

WHO Childhood Obesity Surveillance Initiative

Dr. João Breda PhD, MPH, MBA

Programme Manager
Nutrition, Physical Activity and Obesity

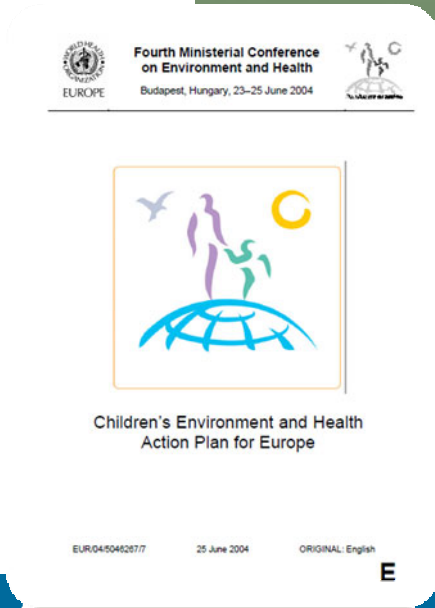
World Health Organization - Regional Office for Europe



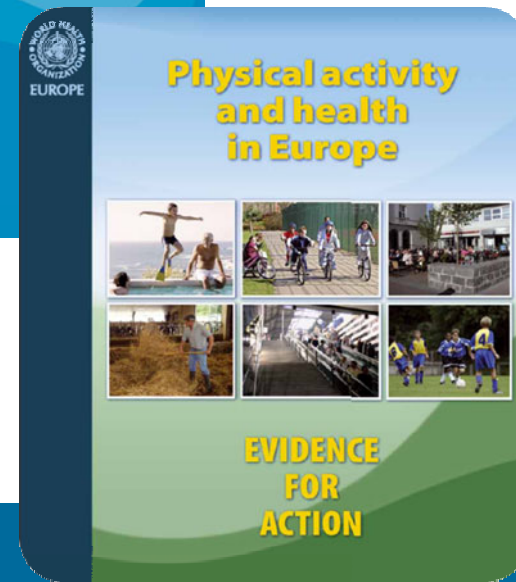
**World Health
Organization**

REGIONAL OFFICE FOR **Europe**

WHO/EUROPE: mandate for action



WHO EUROPEAN ACTION PLAN FOR FOOD AND NUTRITION POLICY 2007-2012



WHO European Ministerial Conference on Counteracting Obesity

- Only around 25% of Member States had validated national prevalence data on overweight or obesity in primary school children
- Measurement tools, calculation and presentation of data not standardized
 - Measured versus self-reported data
 - National versus sub-national data
 - Definitions used for overweight and obesity
 - Age classification: children 0-9 yrs; adolescents 10-19 yrs
- Difficult to monitor time trends, make international comparisons and evaluate effectiveness of interventions



A young boy with brown hair, wearing a grey t-shirt and patterned shorts, is running barefoot in the ocean waves. The water is a vibrant greenish-blue, and white foam from the waves is splashing around his feet. The background shows the open sea under a clear sky.

WHO European Childhood Obesity Surveillance Initiative

Member States Action Network

170 000 children involved



**World Health
Organization**

REGIONAL OFFICE FOR **Europe**

Prevalence of overweight and obesity among 6–9-year-old children in twelve European countries

