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# Making nutrition education part of a broader strategy to combat nutrition-related diseases



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- Nutrition-related diseases are complex, with long-term implications and high costs, particularly for disadvantaged groups:
  - This requires a multifaceted, integrated response
    - Including nutrition education

# Overview

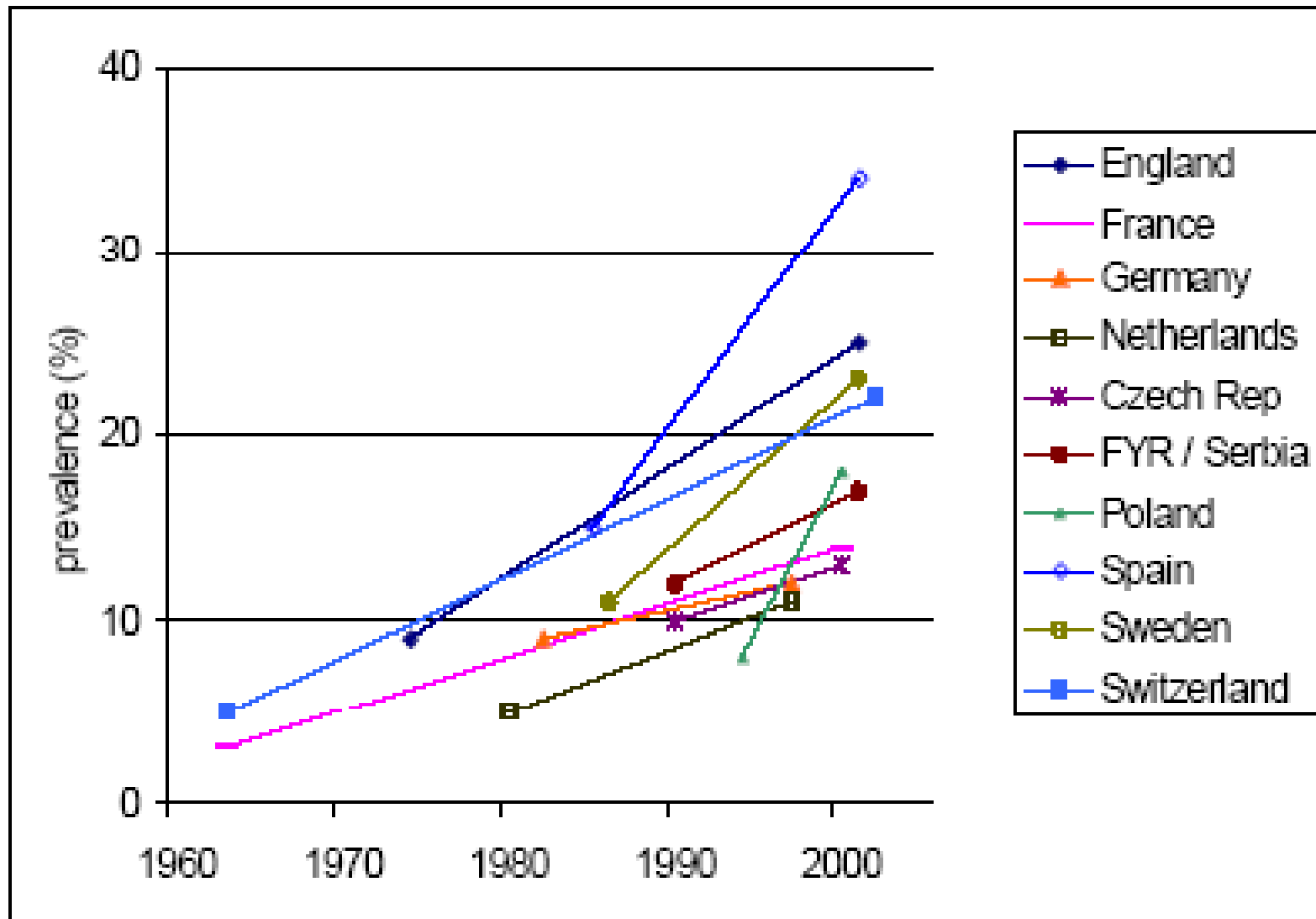
- Challenges - two in particular:

1. We need to make nutrition education as effective as possible;
2. In parallel we need to better understand the environmental determinants of diseases and the constraints faced by people in their every day lives

