

The 21st ASEAN-Japan High-Level Meeting on Social Security

Current Status and Preventive Measures for Stroke and Ischemic Diseases Caused by Long Working Hours in the ASEAN Region

November 28, 2023

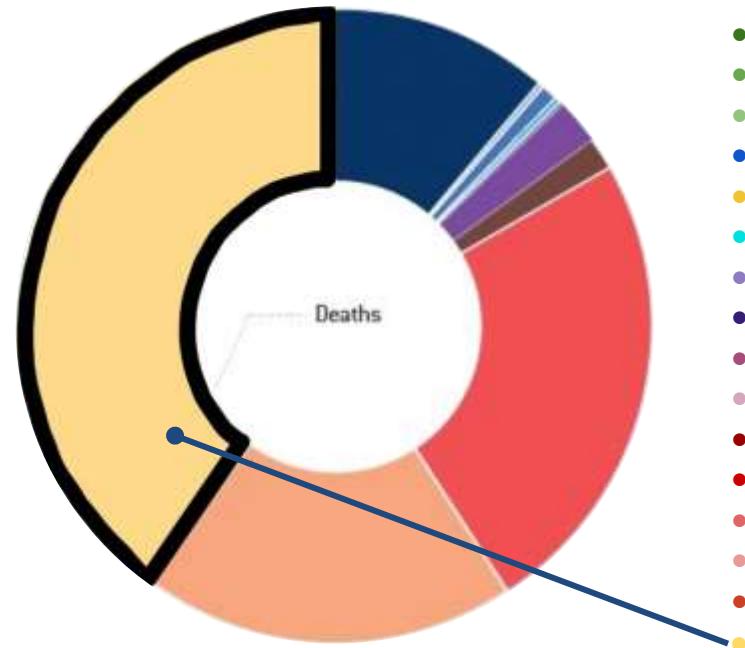
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The International Labour Organization (ILO) and the World Health Organization (WHO) jointly conducted a study on the burden of work-related illness and injury in 2016 and published findings in 2021

- ▶ Joint research to achieve SDG Goal #3 “Health and Well-being for All” and Goal #8 “Decent Work”
- ▶ In the past, conducted in 2000 and 2010.
- ▶ A large-scale survey spanning 183 countries
- ▶ The number of deaths and other deaths based on 19 occupational risk factors were tabulated*. The results show that these 19 factors caused a total of approximately 1.9 million deaths in 2016

*Of the 19 factors, formulas based on existing studies were used for all but long work hours.

Percentage of total deaths by labor risk factors for 183 countries* (2016)



【List of 19 labor risk factors】

- Contact with asbestos at work
- Contact with arsenic during labor
- Contact with benzene during labor
- Contact with beryllium during labor
- Contact with cadmium during labor
- Contact with chromium during labor
- Contact with diesel engine exhaust during work
- Contact with formaldehyde during labor
- Contact with nickel during labor
- Contact with polycyclic aromatic hydrocarbons in labor
- Contact with silica during labor
- Contact with sulfuric acid during labor
- Contact with trichloroethylene during labor
- Occupational asthmatics
- Particulate matter, gases, and fumes in labor
- Occupational Noise
- Work-related injury
- Labor ergonomic factors
- Long working hours

*Out of the United Nations member states (193 countries), Andorra, the Cook Islands, Niue, San Marino, Saint Kitts and Nevis, Tuvalu, Dominica, Nauru, the Marshall Islands, Monaco, and Palau had no available data.

Number of Deaths Caused by Diseases Resulting from Long Working Hours

- ▶ The number of deaths was calculated assuming a causal relationship of **【long working hours → stroke or ischemic heart disease → death】**
- ▶ Of the 19 risk factors, the number of people who died from stroke and ischemic heart disease due to long work hours (≥ 55 hours per week) rose to **approximately 745,000 in 2016**, the **highest risk factor** of the 19 risk factors.
- ▶ When the study compared working 55 or more hours per week with working 35–40 hours per week (standard work hours), the results showed that those who worked 55 or more hours per week were **35% more likely to have a stroke and 17% more likely to die from ischemic heart disease**.

