



## Research and Obesity in France

Dr Michel Chauliac,

Direction générale de la santé,

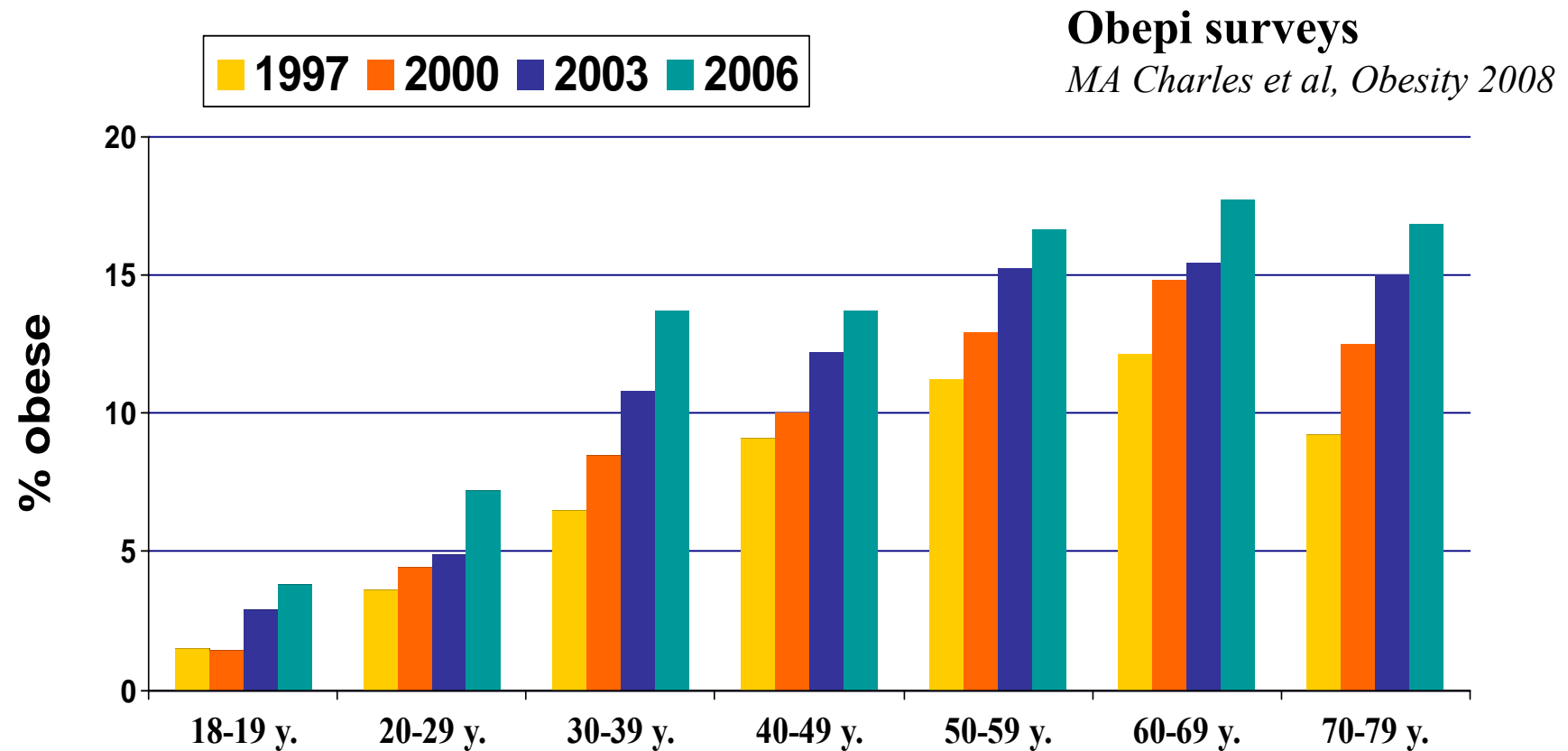
Ministère de la santé et des sports France



