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Trends in Social Class Inequalities in Health Status, Health-Related Behaviors, and Health Services Utilization in a Southern European Urban Area (1983–1994)

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Background. **The objective of this study was to describe the evolution of social class inequalities in Barcelona (Spain) residents in perceived health status, health-related behaviors, and utilization of health services between 1983 and 1994.**

Methods. **The information was obtained from the Health Interview Surveys conducted in 1983, 1986, 1992, and 1994 in Barcelona. In this study we included noninstitutionalized people ages >14 years. Social class was obtained from the Spanish adaptation of the British Registrar General classification. We studied health status, health-related behaviors, and health services utilization variables. Age-adjusted percentages and the relative index of inequality were obtained.**

Results. **Of the health status variables, having been confined to bed and acute restriction of activity in the 2 weeks prior to the interview showed an increase in inequalities by social class in 1994. The pattern of chronic conditions by social class in men did not change between 1983 and 1994. Women had a higher prevalence of chronic conditions and the inequalities among social classes had increased. In men there were no social class inequalities in smoking in 1983. In 1992 and 1994 smoking was more prevalent in men of social classes IV and V. In women, smoking was more prevalent in social classes I and II in 1983 than in social classes IV and V, something that had changed by 1994. Lack of usual physical activity in men was always more prevalent in social classes I and II, and this difference increased since more people of advantaged classes moved into inactivity. Health services utilization showed no inequalities in the years studied.**

Conclusion. **The changing pattern according to social class of smoking and physical activity practice needs to be taken into account by policy-makers and public health workers.**

Key Words: **inequalities in health; social class; health interview survey; time trends.**

INTRODUCTION

Social structure is an important determinant of population health status. It has been reported in some European countries that social class inequalities in health have widened in recent years because health has improved more in advantaged social classes than in disadvantaged ones [*1*,*2*]. In southern European countries and mainly in urban areas the study of socioeconomic inequalities in health is very recent [*3*].

Barcelona is the second largest city in Spain, with 1,650,000 inhabitants, located in the Northeast of the country in the Autonomous Community of Catalonia. In the mid-1980s, Catalonia and Barcelona underwent a change in production processes, which introduced greater job flexibility due to improved communications. Certain important demographic changes should be mentioned. First is the aging of the population, due to higher life expectancy and decreasing fertility rates. Second, there has been a shift of the immigration pattern: immigration is now from developing countries (mainly those of North Africa) while formerly it was from other regions of Spain. The population of Barcelona City is declining and its suburban areas are growing. Finally, the composition of households has changed: there are more households with one person (generally elderly) and more households of nuclear families supporting young people who, due to the difficulty of finding a stable job, delay emancipation [*4*–*6*].

As a large city, Barcelona has important socioeconomic inequalities in health at both geographical and

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individual levels. The inner city area has excess mortality and morbidity, compared with the rest of the city [*7–11*]. These geographical inequalities in mortality increased between 1983 and 1994, mainly due to causes affecting the poorer populations (AIDS and drug overdose) in deprived neighborhoods [*12*].

Although inequalities in health were described with data from health interview surveys [*13*,*14*], to date no systematic description of time trends in social class inequalities in health-related variables exists. Thus, the objective of this study was to describe the evolution of social class inequalities in Barcelona residents in perceived health status, health-related behaviors, and utilization of health services between 1983 and 1994, using data from four population Health Interview Surveys.

METHODOLOGY

Design, Study Population, and Sources of Information

The information was obtained from the Health Interview Surveys conducted in 1983 [*15*], 1986 [*16*], 1992 [*17*], and 1994 [*18*], in Barcelona among the noninstitutionalized population. The data were collected by personal interview over the first 6 months of 1983 and over the entire year in 1986, 1992, and 1994 using a questionnaire with similar methodology. Sample sizes were 3,134 subjects in 1983, 7,907 in 1986, 5,004 in 1992, and 2,155 in 1994. Non-response rates ranged from 7% in 1994 to 18% in 1983, while substitutions were allowed in 1992 and 1994. All samples were stratified, strata being districts in 1983, 1986, and 1994, and groups of census tracts in 1992. In all surveys, the sample were representative of age and sex for the total population of Barcelona. In this study we included people ages >14 years, the major characteristics of whom are shown in Table 1.

Social Class

Social class data were obtained from the Spanish adaptation of the British Registrar General classification [*19*]. Class I includes managerial and senior technical staff and free professionals; class II includes intermediate occupations and managers in commerce; class III consists of skilled non manual workers; class IV contains skilled (IVa) and partly skilled (IVb) manual workers; and class V includes unskilled manual workers. Women and other people (e.g., students) with no paid job and those unemployed were assigned the social class of the head of the household, with the exception of those who had previously worked, who were classified according to their last occupation. For analysis purposes classes are grouped into classes I–II, class III, and classes IV–V.

Health Status, Health-Related Behaviors, and Health Services Utilization Variables

Although the four surveys followed a similar methodology, some differences exist and we studied only the variables that could be compared across the four surveys. Health status variables were: (a) If confined to bed in the 2 weeks prior to the interview due to health problems; (b) Presence of at least one chronic condition from a list of common illnesses (this list had 29 conditions in 1983, 34 in 1986, 21 in 1992, and 16 in 1994); (c) Perceived health status—this variable was obtained for the years 1986, 1992, and 1994. For analysis purposes, answers were grouped into two categories: "good health" (good and very good health in 1986 and 1992 and excellent, very good, and good health in 1994) and "poor health" (regular, poor, or very poor health in 1986 and 1992; poor and very poor health in 1994). In 1986 this question was answered by people older than 15 years; (d) Acute restriction of activity—limitation of activity in the 2 weeks prior to the interview due to limitation of principal activity (working, studying, etc.) or habitual activity (spare time activities). This also includes people who were confined to bed.

