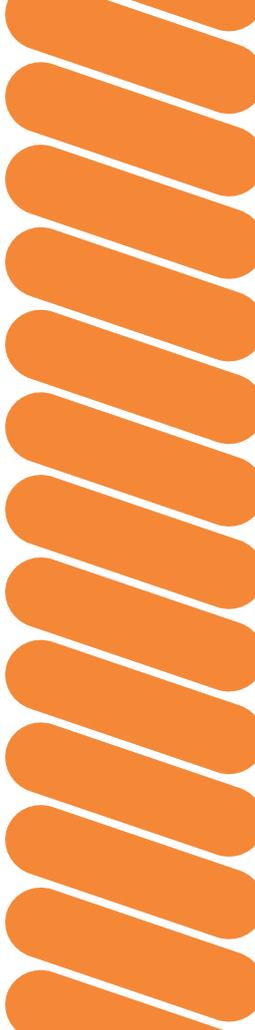




International  
Labour  
Organization



# WORKPLACE STRESS



## A COLLECTIVE CHALLENGE

WORLD DAY FOR SAFETY AND HEALTH AT WORK

28 APRIL 2016



The logo for SafeDay, featuring a yellow hard hat icon above the text 'SafeDay' in green and blue.



# WORKPLACE STRESS: A collective challenge



WORLD DAY FOR SAFETY AND HEALTH AT WORK  
28 APRIL 2016

Copyright © International Labour Organization 2016

First published 2016

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Licensing), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: [rights@ilo.org](mailto:rights@ilo.org). The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with a reproduction rights organization may make copies in accordance with the licences issued to them for this purpose. Visit [www.ifro.org](http://www.ifro.org) to find the reproduction rights organization in your country.

---

Workplace stress: A collective challenge

ISBN: 978-92-2-130641-2 (print)

978-92-2-130642-9 (web pdf)

Also available in French: *Stress au travail: un défi collectif*, 978-92-2-230641-1 (print), 978-92-2-230642-8 (web pdf), Geneva, 2016; and in Spanish: *Estrés en el trabajo: un reto colectivo*, 978-92-2-330641-0 (print), 978-92-2-330642-7 (web pdf), Geneva, 2016.

*ILO Cataloguing in Publication Data*

---

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

ILO publications and digital products can be obtained through major booksellers and digital distribution platforms, or ordered directly from [ilo@turpin-distribution.com](mailto:ilo@turpin-distribution.com). For more information, visit our website: [www.ilo.org/publns](http://www.ilo.org/publns) or contact [ilopubs@ilo.org](mailto:ilopubs@ilo.org).

Printed by the International Training Centre of the ILO, Turin – Italy

# TABLE OF CONTENTS



<b>INTRODUCTION</b> .....	<b>2</b>
<b>1. WHAT IS WORK-RELATED STRESS?</b> .....	<b>2</b>
THE CAUSES	2
THE PROTECTION OF MENTAL HEALTH AT WORK	4
<b>2. WHAT IS THE IMPACT OF STRESS IN THE WORKING POPULATION?</b> .....	<b>5</b>
THE MAGNITUDE OF THE PROBLEM	5
IMPACT ON WORKERS HEALTH, SAFETY AND WELLBEING	6
PREVALENCE	7
THE GENDER DIMENSION	9
IMPACT ON PRODUCTIVITY AND ECONOMIC COSTS OF WORK-RELATED STRESS AND ASSOCIATED MENTAL HEALTH DISORDERS	9
<b>3. WHAT IS THE EXISTING LEGAL FRAMEWORK ON WORK-RELATED STRESS AND MENTAL HEALTH AT WORK?</b> .....	<b>11</b>
INTERNATIONAL LABOUR STANDARDS	11
REGIONAL STANDARDS	11
NATIONAL LEGISLATION	12
INCLUSION OF WORK-RELATED STRESS AND MENTAL DISORDERS IN NATIONAL LISTS OF OCCUPATIONAL DISEASES	14
NON-BINDING TECHNICAL STANDARDS ON PSYCHOSOCIAL RISKS PREVENTION AND MANAGEMENT	14
SOCIAL PARTNERS' AGREEMENTS	15
LABOUR INSPECTION	15
<b>4. STRATEGIES FOR THE PREVENTION AND MANAGEMENT OF PSYCHOSOCIAL HAZARDS AND RISKS</b> .....	<b>17</b>
INTERNATIONAL ORGANIZATIONS	17
REGIONAL ORGANIZATIONS AND INSTITUTIONS	18
NATIONAL STRATEGIES AND INITIATIVES	19
SOCIAL PARTNERS' ENGAGEMENT	23
PROFESSIONAL ASSOCIATIONS' AND NETWORKS' CONTRIBUTION	25
<b>5. GLOBAL TRENDS AND FORESIGHT OF FUTURE SCENARIOS</b> .....	<b>26</b>
EXPERT OPINION SURVEY	26
FORESIGHT OF FUTURE SCENARIOS	28
FINDINGS AND GLOBAL TRENDS	29
<b>6. WHY IS IT NECESSARY TO HAVE A COLLECTIVE APPROACH TO PREVENTING AND CONTROLLING THE CAUSES OF WORK-RELATED STRESS?</b> .....	<b>30</b>
<b>CONCLUDING REMARKS</b> .....	<b>32</b>
<b>REFERENCES</b> .....	<b>33</b>
<b>ANNEX 1. ASSESSMENT AND INTERVENTION TOOLS</b> .....	<b>36</b>
<b>ANNEX 2. GLOBAL TRENDS AND FORESIGHT OF FUTURE SCENARIOS</b> .....	<b>42</b>
<b>BIBLIOGRAPHY</b> .....	<b>49</b>

# INTRODUCTION

This report aims at presenting trends on work-related stress in both developed and developing countries with a view to raising awareness of the magnitude of the problem in the new context of the world of work. To this end it provides an interregional overview of the prevalence and impact of work-related stress, and examines legislation, policies and interventions for its management at international, regional, national and workplace levels. Through a Delphi survey it further identifies and assesses future scenarios and contributing factors in this field. The results of this study will also be used in supporting ILO constituents to take action in this field at national and enterprise levels.

Focusing on the study of stress in the world of work has increased since the 1990s, particularly on the impact of work-related stress on workers' health and its management. There has been growing attention on the effects of psychosocial hazards and risks and work-related stress among researchers and policymakers. Occupational safety and health (OSH) practice has expanded beyond its traditional scope to incorporate behavioural medicine, occupational health psychology and social wellbeing, thereby acknowledging people's need to conduct a socially and economically productive life.

Today workers all over the world are facing significant changes in work organization and labour relations; they are under greater pressure to meet the demands of modern working life. With the pace of work dictated by instant communications and high levels of global competition, the lines separating work from life are becoming more and more difficult to identify.

Psychosocial hazards such as increased competition, higher expectations as regards performance and longer working hours are all contributing to an ever more stressful working environment. In addition, owing to the current economic recession that is augmenting the pace of organizational change and restructuring, workers are increasingly experiencing precarious work, reduced work opportunities, fear of losing their jobs, massive layoffs, unemployment, and decreased financial stability, with serious consequences for their mental health and wellbeing. Work-related stress is now generally acknowledged as a global issue affecting all professions and all workers in both developed and developing countries. In this complex context, the workplace is at the same time an important source of psychosocial risks and the ideal venue for addressing them with a view to protecting the health and wellbeing of workers through collective measures.

It is a universal principle that people have the right to the highest attainable standards of health. Without health at work a person cannot contribute to society and achieve wellbeing. If health at work is threatened, there is no basis for productive employment and socio-economic development. The burden of mental ill-health is highly relevant to the world of work. It has an important impact on people's wellbeing, reducing employment prospects and wages, with a deleterious effect on families' income and enterprises' productivity, and causing high direct and indirect costs to the economy.

# 1. WHAT IS WORK-RELATED STRESS?

The term "stress" is used in numerous ways today, describing everything from feeling ill in the morning to anxiety leading to depression. Among certain scientific groups, it has both negative and positive connotations. Within the context of this report, stress will only be considered as having a negative impact and will be dealt with in the framework of the workplace. Stress is not a health impairment, but is the first sign of a harmful physical and emotional response.

The definition of stress and the terminology to refer to psychosocial hazards and risks has changed over the years. The term "stress" was first used by Hans Selye in 1936 to define stress in biological terms as "a non-specific response of the body to any demand of change".<sup>1</sup> His research led to the study of stress in brain functions. He also defined "stressors" as events that trigger a physiological and psychological response from the organism, in order to distinguish stimulus from response.<sup>2</sup> In this context a stressor can be a biological agent, an environmental condition, an external stimulus, or an event. Stress can define a negative condition or a positive condition that responds to a stressor and that can have an impact on a person's mental or physical health and wellbeing.<sup>1</sup> Today health is acknowledged as a combination of biological, psychological (thoughts, emotions, and behaviour), and social (socio-economical, socio-environmental, and cultural) factors.<sup>3</sup>

For the ILO stress is the harmful physical and emotional response caused by an imbalance between the perceived demands and the perceived resources and abilities of individuals to cope with those demands. Work-related stress is determined by work organization, work design and labour relations and occurs when the demands of the job do not match or exceed the capabilities, resources, or needs of the worker, or when the knowledge or abilities of an individual worker or group to cope are not matched with the expectations of the organizational culture of an enterprise.<sup>4</sup>

## THE CAUSES

The workplace factors that can cause stress are called psychosocial hazards. The ILO defined psychosocial factors (hazards) in 1984, in terms of "interactions between and among work environment, job content, organizational conditions and workers' capacities, needs, culture, personal extra-job considerations that may, through perceptions and experience, influence health, work performance and job satisfaction". This definition emphasised the dynamic interaction between the work environment and human factors. A negative interaction between occupational conditions and human factors may lead to emotional disturbances, behavioural problems, biochemical and neuro-hormonal changes, presenting added risks of mental or physical illness. On the contrary, when working conditions and human factors are in balance, work creates a feeling of mastery and self-confidence; increases motivation, working capacity and satisfaction; and improves health.<sup>5</sup>

<sup>1</sup> Levi (1971, 1976) was the first to distinguish between positive and negative stress and to link it to the working environment. Selye defined "positive stress" as eustress as opposed to distress. Eustress refers to a positive response one has to a stressor, which can depend on one's current feelings of control, desirability, location, and timing of the stressor (Selye, 1974).

**TABLE 1 · STRESSFUL CHARACTERISTICS OF WORK (PSYCHOSOCIAL HAZARDS)**

CATEGORY	CONDITIONS DEFINING HAZARD
<b>CONTENT OF WORK</b>	
Work environment and work equipment	Problems regarding the reliability, availability, suitability and maintenance or repair of both equipment and facilities.
Task design	Lack of variety or short work cycles, fragmented or meaningless work, underuse of skills, high uncertainty
Workload / workspace	Work overload or underload, lack of control over pacing, high levels of time pressure.
Work schedule	Shift working, inflexible work schedules, unpredictable hours, long or unsocial hours.
<b>CONTEXT OF WORK</b>	
Organisational culture and function	Poor communication, low levels of support for problem-solving and personal development, lack of definition of organisational objectives.
Role in organisation	Role ambiguity and role conflict, responsibility for people.
Career development	Career stagnation and uncertainty, under-promotion or over-promotion, poor pay, job insecurity, low social value of work.
Decision latitude / Control	Low participation in decision-making, lack of control over work (control, particularly in the form of participation, is also a contextual and wider organisational issue)
Interpersonal relationships at work	Social or physical isolation, poor relationships with superiors, interpersonal conflict, lack of social support.
Home-work interface	Conflicting demands of work and home, low support at home, dual career problems.

Source: Cox et al, 2000

The term has evolved over the years, from stressors, stress factors to psychosocial factors, psychosocial hazards or psychosocial risks.<sup>ii</sup> The terms “psychosocial hazards” and “psychosocial risks” are sometimes used interchangeably in the scientific literature.<sup>iii</sup> A number of experts agree in defining psychosocial hazards as those aspects of the design and management of work and its social and organizational contexts which have the potential for causing psychological or physical harm. Today there is a reasonable consensus in the scientific community regarding the nature of psychosocial hazards; however it should be noted that new forms of work and the changing working environment give rise to new hazards; and therefore the definition of psychosocial hazards can still evolve.<sup>6</sup> Cox identified ten types of stressful work characteristics (psychosocial hazards), which are divided into two groups: “content of work” and “context of work”.<sup>7</sup> See Table 1.