**=> nutrition education can only be effective if people have the possibility of implementing the message**

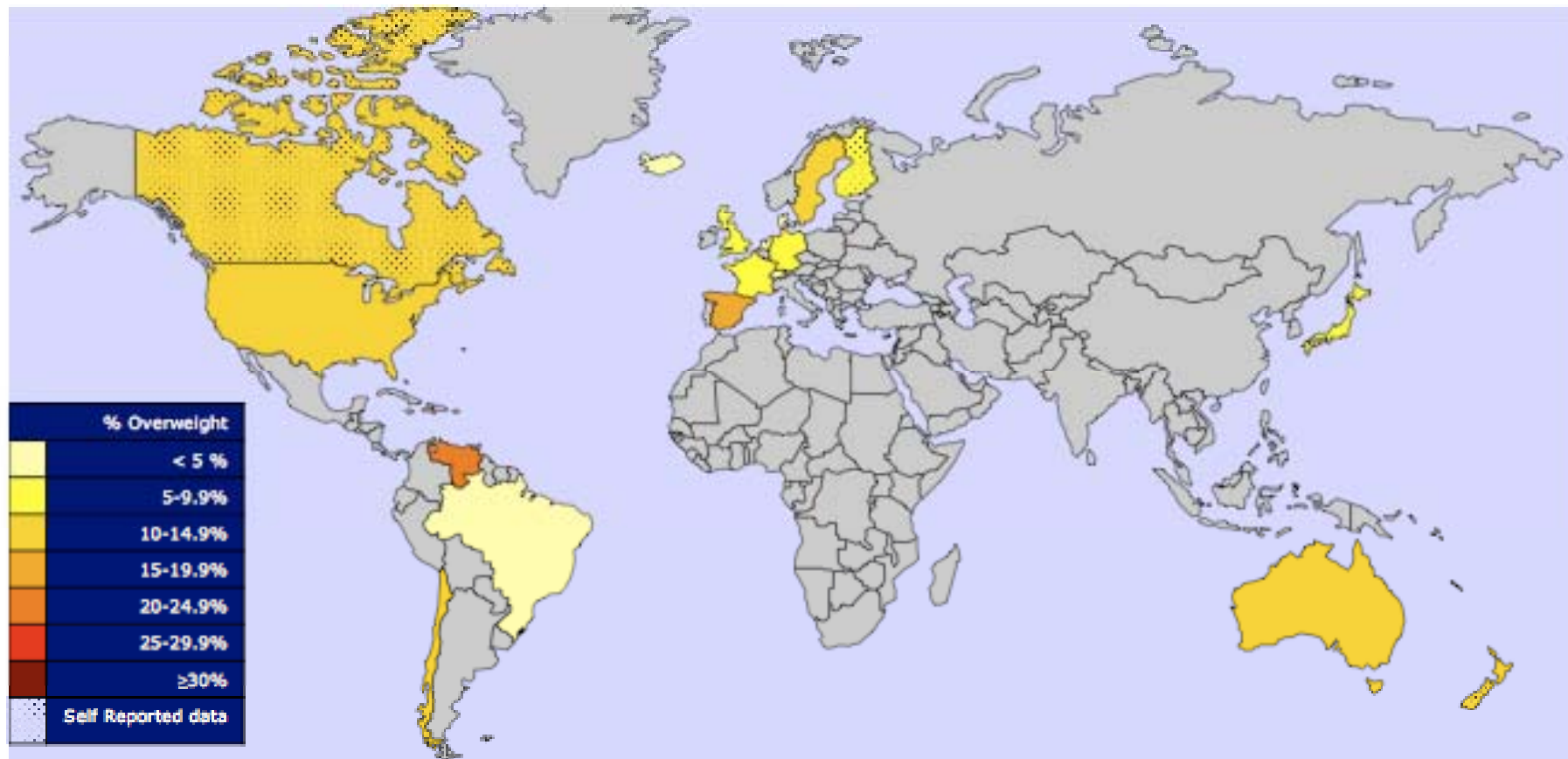
- Example: obesity

# Trends of the prevalence of overweight in European