*Methodology for calculating the number of deaths

Based on advice from the WHO/ILO Technical Advisory Group, ischemic heart disease, and stroke incidence in a given year are assumed to be the result of long working hours in the period **5 to 15 years prior to that year**. For each worker, the **highest weekly work hour category** within the time frame is assigned as his/her **time category**. Suppose worker A died in 2018 from stroke-related symptoms. Assuming that the stroke occurred in 2016, we assume that the person died of a stroke due to long working hours (≥ 55 hours per week) if he or she was engaged in long working hours (≥ 55 hours per week) for more than a year between 2001 and 2010, 5 to 15 years before the stroke occurred timing.

- **744,924**

Number of deaths caused by illnesses resulting from long working hours [95% UR: 705,519-784,329]

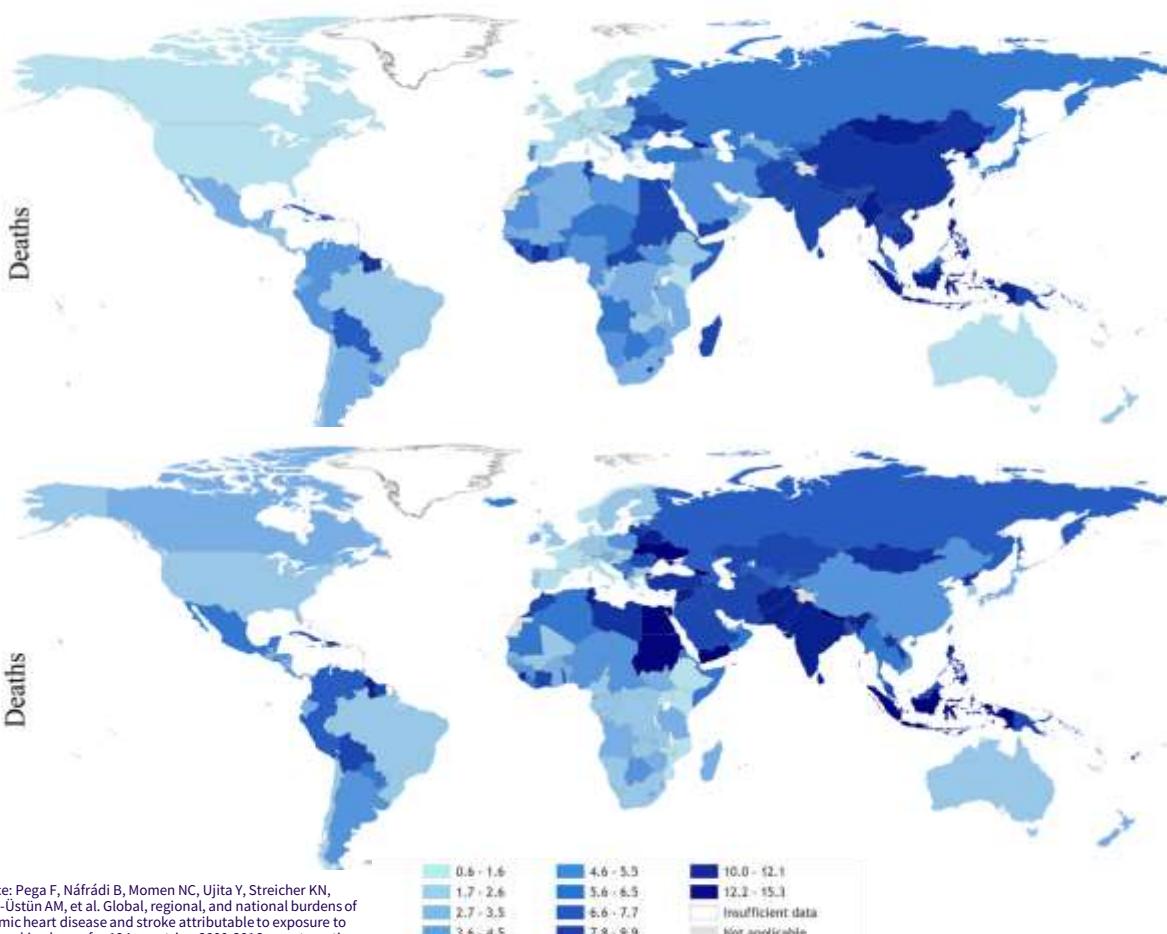
- **479 million**

*World population engaged in long working hours
[In 2021]*

- **39.3#**

Percentage of work-related deaths attributable to long working hours to total work-related deaths

