

# Setting research priorities in occupational safety and health A symposium report



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### Foreword

Millions of the world's workers bear unacceptably high levels of workplace fatalities, injuries and illnesses, with an economic loss amounting to 4–5% of GDP (gross national product). In addition, informal work - such as garbage recycling, street vending, unpaid domestic work - entails no protective legislation, no social security and is often assigned low social status. Moreover, precarious employment leads to workers experiencing high levels of stress and working under conditions that are detrimental to their health, while having little opportunity to voice their needs or to benefit from health protection measures. Nevertheless, "precarious workers" are neglected in much of the research on occupational safety and health (OSH), and few resources have been dedicated to addressing the research gaps. One reason is that few research priority-setting exercises have been conducted at national level in low- and middle-income countries (LMICs) in this field.

In 2008, the Global Forum worked to catalyse greater attention to this neglected research priority by holding a symposium during the XVIII World Congress on Safety and Health at Work in Seoul, Korea, on the theme "Research priorities for interventions on safety and health at work". The panel brought together six occupational health experts from around the world. The objective of the symposium was to help identify priority research areas in OSH, particularly for the needs of LMICs, tackling especially unskilled and informal work, as well as biases that occur from gender and other social hierarchies. This would lead to poverty reduction and promotion of social justice. This synthesis report on presentations and discussions is aimed at communicating key messages to researchers, policymakers and funders of research. It includes conclusions on needs for the continuous identification of priority research areas, mainstreaming equity and gender analysis, and focusing research on informal and precarious workers in LMICs.

The work presented in this report is a first step in generating momentum for more research priority-setting exercises in low- and middle-income countries. Many tools are available to aid policy-makers and funders set research priorities. One such tool, developed by the Global Forum, is the Combined Approach Matrix, which enables the collection, organization and analysis of the information needed to help set research priorities in a systematic and inclusive way. In a world of finite resources, it ensures that policy-makers prioritize health research for the most neglected populations, as well as the most important health determinants and conditions. The tool has been applied to far-reaching health issues; however it has not been used in the field of occupational safety and health. We hope that this report encourages countries and organizations to apply the tool.

Sylvie Olifson-Houriet

Health Economist and organizer of the symposium Global Forum for Health Research

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### **Executive summary**

#### Context

Each year, workplace risks exact a tremendous toll around the world. The International Labour Organization estimates that 2.3 million people die each year because of work-related accidents and disease. This is more than three times the figure for deaths from warfare (650 000 deaths per year). The actual numbers are likely to be even higher, given the difficulties of gathering reliable data in low- and middle-income countries.

There is no question that many work-related deaths and illnesses could be prevented. Over the past 50 years, highincome countries have managed to sharply reduce the rate of occupational accidents and disease through a combination of effective regulation and strong enforcement. However, even in those countries there remains substantial room for improvement. Workers in small businesses still often lack adequate protection, and labourers in the low-wage informal economy are especially vulnerable. They may be subject to unhealthy or dangerous working conditions and work long or irregular hours.

Yet, while the wealthy nations clearly must do more to improve safety and health at work, it is workers in low- and middle-income countries who face the greatest risks. In some cases, over 80% of the labour force is engaged in the informal sector. Many of these workers are poor, with few occupational choices. Additional obstacles to workplace safety in those countries include weak or non-existent regulatory systems, a shortage of occupational health professionals and management cultures that fail to value worker safety.

More research is necessary to ensure occupational safety and health. Although more research has been conducted on occupational safety and health over the last two decades, evidence remains scant about how best to protect workers, especially those in the low-wage informal economy.

#### **Policy recommendations**

So what are the best ways to promote continued advances in occupational safety and health around the world?

Research can help provide many of the answers. The occupational health field has already made important progress in aetiologic research, learning how some of the more common workplace hazards can be eliminated or controlled to prevent worker illness and injury. In response, high-income countries and multinational companies have modified their manufacturing and chemical processing standards to reduce occupational risk.

To build on these efforts, in recent years a number of highincome countries have engaged in research priority-setting exercises to choose the most important areas of focus for the next stage of research. Their findings broadly show that more study is warranted into musculoskeletal hazards, psychosocial and work organizational issues, including occupational stress. Greater attention also needs to be paid to vulnerable worker populations.

Low- and middle-income countries, given their more pressing occupational health issues, have their own distinct research needs. These range from the study of solutions to traditional risks for workplace illness to an examination of how healthcare policy, psychological and social factors affect occupational health.

Following are 11 recommendations to improve safety and health at work through research:

- Urgently conduct research priority-setting exercises in low- and middle-income countries to improve workers' health and safety.
- Collect sound data always in short supply in low- and middle-income countries – and assess the best methods for preventing occupational accidents and exposure to chemicals and pesticides.
- Study how to strengthen relevant regulations and how best to develop workplace cultures that focus on mental and physical health and safety.

- Conduct cost-benefit analyses in resource-poor countries to persuade policy-makers that improving on-the-job safety ultimately pays off in a healthier workforce and, therefore, results in a stronger economy.
- 5. Apply for technical assistance offered by the ILO and the World Health Organization to build occupational health and safety programmes and services.
- 6. Include worker safety provisions in international trade agreements, foreign aid and corporate responsibility programmes to further broaden the scope of occupational health campaigns.
- 7. Identify gaps in public health systems related to the promotion of workers' health and safety and promote viable policy solutions.

- 8. Explore the impact of social determinants such as poverty, gender, literacy level, age and HIV/AIDS status on workers' health and identify the interventions necessary to improve health, taking into account the new challenges and opportunities of the last decades' social transformation and globalization.
- 9. Clarify the best ways for workers themselves to become involved in improving their work environment.
- 10. Collect success stories and case studies, including those involving nongovernmental organizations (NGOs).
- 11. Forge broader alliances of partners (governments, experts, employers, trade unions and workers' groups) to translate research into policy and interventions.

In conclusion, continued research into "what works" across a wide spectrum of government and corporate programmes is a vital first step in the goal of improving workers' health and safety.

### 1. Introduction

The symposium on "Research priorities for interventions on safety and health at work" was hosted by the Global Forum for Health Research at the Seoul-based XVIII World Congress on Safety and Health at Work. The primary question addressed by the panel was how research could address the persistent – and by some accounts, growing – problem of disparities in occupational health. Workers in the informal labour sector, women and people of developing nations all face heightened risks of encountering on-the-job accidents or illness. Notably, these occur on top of an already high global baseline of work-related accidents and disease.

Each year, preventable workplace risks exact a tremendous toll around the world. The International Labour Organization estimates that 2.3 million people die each year due to workrelated accidents and disease – more than three times the figure for deaths from warfare (650 000 deaths per year). The actual numbers are likely even higher, given the difficulties of gathering reliable data in developing countries. According to the World Health Organization (WHO), on-the-job hazards are to blame for an estimated 37% of all global incidents of back pain, 16% of hearing loss, 11% of asthma, 10% of lung cancer and 8% of all accidents. Nearly all cases of silicosis, asbestosis and coal workers' pneumoconiosis are work-related.

"The burden of illness and injury due to work is staggering in both human and economic costs," said **Marilyn Fingerhut**, Vice-President, International Commission on Occupational Health. "It's not recognized that known solutions are available at modest cost."

"The burden of illness and injury due to work is staggering in both human and economic costs."

Amid broad-based efforts to address occupational health problems, researchers are seeking to understand who is most vulnerable to on-the-job accidents and illness and what factors place them at risk.

# 2. The role of the informal sector

Workers in the informal sector are widely acknowledged to suffer a higher-than-average rate of accidents and disease. They labour without benefit of fixed salaries or benefits, often in workplaces lacking safety and health regulations. Some researchers have used the term "precarious workers" to describe this group, given their often unstable employment and risky working conditions. Compared to the formal sector, the informal labour sector in developed nations is more likely to consist of women, ethnic minorities, undocumented workers, the young, people who work at home and interns and volunteers.

