



Research and Obesity in France

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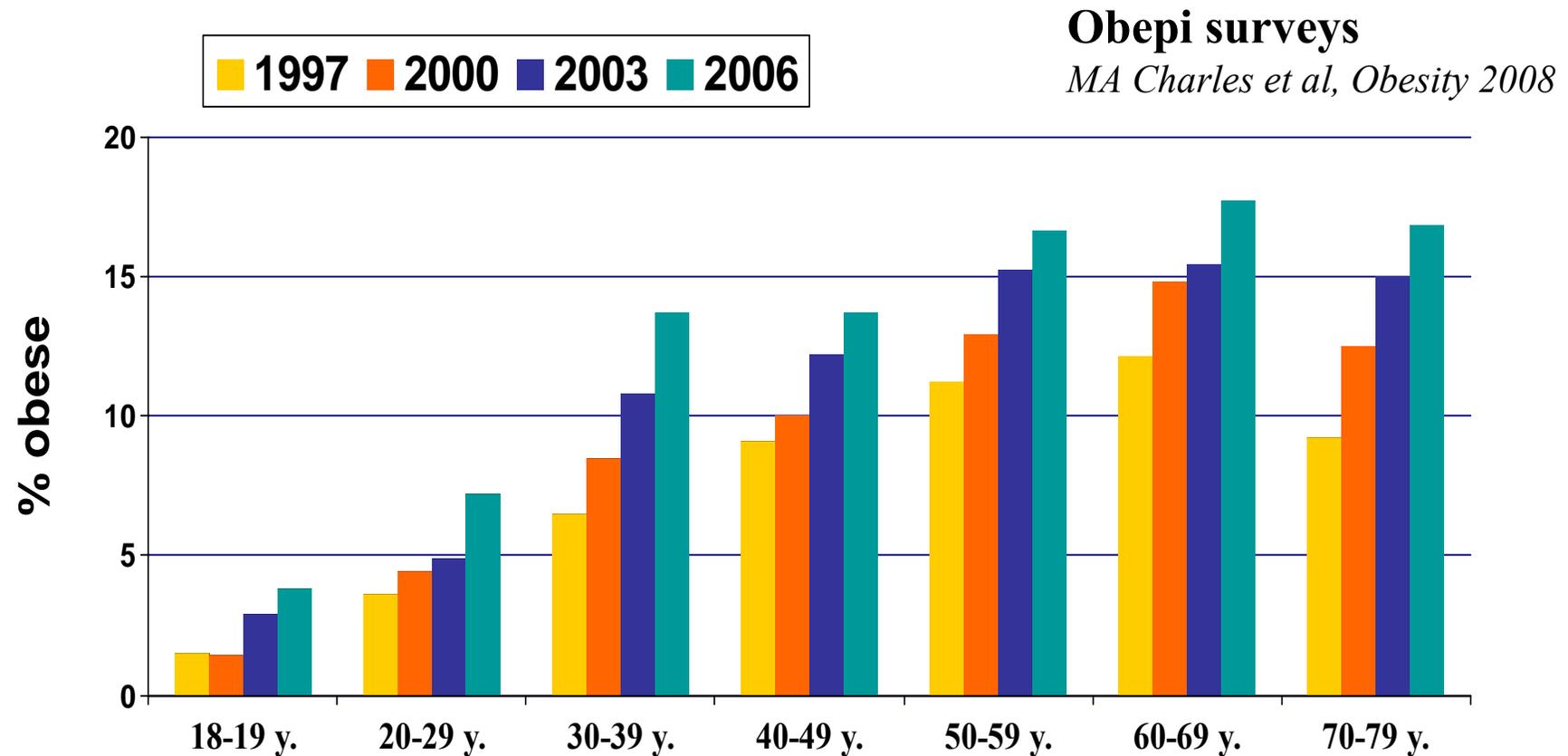
Ministère de la santé et des sports France



Programme National Nutrition Santé

- A Public Health Nutrition Programme, since 2001:
 - General objective: improve the state of health of the whole population by acting on one of its determinants: nutrition
- NUTRITION: food intakes **and** physical activity
- 9 quantified public health objectives (food consumption, physical activity, biological indicators). Among them:
 - **Reduce the prevalence of excess weight and obesity in adults** by 20% (i.e. to achieve a prevalence rate below 33%)
 - **Put a halt to the increasing prevalence of excess weight and obesity in children.**
- Priority on **Primary Prevention** (supply and demand sides);
- Secondary prevention is also included

