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Monitoring workers’ health: focus on rights, determinants, and equity

See *Series* pages 1357, 1368, and 1382

The *Lancet Series on Work and Health*^{1–3} recognises that changes in the world of work are causing new occupational hazards to physical and mental health and increasing health inequalities within and between countries. These changes have profound implications for official workers’ health data and monitoring systems, which have become a global health priority as the world seeks to reach the Sustainable Development Goals (SDGs).^{4,5} These monitoring systems are public goods that provide international organisations, governments, and communities the evidence base for policy and practice that ensures health for all workers. We argue that these monitoring systems must respond to changing working environments by expanding capture

of workers’ rights, working conditions, and health inequalities. We outline normative data and monitoring products to reach this systemic shift and provide the public health vision for this new direction.

No worker should die or get ill because of their work, or be left behind in occupational health protection and promotion. All workers are entitled to the human rights to: health;⁶ a clean, healthy, and sustainable environment; and a safe and healthy working environment.⁷ However, WHO and the International Labour Organization (ILO) estimate that annually 2 million deaths and 90 million disability-adjusted life-years are attributable to selected occupational risk factors.⁸ Recognition is growing that improving

	Challenge	Solution
China	Improve the data for estimates and indicators on the burdens of occupational diseases	Align the codes for occupational diseases from the national catalogue with those from the International Statistical Classification of Diseases and Related Health Problems
Italy	Adapt monitoring of working conditions to the changing world of work, focusing on psychosocial risk factors	Harmonise data on working conditions from records and registers for use in the national Information System for Prevention in the Workplace and expand the system’s capture of psychosocial risk factors
Nepal	Start monitoring occupational exposure to ambient air pollution among outdoor workers	Develop an indicator for occupational exposure to ambient air pollution using data from the Air Quality Monitoring system collected via site-specific sensors and include them in the national workers’ health monitoring system
Somalia	Monitor the working conditions, security, safety, and health outcomes of health-care workers	Develop an occupational health and safety programme for conflict-affected settings and embed into it a regular data collection system for monitoring attacks against health workers, especially women, and their working conditions and physical and mental health and wellbeing outcomes
South Africa	Initiate data collection and monitoring of mental health among informal economy workers	Collect data from informal economy workers on their mental health risk factor and health outcomes at sentinel sites (eg, primary health clinics or mobile units) or through workers’ associations and use these data to establish an indicator in the national workers’ health monitoring system
Togo	Strengthen health surveillance of health-care workers in health-care facilities and during public health emergencies	Produced indicators of the numbers of reported occupational injuries and occupational safety and health committees in health-care facilities and added them into the new national health development plan, and produced and monitored an indicator of the number of deaths due to COVID-19 among health workers during the response to the COVID-19 pandemic
USA	Improve knowledge and monitoring of psychosocial risk factors at work	Added questions on psychosocial risk factors to the Quality of Work Life Survey to better understand the effect of occupational exposures to stressful conditions of work organisation, new systems of work, and related socioeconomic variables on workers’ health and health inequalities

Table: Examples of challenges and solutions for national data and monitoring systems of workers’ health

workers' health and health equity requires action on the social and environmental determinants of health. Examples include strengthened evidence on the effects of the emerging psychosocial hazard of long working hours on cardiovascular disease,⁹ and the environmental and climate crises strengthening attention to workers' environmental and climatic hazards (eg, air pollution and heat exposures). Occupational health policy increasingly comprises health equity analysis and targets. The WHO/ILO joint estimates show geographical and socioeconomic health inequalities—an increased number of deaths is noted among workers in Africa, South-East Asia, and the Western Pacific, and among men and people aged 55 years or older.⁸ People working in the informal economy, and migrant, outdoor, and front-line workers are often especially disadvantaged. Health-care workers, despite working in a sector that aims to restore, protect, and promote health, often face hazardous working conditions and are exposed to pathogens (eg, SARS-CoV-2), violence, and long working hours, among others. Ongoing changes in working environments (eg, globalisation, automation, digitisation, new pandemics, environmental pollution, and climate change) exacerbate these inequalities. Ultimately, unhealthy working conditions act as barriers for realising workers' rights to health, population health, and health equity, and threaten the goal of achieving the SDGs globally.

