with greater health benefits for a variety of health outcomes (…). However, in a number of studies where such a dose response is observed (…), the relation appears to be curvilinear. This means that the absolute increase in benefits becomes less and less for any given increase in the amount of physical activity."

⬆ *strong evidence*
⇧ *modest evidence*

Physical Activity Guidelines Advisory Committee. Physical Activity Guidelines Advisory Committee Report, 2008. Washington, DC: U.S. Department of Health and Human Services, 2008.

Dose-response relationship for physical activity and health

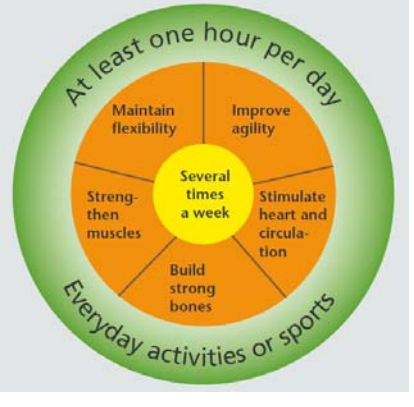


Source:selon Haskell, 1994

Swiss HEPA recommendations for adults

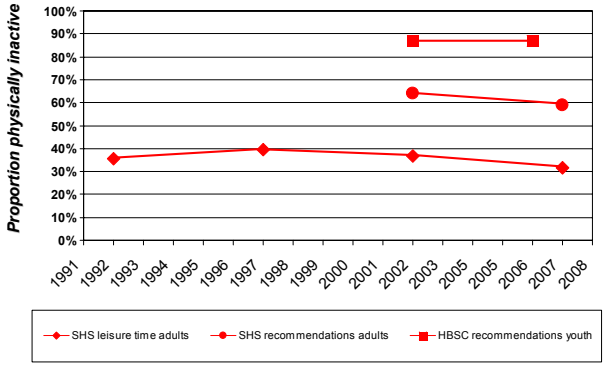
Federal Office of Sport, Federal Office of Public Health, Health Promotion Switzerland, Network HEPA Switzerland 1999

Swiss HEPA recommendations for school-aged children



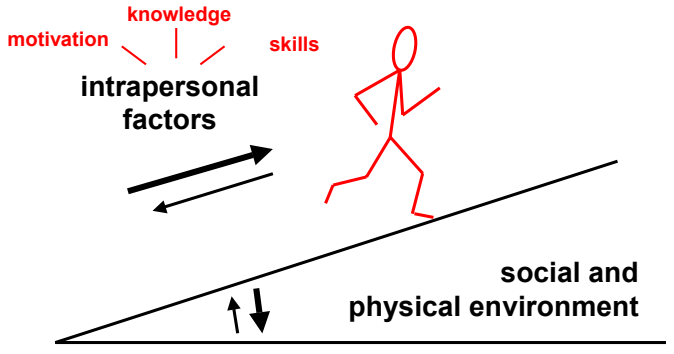
Federal Office of Sport, Federal Office of Public Health, Health Promotion Switzerland, Network HEPA Switzerland 2006

Physical activity behaviour over time



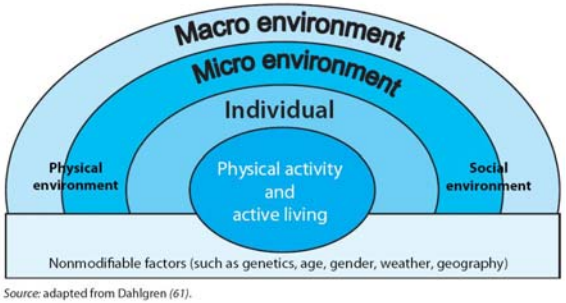
Martin BW, Mäder U, Stamm HP, Braun-Fahrländer C. Physical activity and health - what are the recommendations and where do we find the Swiss population? Schweiz Z Sportmed Sporttraumatol 2009: 57 (2); 37-43.

Determinants of (physical activity) behaviour



Martin BW, Martin E, Mengisen W. Promotion de l'activité physique: définir des stratégies intégrées en Europe. In Inserm. Activité physique et santé. Contextes et effets sur la santé. Expertise collective. Paris, Inserm 2008: 755-768.

