

Lecture on Wednesday, January 17th 2024
5:00 – 6:30 PM PST

Improving Mental Health in the Workplace: The Case of Japan

Norito Kawakami, MD, PhD

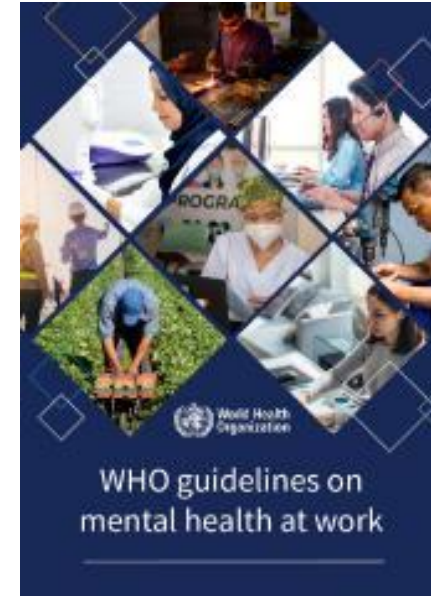
Project Professor of Digital Mental Health/Professor Emeritus

The University of Tokyo, Japan

President, The Junpukai Foundation, Japan

Participated in two global publications in 2022/2023

- World Health Organization (WHO). Guidelines on mental health at work, 2022
<https://www.who.int/publications/i/item/9789240053052>
- Rugulies R, Aust B, Greiner BA, Arensman E, Kawakami N, LaMontagne AD, Madsen IEH. Work-related causes of mental health conditions and interventions for their improvement in workplaces. *Lancet*. 2023 Oct 14;402(10410):1368-1381. doi: 10.1016/S0140-6736(23)00869-3.



Work and Health 2

Work-related causes of mental health conditions and interventions for their improvement in workplaces

Reiner Rugulies, Birgit Aust, Birgit A Greiner, Ella Arensman, Norito Kawakami, Anthony D LaMontagne*, Ida E H Madsen*

Lancet 2023; 402: 1368-81

See Comment pages 1306 and 1309

This is the second in a Series of three papers about work and health. All papers in the Series are available at <https://www.thelancet.com/series/work-and-health>

*joint last author

National Research Centre for the Working Environment, Copenhagen, Denmark (Prof R Rugulies PhD, B Aust PhD, I E H Madsen PhD); Section of Epidemiology, Department of Public Health, University of Copenhagen, Copenhagen, Denmark (Prof R Rugulies); School of Public Health (B A Greiner PhD, Prof E Arensman PhD) and National Centre for Research

Mental health problems and disorders are common among working people and are costly for the affected individuals, employers, and whole of society. This discussion paper provides an overview of the current state of knowledge on the relationship between work and mental health to inform research, policy, and practice. We synthesise available evidence, examining both the role of working conditions in the development of mental disorders, and what can be done to protect and promote mental health in the workplace. We show that exposure to some working conditions is associated with an increased risk of the onset of depressive disorders, the most studied mental disorders. The causality of the association, however, is still debated. Causal inference should be supported by more research with stronger linkage to theory, better exposure assessment, better understanding of biopsychosocial mechanisms, use of innovative analytical methods, a life-course perspective, and better understanding of the role of context, including the role of societal structures in the development of mental disorders. There is growing evidence for the effectiveness of interventions to protect and promote mental health and wellbeing in the workplace; however, there is a disproportionate focus on interventions directed towards individual workers and illnesses, compared with interventions for improving working conditions and enhancing mental health. Moreover, research on work and mental health is mainly done in high-income countries, and often does not address workers in lower socioeconomic positions. Flexible and innovative approaches tailored to local conditions are needed in implementation research on workplace mental health to complement experimental studies. Improvements in translating workplace mental health research to policy and practice, such as through workplace-oriented concrete guidance for interventions, and by national policies and programmes focusing on the people most in need, could capitalise on the growing interest in workplace mental health, possibly yielding important mental health gains in working populations.

Topics Today

- Improving mental health in the workplace in Japan
 1. History
 2. Current programs and practices
 3. Research
 4. Conclusion

Japanese occupational health system

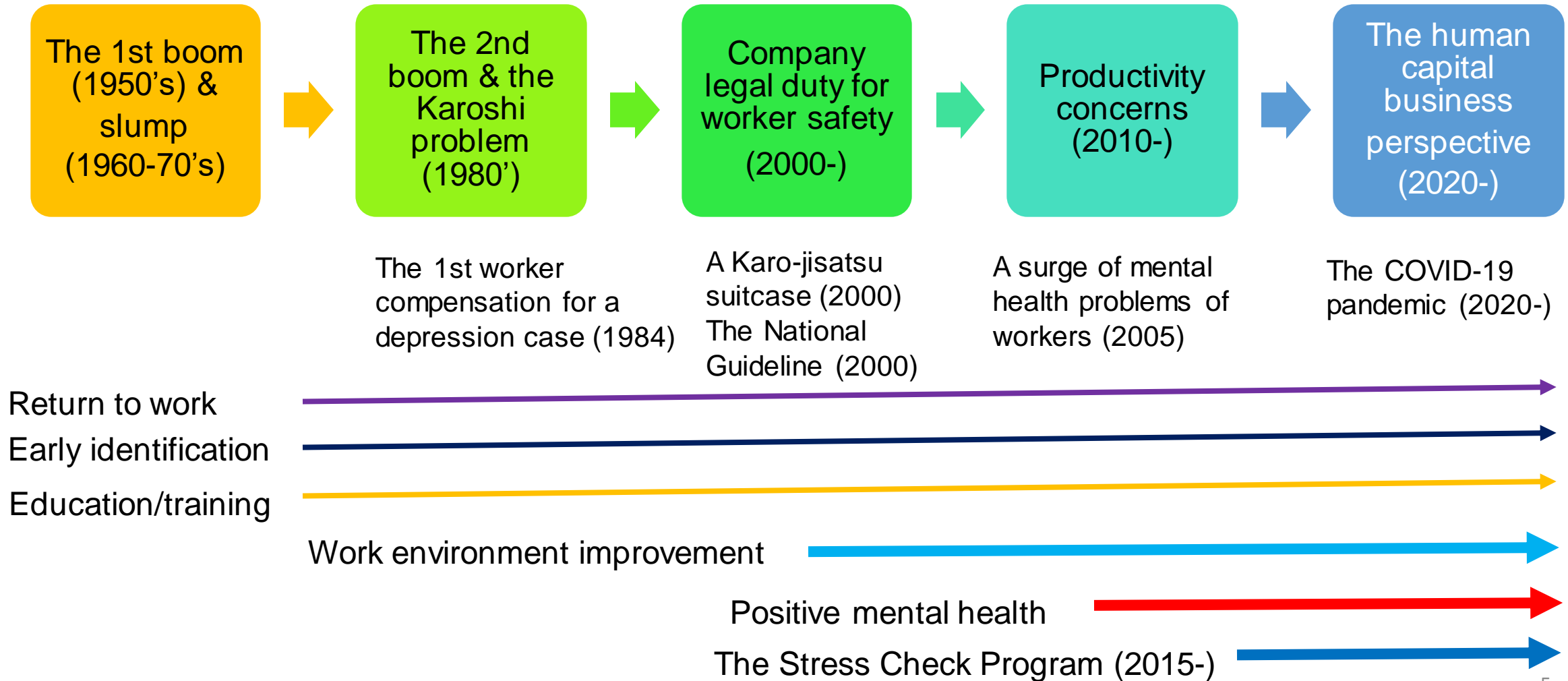
Strength

- A thorough legal framework, broad-based administrative arrangements, detailed data collection
- A large complement of trained professionals.

Challenges

- Aging work force and shift in industrial structure
- Most unions remain limited in power and many workers are non-unionized and without influence.
- Marginal workers may suffer problems.
- Women employees continue to confront discrimination.
- Emerging issues of stress and mental health.
- Tensions between productivity and worker welfare persist.

A history of improving mental health in the workplace in Japan



“Karoshi” (death due to overwork)

“Karo-jisatsu” (suicide due to overwork)



<https://www.peoplesmatters.in/article/life-at-work/the-danger-of-overwork-can-lead-to-death-be-careful-17402>

Karoshi (mostly cardiovascular death from overwork): the ILO case study

- Mr A worked at a major snack food processing company for as long as 110 hours a week (not a month) and died from heart attack at the age of 34. His death was approved as work-related by the Labour Standards Office.
- Mr B, a bus driver, whose death was also approved as work-related, worked more than 3,000 hours a year. He did not have a day off in the 15 days before he had stroke at the age of 37.
- Mr C worked in a large printing company in Tokyo for 4,320 hours a year including night work and died from stroke at the age of 58. His widow received a workers' compensation 14 years after her husband's death.
- Ms D, a 22 year-old nurse, died from a heart attack after 34 hours' continuous duty five times a month.

The first civil lawsuit case of Karo-jisatsu (suicide due to overwork) in Japan

- A 24-year-old male employee of an advertising company committed suicide in 1991 after he became depressed due to overwork.
- The family sued the company that the company neglected the responsibility to stop his overwork and to properly respond to his mental health condition. The trials went through the District Court and the Tokyo High Court.
- In 2000, the Supreme Court confirmed the obligation of a company (and a manager) to care for health of those in their charge and ordered the Tokyo High Court a retrial.
- The settlement proposed by the Tokyo High Court was agreed: the company accepted its failure for the suicide of the caused by overwork and paid the family about 168 million yen in compensation to settle the case.
- After agreeing to the compromise, the company regretted the suicide of this employee and promised to take measures to prevent similar deaths by thoroughly monitoring employees' working and health conditions.