Though the ranks of such informal workers are on the rise worldwide in developed countries, the challenge of protecting workplace health and safety is greatest in the developing world. There, the informal sector remains the dominant mode of work.

**Benjamin Fayomi**, Director, University Laboratory of Health at Work and Environment (LUSTE), Cotonou, Benin and Professor, University of Benin, Cotonou, Benin, estimates that some 80% of African workers are employed in the informal business sector.

Especially in developing countries, informal sector employees tend to be under-educated and poor, with relatively few employment options. Subsisting on low incomes, they may be forced to accept substandard working conditions to earn a living. The informal sector labour force is also predominantly young, poorly educated and female – in short, workers often belong to demographic groups that have historically been more likely to experience discrimination and ill treatment. In Africa, Fayomi said, the vast majority of informal sector workers labour in production units of fewer than six people, and just over half are self-employed.

Developing nations typically lack a strong framework of occupational health and safety regulations. When laws do exist, enforcement is inadequate. Moreover, regulations tend to ignore the nature of informal sector work, which is frequently undertaken in places far removed from formal supervision, such as in workers' homes or on the street. Occupational health advocates emphasize the need to acknowledge such realities. "We need to talk about the workplace changing, going from a defined place to more home-based or self-employed work," said **Sukanya Rangamani**, Research and Training Associate, Community Health Cell, Bangalore, India. "We need to talk about the workplace changing, going from a defined place to more home-based or self-employed work."

Social norms represent another obstacle to workplace safety. In most developing countries, employers and employees alike have not yet developed the high expectations for workplace safety that prevail in rich countries. Workers forced to work long hours to make a living may also incur greater on-the-job risks. Consider the potential for health problems related to toxic chemicals. While safety standards are calculated based on an average worker's exposure over a 40-hour work week, it is common for employees in Latin American and Caribbean countries to work 50 hours or more per week, noted **Jorge A Morales Camino**, Medical Director, Procter & Gamble Latin America and Occupational Medicine Professor at UNAM, Mexico.

In contrast, workers in developed countries generally benefit both from well-developed health and safety regulations and from the broader assumption that safe working conditions are not a privilege, but a basic right. Even so, many workers in developed countries must still contend with the threat of workplace injury and accidents.

And just as in developing countries, the risks are especially evident in the informal sector. The informal sector does by definition escape regulation and is often exempted from the extensive workplace safety regulations that apply to large firms. In addition, in some countries, newly-created trade zones are exempted from labour regulation.

In rich countries, just as in poor, informal sector workers skew young and female. In European Union member countries, recent data shows that about 40% of young people aged 15-24 years had temporary employment contracts, compared to only about 11% of their counterparts aged 25-54. Part-time work accounts for a third of that undertaken by employed women, compared to only around 8% for employed men. Though labourers in the informal sector of developed countries are sometimes also described as working "at the margins," they are in fact far from the exception. Indeed, precarious work has been the norm throughout most of world history and was common in what are now considered the developed countries until relatively recently. Up until about 1920, coal-mining in the United Kingdom was characterized by sub-contracting and piecework and associated with a high risk of injury and death.

In fact, it is formal sector jobs that could be considered the global and historical anomaly, appearing only as recently as the mid-20<sup>th</sup> century. The advent of formal sector work, with the corresponding adoption of worker protections and workplace safety standards, was a major boon to worker health.

Nonetheless, speakers on the panel agreed that occupational health policy remains too preoccupied with formal work. Though informal, short-term work is sometimes treated as a deviation from the norm, but in fact represents the norm for many employees.

Indeed, in a shift with major implications for occupational health, the ranks of precarious workers in developed countries appear to be on the rise. "Though the numbers of precarious workers are unknown due to a lack of national recording, there's general agreement that the numbers are increasing," said **Kevin Maguire**, Senior Lecturer in Public Health, Nottingham Trent University, United Kingdom.

"Though the numbers of precarious workers are unknown due to a lack of national recording, there's general agreement that the numbers are increasing."

Research indicates that these informal sector workers incur greater health risks than their peers in formal jobs. A study of United Kingdom Labour Force Survey data found that workers were more likely to suffer workplace injury during the first 12 months of employment, particularly the first six months. This finding, worryingly, suggests that the growth of short-term work around the world may lead to a corresponding increase in workplace injuries. One reason for this higher incidence of injury is that informal sector workers tend to be financially insecure, and thus consider making a living to be a more immediate concern than maintaining their health. In an effort to keep their jobs, precarious workers are more likely to take risks and not report work-related health problems, Maguire said. He cited the attitudes of people he had interviewed doing temporary construction work in northern England, who, despite workplace risks, were eager to be perceived as highly efficient (and untroublesome) "good workers" to increase their chances of securing future assignments.

The lack of attention paid to the informal sector represents a missed opportunity to improve working conditions for a very sizeable – and vulnerable – slice of the working population. "They are a large group of workers who are missed in much of the research on occupational health and safety," said Maguire. "We need to identify and quantify that group more accurately."

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He suggested that when accidents do occur on the job, regulators should ascertain whether temporary, casual or part-time workers were involved. They may also want to consider collecting data on the ethnicity of affected workers.

"None of us have figured out how to deal with the informal sector," acknowledged Fingerhut. "It's difficult enough to reach the SMEs [small and medium enterprises], but it's even harder to reach people in the informal sector."

### 3. Filling the gaps: new frontiers in research

Clearly, more research is necessary to understand how best to develop and improve occupational health policy, both in the developing and developed world.

Occupational research has traditionally centred on medical aaetiology – i.e., determining whether exposure to a given chemical would result in illness. Though much work has already been completed in this area, more research would be useful in selected cases for demonstrating outcomes that will persuade policy-makers to take action.

Meanwhile, researchers are increasingly interested in less-explored avenues of research. One such area involves compiling statistics on the extent and severity of on-the-job risks in developing nations, where existing data is limited. For example, Morales Camino called for further research in Latin America and the Caribbean into the magnitude and costs of on-the-job accidents, both in the region as a whole and on a country-by-country basis.

On the policy front, researchers are also turning their attention to intervention-effectiveness research – in other words, "What works?" – with the goal of reducing workplace disease and injury. On a related note, cost-effectiveness research is considered an extremely relevant area of study, since it can generate findings that may be used to persuade employers and governments to invest in worker safety and health. Cost-benefit studies may prove especially useful as political tools, documenting the degree to which work-related injuries and illness weigh on national labour productivity and drain government budgets.

"What's needed to strengthen political will?" asked Fingerhut. "We need to show that OSH [occupational safety and health] measures are cost-effective, that you make money if you invest in safety and health at work."

"What's needed to strengthen political will? We need to show that OSH measures are cost-effective, that you make money if you invest in safety and health at work." Similarly, research into public health systems is needed to examine how government agencies can collaborate with other parties (such as universities, employers, unions, NGOs and workers) to promote better workplace health. Another key area of research is exploring how public health policies are developed and implemented, both in general and with a specific focus on occupational health.

In addition to policy-oriented research, more study needs to be undertaken at a practical level. Additional research could help occupational health advocates understand how to simplify and adapt technology and protective equipment to be used in developing countries.

Further study will also be required to understand the interplay of gender and occupational health. Currently, most workplace tools and exposure standards are oriented towards men, noted Rangamani, who called for "mainstreaming gender analysis in all levels of occupational health research." Research must take into account not only the physical and biological dimensions of work, but also the social and cultural aspects, she added.