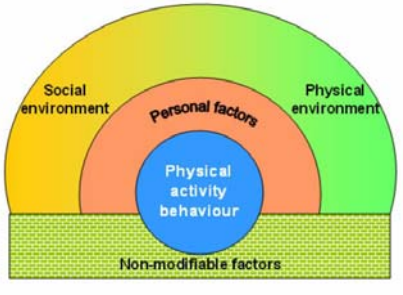
Determinants of physical activity behaviour



Source: adapted from Dahlgren *(61)*.

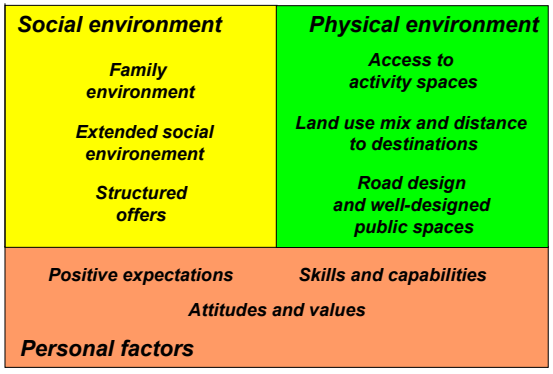
Cavill N, Racioppi F, Kahlmeier S. Physical Activity and Health in Europe. Evidence for Action. Copenhagen: WHO, 2006. www.euro.who.int/hepa

Determinants of physical activity behaviour



Swiss Federal Office of Sports, Swiss Federal Office of Public Health, Health Promotion Switzerland, Network HEPA Switzerland: Health-Enhancing Physical Activity. A Base Document. Magglingen: Swiss Federal Office of Sports, 2006. www.physicalactivityandhealth.ch/documents

Modifiable determinants of physical activity behaviour



Physically active at every age. General principles and suggestion for the promotion of sport and physical activity. Draft. www.physicalactivityandhealth.ch/drafts

Measures for promoting physical activity

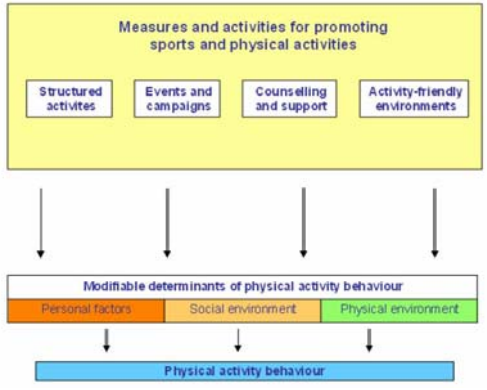


Figure 5. Measures to promote sport and physical activity. One measure can have an impact on multiple factors.

Physically active at every age. General principles and suggestion for the promotion of sport and physical activity. Draft. www.physicalactivityandhealth.ch/drafts

Measures and activities for promoting physical activity

➔ **Structured activities**

➔ **Events and campaigns**

➔ **Counselling and support**

➔ **Activity-friendly environments**

Swiss Federal Office of Sports, Swiss Federal Office of Public Health, Health Promotion Switzerland, Network HEPA Switzerland: Health-Enhancing Physical Activity. A Base Document. Magglingen: Swiss Federal Office of Sports, 2006.

Local seed money projects

- Community level physical activity promotion projects, financially supported by funds from the national level
- Successful in national physical activity programmes in Finland and England (~ 500-1000 US$/project)
- Opportunity for Swiss physical activity campaign planned for 2000

Local seed money projects Switzerland

- Opportunity for Swiss physical activity campaign planned for 2000
- No PA campaign but general health promotion campaign
- Seed money project carried out independently
  - 55'000 Swiss Francs (45'000 US$) to be distributed over ½ year, 1000 Francs (800 US$) per project
  - Project guide developed and made available in German, French and Italian
  - Minimal evaluation requirements; 500 Francs available after application, 500 Francs after final questionnaire

Martin B. Lokale Projektunterstützung Bewegung 2000 bis 2002. Bericht zum Projekt von Gesundheitsförderung Schweiz und des Bundesamts für Sport Magglingen. 2003

Local seed money projects Switzerland

Local seed money projects Switzerland 2000-2002

- Original objectives were not met, duration changed from ½ year to 2 years
- Still only 19'500 Swiss Francs out of 55'000 distributed
- Financial support appreciated, all other support hardly used
- The need for evaluation was not understood
  - Many projects did not collect second 500 Francs because they did not send in the final questionnaire
  - Only minority of projects took part in further quality control and only in most rudimentary way