## CONTENT OF WORK

The first group, “content of work”, refers to psychosocial hazards related to working conditions and work organization. The impact of workload on workers’ health was one of the first aspects of work to be studied. Both quantitative workload (the amount of work to be done) and qualitative workload (the difficulty of work) have been associated with stress. Workload has to be considered in relation to workspace, meaning the speed at which work has to be completed and the nature and control of the pacing requirements (self-systems or machine-paced). Job content (or task design) includes several aspects which are hazardous, such as low value of work, low use of skills, lack of task variety and repetitiveness in work, uncertainty, lack of opportunity to learn, high attention demands, conflicting demands and insufficient resources. Uncertainty may be expressed in different ways, including lack of performance feedback, uncertainty about desirable behaviour

<sup>ii</sup> Stress has also been wrongly defined as a psychosocial hazard instead of as one of their consequences.

<sup>iii</sup> As in the OSH discipline, a hazard is the intrinsic property or potential capacity of an agent, process or situation (including the working environment, work organization and working practices with adverse organizational outcomes) to cause harm or adverse health effects at work. Risk is the combination of the likelihood of a hazardous event and the severity of health damage to a worker caused by this event. The relationship between hazard and risk is exposure whether immediate or long term. In this context, it includes both physical and psychological outcomes. For the purpose of this report, risk is the likelihood or probability that a person will be harmed or experience adverse health effects if exposed to a psychosocial hazard.

(role ambiguity), and uncertainty about the future (job insecurity).<sup>8</sup> Much of the literature on work schedules focuses on shift and night work and long working hours. These factors are associated with upsetting biological circadian rhythms, reduced length and poor quality of daytime sleep, and conflicting work-home demands which contribute to increasing the level of stress and fatigue. Finally, a number of studies have investigated the effects of physical hazards on stress. Overall, evidence suggests that poor physical working conditions and environment, including the workplace layout and exposure to hazardous agents, can affect both workers’ experience of stress and their psychological and physical health.<sup>9</sup>

## CONTEXT OF WORK

The second group, “context of work”, concerns psychosocial hazards in the organization of work and labour relations, such as organizational culture and function, role in the enterprise, career development, decision latitude and control, home-work interface, and interpersonal relationships at work. Aspects of organizational culture and function are particularly significant: the organization as a task performance environment, as a problem-solving environment, and as a development environment. Available evidence suggests that if the organization is perceived to be poor in respect of these environments, then this is likely to be associated with increased levels of stress.<sup>10</sup> Several hazardous aspects of organizational roles have been identified, including role ambiguity and role conflict, role overload, role insufficiency and responsibility for other people.<sup>11</sup> Role insufficiency (when individual’s abilities and training are not fully used) is also associated with low job satisfaction and organizational commitment.<sup>12</sup> Four sources of hazardous situations have been identified relating to career development, namely: mergers and acquisitions; retrenchment and budget cutbacks; ambiguity and insecurity regarding one’s job future; and occupational locking-in.<sup>13</sup> Participation in decision-making and control are important positive aspects of job design and work organization.

According to the theoretical model developed by Karasek and colleagues,<sup>iv</sup> participation in decision-making moderates the stressor effects of job demands and leads to reduced

<sup>iv</sup> Robert Karasek designed the Job Demand-Control-Support Model (JDCS), a management model of job strain. This model predicts that mental strain results from the interaction of job demands and job decision latitude.

**TABLE 2 · WORKPLACE COLLECTIVE MEASURES TO PREVENT WORK-RELATED STRESS**

<b>Control</b>	ensuring adequate staffing levels
	allowing workers a say in how their work is to be carried out
<b>Workload</b>	regularly assess time requirements and assign reasonable deadlines
	ensure that working hours are predictable and reasonable
<b>Social support</b>	allow for social contact between workers
	maintain a workplace that is free of physical and psychological violence
	ensure that there are supportive relationships between supervisors and workers
	provide an infrastructure in which supervisory staff take responsibility for other workers and there is an appropriate level of contact
	encourage workers to discuss any conflicting demands between work and home
<b>Matching the job and the worker</b>	reinforce motivation by emphasizing the positive and useful aspects of the work
	match jobs to the physical and psychological skills and abilities of the workers
	assign tasks according to experience and competence
<b>Training and education</b>	ensure proper utilization of skills
	provide adequate training to ensure that worker skills and jobs are matched
	provide information on psychosocial risks and work-related stress and how to prevent them
<b>Transparency and fairness</b>	ensuring tasks are clearly defined;
	assigning clear roles, avoiding role conflict and ambiguity;
	providing job security to the extent possible;
	providing adequate pay for work performed;
	ensuring transparency and fairness in procedures for dealing with complaints
<b>Physical working environment</b>	providing appropriate lighting, equipment, air quality, noise levels
	avoiding exposure to hazardous agents
	taking into account ergonomic aspects to limit workers' stress.

Source: ILO (2012b)

psychological strain.<sup>14</sup> Overall, research indicates that greater opportunities for participating in decision-making are associated with greater satisfaction and a higher feeling of self-esteem.<sup>15</sup> In the long term, even small amounts of autonomy in the execution of tasks are beneficial for the mental health and productivity of workers.<sup>16</sup> The link between work and home is increasingly being recognised as a potential source of stress, particularly for dual career couples and those experiencing financial difficulties or life crises.<sup>17</sup> An appropriate balance between work and private life can be difficult to achieve, in particular when workers are experiencing fast-paced and intensive work, shift work, irregular working hours, unsympathetic treatment by management and co-workers, and a lack of control over the content and organization of work.<sup>18</sup> Social relationships both inside and outside the workplace are most commonly viewed as playing a moderating role, while adverse effects of exposure to other psychosocial hazards are more likely or more pronounced when relationships provide little support.<sup>19</sup> Another important issue is workplace violence, which can generate elevated stress levels.<sup>v</sup> Episodes of violence can affect not only the

victims but also the witnesses, particularly in jobs involving a great deal of teamwork and customer orientation.<sup>20</sup> Violence can also be a consequence of psychosocial hazards and work-related stress. For example, several organizational factors have been identified as contributing to the occurrence of bullying, such as stressful jobs, monotonous jobs, low level of control, role conflict ambiguity, excessive workload, poor conflict management, and organizational changes.<sup>21</sup>

Examples of collective workplace actions to manage stress are presented in Table 2.

## THE PROTECTION OF MENTAL HEALTH AT WORK

Since the 1960s it has become evident that organizational and managerial practices influence the mental health of workers and that their impact varies between organizations.<sup>22</sup> But only recently concern for the wellbeing of workers, and not merely for their capacity to be productive in organizations, has been bringing about changes in management practices and occupational safety and health.

Traditional approaches to occupational health, behavioural medicine and organizational psychology have been challenged by the new social and economic contexts influencing the search for new perspectives of positive organizational behaviour in support of the potential for meaningful work and wellbeing. The first studies on health and wellbeing reoriented the approach away from how pre-existent mental illnesses affected organizational efficiency towards an understanding of the effects of work on mental health,

<sup>v</sup> The ILO defines workplace violence as “any action, incident or behaviour that departs from reasonable conduct in which a person is assaulted, threatened, harmed or injured in the course of, or as a direct result of his or her work.” Physical violence refers to the use of physical force against another person or group that results in physical, sexual or psychological harm. It includes beating, kicking, slapping, stabbing, shooting, pushing, biting, and pinching among others. Psychological violence (emotional abuse) is the intentional use of power, including the threat of physical force, against another person or group that can result in harm to a person’s physical, mental, spiritual, moral or social state or development. It includes verbal abuse, bullying/mobbing, harassment, and threats. Bullying and mobbing are repeated and offensive behaviours in the form of vindictive, cruel, or malicious attempts to humiliate or undermine an individual or a group of workers (the difference is that bullying is done by one person, whereas mobbing is done by a group of people ganging up on one person). Much has been written concerning the different forms of violence at work, in particular psychological harassment. This report does not intend to reflect the wealth of research carried out on the subject over the years, but to make reference to those aspects closely related to the purpose of this report.

both positive and negative.<sup>23</sup> For example, in several studies role ambiguity, role conflict, overload (quantitative and qualitative), withdrawal, low self-confidence, low job satisfaction and job tension have all been found to be related to stress. However, interpersonal relations and social support, as well as personality factors, can moderate their impact.<sup>24</sup>

In the prevention of chronic non-communicable diseases evidence-based research has stimulated health policymakers to look for the influences not only on individual behaviours and lifestyles but also on social economic and health inequalities and working conditions, and in particular work demands; examples of their work being the job strain model,<sup>25</sup> and the effort-reward imbalance model.<sup>26</sup> These studies have shown the long-term benefits of even small amounts of autonomy in the execution of tasks to the mental health and productivity of workers.<sup>27</sup>

The current nature of work has brought about a shift in the focus of research more towards health and job satisfaction, performance management, organizational effectiveness, job insecurity and unemployment, *presenteeism* (sickness presence at work despite that sick leave should be taken) and absenteeism (not showing up for scheduled work), increased cultural diversity and technological change. Greater attention has also been placed on the preservation of the mental health of workers, the positive aspects of health and wellbeing, and the organizational factors involved in improving them.<sup>vi</sup> Accordingly, contemporary studies have shown the importance of the social environment in shaping work behaviours and valuing them, and therefore the role of human resource policies in ensuring working relationships based on trust, authenticity and partnership.<sup>28</sup>

From an ILO perspective, the protection of mental health at work has more impact if it focuses on preventive strategies. Occupational health and workplace health promotion measures can contribute to improving the mental health and wellbeing of women and men at work and reducing the risk of mental health disorders. This implies an occupational health practice that involves protecting workers' health through psychosocial risk assessment and management for the prevention of work-related stress and work-related mental diseases.

<sup>vi</sup> It has to be noted that pioneers in these areas started work long ago, but only much later has this approach become part of mainstream thinking; the trends that have changed the global research focus stem from the 1990s, and those concerning policy stem from the 2000s.

## 2. WHAT IS THE IMPACT OF STRESS IN THE WORKING POPULATION?

This section is based on an assessment of the prevalence of work-related stress among the working population in different countries. It also summarises its impact on workers' health, safety and wellbeing, as well as its influence on the enterprise and its productivity.

### THE MAGNITUDE OF THE PROBLEM

In recent decades, globalization and technological progress have transformed the world of work, introducing new forms of work organization, working relations and employment patterns and contributing to the increase of work-related stress and its associated disorders. Globalization has given rise to considerable new openings for economic development, but also to the danger of global competitive processes, placing pressure on working conditions and respect for fundamental rights.<sup>29</sup> Globalization has led to changes in employment patterns through greater flexibility in the work process, more part-time and temporary employment and independent contracting of staff.<sup>30</sup> These practices can result in higher job demands and job insecurity, lower control and an increased likelihood of layoff of workers.<sup>31</sup> Technological advancement and the emergence of the internet have led to many changes and innovations in work processes, making the boundaries between work and personal life more and more difficult to identify. Workers might feel that staying connected longer and responding quickly is a sign of good performance, continuing in practice to do their job at home and outside working hours.<sup>32</sup> Incompatibility between work roles and family roles causing behaviour-based, time-based and strain-based conflicts at work can make role demands in the family difficult or impossible to meet, and *vice versa*.<sup>33</sup>

The recent global economic crisis and recession contributed to increases in unemployment, poverty and social exclusion. Their consequences have forced many enterprises to scale down their economic activity in order to remain competitive, with a boost in restructuring, downsizing, merging, outsourcing and subcontracting, and massive layoffs. Restructuring processes extend beyond the effects of layoffs. Organizational change causes uncertainty and antagonisms and workers that survive downsizing may experience feelings of guilt towards their dismissed colleagues. Besides the fear of losing their jobs workers have also to handle reduced opportunities for advancement. In addition, those remaining in employment may be required to be more flexible and perform new tasks, facing increased workloads, working hours, lack of control and role ambiguity.<sup>34</sup> Evidence from previous crises showed that restructuring and organizational changes over such a period lead to decreased attention in the management of workplace risks under pressure for a necessary reduction in costs. As safety and health at work is still perceived by many enterprises as a cost rather than an investment, some of them reduce costs by disregarding OSH standards. The decrease in public spending also compromises the capacities of labour inspectorates and other OSH services in terms of delivery.<sup>35</sup>

Work is fundamental to human health to the extent that people prefer bad working conditions to unemployment. Work not only provides financial resources, but contributes to basic psychological functions such as a time structure, social contacts and a personal identity.<sup>36</sup> Unemployment is related to lower life satisfaction, social stigma, loss of self-esteem and loss of social contacts, with negative consequences for mental health.<sup>37</sup> Several studies have shown how unemployment requires individuals to assume new and difficult roles, handle uncertainty and unpredictability, and cope with feelings of loss of control and identity issues.<sup>vii</sup> Unemployment is also associated with an increased risk of drug use, alcohol use disorders, unhealthy diet, physical inactivity, and poor sleep.<sup>38</sup> It is also associated with mental health disorders such as depression and suicide.<sup>39</sup>

Over the past decades a growing body of evidence has demonstrated the impact of psychosocial risks and work-related stress on workers' health, safety and wellbeing and organizational performance. Research clearly indicates that the relationship between work-related stress and both physical and mental health disorders is consistent. Within the workplace, the result is increased absenteeism and presenteeism, disturbed labour relations, reduced motivation of staff, decreased satisfaction and creativity, increased staff turnover, internal transfers and retraining, and generally a poorer public image. These problems have a considerable impact on productivity, on direct and indirect costs, and on the competitiveness of the enterprise.