Health-related behavior variables were: (a) Smoking—people who smoked daily one or more cigarettes at the time of the survey were considered as current smokers; (b) Lack of usual physical activity, which refers to the physical activity usually undertaken, therefore including activity at work. People whose activity was catalogued as none (seated most of the day) are included. In 1986 these variables were considered for people older than 15 years.

The following two variables relating to utilization of health services are reported for the years 1986, 1992, and 1994: (a) having visited the doctor in the 2 weeks prior to the interview; (b) having been hospitalized in the year prior to the interview. Frequency of health service use is presented by the two above-mentioned levels of perceived health status in order to determine the level of need.

Data Analysis

Sampling weights derived from the sample design were used in the analysis of each survey. In order to compare the different variables among social classes, age-adjusted percentages and their 95% confidence intervals (95% CI) (direct standardization) were calculated [*20*]. The reference population was that of Barcelona for the year 1988. All analyses have been performed separately for male and female subjects.

As a summary measure for socioeconomic inequality in health the relative index of inequality (RII) was obtained by means of logistic regression. The dependent variables were health status, health-related behaviors, and health services utilization, as described above. The

TABLE 1

Demographic Variables in the Four Health Interview Surveys (Percentages)[a]

	Male				Female			
	1983 $N = 835$	1986 $N = 2545$	1992 $N = 2014$	1994 $N = 821$	1983 $N = 1010$	1986 $N = 2958$	1992 $N = 2286$	1994 $N = 1051$
Age group (years)								
15–24	17.4	20.2	20.1	19.4	16.0	18.5	17.5	16.8
25–34	14.1	15.0	17.7	16.7	13.3	15.1	15.2	14.0
35–44	16.6	17.0	15.3	16.2	16.2	16.2	14.3	15.6
45–54	20.9	16.2	12.5	13.0	16.0	15.7	13.9	15.1
55–64	15.2	16.9	15.4	15.1	18.2	14.8	16.9	13.9
≥65	15.8	14.7	19.1	19.6	20.2	19.6	22.2	24.6
Employment status								
Worker	59.4	56.8	53.1	51.5	24.5	27.5	27.2	33.3
Housewife	—	—	—	—	39.6	40.5	39.4	35.3
Unemployed	8.7	9.3	7.5	10.7	4.7	4.5	5.5	5.8
Student	11.5	12.7	13.1	13.5	9.3	11.6	11.8	11.3
Retired	17.0	17.8	22.3	21.0	17.0	13.7	14.2	10.9
Other	2.0	3.1	3.9	3.0	4.1	1.9	1.8	3.1
Missing data	1.4	0.4	0.1	0.2	1.0	0.4	0.1	0.4
Social class								
I–II	21.0	24.9	27.1	27.9	14.9	22.9	21.7	24.0
III	24.6	28.1	23.4	26.9	22.6	24.5	22.5	24.0
IV–V	53.6	41.8	40.5	43.5	54.3	44.4	46.7	47.7
Missing data	0.8	5.3	9.0	1.7	8.2	8.2	9.0	4.4

[a] Male and female, ages >14 years, Barcelona, 1983–1994.

independent variables were social class and age. Social class categories (I–II, III, IV–V) were assigned a value between 0 and 1, which represents the relative position of the central subject of the class. The RII is the odds ratio obtained and it expresses the risk for those at the bottom of the social hierarchy compared with those at the top. This is a measure of total impact because it takes into account the effect of social class and also the size of the groups that are compared and has been used extensively in the study of social inequalities in health [*21*].

RESULTS

Of the health status variables, having been confined to bed in the 2 weeks prior to the interview showed an increase in inequalities by social class in 1994. In 1983 it was more prevalent among men of classes I–II (10%) and among women of class III (12.6%), whereas in 1994 it was more prevalent among men (7.2%) and women (10.4%) of classes IV–V, compared to 2.5% of men and 7.0% of women of classes I–II (Table 2). The RII changed from being lower than 1 to 6.24 (95%CI: 1.60–24.3) in men and 2.63 (95%CI: 1.05–6.58) in women (Fig. 1). A similar pattern was apparent for acute restriction of activity (Table 2 and Fig. 1).

Declaring at least one chronic condition was more prevalent in men of social classes IV–V, but the pattern did not change between 1983 and 1994. Women had a higher prevalence of chronic conditions and the inequalities among social classes had increased. Differences among classes widened between 1983 (RII: 1.36, 95%CI: 0.75–2.47) and 1994 (RII: 2.85, 95%CI: 1.65–4.93). Poor perceived health status was more common in social classes IV–V and in women. Inequalities were more important and stable in women (RII greater than 4 in all 3 years) than in men (RII: 2.67 in 1986 and 3.38 in 1994) (Table 2 and Fig. 1).

For men there were no social class inequalities in smoking in 1983 (RII: 1.09, 95%CI: 0.64–1.86); in 1992 and 1994, however, smoking was more prevalent in men of social classes IV–V. For women, smoking was more prevalent in social classes I–II in 1983 (29.4%) than in social classes IV–V (17.8%), but this changed in 1994 (19.9% of social classes I–II and 20.5% of classes IV–V). The RII was 0.29 (95%CI: 0.15–0.56) in 1983 and 0.77 (95%CI: 0.42–1.44) in 1994 (Table 2 and Fig. 2).