children



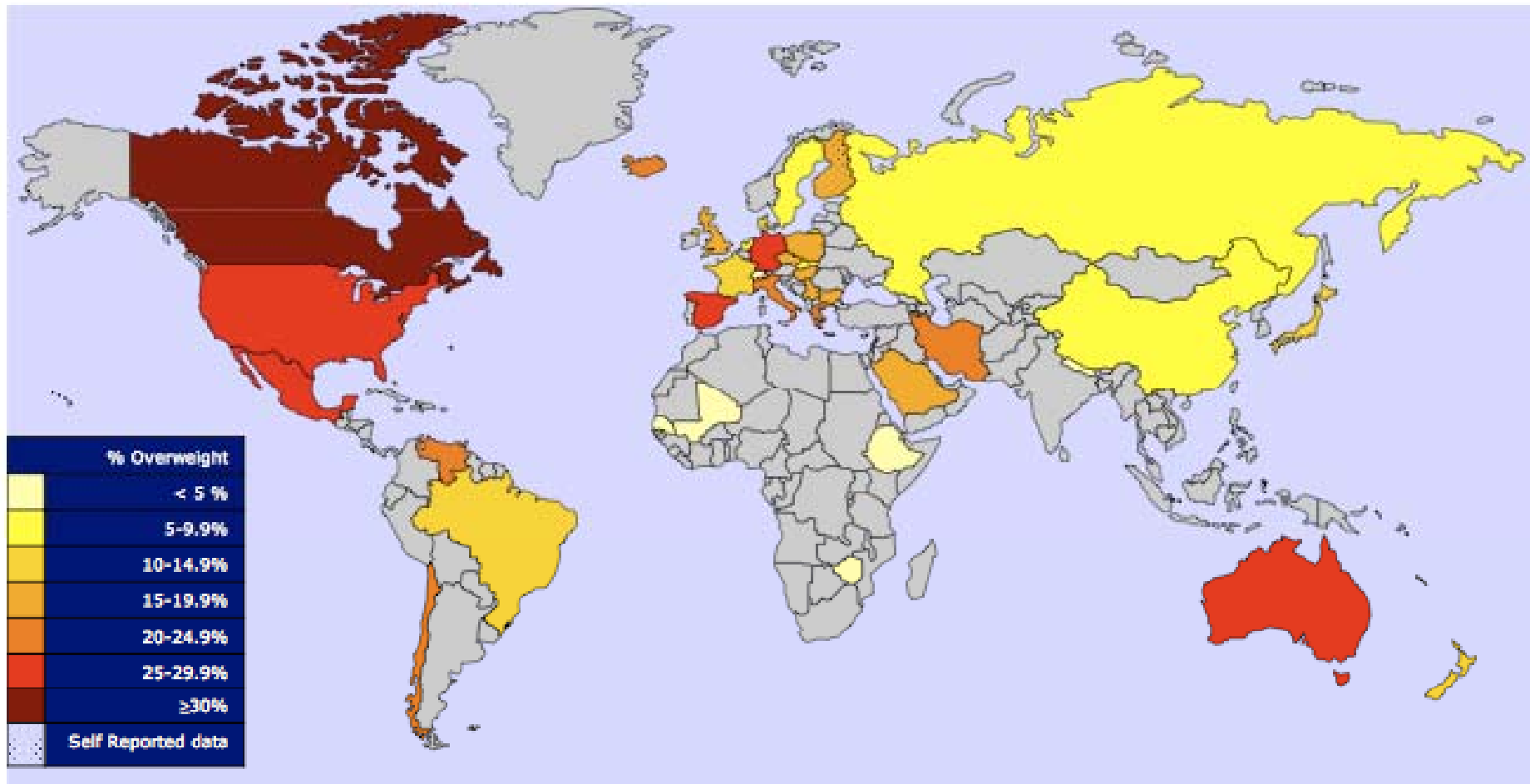
Source: Jackson-Leach & Lobstein 2006

## Global prevalence of overweight in boys, prior to 1990



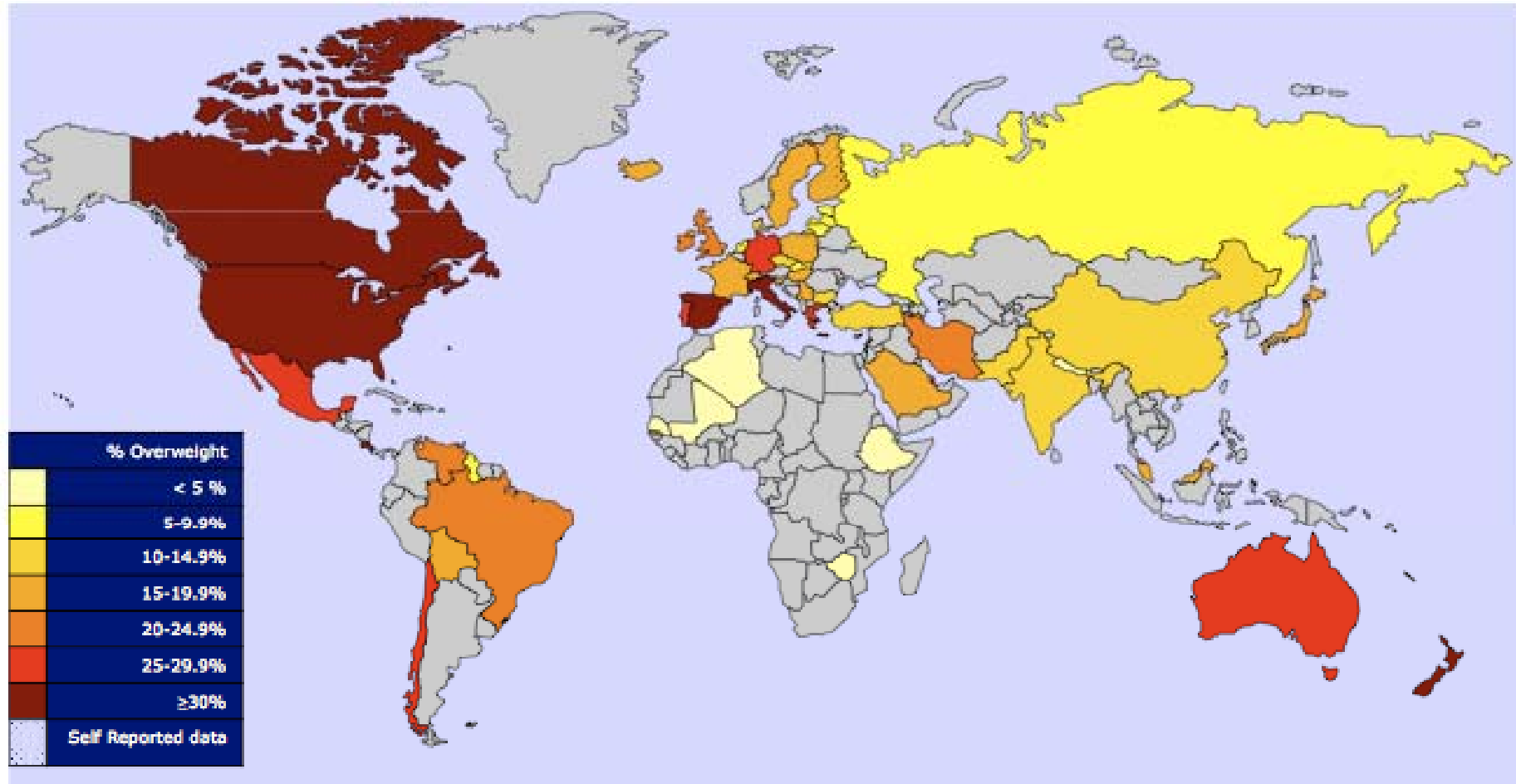