## IMPACT ON WORKERS HEALTH, SAFETY AND WELLBEING

The impact of stress on health can vary according to individual response; however, high stress levels can contribute to developing health-related impairments, including mental and behavioural disorders such as exhaustion, burnout, anxiety and depression, as well as other physical impairments such as cardio-vascular disease and musculoskeletal disorders. Growing attention is also being paid to the impact of emerging coping behaviours such as alcohol and drug abuse, smoking, unhealthy diet, poor sleep, as well as to their relation with an increasing rate of workplace accidents and non-communicable diseases.

Early research on occupational accidents was looking into "accident-prone" workers in order to manage accident rates through the selection process (i.e. excluding certain workers). Today many studies suggest that human error plays a small role in workplace accidents and that unsafe behaviour is motivated by efficiency, time management pressures and lack of training, and is not necessarily due to the individual worker.<sup>40</sup> A growing number of studies are investigating the association of poor psychosocial work environment and work-related stress with increased risk of occupational accidents.<sup>41</sup> The experience of either cognitive or physical symptoms of work-related stress can increase the likelihood of momentary distraction, errors in judgement, or failure in normal activities.<sup>42</sup> Evidence clearly suggests that factors such as high workload and job demands, low decision latitude, low skill discretion, lack of organizational support, conflicts with supervisors and colleagues, or highly monotonous work are linked to a higher likelihood of injury in an occupational accident.<sup>43</sup> Findings also indicate that mental ill-health (in particular burnout) is negatively related to safe working practices, increasing the likelihood of a workplace accident.<sup>44</sup>

A number of studies show that stressful working conditions can impact on workers' wellbeing by directly contributing to harmful

lifestyle behaviour which may increase health risks. Available evidence shows that psychosocial risks (such as job insecurity, low control, high demands, effort-reward imbalance) and work-related stress are associated with health-related behavioural risk, including heavy alcohol consumption, overweight, less frequent exercise, increased cigarette smoking, and sleep disorders.<sup>45</sup> Several studies focus on the relationship between psychosocial risks and working conditions and alcohol abuse, showing that perceived stress, workload (including long working hours), effort-reward imbalance and workplace harassment are important determinants of risky drinking.<sup>46</sup> Differences in psychosocial risk exposure between men and women show different patterns of tobacco consumption: high job strain, job pressure, and excessive working hours are associated with smoking in men, while for women the main psychosocial risks related to smoking are high demands (both psychological and physical) and effort-reward imbalance.<sup>47</sup> The impact of such unhealthy behavioural patterns is evident, as every year around six million deaths are caused by tobacco and over three million are attributable to alcohol consumption.<sup>48</sup> Furthermore, unbalanced nutrition and insufficient physical activity are the main causes of obesity and are key risk factors for non-communicable diseases (NCDs) such as cardiovascular disease, cancer and diabetes.<sup>49</sup> Therefore, reducing workplace related factors associated with these unhealthy lifestyles and NCDs contributes to the general health and wellbeing of the population. Several studies focusing on sleep disorders show a bi-directional relationship between sleep disturbances and work-related psychosocial risks (including job strain, high level of demands, low level of control, low level of social support, long working hours and shift work, and effort-reward imbalance).<sup>50</sup>

Cardiovascular disease (CVD) is the first cause of death globally,<sup>viii</sup> with an estimated 17.5 million deaths in 2012 (thirty-one per cent of all global deaths).<sup>51</sup> The rates of coronary heart disease vary across occupations, suggesting that working conditions might play a causal role.<sup>52</sup> The majority of approximately 30 reports derived from large scale studies provide evidence of elevated risk of fatal or non-fatal cardiovascular (mostly coronary) events among those reporting work-related stress.<sup>53</sup> Overall, risks are at least fifty per cent higher among those suffering from stress at work in comparison with those who are not. Even if the available evidence supports a correlation between work-related stress and CVD,<sup>54</sup> only a few studies have indicated a direct pathway between job strain and heart disease which may include: increased autonomic nervous system activity (e.g. increased heart rate), raised blood pressure with increased risk of hypertension, increased catecholamine and cortisol levels, decreased fibrinolytic activity and predisposition to thrombosis, and increased mass of the left ventricle.<sup>55</sup> Several high-quality epidemiological studies demonstrate a positive association between psychosocial risks at work and CVD.<sup>56</sup> Findings are consistent across regions, indicating a relationship between exposure to a poor psychosocial working environment (also mediated by adverse health behaviour) and heart disease. Key psychosocial risk factors include: job demands, low job control, low support levels, effort-reward imbalance, job insecurity, and job dissatisfaction.<sup>57</sup> Working time arrangements, including long working hours and shift work, have also been found to be associated with an increased incidence of CVD.<sup>58</sup>

Musculoskeletal disorders (MSDs) are the focus of considerable attention and research in OSH, which is in part due to high prevalence rates and the associated costs. MSDs are the most common cause of severe long-term pain and physical disability, and they affect hundreds of millions of people around the world. The role of psychosocial factors and work-related stress in the development of MSDs has received increased attention. Indeed a number of epidemiological studies have been conducted in different sectors (from office work to manual work), repeatedly

<sup>vii</sup> The pioneer in this type of research was Warr (1999).

<sup>viii</sup> CVD is a group of disorders of the heart and blood vessels. They include coronary heart disease; cerebrovascular disease; peripheral arterial disease; deep vein thrombosis and pulmonary embolism; and rheumatic and congenital heart disease. Heart attacks and strokes are usually acute events, mainly due to an obstruction preventing the blood from flowing to the heart or brain.

showing linkages between work-related psychosocial factors and MSDs. Overall, it is evident that the incidence of MSDs is associated with high perceived work-related stress levels, high workload and demands, low social support, low job control, low job satisfaction, and monotonous work.<sup>59</sup> Effort-reward imbalance and difficulties in communicating with colleagues and supervisors, as well as workplace violence (in particular harassment, bullying, and intimidation) have been shown to be associated with MSDs.<sup>60</sup>

Burnout is a state of physical, emotional and mental exhaustion that results from long-term involvement in work situations that are emotionally demanding.<sup>61</sup> The Burnout Syndrome can be described as a prolonged response to chronic exposure to emotional and interpersonal psychosocial risks on the job.<sup>ix</sup> It is characterized by emotional exhaustion, cynicism (negative, dehumanized, and insensitive attitudes towards people who are the recipients of one's services), depersonalization, lack of involvement at work, low level of personal accomplishment and inefficiency.<sup>62</sup> Burnout may occur when there is a disconnection between the organization and the individual with regard to the main areas of working life: values, fairness, community, reward, control, and workload.<sup>63</sup> Burnout is mainly the result of the following psychosocial factors: high or unmanageable workload (quantitative and emotional demands), role ambiguity, organizational changes, low job satisfaction and personal accomplishment, unsuitable work-life balance, poor interpersonal relations and support at work, and workplace violence, including harassment and bullying.<sup>64</sup> Headache, insomnia, sleep and eating disorders, tiredness and irritability, emotional instability and rigidity in social relationships are some non-specific symptoms associated with the Burnout Syndrome.<sup>65</sup> The Burnout Syndrome has also been associated with alcoholism and health problems such as hypertension and myocardial infarction.<sup>66</sup> Other effects can be reduced energy, sleep disorders, and neuro-vegetative and functional complaints.<sup>67</sup>

The incidence of burnout and its recognition has increased substantially over the past years and several studies have been carried out in many countries to examine its causes, the most significant among them being work-related stress.<sup>68</sup> Furthermore, a growing number of studies show that female gender is associated with increased burnout risk.<sup>69</sup> This can be explained by the fact that several psychosocial factors related to burnout and work-related stress may be more frequent for women (e.g. the double role that they have to play at home and at work; the gender roles of society and the influence of social expectations; the risk of sexual harassment at work and domestic violence; and gender-based discrimination reflected in lower wages and higher job requirements).<sup>70</sup> For example, in Sweden a cross-sectional study from the *Monitoring of Trends and Determinants in Cardiovascular Disease* project (MONICA, 2010) reported that in women a poor socioeconomic position was associated with burnout. Unfavourable working conditions and life situational factors may explain the high level of burnout in Swedish women *vis-à-vis* men.<sup>71</sup>

Depression is a common mental disorder. Globally it is estimated to affect 350 million people and is one of the leading causes of mental disability for both women and men.<sup>72</sup> It is characterized by depressed mood, loss of interest or pleasure, decreased energy, feelings of guilt or low self-worth, disturbed sleep or appetite, and poor concentration. These problems can become chronic or recurrent and lead to substantial impairments in the ability to take care of everyday responsibilities.<sup>73</sup> Depression often comes with symptoms of anxiety, which is an emotion characterized by feelings of tension, worry and physical changes such as increased blood pressure. People with anxiety disorders usually have recurring intrusive thoughts or concerns, and may have physical symptoms such as sweating, trembling, dizziness or a rapid heartbeat.<sup>74</sup> From a global perspective, depression is a leading cause of premature

mortality and of prolonged years affected by disability.<sup>75</sup> The large majority of results from a number of studies confirm that the risk of depression increases up to four times, among workers experiencing work-related stress, depending on the measure, gender and occupational group under study.<sup>76</sup>

Many high-quality studies have been conducted, showing that psychosocial hazards and work-related stress precede the onset of depression.<sup>77</sup> Given the burden of this disease, it is not surprising that the majority of studies on psychosocial risks, work-related stress and ill health have examined their link with depression. A large number of studies found that poor mental health and depression are associated with workload (including long working hours and high physical, psychological or emotional demands), low decision latitude, low support, effort-reward imbalance, job insecurity, and organizational restructuring.<sup>78</sup> Other psychosocial factors found to be associated with depression include compromised work-life imbalance, job dissatisfaction, role conflict and ambiguity, poor relationships at work, over-commitment, low pay, focus on career development, and poor justice at work.<sup>79</sup> Several studies also found that exposure to bullying or mobbing are risk factors for both depressive symptoms and anxiety.<sup>80</sup> According to the World Health Organization (WHO), gender represents a critical determinant of mental disorders such as depression, anxiety and somatic complaints. Gender-specific risk factors for common mental disorders that disproportionately affect women include gender-based violence, socioeconomic disadvantage, low income and income inequality, low or subordinate social status and rank, and unremitting responsibility for the care of others.<sup>81</sup>

Every year over 800,000 people die by suicide according to the WHO.<sup>82</sup> Over seventy-five per cent of all suicide deaths occur in low- and middle-income countries and most deaths by suicide are among people of working age. Suicidal behaviours have been associated with depressive symptoms. The link between suicide and mental disorders (in particular, depression and disorders associated with substance abuse) is well established.<sup>83</sup> Frequently, several risk factors act cumulatively to increase a person's vulnerability to suicidal behaviour, including those at the level of the individual (e.g. previous suicide attempts, mental disorders, harmful use of alcohol or drugs, financial loss, chronic pain and a family history of suicide).<sup>84</sup> However, suicide intentions may also emerge due to psychosocial risks associated with legal crises, discrimination, isolation, conflicting relationships, physical or psychological abuse, and academic or work-related problems.

## PREVALENCE

Prevalence data on psychosocial hazards and work-related stress are available to varying extents across countries and regions; however, the quality varies considerably.<sup>x</sup> The greater share of research in this field is to be found in Europe and North America, and in general in developed countries, but to a lesser extent in the Asia-Pacific region and Latin America, and to only a limited extent in Africa and the Arab States.

