# Work-related accidents and diseases take a heavy toll worldwide<sup>1</sup>

While some two million workers die each year from work-related accidents and diseases, the full toll to workers around the world is much higher than that. Depending on the type of job, for every fatal accident that occurs, there are 500 to 2 000 injuries. Further, the large majority of occupational deaths and accidents could be prevented if countries applied existing, available accident prevention strategies and practices, according to a recent report from the International Labor Organization (ILO).

The ILO report was prepared for the XVIth World Congress on Occupational Safety and Health at Work, which was held in Vienna, Austria, at the end of May 2002. Entitled Introductory Report: Decent Work — Safe Work, the ILO document said that the number of estimated annual deaths among workers had increased since 1990, because the number of cases of work-related cancer and circulatory diseases increased and also because workrelated communicable diseases had not been counted previously. Figures for fatal accidents went up slightly in developing countries but decreased in most industrialized nations. About 270 million workers were involved in occupational accidents annually, of which approximately 360 000 were fatal, while another 160 million workers incurred occupational diseases.

### THE LEADING WORKPLACE KILLERS

According to the ILO figures, the biggest killer in the workplace is cancer, causing some 32% of deaths, followed by circulatory diseases at 23%, accidents at 19%, and communicable diseases at 17%.

For work-related cancer, among the main contributing and preventable factors are asbestos; carcinogenic chemicals and processes; ionizing radiation and radioactive materials and radon; silica and other carcinogenic dusts; environmental tobacco smoke (passive smoking) at work; and diesel engine exhaust.

For cardiovascular diseases, the factors include shift work and night work; long hours of work; job strain caused by high demands and low decision-making latitude, resulting in hypertension and a high level of stress hormones; such chemicals as carbon disulfide, nitroglycerin, lead, cobalt, carbon monoxide, combustion products, arsenic, and antimony; and environmental tobacco smoke

**Key words:** occupational health, occupational diseases, occupational accidents, accident prevention.

Based on: 1) International Labor Organization. Work-related fatalities reach 2 million annually [news release]. Available from: http://www.ilo.org/public/english/bureau/inf/pr/2002/23.htm. Accessed 24 May 2002. 2) Takala J. Introductory report: decent work — safe work. Available from: http://www.ilo.org/public/english/protection/safework/wdcongrs/ilo\_rep.pdf. Accessed 11 July 2002.

at work. Factors for cerebrovascular diseases include shift work and environmental tobacco smoke at work.

For occupational accidents, the main contributing and preventable factors include a lack of company/enterprise safety and health policies, structures, and systems; a poor safety culture; a lack of knowledge and of available solutions; poor government policy and legal and enforcement systems; inadequate occupational health services; a lack of research and proper statistics for priority-setting; and a lack of effective training and education systems at all levels.

Factors for work-related communicable diseases include such infectious and parasitic diseases as malaria, viral and bacterial diseases, and schistosomiasis; poor-quality drinking water; and poor hygiene and a lack of knowledge.

More than half of the workers of the world are employed in agriculture, and that sector claims more than 50% of occupational fatalities, injuries, and diseases. In the Region of the Americas, agricultural workers make up about 14% of all those who are employed but suffer some 47% of the work-related fatalities, according to ILO estimates.

An especially heavy toll of dead and injured occurs in developing countries around the world, where large numbers of workers are concentrated in primary and extraction activities such as agriculture, logging, fishing, and mining, which are some of the word's most hazardous industries.

There are a number of other factors that can contribute to injury and death in developing countries. Many production processes are considerably more labor intensive than in industrialized countries. Knowledge and awareness of hazards, and thus prevention efforts, are significantly lower in developing nations. Communicable diseases at work, such as malaria, hepatitis, and viral and bacterial infections, are considerably more prevalent in low-income countries.

Over time, as a result of structural changes in the nature of work and real improvements in making the workplace healthier and safer, industrialized countries have seen a decrease in the number of serious injuries. (See the sidebar entitled "Workplace deaths decline in the United States but still disproportionately affect immigrants and Hispanics.") Such improvements, however, are likely to come only after a period when the number of accidents may rise, due to the increased construction of roads, factories, and other infrastructure; heavier traffic; and having many untrained workers in totally new jobs. Injuries will go up until a plateau is reached, as prevention policies and programs gain momentum and there is a shift to service industries. That evolving nature of work, in turn, will generate

new occupational hazards, including musculoskeletal disorders and stress and mental problems.

#### HIGH COST OF NEGLECTING THE PROBLEM

There are substantial economic costs resulting from work-related injuries and diseases, according to the ILO report. Approximately 4% of the world's gross domestic product (GDP) is lost due to such expenses as foregone income and medical treatment. That loss in GDP is 20 times greater than all official development assistance to developing countries.

The single biggest reason for economic losses from workplace injuries and diseases are lower back pain and other musculoskeletal disorders. These cause relatively long absences from work and become a major financial burden on society. Only a minority of workers around the world are protected by programs that compensate them for these losses. The burden is left on the victims and their families, thus increasing the poverty already caused by the loss of income.

Fatalities from different work-related causes can impact workers and their families at different points in their lives. Fatalities due to accidents usually occur among workers who expect to have a long working career ahead of them. On the other hand, work-related cancer and circulatory diseases and other diseases with a long latency period may appear later in working life or after retirement, when life expectancy is shorter.