**Source: International Association for the Study of Obesity (IASO)**

# Global prevalence of overweight in boys, 1990-1999



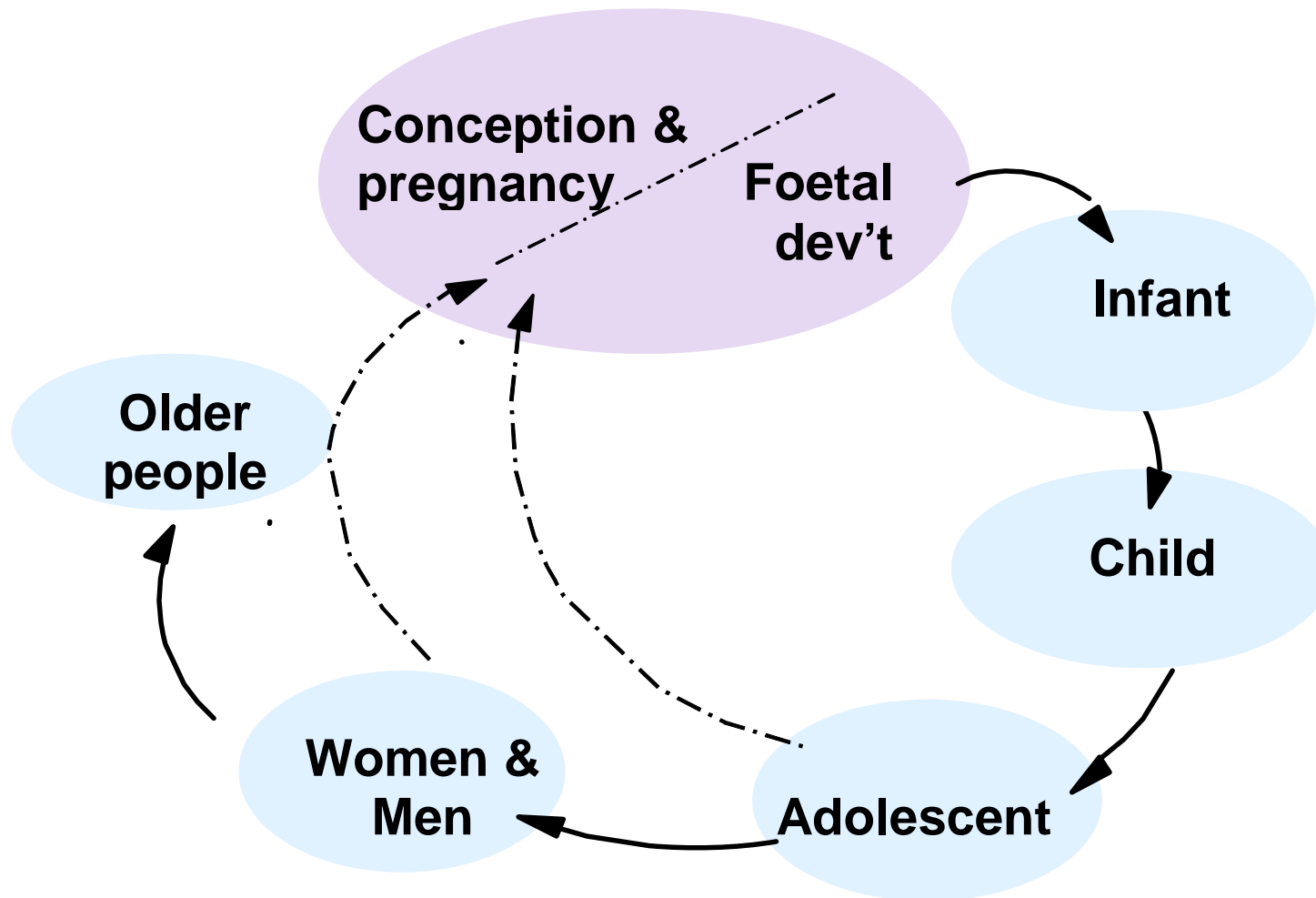
**Source: International Association for the Study of Obesity (IASO)**

