

# Surveillance of physical activity levels and patterns in the European Union

An overview of international  
and national surveys



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# Outline presentation

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- Purpose
- Methodology
- Results international surveys
- Results national surveys
- Conclusions and challenges

# Purpose

- To give an overview of:
  - international and national surveys on physical (in)activity levels and patterns in the EU countries;
  - the surveillance methods used;
  - experienced challenges



# Methodology

- An initial search, using publicly accessible, mostly internet-based sources
- Main source: WHO Global Infobase
- Additional:
  - HIS/HES database;
  - Already available overview reports (EUPASS, OECD report, EC Inventory report);
  - Targeted internet searches on relevant websites (HBSC, Eurostat, national institutions);
  - Expert input
- Note that it is work in progress, to be completed with the input of WHO National Focal Points and additional searches



# Results international surveys

- FINBALT Health Monitor 1990
- European Health and Behaviour Survey 1992
- Health behaviour of School Children Survey 1993/94
- Physical activity levels en body weight in a nationally representative sample in the EU. 1997
- European Physical Activity Surveillance System (EUPASS) 2000
- World Health Survey 2003
- Eurobarometer 58.2 2003
- Eurobarometer 62 2004
- Eurobarometer 64.3 2006
- Eurobarometer 67.3 2007
- European Health Interview Survey 2007

# The International Physical Activity Questionnaire (IPAQ)

- Development started in 1997
- Purpose: have an international PA questionnaire that is:
  - Valid and reliable
  - Culturally relevant
  - Good match with country needs
  - For population surveillance and comparison

## IPAQ, *cont.*

- Two versions: **short (for population surveillance)** and long (for research)
  - **Short: vigorous, moderate, walking, sitting**
  - Long: domain specific
- Validity and reliability tested
- Used in many countries worldwide - examples: World Health Survey (51 countries), Eurobarometer 58.2 and 64.3 (15/25 countries)

# The Global Physical Activity Questionnaire (GPAQ)

- Originally developed for the WHO STEPwise approach to chronic disease risk factor surveillance (STEPS)
  - IPAQ short considered too short and not domain specific
  - IPAQ long considered too long and for research purposes
- Early version of GPAQ 2001
- Validity and reliability tested
- Current version: GPAQ 2 developed in 2005
- Since then used in many countries worldwide - examples:  
STEPS (58 countries), SAGE (6 countries)



# GPAQ, *cont.*

- 16 questions assessing different types of PA undertaken in 3 domains + sitting



## **work**

- Vigorous
- Moderate

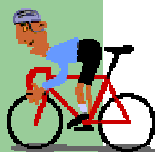
- # days in a typical week
- duration on a typical day



## **transport**

- Cycling & Walking

- # days in a typical week
- duration on a typical day



## **sport, recreation, leisure**

- Vigorous
- Moderate

- # days in a typical week
- duration on a typical day

## **sedentary**

- Sitting

- time spent sitting on a typical day

# Results international surveys

- Many international surveys include IPAQ short items
- GPAQ is not used
- HBSC is the only international survey identified for young people



# Results international surveys

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# International Survey

- Health Behaviour of School Children Survey
- Included countries: EU 25
- Years: 1993/94, 1997/98, 2001/02, 2005/06
- Age range: 11, 13, 15
- Method: written questionnaire in the classroom

*Items from the last survey:*

- *time spent on moderate to vigorous physical activity per day*
- *time spent watching TV during weekdays*



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# International Surveys

- European Physical Activity Surveillance System (EUPASS)
- Included countries: 8
- Year: 1999/2000
- Age range: 18-85
- Method: telephone interviewing

*- first 6 items from IPAQ short*

*Additional items:*

*- pace of walking*

*- time spent sitting in the last 7 days during a weekday/ weekendday*

*- frequency of PA at work/when moving from place to place/when working in and around the house/in recreation, sport and leisure-time activities*



# Results international surveys

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# International surveys

- Eurobarometer 58.2 / Eurobarometer 64.3
- Included Countries: 15 / 25
- Year: 2003 / 2006
- Age: 15+
- Method: face-to-face interview

- first 6 IPAQ short items

*Additional items:*

- time spent sitting during a usual workday

- frequency of PA at work/when moving from place to place/when working in and around the house/in recreation, sport and leisure-time activities

# International surveys

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- Year: 2003 / 2006
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- Method: face-to-face interview