Martin B. Lokale Projektunterstützung Bewegung 2000 bis 2002. Bericht zum Projekt von Gesundheitsförderung Schweiz und des Bundesamts für Sport Magglingen. 2003

Local seed money projects Switzerland 2000-2002

- Possible reasons for failure
  - National physical activity campaign cancelled
  - Financial incentives irrelevant in view of limited capacities for funding application as well as development and implementation of intervention projects
  - Limited understanding for benefits of evaluation

➔Capacity building should have higher priority

➔Better use of settings and more targeted interventions

Martin B. Lokale Projektunterstützung Bewegung 2000 bis 2002. Bericht zum Projekt von Gesundheitsförderung Schweiz und des Bundesamts für Sport Magglingen. 2003

Settings in physical activity promotion

"The "settings" approach has proved useful in the field of health promotion. This approach emphasizes the importance of the conditions and environments in which people live, learn, work and spend their leisure time. Focussing on settings enables good access to target groups, optimum use of resources and the coordination of measures and activities. (…)

The following settings have been found to be significant in relation to sport and physical activity:

- Family
- Educational establishments (kindergartens, schools)
- Sport and youth organisations
- Community
- Workplace
- Medical environment (general practice)"

Physically active at every age. General principles and suggestion for the promotion of sport and physical activity. Draft. www.physicalactivityandhealth.ch/drafts

Bike to work Switzerland

- Teams of four work colleagues have to cycle to work on 50% of working days during month of May. Team member don't have to cycle together.
- Good experiences in Scandinavia and Germany
- Pilot study in Switzerland in 2005, focussing on feasibility and acceptance both in participants and non-participants

Surbeck R, Martin-Diener E, Grize L, Spoerri A, Braun-Fahrländer C. Swiss bike-to-work campaign: Did we reach the intended population? Schweiz Z Sportmed Sporttraumatol, in press.

Bike to work Switzerland

- Pilot study in Switzerland in 2005, focussing on feasibility and acceptance both in participants and non-participants
  - Structured Interviews with random samples of participants (n=178) and non-participants (n=159)
  - Good acceptance in both groups
  - No differences regarding gender or education. Participants were younger, lived closer to work and were more frequently habitual cyclists
  - No differences regarding physical activity level.
  - 37.6% of participants had not used the bike for commuting to work prior to the campaign

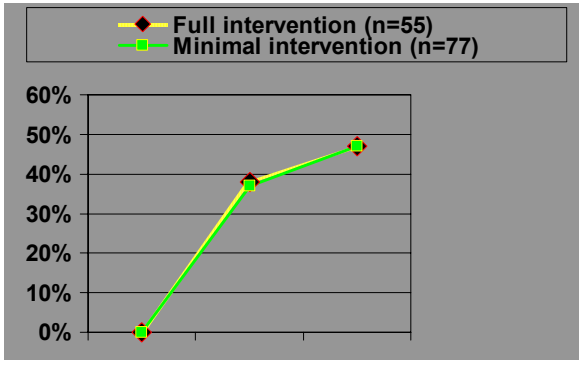
Surbeck R, Martin-Diener E, Grize L, Spoerri A, Braun-Fahrländer C. Swiss bike-to-work campaign: Did we reach the intended population? Schweiz Z Sportmed Sporttraumatol, 2009.

Bike to work Switzerland

- Teams of four work colleagues have to cycle to work on 50% of working days during month of May. Team member don't have to cycle together.
- Good experiences in Scandinavia and Germany
- Successful pilot study in Switzerland in 2005
- 2006: 400 enterprises, 21'547 participants
- 2007: 607 enterprises, 33'182 participants
- 2008: 873 enterprises, 45'581 participants
- 2009: 1095 enterprises registered
- Organisers keep using evaluation tools

Surbeck R, Martin-Diener E, Grize L, Spoerri A, Braun-Fahrländer C. Swiss bike-to-work campaign: Did we reach the intended population? Schweiz Z Sportmed Sporttraumatol, 2009.