## Global prevalence of overweight in boys, 2000-2006



**Source: International Association for the Study of Obesity (IASO)**

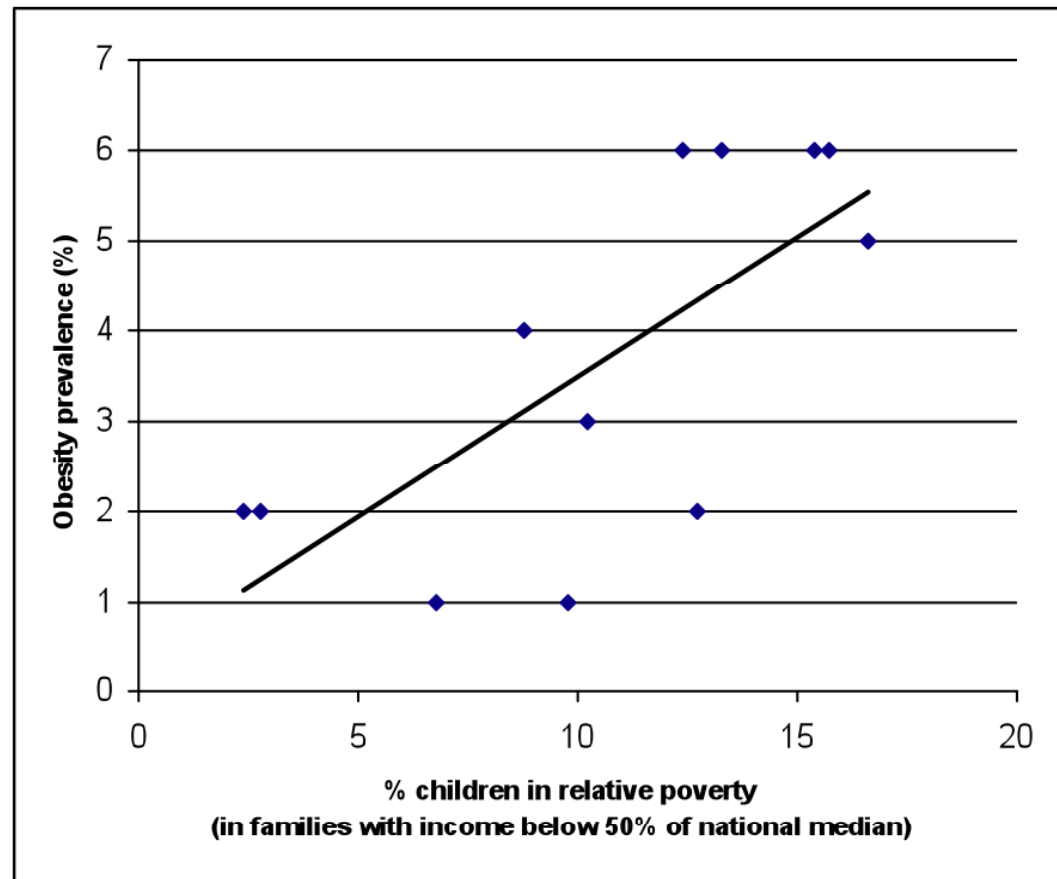
# All population groups are affected



# Socioeconomic gradient in obesity

- Unequal wealth distribution is closely associated with the prevalence of obesity

Prevalence of obesity in adolescents by national relative poverty index.



