

Burden of occupational injuries occurred in Italy, 1900-2017

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Background:

The GBD study allows comparison of health conditions among different societies and cultures. This permits also to estimate health variations over a long time in a single nation, overcoming the difficulties deriving from social and economic changes. INAIL, the National Institute for Insurance against Accidents at Work, provides since 1884, detailed data about the number of events and their consequences, age and sex of injured workers, and the total number of insured workers. Such data allow us to estimate DALYs in terms of incidence and prevalence, and under different mortality models.

Methods:

1.8 mln. individual injury records occurred in 1990-2015 were transcoded into GBD injury categories. YLLs and YLDs were calculated considering life expectancy, DWs and duration, then distributed by compensation category. The YLLs and YLDs of permanent disabilities have been assessed with reference both to the life expectancy of the GBD 2017 and, in a competitive mortality model, to mean values at the time of the accident. Estimated DALYs were assessed both in terms of incidence and prevalence.

Results:

Around 1900, an industrial worker suffered on average 0.087 incident DALY/year for occupational injuries, or 0.058 in a competitive mortality model. These values remained almost stationary until WWII when they showed a peak around 0.11, then declined to about a third in the 1970s, and to about a twentieth in 2017. The YLL / DALY ratio was 0.82 around 1900, then slowly decreased to less than 0.5 in the late 1930s, rose to a new peak around 0.8 in WWII, then diminished again to 0.32 in 2017. Considering prevalence, variations are much slower, due to the expected average durations of permanent disabilities, between 32.5 and 52 years. Risk breakdown by main industry sectors is ongoing.

Conclusions:

DALY rate and YLL/DALY injuries declined largely along time. Nevertheless, such events continue to leave a very long-term legacy of disabilities.

Key messages:

- INAIL data permit to estimate burden for occupational injuries occurred in Italy along over a century.
- Injury burden declined over time, but continues to leave a legacy of long-term disabilities.