Active upon advice efficacy study 2000/2001 - Effects after 6-8 weeks and 14 months



Proportion of active study participants

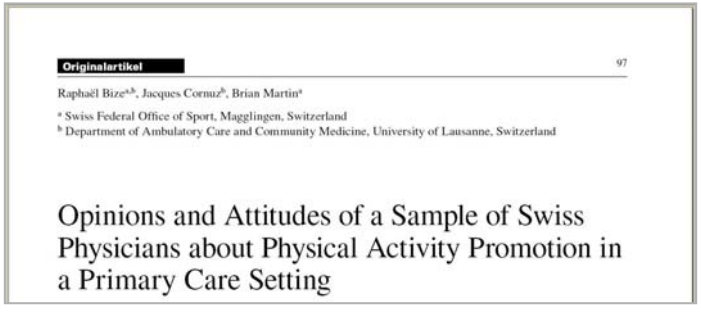
Jimmy G, Martin BW. Implementation and effectiveness of a primary care based physical activity counselling scheme. Patient Education and Counseling, 2005.

Physical activity counselling in primary care – the situation in Switzerland

- **Development of interventions based on international experiences, but adapted to local situation**
  - ➔ *Good acceptance in patients, GPs and other primary care staff*
  - ➔ *Indications for effectiveness*
  - ➔ *But: difficulty to recruit primary care partners*

Physical activity counselling in primary care – the situation in Switzerland

- **Development of interventions based on international experiences, but adapted to local situation**
- **Development of interventions for large-scale implementation**
  („Bridging the gap between research and practice")
  - ➔ *Research on GPs and other partners' needs and attitudes*
  - ➔ *Development of professional communication material*



Originalartikel 97

Raphaël Bize[a,b], Jacques Cornuz[b], Brian Martin[a]

[a] Swiss Federal Office of Sport, Magglingen, Switzerland
[b] Department of Ambulatory Care and Community Medicine, University of Lausanne, Switzerland

Opinions and Attitudes of a Sample of Swiss Physicians about Physical Activity Promotion in a Primary Care Setting

Schweizerische Zeitschrift für «Sportmedizin und Sporttraumatologie» 55 (3), 97–100, 2007

Attitudes towards Physical Activity Promotion in Primary Care
HEPA survey Switzerland 2004, n=811

„For you, how relevant is your GP's advice concerning your individual physical activity behaviour?"

	Desire for advice	*Importance of advice*	
Much welcomed	**47.5 %**	**50.5 %**	**very relevant**
Rather welcomed	**32.0 %**	**30.8 %**	**rather relevant**
Indifferent	**7.1 %**	**10.5 %**	**moderately relevant**
Rather disapproved	**5.9 %**	**4.2 %**	**of little relevance**
Clearly disapproved	**7.5 %**	**4.0 %**	**not relevant at all**

Bize R, Surbeck R, Padlina O, Peduzzi F, Cornuz J, Martin B. Promotion of physical activity in the primary care setting: The situation in Switzerland. Schweiz Z Sportmed Sporttraumatol 2008; 56 (3), 112–116.

Development of professional communication material

- Based on existing experiences and expert opinion
- Testing and focus groups with patients and GPs
- Co-operation with Swiss College of Primary Care Medicine

KOLLEGIUM FÜR HAUSARZTMEDIZIN
COLLÈGE DE MÉDECINE DE PREMIER RECOURS
COLLEGIO SVIZZERO DI MEDICINA DI BASE
COLLEGE OF PRIMARY CARE MEDICINE

- Testing of procedures and materials in 19 primary care practices in French speaking and 6 in German speaking Switzerland
- Final adaptations in procedures and material

Bize R, Surbeck R, Padlina O, Peduzzi F, Cornuz J, Martin B. Promotion of physical activity in the primary care setting: The situation in Switzerland. Schweiz Z Sportmed Sporttraumatol 2008; 56 (3), 112–116.