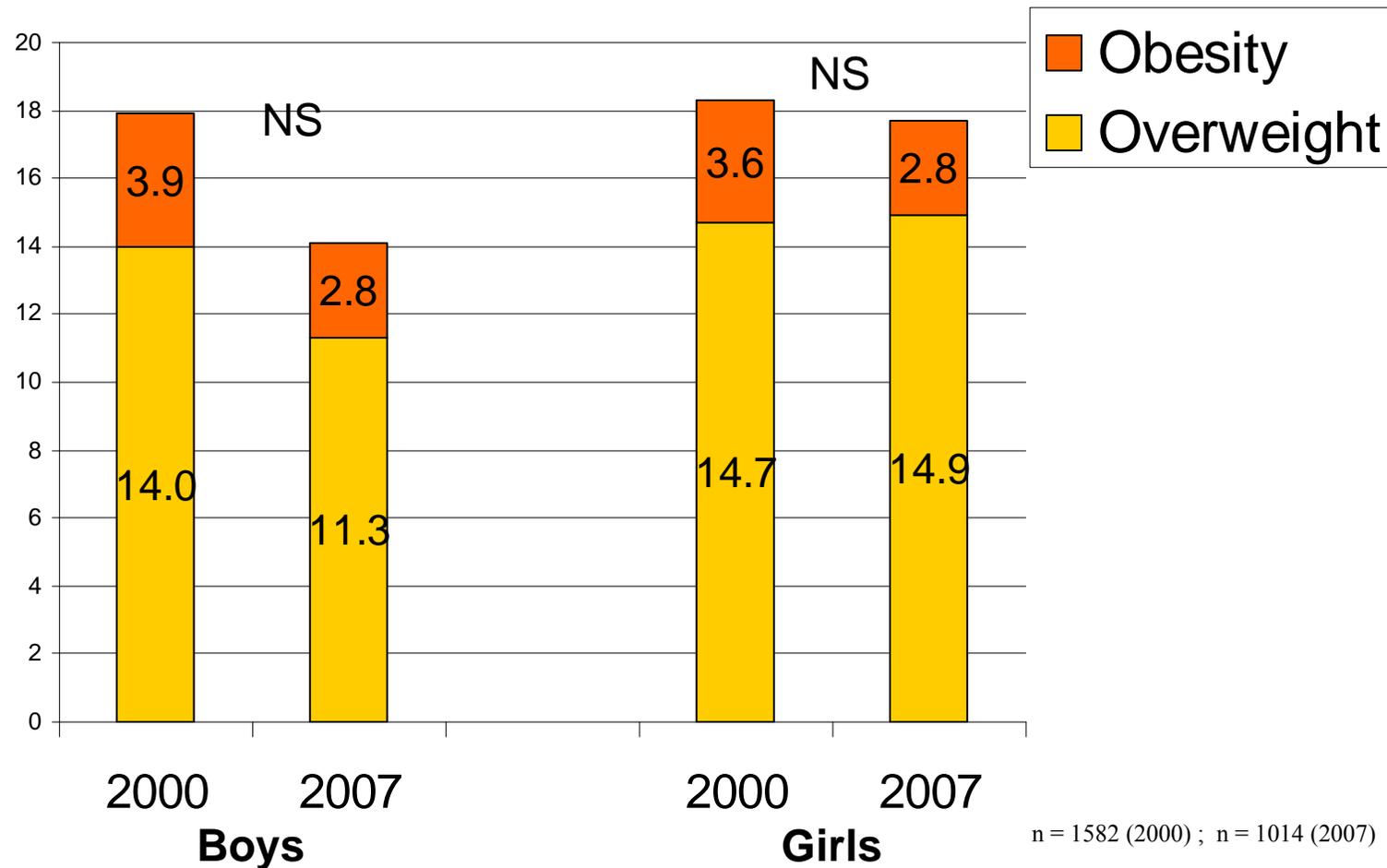
Epidemiologic data: Evolution of the prevalence of obesity in adults in France between 1997 and 2006



⇒ **Progressive increase in the prevalence of obesity in adults during the last 10 years**

Evolution of the prevalence of overweight and obesity in 7-9 y-old children according to sex (2000-2007)

Salanave B. et al : . Int J Pediatr Obes 2009



=> Stabilization of overweight prevalence in French children since 2000

A research on obesity?