Rangamani also urged researchers to acknowledge political factors in global health outcomes. Noting that developed countries continue exporting low-paying, unsafe jobs to developing nations, she suggested researchers "explore corporate accountability as a cross-cutting theme in all occupational health research."

Indeed, Rangamani was one of several researchers urging that workers' health be studied within a broader economic and social framework. For example, Fayomi noted that at the 7<sup>th</sup> Pan African Congress on Occupational Health held in March 2008 in Cotonou, Benin researchers listed the informal economy as a key area of study. (Other important areas of study included infectious risks in the workplace and productivity enhancement through prevention).

Morales Camino pointed out that a review of research in Mexico revealed most work had focused on quantitative methods related to chemical exposure, well-known occupational diseases and ergonomics analysis. While these remain important areas in their own right, he suggested that future research could also examine the connection between occupational health and psychosocial factors, or the relationship between occupational health and the informal economy.

Morales Camino proposed that research in occupational health should also consider a wide range of factors contributing to poverty and disease, rather than focusing strictly on poor working conditions. Workers in Latin America and the Caribbean "face additional difficulties such as: malnutrition, overpopulation, air pollution, poor or nonexistent sanitation, high disease rates and a desperate need to improve the supply of potable water," he noted.

#### Filling local-level research gaps:

- Public health systems research to examine the effectiveness of government systems working in coordination with other partners (universities, employers, unions, NGOs) in promoting occupational health status.
- Occupational health policy research to evaluate policy development and implementation in public health in general and in occupational health specifically.
- Control technology and protective equipment research to provide, implement and evaluate simplified approaches suitable to local work settings.
- Intervention effectiveness research to demonstrate cost-effectiveness of occupational health measures that tailor known solutions to local and national conditions and needs.
- Disease and injury research to selectively demonstrate exposures or outcomes that will persuade national decisionmakers to act.
- Surveillance research to implement and/or evaluate surveillance systems to determine useful systems and the benefits of investing in gathering information to target public health action.

Presented by Marilyn Fingerhut, panelist

To be sure, there remains disagreement as to how widely the research net should be cast, as one speaker noted during the discussion section of the panel. "Of course the approach has to be more holistic," acknowledged **Sergio lavicoli**, Director, Department of Occupational Medicine, National Institute for Occupational Safety and Prevention, Italy and Secretary-General, International Commission on Occupational Health (ICOH). But he suggested that, especially given the limited resources available, researchers may have more impact if they focus on specific occupational health issues. Ultimately, policymakers and other health stakeholders remain responsible for integrating and implementing those findings into a broader social welfare framework, he said.

Looking beyond the actual substance of research, it deserves mention that health researchers based in the developing world itself are too often hamstrung by shortages of money and inadequate training.

At the Pan African Congress on Occupational Health held in March 2008 in Cotonou, participants outlined a list of major research impediments, recalled Fayomi. Among other things, they decried the lack of the funds both to conduct extensive studies and to disseminate their findings. Africa generally suffers from a lack of trained researchers and poor understanding of appropriate methodologies, which undermines the quality of resulting studies, Fayomi said.

# 4. Research priority setting: the value of the Delphi approach

Researchers must consider a wide range of factors in setting their research priorities, noted lavicoli. For example, some relevant factors include whether a given workplace hazard is life-threatening or could result in a chronic disability, whether an intervention would be cost-effective and whether or not attempted policy reforms are likely to be successful.

From a practical standpoint, a method known as the Delphi approach has proven useful in establishing national-level priorities for research. The Delphi approach is a repetitive process in which experts are called in to give their opinions with a view to reaching consensus on respective themes. Since the technique was first used to set occupational health priorities in the United Kingdom in 1993, a number of other countries have employed the Delphi technique or a modified version of it, including Italy, Malaysia, the Netherlands and the United States.

Setting research priorities by the Delphi method has proven to be a reliable method because it involves not only researchers but also a variety of other stakeholders, such as representatives from government, companies, trade unions and professional associations, as well as the intended beneficiaries of the research, lavicoli explained.

Though national research agendas vary in their degree of detail, it is clear that certain occupational health risks claim global relevance. An examination of eight occupational health agendas from different countries shows that a handful of topics - musculoskeletal disorders, psychosocial/work organization, stress and special vulnerable worker populations - appeared on all of them.

# 5. The case for qualitative research approaches

After setting priorities, researchers must select an appropriate methodology to pursue their line of investigation. On this front, Maguire highlighted the need to move beyond quantitative data and employ more open-ended qualitative approaches to better understand the subtleties of occupational health risks.

It remains vital, of course, to continue gathering data on workplace illness and injury rates. But such measurements, while necessary, cannot explain the reasons why health threats exist. "Statistics do not tell us the how or the why: both are necessary if we wish to intervene," he wrote.

Researchers, instead of approaching their work in the capacity of occupational health "experts" who already have many of the answers, should recognize they may not grasp the subtle interplay of factors affecting workers' lives on the job and at home – elements that combine to play a significant role in individual health outcomes.

As a case in point, Maguire cited his own research with construction workers in England, who listed a broad number of issues affecting their willingness to take risks in the workplace. These included their age, domestic responsibilities, preparedness to travel, pay rates, experience level and desire to retain their job. In short, even within a relatively dangerous industry, it can be difficult to generalize about risk. This may vary substantially by individual, depending on a given worker's choices and life situation.

To encourage a more nuanced understanding of workplace realities, Maguire proposed that researchers refrain from using questionnaires that rely on closed questions and "avoid using leading questions or putting words into someone's mouth." Instead, they should ask open questions and be prepared to hear answers very different than they may have expected. "It starts from saying, 'What is this person's world?'" said Maguire. "We listen to them and try to understand. There is no presumption of understanding on the part of the researcher."

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Through careful listening, researchers can identify complex workplace problems that interviewees may fail to bring up of their own accord, especially in a more conventional quantitative research format. Using qualitative approaches, occupational health experts have been able to probe more deeply into sensitive workplace issues. Qualitative research has examined, for example, the problems of illegal immigrants, who face a heightened risk of discrimination and bullying but are often reluctant to complain. Other qualitative work has investigated the sexual harassment faced by professional women working in the construction sector. Still other research has examined the challenges faced by informal sector workers who must juggle multiple jobs and consequently face higher levels of fatigue and social isolation.

When employing such an open approach, researchers would benefit from considering how their own presence could affect an interviewee's response. Workers might be concerned that negative comments about their workplace conditions will not be kept confidential, which could in turn hurt their employment prospects. Researchers could help allay such anxieties by explaining their professional background and project goals.

# 6. Translating research findings into policy

The evidence is clear that governments, equipped with sound data, can prevent or dramatically reduce the incidence of occupational disease and death.

Workplace health interventions have proven highly successful in the developed world, where well-developed health surveillance systems track risks, and regulators punish occupational safety and health offenders. Just as important, employers in developed nations face compelling incentives to control onthe-job risks, including the cost of workers' compensation, lost productivity, the risk of litigation and bad publicity.

Conversely, poorer countries typically lack local data on occupational problems, since their surveillance systems and research infrastructure are poorly developed and their regulatory systems for occupational health are weak. Employers may take workplace hazards for granted, viewing them as a normal state of affairs, or worse, may deliberately choose to flout regulations. From a financial standpoint, a factory boss may not care if workers are exposed to occupational hazards, since if one labourer is injured or sick, a large pool of other potential labourers awaits.

The profound differences between developed and developing nations have given rise to dramatic disparities in health outcomes. One study, using surveys from the World Health Organization, found that on average about 40% of hepatitis B and hepatitis C cases in the 35 million health care workers worldwide were due to needle sticks. Needle sticks were responsible for about 4% of HIV/AIDS cases in health care workers. Yet the rate of infections were strikingly lower in a group of countries including Canada, Cuba and the United States that rigorously addressed risks of needle stick injuries, compared to a separate group of countries in Central and South America. Such research findings dramatically underscore how effective occupational health protections can prevent diseases.