Regional data in Europe are mainly collected and assessed by European Union (EU) agencies. The 4<sup>th</sup> *European Working Conditions Survey* (EWCS, 2007)<sup>xi</sup> revealed that an estimated 40 million people in the EU were affected by work-related stress.<sup>85</sup> According to the European Risk Observatory Report published in 2009, work-related stress represented in Europe between fifty and sixty per cent of all lost working days.<sup>86</sup> The study also found that on average twenty-two per cent of the European

<sup>ix</sup> The Maslach Burnout Inventory (MBI) was designed to assess emotional exhaustion, depersonalization, and diminished personal accomplishment. The model is the more widely used tool and has been used extensively since the 1970s (Maslach, 1976).

<sup>x</sup> Prevalence is the percentage of a population that is affected with a particular disease at a given time. Incidence is the frequency with which a disease or trait appears in a particular population or area.

<sup>xi</sup> Since 1990 the *European Working Conditions Survey* (EWCS) assesses the psychosocial working environment, including job context, working time, work intensity, career prospects and work organisation.

workforce was under stress, with levels markedly higher in the newer member States (thirty per cent) than in the older member States (twenty per cent). Stress was most prevalent in the education and health sectors, as well as in agriculture, hunting, forestry and fishing (twenty-eight point five per cent). The largest group of workers who suffered from anxiety at work were those employed in education and health (twelve point seven per cent), public administration and defence (eleven point one per cent) and those in agriculture, hunting, forestry and fishing (nine point four per cent). The *First European Survey of Enterprises on New and Emerging Risks* (ESENER) conducted by the European Agency for Safety and Health at Work (EU-OSHA) in 2009 found that even though work-related stress was reported among the key OSH concerns for European enterprises,<sup>xii</sup> only about half of the establishments surveyed reported that they inform their workers about psychosocial risks and their effects on health and safety; and less than a third reported having procedures in place to deal with work-related stress.<sup>87</sup> These views were shared by managers and workers' representatives. The report on *Psychosocial risks in Europe: Prevalence and strategies for prevention* (2014) stated that twenty-five per cent of workers experienced work-related stress for all or most of their working time, and a similar proportion reported that work affected their health negatively. Furthermore, psychosocial risks were a concern for a majority of enterprises in Europe. Nearly eighty per cent of managers expressed concern about work-related stress, and nearly one in five considered violence and harassment to be of major concern. Despite these concerns less than one-third of establishments have procedures in place to deal with such risks.<sup>88</sup> The 6<sup>th</sup> *European Working Conditions Survey* (EWCS, 2015) confirmed that intensive work is quite prevalent: thirty-six per cent of workers in the EU work "all of the time" or "almost all of the time" under pressure to meet tight deadlines, while thirty-three per cent reported working at high speed. Furthermore, almost one in six workers (sixteen per cent) reported having been subject to adverse social behaviour (physical violence, sexual harassment and bullying or harassment).<sup>89</sup>

In the Americas, according to the *First Central American Survey on Working Conditions and Health* (2012),<sup>90</sup> more than one in ten respondents reported having felt constantly under stress or strain (twelve to sixteen per cent), feeling sad or depressed (nine to thirteen per cent), or losing sleep (thirteen to nineteen per cent), owing to concerns about working conditions.<sup>xiii</sup> In Argentina, the *First National Survey on Employment, Work Conditions, Labour Environment and Health* (2009) showed that twenty-six point seven per cent of workers reported mental load, considering their work as excessive.<sup>91</sup> In Brazil, a study examining sickness absences due to accidents and work-related diseases found that fourteen per cent of annual health benefits were due to mental illness (nine per cent for men and sixteen point seven per cent for women).<sup>92</sup> According to the Canadian third *National Study of Work-Life Balance* (2011), high perceived stress was reported by fifty-seven per cent of respondents, increasing from fifty-four per cent in 2001 and forty-four per cent in 1991 as reported in previous studies. A consistent proportion of respondents also reported highly depressed moods (thirty-six per cent), reduction in the amount of sleep (thirty-one per cent), and high perceptions of poor physical health (forty-six per cent). The number of people reporting a high level of life satisfaction decreased, dropping from forty-five per cent in 1991 to twenty-three per cent in 2011. Finally, just over three-quarters of respondents (seventy-seven per cent) were absent from work in the six months prior to the study, mainly due to ill health (sixty-three per cent) and emotional, mental and physical fatigue (forty-five per cent).<sup>93</sup> In Chile, according to the 7<sup>th</sup> *National Survey of Working Conditions* (2011), twenty-seven point nine per cent of workers and thirteen point eight per cent of employers reported that stress and depression were present in their enterprises. However, just

eight point nine per cent of employers and seven per cent of workers pointed out that prevention initiatives on these issues had been implemented during the preceding months.<sup>94</sup> In addition, the Chilean Safety Association (ACHS) stated that twenty-one per cent of the 4,059 occupational diseases reported to the ACHS in 2012 were related to mental health diseases.<sup>95</sup> In Colombia, according to the first *National Survey on Working Conditions and Health on the General System of Occupational Risks* (2007), twenty-four point seven per cent of male workers and twenty-eight point four per cent of female workers ranked their level of stress between 7 and 10 on a 10-point scale (where 1 is "little or no stress" and 10 is "a great deal of stress"). Furthermore the survey highlighted customer service work and monotonous and repetitive work as the top two psychosocial hazards as identified by about fifty per cent of respondents, followed by lack of clear definition of responsibilities (thirty-three point four per cent) and constantly changing expectations at work (eighteen point four per cent).<sup>96</sup> In the United States (US), according to the *Stress in America™* survey (2015), respondents rated their stress levels as 4.9 on a 10-point scale. The most commonly reported sources of stress include money (sixty-four per cent), work (sixty per cent), the economy (forty-nine per cent), family responsibilities (forty-seven per cent) and personal health concerns (forty-six per cent).<sup>97</sup>

In the Asia-Pacific region, according to the Australian *Stress and Wellbeing Survey* of 2014, almost half of the respondents cited work demands (forty-eight per cent) as barriers to maintaining a healthy lifestyle. Consistent with the previous years' findings, just over seven in ten Australians (seventy-two per cent) reported that current stress was having at least some impact on physical health, with almost one in five (seventeen per cent) reporting that current stress was having a strong to very strong impact on physical health.<sup>98</sup> In Japan, the *Survey on the Prevention of Industrial Accidents* showed that thirty-two point four per cent of workers reported suffering from strong anxiety, worry and stress during the previous year.<sup>99</sup> In the first *Korean Working Conditions Survey* carried out in the Republic of Korea (2006), work-related stress affected eighteen point four per cent of male and fifteen point one per cent of female workers, and was significantly related to working hours and job demands.<sup>100</sup> In the second *Korean Working Conditions Survey* (2010), overall fatigue increased from seventeen point eight per cent in 2006 to twenty-six point seven per cent in 2010. However, a decrease in the levels of depression and anxiety from five point four per cent to one point one per cent was registered, along with a similar decrease in insomnia or general sleep difficulties from five point seven per cent to two point three per cent.<sup>101</sup>

Almost no information can be identified on the prevalence or incidence of psychosocial risks and work-related stress in Africa and the Arab States. Two national studies assessing mental disorders in the general population were identified in Africa: the *South African Stress and Health* study examining 12-month and lifetime prevalence of common mental disorders in a representative sample of adults, and a nationally representative survey focussing on national prevalence of poor mental health among women in Ghana (2009-2010).<sup>102</sup> However, neither of the studies included an occupational perspective. The only occupational study using a large-scale representative sample identified focused on educators from public schools in South Africa.<sup>103</sup> The aim of this study was to explore the relationship between self-reported job stress and job satisfaction, and the prevalence of stress-related illnesses and risk factors among educators. The study found very high stress levels among educators. Work-related stress and lack of job satisfaction were associated with most stress-related illnesses (hypertension, heart disease, stomach ulcers, asthma, mental distress, and tobacco and alcohol misuse).

Even if in recent years there has been growing attention to work-related suicides, the proportion of suicides that are work-related is still unclear owing to lack of data concerning the origin of reported suicides. However available data are alarming. Several studies have examined job characteristics and the risk of death from suicide among workers, highlighting the exposure to the

<sup>xii</sup> The ESENER of 2009 covered over 28,000 enterprises in 31 countries (the 28 EU member States, Norway, Switzerland and Turkey).

<sup>xiii</sup> The survey was conducted in Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. The results were consistent among countries, with the exception of Panama.

following psychosocial risks arising from work: financial problems (including unemployment), conflicts (including mobbing, bullying and harassment), low control or low decision latitude, low social support, high psychological demands, and long working hours.<sup>104</sup> For example, an Australian study found that seventeen per cent of suicides in the province of Victoria between 2000 and 2007 were work-related.<sup>105</sup> According to national public health statistics from Thailand, in 2007 the rate of suicide among people of working age was 7 per 100,000 people which was higher than the overall national rate of 5.95.<sup>106</sup> In addition, the Assumption Business Administration College (ABAC) conducted a survey supported by the Thai Health Promotion Foundation in 2007. The survey found that stress levels have risen and almost ten per cent of Thai workers (from unskilled workers to office workers) had contemplated suicide because of low life quality. Day-wage workers were found to have lower levels of mental health (lower scores) than other groups of workers, perhaps because of their occupational insecurity and unreliable income.<sup>107</sup>

Some data on the incidence of work-related suicide can be obtained from figures related to workers' compensation claims (in those countries recognizing suicide as having an occupational origin). For example, in Japan work-related suicide (known as *karojisatsu*: suicide due to overwork and stressful working conditions) has become a social issue and has been recognized by the workers' accident compensation insurance since the second half of the 1980s. It has been associated with long working hours, heavy workloads, lack of job control, routine and repetitive tasks, interpersonal conflicts, inadequate rewards, employment insecurity, and organizational problems.<sup>xiv</sup> According to the Japanese Ministry of Health, Labour and Welfare (MHLW) there has been an increasing trend in cases of *karojisatsu* in Japan. In 14 years, between 1997 and 2011 the number of compensated cases of *karojisatsu* rose from 2 to 66.<sup>108</sup> Furthermore, the *White paper on Suicide Prevention in Japan* (2012) states that work-related issues caused between seven point six and twelve point three per cent of suicides in 20-59 year-old men (more than double than for Japanese women).<sup>109</sup> In addition, in 2013 half of the causes of death for people in their 20s was suicide, with about forty per cent of cases motivated by work-related depression and distress, according to the *Annual Health, Labour and Welfare Report for the Realization of a Society of Health and Longevity* (2014) of the Japanese MHLW.<sup>110</sup> In the Republic of Korea, 23 work-related suicides were compensated between 1999 and 2004,<sup>111</sup> while in France for the biennium 2010-2011 there were 149 claims reported, 43 of which were recognised and compensated.<sup>112</sup>

The economic crisis and recession have been accompanied by an increase in suicide rates. A study published in 2009 on the public health effect of economic crises examined the associations between changes in employment and mortality in 26 EU countries between 1970 and 2007. The study found that for every one per cent increase in unemployment, there was an associated zero point seventy-nine per cent increase in suicides by people under 65. Furthermore, a more than three per cent increase in unemployment was associated with a greater increase in suicides (four point forty-five per cent) and in deaths from alcohol abuse (twenty-eight per cent) at ages lower than 65 years.<sup>113</sup>

## THE GENDER DIMENSION

Women and men respond to and manage stress in different ways. Most studies on gender and stress concern women. According to the *Stress in America* survey (2010) of the American Psychological

<sup>xiv</sup> Beside suicide, death from overwork (*karoshi*) represents another important social issue, in Japan. *Karoshi* is not a pure medical term but a socio-medical term that refers to fatalities or associated work disability due to cardiovascular attacks (such as brain strokes, myocardial infarction or acute cardiac failure) aggravated by heavy workload and long working hours. *Karoshi* is also recognized and compensated by the national workers' accident compensation insurance.