Lack of usual physical activity in men was always more prevalent in social classes I–II, and this difference increased since more people of advantaged classes moved into inactivity. RII were always different from 1, being 0.45 in 1986, 0.30 in 1992, and 0.29 in 1994. No clear pattern emerged for women (Table 2 and Fig. 2).

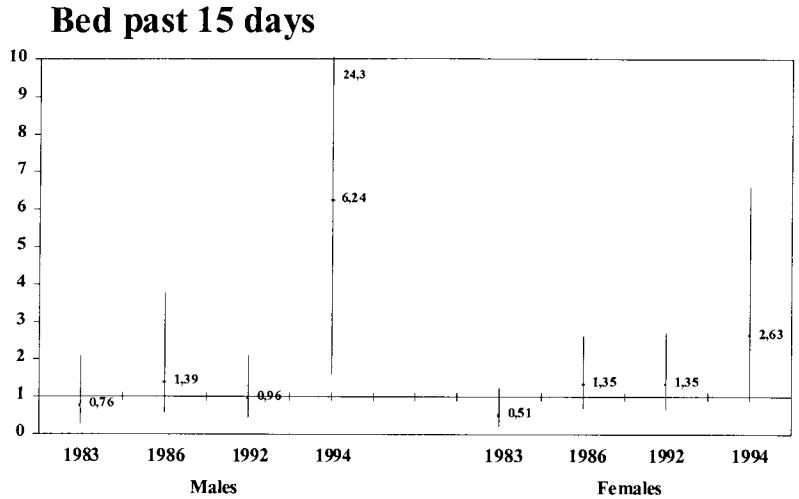
Health services utilization showed no inequalities when perceived health was good, except among women in 1992, where social classes IV–V had more visits to a doctor (RII: 2.6). In 1994, subjects in classes I and II had been hospitalized in a greater proportion, although

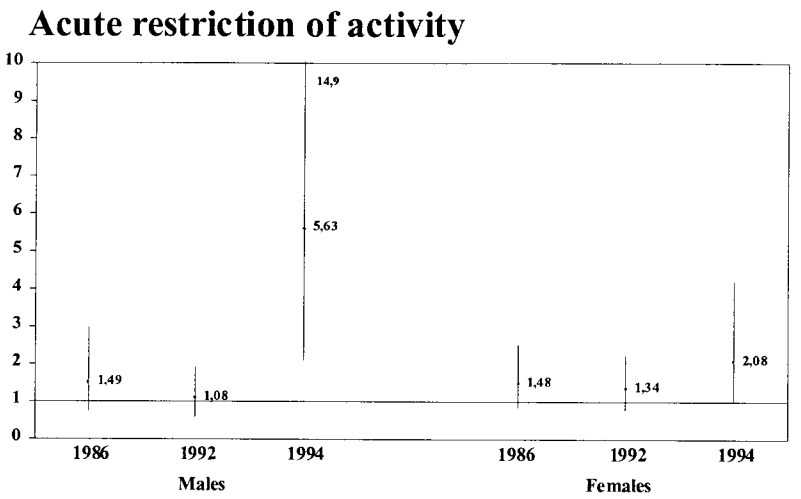
TABLE 2

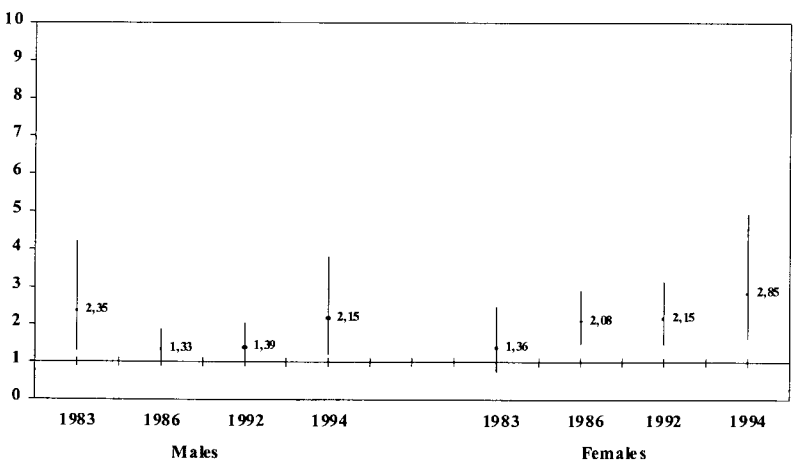
Perceived Health and Health-Related Behaviors by Social Class (Age Standardized Percentages and 95% Confidence Intervals) and Relative Index of Inequality (RII and 95% confidence intervals)[a]