Causes of Karojisatsu (work-related suicide)

- Amagasa et al. (2005)
 - 22 cases - both applications for worker's compensation insurance and civil suits
 - Experienced personnel changes, such as a promotion or transfer (77%). Low social support (82%), high psychological demand (82%), and low decision latitude (77%).
 - Long working hours (86%) (more than 11 hours per day for 3 months or more, and without a day off for 9 cases).
- Nishimura et al. (2022)
 - 167 cases of mental disorders resulting in suicide that were compensated in 2015-2016.
 - Chronic long working hours (19%), gradual increase (27%), or rapid increase (25%) in working hours before the onset of a mental disorder.

Amagasa T, Nakayama T, Takahashi Y. Karojisatsu in Japan: characteristics of 22 cases of work-related suicide. *J Occup Health*. 2005 Mar;47(2):157-64. doi: 10.1539/joh.47.157

Nishimura Y, Yamauchi T, Sasaki T, Yoshikawa T, Takahashi M. Overtime working patterns and adverse events in work-related suicide cases: hierarchical cluster analysis of national compensation data in Japan (fiscal year 2015-2016). *Int Arch Occup Environ Health*. 2022 May;95(4):887-895. doi: 10.1007/s00420-021-01760-5.

“Karoshi” and “Karo-jisatsu” are legal terms facilitating the compensation to the victim’s family

Classification by cause

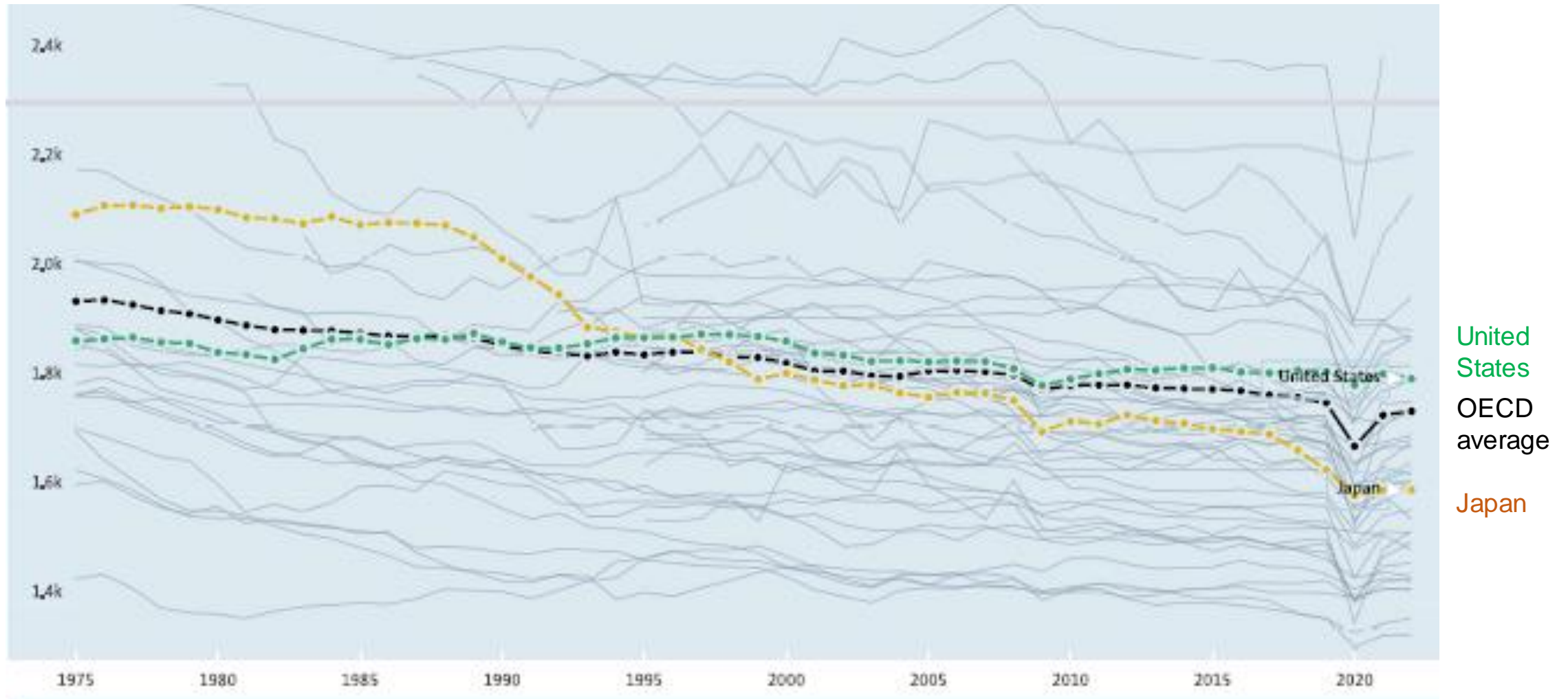
Term	Definition
過労死 “Karoshi”	Cardiovascular death due to overwork
過労自殺 “Karo-jisatsu”	Suicide due to overwork



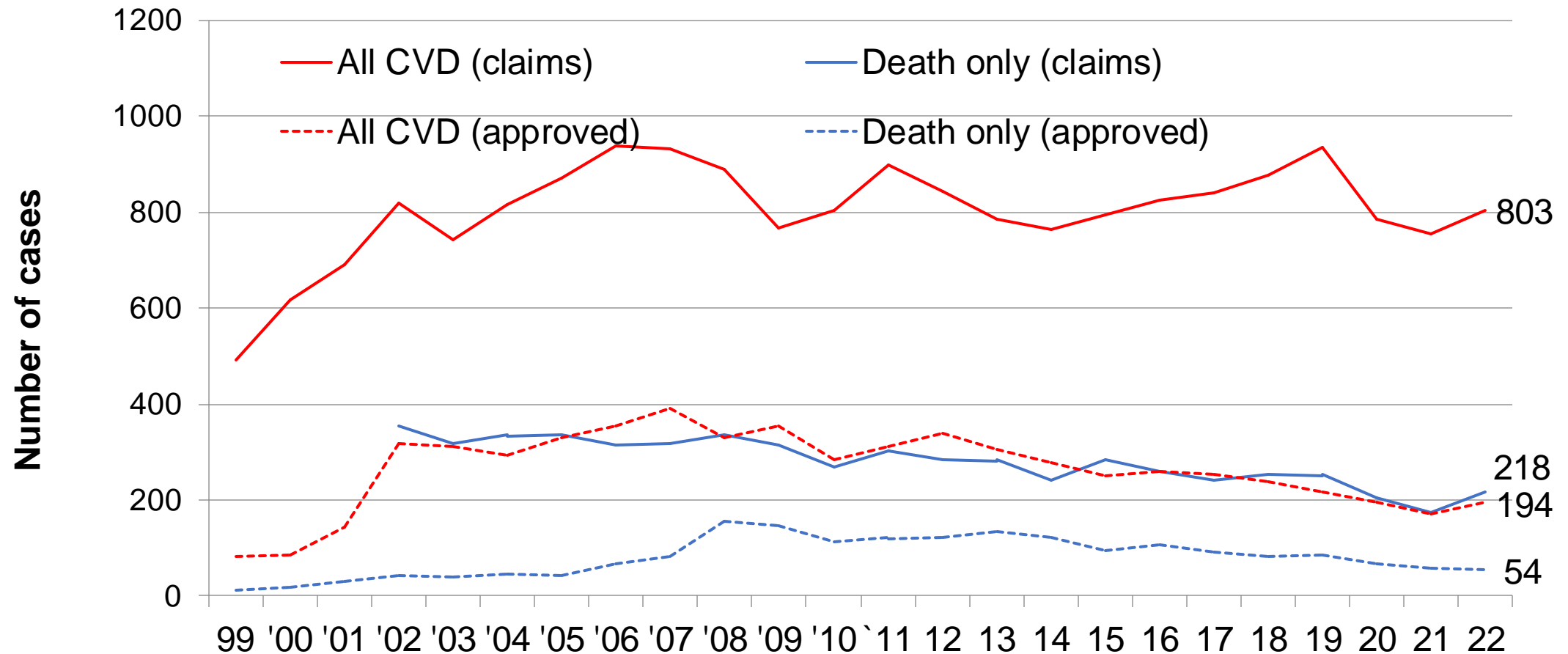
Related social system

Legal base	Content
Industrial Accident Compensation Insurance	Compensation provided for under the Industrial Accidents and Diseases Branch of the Social Security
Articles 415 and 709 of the Civil Code	The employer’s civil liability for committing a fault or negligence of taking care of health of workers

Japan is no more the No. 1 country.