### STRATEGIES TO IMPROVE SAFETY

About 80% of occupational deaths and accidents could be prevented if all the countries that belong to the ILO applied already-known accident prevention strategies and practices, the ILO report said.

For industrialized countries, priorities need to focus on psychosocial factors linked to poor work-place relations and management; the mental and physical consequences of repetitive, highly technical tasks; and information on handling new technologies and substances, including chemicals. In countries that are still industrializing, priority should go to improving safety and health practices in primary industries such as farming, fishing, and logging; preventing industrial accidents, including fires and exposure to hazardous substances; and preventing traditional accidents and diseases, including those in informal workshops and home-based industries.

It is not true that poor countries and poor companies cannot afford safety and health measures, the ILO report affirmed. There is no evidence

## Workplace deaths decline in the United States but still disproportionately affect immigrants and Hispanics

Immigrant workers—including persons of Latino heritage—bear an uneven burden of workplace injuries and fatalities in the United States of America, according to a report issued in April 2002 by the Safety and Health Department of the American Federation of Labor-Congress of Industrial Organizations (AFL-CIO). The AFL-CIO is a federation of labor unions that together represent more than 13 million workers in the United States.

There are some 28 to 30 million immigrants living in the United States, or just over 10% of the country's population. Immigrants—especially those who have entered the country without legal permission—are often hired for undesirable, dangerous jobs at low wages. These workers frequently do not know what rights they have under national, state, and local laws and regulations, and they may receive little or no training in safety and health measures. Language and cultural barriers can compound these difficulties.

The number and rate of workplace fatalities in the United States has declined steadily since 1970. That was the year that major new legislation to protect workers, the Occupational and Safety Health Act, was approved. In 1970 there were 18 workplace fatalities for every 100 000 workers. By 1980 that figure had fallen to 13 per 100 000, and, by 1990, to 9 per 100 000.

The overall rate of workplace fatalities continued falling in the 1990s. Between 1995 and 2000 the rate for all workers fell from 5.0 per 100 000 to 4.3 per 100 000. Nevertheless, among Hispanic workers—who may be recent immigrants or whose families may have lived in the United States for many decades—the rate increased, going from 5.4 per 100 000 to 5.6 per 100 000, according to the AFL-CIO report, which was based on data collected by the Bureau of Labor Statistics of the United States Government.

that any country or company in the long run would have benefited from a low level of safety and health. Rather, according to recent studies, the most competitive countries are also the safest. Selecting a low-safety strategy may not lead to high competitiveness or sustainability.

The ILO and its member countries have generally focused their efforts in five key areas. One of them has been taking ILO standards, such as ones in ILO conventions, recommendations, and codes

of practice, and having nations ratify them and adapt them in national laws, directives, rules, codes of practice, and other application mechanisms. A second area has been enforcement, advisory, and inspection services. A third has been building and sharing knowledge through research and information services. For example, a number of ILO programs, some developed in conjunction with the World Health Organization and the United Nations Development Program, aim to improve safety and health information and networking. A fourth area has been advocacy through training and partnerships. A final area has been alliances for technical cooperation and resource mobilization.

A newer, complementary ILO strategy is based on the principles of occupational safety and health management systems. Individual companies can adapt ILO guidelines on such systems for their specific needs. Similarly, at the sectoral, regional, national, and international levels, action programs can be set up that are based on those principles and a cycle of "plan-do-check-act."

#### **SINOPSIS**

# Los accidentes y enfermedades laborales causan gran mortalidad en todo el mundo

Cada año mueren en todo el mundo unos dos millones de personas por enfermedades y accidentes laborales, pero la repercusión total es mucho mayor aun. Según el informe de la Organización Internacional del Trabajo (OIT) titulado Informe introductorio: trabajo decente, trabajo seguro, de mayo de 2002, dependiendo del tipo de trabajo, por cada accidente mortal se producen 500 a 2 000 lesiones. Según la OIT, la principal causa de muerte relacionada con el trabajo es el cáncer, responsable de 32% de las muertes, seguido de las enfermedades circulatorias (23%), los accidentes (19%) y las enfermedades transmisibles (17%). Las lesiones y las enfermedades laborales suponen un considerable costo económico. Cerca de 4% del producto interno bruto (PIB) mundial se pierde en gastos de tratamiento e ingresos no percibidos.

El informe de la OIT dice que se podría prevenir cerca de 80% de los accidentes y muertes laborales si todos los países que pertenecen a la organización aplicaran los métodos de prevención de accidentes ya existentes. En los países industrializados, las prioridades deben ser los factores psicosociales ligados a las malas relaciones y gestiones en el lugar de trabajo, las consecuencias mentales y físicas de las tareas repetitivas muy técnicas y la información sobre la manipulación de las nuevas tecnologías y sustancias, entre ellas los productos químicos. En los países que todavía están en fase de industrialización se les debería dar prioridad al mejoramiento de las prácticas sanitarias y de seguridad en las actividades primarias, como la agricultura, la pesca y la explotación maderera; la prevención de los accidentes y enfermedades en talleres informales e industrias domésticas.