	Male				Female			
	1983	1986	1992	1994	1983	1986	1992	1994
Health Status								
Bed past 2 weeks								
Social classes I–II	10.0 (4.9–15.1)	3.3 (1.8–4.7)	4.9 (3.0–6.8)	2.5 (0.05–4.5)	7.6 (2.9–12.3)	4.9 (3.2–6.7)	4.2 (2.5–5.9)	7.0 (3.8–10.2)
Social class III	5.5 (2.3–8.8)	2.0 (0.09–3.0)	5.8 (3.5–8.0)	3.9 (0.09–6.9)	12.6 (8.4–16.8)	3.8 (2.2–5.4)	7.7 (4.9–10.5)	4.2 (1.6–6.8)
Social classes IV–V	6.7 (4.3–9.1)	3.5 (2.4–4.6)	4.9 (3.4–6.5)	7.2 (4.3–10.1)	7.2 (5.0–9.5)	5.7 (4.4–7.0)	6.5 (4.9–8.1)	10.4 (7.4–13.4)
RII	0.76 (0.28–2.1)	1.39 (0.57–3.77)	0.96 (0.44–2.09)	6.24 (1.60–24.3)	0.51 (0.22–1.23)	1.35 (0.70–2.62)	1.35 (0.67–2.72)	2.63 (1.05–6.58)
Acute restriction of activity								
Social classes I–II	—	5.1 (3.3–6.9)	9.6 (7.0–12.3)	4.5 (1.8–7.3)	—	8.0 (5.6–10.4)	10.8 (7.8–13.8)	12.4 (8.1–16.8)
Social class III	—	3.8 (2.4–5.3)	9.1 (6.3–11.9)	8.3 (4.2–12.3)	—	6.4 (4.4–8.5)	11.7 (8.4–15.1)	10.6 (6.2–15.0)
Social classes IV–V	—	5.8 (4.4–7.2)	9.9 (7.7–12.0)	13.1 (9.2–17.0)	—	9.4 (7.7–11.1)	13.1 (10.8–15.4)	16.9 (13.1–20.6)
RII		1.49 (0.74–2.97)	1.08 (0.60–1.93)	5.63 (2.12–14.9)		1.48 (0.86–2.52)	1.34 (0.80–2.5)	2.08 (1.03–4.21)
Chronic conditions								
Social classes I–II	52.9 (41.7–64.3)	52.7 (46.8–58.7)	46.7 (40.8–52.5)	46.4 (37.6–52.2)	65.1 (46.3–83.9)	62.9 (56.3–69.5)	62.2 (54.3–70.1)	59.2 (49.3–69.1)
Social class III	58.4 (47.5–69.3)	55.9 (50.4–61.4)	44.1 (38.0–50.2)	54.1 (43.7–64.5)	72.0 (58.8–85.3)	66.8 (60.0–73.6)	67.2 (59.3–75.0)	58.3 (47.1–69.6)
Social classes IV–V	64.2 (56.7–71.6)	56.8 (52.3–61.3)	50.2 (45.3–55.1)	55.2 (47.5–63.0)	70.6 (63.6–77.7)	72.7 (68.0–77.3)	71.2 (66.1–76.3)	69.9 (62.5–77.2)
RII	2.35 (1.31–4.20)	1.33 (0.96–1.85)	1.39 (0.96–2.02)	2.15 (1.21–3.80)	1.36 (0.75–2.47)	2.08 (1.49–2.90)	2.15 (1.47–3.14)	2.85 (1.65–4.93)
Poor health status								
Social classes I–II	—	15.1 (11.7–18.5)	13.6 (10.4–16.8)	13.1 (8.4–17.8)	—	21.2 (16.8–25.7)	18.4 (13.8–23.1)	18.9 (13.1–24.8)
Social class III	—	16.8 (13.6–20.1)	11.1 (7.9–14.3)	18.5 (12.3–24.8)	—	24.8 (20.3–29.3)	20.4 (15.6–25.1)	26.7 (18.6–34.6)
Social classes IV–V	—	23.4 (20.3–26.5)	22.5 (19.2–25.8)	23.1 (18.2–27.9)	—	37.8 (34.4–41.3)	32.3 (28.9–35.7)	34.6 (29.5–39.6)
RII		2.67 (1.74–4.09)	3.24 (1.98–5.32)	3.38 (1.68–6.79)		4.58 (3.19–6.57)	4.65 (2.98–7.25)	4.35 (2.39–7.89)
Health-related behaviors								
Smoking								
Social classes I–II	53.8 (42.6–64.9)	43.4 (37.9–48.9)	40.3 (34.8–45.8)	38.7 (30.4–47.0)	29.4 (20.8–37.9)	20.1 (16.6–23.7)	25.9 (21.8–30.0)	19.9 (14.5–25.2)
Social class III	53.9 (43.5–64.2)	48.5 (43.0–54.1)	42.5 (36.5–48.6)	37.8 (29.5–46.0)	23.4 (17.5–29.3)	18.0 (15.1–20.9)	24.0 (20.0–28.0)	24.3 (18.7–29.8)
Social classes IV–V	55.4 (48.1–62.6)	49.6 (44.8–54.5)	50.0 (45.0–55.1)	43.1 (35.7–50.5)	17.8 (13.8–21.8)	18.6 (15.9–21.2)	19.3–25.8)	20.5 (15.9–25.1)
RII	1.09 (0.64–1.86)	1.30 (0.94–1.81)	1.91 (1.34–2.73)	1.19 (0.69–2.04)	0.29 (0.15–0.56)	0.76 (0.51–1.15)	0.55 (0.36–0.83)	0.77 (0.42–1.44)
Lack of usual physical activity								
Social classes I–II	—	40.5 (35.0–46.0)	40.4 (35.0–45.9)	50.2 (40.9–59.5)	—	23.8 (19.1–28.4)	23.5 (18.8–28.2)	30.4 (23.0–37.8)
Social class III	—	40.8 (35.7–45.9)	35.2 (29.7–40.7)	49.5 (39.8–59.3)	—	31.6 (27.1–36.1)	25.7 (21.1–30.4)	42.3 (33.3–51.2)
Social classes IV–V	—	28.3 (24.8–31.9)	24.4 (20.9–27.8)	31.2 (25.2–37.2)	—	24.6 (21.7–27.5)	18.3 (15.7–21.0)	26.5 (21.9–31.2)
RII		0.45 (0.32–0.64)	0.30 (0.20–0.43)	0.29 (0.17–0.49)		1.04 (0.73–1.47)	0.59 (0.39–0.89)	0.65 (0.39–1.09)

[a] Male and female, ages >14 years, Barcelona, 1983–1994.