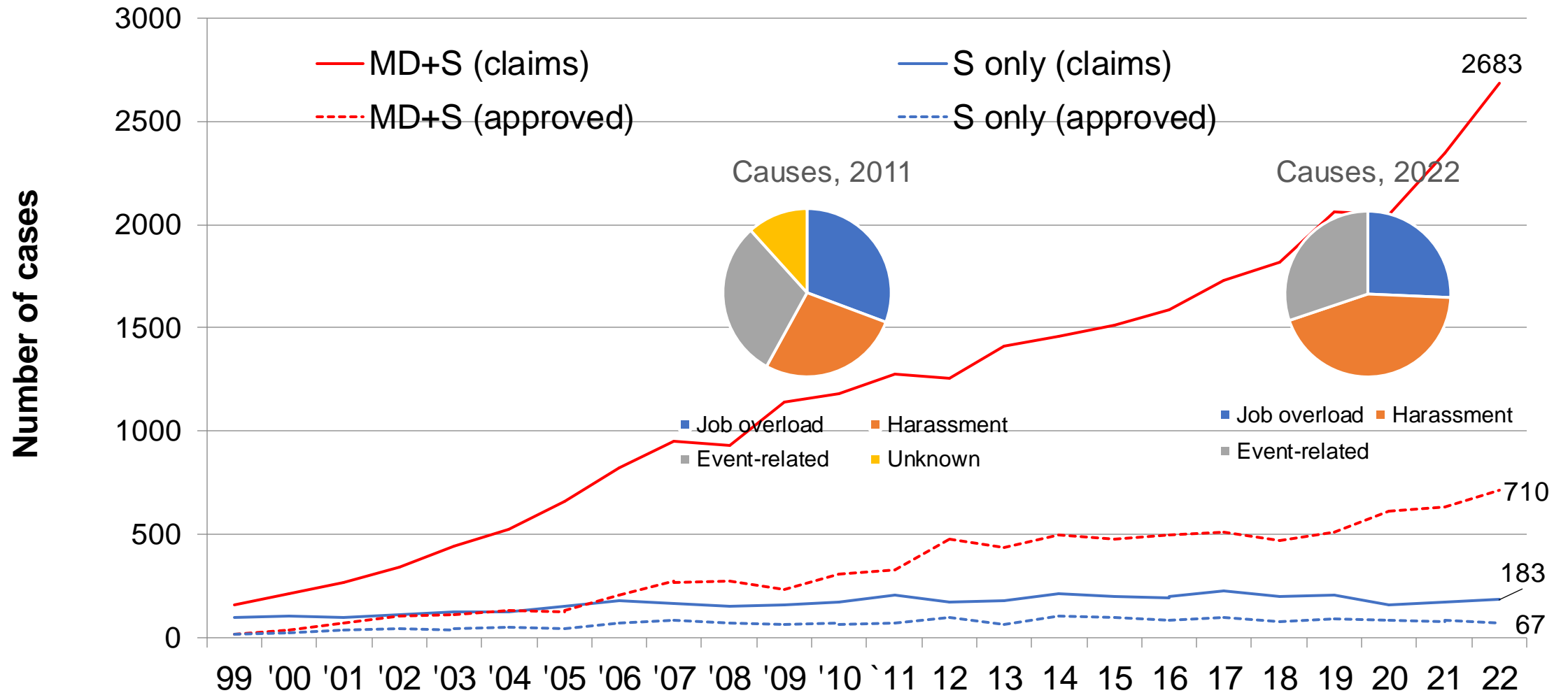


Worker compensation due to cardiovascular disease (CVD) and death in Japan: A secular trend



Source: The Japan Ministry of Health, Labour & Welfare.
https://www.mhlw.go.jp/stf/newpage_33879.html

Worker compensation due to mental disorders (MD) and suicide (S) in Japan: A secular trend



Source: The Japan Ministry of Health, Labour & Welfare.

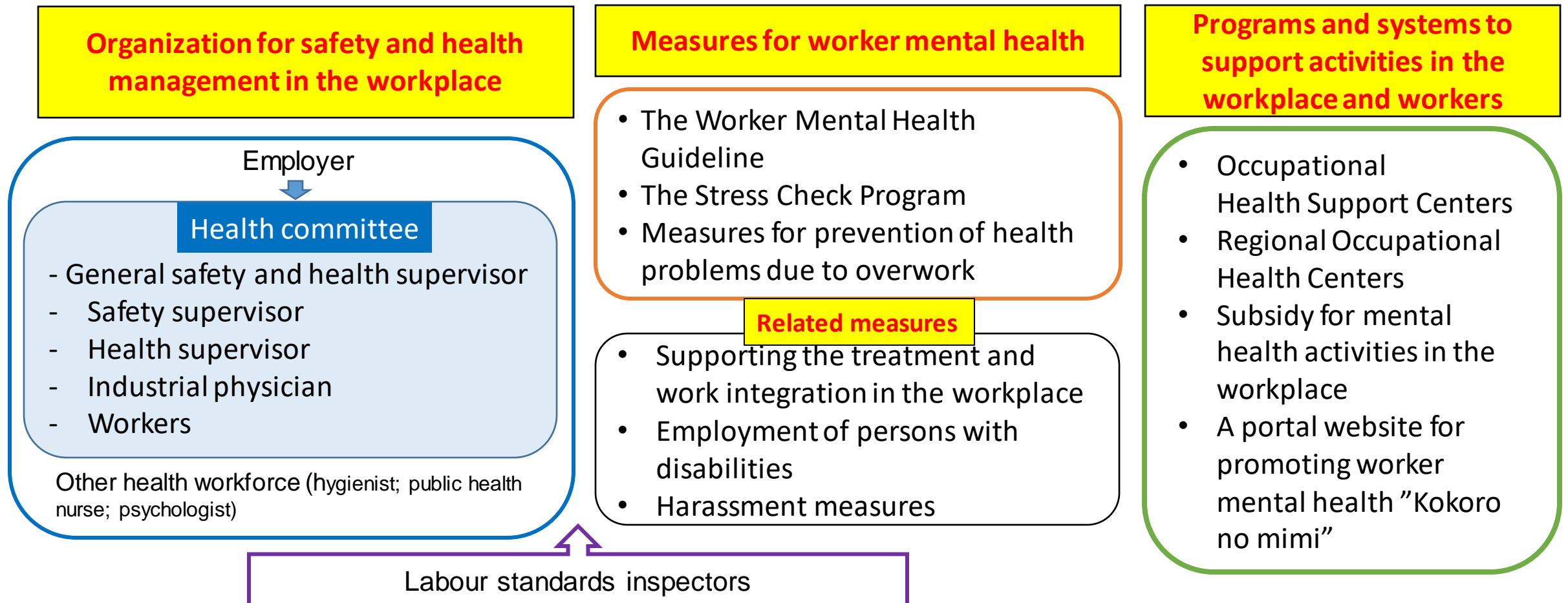
<https://www.mhlw.go.jp/stf/houdou/2r9852000002coxc.html>; https://www.mhlw.go.jp/stf/newpage_33879.html

The Workplace Mental Health Guideline

- Japan Ministry of Health, Labour, & Welfare established the “Guideline for Maintenance and Promotion of Mental health of Workers” in 2000 (revised in 2006, 2019)
- A “mental health promotion plan” is recommended to establish through a discussion at the Health Committee to promote mental health measures continuously and in a planned manner with a mid- and long-term perspective.
- “Self-care” by workers; “Line-care” by supervisors; “Care by occupational health staffs”; and “Care by outside resources” (such as supporting centers) are to be implemented according to the capacity of the workplace.
- Recommended four specific measures:
 - (1) Education/training and information dissemination
 - (2) Assessment and improvement of work environment
 - (3) Awareness of and consultation for a workers with mental health condition
 - (4) Support for return-to-work

The national system and programs for occupational mental health activities in Japan

- The Industrial Safety and Health Law (1972)
- The Guideline for Maintenance and Promotion of Mental health of Workers (2000)



