age at leaving work and suicide/overdose were null. Yet, among miners with post-1980 job loss, leaving work before age 30 and between ages 30–40 increased the risk of suicide/overdose compared with leaving work after age 55 (1.94 (1.05, 3.58) and 1.46 (0.78, 2.72), respectively).

Conclusions Our results suggest an elevated risk of suicide among male miners in the 1980s, and that the risk increases after leaving work.

Background

The decline of manufacturing employment is frequently invoked as a key cause of worsening U.S. population health trends, including increased mortality due to rising ‘deaths of despair’. Increasing automation—the use of industrial robots to perform tasks previously done by human workers—is one major structural force driving the decline of manufacturing jobs and wages. In this study we examine the impact of automation on age-sex specific mortality. Using exogenous variation in automation to support causal inference, we find that increases in automation over the period 1993–2007 led to substantive increases in all-cause mortality for both men and women aged 45–54. Disaggregating by cause, we find evidence that automation is associated with increases in drug overdose deaths, suicide, homicide and cardiovascular mortality although patterns differ across age-sex groups. We go on to examine heterogeneity in effects by safety net program generosity, labor market policies, and the supply of prescription opioids.

Methods

An online inventory was set-up to collect meta data on exposure assessment tools (https://occupationalexposure-tools.net/). Occupational health researchers were invited via newsletters, editorials and individual mails to provide details on job-exposure matrices (JEMs), exposure databases, and occupational coding systems and crosswalks, with a focus on Europe.

Results

Meta data on 38 JEMs and 9 national exposure databases had been collected up to May 2021. Most JEMs on which these data were entered were developed in the Netherlands and the Nordic countries. A wide variety of exposures was covered, with dusts and fibres (in 15 JEMs) being the most common types. Just a few JEMs covered biological factors (5) and employment conditions (1). Dusts and fibres were also the most common exposures in the databases (6 out of 9), followed by solvents and pesticides (both in 4 databases). Furthermore, information was collected on 24 occupational coding systems from more than 10 countries, indicating related systems as well as the availability of crosswalks or automated coding from free-text.

Conclusion

This inventory forms the basis for a searchable web-based database of meta-data on existing occupational exposure information, so that researchers can find the available tools for assessing occupational exposures in their cohorts. This inventory remains open for further additions, to enlarge its coverage and include newly developed tools.

Introduction

The Network on the Coordination and Harmonisation of European Occupational Cohorts (OMEGA-NET) was set up to enable optimization of using industrial and general population cohorts across Europe to advance aetiological research. High quality harmonised exposure assessment is crucial for such international occupational health research.

Objective

To facilitate an integrated research strategy, a concerted effort is needed to catalogue occupational exposure information. This study aims to provide a comprehensive overview of exposure assessment tools that could be used for occupational epidemiological studies.

Methods

An online inventory was set-up to collect meta data on exposure assessment tools (https://occupationalexposure-tools.net/). Occupational health researchers were invited via newsletters, editorials and individual mails to provide details on job-exposure matrices (JEMs), exposure databases, and occupational coding systems and crosswalks, with a focus on Europe.

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