Development

ALLEZ HOP
Bewegen. Mit Spass

- **1996: Launched by three health insurance companies and Swiss Olympic**
- **2003: public-private partnership:**
  - » **Federal Office of Sport**
  - » **Health Promotion Switzerland**
  - » **Swiss Olympic**
  - » **santésuisse (association of Swiss Health Insurances)**

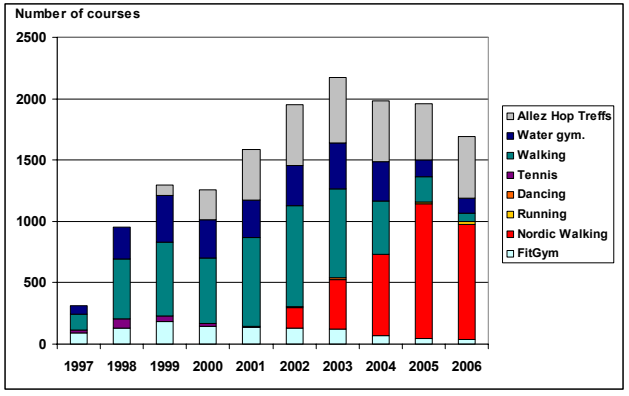
Martin-Diener E, Wanner M et al. Allez Hop: Did Switzerland „get moving" after a decade of a national physical activity promotion programme? 2nd ICPAH Congress, Amsterdam, 15.04.2008

The programme Allez Hop

- **Weekly lessons during ten week courses, qualified instructors**
- **National programme**
- **At the beginning in collaboration with sports clubs and associations; later also with independent instructors**
- **Up to 20‘000 participants per year, 90% female**

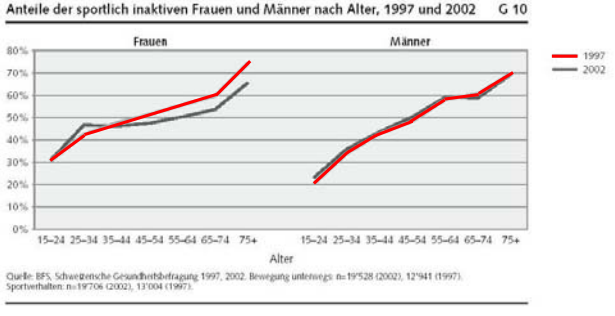
Martin-Diener E, Wanner M et al. Allez Hop: Did Switzerland „get moving“ after a decade of a national physical activity promotion programme? 2nd ICPAH Congress, Amsterdam, 15.04.2008

Course development



Martin-Diener E, Wanner M et al. Allez Hop: Did Switzerland „get moving“ after a decade of a national physical activity promotion programme? 2nd ICPAH Congress, Amsterdam, 15.04.2008

“Inactivity in sports” in the Swiss Health Surveys 1997 und 2002



Lamprecht M, Stamm HP. Bewegung, Sport, Gesundheit. Fakten und Trends aus den Schweizerischen Gesundheitsbefragungen 1992, 1997, 2002. StatSanté, Resultate zu den Gesundheitsstatistiken in der Schweiz, 1/2006.

Most popular sports in Switzerland 2007

	level 2007	change since 2000
Bicycle, mountainbike	35.0%	+3.2%
Walking/hiking*	33.7%	+11.1%
Swimming	25.4%	-0.9%
Skiing	21.7%	+3.8%
Jogging/running	16.8%	-0.8%
Fitness training	14.0%	+2.5%
Gymnastics	11.7%	-5.3%

*47% nordic walking; 20% walking; 33% brisk walking

Lamprecht M, Fischer A, Stamm HP. Sport Schweiz 2008: Das Sportverhalten der Schweizer Bevölkerung. Magglingen, BASPO 2008

Allez Hop

- **The programme has reached insufficiently active middle aged women for a decade**
- ***Allez Hop* is the top evaluated physical activity promotion programme in Switzerland**
- **First indications for effects at population level**
- **Evaluation supported a continuous programme development for more than 10 years**
- **Currently continued only at the regional level**

Martin-Diener E, Wanner M et al. Allez Hop: Did Switzerland „get moving" after a decade of a national physical activity promotion programme? 2nd ICPAH Congress, Amsterdam, 15.04.2008

Example for identified projects: Reconstruction of an existing road (Wabern, Switzerland)

before after

Thommen O, Braun Ch. Effectiveness of transport interventions to promote Human Powered Mobility (HPM) or daily physical activity Executive Summary of the Intermediate Report, December 2003.

