

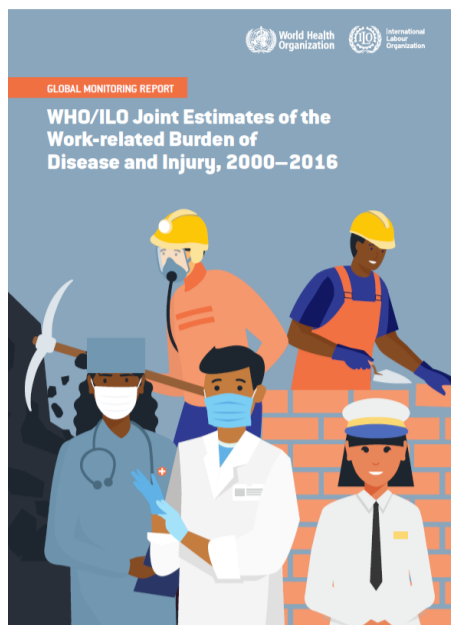
**Work-related Burden of Disease and Injury**

In 2016, the World Health Organization (WHO) and the International Labour Organization (ILO) agreed to produce a single harmonised methodology and a joint set of estimates on work-related burden of disease and injury.

The first fruits of this collaboration is the recently published *WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury, 2000-2016: Global Monitoring Report*<sup>1</sup>.

This report serves to estimate the impact of occupation risks on human health and suggests policies and actions on how workers' safety and health can be improved.

The report estimated that there were 1.88 million work-related deaths in 2016 worldwide, an increase of about 200,000 from 1.7 million in 2000. Non-communicable diseases accounted for 80.7% of these deaths and injuries accounted for 19.3%.

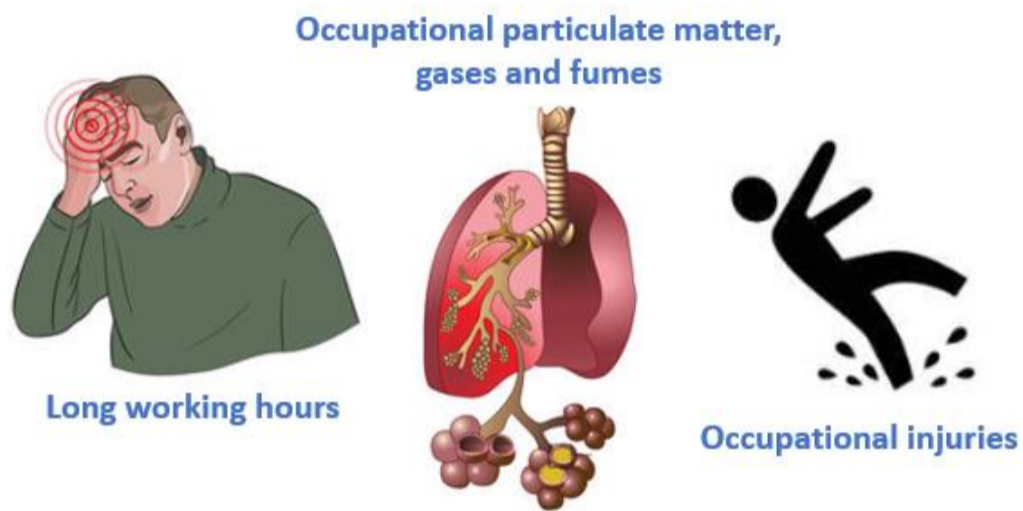


Source: WHO/ILO<sup>1</sup>

The occupational risk factor with the largest number of attributable deaths was exposure to long working hours of 55 hours or more per week (745,000 deaths), followed by occupational particulate matter, gases and fumes (450,400 deaths) and occupational injuries (363,300 deaths).

The top three health outcomes resulting in death were chronic obstructive pulmonary disease, stroke and ischaemic heart disease (IHD).

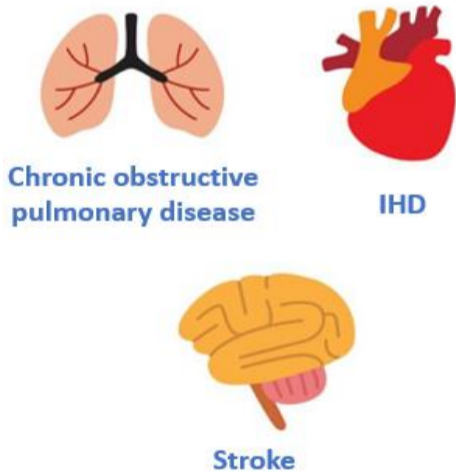
**Occupational Risk Factors**



**Why were 745,000 work-related deaths attributed to long working hours?**

In the report, 488 million people were exposed to long working hours in 2016, which is defined as working for 55 or more hours a week. This was estimated to have contributed to 745,194 deaths from stroke and IHD and an estimated global death rate of 7.3 and 6.3 per 100,000 of the working-age population for stroke and IHD respectively.<sup>2</sup>

**Health Conditions Linked to Work-Related Deaths**



For Singapore, the death rates for stroke and IHD attributed to working long hours were estimated by ILO/WHO to be 2.7 and 4.1 respectively in 2016, down from 4.6 and 5.9 in 2000<sup>2</sup>. At the same time, reduction in the mortality rates for stroke and IHD in the adult population were also observed during this period.<sup>5,6</sup>

While ergonomic risks and occupational noise are traditionally our top occupational disease risks, the health outcomes (musculoskeletal disorder and hearing loss respectively) do not cause death. However, these risk factors cause the loss of healthy life years (quality of life) instead.

Study suggested that the issue of long working hours would continue to rise and be exacerbated by the ongoing pandemic. Economic recessions and changes in the way of work such as increased tele-working could result in longer hours worked.

At the same time, the rise of the gig and platform economies would also increase the prevalence of overwork<sup>3</sup>.

The report recommends that countries set limits on working time. Legislation, programmes and interventions should ensure that the total hours worked by workers occur within a framework that does not harm human health.

**References**

- 1) [WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury, 2000-2016: Global Monitoring Report](#)
- 2) [World Health Organization Occupational Burden of Disease Application](#)
- 3) [Global, regional, and national burdens of ischemic heart disease and stroke attributable to exposure to long working hours for 194 countries, 2000-2016: A systematic analysis from the WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury](#)
- 4) [WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury, 2000-2016: Technical Report with Data Sources and Methods](#)
- 5) [Singapore Myocardial Infarction Registry Annual Report 2019](#)
- 6) [Singapore Stroke Registry Annual Report 2019](#)