Overweight among European school children



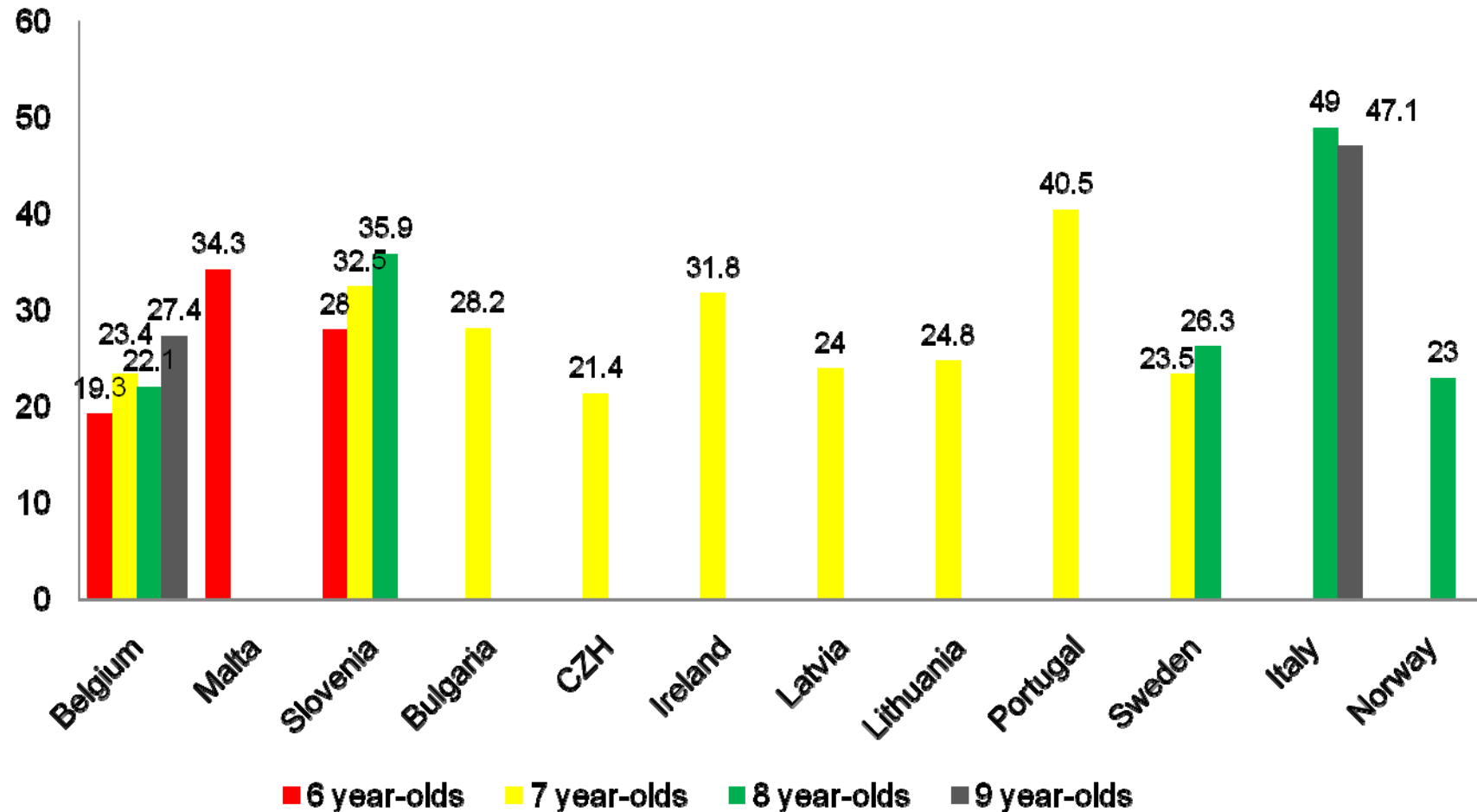
World Health
Organization

REGIONAL OFFICE FOR
Europe

- *Background* – Nutritional surveillance in school-age children and adolescents, based on measured weight and height, is not common in the European Region of the World Health Organization (WHO). Therefore, the WHO Regional Office for Europe has initiated the WHO European Childhood Obesity Surveillance Initiative (COSI).
- *Objective* – To present the anthropometric results of the first data collection round (2007/2008) and to investigate whether there exist differences in mean values and prevalence estimates across countries and systematic gender differences.
- *Methods* – Weight and height were measured of children aged 6–9 years in twelve countries.
- *Results* – Based on the 2007 WHO growth reference, the prevalence of overweight varied from 19.3% to 49.0% in boys and from 18.4% to 42.5% in girls, whereas the prevalence of obesity varied from 6.0% to 26.6% in boys and from 5.1% to 17.3% in girls. The high prevalence of overweight found in Italy, Portugal and Slovenia differed significantly from most other countries.
- *Conclusions* – WHO and IOTF criteria resulted in different prevalence estimates. Mean and median BMI values as well as the shape of the BMI distribution may therefore be better options than population-based prevalence estimates for the development of policies and action plans.