Source: IOTF and The European Health Report 2005 (unpublished).

# Co-morbidities

- Type 2 diabetes, with particular implications for childhood diabetes which is appearing at younger ages
- Cardiovascular diseases
- Liver disease
- Sleep apnoea
- Depression
- ...

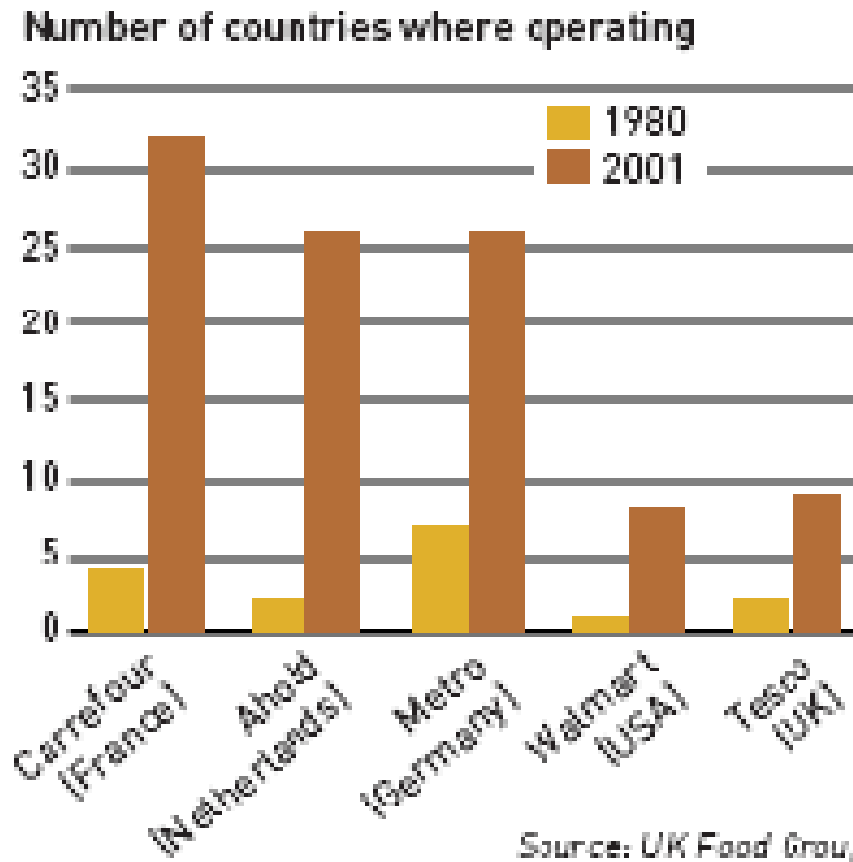
## ...and costs

- Direct costs to the health care system
- Indirect costs in terms of lost productivity
- Psychosocial costs- social stigma, depression, poor professional and educational outcomes

# Contributing factors?

- Agricultural policies are not health promoting
- Changing social structures
- Increased urbanisation
- “supermarketisation”
- Promotional marketing
- ...many more

## Global expansion of transnational supermarkets, 1980-2001



Source: State of Food Insecurity in the World 2004

# Is marketing having an effect on dietary choices?

- Systematic review of the evidence on the effects of food promotion to children concluded that YES (*UK Food Standards Agency 2003*)
- WHO/FAO report no. 916  
“Diet, nutrition and the prevention of chronic diseases”  
(*WHO/FAO 2003*)
- Marketing plays an important role in dietary choices

## Strength of evidence on factors that might promote or protect against weight gain and obesity

<b>Strength of evidence</b>	<b>Decreased risk</b>	<b>Increased risk</b>
Convincing	Regular physical activity High fibre intake	Sedentary lifestyles Excessive energy-dense, micronutrient-poor foods
Probable	Home and school environments that support health food choices for children Breastfeeding	<b>Heavy marketing of energy-dense foods</b> <b>Excessive non-diet soft drinks</b> <b>Adverse socioeconomic conditions</b>
Possible	Low glycemic index foods	Large portion sizes Frequent meals outside of home

