

WORKER SURVEY ON EXPOSURE TO CANCER RISK FACTORS

The Worker Survey on Exposure to Cancer Risk Factors in Europe sets out to fill an important information gap on workplace exposure to cancer risk factors. This gap has been widely identified, most recently in the context of the revision of the [Carcinogens and Mutagens Directive](#) but also in the [European Commission's Communication on modernisation of the EU occupational safety and health legislation and policy](#) (2017). The project draws on the conclusions of the [feasibility study on the development of a computer-assisted telephone survey to estimate workers' exposure to carcinogens in the European Union](#) (2017).

Preparatory work has started in 2020 with the first steps for the methodology design and adaptation of a similar Australian survey to the European context. In 2021 and 2022, the survey will be developed, tested and carried out in the field. The European Agency for Safety and Health at Work (EU-OSHA) plans to publish first findings in 2023. Finally, an evaluation will be conducted in 2024. This document presents this new project in its start-up phase and gives an outline of the planned methodology.

Cancer risk factors in the workplace

Chemical cancer risk factors are defined as substances or mixtures that cause or promote cancer in exposed workers. Radiation, stress and other factors related to work organisation and conditions have also all been linked to work-related cancer.

One of the biggest health problems faced by workplaces across Europe, and indeed throughout the world, is [work-related cancer](#). It accounts for an estimated [53 % of all work-related deaths](#) in the European Union (EU) and other developed countries. The disease can have multiple causes, and its causes and their interplay are not fully understood. According to the [Roadmap on Carcinogens](#) in 2016, about 120,000 work-related cancer cases occur each year as a result of exposure to carcinogens at work in the EU, leading to approximately 80,000 fatalities annually.

Reliable data on workplace exposure to cancer risk factors are essential for both the safety and health of workers and a productive and sustainable economy. EU-OSHA has identified a lack of harmonised and comparable data at European level. This innovative survey will help to assess the extent of exposure to cancer risk factors responsible for most of the exposures in Europe, following the model of the Australian Workplace Exposures Study (AWES).

EU-OSHA aims to contribute to meeting the challenge of reducing work-related cancer by improving knowledge among policy-makers, researchers and intermediaries about workers' exposure to cancer risk factors. The survey results will help them to prioritise and target appropriate actions. The survey is expected to provide an accurate and comprehensive picture of current risks related to workers' exposure to cancer risk factors. Analysis of the findings and further research will contribute to raising awareness on risk prevention and risk management.

A reliable and innovative survey

Following the recommendations of the feasibility study and two expert meetings held in 2018 and 2019, the methodological approach of the survey is largely based on AWES. The EU-OSHA survey will provide a reliable assessment of exposure related to jobs and tasks that complements existing workplace exposure measurements, national surveys and information available from national administrative sources in many EU Member States.

The survey will follow a harmonised method across Europe. It will enable comparison of data between countries and the assessment of several exposures at the same time; in contrast, existing data are not collected in a way that allows comparisons between countries, and they can be difficult to access.

The survey will ask about workers' tasks, not about exposure to cancer risk factors. The data collected will then be analysed using a web-based application to assess occupational exposures; this application was developed for AWES and will be adapted for EU-OSHA's new survey. It was designed by researchers and makes it possible to link descriptions of tasks to exposures that are common during those tasks.

Therefore, the main limitations of a conventional worker survey will not apply. Thanks to the innovative survey method, there will be limited individual reporting bias and the survey population can be broad, including hard-to-reach workers (e.g. self-employed workers, family workers, workers in micro and small enterprises).

Planned methodology

Coverage of the survey

EU-OSHA will carry out the survey in a broadly representative selection of European countries (Germany, Ireland, Spain, France, Hungary and Finland). In each of the selected countries, EU-OSHA will contact a representative sample of workers for a telephone interview about their current job. The size of the samples will allow detailed analysis of the results to be performed (3,000 workers in each country on average).

Support from expert and advisory groups

International expert and advisory groups will advise EU-OSHA on the project implementation and provide feedback on the survey. The international expert group will provide technical input, while the advisory group will provide more strategic input.

In a meeting held in 2019, the experts discussed topics related to the development of the survey methodology and the specific cancer risk factors to be included in the scope of the survey, highlighting priorities and challenges. Up to two annual meetings will take place throughout the duration of the project. The group consists of researchers in the field of exposure to cancer risk factors, epidemiologists, occupational safety and health experts, occupational hygienists and worker survey experts.

The first meeting of the Workers' Exposure Survey Advisory Group (WES-AG) will take place in 2020, and a meeting will be held at least once a year thereafter. The group is composed of appointed members representing the three interest groups of the [Management Board of EU-OSHA](#) and the European Commission.

National expert groups will also provide their support. One group of experts in each selected country will discuss the adaptation of the questionnaire to the national context. The experts, mainly occupational hygienists, will also advise on the adaptation of technical terms, check the translation into the main language of their country and discuss the introduction of a limited number of new questions, if necessary. EU-OSHA will coordinate the groups to ensure comparability among countries.

Adaptation and translation process

In 2020, EU-OSHA began the adaptation of the Australian model to the European context. The main adaptations cover the manufacturing sector — which is not as developed in Australia as in Europe — the different legislation and any differences in the way tasks are performed.

An optimal translation strategy is essential to ensure that each national version of the questionnaire comprises precise questions that can be directed at all workers in the country concerned and generates comparable information. The translation of the questionnaire will follow the TRAPD approach (translation, review, adjudication, pre-testing and documentation) ¹.

Expected results

The survey will look at the number and characteristics of the workers exposed to a range of cancer risk factors, including asbestos, benzene, chromium, diesel exhaust, nickel, silica dust, UV radiation and wood dust. In particular, information on workers' multiple exposures will be collected. The results could be analysed by business sector, occupation, country, gender, etc.

Assuming a successful outcome of the survey in the six selected countries, this will provide a solid basis for a decision on further implementation of the survey for full country coverage in subsequent years.

¹ J.A. Harkness, 'Questionnaire translation', in J.A. Harkness, F. van de Vijver, and P.P. Mohler (eds), *Cross-cultural survey methods*, John Wiley & Sons, Hoboken, NJ, 2003, pp. 35-56.