Number of Deaths from Stroke and Ischemic Disease Attributable to Long Working Hours by Country



- ▶ By region, the most deaths from stroke and ischemic heart disease due to long working hours were in the **Southeast Asia region** (158,000/159,000) and the **Western Pacific region** (about 43,000/65,000). The lowest number of deaths from stroke occurred in the **Americas region** (19,000) and in the **Africa region** (16,000) for ischemic heart disease.
- ▶ Between 2000 and 2016, the number of deaths per 100,000 population increased in only two regions, **Southeast Asia** and **Western Pacific** ←→ decreased in the other regions.

*However, this is a regional category identified by WHO for reporting, analysis, and management purposes, among ASEAN countries,

[Southeast Asia] = Indonesia, Myanmar, Nepal, and Thailand,

[Western Pacific] = Brunei, Cambodia, Laos, Malaysia, Philippines, Singapore, Vietnam

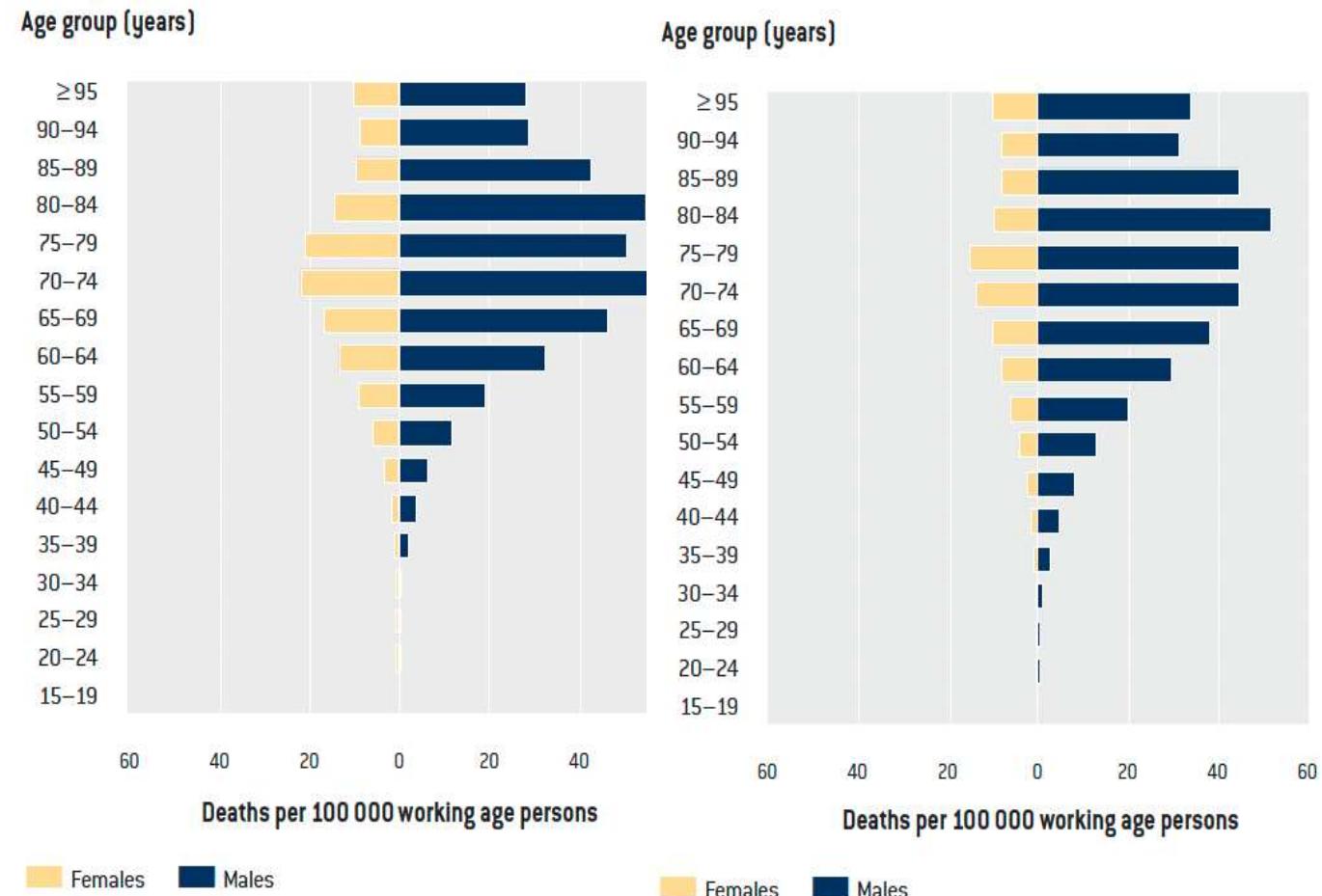
- ▶ **Top Map:** Mortality from **stroke** due to long working hours (≥ 55 hours/week) in 183 countries (per 100,000 population) [2016]
- ▶ **Bottom Map:** Mortality from **ischemic heart disease** due to long working hours (≥ 55 hours/week) in 183 countries (per 100,000 population) [2016]