Research should help workers themselves to become involved in improving their work environment. Rangamani contended that, many a time, occupational health researchers fail to share their findings with the actual participants of studies. She called on researchers to make survey data and occupational health monitoring data available not only to the workers themselves, but also to the public at large. As is the case with clinical trial registrations initiated by the World Health Organization, she said, it may be useful to register all occupational health studies undertaken by different bodies and make the data available for public scrutiny.

# 7. On politics: making the case for occupational health reforms

To enact effective occupational health measures, health advocates must first obtain the requisite political backing. But cash-strapped governments, especially those in the developing world, usually do not view occupational health measures as a top priority.

In such cases, quantifying the financial toll of preventable occupational disease can help garner political support for reform, both from local governments and from employers. Consider that, according to one recent estimate, some 40% of medical care delivered in the Mexican Yucatan was used to treat people exposed to pesticides. "I'm sure the government of that state doesn't have any idea how much they're spending to provide that health care and how much money they're losing," said Morales Camino. Once policy-makers recognized the high cost of treatment, he suggested, they would be much more likely to support education programmes to teach farmers how to properly use and store pesticides.

Also on the political front, Maguire noted that research should be presented with an eye to making it comprehensible to elected officials. Rather than overwhelm them with highly technical statistics they may not comprehend, it may be more effective for researchers to offer ethnographic accounts that frame occupational health hazards in human terms.

# 8. The top-down approach: getting governments involved

The ILO and WHO offer guidance, models, conventions and action plans for national governments. Assuming political will exists to enact change, health advocates can advise governments on good practices for implementing occupational health reforms. In developing countries where medical resources are limited, governments could train public health workers to recognize occupational health hazards and teach employers how to manage them in order to minimize workplace risks, Fingerhut suggested.

Governments might also consider levying industry fees to be used for occupational health training, said Maguire. Officials could promote trade associations and local partnerships that would help employers of precarious workers plan and work together for greater business stability. At the same time, policy-makers could develop health and general education campaigns targeted at precarious workers, acknowledging their greater vulnerability to workplace hazards.

International trade offers yet another forum for addressing health inequities. Worker health protections would assume greater importance on the international agenda if they were incorporated into the terms of trade agreements and foreign aid deals, Fingerhut suggested. For example, India and China are experiencing silicosis epidemics among labourers who crush stones to build roads, she pointed out. "If development aid required that the workers involved be protected that would contribute to the informal sector." "If development aid required that the workers involved be protected, that would contribute to the informal sector."

In another form of knowledge transfer, developed countries could pass on their accumulated occupational health and safety insights to developing and transitional nations.

Helpfully, occupational health success stories do exist beyond just the developed countries. For example, Malaysia and Thailand are among the developing nations that have joined their developed peers in establishing national research priorities. The International Program on Chemical Safety, composed of WHO, the ILO and the United Nations Environment Programme assists international partners to develop, implement and evaluate simple guidance for employers to undertake workplace risk reduction measures. The Association of Southeast Asian Nations Occupational Safety and Health Network and the United States Fogarty International Training and Research Program have also helped directly advise or tap other experts to work with developing countries on health issues in the workplace.

# 9. Bottom-up health campaigns: reaching employers and workers

Just as important as high-level policy considerations, employers must understand why workplace protections are worthwhile. The advantages are relatively easy to understand from a health standpoint. But outlining the benefits of workplace safety from a financial standpoint, too, is likely to help increase an employer's commitment to occupational health measures. Health advocates could help bridge the gap by providing tools that allow even small companies to undertake internal assessments. One such tool kit developed in Central America by the Regional Occupational Safety and Health Centre Project helps managers of garment factories diagnose work hazards themselves, then estimate the cost and benefits of interventions.

Also on the business front, multinationals, by way of demonstrating their commitment to corporate social responsibility, could teach local businesses outside their native countries about good practices in workplace health and safety.

Whereas regulatory policy in the past tended to focus more on measuring worker exposure to chemicals and other health hazards, there's now a move taking place to develop simple guidelines for employers to put into effect so that workers avoid exposure from the very beginning, Fingerhut noted.

To be most effective, policy discussions should include not only government officials, but also some of the people directly involved in occupational health issues. Rangamani, who noted that governments in developing nations are often poor enforcers of workplace safety standards, highlighted the need to create a broad alliance of trade unions, occupational health professionals and workers' groups to participate in policy debates.

To be effective, though, health protection standards must be clear and easy to understand, stripped of the technical or legal jargon that too often accompanies them. "Most guidelines of safety and health are never in the vernacular language or represented or shared in a manner [that] people can understand," contended Rangamani, urging policy-makers and companies to make health information more easily accessible.

Researchers could contribute to such efforts by examining how to tailor safety guidelines to make them relevant in different kinds of work settings.

# What actions are needed to improve the situation in developing and transitional nations?

- Set priorities; select appropriate interventions; and mobilize resources
  - Regulatory and enforcement framework
  - Education of professionals, employers and workers
  - Surveillance and reporting systems
  - Implementation and evaluation of interventions in the workplace to reduce risks
- Develop integrated, coordinated and strategic responses
- Share information, new analyses, successful interventions, useful legislation

Presented by Marilyn Fingerhut, panelist

Fingerhut summarized both the research and actions that would be required to substantially improve the occupational health situation in developing nations. Key elements include a regulatory and enforcement framework; education for workers, employers and safety and health professionals; surveillance and reporting systems; and the dissemination, implementation and evaluation of best practices.

She pointed out that international trade, development and funding organizations could all play important roles in promoting worker health and safety, though their potential has yet to be tapped on this front. Also, ministers of health, labour and employment must learn to collaborate better to develop more comprehensive and effective policies. Building professional capacity in occupational health is critical.

**Stephen Matlin**, Executive Director, Global Forum for Health Research, Switzerland closed the symposium by highlighting the need "to see workers not as isolated and standardized individuals, but as people who work and live in communities." He added, "Research, policy and action need to take into account the social, economic and gender factors that impact on how they respond to workplace conditions, the risks they take and, ultimately, their health."

# **10. Conclusions**

Although a great deal of work remains to be done, researchers have made a promising start in finding solutions to occupational safety and health problems. For example, health experts have already made great steps in understanding and learning to control chemical hazards commonly encountered on the job. But while such aetiologic research remains important, researchers should now shift their focus to lessunderstood workplace health concerns, notably the expanding ranks of informal sector workers around the world.

Below follows a recap of recommendations on future areas for research.

#### Actions for governments in lowand middle-income countries (LMICs):

- Very little effort has been made, to date, in setting research priorities to improve workers' health and safety in LMICs. Such exercises need to be conducted urgently.
- The informal sector is an even bigger component of the labour force in LMICs, accounting for the vast majority of workers. Research is needed on how to develop specific health campaigns for these workers, including the many farmers and factory workers who lack basic information on protecting themselves against chemicals and pesticides.
- In countries where data on the rate of workplace accidents and disease remains limited or non-existent, better statistics will be required to establish a baseline against which to assess occupational health reforms.
- WHO and the ILO currently offer governments technical assistance to protect and promote workers' health, establish basic occupational health services and build national occupational safety and health programmes. Countries could pilot the implementation of these programmes and share good practices for their implementation.

# Actions for funders of research in high-income countries (HICs):

- The top workplace health concerns of HICs, as identified in a series of national priority-setting exercises, include musculoskeletal hazards and psychosocial issues, such as occupational stress, for which more research is needed.
- The informal sector work has become a bigger part of the economy in HICs. Further study is needed into the incidence of workplace injury involving temporary or part-time workers relative to their formal sector counterparts, as well as into how these workers can be incorporated into workplace health safety systems.