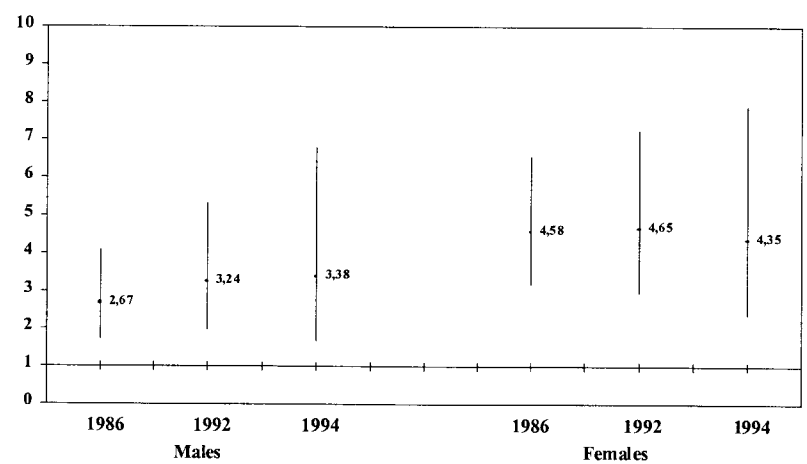


FIG. 1. Relative index of inequality and 95% confidence interval of health status. Male and female, >14 years, Barcelona, 1983–1994.

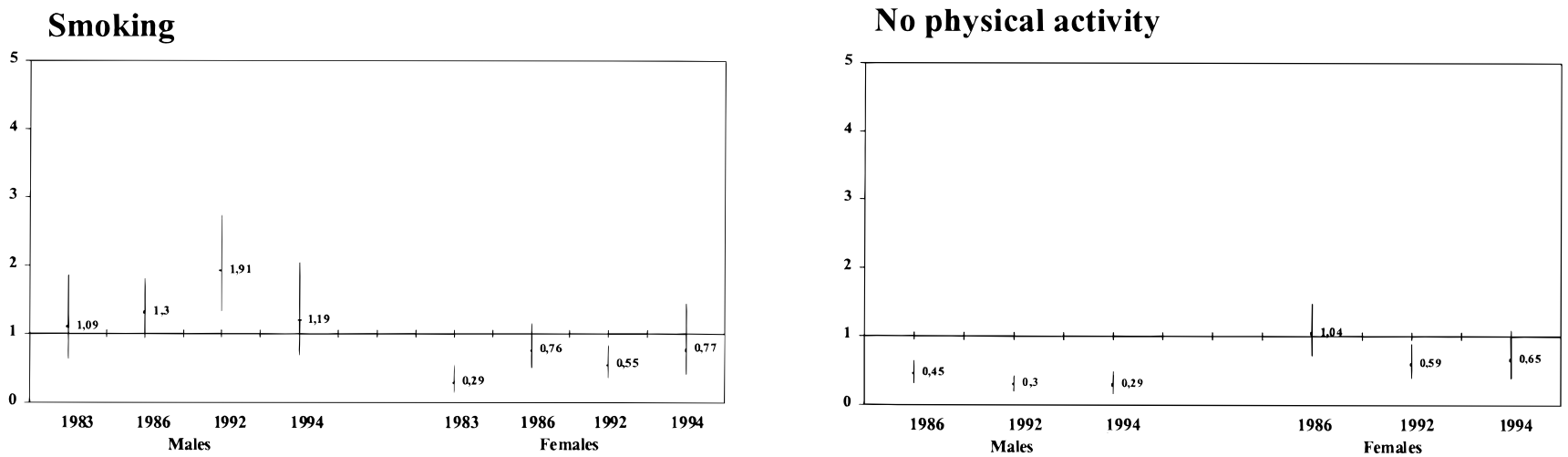


FIG. 2. Relative index of inequality and 95% confidence interval of health-related behaviors. Male and female, >14 years, Barcelona, 1983–1994.

the difference was not statistically significant (Table 3 and Fig. 3).

In 1986 there were no differences by social class in visiting the doctor among people with poor perceived health (RII for men was 1.28, 95%CI: 0.56–2.97, and for women 1.13 with a 95%CI: 0.59–2.17); in 1994 women of classes I and II had visited the doctor more. Men of advantaged classes were hospitalized more frequently in 1986 (RII: 0.43, 95%CI: 0.13–1.42), while the pattern changed in 1994 (RII: 1.5, 95%CI: 0.29–7.67). There was no clear pattern of hospitalization by social class in women with poor health status (Table 3 and Fig. 3).

DISCUSSION

Perceived Health Status

In this series of four health interview surveys no differences according to social class in the restriction of activity were found until 1992, but in 1994 a social pattern was apparent. An explanation could be the fact that in 1994 the estimates had larger variability because of a smaller sample size. The analysis of data from the 2000 Barcelona Health Interview Survey will provide valuable information to confirm or disprove that pattern.

Other studies have found a different pattern of the evolution of the limitation of activity by social class. In Finland between 1964 and 1987 social class inequalities in longstanding illness had diminished [*22*]. In Spain no differences were found in the limitation of activity according to social class in the 1987 National Health Interview Survey, whereas data from the 1993 survey revealed that among people with poor perceived health, advantaged social classes more often declared some type of limitation [*23*].