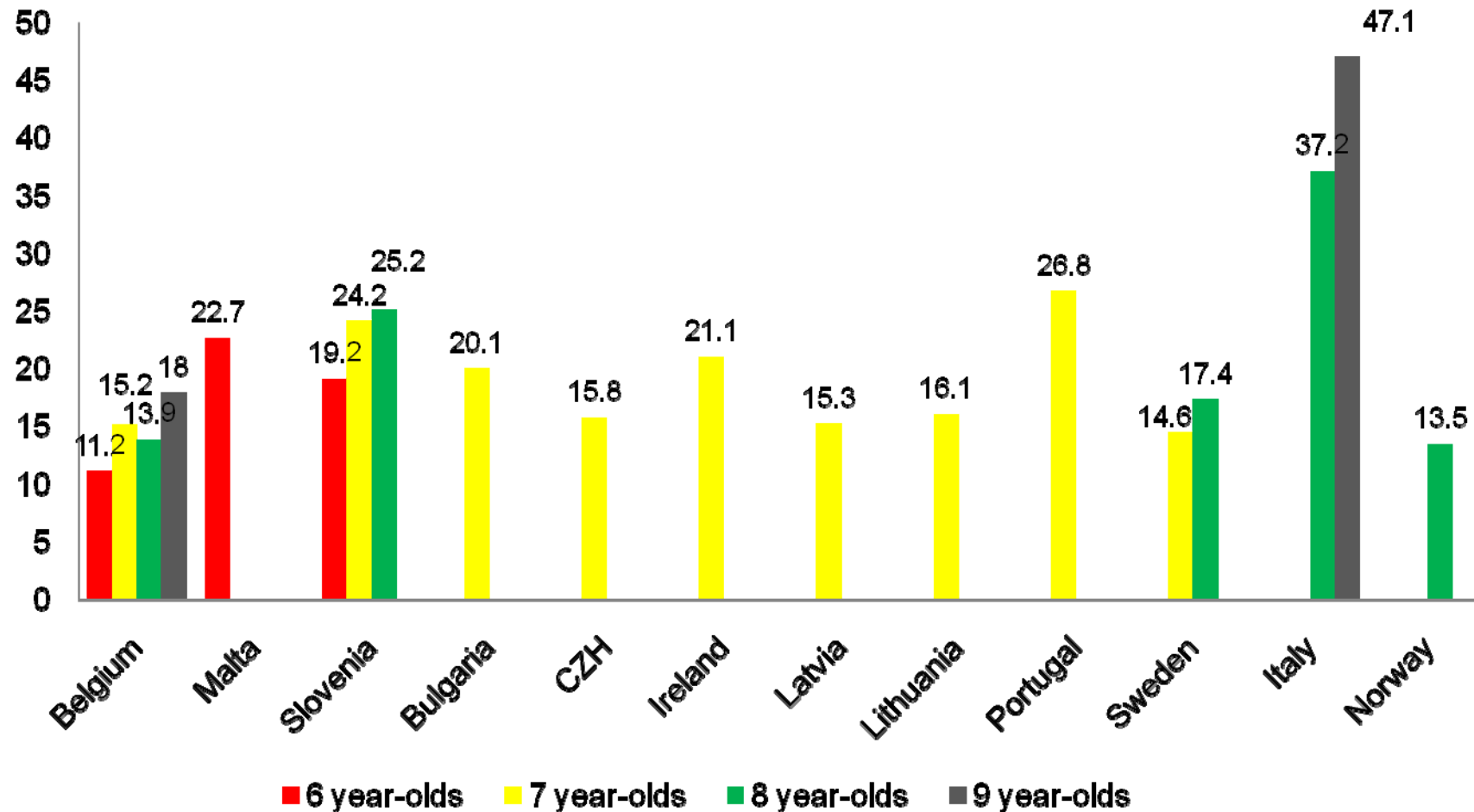
Prevalence of overweight, incl. obesity – boys %

Based on the 2007 WHO growth reference for children and adolescents 5-19 years



Prevalence of overweight, incl. obesity – boys %

Based on the IOTF criteria



Participants

- 13 countries participated in the first data collection round: Belgium (Flemish region), Bulgaria, Cyprus, Czech Republic, Ireland, Italy, Latvia, Lithuania, Malta, Norway, Portugal, Slovenia and Sweden.
- New countries, such as Greece, Hungary, Spain and the Former Yugoslav Republic of Macedonia, joined the second data collection round.

Action tools to help implementation

- Baby friendly hospital initiative
- Nutrition friendly school initiative
- Action Network on Health inequalities
- To further monitor the situation:
 - COSI
 - Joint WHO/EC Monitoring project

Why establishment European childhood obesity surveillance initiative?

- Harmonization of data collection for inter-country comparisons
- Key to stimulate adequate political response and policies
- Routine data provide most robust information
- Monitor progress of achievement of the goals set in the Charter and Action Plan

Purpose

- COSI aims to measure trends in overweight and obesity in primary school children at regular intervals
 - to fill the current gap in available inter-country comparable data on the nutritional status of primary-school children.
 - to have a correct understanding of the progress of the epidemic.
 - to monitor routinely the policy response to the emerging obesity epidemic.

Implementation (1)

- **April 2007:**

Draft protocol shared with interested countries.

- **June 2007:**

First official COSI meeting in Paris, France.