#### Actions for funders of research in LMICs:

- In resource-poor nations where occupational health services and regulations often rank as a low priority, cost-benefit analyses could play a vital role in showing how work-related health problems weaken national productivity. Such information could help spur politicians to strengthen on-the-job health protections. Further study is needed to develop cost-benefit assessment tools for companies, especially in lower-income countries. Such tools would highlight the financial benefits of investing in worker health protection.
- Research is needed on how to simplify and adapt the technology and protective equipment used in developed countries to promote their use in lower-income nations.

#### Actions for all stakeholders:

- At the international level, researchers need to examine viable frameworks through which worker safety provisions could be incorporated into international trade agreements, foreign aid and corporate responsibility programmes.
- More study must be undertaken to gauge how factors such as poverty, gender, literacy level, age and HIV/AIDS status influence workers' health.
- Further study will also be required to understand the interplay of gender and occupational health. Currently, most workplace tools and exposure standards are oriented towards men. We need to mainstream gender analysis in all levels of occupational health research. Research must take into account not only the physical and biological dimensions of work, but also the social and cultural aspects.
- More research will be required to determine how government health ministries can collaborate with universities, employers, unions, workers and other partners to promote occupational health.
- A review of successful worker-backed campaigns to improve occupational health could identify effective strategies that can be deployed in other such campaigns, helping promote broader worker involvement.

### **Further reading**

Al-Tuwaijri S. Safework - Introductory Report 2008 - Beyond death and injuries: The ILO's role in promoting safe and healthy jobs. International Labour Organization, Geneva.

Dalla RL, Ellis A, Cramer SC. Immigration and Rural America: Latino's perceptions of work and residence in three meatpacking communities. *Community, Work and Family*, 2005, 8(2) 163-185.

Eijkemans G. Occupational Risk Management Toolkit - Update on Development and Use. *GOHNET* N° 14 Winter 2007/8: 8-11. http://www.who.int/occupational\_health/publications/ newsletter/gohnet\_14e.pdf.

Fellini I, Ferro A, Fullin G. Recruitment processes and labour mobility: the construction industry in Europe. *Work, Employment & Society*, 2007, 21(2) 277 – 298.

Fingerhut M, Editor. Contribution of Occupational Risks to the Global Burden of Disease. Special Issue *Amer. J. Indus. Med*, 48 (6) 2005: 395 – 541. See also the new GBD effort at http://www.globalburden.org/.

Ghaffar A, de Francisco A, Matlin S (eds). *The Combined Approach Matrix: A Priority Setting Tool for Health Research*. Global Forum for Health Research, Geneva, 2004.

Harrington JM. Research priorities in occupational medicine: a survey of United Kingdom medical opinion by the Delphi technique. *Occup Environ Med*, 1994; 51:289-294.

Harrington JM, Calvert IA. Research priorities in occupational medicine: a survey of United Kingdom personnel managers. *Occup Environ Med*, 1996; 53:642-644.

lavicoli S, Grandi C, Signorini S. *Research priorities and strategies in occupational health*. Monografia ISPESL, 2000.

Iavicoli S, Marinaccio A, Vonesch N, Ursini CL, Grandi C, Palmi S. Research priorities in occupational health in Italy. *Occup Environ Med*, 2001; 58:325-329.

Iavicoli S, Signorini S, Petyx M, Ursini CL, Marinaccio A, Capozza G, Grandi C, Palmi S. Studio Delphi per l'identificazione delle priorità di ricerca in medicina del lavoro in Italia. *Med Lav*, 2001; 92(2):91-107.

Iavicoli S, Rondinone B, Marinaccio A, Fingerhut M. Research priorities in occupational safety and health: a review. *Indus. Health*, 2006; 44:169-178.

McKnight A, Elias P, Wilson L. *Workplace injuries and workforce trends*. Bootle, Health and Safety Executive, CRR 281/2001, 2001.

Maguire K. *Risk, culture, and organization: a study of injury among construction workers*. PhD thesis, Salford UK, University of Salford, 2008.

National Occupational Research Agenda – U.S. Department of Health and Human Services, Public Health Service, Centres for Disease Control and Prevention – NIOSH www.cdc.gov/niosh/ nora.

Pruss-Ustin A, Rapiti E, Hutin Y. Estimation of the global burden of disease attributable to contaminated sharps injuries among health-care workers. *Amer J Industrial Med*, 2005; 48 (6): 482-490.

Quinlan M, Mayhew C, Bohle P. The global expansion of precarious employment, work organization, and consequences for occupational health: a review of recent research. *International Journal of Health Services*, 2001,31 (2) 335-414.

Romans F, Hardarson OS. Data in Focus: Labour Market Latest Trends. *Population and Social Condition,* Eurostat, issue number 17/2006.

Rosenstock L, Cullen M, Fingerhut M. Occupational Health. In: *Disease Control Priorities in Developing Countries (2nd Edition)*, 2006, Chap 60 http://www.dcp2.org/pubs/DCP/60/ section/9009.

Rosenstock L, Olenec C, Wagner GR. The National Occupational Research agenda: a model of broad stakeholder input into priority setting. *Am J Public Health* 1998; 88:353-356.

Sadhra S, Beach J, Aw T-C, Sheikh-Ahmed K. Occupational health research priorities in Malaysia: a Delphi study. *Occup Environ Med*, 2001, 58:426-431 http://oem.bmj.com/cgi/content/abstract/58/7/426.

Siriruttanapruk S, Anantaguinathi P. Occupational health and safety situation and research priority in Thailand. *Industrial Health*, 2004: 135-140.

Van der Beek AJ, Frings-Dresen MHW, van dijk FJH, et al. Priorities in occupational health research: a Delphi study in The Netherlands. *Occup Environ Med*, 1997, 54:504-510.

Watts JH. Porn, pride and pessimism: experiences of women working in professional construction roles. *Work, Employment and Society*, 2007, 21 (2):299-316.

## List of panelists

#### **Chair:**

**Stephen Matlin**, Executive Director, Global Forum for Health Research, Switzerland

Stephen Matlin was educated as an organic chemist (Imperial College, London), and worked in academia for more than 20 years (University College Cardiff, City University London, Warwick University), with research, teaching and consultancy interests in medicinal, biological and analytical chemistry. In 1995 he joined the Commonwealth Secretariat, as Director of the division that contained the Secretariat's Health and Education Departments. Following a year as Chief Education Adviser at the UK Department for International Development (2001-2), he was appointed as a Senior Research Fellow at Oxford University and worked as a freelance consultant in health, education and development before moving to his current post in January 2004 as Executive Director of the Global Forum for Health Research in Geneva.

#### **Moderator:**

**Evelyn Kortum**, Occupational Psychologist, Occupational Health, Department of Public Health and Environment, World Health Organization, Geneva

Evelyn Kortum holds a BSc in Psychology, and an MSc in Occupational Psychology (Birkbeck College, London University). Since 1989, Evelyn has been working for the World Health Organization across several programmes ranging from human resources to the Global Programme on AIDS, and since 2000 as a Technical Officer in the Occupational Health Programme. Areas of responsibility and scientific interest include work organization and psychosocial hazards; co-coordinating a Network of 65 international Collaborating Centres in Occupational Health; and issuing occupational health publications.