- At Parliament level (parliamentary reports):
 - 2005 « Prevention and management of obesity » (Gérard Dériot Sénateur), based on a 'collective expertise' of the INSERM*
 - 2008 : « To have the fight against the obesity and overweight epidemic a Great National Cause » (Valérie Boyer, Députée)
- No specific 'obesity research' programmes,
- But human and financial resources for 'nutrition research'

*INSERM: national research institut on health and medicine

Human and financial resources for nutrition research in France (quantitative data in 2005)

- Public human resources allocated to nutrition research:
 - INSERM (Nutrition and Health)
 - INRA* (Food production and consumption)
 - University, CNRS, EHESS....

	Teams	Researchers	Technicians
INSERM	60	137	89
INRA	32	108	278

* INSERM: national research institut on health and medicine

* INRA: national research institute for agronomy

Which outlines for obesity research?

For Public authorities:

- The goal is to reduce the prevalence of overweight and obesity in children and adults.
- Research is a strategy to identify the best ways to achieve this goal.

Topics covered by obesity research in France

I) Mechanisms and methods to loose weight on the long term for obese people

- Physiopathology (biology of adipose tissue, energy metabolism, genes and obesity....)
- Animal models, cellular models
- Consequences, complications of obesity (CVD, Diabetes, arthrosis, Cancer...)
- Bio-indicators
- ...Drugs: disappointing

⇒ To determine what are the best practices to take care of a patient (including the care planning process): an expertise is currently undergone by scientific societies and the French National Health Evaluation and Accreditation Agency (former HAS)

II) Determinants of obesity

Food behaviours, determinants of food behaviors, lifestyle and et obesity, SES and food choices, culture and obesity, social body image and obesity, Sensoriality / food intake, food preference, Impact of food information on food behavior

III) Surveillance of obesity, descriptive epidemiology

(based on several national surveys: INCA, ENNS, Obepi, BSN, etc.), needed for:

- Assessment of various strategies of obesity prevention
- Assessment of public policies / food and agriculture policy – nutritional policy – educational policy

IV) Economy of obesity (costs/benefits)

V) Food and economic implications of the promotion of healthy eating

- Food technology and nutritional quality
- Food marketing and consumer behavior

Recent evolution of public funding for nutrition research in France

Research calls specific for nutrition during the last 10 years:

2001 INSERM 'ATC' call : 1M€, 5 projects selected

2002 Inserm/Inra Call: 1M€, 13 projects selected

2004 Inserm/Inra 'PRNH' call: 6 projects selected

2005 Inra PRA Call: 1,5M€, 7 projects selected

2005-2007 ANR-PRNA (Private and public): almost **12 M€ per year**, 22-30 projects/y.

2008-2010 ANR-ALIA (Private and public): **8,5 M€ in 2008**, 20 projects selected

- Since 2001, an increasing interest for nutrition, associated with an increasing public funding for research on nutrition

Since 2008 : ALIA research call

(Alimentation et Industrie Alimentaire, i.e. diet and food industry)

- Focus on the economy of food production and the sustainable development of food production
- One thematic 'well being and well aging', is open to French – German cooperation:
10 projects selected – 4 French/German

NUTRINET Sante:

A large national research cohort on nutrition and health exclusively founded by the public sector

- Since May 2009, the Nutrinet cohort was launched
 - **A main objective** : to study the relationships between food and nutritional intakes, as well as food and physical activity behaviors on global and specific mortality (cancers, CVD...).
 - **Secondary objectives** : to study the determinants of food behaviors, to allow a surveillance of food intakes and nutritional status at population level, to help assessing the impact of public health campaigns and actions.

The means : 500 000 voluntary « Nutrinautes » who will answer questionnaires through Internet during five years

Conclusions

From a Public Health point of view

- Obesity/ nutrition problems are major health concerns. The importance of research is illustrated by the increase of financial resources allocated to it
- **The focus on Primary Prevention should be reinforced.** For that it is necessary to:
 - Develop a plurisectorial research to improve the knowledge of the links between societal evolution (including food economy)/food behaviors/ nutritional problems
 - Develop approaches for assessing the impact of various strategies on obesity and its biomarkers
 - Improve surveillance systems (at national/regional/local level)
- We also have to develop research that will help to improve the care management of obese people.
- A question is becoming increasingly important: **Should we have an individual or a collective approach of the risk? What can be the balance between them? With which arguments?**