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## **Occupational health and valid work exposure tools are keys to improving the health of ageing workers**

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Both authors have participated in writing the letter and approved it.

Many countries have increased the legal retirement age due to economic constraints and aging populations.[1] One important obstacle to raising retirement age is premature aging caused by difficult and arduous working conditions.[2,3] Nevertheless, even for some countries with retirement ages that may vary according to working conditions, it is particularly challenging to define an optimal retirement age that consistently and fairly determines which workers may be granted earlier retirement due to difficult working conditions.

France started by defining exposures in terms of their consequences, i.e. the presence of a specific recognised occupational disease or injury.[4] In 2014, the Government introduced a new rule requiring employers to evaluate the extent of workers' exposures to multiple working conditions. The workers could retire earlier depending on the number of years of such exposure. The decision was based on the number of years of exposure to physical risks (carrying heavy loads, awkward postures, vibrations, hyperbaric exposures, noises, and extreme temperatures), chemical risks (carcinogenics hazards) and organizational risks (mechanically paced tasks, night work, rotating shifts).[5] These were evaluated at an individual level with collective guidance for certain groups of workers. Then, premature aging was considered and retirement might occur earlier. However, this new rule is very difficult to apply for most employers responsible for declaring exposure annually for each worker. The new French government has decided that biomechanical and chemical exposure will be deleted from the definition of exposure leading to early retirement (remaining exposures are night work, rotating shifts, mechanically paced tasks, and hyperbaric work).

However, some simple tools have been developed to help employers and social benefit managers to accurately and consistently assess worker exposures, such as job-exposure matrices (which estimate multiple exposures based on population values for individual job

titles). These matrices might have real benefit when used by occupational professionals in order to focus employer attention on jobs at high risk for premature aging. Such tools might also be useful to consistently and fairly guide social insurance decisions, such as eligibility for early retirement, where workplace exposures over time are a main factor in the decisions made by occupational health teams.[6]

Efforts to reduce relevant exposures closely involve occupational health teams, including occupational physicians and nurses, and exposure specialists (hygienists, ergonomists, psychologists). In fact, all employers in France (with the exception of self-employed workers) have an occupational health team coordinated by occupational physicians for all of their employees.[7] The core job of these practitioners is occupational risk assessment and related prevention of work-related disorders.[8] In addition, job exposure matrices are decision tools that can be used and applied appropriately by our occupational health practitioners, to improve the general health of the work task force. For instance, occupational practitioners at small companies will benefit from using these job exposure matrices to screen difficult work conditions, such as mechanically paced tasks or other arduous working practices related to premature aging, and can use their expertise for more complicated situations.[9] Other tools exist for difficult and arduous working condition assessment by occupational practitioners: decision rules based on a questionnaire, specific tools for specific working conditions (e.g. welding activities, shift work,..) and multidisciplinary tools used by the whole team. [10–13]

In conclusion, we feel occupational health teams and valid decision tools are keystones for improving health of aging workers. This applies to our own country, which has a particularly high level of coverage of occupational health practitioners compared to other countries, but

improving occupational health access for workers and related questions is important everywhere.[14,15]

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