A poor perceived health status and the presence of chronic conditions showed a social class pattern of inequalities in the four surveys. Such inequalities were increased in women for chronic conditions and in men for perceived health status. In Finland, some studies that analyzed the evolution of inequalities in perceived health status by educational level in the 1980s and 1990s found a decrease in inequalities in men and no trend in women [*24*,*25*]. In Spain inequalities in perceived health status by social class were more important in men and women of older ages compared with young people, and were greater in 1987 than in 1993 [*23*]. Although the list of chronic conditions was not exactly the same in the four surveys, it is important to emphasize the increase in inequalities in women. Future studies, incorporating gender perspective, are needed to further analyze the evolution by social class of the different or selected chronic conditions. In Spain inequalities have been reported by educational level for some chronic conditions (bronchitis, hypertension, and diabetes) and these widened between 1987 and 1993 [*26*].

Despite the stability of social class inequalities in perceived health status, we have recently reported a

TABLE 3

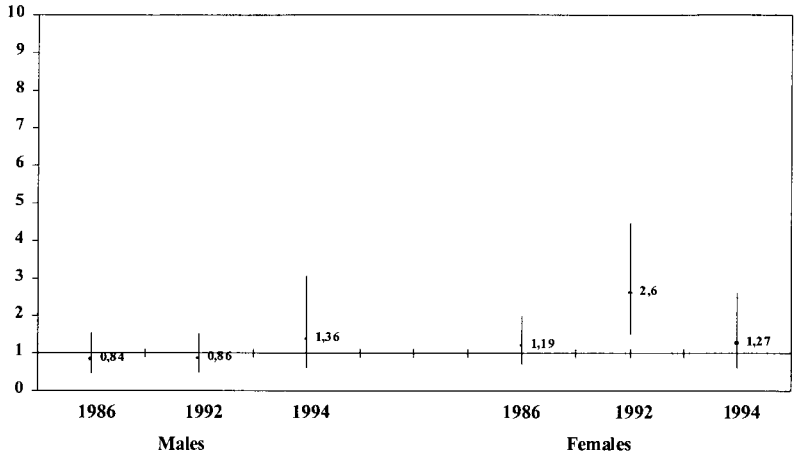
Health Services Utilization by Social Class and Perceived Health Status (Age Standardized Percentages and 95% Confidence Intervals) and Relative Index of Inequality (RII and 95% Confidence Intervals)[a]

	Male			Female		
	1986	1992	1994	1986	1992	1994
Good perceived health status						
Visit to doctor last 2 weeks						
Social classes I–II	11.4 (8.1–14.7)	14.7 (11.0–18.4)	12.7 (7.7–17.8)	14.6 (10.5–18.8)	11.7 (7.9–15.4)	16.8 (11.0–22.6)
Social class III	11.7 (8.7–14.8)	15.8 (11.7–19.9)	15.9 (10.0–22.0)	15.8 (11.3–20.3)	15.0 (10.4–19.7)	19.5 (11.6–27.4)
Social classes IV–V	10.1 (7.7–12.5)	12.9 (10.1–15.7)	15.7 (10.8–20.5)	15.4 (12.5–18.3)	19.6 (16.2–23.0)	19.6 (14.6–24.6)
RII	0.84 (0.47–1.53)	0.86 (0.50–1.51)	1.36 (0.61–3.06)	1.19 (0.72–1.99)	2.60 (1.51–4.47)	1.27 (0.62–2.61)
Hospitalization last year						
Social classes I–II	5.9 (3.5–8.4)	6.5 (4.1–8.9)	7.2 (3.4–11.1)	5.7 (3.5–8.4)	6.6 (3.9–9.3)	8.2 (4.3–12.1)
Social class III	5.2 (3.1–7.2)	4.8 (2.6–7.0)	6.7 (2.6–10.7)	6.9 (3.7–10.0)	5.6 (2.8–8.4)	6.5 (1.9–11.2)
Social classes IV–V	4.9 (3.2–6.7)	6.9 (4.8–9.1)	3.9 (1.6–6.2)	5.3 (3.6–7.0)	8.1 (5.9–10.3)	5.1 (2.5–7.6)
RII	0.81 (0.35–1.88)	1.18 (0.52–2.64)	0.40 (0.11–1.42)	0.89 (0.42–1.92)	1.41 (0.66–2.99)	0.44 (0.14–1.38)
Poor perceived health						
Visit to doctor last 2 weeks						
Social classes I–II	24.4 (10.6–38.1)	21.1 (7.0–35.1)	37.7 (9.1–66.4)	28.0 (17.2–38.8)	51.4 (30.3–72.5)	36.4 (17.2–55.5)
Social class III	27.2 (16.7–37.8)	28.1 (9.2–47.0)	28.0 (12.5–43.4)	32.4 (22.4–42.3)	37.8 (24.4–51.2)	37.2 (15.5–58.9)
Social classes IV–V	26.5 (18.6–34.4)	32.5 (23.3–41.8)	30.3 (16.1–44.5)	30.5 (24.8–36.3)	46.2 (36.9–55.4)	26.8 (17.8–35.8)
RII	1.28 (0.56–2.97)	2.41 (0.94–6.17)	1.19 (0.33–4.23)	1.13 (0.59–2.17)	1.24 (0.58–2.62)	0.41 (0.15–1.14)
Hospitalization last year						
Social classes I–II	20.4 (7.1–33.7)	9.8 (3.5–16.1)	16.3 (0.08–31.8)	9.1 (2.2–15.9)	11.4 (1.3–21.5)	13.3 (3.0–23.5)
Social class III	5.3 (1.5–9.1)	17.1 (1.3–34.0)	7.4 (0.01–15.1)	11.3 (5.3–17.4)	10.0 (3.4–16.6)	10.5 (0.0–21.0)
Social classes IV–V	9.0 (4.4–13.7)	13.1 (7.4–18.8)	20.3 (7.5–33.1)	7.4 (4.9–10.0)	16.6 (11.3–21.9)	11.3 (4.3–18.3)
RII	0.43 (0.13–1.42)	1.08 (0.35–3.39)	1.50 (0.29–7.67)	0.87 (0.31–2.49)	2.76 (0.85–9.00)	0.47 (0.11–1.91)