#### **Speakers:**

Marilyn Fingerhut, Vice President, International Commission on Occupational Health, and Health Consultant, U.S. National Institute of Occupational Safety and Health (NIOSH)

How global research sets priorities for interventions at work



Marilyn Fingerhut has conducted innovative research on dioxin, established herself as a champion and expert for occupational women's health issues and has greatly accelerated occupational health risk assessment on a global level. She was instrumental in the development of the National Occupational Research Agenda (NORA) and in the growth of the World Health Organization Collaborating Centers on Occupational Health. Her professional work is recognized nationally and internationally. She has received numerous awards for her service to the Centers for Disease Control (CDC) and NIOSH.

Sergio lavicoli, Director, Department of Occupational Medicine, National Institute for Occupational Safety and Prevention, Italy and Secretary-General, International Commission on Occupational Health Research priority setting in occupational safety and health: methods, approaches and results



Sergio lavicoli is a medical doctor and holds a PhD in Occupational Health and Industrial Toxicology. He is currently Director of the Department of Occupational Health at the Italian National Institute for Occupational Safety and Prevention (ISPESL), a WHO Collaborating Centre. He is Coordinator of over 30 national and international research projects and Lecturer at the University of Rome "La Sapienza". He has been Secretary-General of the International Commission on Occupational Health (ICOH) from 2003 and is Editorin-chief of ICOH's web site. He is member of the ILO/ WHO Joint Committee on Occupational Health and board member of different national and international committees.



Benjamin Fayomi, Director, University Laboratory of Health at Work and Environment (LUSTE), Cotonou, Benin and Professor, University of Benin, Cotonou, Benin Research priorities identified at the 7th Pan African Conference on Occupational Health

Benjamin Fayomi has been involved in training and research, particularly in the fields of occupational health and safety, clinical toxicology and environmental sciences, in Benin and internationally. In Benin, he trained undergraduate and post-doctoral students, specifically at the Faculty of Health Sciences in Cotonou, and the WHO Regional Institute of Public Health in Ouidah. In addition, he is a Project Coordinator with partners, including the ILO, WHO, the European Development Fund (EDF) and the International Development Research Centre (IDRC). He is Chair and a founding member of the Benin Association for Occupational Health and Safety.



Kevin Maguire, Senior Lecturer in Public Health, Nottingham Trent University, UK Researching with people working at the margins

Kevin Maguire is a senior lecturer at Nottingham Trent University in the UK. Originally an enforcer of health and safety legislation, his academic career continues to address the question "why are people harmed at work?" His research evolved from seeking individualist, positivist explanations to valuing more social and cultural understandings. Now centering on culture, organization and risk, he has studied such groups as catering workers, construction workers, fire fighters and coal miners. He is a Chartered Psychologist and member of the Chartered Institute of Environmental Health.

#### **Discussants**:

Sukanya Rangamani, Research and Training Associate, Community Health Cell, Bangalore, India Comments on power structures and community approaches in occupational health research



Sukanya Rangamani is trained in community medicine and public health. She works on environmental and occupational health issues, women's health and ethical issues in health research. She has been involved in research studies on women's exposure to pesticides in the plantation sector and gender dimensions of health care seeking among women cardiac patients. She is part of the "Community Health Environmental Skill Share" (CHESS) network in India. This is a network of peoples' groups, community-based organizations and public health professionals working in communities impacted by environmental pollution. She teaches epidemiology for students in public health and conducts training in community health for various levels of health professionals. She is also involved in the People's Health Movement and supports community health action and advocacy.

Jorge A Morales Camino, Medical Director, Procter & Gamble Latin America and Occupational Medicine Professor at UNAM (Universidad National Autónoma de México)

Comments on occupational health research priorities in Latin America



Professor Jorge A Morales Camino is Medical Director of Procter & Gamble in Latin America. He is also occupational health professor at the Faculty of Medicine of UNAM and University of Guadalajara. He has expertise in occupational medicine, risk management, toxicology and health sciences with a focus on occupational health. Among many honours, he was awarded "Professional of the Year (2005)" in the occupational health field by the Mexican Federation of Occupational Health.

# Résumé

#### Contexte

Chaque année, à travers le monde, les risques imputables au travail et qui peuvent être évités constituent un lourd fardeau. L'Organisation internationale du Travail (OIT) estime que 2,3 millions de personnes meurent chaque année du fait d'accidents du travail ou de maladies professionnelles. Ceci représente plus du triple du nombre de victimes de guerres (650,000 décès par an). Les chiffres réels pourraient même être plus élevés, compte tenu des difficultés rencontrées pour collecter des données fiables dans les pays à faibles et moyens revenus.

Il ne fait aucun doute que de nombreuses maladies professionnelles et de nombreux décès imputables au travail pourraient être prévenus. Au cours des 50 dernières années, les pays à revenus élevés sont parvenus à réduire considérablement le taux d'accidents du travail et de maladies professionnelles grâce à une législation efficace et à son application rigoureuse. Cependant, même dans ces pays, d'importantes améliorations sont encore nécessaires. Souvent, les travailleurs de petites entreprises ne bénéficient pas encore d'une protection adéquate et les ouvriers à bas salaire de l'économie informelle sont tout particulièrement vulnérables. Leurs conditions de travail peuvent être mauvaises pour la santé ou dangereuses et ils peuvent avoir à travailler beaucoup ou avec des horaires irréguliers.

Ainsi, bien que les pays riches aient évidemment encore des progrès à faire pour améliorer la sécurité et la santé au travail, ce sont les travailleurs des pays à faibles et moyens revenus qui doivent faire face aux plus grands risques. Parfois, plus de 80% de la force de travail est employée dans le secteur informel. Beaucoup sont pauvres et ont peu d'opportunités d'emploi. Dans ces pays, la fragilité ou la non-existence de systèmes légaux, le manque de professionnels de la médecine du travail et les cultures de gestion qui ne parviennent pas à faire valoir la sécurité du travailleur sont autant d'obstacles supplémentaires à la sécurité sur le lieu de travail.

Malgré l'augmentation du volume de recherche sur la sécurité et la santé au travail au cours des deux dernières décennies, les preuves demeurent rares, notamment au sujet des travailleurs à bas revenus de l'économie informelle. La recherche doit être poursuivie pour assurer la sécurité et la santé au travail.

#### Recommandations

Alors, que faut-il faire pour poursuivre les avancées dans le domaine de la sécurité et de la santé au travail à travers le monde?

La recherche peut aider à apporter de nombreuses réponses. La recherche étiologique a déjà beaucoup avancé dans le domaine de la santé au travail, en montrant comment certains des risques les plus courants sur le lieu de travail peuvent être éliminés ou contrôlés afin de prévenir une maladie ou une blessure chez le travailleur. En réponse, les pays à revenus élevés et les firmes multinationales ont modifié leurs standards de fabrication et de traitement des produits chimiques afin de réduire les risques imputables au travail.

Au cours des dernières années, forts de ces progrès, certains pays à revenus élevés se sont lancés dans des exercices de définition de priorités de recherche afin de choisir les domaines sur lesquels se concentrer lors de la prochaine phase de recherche. Globalement, leurs résultats révèlent que plus d'études doivent porter sur les troubles musculosquelettiques, sur les problèmes psychosociaux et organisationnels au travail, y compris sur le stress au travail. Les groupes de travailleurs vulnérables doivent également bénéficier de plus d'attention.