Comparison of adult physical activity levels in three Swiss alpine communities with varying access to motorized transportation

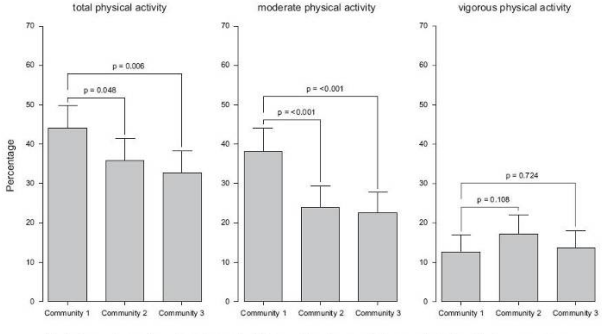


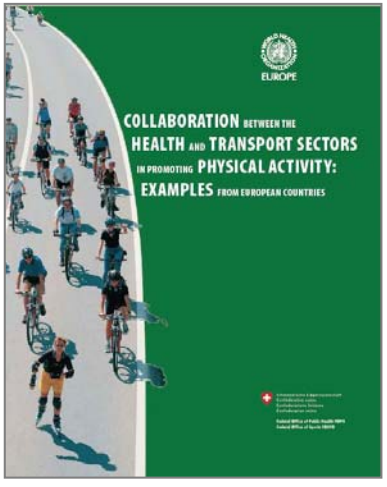
Fig. 1. Age- and sex-adjusted prevalence of sufficient total, moderate and vigorous physical activity by community.

Thommen Dombois O, Braun-Fahrländer Ch, Martin-Diener E. Health & Place, in press.

Measures and activities for promoting Human-Powered Mobility

- ➔ **Activity-friendly environments**
- ➔ **Campaigns and events**
- ➔ **Structured activities, counselling and support**
- ➔ **Financial incentives**

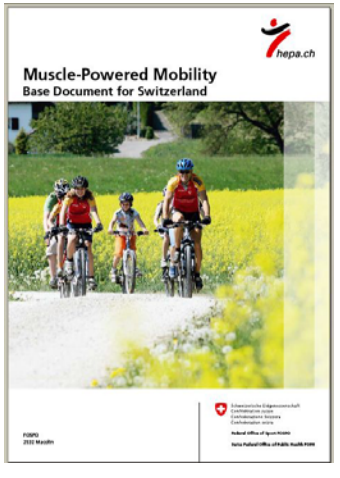
Swiss Federal Office of Sports, Swiss Federal Office of Public Health, Network HEPA Switzerland: Muscle-Powered Mobility. Base Document for Switzerland. Magglingen: Swiss Federal Office of Sports, 2008.



www.euro.who.int/hepa

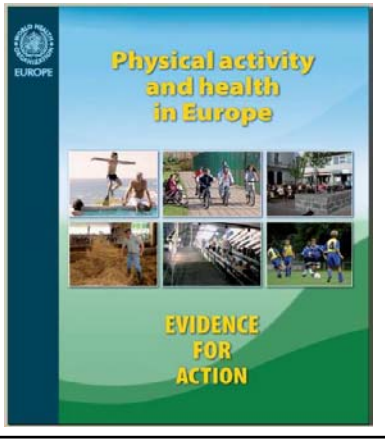
The Health Economic Assessment Tool HEAT for Cycling

www.euro.who.int/hepa



www.physicalactivityandhealth.ch/documents

Overview and highlights of effective approaches



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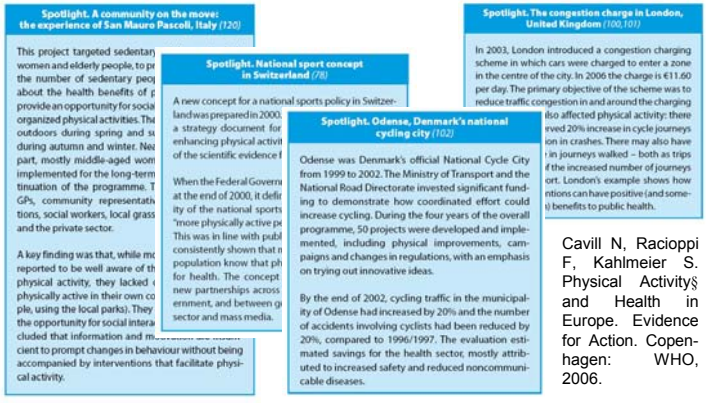
www.euro.who.int/hepa

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 peo… about the health benefits of … provide an opportunity for socia… organized physical activities. The… outdoors during spring and s… during autumn and winter. Nea… part, mostly middle-aged wom… implemented for the long-term… tinuation of the programme. T… GPs, community representati… tions, social workers, local grass… and the private sector.

