



Age at menarche over the last decades and inter-regional variability in Northern Spain

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Introduction

- Menarche is the time of first menstrual bleed, and it occurs, on average, 2 to 2.5 years after the onset of puberty
- Globally, the age of menarche had been reduced since the last century

Objective

- To examine the evolution of the age of menarche over the last decades and inter-regional variability in an autonomous community located in northern Spain which is divided in eight health areas
- These health areas differ between them from predominance of rural or urban environments

Material and methods

A retrospective, descriptive studio was made. We revised the age of menarche of girls and teenagers born between 1920 and 2008, in the eight health areas

These data were collected from clinical records and electronic medical history from ninety public primary health centers of all health areas of the region

- **First analysis:** birth decade was compared with age at menarche
- **Second analysis:** the age of menarche (teenagers born between 1998 and 2008) was compared with the health area to which they belonged

Results

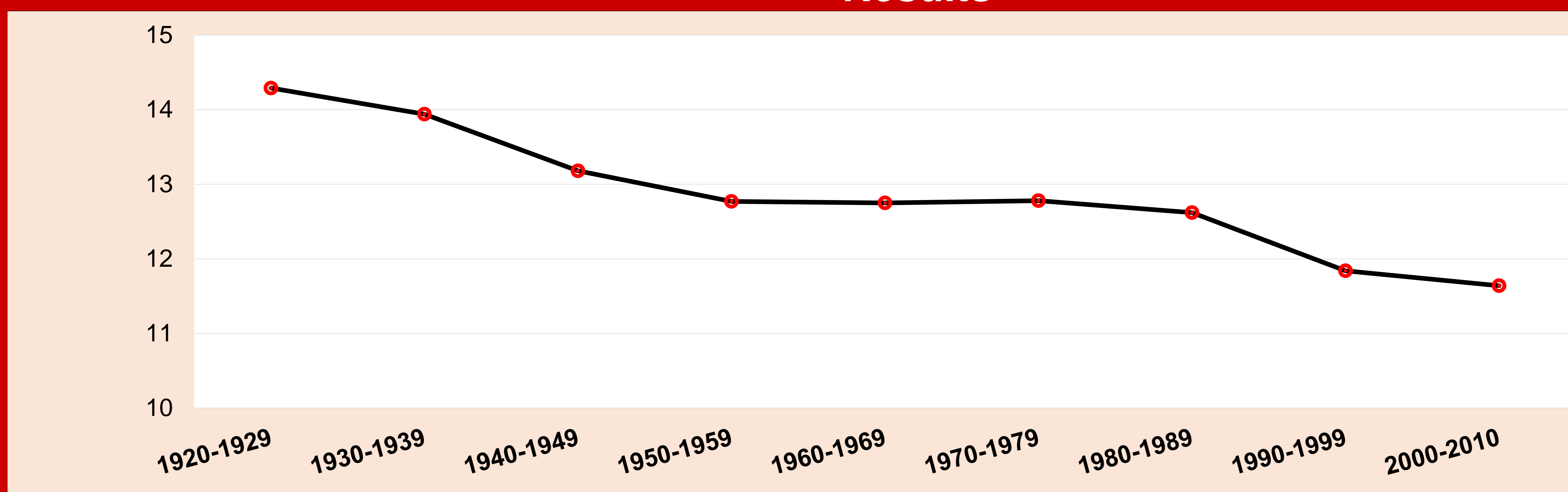


Figure 1: Mean age at menarche by decade

Birth decade	Age at menarche (years)					N
	Mean	Median	Mode	DS		
1920-1929	14.29	14	14	1.92	91	
1930-1939	13.94	14	14	1.96	540	
1940-1949	13.18	13	14	1.7	3594	
1950-1959	12.77	13	13	1.54	6183	
1960-1969	12.75	13	13	1.54	4791	
1970-1979	12.78	13	13	1.5	13196	
1980-1989	12.62	13	12	1.54	16590	
1990-1999	11.84	12	12	1.06	13126	
2000-2010	11.64	12	12	0.9	10375	