*first 6 IPAQ short items*

*Additional items:*

*time spent sitting during a usual workday*

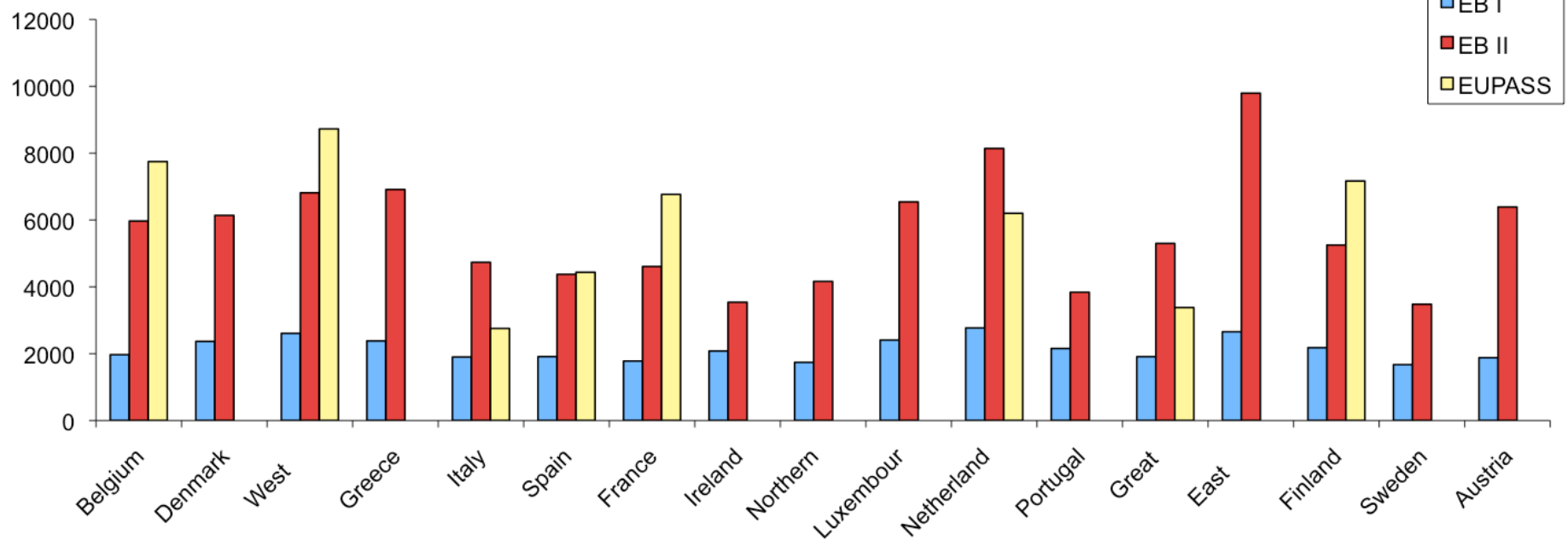
*frequency of PA at work/when moving from place to place/when working in and around the house/in recreation, sport and leisure-time activities*

But....



# Comparison EUPASS and Eurobarometers

Total MET's per week, Comparison EB I + EB II + EUPASS (Mean)





## Results national surveys

- For 19 EU countries information about national surveys obtained
- Information has not yet been identified for:  
*Bulgaria, Greece, Hungary, Luxembourg, Poland, Romania, Slovakia, Slovenia*
- On children only for a few countries national survey identified:  
*Cyprus, Italy, Netherland, Spain, UK/England, UK/Wales, UK/Scotland*
- 5 countries (*Austria, Belgium, France, Ireland, Portugal*) used IPAQ in their national surveys
- Most of the countries composed their sets of measured items differently



## Country example: Austria

- Name: Austrian Health Interview Survey
- Year: 2006 (1983, 1991, 1999)
- Age: 15+
- Method: face to face interview
  
- Measured items:

- *7 items IPAQ short*
- *total time spent on MPA/VPA in the last 7 days*
- *total time spent walking in the last 7 days*
- *description of leisure time activities*



## Country example: Spain

- Name: National Health Survey for Children/Adults
- Year: 2006 (irregularly since 1987)
- Age: 0-15/16+
- Method: Interviewer administered questionnaire
- Measured items Adults

*- intensity of physical activity at work*  
*- participation in regular physical activities during free time*  
*- times in the last 2 weeks on which one has done light/moderate/intense physical activities for at least 20 minutes*



# Country example: Spain

- Measured items Children (reported by parents):

- *frequency with which the child performs any kind of physical activity in its free time*
- *watching television every day or almost every day (same item for playing videogames or use computer)*
- *time spent per day watching television on weekends/during week days (same item for playing videogames or use computer)*

# Conclusions and challenges

- Overall picture:
  - All assessed surveys were based on subjective measurements of PA levels
  - Only a few countries include children in the PA component of their national surveys
  - Frequent use of non-standardized instruments in national surveys. Some used over long time period; time series available.
  - Different definitions of physical activity as well as recommendations for sufficient physical activity for health are used
  - Lack of comparability of physical activity/inactivity measurements within and across countries
- National surveys seem currently less useful for cross country comparison than international surveys, due to variety in measured items and use of non-standardized instruments

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  - Different definitions of physical activity as well as recommendations for sufficient physical activity for health are used
  - Lack of comparability of physical activity/inactivity measurements within and across countries
- National surveys are currently not very useful for cross country comparison, due to variety in measured items and use of non-standardized instruments