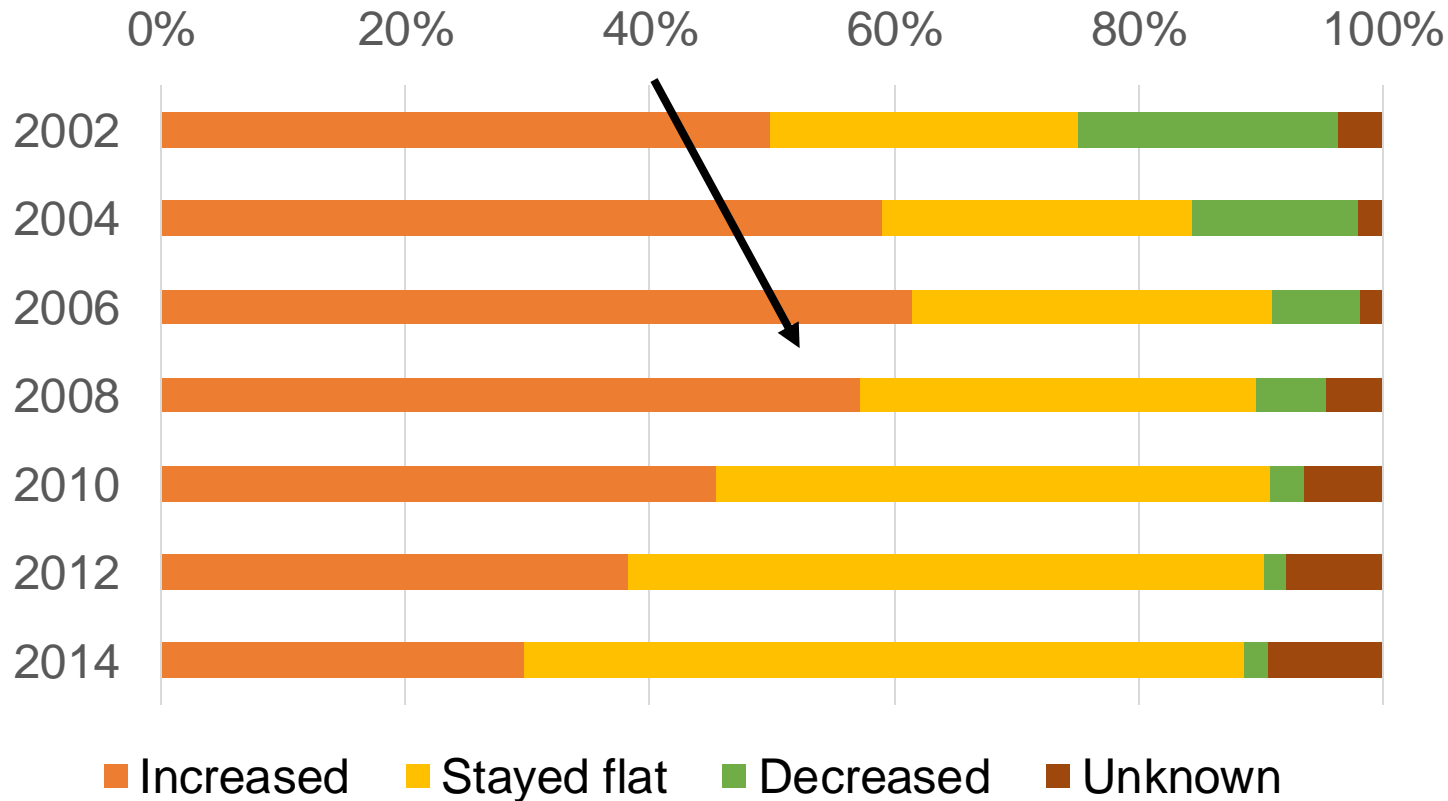
Evidence-based measures included in the Worker Mental Health Guideline by the Japan Ministry of Health, Labour, & Welfare

	Specific measures	Scientific evidence for effectiveness*
Primary	Education/training and information dissemination for workers	Improved stress, positive mental health, work effectiveness of workers, as well as knowledge of mental health
	Education/training and information dissemination for supervisors and managers	Improved knowledge, attitude, behaviors related to mental health of supervisors and managers
	Assessment and improvement of work environment	Improved stress and work-related outcomes (job satisfaction, work performance) of workers
Secondary	Awareness of and consultation for a workers with mental health condition	Supervisor education/training improved help-seeking behaviors of subordinates; unclear effect of screening of mental disorders
Tertiary	Support for return-to-work of workers with mental health condition	Program provided by occupational health professionals improved total sick leave days and symptoms of workers back to work

* Summary evidence based on systematic reviews of randomized controlled trials.

Shifting the target: Increased prevalence of mental health problems in early 2000's in Japan

Reported trend of prevalence of mental health problems among employees



Shifting the target from the risk management for “Karoshi” and “Karojisatsu” to the **primary prevention** of mental health problems

The Stress Check Program (2014)

The Industrial Safety and Health Act was amended

- To mandate workplaces with 50 or more employees to conduct the Examination for Assessing the Degree of Psychological Burden (so called “the Stress Check Program”) since December 2015 (recommended for smaller workplaces)

The aim

- Primary prevention of mental health conditions of workers

Components of the program

- Conduct periodic questionnaire surveys of stress of workers
- Inform workers individual results of the survey to increase their awareness of own situation of stress
- Analyze the survey data on a group-basis, and utilize the results to improve (psychosocial) work environment
- If a workers with high stress requests, the employer must have the worker to receive a face-to-face guidance by a physician

Implementation (as of 2020)

- Implemented by 84.9% of workplaces with 50 or more employees
- Two third of these workplaces utilized the data for improving work environment.
- Different language versions of the questionnaire are available for foreign workers

Two approaches in the Stress Check Program: screening and improvement of workplace environment

A Stress Check

Employer provides a Stress Check once a year (apart from annual health checkup)

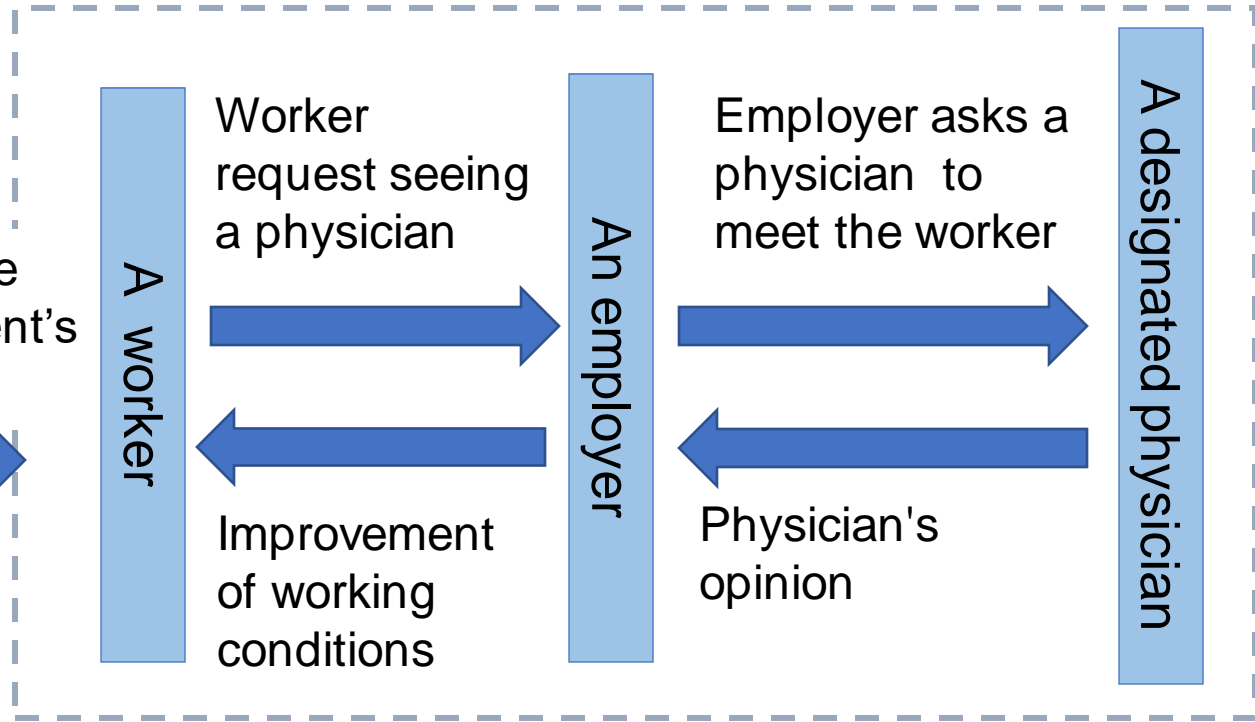
The Brief Job Stress Questionnaire

The form includes fields for name, employee ID, age, gender, and medical ID. It contains 28 numbered items for assessment, such as 'I have to do too many jobs', 'I don't have enough time to do my job', and 'I don't have enough control over my work'. A legend at the bottom explains the scoring system (1-5) and provides instructions for group-based analysis.

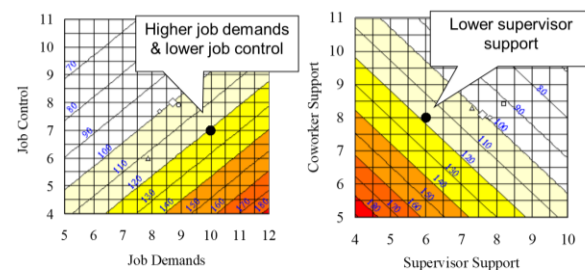
Inform the respondent's result



Group-based analysis of the data



The Job Stress Assessment Diagram



Reference			
Workplace	Production Line	N of Worker	34
Scale	Average Score	Health Risk (National Average=100)	
Job Demands	10	Demands-Control	Total Health Risk
Job Control	7 (A)	120	(A)x(B)/100
Supervisor Support	6	Worksite Support	
Coworker Support	8 (B)	117	140

An employer

For improvement of (psychosocial) workplace environment

Evaluation of the Effect of the Stress Check Program

Approach	Component	Study design	Results
Individual oriented	Inform workers individual results of the survey and advice to cope with stress	Pre-post comparison (Ito et al, 2016)	Improved awareness of stress and motivation to cope better with it among workers
Individual oriented	Face-to-face guidance by a physician	Cross-sectional survey (Asai et al, 2018)	Six of ten workers reported the physician guidance as useful.
Combined	Interviews of all employees; education/training of workers and supervisors	Pre-post comparison (Shintani et al, 2018)	Improved somatic complaints of workers
Work environment oriented	Improvement of work environment after the Stress Check	Retrospective cohort (Imamura et al, 2018)	Improved psychological distress and work performance of workers

Other measures related to mental health of workers

Supporting treatment and work integration in the workplace (The “Work Style Reform”)

- Provide the assistance for a company to promote support for the medical treatment-work balance of workers with health conditions to continue their employment, when they wish to receive.