A key finding was that, while m… 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 activi… of the scientific evidence …

When the Federal Govern… at the end of 2000, it defi… ity of the national sports … "more physically active pe… This was in line with publ… consistently shown that … 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.

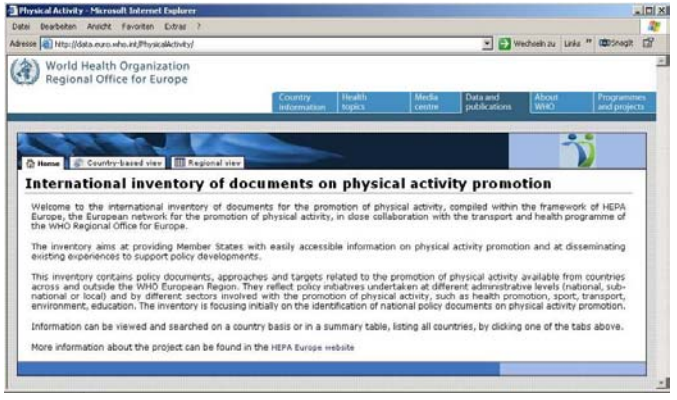
By the end of 2002, cycling traffic in the municipality of Odense had increased by 20% and the number of accidents involving cyclists had been reduced by 20%, compared to 1996/1997. The evaluation estimated savings for the health sector, mostly attributed to increased safety and reduced noncommunicable 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 … lso affected physical activity: there … rved 20% increase in cycle journeys … ion in crashes. There may also have … in journeys walked – both as trips … f the increased number of journeys … ort. London's example shows how … ntions can have positive (and some- …) benefits to public health.

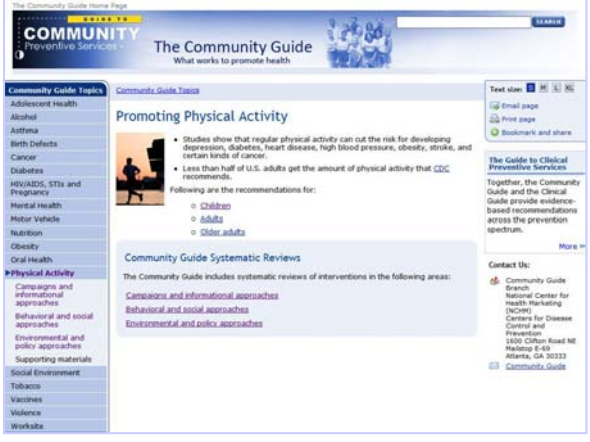
Cavill N, Racioppi F, Kahlmeier S. Physical Activity§ and Health in Europe. Evidence for Action. Copenhagen: WHO, 2006.

Inventory of approaches in physical activity promotion



www.euro.who.int/hepa

PA promotion guidance based on international evidence

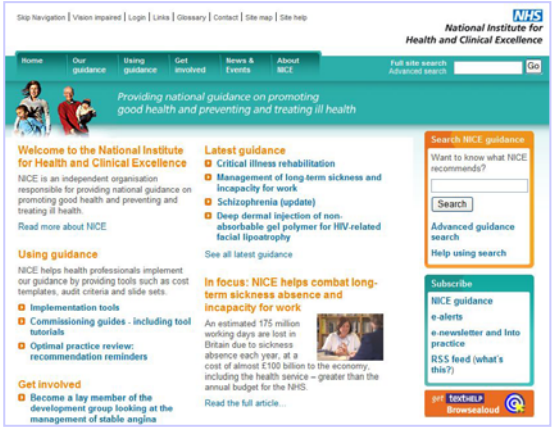


www.thecommunityguide.org/pa

PA promotion guidance based on international evidence

www.cbpp-pcpe.phac-aspc.gc.ca

PA promotion guidance based on international evidence



www.nice.org.uk

PA promotion guidance based on international evidence

www.nice.org.uk

PA promotion guidance based on international evidence

www.nice.org.uk

Conclusions

- There is well established evidence for the health effects of physical activity
- Physical inactivity is a public health problem
- There is evidence for the effectiveness of a series of interventions
- The city and related settings play a key role in promoting physical activity
- Further evaluation and research is needed to quarantee the optimal use of resources and to monitor progress at the population level