Association, women and men report different reactions to stress, both physically and mentally. They attempt to manage stress and perceive their ability to do so in distinctly different ways. While women are more likely to report physical symptoms associated with stress, they manage better at communicating and connecting with others in their lives and these connections contribute to their stress management strategies. Even if men and women report similar average stress levels, women are more likely than men to report physical and emotional symptoms of stress and that their stress levels are on the rise. When comparing women with each other, there also appear to be differences in the way that married and single women experience stress. Men appear more reluctant to believe that stress is having an impact on their own health; they also put less emphasis on the need to manage their stress than women, have less confidence in psychologists, and are less likely to employ strategies to make lifestyle and behaviour changes. However, men are more likely than women to report being diagnosed with the types of chronic physical illnesses that are often linked with high stress levels and unhealthy lifestyles and behaviours.<sup>114</sup> These findings confirm previous studies in European countries and alert on the need to take into account important gender differences in stress management.<sup>115</sup>

Even if the rate of labour market participation by women has increased enormously over the past century, according to the ILO overall the labour market participation rate of women remains some twenty six per cent lower than that of men and the gender pay gap remains over twenty per cent, with no evidence of any unambiguous or rapid reduction.<sup>116</sup> In addition, in most societies women continue to be mainly responsible for domestic, unpaid work such as cooking, cleaning and caring for children, and therefore they carry a double burden when they are employed. Women are also largely represented among unpaid contributing family workers, such as those who work in a business establishment for a relative who lives in the same household as they do.<sup>117</sup> Balancing responsibilities for paid and unpaid work often leads to stress, depression and fatigue, and can be particularly problematic when income is low and social services and support are lacking. Psychosocial hazards that may be more frequent and specific to women include: (i) the double role they have to play at home and work; (ii) the gender roles of society and the influence of social expectations; (iii) the risk of sexual harassment at work or domestic violence; and (iv) gender-based discrimination reflected in lower wages and higher job requirements.<sup>118</sup>

## IMPACT ON PRODUCTIVITY AND ECONOMIC COSTS OF WORK-RELATED STRESS AND ASSOCIATED MENTAL HEALTH DISORDERS

The impact of work-related stress on workplace productivity and the broader economy is considerable. Work-related stress can severely impact workers' general achievement levels in a negative way with respect to both efficiency and accuracy.<sup>119</sup> Studies investigating the impact of work-related stress on organizational outcomes have revealed a number of associated forms of behaviour affecting productivity, competitiveness and the public image of the enterprise. For example, besides the impact on workers' health and wellbeing, a poor psychosocial working environment contributing to work-related stress can result in increased absenteeism and presenteeism, as well as reduced motivation, satisfaction and commitment, along with a greater rate of staff turnover and intention to quit.<sup>120</sup> All of the above can have a negative impact in terms of human, social and financial costs.

Absenteeism has a long research history, owing to its widespread prevalence and its associated cost to enterprises and society, while far fewer studies are available on presenteeism.<sup>121</sup> Evidence shows that absenteeism is associated with work-related stress and psychosocial hazards such as workload, job control, role conflict, effort-reward imbalance, quality of leadership, shift work, limited career progression, and social relationships at work (including low social support and workplace violence, bullying, and discrimination).<sup>122</sup> Scientific literature on presenteeism indicates similar findings, highlighting that an increase in work-related stress is associated with an increase in presenteeism, even greater than that for absenteeism.<sup>123</sup> Organizational policies on pay, sick leave, attendance control, downsizing, and permanency in employment, as well as job design (such as job demands, adjustment latitude, ease of replacement and teamwork) have been suggested as factors fostering presenteeism. Other psychosocial hazards identified as predictors of presenteeism are time pressure, insufficient resources and unfavourable personal financial situations.<sup>124</sup> Finally, it should be noted that presenteeism can in turn lead to burnout over time. In fact, exhaustion and presenteeism were found to be reciprocal, suggesting that when workers experience exhaustion, they mobilize compensation strategies through presenteeism, which ultimately increases their exhaustion.<sup>125</sup>

Over the years, psychosocial hazards related to organizational outcomes, such as levels of job satisfaction, motivation, commitment and intention to quit have received much attention in the scientific literature, as they are considered indicators of individual and organizational performance. Job satisfaction can be an important factor influencing workers' health and wellbeing, as well as their performance.<sup>126</sup> Large-scale studies corroborate findings from smaller studies, showcasing the fact that job satisfaction is affected by the following psychosocial hazards: long working hours, job demands, lack of career advancement and promotion opportunities, poor relationships at work, emotional exhaustion, burnout, work-family conflict and exposure to bullying and harassment; it is also exacerbated by work-related stress.<sup>127</sup> In addition, work-related stress and job dissatisfaction have also a negative impact on workers' motivation and commitment, increasing their intention to quit. Evidence supports that increased intention to leave is related to work overload, high job demands, lack of job control, effort-reward imbalance, poor salary, perceived meaningfulness of the job, poor job relations and support, bullying, low organizational commitment and burnout.<sup>128</sup> Conversely, supportive relationships have an indirect effect on reducing burnout and turnover intention through its effect on perceived stress, whereas job-relevant communication also has a direct effect on turnover intention.<sup>129</sup>

The related direct and indirect costs are only beginning to be quantified. Still, some developed countries assess the economic impact of work-related stress, associated behavioural patterns and mental health disorders. For example, in Europe the estimated cost of work-related depression is €617 billion a year, which includes the costs to employers of absenteeism and presenteeism (€272 billion), loss of productivity (€242 billion), healthcare costs (€63 billion) and social welfare costs in the form of disability benefit payments (€39 billion).<sup>130</sup>

At national level, Safe Work Australia estimated in 2008/2009 that work-related stress cost Australian society AU\$5.3 billion annually. This figure includes expenses resulting from disruption of production and medical costs.<sup>131</sup> In addition, depression problems cost Australian employers approximately AU\$8 billion per year as a result of sickness absence and presenteeism, and of that figure AU\$693 million is due to job strain and bullying.<sup>132</sup> In Canada, a study conducted in 2011 estimated that mental health problems cost employers about CA\$20 billion annually.<sup>133</sup> In France, the total cost of job strain in 2007 was estimated as between €1.9 and €3 billion, including costs related to healthcare (€124–199 million), absenteeism (€826–1,284 million), loss of activity (€756–1,235 million) and loss of productivity due to premature death (€166–279 million).<sup>134</sup> In Germany, the estimated annual cost of job strain in 2008 was €29.2 billion (€9.9 billion in direct costs such as prevention, rehabilitation, maintenance treatment and administration; and €19.3 billion in indirect costs such as lost working years through incapacity, disability and premature death).<sup>135</sup> In Spain, the direct health cost of mental and behavioural disorders attributable to work was estimated at between €150 and €372 million in 2010. In the same year, 2.78 million days were lost to sick leave caused by work-related mental illness, equivalent to a loss of €170.96 million.<sup>136</sup> According to the latest estimates in the United Kingdom (UK), losses due to work-related stress, depression or anxiety amounted to the equivalent of 9.9 million days, representing forty-three per cent of all working days lost due to ill-health during the period 2014/2015.<sup>137</sup> A study conducted in 2007 by the Sainsbury Centre for Mental Health in the UK estimated that the total annual cost to employers of mental health disorders among their staff was nearly £26 billion, equivalent to £1,035 for every worker (£335 due to absenteeism, £605 to presenteeism and £95 to staff turnover).<sup>138</sup>

### 3. WHAT IS THE EXISTING LEGAL FRAMEWORK ON WORK-RELATED STRESS AND MENTAL HEALTH AT WORK?

This section provides a summary of the legal approaches, at international, regional and national levels, addressing psychosocial risks, work-related stress and some related behavioural patterns such as psychological harassment. It comprises an overview of binding legal instruments on the prevention of psychosocial risks and the protection of workers' mental health; inclusion of work-related stress and mental disorders in national lists of occupational diseases; non-binding standards on psychosocial risks and work-related stress; examples of framework agreements and collective agreements adopted by social partners; and the role of labour inspection in this area.

#### INTERNATIONAL LABOUR STANDARDS

The core values reflected in ILO standards on occupational safety and health are expressed in three main principles: (i) work should take place in a safe and healthy working environment; (ii) conditions of work should be consistent with workers' wellbeing and human dignity; and (iii) work should offer real possibilities for personal achievement, self-fulfilment and service to society.<sup>xv</sup> In particular, the ILO core Convention on Occupational Safety and Health, 1981 (No.155) and its accompanying Recommendation (No.164) provide for the adoption, implementation and review of a coherent national policy on OSH and measures for its application at national and workplace levels with the aim of protecting workers' physical and mental health and wellbeing. The aim of the policy should be to prevent accidents and diseases arising out of, linked with, or occurring during the course of work, by minimising, as far as is reasonably practicable, the causes of hazards inherent in the working environment, so as to protect the physical and mental health of workers. The policy should also take into account the relationships between the material elements of work and the persons who carry out or supervise the work, as well as the adaptation of machinery, equipment, working time, organization of work and work processes to the physical and mental capacities of workers.

The Occupational Health Services Convention, 1985 (No. 161) and its accompanying Recommendation (No. 171) define the role of occupational health services as multidisciplinary services with essentially preventive and advisory functions, responsible for assisting employers, workers, and their representatives in establishing and maintaining a safe and healthy working

environment, including the adaptation of work to the capabilities of workers so as to facilitate optimal physical and mental health at work.

The Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187) and its accompanying Recommendation (No. 197) complement the previous core standards and describe the requirements and functions of a national structure, relevant institutions and stakeholders responsible for implementing a national and enterprise level policy for safe and healthy working environments, as well as the steps to be taken to build and maintain a preventive safety and health culture at national level.

Other International Labour Standards that can be pertinent in the area of psychosocial risks and mental health are those related to equality of opportunity and treatment, working time and night work.<sup>xvi</sup>

#### REGIONAL STANDARDS

Few regional organizations have developed legally binding instruments covering psychosocial risks and the protection of workers' mental health for their member States.

In Latin America, the Southern Common Market (MERCOSUR) adopted in 1998 the Social and Labour Declaration,<sup>xvii</sup> which includes provisions for health and safety at work, providing for workers' right to the protection of their physical and mental health, and calls member States to formulate, implement and update policies and programmes on OSH, with a view to preventing occupational accidents and diseases.<sup>139</sup>

In 2004 the Andean Community adopted the Andean Instrument on Safety and Health at Work (Decision No. 584) establishing a legal framework for the protection of workers' safety and health within the sub-region.<sup>xviii</sup> The aim was to harmonize the labour laws in all the Andean Community countries starting with basic principles for reducing occupational risks. The Instrument defines working environment conditions as those elements, agents or factors that have significant influence in the generation of risks to the safety and health of workers, including the organization and management of work, along with ergonomic and psychosocial factors. The Instrument also defines occupational health as the branch of public health aiming at the promotion and maintenance of the highest possible degree of workers' physical, mental and social wellbeing; the prevention of any harm to health caused by working conditions and risk factors; and the adaptation of the work to workers in accordance with their skills and abilities. It provides for member States to promote within their national OSH systems the improvement of safety and health at work, in order to prevent harm to workers' physical and mental integrity arising from, related to, or occurring during work. The Andean Instrument also requires employers to develop comprehensive plans to prevent risks, including the adaptation of work to the abilities of workers, given their state of physical and mental health, taking into account ergonomics and other disciplines related to the different types of psychosocial risk.<sup>140</sup>

In the EU, the Framework Directive on Safety and Health at Work (89/391/EEC) governs the implementation of OSH within member States. Even though the Directive does not refer explicitly to "work-related stress" or "psychosocial risks", it provides for employers to ensure workers' health and safety in every aspect related to work. It requires employers to adapt the work to the individual,

<sup>xv</sup> International Labour Standards are legal instruments drawn up by ILO's constituents (governments, employers and workers) setting out basic principles and rights at work. They are either *conventions*, which are legally binding international treaties that may be ratified by member States, or *recommendations*, which serve as non-binding guidelines and in most cases complement relevant conventions.

<sup>xvi</sup> See <http://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/lang--en/index.htm> for a comprehensive list of ILO Standards by subject.

<sup>xvii</sup> The members of MERCOSUR are Argentina, Brazil, Paraguay and Uruguay.

<sup>xviii</sup> The current members of the Andean Community are Bolivia, Colombia, Ecuador and Peru; while Argentina, Brazil, Chile, Paraguay and Uruguay are associate members.

especially as regards the design of workplaces, the choice of work equipment and the choice of working and production methods; and to develop a coherent overall prevention policy which covers technology, organization of work, working conditions, social relations and the influence of factors related to the working environment.<sup>141</sup> A number of EU member States do not explicitly mention psychosocial hazards or stress, keeping the text of their OSH laws close to the EU Framework Directive (e.g. Luxembourg, Poland, Romania, Slovenia and Spain); while others refer to the need to take psychosocial risks or mental health into consideration when addressing OSH (e.g. Austria, Denmark, Estonia, Finland, France, Greece, Italy, Norway, Slovakia and Sweden). The EU Directive on the minimum safety and health requirements for work with display screen equipment (90/270/EEC) states that “employers shall be obliged to perform an analysis of workstations in order to evaluate the safety and health conditions to which they give rise for their workers, particularly as regards possible risks to eyesight, physical problems and problems of mental stress”.<sup>142</sup> The EU Directive on prevention from sharp injuries in the hospital and healthcare sector (2010/32/EC) implements the Framework Agreement on this matter signed by the social partners (annexed to the Directive).<sup>143</sup> The Directive requires employers to ensure the safety and health of workers in every aspect related to their work, including psychosocial factors and work organization. It envisages that employers will conduct a comprehensive risk assessment and develop a coherent prevention policy, covering technology, organization of work, working conditions, psychosocial factors and the influence of other factors related to the working environment.<sup>144</sup> Other EU Directives that can be relevant to the field of psychosocial factors are those focusing on working time, equal treatment and discrimination.