# 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

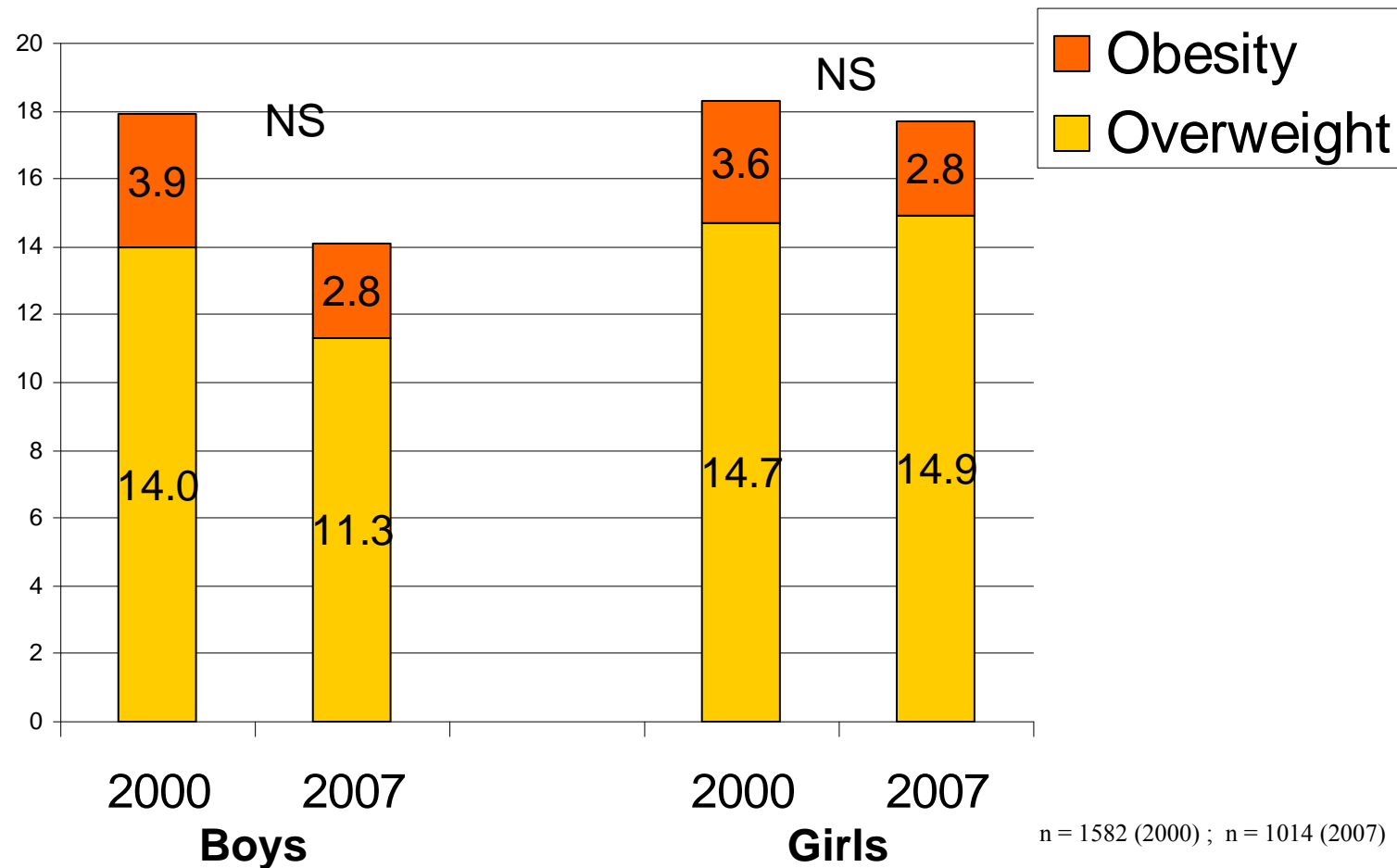
# Epidemiologic data: Evolution of the prevalence of obesity in adults in France between 1997 and 2006



⇒ **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....

	<b>Teams</b>	<b>Researchers</b>	<b>Technicians</b>
<b>INSERM</b>	60	137	89
<b>INRA</b>	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?**