- **Fall 2007:**

Finalization pilot protocol for first data collection period.

- **December 2007:**

Second COSI meeting in Maceira, Portugal to discuss final questionnaires and sampling designs.

- **School year 2007/2008:**

First data collection round by 13 European countries: Belgium, Bulgaria, Cyprus, Czech Republic, Ireland, Italy, Latvia, Lithuania, Malta, Norway, Portugal, Slovenia and Sweden.

Implementation (2)

- **June 2009:**

Third COSI meeting in Copenhagen, Denmark to discuss experiences gained, challenges faced, lessons learnt during the first round as well as to present data management process.

- **February 2010:**

Fourth meeting in Rome, Italy to discuss preliminary cross-country analyses, reporting of the 1st round and preparations for 2nd round (school year 2009/2010).

- **Spring-Autumn 2010:**

Second round; new countries will join like Greece and The former Yugoslav Republic of Macedonia

- **July 2011**

Fifth Meeting in Lisbon

National implementation



**World Health
Organization**

REGIONAL OFFICE FOR **Europe**

Surveillance system integration or new First round school year 2007/2008

- New data collection
 - Bulgaria
 - Ireland
 - Latvia
 - Lithuania
 - Norway
 - Portugal
 - Sweden
- Integration with current systems
 - Belgium
 - Cyprus
 - Czech Republic
 - Italy
 - Malta
 - Slovenia

Study population and setting

- Nationally representative sample of primary schools or classes
 - Some countries took a population-based approach: Belgium, Cyprus and Malta
- Children aged 6, 7, 8 and/or 9-year-olds
- Per age group, 2800 children

Targeted age range

Countries	6.0 – 6.9 yrs	7.0 – 7.9 yrs	8.0 – 8.9 yrs	9.0 – 9.9 yrs
Belgium	√	√	√	√
Bulgaria		√		
Cyprus	√			√
Czech Republic		√		
Ireland		√		
Italy			√	√
Latvia		√		
Lithuania		√		
Malta		√		
Norway		√	√	
Portugal		√		
Slovenia	√	√	√	√
Sweden		√	√	



**World Health
Organization**

REGIONAL OFFICE FOR **Europe**

Core items – to be collected by all participating countries

- Child
 - body weight and height; measured by trained fieldworkers and standardized according to a common protocol.
- School
 - frequency of physical education lessons
 - availability of school playgrounds
 - possibility of obtaining a number of listed foods and drinks on the school premises
 - existence of school initiatives organized to promote a healthy lifestyle

Optional items – to be collected on a voluntary basis

- Child
 - waist and hip circumference
 - dietary intake patterns: food frequency, breakfast, breastfeeding
 - physical (in)activity patterns: transport to school, membership of sport or dancing club, frequency of in free time playing outside, doing homework or reading a book, using a computer for playing games, watching television (incl. videos), usual amount of sleep each day

Optional items – to be collected on a voluntary basis

- Family
 - morbidity
 - socioeconomic status
- School
 - availability of safe school routes
 - school bus transport
 - nutrition education included in the school curriculum
 - school meals
 - vending machines
 - availability of fruit/vegetable/milk schemes

Data availability: prevalence of overweight and obesity as of 2000

Adolescents 10-19 years:

- Measured – 14 countries
- Self-reported – 4 countries
- Health Behaviour in School-Aged Children Study (HBSC) – 26 countries
- Pro-Children study - 6 countries

Future:

- Sustainability and funding in MS
- More countries (TJK, TUR, ROM, UZK, KAZ, ALB.....)
- Other groups – adolescents
- Identify gaps and integrate common installed capacity
- Double burden of malnutrition

Team

Trudy MA Wijnhoven, Joop MA van Raaij, Angela Spinelli, Harry Rutter, Machteld Wauters, Stefka Petrova, Eliza Markidou, Marie Kunesova, Ursula O'Dwyer, Iveta Pudule, Ausra Petrauskiene, Victoria Farrugia Sant'Angelo, Ragnhild Hovengen, Jørgen Rajan Meisfjord, Ana Rito, Gregor Starc, Agneta Sjöberg, Agneta Yngve, Viktoria Anna Kovacs, Maria Chassapidou, Napoleon Perez, Vladimir Kendrovski, João Breda



**World Health
Organization**

REGIONAL OFFICE FOR **Europe**

Thank you for your attention

For further information:

jbr@euro.who.int

twi@euro.who.int



World Health
Organization

REGIONAL OFFICE FOR
Europe

www.who.int or www.euro.who.int



**World Health
Organization**

REGIONAL OFFICE FOR **Europe**