Comme les problèmes de santé au travail dans les pays à faibles et moyens revenus sont plus aigus, ces pays ont leurs propres besoins de recherche. Ceux-ci vont de l'étude des solutions à apporter aux risques de maladie traditionnels rencontrés sur le lieu de travail à la recherche sur la manière dont la santé au travail est affectée par la politique de santé et les facteurs psychologiques et sociaux. Les 11 recommandations ci-dessous sont destinées à améliorer la sécurité et la santé au travail grâce à la recherche :

- Conduire urgemment des exercices d'établissement des priorités de recherche dans les pays à faibles et moyens revenus afin d'améliorer la sécurité et la santé des travailleurs.
- Collecter des données solides toujours très peu disponibles dans les pays à faibles et moyens revenus – et rechercher les meilleures méthodes de prévention des accidents du travail et des expositions aux produits chimiques et aux pesticides.
- 3. Etudier le moyen de **renforcer les dispositions légales pertinentes** et la manière de **développer** au mieux **des cultures sur le lieu de travail** qui mettent l'accent sur la santé mentale et physique ainsi que sur la sécurité.
- 4. Conduire des analyses coût-bénéfice dans les pays pauvres en ressources pour démontrer aux décideurs politiques que l'amélioration de la sécurité au travail se traduit par une force de travail en meilleure santé et, de ce fait, permet de renforcer l'économie.
- 5. Faire appel à **l'assistance technique** offerte par l'OIT et l'Organisation mondiale de la Santé (OMS) pour mettre en place des programmes et des services de santé et de sécurité au travail.
- 6. Inclure des clauses sur la sécurité des travailleurs dans les accords commerciaux internationaux, l'aide extérieure et les programmes de responsabilité des entreprises afin d'élargir le champ des campagnes pour la santé au travail.

- 7. Identifier les lacunes des systèmes de santé publique en matière de promotion de la santé et de la sécurité des travailleurs et chercher à les combler.
- 8. Evaluer l'impact des déterminants sociaux tels que la pauvreté, le genre, le niveau d'alphabétisation, l'âge et le VIH/SIDA sur la santé des travailleurs et identifier les interventions nécessaires pour améliorer leur santé, en tenant compte des nouveaux défis et opportunités dus aux transformations sociales et à la globalisation observées aux cours des dernières décennies.
- 9. Faire ressortir les meilleurs moyens par lesquels les travailleurs pourront s'impliquer directement dans l'amélioration de leur environnement de travail.
- **10.** Rassembler des « success stories » et des études de cas, y compris celles qui impliquent des organisations non gouvernementales.
- **11.** Forger des alliances de partenaires plus larges (gouvernements, experts, employeurs, syndicats et groupes de travailleurs) pour traduire la recherche en politiques et en interventions.

En conclusion, la poursuite de la recherche sur « ce qui fonctionne », à travers un large spectre de programmes gouvernementaux et d'entreprises, est un premier pas essentiel dans la perspective d'améliorer la santé et la sécurité des travailleurs.

### Resumen

#### Contexto

Anualmente ciertos riesgos que podrían evitarse en el lugar de trabajo se cobran un enorme número de víctimas alrededor del mundo. La Organización Internacional del Trabajo (OIT) calcula que 2.3 millones de personas fallecen cada año debido a accidentes y enfermedades derivadas del trabajo. Esta cifra representa más del triple de las muertes ocasionadas por guerras (650.000 muertes por año). Es probable que las estadísticas actuales sean aún superiores, dadas las dificultades para reunir datos fiables en países con ingresos bajos y medios.

No hay duda de que muchas muertes y enfermedades relacionadas con el trabajo podrían evitarse. En los últimos 50 años los países con ingresos altos han conseguido reducir de manera substancial la tasa de accidentes y enfermedades ocupacionales, mediante una combinación de normas eficaces y medidas severas para lograr su cumplimiento. No obstante, aun en estos países queda todavía mucho por mejorar. Los trabajadores de negocios pequeños todavía carecen con frecuencia de la protección adecuada y quienes se encuentran en la escala salarial más baja del sector informal son particularmente vulnerables, al soportar condiciones de trabajo insalubres o peligrosas, horarios prolongados o irregulares.

Aun si las naciones con más altos ingresos deben naturalmente esforzarse más por mejorar la seguridad y la salud en el trabajo, son los trabajadores en los países de ingresos bajos y medios quienes afrontan los mayores riesgos. En ocasiones, más de 80% de la fuerza laboral se emplea en el sector informal. Muchos de ellos son pobres y con escasas opciones laborales. Otros obstáculos que se suman a la seguridad en los sitios de trabajo en dichos países se refieren a la fragilidad o a la ausencia total de sistemas normativos, a la escasez de profesionales en salud ocupacional y a estilos de dirección que infravaloran la seguridad del trabajador.

No obstante el incremento en el volumen de la investigación en seguridad y salud ocupacional en las últimas dos décadas, las pruebas siguen siendo escasas, especialmente en lo relativo a trabajadores en la escala salarial baja de la economía informal. Se precisa más investigación para garantizar seguridad y salud en el ámbito ocupacional.

#### Recomendaciones

En consecuencia, ¿cuáles son las mejores vías para promover avances continuos en seguridad y salud ocupacional alrededor del mundo?

La investigación puede contribuir aportando muchas de las respuestas. El campo de la salud ocupacional ya ha conseguido avances importantes en la investigación etiológica, descubriendo cómo pueden eliminarse o controlarse algunos de los riesgos más comunes en el lugar de trabajo, para evitar enfermedades y lesiones en los trabajadores. Como resultado, algunos países con altos ingresos y compañías transnacionales han modificado sus modelos de fabricación y de procesamiento de químicos, con el fin de reducir el riesgo laboral.

Para avanzar sobre la base de esos esfuerzos, un número de países de altos ingresos se ha dedicado en los últimos años al ejercicio de definir prioridades en materia de investigación, para seleccionar las áreas más relevantes en las cuales centrarse en la etapa siguiente de la investigación. En líneas generales, sus hallazgos señalan que se justificaría mayor estudio en lo referente a riesgos que afectan el sistema óseo-muscular, aspectos psicosociales y de la organización del trabajo, incluido el estrés ocupacional. De igual modo se requiere una mayor atención a los grupos de trabajadores vulnerables.

Dado que enfrentan problemáticas de salud más apremiantes, los países de ingresos bajos y medios presentan sus propias necesidades de investigación. Estas van del estudio de soluciones frente a los riesgos más comunes de enfermedad en el lugar de trabajo al análisis de cómo las políticas sanitarias y los factores psicológicos y sociales inciden en la salud ocupacional. A continuación se enumeran 11 recomendaciones para mejorar la seguridad y la salud en el trabajo:

- Llevar a cabo urgentemente ejercicios de establecimiento de prioridades de investigación en países de ingresos bajos y medios, para mejorar la seguridad y la salud de los trabajadores.
- Reunir información consistente siempre escasa en países de ingresos bajos y medios – y determinar los mejores métodos para prevenir accidentes de tipo laboral, así como la exposición a químicos y pesticidas.
- Analizar cómo reforzar la normativa pertinente y cómo implementar mejor una cultura laboral centrada en la salud mental y física y en la seguridad.
- 4. Llevar a cabo análisis de coste-beneficio en países con recursos limitados para persuadir a los responsables de elaborar políticas de que mejorar las condiciones de seguridad en el trabajo da como resultado una fuerza laboral más saludable y por lo tanto una economía más sólida.
- 5. Solicitar la **asistencia técnica** que proporcionan la OIT y la Organización Mundial de la Salud (OMS) para establecer programas y servicios de salud y seguridad ocupacional.
- 6. Incluir disposiciones en materia de seguridad para los trabajadores en los tratados internacionales de comercio, en los programas de ayuda exterior y de responsabilidad corporativa para ampliar aún más el alcance de las campañas de salud ocupacional.