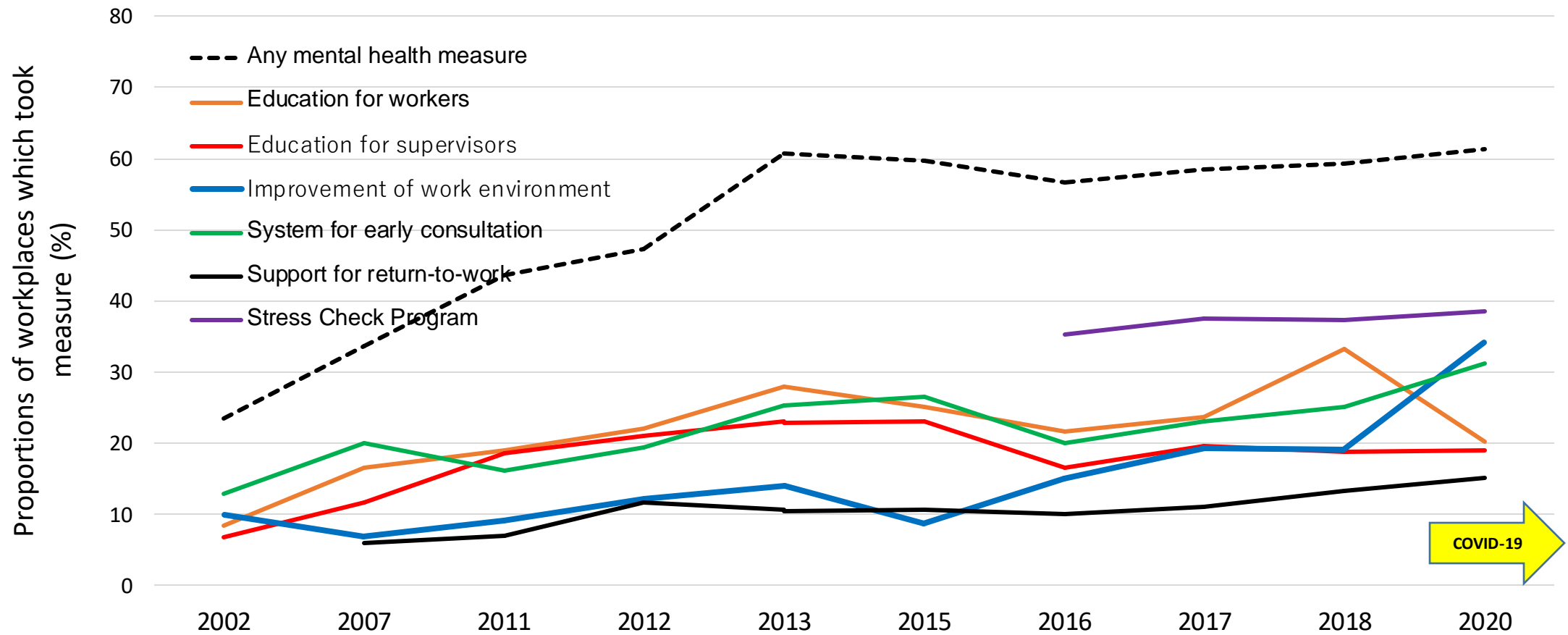
Employment of persons with disabilities (Act to Facilitate the Employment of Persons with Disabilities)

- Requires companies to hire a certain number of people with disabilities at least to meet a designated proportion of the whole employees (2.3% in 2021).
- Vocational rehabilitations, job placement, adaptive training are provided to people with disabilities according to disability characteristics.

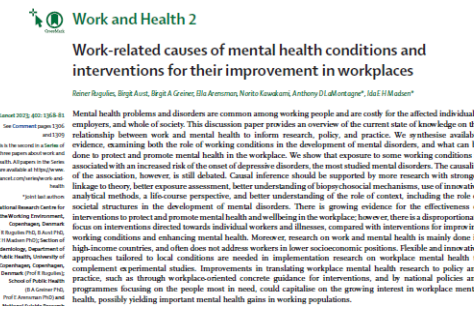
Harassment measures

- Workplace sexual harassment (Equal Employment Opportunity Act)
 - Harassment associated with pregnancy and childbirth, maternity, childcare leave, caregiver leave (Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members)
 - Power harassment (humiliating language and behavior based on power relationships in the workplace) (Act on Comprehensive Promotion of Labor Policies)
-

Progress of measures for improving mental health in the workplace: proportions of workplaces which took measures by year



Proportions among workplaces with 10 or more employees. Calculated based on the Surveys on State of Employees' Health (2002-2021) and the Surveys on Industrial Safety and Health (Actual Condition Survey) (2015-2020) by Japan Ministry of Health, Labour, & Welfare. Survey items may differ among the surveys.



Lancet Work and mental health paper (2023) recommendations and Japan's case

partially

1: regulate and control working conditions, for which scientific evidence suggests an increased risk of mental health problems and mental disorders

partially

2: develop and improve policy on mentally healthy work, with a particular focus on work environments of unskilled and low-wage workers

partially

3: develop guidance on how to create and maintain mentally healthy work at all levels of an organisation and promote systematic professional capacity building and training programmes for supervisors and occupational health and safety professionals

partially

4: improve governmental support and workplace conditions to enable individuals with mental health problems and disorders to be part of the workforce

Poor

5: routinely enquire about work and working conditions in the clinical assessment, diagnosis, and management of mental health problems and mental disorders

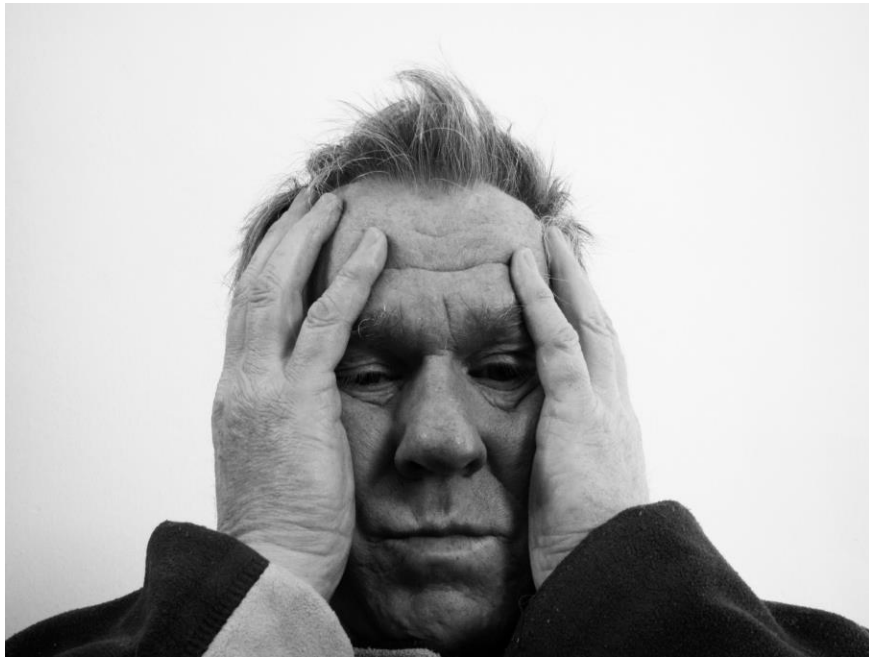
Fairly

6: ensure that the workplace is included into governmental mental health strategies, and build societal awareness about the importance of mental health in the workplace

Mental health programs and services in the workplace before and in the COVID-19 pandemic: A demonstration video

The second shift of the target

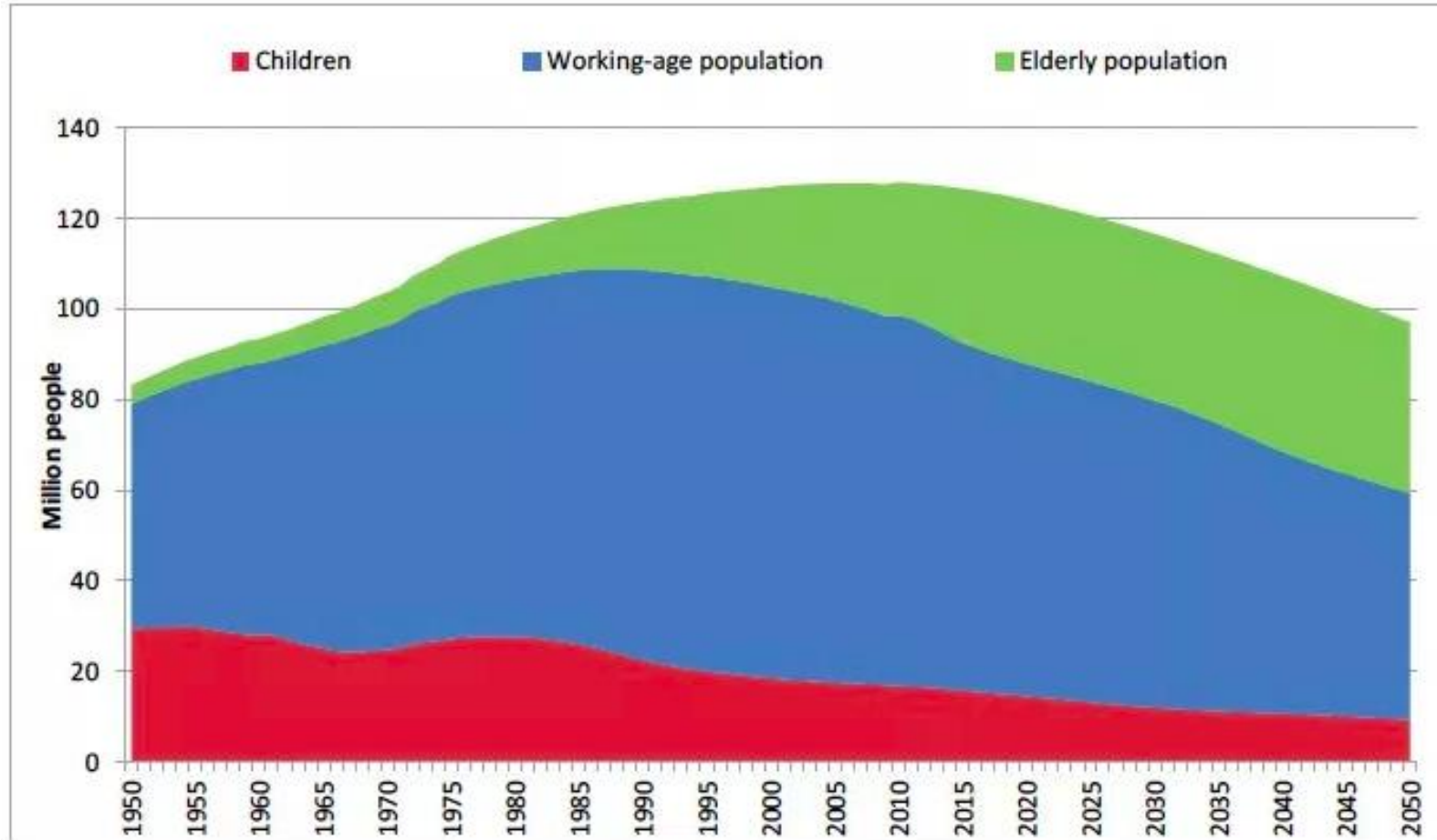
From the prevention of mental health problems



