

Permanent disability incidence in a cohort of social security affiliated workers in Spain, 2004-2007

Xavier Durán (1), José Miguel Martínez (1,2), Pere Jódar (3), Pere Boix (1,4), Fernando G. Benavides (1,2)

(1) Centro de Investigación en Salud Laboral (CISAL), Universitat Pompeu Fabra. (2) CIBER de Epidemiología y Salud Pública. (3) Departament de Ciències Polítiques i Socials. Universitat Pompeu Fabra. (4) Instituto Sindical Trabajo Ambiente y Salud
Funded by Fondo de investigación sanitaria (FIS PI 080914)

Introduction

Some injury and diseases, both work and non work-related, end in permanent disabilities for workers, who have been affiliated with the social security regimen for at least five years. A permanent disability means that a worker has received a medical treatment, presents functional and/or anatomical limitations which can be assessed objectively, and these limitations reduce his/her work capacity permanently.

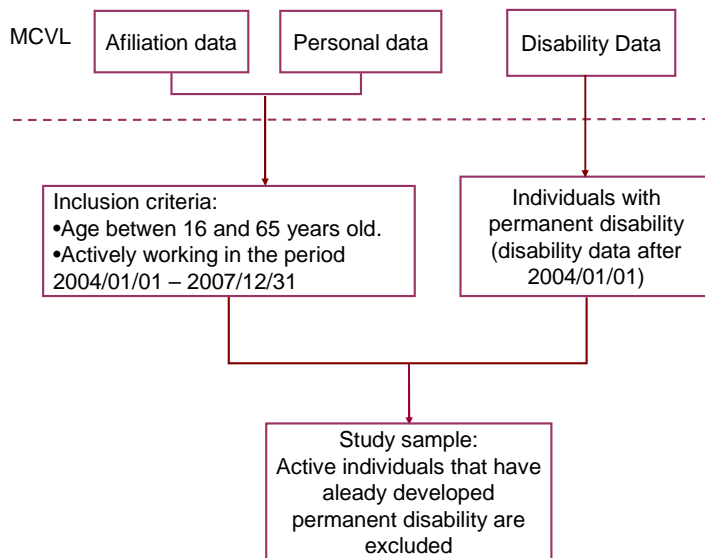
Objective

To describe the incidence of permanent disability, work-related and non work-related, according to several socio-economic and geographical variables.

Subjects and methods

The study design was a retrospective cohort of 768,454 workers covered by the Social Security General Schedule (CEMSA cohort), selected in 2004 and tracked until 2007, and based on the Continuous Working Life Survey. During this period, 7,749 cases of permanent disability (7,032; 90.7%, non work-related) were identified. Incidence rates were calculated dividing cases by times from each worker covered by the social security general schedule and included in the cohort (1,937,920 worker-years). Rate ratios (RR) and their confidence intervals at 95% (95%CI), crude and adjusted, were estimated by Poisson regression models using a robust estimation of standard errors of the parameter's models.

Figure 1. Flow chart for identification of workers and permanent disability in the Continuous Working Life Survey 2004 - 2007



Results

Non work-related permanent disability incidence was 10 times greater than work-related (36.3 versus 3.7 per 10,000 worker-years). Incidences were highest for men, and increasing with age and lesser education level. Asturias was the region with the highest incidence compared to Madrid, for non work-related (56.7 versus 23.3) as well as work-related (7.8 versus 1.9). This differential was maintained (RR= 2,2; CI95%=(1,9; 2,5) y RR=3,2; CI95%=(2,1; 4,9), for work-related and non work-related respectively), after adjusting by age, sex, educational level, company size and economic activity.

Figure 3. Incidence of permanent disability by Spanish regions (tertiles)

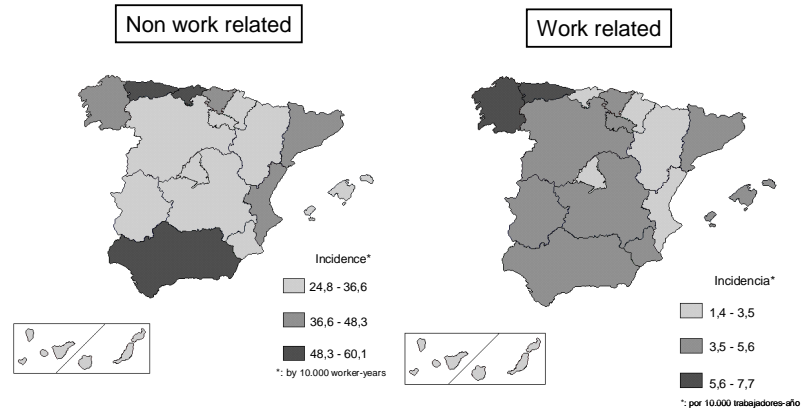
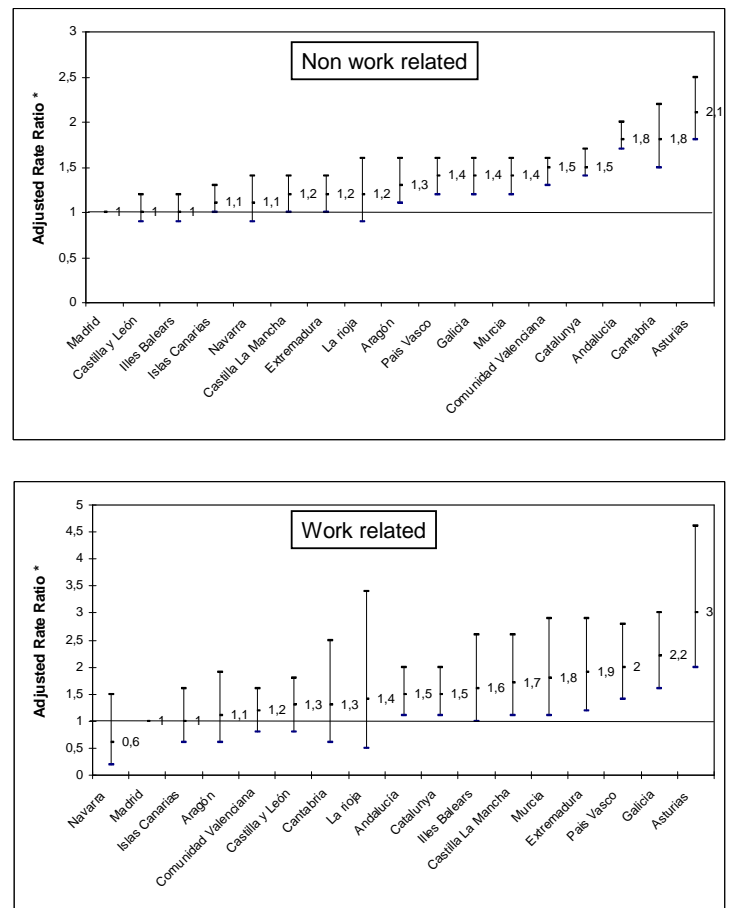


Figure 4: Rate ratios and their confidence intervals at 95% by region for permanent disability due to work and non work-related



* Adjusting by age, sex, educational level, company sizes and economic activities

Conclusions

In this first cohort study of permanent disability, we observed great differences in incidences by demographics, social and geographical characteristics which have to be analyzed in depth, especially those differences by region.