Number of Deaths from Illnesses Attributable to Long Working Hours by Gender

► Men account for about four-thirds of deaths from stroke. [left figure] and ischemic heart disease [right figure]

► In cases of deaths resulting from these two diseases, some individuals may pass away within two years of onset, while others may succumb after more than a decade. In either scenario, the assumption is that individuals engage in long working hours, leading to the onset of ischemic heart diseases or strokes, and ultimately resulting in death. This anticipation is why the mortality rate is higher for individuals aged 70 and above.

► Two reasons why long work hours can lead to fatal illnesses;
 i) **Excessive release of stress hormones**
 ii) **Behavioral responses to stress** such as tobacco smoking, excessive alcohol consumption, and unhealthy diets.



Long Working Hours in ASEAN Countries

- **42.3 hours**

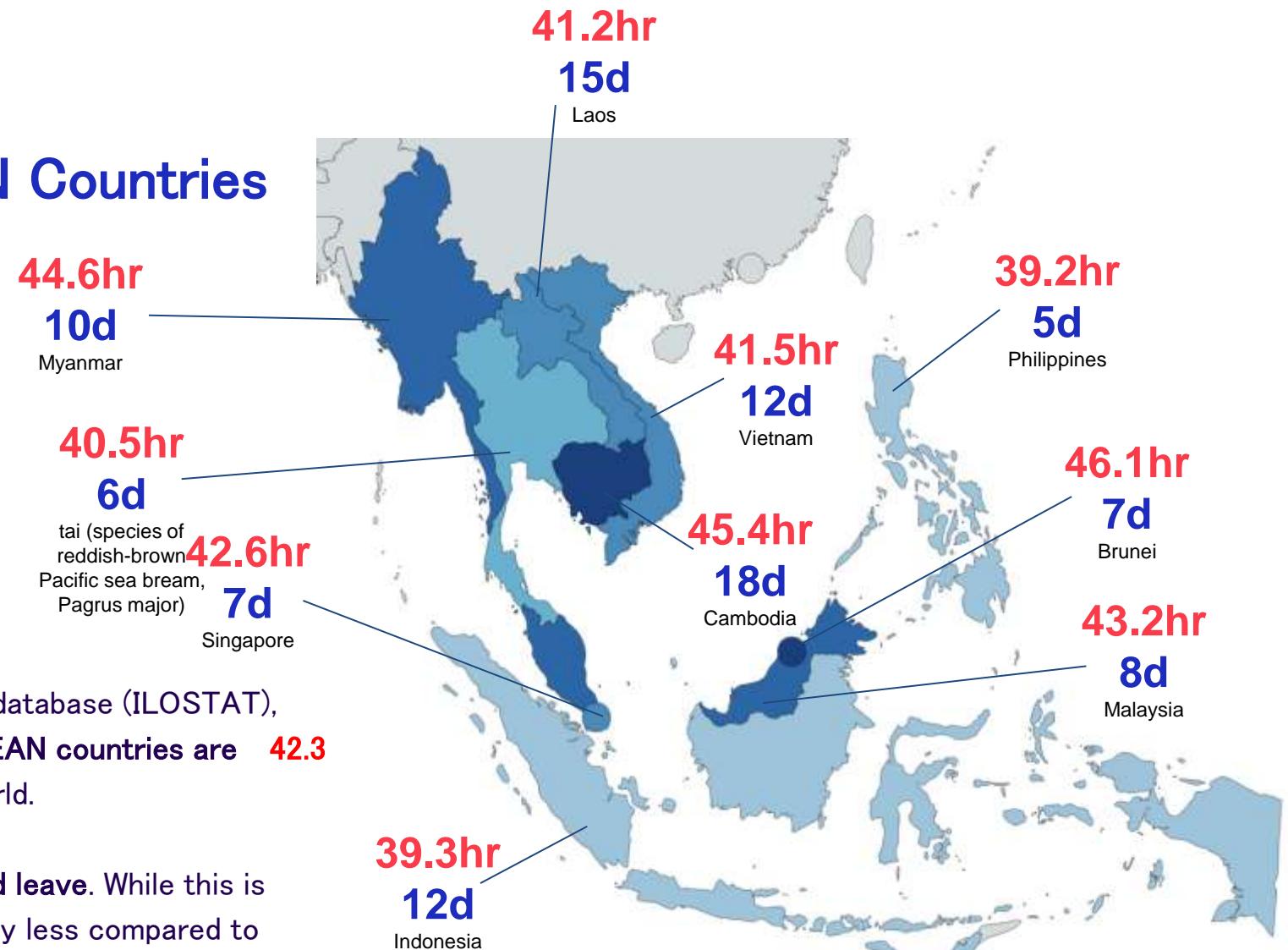
Average weekly working hours in ASEAN countries

- **10 days**

Average number of paid days per year in ASEAN countries

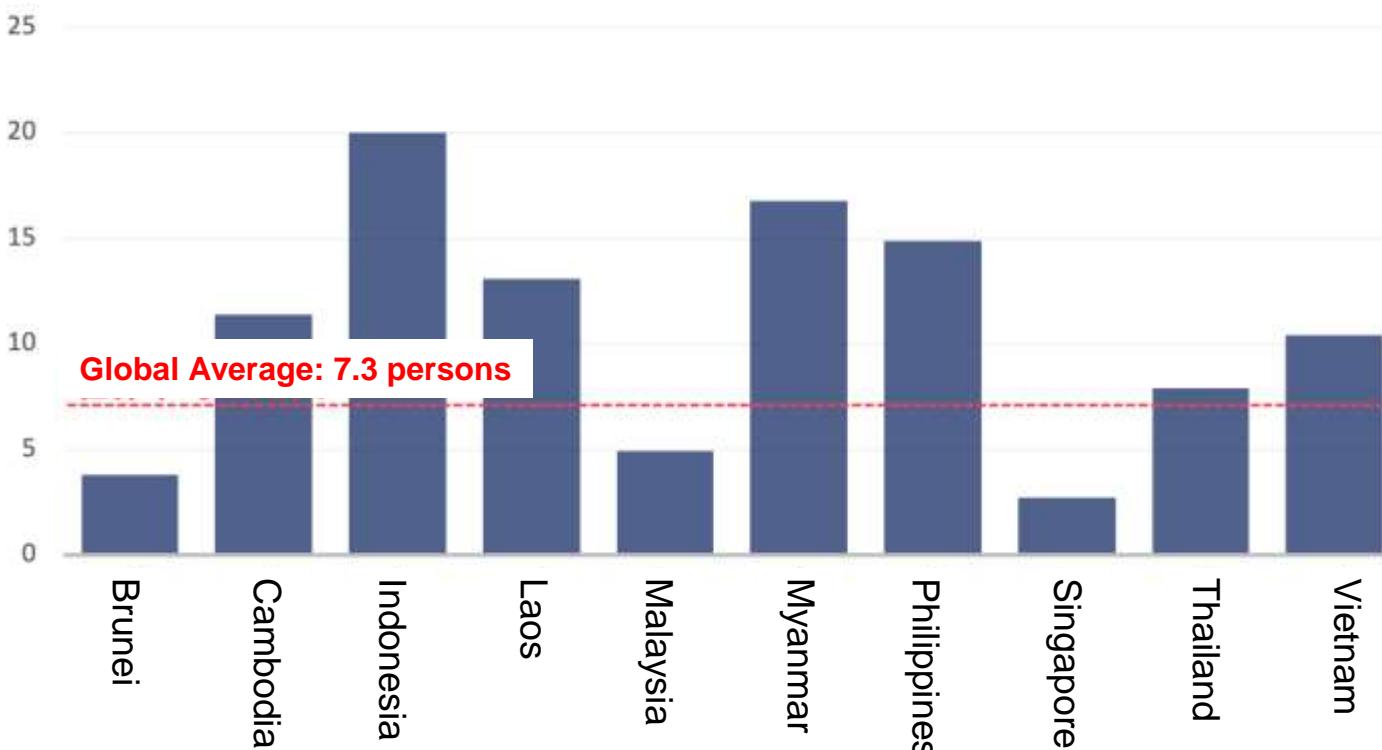
▶ According to the International Labour Organization's database (ILOSTAT), the **average weekly working hours for laborers in ASEAN countries are 42.3 hours**, which is the highest as a region around the world.