## NATIONAL LEGISLATION

Legal provisions covering psychosocial hazards and risks, work-related stress and workers’ mental health and wellbeing can be included in Labour Codes, OSH Laws, OSH Acts, specific OSH regulations, codes of practice, technical standards, decrees and collective agreements. It should be noted that reference to psychosocial hazards and risks or work-related stress has frequently been included in a non-unified and fragmented manner, in many national legal frameworks.

The Nordic countries have led the way in recognition of psychosocial risks in the workplace and development of relevant legislation. The Danish Working Environment Act (1977) was the first law covering aspects related to the psychosocial working environment. In the same year Sweden adopted its Working Environment Act which also included provisions concerning psychosocial factors at work. The Norwegian Working Environment Act, also adopted in 1977, requires that work be organized to provide workers the opportunity for professional and personal development. In 1995 the Act incorporated a provision relating to bullying.<sup>145</sup> The current Norwegian Working Environment Act (2005) includes specific requirements regarding the prevention of psychosocial risks in the working environment in order to preserve workers’ integrity and dignity.<sup>146</sup> In Finland specific provisions on the psychosocial working environment were included in the Occupational Safety and Health Act in 2003. A number of requirements were introduced with this new Act relating to psychosocial strain, violence, solitary work, bullying and other inappropriate behaviour. In Iceland the current Working Environment Act was adopted in 1980. In 2003 provisions were added to the Act, stipulating requirements to the effect that employers should carry out systematic preventive measures including risk assessments of the psychosocial working environment. In 2004 bullying and other inappropriate behaviour were also included in the Act.<sup>147</sup>

Many other countries have successively incorporated provisions in these areas in their legislation.

Some countries refer to the protection of mental health and wellbeing within the scope of OSH Acts and regulations (e.g. Algeria, Argentina, Belize, Bolivia, Colombia, Costa Rica, Cuba, Haiti, and Venezuela) or within the objectives of OSH institutions (e.g. Canada and the Dominican Republic). In a few countries the protection of mental health is included in the Constitution as a general duty of the State for all citizens (e.g. Lesotho) or as an individual’s right (e.g. Chile and Peru). A number of national legislations refer to the protection of mental health or psychosocial wellbeing in the definition of “health”, “disease” or “injury” in their Labour Codes or OSH laws (e.g. Angola, Antigua and Barbuda, Australia, Bahamas, Dominican Republic, Ecuador, Guyana, Mauritius, New Zealand, Nicaragua, Philippines, Swaziland, Tanzania, Thailand, Trinidad and Tobago, and Venezuela) or within the aims of the disciplines of occupational health or occupational medicine (e.g. Bahrain, El Salvador, Nicaragua, Panama, Paraguay, Peru, and Thailand).

Certain countries also provide in their OSH legislation a detailed legal definition of psychosocial hazards and risks (e.g. El Salvador, Estonia, Mexico and Peru). For example, in Mexico the OSH Act defines psychosocial risk factors (hazards) as those elements related to job functions, working hours, and exposure to traumatic events or acts of workplace violence, which can result in anxiety disorders, sleep disorders and severe stress conditions.<sup>148</sup> According to the Estonia OSH Act, psychological hazards are monotonous work or work not corresponding to the abilities of a worker, poor work organization, working alone for an extended period of time, and other similar factors that may gradually cause changes in the mental state of a worker.<sup>149</sup> Other national OSH regulations refer to psychosocial hazards as emerging risks (e.g. Ecuador and Niger), or within the general provisions as a subject for future research (e.g. Argentina, Cuba, and the United States).

Specific regulations on psychosocial risks are not very common, and only a few countries have drafted them; for example, the Belgian Royal Decree on the prevention of psychosocial risks at work (2014) defines psychosocial risks, along with the preventive measures to be adopted, the role of the prevention and protection services, and workers’ rights to participation.<sup>150</sup> The Colombian Resolution 2646 on risk assessment and management of psychosocial hazards (2008) establishes rules and liabilities for the permanent identification, assessment, prevention, intervention and monitoring of exposure to psychosocial hazards and risks at work and for determining the origin of diseases caused by work-related stress.<sup>151</sup>

In various countries national legislation provides for the protection of mental health and wellbeing of specific categories of workers. For instance, a number of countries have specific requirements for young workers, promoting their mental or moral integrity and development (e.g. Algeria, Angola, Botswana, Bulgaria, Burkina Faso, Central African Republic, Chile, Cuba, Ecuador, Haiti, Jordan, Mauritius, Mozambique, Nicaragua, Peru, Portugal, Somalia, South Africa, Tunisia, Turkmenistan, and Uruguay), as well as for protecting pregnant workers from mental fatigue and job strain (e.g. Austria, Czech Republic, Estonia, Georgia, Italy, Luxembourg, Norway, and Romania).

A number of countries explicitly refer to mental health or psychosocial factors within the aims or the functions of OSH services or as part of workers’ health surveillance (e.g. Algeria, Angola, Argentina, Costa Rica, Germany, Japan, Libya, Mexico, Namibia, Paraguay, Senegal, Venezuela, and Zambia). For example, in Namibia OSH services’ functions include monitoring of physical, chemical and biological hazards and psychological factors in the working environment which may affect workers’ health, including work methods and organization of work.<sup>152</sup> Some countries make reference to mental health in relation to pre-employment medical examinations in order to ascertain that workers are psychologically fit for the type of work required (e.g. Argentina, Bahrain, Cuba, Colombia, Egypt, Oman, and Qatar).

## EMPLOYERS' RESPONSIBILITIES AND WORKERS' RIGHTS

In several countries the protection of mental health and wellbeing is covered in OSH law as a worker's right or as a general duty of employers, including their responsibility for safe working environments, working conditions and work organization (e.g. Algeria, Angola, Benin, Burkina Faso, Bolivia, Costa Rica, Cuba, Denmark, Equatorial Guinea, Eritrea, Estonia, Finland, Honduras, Japan, Republic of Korea, Mexico, Mozambique, Norway, Peru, Somalia, Venezuela and Zambia). For example, in Venezuela the Labour Law establishes that work should take place in conditions of safety and dignity to allow workers to develop their potential, ensuring: (a) their physical, intellectual and moral development; (b) training and knowledge-sharing in the social work process; (c) time for rest and recreation; (d) a healthy work environment; (e) the protection of life, health and safety at work; and (f) the prevention of, and implementation of measures to avoid, any form of harassment.<sup>153</sup> In the Labour Law of Burkina Faso, the employer is under an obligation to provide workers with working conditions that facilitate their normal physical, mental and social development, as well as the independence of their moral and civic consciousness. To this end employers must allow workers enough free time for rest, training, recreation and social life.<sup>154</sup> According to the OSH Act in the Republic of Korea, the employer is required to create a pleasant work environment that can reduce workers' physical fatigue and mental stress.<sup>155</sup>

Some national legislation refers to the employer's responsibility for the prevention and control of psychosocial risks, work-related stress, mental fatigue, or psychological workload (e.g. Bulgaria, Comoros, Dominican Republic, El Salvador, Mexico, Namibia, the Netherlands, Republic of Korea, Turkmenistan, and Uruguay). For example, the new Mexican OSH Regulatory Act (2014) requires the employer to take action on psychosocial risk factors, including *inter alia* identification and analysis of those jobs presenting psychosocial risk factors because of the nature of the duties or working time; adoption of appropriate preventive measures to mitigate psychosocial risks; conduct of medical examinations for those workers exposed to psychosocial risks; and provision of information on possible health disorders caused by exposure to psychosocial risk.<sup>156</sup>

In addition, some national OSH laws explicitly require employers to carry out risk assessments of psychosocial hazards (e.g. Australia, Denmark, Germany, Hungary, Italy, Lithuania, Mexico, Peru, and Slovakia). For example, in Italy the OSH Act (Decree, no.81 of 2008) requires employers to assess work-related stress as part of the risk assessment process;<sup>157</sup> while in Lithuania, employers are required to evaluate psychosocial factors causing work-related stress and protecting workers from psychosocial risks or minimising such risks as much as possible.<sup>158</sup>

Some national legislation also incorporates provisions related to coping behaviours. In some countries the prohibition of drug and alcohol consumption at work is covered by law (e.g. Angola, Benin, Bolivia, Chile, Congo, Haiti, and Niger), and most countries forbid smoking in the workplace. In a few countries OSH legislation provides for health promotion in the workplace. For example, in Oman, OSH regulations state that the workplace must be supportive of general health to minimize unhealthy habits by promoting healthy food and physical activity; it includes prohibition of smoking and programmes that help workers to quit smoking; and enhancement of psychological health and social integration of psychologically unstable workers.<sup>159</sup> In Venezuela, the Labour Law includes in the functions of trade unions and employers' organizations the implementation of awareness-raising campaigns against corruption, abuse of drugs and psychotropic substances, and other habits harmful to the physical and mental health of workers.<sup>160</sup> It has to be mentioned that legislation and collective agreements concerning substance abuse in the workplace (alcohol & drugs) do not always relate to the ultimate causes of such behaviours or to their prevention or the role that work organization can play.

Workers' rights to information and training are recognized in most countries; however, only a few specifically refer to psychosocial risks, work-related stress or mental health as issues to be covered (e.g. El Salvador, Niger, Rwanda and Venezuela). For example, in Niger the Labour Code requests employers to raise awareness of emerging health risks (such as work-related stress, alcohol and drug consumption, and smoking), and to inform workers and provide them with psychological assistance.<sup>161</sup> In El Salvador, the employer must take the necessary measures to prevent, identify, eliminate or reduce psychosocial risks, such as (a) minimizing the negative effects of monotonous, repetitive work; (b) establishing means of fostering beneficial and respectful labour relations and effective communication; (c) involving workers in the implementation of changes in work organization; (d) raising awareness of the causes and effects of violence and sexual harassment; and (e) collecting proposals at all levels and in all areas for controlling psychosocial risks. The employer has the responsibility for providing training and designing awareness-raising programmes on violence and psychosocial risks, to contribute to the establishment of mechanisms for investigation and early detection of this type of risks, as well as to the development of an organizational culture based on the human being, so as to create a healthy working environment.<sup>162</sup>

## WORKPLACE VIOLENCE

The prevention and management of psychological harassment and violence at work were the first areas in this context in which public awareness of the impact on workers' wellbeing stimulated development of legislation on corrective measures and penalties.<sup>xix</sup> Most of such legislation was developed in the 1990s. A considerable number of countries addressed workplace violence in Labour Codes, OSH Laws, specific regulations, codes of practice and guidelines, as well as in criminal law, in particular concerning reactive or protective actions and penalties. Bolivia represents a rare case in which the prohibition of any form of work-related harassment is covered by the Constitution.<sup>163</sup>

All the Nordic countries have both legislation and guidance for managing workplace bullying. They also have legislation ensuring the individual's right to a safe working environment, requiring the employer to prevent bullying from occurring and ensuring firm handling of bullying when a complaint is made.<sup>164</sup> Sweden was the first country to introduce anti-bullying and anti-mobbing legislation in 1993, affording protection of workers from physical and psychological harm.<sup>165</sup>

In most countries with legislation on workplace violence, workers are protected from psychological or moral harassment and employers are restrained, directly or through their representatives, from any offensive act that harms workers psychologically or morally (e.g. Bosnia and Herzegovina, Canada, Colombia, Comoros, Denmark, Ecuador, Finland, Germany, Italy, Latvia, the Netherlands, Niger, Norway, Paraguay, Portugal, Rwanda, Seychelles, Slovenia, Sudan, Sweden, and United Kingdom). Many countries include protection from harassment on the grounds of gender (e.g. Argentina, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, El Salvador, Greece, Hungary, Mexico, Norway, Pakistan, Romania, and Ukraine). In many cases, the Labour Code provides also for disciplinary measures, including employment termination (e.g. Colombia, Dominican Republic, Guatemala, Honduras, Jordan, Morocco, Paraguay, South Africa, and Tunisia).