- Identificar lagunas en los sistemas de salud pública en lo referente a la promoción de la salud de los trabajadores y la seguridad y promover soluciones en políticas viables.
- 8. Explorar el impacto de factores sociales claves, tales como grado de pobreza, género, nivel de alfabetización, edad y estatus frente al VIH/SIDA en la salud de los trabajadores e identificar las intervenciones necesarias para mejorar su salud, partiendo de la base de las dificultades y oportunidades generadas por la transformación social y la globalización en las últimas décadas.
- 9. Esclarecer las formas más adecuadas de que los mismos trabajadores se involucren en sus entornos laborales.
- **10.** Recolectar historias exitosas y estudios de caso, incluyendo los que hacen referencia a organizaciones no gubernamentales.
- 11. Establecer alianzas de asociados más amplias (gobiernos, expertos, patrones, sindicatos y agrupaciones de trabajadores) para traducir la investigación en políticas e intervenciones concretas.

En conclusión, la investigación continua en torno a "aquello que funciona" en un amplio espectro de programas de gobierno y corporativos es un primer paso crucial para alcanzar el objetivo de mejorar la salud y la seguridad de los trabajadores.

## Sumário

#### Contexto

A cada ano, os riscos evitáveis em locais de trabalho impõem um número imenso de vítimas no mundo todo. A Organização Internacional do Trabalho (OIT) estima que 2,3 milhões de pessoas morrem a cada ano em virtude de acidentes e doenças relacionadas ao trabalho. Isso constitui mais do que o triplo do número de mortes por operações militares (650 000 mortes por ano). É provável que os números reais sejam ainda mais elevados, em virtude das dificuldades na obtenção de dados confiáveis em países com rendas baixas e médias.

Não há dúvida de que muitas mortes e doenças relacionadas ao trabalho poderiam ser evitadas. Durante os últimos 50 anos, países com alta renda conseguiram reduzir drasticamente as taxas de acidentes e doenças ocupacionais por meio de regulamentações eficazes e imposições rígidas. Entretanto, mesmo nesses países, ainda há muito que melhorar. Funcionários de pequenas empresas ainda sofrem pela falta de proteção adequada e os trabalhadores com salários baixos da economia informal são especialmente vulneráveis. Eles podem estar sujeitos a condições de trabalho insalubres ou perigosas e trabalham por muitas horas ou em horários irregulares.

Embora seja óbvio que as nações ricas ainda têm muito o que melhorar quanto às suas condições de segurança e saúde no trabalho, os maiores riscos são enfrentados pelos trabalhadores em países de renda baixa e média. Em alguns casos, 80% ou mais da população economicamente ativa está envolvida no setor informal. Muitos são pobres e com poucas opções ocupacionais. Os obstáculos à segurança no local do trabalho nesses países incluem também, sistemas reguladores fracos ou ausentes, falta de profissionais envolvidos em saúde ocupacional e culturas de gestão que não valorizam a segurança do trabalhador.

São necessárias mais pesquisas para garantir a segurança e a saúde ocupacional. A despeito das crescentes pesquisas sobre segurança e saúde ocupacional durante as últimas duas décadas, os resultados ainda são limitados, em especial no que concerne aos trabalhadores de baixa renda da economia informal.

#### Recomendações

Assim sendo, quais seriam as melhores formas de se promover avanços contínuos em saúde e segurança ocupacional no mundo todo?

A pesquisa pode ajudar na obtenção de muitas das respostas. O campo da saúde ocupacional já fez avanços expressivos na pesquisa etiológica, e aprendeu como é possível eliminar ou controlar alguns dos perigos mais comuns nos locais de trabalho para evitar lesões e doenças nos trabalhadores. Como consequência, empresas multinacionais e países de alta renda modificaram seus padrões de processamento químico e de fabricação para reduzir os riscos ocupacionais.

Para intensificar esses esforços, nos últimos anos vários paises de alta renda têm se ocupado em estabelecer prioridades de pesquisa para a escolha das áreas mais importantes a serem focalizadas para o próximo estágio de pesquisas. Seus resultados demonstram de modo geral que é justificável mais estudos sobre os riscos musculosqueléticos, psicossociais e sobre questões administrativas do trabalho, incluindo o estresse ocupacional. É necessária também maior atenção às populações vulneráveis de trabalhadores.

Os países de renda baixa ou média têm necessidades de pesquisa próprias e específicas, dada a premência de seus problemas com a saúde ocupacional. Essas variam de estudos sobre soluções para os riscos tradicionais de doenças no âmbito do trabalho a um exame sobre como a política de cuidados sanitários e os fatores psicológicos e sociais afetam a saúde ocupacional. Seguem-se 11 recomendações para melhorar a segurança e a saúde no trabalho por meio da pesquisa:

- Realizar com urgência exercícios para estabelecer prioridades de pesquisa em países de renda baixa e média, destinados a melhorar a saúde e a segurança dos trabalhadores.
- Coletar dados sólidos sempre escassos em países de renda baixa e média – e avaliar os melhores métodos para a prevenção de acidentes no trabalho e da exposição a substâncias químicas e pesticidas.
- Estudar formas de fortalecer os regulamentos relevantes e como melhor desenvolver valores no local de trabalho concentrados na segurança e na saúde física e mental.
- 4. Conduzir análises de custo-benefício em países carentes de recursos para persuadir os mentores de políticas de que a melhora efetiva da segurança no trabalho ao final compensa por se dispor de força de trabalho saudável resultando, portanto, em uma economia mais robusta.
- Solicitar a assistência técnica oferecida pela ILO e pela Organização Mundial da Saúde (OMS) para a construção de programas e serviços de segurança e saúde ocupacional.
- 6. Incluir provisões para a segurança do trabalhador nos contratos com o comércio internacional, o auxílio estrangeiro e os programas de responsabilidade corporativa para ampliar mais o alcance das campanhas de saúde ocupacional.

- 7. Identificar as lacunas nos sistemas de saúde pública relacionadas à promoção da segurança e da saúde dos trabalhadores e promover seus preenchimentos.
- 8. Explorar o impacto de determinantes sociais pobreza, sexo, grau de alfabetização, idade e situação quanto à AIDS/HIV na saúde dos trabalhadores e identificar as intervenções necessárias para melhorar sua saúde, levando em consideração os novos desafios e oportunidades conferidos pelas transformações sociais e pela globalização ocorridas nas últimas décadas.
- Esclarecer as melhores formas para que os próprios trabalhadores se envolvam no aperfeiçoamento de seus ambientes de trabalho.
- **10.** Coletar histórias de sucesso e estudos de casos, inclusive daqueles que envolvem organizações nãogovernamentais.
- 11. Criar alianças mais amplas de parceiros (governos, especialistas, funcionários, sindicatos e grupos trabalhistas) para traduzir as pesquisas em políticas e intervenções.

Em suma, a pesquisa contínua naquilo que realmente "funciona" ao longo de um amplo espectro de programas governamentais e corporativos é um primeiro passo vital para se atingir o objetivo de melhorar a saúde e a segurança dos trabalhadores.



Millions of the world's workers bear unacceptably high levels of workplace fatalities, injuries and illnesses. In addition, informal work entails no protective legislation and no social security. Nevertheless, "precarious workers" are neglected in much of the research on occupational safety and health, and few resources have been dedicated to addressing the research gaps.

This report is based on the symposium "Research priorities for interventions on safety and health at work", which was organized and sponsored by the Global Forum for Health Research and held on 30 June 2008 during the XVIII World Congress on Safety and Health at Work in Seoul, Korea. The symposium panel brought together six occupational health experts from around the world.

# The report

- discusses priority areas for research to improve worker's health and health equity, particularly in the informal sector and in low- and middle-income countries;
- examines different methods for establishing priorities and conducting research in occupational health;
- considers ways of translating research findings into policy and action, including cross-sector partnerships to promote better on-the-job safety.

The Global Forum aims to generate momentum for continuous identification of priority research areas, especially in low- and middle-income countries, in an inclusive and systematic way. This will help to focus research on precarious workers and to mainstream equity and gender analysis.

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