Inequalities in health: do occupational risks matter?

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In the 1908–1917 Italian Statistics on occupational mortality, the highest proportional mortality for accidents and violence included: falls among bricklayers, crushing among railwaymen, drowning for fishermen, explosions and asphyxiation in miners, burns in firemen, violence from animals among coachmen, frostbite among soldiers, lightning strikes in shepherds, electrocution in blacksmiths, sunstroke and snakebites for farmers, cuts for butchers.1 At that time, occupational mortality statistics were considered meaningful for occupational physicians and safety engineers, and for their responsibility in prevention: each occupation was linked to one accidental cause of death and one plausible explanation.

Today, occupational exposures still provide convincing explanations for health inequalities, given that their social distribution is often skewed, with most exposed individuals belonging to the working class. Although neither public nor private institutions for Occupational Safety and Health (OSH) seem to have included health inequalities among their targets for prevention,2 recent studies do provide entry-points for a renewed interest. Several occupational and social epidemiological studies have attempted to disentangle the relative contribution to health inequalities made by occupational risks, from that made by biological and behavioural risk factors. Most of these studies focused on psychosocial exposures at work, evaluating their contribution to outcomes such as self-rated health, cardiovascular diseases, and musculoskeletal disorders.3–6 There was large variation between these studies in the contribution of factors at work to the explanation of socioeconomic inequalities in health. This variation appears attributable to differences in the social organization of the populations under study, in study design, in measurement of the exposure, in definition of socioeconomic status. All these limitations suggest the need for further research in both social and occupational epidemiology, with more population-based longitudinal studies, increased accuracy in the measurement of exposures and outcome, and greater attention to pathways.7

From the public health point of view, there is sufficient evidence to take action. Most of the material, psychosocial, behavioural, and contextual risk factors are more prevalent in the working class and could be addressed by OSH institutions, although this would require a broadening of the scope of their activities. The contribution of health-related downward mobility to health inequalities is likely to be small; nevertheless, OSH institutions have an indirect responsibility in preventing discrimination in employment practices. In the workplace, physical/chemical/ergonomic/psychosocial risk factors may explain a larger part of social health inequalities for some specific outcomes, such as cardiovascular diseases, musculoskeletal disorders, and mental health, over which OSH institutions have direct responsibility in prevention. Meanwhile, behavioural and other material circumstances, such as income, may account for the remaining differences in health; OSH institutions could contribute to reducing health inequalities by promoting workability and employability through healthy behaviours, and by advocating for more justice in income. A certain amount of inequalities in health outcomes is attributable to limitation in access to timely and appropriate health care, for which OSH institutions have indirect responsibility through equity audits in health surveillance in the workplace. Contextual determinants may buffer the effect of each of the determinants of health inequalities by providing supporting environments, and OSH institutions could promote the creation of these environments.

Evidence on the effectiveness of strategies for tackling health inequalities is limited. This also applies to policies and interventions at the workplace. However, many interventions to improve the efficiency of production processes are being continuously carried out by companies, and often involve changes that may affect health. They are seldom evaluated for their impact on health, and are rarely published. We hope that a renewed interest in health inequalities in the occupational field will stimulate new efforts in evaluation studies.

References

1 Gherardi G. Studio sulla mortalità per cause violente accidentali in rapporto alla professione. Il Lavoro 1924; XV: 1101–144.