The EU Framework Agreement on Harassment and Violence at Work (2007) aims at increasing the levels of awareness and understanding of employers, workers and their representatives on these issues, and to provide them with an action-oriented framework for identification, management and prevention of these

<sup>xix</sup> The first regulations on the matter often refer to psychological harassment as "moral" owing to the ethical perspective and legal terminology. Psychological harassment and moral harassment are used synonymously by some scholars.

problems. In 2010, the European Social partners also adopted *Multi-Sectoral Guidelines to tackle third-party violence and harassment related to work*.<sup>166</sup>

## INCLUSION OF WORK-RELATED STRESS AND MENTAL DISORDERS IN NATIONAL LISTS OF OCCUPATIONAL DISEASES

A national list of occupational diseases (together with a set of well-established diagnostic criteria) can facilitate their recognition and compensation. In the majority of countries the notification of occupational diseases is regulated, often using international or regional standards as a reference.

ILO Convention No. 155 is complemented by the Recommendation on the List of Occupational Diseases, 2002 (No.194), which provides for regular review and updating of the ILO list of occupational diseases contained in the Annex of the Recommendation through tripartite meetings of experts. The ILO list, updated in 2010, covers mental and behavioural disorders, including post-traumatic stress disorders (PTSD), thereby creating for the first time the possibility of other such diseases being recognized as having an occupational origin if a direct link is established scientifically (or determined by methods appropriate to national conditions and practice) between the exposure to risk factors at the workplace and the mental disorder.

The ILO periodically revises its list of occupational diseases in order to keep abreast with international development and meet the increased demand for an international reference reflecting today's world of work. This list facilitates identification of suspected occupational diseases and helps countries in prevention, reporting, recording and compensation of affected workers. A regular review and updating process is of particular value. The "open items" in the list, which allow for recognition of new diseases, rely on active contributions by hygienists and physicians, as well as employers, workers and national authorities. The ILO has provided assistance on shaping and updating national lists of occupational diseases to several countries through technical advisory and consultation services (e.g. Belgium, Canada, China, Egypt, Germany, Grenada, India, Italy, Mexico, and United Kingdom), and at regional level to the EU and the Caribbean Community (CARICOM).

EU countries tend to follow the European schedule of occupational diseases provided for under the European Commission Recommendation No. 2003/670/EC. A report published by the European Commission in 2013 reviews the situation concerning occupational diseases in EU member States and EEA/EFTA States.<sup>167</sup> Mental and stress-related disorders are included in national lists of occupational diseases from the following EU countries: Denmark (PTSD); Hungary (diseases due to psychosocial factors); Italy (PTSD, and chronic adjustment disorders such as anxiety, depression, behaviour or affective disorders); Latvia (diseases caused by overload, and psychoneurosis); Lithuania (occupational diseases due to stress); the Netherlands (occupational stress related disorder and burnout, job related depression, PTSD, alcohol addiction); Romania (psychoneurosis caused by long-term care of psychopathic people in psychiatric units); while in Finland mental and behavioural disorders are covered in the national disability registers (F:ICD-10) and its open system. Work-related mental disorders are also compensated in the Swedish open system and through the complementary system in some other EU member States, such as Belgium, Denmark (for stress-related disorders other than PTSD), and France.<sup>168</sup>

In the Americas, a number of countries include in their lists of occupational diseases mental health diseases or some specific related disorders; for example, Argentina (PTSD, neurosis, paranoia, and psychotic depression); Brazil (stress, PTSD, sleep disorders and burnout); Chile (professional disabling neurosis with different clinical manifestations, such as adjustment disorder, anxiety disorder, reactive depression, somatization disorder and chronic pain, and work-related neurosis involving the risk of mental strain); Colombia (pathologies caused by work-related stress, such as states of anxiety and depression, non-organic sleep disorders, burnout, PTSD, as well as myocardial infarction, arterial hypertension, ischemia, peptic ulcer, gastric ulcer, irritable bowel syndrome, etc.); Mexico (neurosis); Nicaragua (neurosis, insomnia and fatigue); and Venezuela (work-related stress, work-related fatigue, burnout, mobbing syndrome and non-organic sleep disorders). Ecuador and Paraguay adopted the ILO semi-open list of occupational diseases, recognizing mental and behavioural disorders, PTSD, and other mental or behavioural disorders where a direct link is established between exposure to the risk factors arising from work activities and the mental and behavioural disorder contracted by the worker.

In the Asia-Pacific region, the Republic of Korea and Malaysia include mental disorders in their national lists of occupational diseases; while the Workers' Compensation Law in New Zealand covers mental injury caused by sexual violation. In Singapore, compensation has been claimed for PTSD, as well as certain cases of heart attack associated with long working hours or work-related stress. In Japan, workers compensation for work-related mental health disorders has been provided since 1999, and the Labour Law has incorporated criteria for the recognition of death from overwork (*karoshi*) and work-related suicide (*karojisatsu*) for compensation to the family of a worker who dies in this way.<sup>169</sup>

Most countries in Africa and the Arab States do not include stress or associated mental disorders in their national lists of occupational diseases. However, workers' compensation laws sometimes cover some mental disorders, as in Nigeria where mental stress not resulting from an injury (but defined with specific criteria) is compensated for; and in the Syrian Arab Republic, where the Decision on stress as a cause for work injury allows social security benefit entitlement for occupational injuries caused by stress, both mental and physical.<sup>170</sup>

## NON-BINDING TECHNICAL STANDARDS ON PSYCHOSOCIAL RISKS PREVENTION AND MANAGEMENT

Non-binding technical standards, codes of conduct and protocols recognized by governments can also play an important role in promoting harmonised action in this field. In many countries authorities have implemented non-binding solutions to address psychosocial risks, including technical standards, voluntary guidelines, codes of practice and other guidance on how to apply general OSH principles in this area.<sup>xx</sup> Some authorities have opted to describe methods of carrying out assessment and corrective measures rather than to impose them. Although non-binding national standards on psychosocial risks and work-related stress are not so frequent, globally the following merit reference.

<sup>xx</sup> Section 4 of this report includes an overview of assessment and management tools developed both by national authorities and the Academia.

The British Publicly Available Specification (PAS) for psychosocial risk management: *PAS 1010: 2011. Guidance on the management of psychosocial risks in the workplace* was developed by the British Standards Institution (BSI). This PAS aims at helping organizations and enterprises: (i) to establish a strategy on and process for psychosocial risk management in order to eliminate or minimize risks to personnel and other interested parties who could be exposed to psychosocial hazards associated with its activities; (ii) to implement, maintain and continually improve the psychosocial risk management process and related practices; (iii) to assure its conformity with its stated OSH and psychosocial risk policy.<sup>171</sup>

The Canadian *National Standard on Psychological Health & Safety in the Workplace Prevention, Promotion, and Guidance to Staged Implementation* (CAN/CSA-Z1003-13/BNQ 9700-803/2013) was published in 2013 by the CSA Group and the Bureau de Normalisation du Québec in collaboration with the Mental Health Commission of Canada. This is the first national standard that targets psychological health and safety in the workplace and is auditable, as compared to the PAS1010 which is only a guidance standard. The Canadian Standard aligns with other existing standards.<sup>xxi</sup> A unique aspect of this Standard is the inclusion of several annexes designed to assist with developing and implementing its key components. Implementation models, scenarios for small and large enterprises, an audit tool, and several other resources and references are provided.<sup>172</sup>

## SOCIAL PARTNERS' AGREEMENTS

According to the ILO, legal provisions include, in addition to laws and regulations, arbitration awards and collective agreements on which the force of law is conferred (Labour Inspection Convention, 1947, No. 81; Art. 27). The ILO Collective Agreements Recommendation, 1951 (No. 91) defines collective agreements as all agreements in writing on working conditions and terms of employment concluded between, on the one hand, an employer, a group of employers or one or more employers' organizations, and, on the other hand, one or more representative workers' organizations or, in the absence of such organizations, the representatives of the workers duly elected and authorized by them in accordance with national laws and regulations. Collective agreements respect minimum standards set out in national legislation and complement them or go beyond for the benefit of workers represented in the negotiations. Therefore, collective agreements can only improve on the requirements established in the law of the country; never can they diminish the binding obligations of employers and workers under those collective agreements.

At EU level, actions taken by social partners within the European Social Dialogue Framework have played a significant role in recognizing the relevance of psychosocial issues and work-related stress over the past years, concluding a number of agreements (ratified by the Council of Ministers and now part of European legislation) covering such aspects as parental leave (1996), part-time work (1997) and fixed-term contracts (1999). The social partners have also concluded framework agreements on telework (2002), work-related stress (2004), harassment and violence at work (2007), and third-party violence and harassment related to work (2010).

According to the EU Framework Agreement on Work-related Stress, factors causing work-related stress may be addressed within an overall process of risk assessment. Measures can be collective, individual or both. They can be introduced in the form of specific measures targeted at identifying stress factors or as

part of an integrated stress policy encompassing both preventive and responsive measures. The responsibility for determining the appropriate measures rests with the employer, but these measures should be carried out with the participation and collaboration of workers or their representatives. The Agreement represented a starting point for a related social dialogue at EU level in five sectors: education, central government administration, private security, construction and electricity.

In line with the framework agreement, national level agreements setting a framework for negotiations on work-related stress and psychosocial risks can be found in several EU countries. For example, in Luxembourg and the Netherlands a tripartite comprehensive action-oriented framework based on the Agreement on Work-related Stress was adopted as a recommendation for negotiations at enterprise level. Finnish and Swedish social partners agreed on joint guidelines for bargaining or other joint activities on these issues at sectoral and enterprise levels. In Spain, the most representative trade unions and employers' organizations included work-related stress in the Inter-confederation Agreements on Collective Bargaining, (AINC, 2005 and 2007), providing recommendations and priorities to the signatory member organizations for use during collective bargaining.<sup>173</sup>

Collective agreements at national level, establishing rights and obligations for the signatory parties and their members, have also been concluded in Denmark (public sector); France (banking sector, electricity and gas, telecommunications, social economy, oil industry, pharmaceutical industry and agricultural cooperatives); Greece (cross-industry); Italy (inter-confederation); Sweden (municipal sector) and Romania (cross-industry). Belgian social partners adopted a cross-industry collective labour agreement within the National Labour Council on Managing Prevention of Stress caused by Work (CCT/CAO no.72, 1999) before the EU Agreement on Work-related Stress entered into force.<sup>174</sup> In Germany, a sectoral collective agreement for private and public banks included a joint declaration calling on enterprises to introduce measures to reduce mental strain, including realistic objectives, autonomy and a comprehensive risk analysis (2010).<sup>175</sup>

France provides a good example of implementation of a work-related stress framework through social dialogue. In July 2008 all French social partners signed the national inter-professional agreement on work-related stress, which was extended in 2009. This agreement, which followed heightened attention to several worker suicides in the car industry in 2007, contributed to increasing collective bargaining in the country. The agreement defined the concept of stress and required employers to decide on appropriate measures to prevent it. In 2013 the social partners signed an Agreement on the Quality of Working Life.<sup>176</sup>

## LABOUR INSPECTION

According to ILO Labour Inspection Convention, 1947 (No. 81), the main functions of the system of labour inspection should be: (i) to secure the enforcement of the legal provisions relating to conditions of work and the protection of workers while engaged in their work; and (ii) to supply technical information and advice to employers and workers concerning the most effective means of complying with the legal provisions. These activities can be either proactive or reactive. The first are initiated by the inspectorates with preventive objectives and are mainly informational, educational and related to monitoring inputs regarding protective and preventive measures that should be carried out by the employer. Reactive activities focus on specific claims, alerts or problems that should be addressed by the inspectors as early as possible, including investigations of complaints, work-related injuries and other events. Labour inspectorates can receive explicit complaints about psychosocial risks, particularly with regard to lack of assessment or the measures to prevent or reduce them,

<sup>xxi</sup> I.e. BNQ 9700-800/3008 *Prevention, Promotion and Organizational Practices Contributing to Health in the Workplace*, CAN/CSA-Z1000-06 (R2011) *Occupational health and safety management*.

where relevant provisions are reflected in national law. However it is also not unusual to receive complaints which implicitly involve these risks, such as those relating to violence, fatigue, working time, work overload, frequent changes, bad atmosphere or an offensive environment. Reactive inspection can be initiated by other exceptional events such as worker suicides, a high level of absenteeism or disputes, or other alerts or notices addressed to the labour inspectorate. In all these cases it is also appropriate a preventive approach to psychosocial risks. Inspectors should check the risk assessment and management measures adopted by the employer in order to eliminate or mitigate the risks identified and avoid future occurrences.<sup>177</sup>

Labour inspectorates and OSH Authorities have increasingly developed guidelines, tools and campaigns on psychosocial risk assessment for labour inspectors. At EU level, the Senior Labour Inspectors' Committee (SLIC) promoted a campaign on psychosocial risks in 2012, developing a toolkit for psychosocial risk assessment that was used during inspections in 26 EU member States and Iceland.<sup>xxii</sup> During the campaign a total of 13,508 inspections were made, particularly in the health sector including social care (private and public), in the service sector (e.g. hotels and restaurants), and in the transport sector.