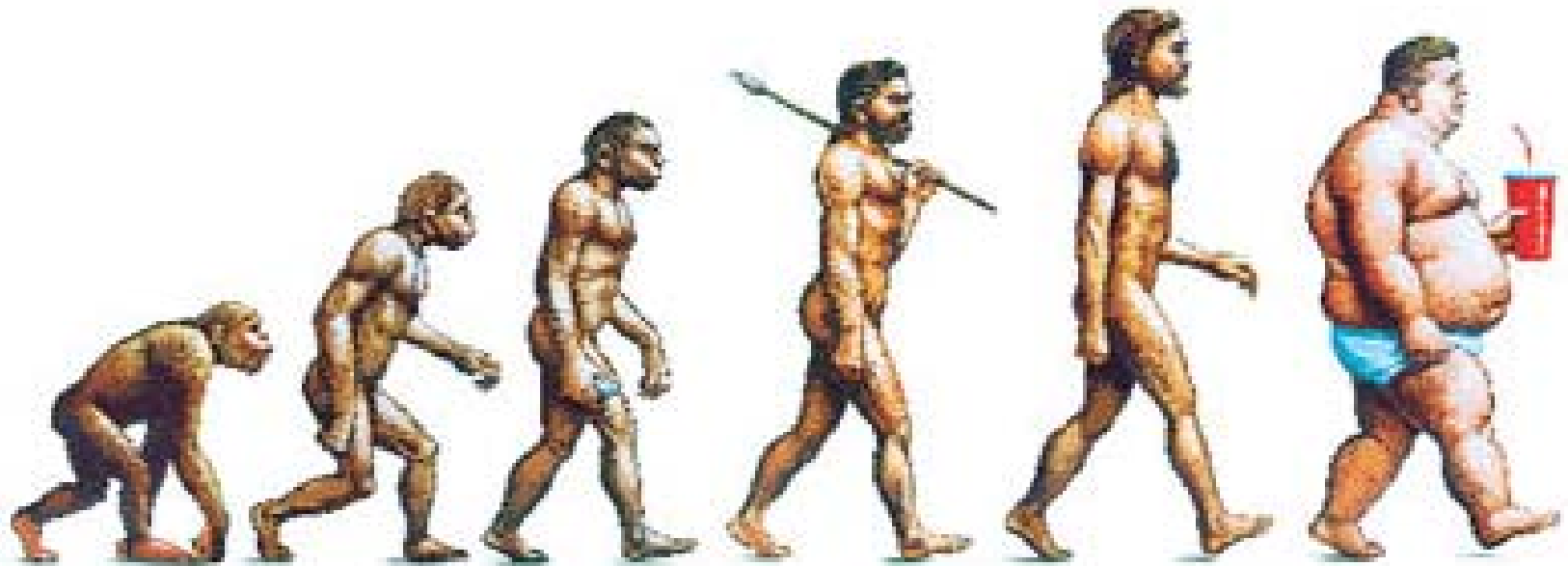
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# One of the key results is a nutrition transition

## ■ Dietary shift

- *away from* protective diets rich in fruit, vegetables and fish,
- *toward* diets rich in animal products, refined carbohydrates and particularly added sugars, pre-processed food, added fat and often...

# Desirable future?



Source: The Economist, 13 December 2003

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We have an important opportunity to redress these trends

1. What can we do to make nutrition education more effective?
2. How can address the context within which people live and work – **nutrition education can only be effective if people have the possibility of implementing the message**

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# What the literature reports on the effectiveness of nutrition education

- Nutrition education is an essential part of any strategy to address nutritional-related diseases
- However nutrition education is generally ineffective in bringing about sustainable change in behaviour:
- Reviews of nutrition education programmes suggest that nutrition education may be effective in the short term but generally fails to influence the way individuals eat
- (e.g. *Summerbell et al 2003 (Cochrane review), Contento et al 1995, Allen et al 2007, )*

# Making nutrition education more effective?

1. Address the methodological shortcomings
  - ❑ Allowing adequate sample sizes, long term study period, and proper evaluation (*e.g. Contento et al 2002*)
2. Improve our **communication** skills
  - ⇒ Know our audiences:
    - ⇒ **How to communicate risk to decision-makers?**
    - ⇒ **How to communicate to children?**
3. Participatory communication through involving people in decision-making and in assessing the results of their food, health and care behaviours thereby fostering motivation

Which one would a 6-year old boy choose to imitate?



**A “5-a-day fruit and vegetable” mascot**

**VS.**



**Soft drink mascot**

## Making nutrition education more effective? (con't)

3. Ensure a consistent, coherent nutrition message across sectors => increases consumer confidence
4. Facilitate and operationalise the participation of all stakeholders, especially consumers
5. Ensure scientifically independent message: who is funding??
  - ❑ Vartanian et al (2007) did a systematic review of studies on the relationship between soft drink consumption and health,
  - ❑ They analysed the effect size as reported by industry-funded vs. non industry-funded studies
  - ❑ They found that the average overall effect size for industry-funded studies was significantly smaller than the average effect size for non-funded studies.