To making the “Iki-iki”
(active and lively) workplace



Shrinking labor workforce in Japan



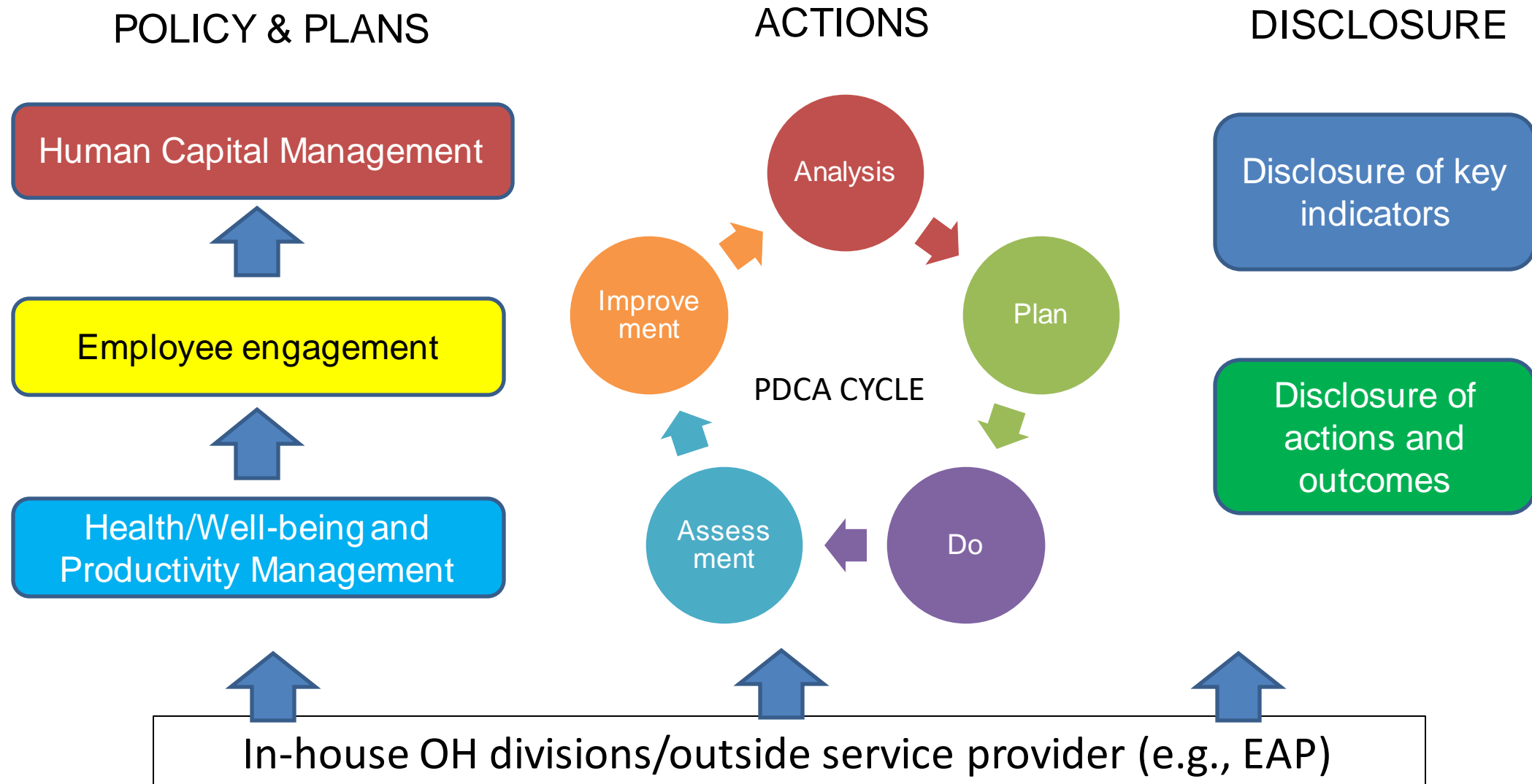
Source: OECD Historical Population Data and Projections (1950-2050).

- Companies motivated to maintain the productivity by improving worker health in the workplace
- The national strategy set by the President Abe to promote worker health to maintain the healthy workforce (2013)

Toward positive mental health at work

- **Work engagement** – “a positive, affective-motivational state of fulfillment that is characterized by vigor, dedication, and absorption.” (Shaufeli et al., 2001)
- “**Mental wellbeing** is a dynamic state in which the individual is able to develop their potential, work productively and creatively, build strong and positive relationships with others and contribute to their community”. (UK National Institute for Health and Clinical Excellence, 2009)
- **Well-being at work** (The “Towards Better Work and Well-being” Conference, Helsinki in 2010) (Anttonen & Vainio, 2010)
- “**Enhancing work engagement and promoting decent work**” (G7 Labor and Employment Ministers' Meeting, Okayama, Japan, 2023)

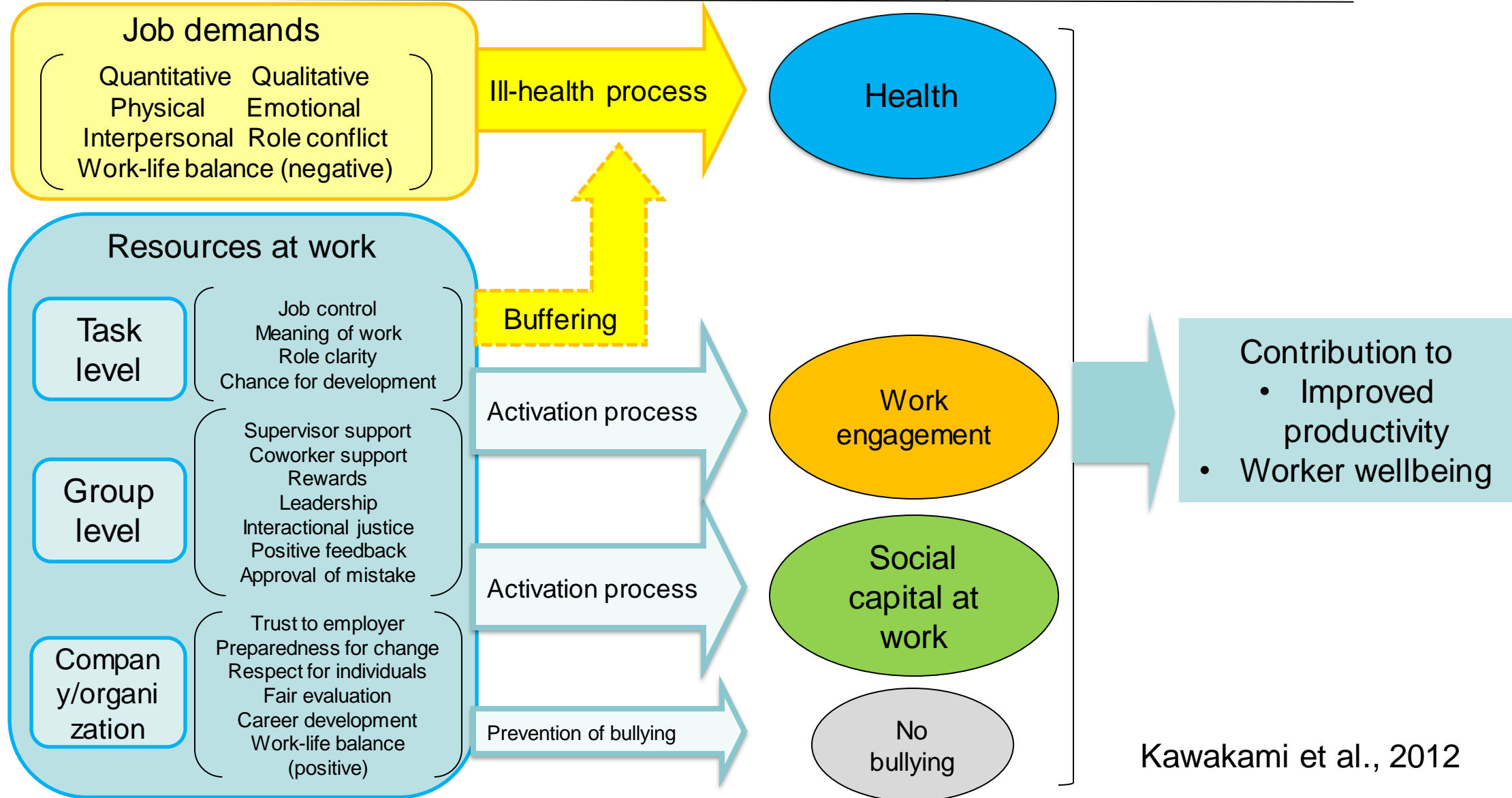
Promoting positive mental health in the business strategy