Government agencies responsible for health data and monitoring systems must track established and new indicators of workers' health. The focus must shift from ensuring physical safety of human resources in the labour force to a public health approach based on rights, determinants of health, and equity that promotes the physical, mental health, and wellbeing of workers as people, communities, and populations. Countries face several challenges in strengthening monitoring systems of workers' health (table), while ensuring that this monitoring fulfils statistical and operational requirements, including feasibility, accuracy, timeliness, comparability, sustainability, and independence.

WHO's 194 member states have mandated the organisation to ensure healthy working conditions⁶ and improve occupational health monitoring with a focus on diseases.^{4,5} WHO and partners have innovated normative data and monitoring products to enable global, regional, and national systems to respond

to health-related changes in the world of work. Since 2016, and in the spirit of the SDGs, WHO and the ILO supported by 250 individual experts, have assessed health risks of emerging occupational hazards in the UN's largest scientific collaboration on occupational health to date.¹⁰ The organisations have published the WHO/ILO joint estimates of the work-related burden of disease and injury.⁸ These first UN interagency estimates and the accompanying global monitoring report have revolutionised the global understanding of comparative occupational risk and burden of disease: they established that exposure to long working hours causes 40% of all work-related deaths and work-related diseases (rather than injuries) cause 81% of work-related deaths.^{8,9} Cardiovascular and respiratory diseases and cancers cause most work-related deaths.⁸ In response, WHO and member states have launched new global indicators, including of proportions of populations working long hours, working outdoors (ie, exposed to environmental and climatic hazards), and dying from work-related diseases.¹¹ WHO's new environmental and occupational health monitoring system¹² comprises indicators on workers' rights (ie, ratification of ILO Occupational Safety and Health Conventions), determinants of workers' health (eg, proportions of workers in the informal economy and working long hours), and the new WHO indicator¹¹ that tracks deaths from work-related diseases. Data disaggregation of estimates and indicators by country, sex, and age enables health inequality analysis to leave no one behind in sustainable development. Countries are innovating tailored solutions to their specific challenges (table).

Going forward, the public health vision for improving the architecture of workers' health data and monitoring should focus on capturing rights, social and environmental determinants of health, and inequalities. International organisations and national governments, in consultation with communities, have progressively strengthened their monitoring strategies and systems accordingly—this work should be continued and expanded. Workplace exposures to psychosocial, environmental, and climatic hazards and the mental health and social wellbeing effects of work must be increasingly monitored (table). Official occupational burden of disease estimation must be expanded to encompass diseases attributable to

environmental and climatic risk factors in accordance with mitigation and adaption to global crises. Although the tracking of occupational injuries remains essential, health monitoring systems must start tracking work-related diseases, ideally through the SDG indicator system.¹¹ Additionally, in the longer run, the implementation must be monitored of pro-equity, ethical, effective, and cost-effective interventions that prevent work-related diseases (eg, social protection floors). Efforts must focus on establishing and strengthening surveillance systems in low-income and middle-income countries, which carry the largest work-related burden of disease.⁸ Similarly, efforts must also focus on serving disadvantaged workers with health data and surveillance, including in fragile, conflict-affected, and vulnerable settings and public health emergencies. Informal economy workers (61% of workers globally) deserve health monitoring, especially since their only access to occupational health and safety services is often through public health services. Only with official, independent, and functional data and monitoring systems that capture the most relevant indicators can we strive to reach universal health coverage for all workers and therefore reach the health and health-related SDGs. We call on these systems to be designed and to function as tools for advancing social justice, public health, and health equity.

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