

# Mortalità per settore produttivo in Italia nel 1992 secondo le storie lavorative INPS

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## KEY WORDS

Pension records; proportional mortality; economic sector; Italy, record-linkage

## SUMMARY

**«Occupational mortality in Italy during 1992, assessed through record-linkage between pension records and death certificates».** Background: *The creation of a surveillance system of occupational mortality in Italy is limited by the low quality of information on occupation in death certificates, since the information is often incomplete or lacking and because only the occupation at the time of death is registered.* Objective: *To evaluate the possible use of INPS (National Institute of Social Security) records for the purpose of surveillance of occupational mortality, in terms of feasibility of setting up a system and of validity of the results obtained.* Methods: *Death records of 218,510 subjects aged 18-74, deceased in the 12 months following the 1991 census, were obtained from ISTAT (Central Statistics Institute). These were combined through record-linkage with the INPS social security archives, which contain the employment records by economic sector going back to 1974, in order to assign these deaths the sector in which they had worked the longest. Mortality by specific causes was evaluated by industry by means of a proportional mortality analysis stratified by sex and occupational status, and adjusted for age, education, marital status, geographical area of birth, drawing a disability pension, employment status at the time of death and work instability.* Results: *Record-linkage allowed attribution of the longest held job to 70% of the deaths recorded. Results are presented and discussed only on mortality in men due to asbestosis and silicosis, and causes of death with a substantial proportion attributable to occupation: chronic obstructive pulmonary disease (COPD); cancers of the bladder, nasal cavity, larynx, lung and pleura; leukaemia and lymphoma; accidental causes. Among the economic sectors with a significant excess mortality, the following are well documented in the literature: mortality due to COPD in the coal and peat-bog sectors; due to leukaemia among farmers; due to sino-nasal tumours in wood-working and furniture production; due to cancer of the larynx, lung, and pleura in occupations where there was probable exposure to asbestos (fishing and maritime transport, non-metal mining, building industry, and naval, train and aircraft construction); due to silicosis in industries with potential exposure to crystalline silica; due to accidental causes in the building industry and farming. Other mortality excesses and deficits, especially those due to bladder and lympho-haemopoietic cancers, appear to be only partly consistent with those described by other authors.*

**Discussion:** *The feasibility of developing a surveillance system of occupational mortality based on the INPS source was found to be good, and, at least among males, for 75% of the deceased subjects historical information existed concerning the economic sectors registered in the INPS records. The results obtained would appear to indicate that the system is capable of highlighting risk excesses due to widespread exposure in the industries examined, regarding diseases for which there is a strong association with exposure. On the other hand, due to the inherent limits of the study's design (lack of a complete work history and of precise information on the jobs held) its use is not recommended in the surveillance of diseases with a low proportion attributable to a risk factor, or with wide exposure variability in a given sector among the various jobs.*