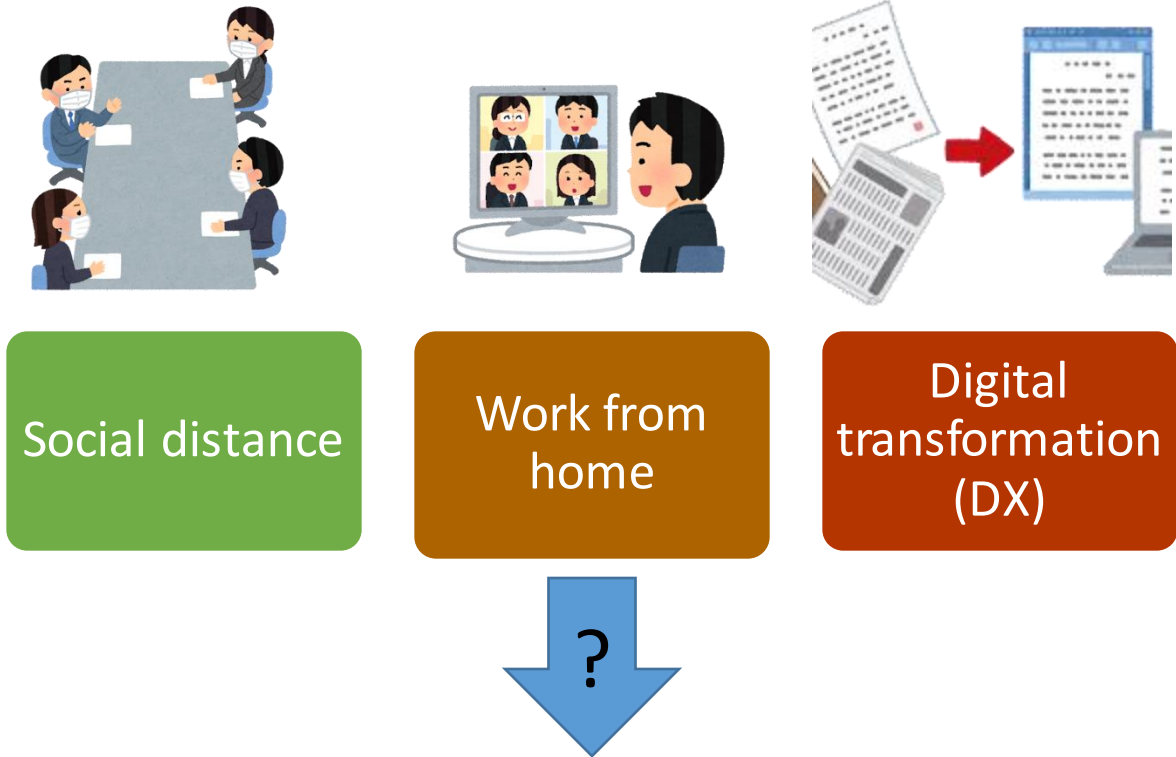
The “Kenko-iki-iki” (healthy and active) workplace model

Psychosocial work environment

Health & organizational outcomes

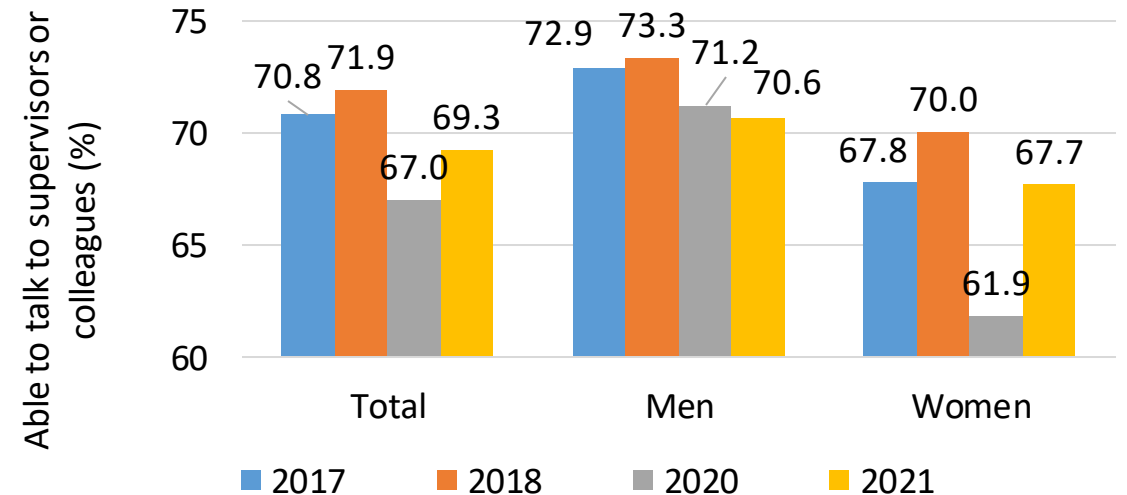


Emerging concerns in the COVID-19 pandemic: Changing communication in the workplace may affect mental health of workers



- Decreased communication at work
 - Loneliness in the workplace
 - Poor mental health of workers

- Employees got less able to talk to supervisors and colleagues in COVID-19

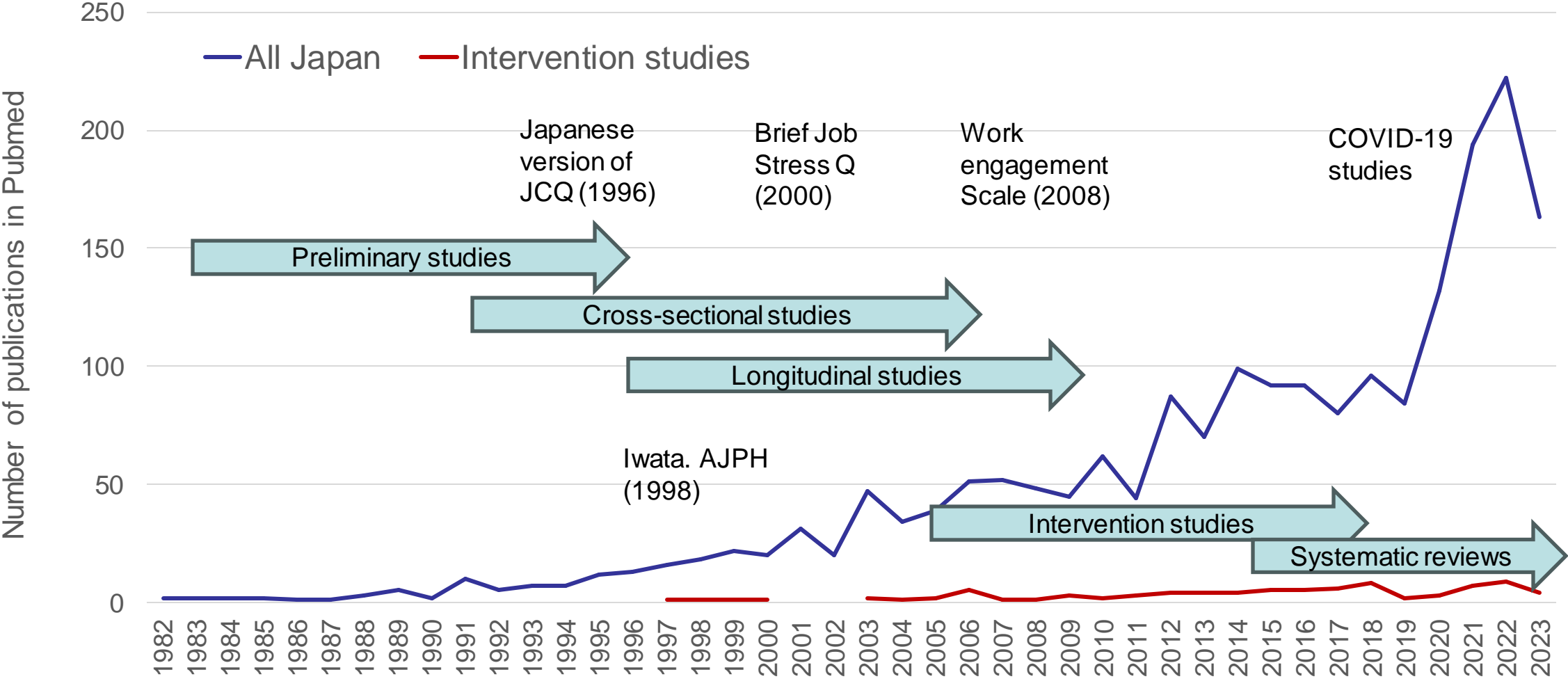


- Sick leave more than 1 month due to mental health problems increased from 0.4% in the pre-pandemic (2018) to 0.6% during the pandemic (2022).