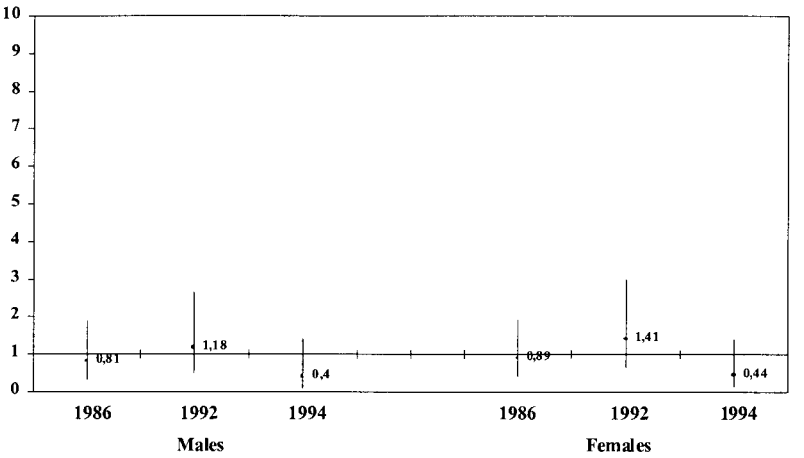
[a] Male and female, ages >14 years, Barcelona 1986–1994.

Good health

Visit to doctor past 15 days

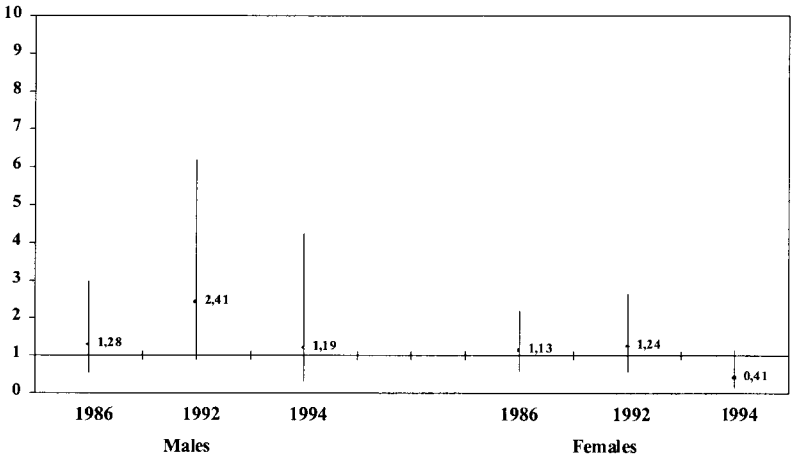


Hospitalization past year



Bad health

Visit to doctor past 15 days



Hospitalization past year

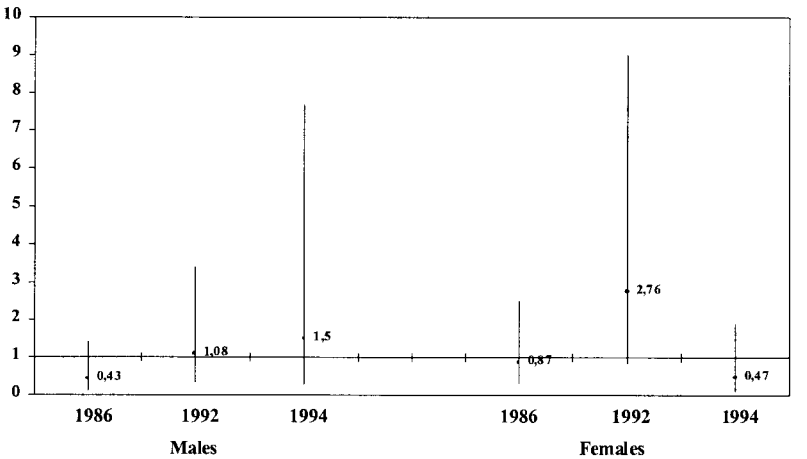


FIG. 3. Relative index of inequality and 95% confidence interval of health services utilization by perceived health status. Male and female, >14 years, Barcelona, 1986–1994.

pattern of widening inequalities in premature mortality among the wards of Barcelona with low socioeconomic level in relation to the other wards. The increase in social inequalities in premature mortality was due to two main causes of death: AIDS and drug overdose. This has lead to increased inequalities in specific mortality rates for the group of ages 15–44 years [*12*]. These findings show that mortality inequalities are increasing mainly due to the diseases affecting the marginal population. This is a hidden population, not traced in health interview surveys (due to sample methodology) and may partly explain why social inequalities in perceived health status are stable in Barcelona.

Health Related Behaviors

Smoking habit diffuses within societies in four different stages. In stage 1, smoking is an exceptional behavior and typical of advantaged classes. In stage 2 smoking becomes more common, more in men of all social classes or advantaged classes. Women lag 10–20 years behind men and the habit is adopted by advantaged classes. During stage 3, prevalence in men decreases mainly in the upper classes, and women reach their peak. In stage 4, the habit declines and smoking becomes more prevalent in disadvantaged classes [*27–29*].

