

Occupational Safety and Health in the Caribbean: Challenges and Opportunities for Achieving Development Goals

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Globally, the International Labour Organization (ILO) estimates that 270 million occupational accidents and 160 million cases of occupational diseases, including more than 2 million deaths, occur every year (1). Approximately 670 000 cancer deaths and 8.4% of all cancers are due to occupational carcinogens (2). Studies suggest that Latin America and the Caribbean (LAC) have one of the highest mortality rates due to work-related exposures to hazards (3). Occupational injuries and illnesses not only impact on population health and well-being but also adversely affects productivity and economies. At least 3.7 million disability adjusted life years are lost due to occupational hazards and the annual cost of occupational accidents is estimated at US\$15–55 billion for the region (3). Safe and healthy working conditions are important social determinants of health that need to be addressed in the Caribbean with urgency.

The contribution of work-related illnesses to the burden of disease in the Caribbean is often overlooked due to a lack of awareness about occupational diseases, the long latency period between exposure to hazards at work and symptom onset, and the similarity in clinical presentation to diseases that are not work related. For example, asthma is a major non-communicable disease (NCD) affecting an estimated 260 million persons worldwide, but up to 25% of adult-onset asthma is work related (4). At least 400 agents that cause asthma (also called asthmagens) have been identified and the list is increasing. Many of these agents are used on a daily basis in various work-settings in the Caribbean without appropriate personal protective equipment (PPE) or other measures for reducing exposure to these agents. Di-isocyanates, one of the most common causes of occupational asthma worldwide, is used in spray paints and adhesives in garages and furniture shops across Jamaica (5). Gas, smoke and dust are also common asthmagens that are accepted as a 'normal' part of the work environment.

Workers in low- and middle-income countries (LMICs) are particularly vulnerable since safe workplace practices are less likely to be observed or enforced in the large informal sector of these countries (*eg*, self-employed, microbusinesses and domestic workers). In fact, the informal sector accounts for 48% of economic activity in Latin America and the Caribbean (LAC) (3). Failure to recognize the role of these work-related exposures in adult-onset asthma contributes to higher morbidity and mortality as studies show that reduction or removal of the occupational hazard can improve asthma symptoms and lung function (6). Similarly, cancers and other chronic diseases due to occupational exposures can be prevented by eliminating or reducing exposure at work. In effect, work-related illnesses can be prevented and no one should die because of their work.

The health impact of occupational exposures in the Caribbean is compounded by weak or absent occupational safety and health (OSH) legislation to ensure that a safe and healthy working environment is provided. A situation analysis of OSH in six English-speaking Caribbean countries showed that the OSH legislative framework in the Caribbean is outdated and often limited to certain industries (7). In Jamaica, the Factories Act of 1961 (revised 2009) is the main legislation that addresses protection of workers by providing a framework for safe working conditions. Other Acts that have provisions for OSH in Jamaica include the Labour Officers (Powers) Act, the Building Operations and Works of Engineering Construction (Safety, Health and Welfare) Regulations and the Docks (Safety, Health and Welfare) Regulations (8). These regulations are limited in scope as they place emphasis on physical hazards or injuries and are limited to certain work settings (*eg*, factories, mines). Additionally, there is no requirement for medical surveillance of workers exposed to known hazards and reporting or tracking of occupational diseases

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is not required. A framework for ensuring a safe work environment for persons in all work settings that may be exposed to a variety of other hazards (eg, chemicals, biological agents, ergonomic and psychological hazards) is urgently needed. Jamaica's Occupational Safety and Health Act (2017) addresses some of these issues but the Act is yet to be gazetted and is not operational.

Neglecting OSH is also proving to be deadly in the COVID-19 pandemic. Outbreaks of COVID-19 in workplaces such as meat-processing plants and cruise ships are widely documented (9). Occupations with frequent and long interactions with customers (eg, cashiers, bus drivers and security guards) are shown to have increased risk of COVID-19 infection. Health-care workers (HCWs) in LMICs are particularly at high risk due to a lack of expertise in occupational safety and health. This deficiency has resulted in under-utilization of administrative and engineering controls that may reduce COVID-19 exposure in health facilities and PPE are often provided without attention to fit-testing of respirators or adequate training on donning and doffing of PPE. The WHO estimates that 115 500 HCWs (range 80 000–180 000) have died due to COVID-19 with more than 60% of COVID-19 deaths occurring among HCWs in the Americas (10). The true impact of COVID-19 infection on HCWs and other occupational groups in the Caribbean is unknown due to weak surveillance systems that do not adequately capture work-related illnesses.

Implications for Public Health

The ILO has supported the development of OSH legislation in the Caribbean through advocacy, workshops and facilitating the development of a CARICOM Model Law on Occupational Safety and Health and the Working Environment. International Labour Organization conventions and recommendations provide a framework for establishing safe workplaces and managing OSH programmes. However, many Caribbean countries have not ratified these conventions. The lack of political commitment to ensuring workplace safety and health combined with insufficient resources have stalled progress in this important area of public health.

However, the importance of addressing OSH has come to the forefront as the Caribbean tackles current threats to public health. This includes the increasing burden of cancers and other NCDs as well as emerging and re-emerging infectious diseases such as COVID-19. Occupational safety and health cannot be seen as a 'pie in the sky' since it is intricately woven with other health priorities. Efforts to achieve the Sustainable Development Goals and national goals such as those

outlined in Jamaica's Vision 2030 may prove to be futile if OSH continues to be neglected. More specifically, Jamaica's OSH Act needs to be operationalized without further delay. The capacity of the Ministry of Health and Wellness must be increased to oversee and enforce OSH programmes that are broader in scope than the current focus on occupational injuries. Employers and employees, including the informal sector, need to be sensitized about the conduct of safe and healthy work particularly in relation to known hazards. Hazard and medical surveillance should be conducted routinely for high-risk occupations and the information should guide interventions. A systematic review of the main industries and accompanying hazards faced by persons during work in the region should be outlined and can lay the foundation for future action. Occupational safety and health has been neglected far too long in the Caribbean. The time to act is now.

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