Challenges in mental health in the workplace in Japan

- Population decline
- Digital transformation and AI
- Still traditional work culture, long working hours, and Karoshi
- Inadequate work-life balance
- Harassment and bullying
- Gender inequality
- Social inequity
- Foreign immigrants
- Working populations not covered by the legislation (e.g., self-employed)
- Worker and user involvement in occupational health and safety
- Limited accessibility to mental health care and psychological services
- Natural disasters

Research on mental health in the workplace in Japan



Searched on Pubmed with keywords (job stress OR mental health) AND (workplace* OR worker* OR occupational health) AND Japan, as of Jan 13, 2024.

Organizational interventions

- A supervisor-led program of improving psychosocial work environment reduced depression and sick leave days in a controlled trial (Kawakami et al., 1997).
- A worker participatory program improved psychosocial work environments and mental health among white-collar workers in a controlled trial (Kobayashi et al., 2008).
- A worker-participatory workshop intervention improved psychological distress and work performance in a cluster randomized controlled trial (Tsutsumi et al. 2009).
- No significant effect of a participatory intervention to improve psychosocial work environment was observed on mental health was observed among nurses in a cluster randomized controlled trial (Uchiyama et al. 2013).



The Mental Health Action Checklist (MHACL)

<Action areas>	No. of items	Example of items
A Sharing work planning	(5)	Group planning, limited workload, sharing information
B Work time + organization	(5)	Non-overtime day, shift schedule, flexible hours
C Ergonomic work methods	(5)	Materials handling, labels avoiding mistakes
D Workplace environment	(5)	Heat, noise, smoking resting, facilities
E Mutual support at work	(5)	Supportive climate, newsletter, e-mail's
F Preparedness and care	(5)	Counseling, self-care, primary care
Number of total items	(30)	

Organizational interventions are recommended and prioritized

- WHO Guidelines recommend organizational interventions

Recommendations for organizational interventions

<div style="text-align: center; font-size: 2em; font-weight: bold; color: #0070C0;">1</div> <h3 style="text-align: center;">Universal organizational interventions</h3> <p>Organizational interventions that address psychosocial risk factors, including interventions involving participatory approaches, may be considered for workers to reduce emotional distress and improve work-related outcomes.</p> <p><i>Conditional recommendation, very low-certainty of evidence</i></p>	<div style="text-align: center; font-size: 2em; font-weight: bold; color: #0070C0;">2</div> <h3 style="text-align: center;">Organizational interventions for health, humanitarian and emergency workers</h3> <p>Organizational interventions that address psychosocial risk factors, for example reductions to workload and schedule changes or improvement in communication and teamwork, may be considered for health, humanitarian and emergency workers to reduce emotional distress and improve work-related outcomes.</p> <p><i>Conditional recommendation, very low-certainty of evidence</i></p>	<div style="text-align: center; font-size: 2em; font-weight: bold; color: #0070C0;">3</div> <h3 style="text-align: center;">Organizational interventions for workers with mental health conditions</h3> <p>Reasonable work accommodations should be implemented for workers with mental health conditions, including psychosocial disabilities, in line with international human rights principles.</p> <p><i>Strong recommendation, very low-certainty of evidence</i></p>
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- The WHO/ILO Policy Brief prioritized organizational interventions to prevent harm.



Manager training

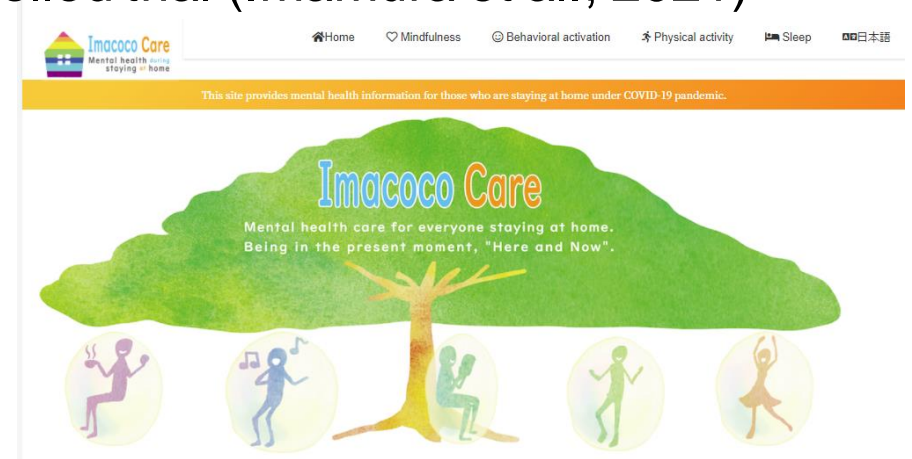
- A review identified seven intervention studies of the effect of supervisor/manager training on mental health of subordinate workers (Tsutsumi, 2011).
 - Improved psychological distress (including depression and insomnia) (Greenberg, 2006; Kawashima et al, 1997*; Tsustumi et al, 2005*)
 - Maintained supervisor support (Kawakami et al, 2005*)
 - Improved job control and workplace atmosphere (Kawakami et al, 2006*).
 - Decreased urine cortisol (Theorell et al, 2001)
 - No significant improvement observed (Takao et al, 2006*)

* Red collars indicates studies from Japan

Worker-oriented digital mental health interventions

- An Internet cognitive behavioral therapy (iCBT) program reduced the risk of major depressive disorder (hazard ratio, 0.22) in a randomized controlled trial (Imamura et al., 2015).
- A web-based stress and depression literacy intervention improved depression and work engagement among workers in a randomized controlled trial (Imamura et al., 2016).
- A computer-based stress management training improved psychological well-being and work performance in Japanese employees in a cluster randomized controlled trial (Umanodan et al. 2020).
- A psychoeducation website named “Imacoco-care” improved psychological distress among workers under COVID-19 pandemic in a randomized controlled trial (Imamura et al., 2021)

<https://imacococare.net/en/>



Worker-oriented digital mental health interventions for LMICs: a case of hospital nurses in Vietnam

- Intervention
 - Six-week six-module self-guided program
 - Accessible from smartphones (android and i-phone) and an Internet browser
 - Adapted to the target population (nurses in Vietnam)
- Findings of the RCT
 - Depression improved at 3 month follow up significantly for the programs B compared to the control ($p=0.048$ with a repeated mixed model analysis; Cohen's $d=0.18$).



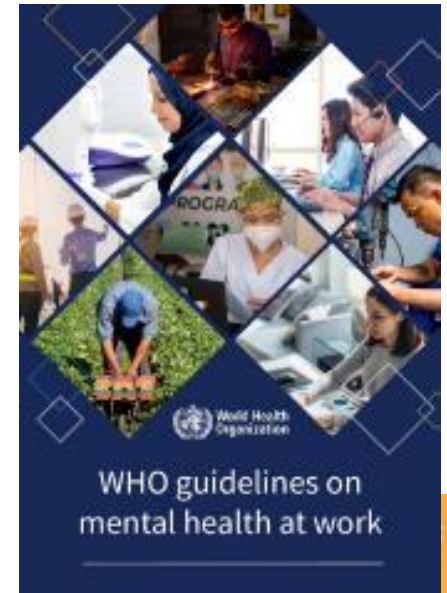
Imamura K, Tran TTT, Nguyen HT, ..., Kawakami N.
Effect of smartphone-based stress management
programs on depression and anxiety of hospital nurses
in Vietnam: a three-arm randomized controlled trial.
Sci Rep. 2021 May 31;11(1):11353. doi:
10.1038/s41598-021-90320-5.



Digital Mental Health (DMH)*: Opportunities and challenges

- Opportunities (WHO Guidelines on Mental Health at Work, 2022):
 - “Individual level interventions (psychosocial and physical activity) can be feasibly delivered face to face, or electronically, guided or unguided, group or individually accessed.”
 - “Digital interventions may offer feasible access for shift workers, self-employed or ‘off-site’ workers. “
- Challenges
 - “Many digital applications are available for mental health self-help and only a few have been well tested and evaluated” (WHO/ILO Policy Brief, 2022)
 - “However, they should only be delivered as part of a broader programme of activities that also includes other interventions” (WHO/ILO Policy Brief, 2022)

* Digital mental health is proposed as a boarder term that encapsulates eMental health while including other technologies that help improve consumers’ mental health and overall wellness (World Economic Forum, 2021).



Conclusion

- The current systems and programs in Japan for mental health in the workplace was developed, first triggered by “Karoshi” and “Karojitsatsu”, and then by concerns on productivity loss due to mental health problems in the shrinking labor force.
- Research on mental health in the workplace in Japan was advanced initially with cross-sectional studies using validated instruments of job stressors, and later with longitudinal studies, intervention studies, and systematic reviews, contributing to globally accumulated knowledge.
- Future challenges exist both in the research and practice in the changing world of work and with innovative technologies.