# Nutrition education is not enough

- Giving knowledge about public health nutrition risks does not necessarily translate into action
- **Those most likely to become ill are in most cases those with the least ability to make healthy choices because they face structural, social, organisational, financial and other constraints**
  - *(Dowler 2001, McKee & Raine, 2005)*
- We need to reframe nutrition education within a broader public health nutrition approach
- Lessons learned from other areas of public health point to the importance of creating an enabling environment within which public health can be promoted

# Create an enabling environment

- Agricultural policies have to be health promoting
- Increasing access to affordable, safe, healthy foods for all;
- Securing adequate funding for healthy nutrition promotion initiatives
- Developing school nutrition policies to create enabling environments at school- participation of all, and healthy school meals
- Supporting public health policies at the community, national and international level
  - E.g. reduced access to junk food in schools to make the “healthier choice” easier for children
  - Strong support for breastfeeding

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# EURO-PREVOB

**Consortium for the prevention of obesity through effective nutrition and physical activity actions**

- a 3-year coordination action project **linking science and policy-making to tackle obesity in Europe.**
- The project is funded by the European Commission
- It involves 13 participants from 10 countries of the European Region (Bosnia and Herzegovina, Czech Republic, Denmark, France, Italy, Latvia, Slovenia, Switzerland, Turkey, United Kingdom).
- It is coordinated by the London School of Hygiene & Tropical Medicine
- 3 years, from 1 April 2007 to 31 March 2010.

# EURO-PREVOB ([www.europrevob.eu](http://www.europrevob.eu))

1. Improve the understanding of the broad determinants of and inequalities in obesity;
2. Identify policy initiatives that can impact positively on the determinants of obesity;
- 3. Develop and pilot a Policy Analysis Tool;**
4. Develop and disseminate guidelines and recommendations for best practice.

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The policy analysis tool is being piloted in 5 sub-regions of Europe to assess its applicability:

- Central and Eastern Europe (Czech Republic)
- Nordic-Baltic Region (Latvia)
- Southern Europe (Turkey)
- South Eastern Europe (Bosnia and Herzegovina)
- Western Europe (France)

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# The policy analysis tool has two main components:

**1. POLICY CHECKLIST** to assess **‘policy on the books’**  
i.e. the stage at which the identified policy areas are in terms of:

- Policy adoption** e.g. Is there a policy? Do components of the policy focus on socioeconomic inequalities / on obesity?
- Policy implementation** e.g. Implementation structure in place? Financial and human resources allocated?
- Policy evaluation** e.g. Evaluation mechanism planned? Monitoring system?

## Policy areas to be analysed

<b>Food environment</b>	<b>Built environment</b>	<b>Maternal &amp; child services</b>	<b>Schools</b>
<ul style="list-style-type: none"> <li>•Food production, manufacturing, trade/distribution</li> <li>•Food/beverages labelling</li> <li>•Food/beverage marketing/advertising</li> <li>•Food price control policy</li> </ul>	<ul style="list-style-type: none"> <li>•Urban planning</li> <li>•Transport and road safety</li> <li>•Active transport</li> <li>•Sporting facilities</li> <li>•Leisure facilities</li> </ul>	<ul style="list-style-type: none"> <li>•Appropriate weight gain/loss for women during/ after pregnancy</li> <li>•Infant and young child feeding / breastfeeding</li> </ul>	<ul style="list-style-type: none"> <li>•Nutrition and/or physical activity school policy</li> <li>•Nutrition/ PA education</li> <li>•School meals</li> <li>•Marketing restrictions</li> <li>•Free drinking water</li> <li>•Safe walk to school routes</li> </ul>
<ul style="list-style-type: none"> <li>•Social welfare policy influencing obesity</li> <li>•Health inequalities policy influencing obesity</li> <li>•Other obesity, nutrition, PA policy documents</li> </ul>			

## 2. COMMUNITY QUESTIONNAIRE to assess 'policy on the streets'

- by socioeconomic quintiles (affluent vs. deprived neighbourhoods):
  - **Food and nutrition environment** e.g.
    - the cost and availability of indicative food items;
    - the nature and extent of television advertising during selected times;
    - the cost and marketing related to selected fast food items;
  - **Built environment** e.g.
    - 'walkability' and 'bikability':
    - availability of public transportation, cycle lanes, public open spaces, safe road crossings, traffic...

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# Ways forward?

1. Continue improving our communication and research skills in the field of nutrition
2. Understand, measure and evaluate the impact of our environment on our health
3. Translate this evidence into political commitments that optimally transcend governmental change
4. Collaborate and share ideas and experiences across countries and sectors