p<0,05

Table 1: Birth decade vs age at menarche

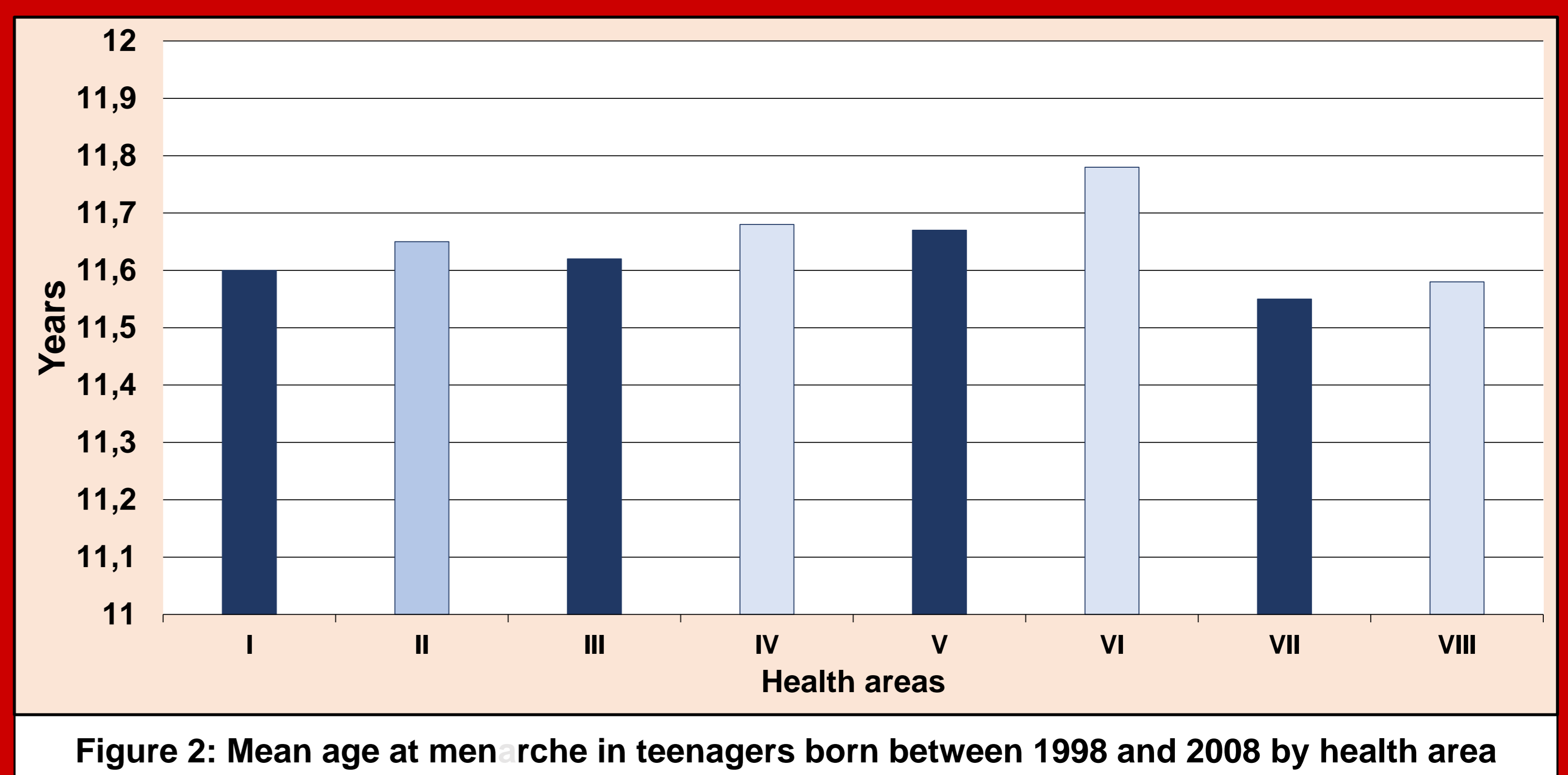


Figure 2: Mean age at menarche in teenagers born between 1998 and 2008 by health area

Conclusions

- The average menarcheal age decreased through the last decades. It is probably due to both genetic and environmental factors
- The differences found in the mean age of menarche by belonging health area were statistically significant but maybe they aren't clinically significant
- In order to know the influence of environmental factors over the onset of the menarche, a more detailed study should be performed