▶ On average, ASEAN countries provide **10 days of paid leave**. While this is equivalent to the paid leave days in Japan, it is notably less compared to other regions. In Africa, an average of 20 days of paid leave is granted, in Europe, an average of 22 days, and even in the South American region, an average of 15 days of paid leave is provided.



► Deaths from Long Working Hours and Resulting Illnesses in ASEAN Countries

The Number of Deaths Due to Stroke Caused by Long Working Hours
Per 100,000 People Aged 15 and Above in ASEAN Countries



► The number of deaths due to diseases caused by long working hours in ASEAN countries is 112,065. In other words, the death toll in these 10 countries accounts for 15% of the total of 183 countries.

► As for the number of deaths per 100,000 population:

Stroke

Seven of the 10 countries have more than the global average of 7.3. Of these, Indonesia has 20.0, slightly less than three times the global average.

Ischemic diseases:

Four countries exceed the world average of 6.3 persons. Here again, Indonesia has 12.9, more than double the world average.

► Measures to Prevent Illnesses Caused by Long Working Hours

- ▶ Ratification of ILO Conventions **No. 1** [= Working Hours (Industry) Convention 1919], **No. 30** [= Working Hours (Commercial and Office) Convention 1930] and **No. 47** [= 40 Hours Convention 1935]
***Japan has not ratified the aforementioned treaty.** According to Article 36 of the Labor Standards Act (Agreement on Overtime and Holiday Work), under the "Article 36 Agreement," employers can extend working hours beyond the statutory limit or require work on holidays by reaching a prior written agreement with the labor union, which may conflict with the above treaty.
- ▶ Ensure that all workers have **access to occupational health services**. **Regular health checkups** should be conducted, during which not only the number of hours worked but also cardiovascular risk factors (obesity, physical activity, smoking, diet, etc.) that increase the risk due to long working hours should be checked.
- ▶ Implement a social support system to **protect particularly vulnerable members of society**.
- ▶ **Provide a certain level of income** so that people can lead a basic life without having to work an excessive number of hours to the point where their health is compromised.



Thank you for your attention

- ▶ See also the report on which this presentation is based.

- ▶ Global Report:



- ▶ Technical Report:



- ▶ See the ILO's 2023 report on working hours and work-life balance.

- ▶ Global Working Hours and Work-Life Balance