The pattern of tobacco consumption varies among countries. Northern European countries and other developed countries like the United States, Australia, and Canada are mainly in stage 4, where the prevalence of smokers is higher among disadvantaged social classes and among those with lower education levels [*24,28,30–33*]. In the United States, people with higher education levels maintained high prevalence of smoking until the 1950s, after which prevalence became higher in groups with lower education levels [*34*]. In other countries this change occurred somewhat later [*31*]. In Finland it occurred among women during the 1970s [*35*]. In contrast, southern European countries, including Spain, are in an earlier stage, with the differences between social classes appearing in men, while the patterns are changing in women, the habit becoming more common among the disadvantaged classes [*13,23,26,36,37,38*]. We have described how in Barcelona the change was taking place among women in 1994 while in men the trend reversed a few years ago [*39*]. The analysis of smoking initiation rates in Catalonia also supports the hypothesis that we are at the end of stage 3 of the tobacco epidemic [*40*].

People in advantaged classes usually undertake more leisure time physical activity, but less usual physical activity [*41,42,32*]. As usual physical activity is mainly related to occupational physical activity among workers, and to activities of daily living among nonworkers (i.e., housework), it is reasonable to expect that persons in disadvantaged social classes do more usual physical activity. This may be explained by the fact that their occupations are manual and also because the women of these social classes do more housework than the women of upper classes [*43*]. We have observed that lack of usual physical activity is more prevalent in advantaged classes. The differences are increasing, probably due to the fact that in the industrialized society jobs are requiring less and less physical activity. As a result, physical activity is becoming more and more part of leisure time [*44*]. We previously reported that leisure time physical activity was related to advantaged social class in both men and women [*45*]. Unfortunately, we are not able to study the evolution in leisure time physical activity because it was measured in different ways in the surveys.

Health Services Utilization

We found almost no inequalities by social class in health service utilization in our series of health interview surveys. A number of studies carried out in Spain in recent years have not found any socioeconomic inequalities with regard to visits or hospitalizations [*46–48*]. In earlier studies with data collected in the 1980s, however, differences by social class were evident when the level of need was taken into account, with persons of disadvantaged classes and with poor self-perceived health consulting less [*49,50*].

One explanation of this change could be the implementation in the late 1980s of the Spanish National Health System with an almost universal coverage of health care. The system is financed through taxation of income, most health facilities are public, and access is universal and free [*51*]. This universalization facilitates access to services for all social classes. Another relevant issue is the broadening reforms in primary care that were initiated in 1984 following the principles of the Alma Ata Conference. The new Primary Health Care in Spain implies the construction of health care centers where professionals work in teams [*52*]. Nowadays the reform has different degrees of implementation in the different regions of Spain. In Barcelona it has only reached 46% of the population [*6*]. Moreover, it is necessary to mention that the reform in the city of Barcelona has been oriented to the reduction of social inequalities in health, and thus the most deprived neighborhoods received priority when the reform was implemented [*53*]. We believe that the reform of primary health care increases the accessibility and diminishes the inequalities in health services utilization by social class, but specific studies to address this question are still needed.

It should, however, be mentioned that in Barcelona approximately 30% of the population have private health insurance in addition to the public one. This double coverage is much more prevalent in people of advantaged classes and is related to the existence of

inequalities in other aspects of health care utilization such as preventive practices (preventive dental care, prevention of breast and cervical cancer, etc.) and in some characteristics of the visits, i.e., waiting times [*13,23,46,54,55*]. However, in this study it was not possible to investigate such preventive practices, as they were included only in the 1992 and 1994 health interview surveys.

Limitations

The four health interview surveys conducted in Barcelona exhibit certain differences that should be noted. In 1983 the interviews were conducted in the first 6 months of the year, while in 1986, 1992, and 1994 the interviews took place over the full year. In this study we have compared those variables that were worded in the same manner, although some minor changes had been introduced, for example, in the question about tobacco consumption or in the lists of chronic conditions. Other questions were presented very differently (e.g., leisure time physical activity) and for this reason we have not included them.

Social class was derived from current or last occupation of the subjects interviewed, although women and men who had not worked outside the household were classified according to the occupation of the head of the household (housewives, unemployed, students, etc.). However, no meaningful changes appear even when all subjects are assigned to the social class head of household [*56*]. Moreover, the same questions and coding scheme were followed in the four surveys to assign social class.

Finally, it is worth mentioning that some estimations have a large chance of fluctuations and wide confidence intervals, mainly due to the small numbers. One example is the acute restriction of activity and having been confined to bed in social classes I–II in 1994, which implies that changes in the magnitude of health inequalities often cannot be demonstrated with statistical significance.

CONCLUSION

There were practically no trends in social class inequalities in health status in Barcelona. The pattern of smoking, however, is changing: In men there were no social class inequalities in smoking in 1983, while in 1994 smoking was more prevalent in social classes IV–V. Among women, smoking was more prevalent in social classes I–II in 1983, but this changed in 1994 and smoking was equally prevalent among advantaged and disadvantaged classes. Usual physical activity is becoming progressively less common among the advantaged classes. Health services utilization does not show any clear pattern of inequalities.

The analysis and monitoring of the evolution of inequalities in perceived health status, health-related behaviors, and the quality of health services should be a matter of concern not only for social researchers and epidemiologists, but also for policy-makers. The changing pattern by social class of health-related behaviors needs to be taken into account by policy makers and public health workers. This study indicates that actions aimed at the prevention of smoking initiation among women and men in deprived classes would have a major beneficial effect. Finally, it is important to further analyze the potential impact of primary health care reform on social class inequalities in health services accessibility and use.

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