At national level, the Nordic countries were among the first to include psychosocial factors in risk assessments of working conditions conducted by the labour inspectorates. In Denmark, the Danish Working Environment Authority (DWEA) in charge of ensuring compliance with OSH legislation has been carrying out inspections focusing on the psychosocial working environment since the early 1990s. Within a broad inspection campaign, the DWEA carried out a programme of special intensified inspections, targeting enterprises in sectors exposed to potentially significant health and safety challenges, focusing on ergonomic and psychosocial risks. The DWEA also developed 24 sectoral guidance tools to support inspectors in risk assessments of psychosocial hazards, in order to standardise their approach.<sup>178</sup> In Finland, qualified inspectors perform workplace inspections following the *Valmeri questionnaire*, which covers psychosocial risks such as the pace of work or workload that exceeds a worker's ability, training and information on the tasks performed, assistance and support, aspects such as violence and harassment, whether worker's opinion is taken into account, and so forth.<sup>179</sup> In Norway, the labour inspectorate has published a brochure on work-related stress in cooperation with social partners, as well as guidelines on *Organizing and arranging work and the workplace* which also address work-related stress. Furthermore, in Denmark, Finland, Norway and Sweden all newly-employed inspectors must complete basic introductory training (including theory and practice) on the psychosocial working environment.<sup>180</sup>

In recent years several labour inspectorates from other countries have developed guidance and models to help inspectors handle psychosocial risks. For example, in Australia the jurisdiction of Queensland has since 2004 included psychosocial risks in the labour inspection strategy. The initial focus was primarily reactive, developing procedures in response to harassment complaints. In 2006 psychosocial inspectors sought to combat the perception that psychosocial issues concerned mainly harassment, by developing a programme to address workplace stress. Psychosocial inspectors developed four information sheets on occupational stress as a tool for inspectors in the field. They also developed a model covering eight risk factors to screen reported stress incidents, along with a campaign to raise awareness on stress in the public sector; the purpose was to educate organizations on notification of stress incidents, and to develop their capacity to address stress in the workplace.<sup>xxiii</sup> More recently, the focus of inspectorate activity related to psychosocial risks was broadened to six general areas: workplace harassment,

occupational stress, fatigue, cognitive issues in design, safety culture, and safety behaviour.<sup>181</sup>

In Austria the changes in legislation on psychosocial risks were accompanied by a guide to help labour inspectors evaluate whether risk assessments and preventive actions have been carried out correctly, describing what labour inspectors are expected to monitor and what support they are expected to supply, as well as providing overview tables and a catalogue of criteria for assessing such risks.<sup>182</sup> In France, the labour inspectorate has designed several checklists to help inspectors in the identification of psychosocial risks in the workplace, collecting potential indicators of stress such as the number of accidents, the amount of sick leave, training, overtime, shifts and working day changes, the frequency of disciplinary measures, complaints or requests, etc.<sup>183</sup> In Germany, the Federal States Committee for Occupational Safety and Health (LASI), which coordinates the labour inspection policies of the federal states (*Länder*), has adopted general guidelines on psychosocial risks. These include a model for testing the suitability of risk assessments carried out by enterprises through a checklist under three main headings: (i) the content of the work and tasks; (ii) the organization of work; (iii) social relations. In addition, the inspector is also required to analyse the indicators of potential causes of stress, such as the rate of absenteeism, the evidence from working processes (errors and complaints), the health and wellbeing of workers (alcohol problems, irritability, layoffs, etc.) and the social climate (conflict, harassment, violence).<sup>184</sup> In the Netherlands, labour inspection on psychosocial risks is based on direct verification of psychosocial risks in the workplace by a specialized inspector. This verification is done using a basic questionnaire of 12 questions concerning symptoms of work-related stress, or another more advanced method which includes 24 questions on stress symptoms, 14 on psychosocial risks, 21 on health problems and 2 on absenteeism.<sup>185</sup> In Spain, a Code of Practice for the Labour Inspectors on Bullying and Violence at Work (69/2009) provides for specific action for addressing harassment and violence in workplaces.<sup>186</sup> In the UK, the inspection of psychosocial risks is carried out in a preventive and proactive way, focusing on those sectors considered to involve high level of work-related stress (e.g. healthcare, public administration, education and the financial sector). To help inspectors perform their evaluation of psychosocial risks, the Health and Safety Executive (HSE) has developed the *Inspection Pack on Work-related Stress* and other materials describing the needs of the inspectors in every phase of the stress risk management process, along with a final indicator of the situation of the enterprise in relation to stress management.<sup>187</sup>

<sup>xxii</sup> The report and the webpage of the 2012 campaign are available at <https://circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp>

<sup>xxiii</sup> The model was based on work done by the UK Health and Safety Executive.

# 4. STRATEGIES FOR THE PREVENTION AND MANAGEMENT OF PSYCHOSOCIAL HAZARDS AND RISKS

This section summarises most relevant initiatives, strategies and actions on the prevention of work-related stress and the promotion of workers' mental health. These have been developed by different social actors including international organizations, regional institutions, national authorities, social partners, and OSH professionals' networks and associations. Several international organizations and regional institutions have included protection of mental health in their agenda.

A number of measuring tools (mainly questionnaire-based) have been developed, aiming at the evaluation of psychosocial risks and the levels of stress, both individual and collective (a list is available in Annex 1, Table 1.1). A broad range of management tools (including guidelines, on-line platforms, information sheets and other resources) have been developed to help both employers and workers in the prevention and management of work-related stress (a list of such tools is provided in Annex 1, Table 1.2).

## INTERNATIONAL ORGANIZATIONS

The prevention of psychosocial risks and work-related stress is an important aspect of the ILO's primary goal of workplace health promotion. ILO action in this field is carried out at national and enterprise levels, developing essential tools which can be used by governments, employers, and workers to establish sound OSH practices in order to maximize the impact of supporting ILO's member States. The ILO developed two complementary tools for addressing mental health concerns in the workplace. The *Stress prevention at work checkpoints* is an ergonomic tool based on good practice, with which to audit and intervene by means of a checklist and a set of guidelines focusing on workplace improvements for the prevention of psychosocial risks and work-related stress.<sup>188</sup> The training package *SOLVE: Integrating health promotion into workplace policies* focuses on promoting health and wellbeing at work through OSH policy design and action to offer an integrated response addressing the following areas and their interactions: (i) psychosocial health (stress, psychological and physical violence, economic stress); (ii) potential addictions and their effects on the workplace (tobacco consumption and exposure to second-hand smoke, alcohol and drug consumption); and (iii) lifestyle habits (adequate nutrition, exercise or physical activity, healthy sleep, prevention of HIV and AIDS).<sup>189</sup> This training tool is part of a programme implemented in different regions of the world in collaboration with ILO constituents, NGOs and Universities. The programme has provided an important stimulus for action at workplace and national levels, particularly through the close involvement of national governments and employers' and workers' representative organizations. In the context of this

report reference should also be made to the code of practice on *Management of alcohol and drug related issues in the workplace* and the adaptation and implementation of model programmes for the prevention of drug and alcohol abuse at national and enterprise levels through technical cooperation activities, as part of a broader health promotion strategy that supports the management of psychosocial hazards and risks and the prevention of work-related stress as an integral part of the OSH strategy.<sup>190</sup>

In addition to the ILO a number of international organizations such as the World Health Organization (WHO), the International Social Security Association (ISSA), the Organization for Economic Co-operation and Development (OECD), the World Bank and the World Economic Forum (WEF) have been active in the prevention and management of psychosocial hazards and the promotion of mental health at work through research and advocacy, including the development and implementation of specific initiatives.

The WHO has contributed to the prevention of psychosocial risks through the publication of research, guidelines, tools and other resources. The work of the WHO on occupational health is governed by the *Global Plan of Action on Workers' Health 2008-2017*. The plan specifies actions "to protect and promote health at the workplace", and states that "the assessment and management of health risks at the workplace should be improved by defining essential interventions for prevention and control of mechanical, physical, chemical, biological and psychosocial risks in the working environment".<sup>191</sup> In April 2010, the WHO launched the *Global Framework for Healthy Workplaces*, aimed at providing guidance on protection and promotion of the health, safety and wellbeing of all workers and the sustainability of the workplace.<sup>192</sup> According to the framework, the psychosocial work environment includes the organizational culture as well as attitudes, values, beliefs and daily practices in the workplace that affect the mental and physical wellbeing of workers.<sup>193</sup> The WHO has also developed relevant guidance on how to address psychosocial risks and work-related stress through a number of publications, such as *Work organization and stress* (2003), *Raising awareness to psychological harassment at work* (2003), and *Raising Awareness of Stress at Work in Developing Countries: A modern hazard in a traditional working environment* (2007); and it supported the development of *PRIMA-EF: Guidance on the European Framework for Psychosocial Risk Management – A Resource for Employers and Worker Representatives* (2008). In 2008 WHO launched the *Mental Health Gap Action Programme* (mhGAP) to address the lack of care for people suffering from mental, neurological, and substance use disorders, especially in low and middle income countries. In 2013 the 66<sup>th</sup> World Health Assembly adopted the *Comprehensive Mental Health Action Plan 2013-2020*, with the aims of: (i) strengthening effective leadership and governance in relation to mental health; (ii) providing comprehensive, integrated and responsive mental health and social care services in community-based settings; (iii) implementing strategies for promotion and prevention in mental health; and (iv) strengthening information systems, evidence and research on mental health.<sup>194</sup>

Proactive and preventive social security is one of the pillars of the vision of ISSA. It recognizes that while prevention efforts over recent decades have resulted in many positive outcomes, numerous challenges to workers' health remain, such as the growing prevalence of psychosocial factors which are increasing the complexity of prevention, calling for a more holistic approach by social security institutions in promoting health and safety.<sup>195</sup>

The OECD recognizes that tackling mental ill-health in the working population is a key issue for successful labour market and social policies in OECD countries. The *OECD Mental Health and Work Project* examined how broader challenges concerning mental health at work have been tackled in the areas of education, health, social and labour market policies in a number of OECD countries. The report *Sick on the Job: Myths and Realities about Mental Health and Work* (2012) estimated the total cost of mental illness to be around three point five per cent of GDP in OECD countries and highlighted the need to keep people with mental

ill-health in employment or bringing those outside the labour market back into it. According to the report, people with mild to moderate disorders, such as anxiety or depression, are twice as likely to be unemployed, and also run a much higher risk of living in poverty and social marginalisation. OECD governments increasingly recognise that tackling the mental ill-health of the working population is becoming a key issue in labour market and social policies.<sup>196</sup> The report (part of the OECD *Mental Health at Work series*) is complemented by *Mental Health at work country reports* (Austria, Belgium, Denmark, the Netherlands, Norway, Sweden, Switzerland, and United Kingdom) and the interregional report *Fit Mind, Fit Job: From Evidence to Practice in Mental Health and Work* (2015). Other relevant OECD documents on this topic include the working paper on *Mental Health and Work: Achieving well-integrated policies and service delivery* (2014) and the report on *Mental Health Policy Framework* (2015) adopted by the OECD High-Level Policy Forum on Mental Health and Work.

The World Bank includes among its areas of work the enhancement, awareness and understanding of mental and psychosocial health as development concerns. Its efforts are focused on ensuring that mental and psychosocial health are incorporated into operations within the development of more long-term policies, strategies, plans and resources to ensure sustainability. The World Development Report 2015 *Mind, Society and Behaviour* aims at guiding researchers and practitioners who can support the advancement of a new set of development approaches based on broader consideration of psychological and social influences.<sup>197</sup>

The WEF is an independent international organization promoting public-private cooperation and a platform for dialogue between business, governments and civil society leaders. The WEF's Global Agenda Council on Wellbeing and Mental Health plans to include mental illness in health and development agendas at global level by raising awareness on the importance, prevalence and burden of mental disorders; making the business case for positive mental health and wellbeing for business and society; and reporting on progress in the annual reports. In addition, the WEF produces a series of research reports on several topics, including mental health, working conditions, gender equality, and others.<sup>198</sup>

## REGIONAL ORGANIZATIONS AND INSTITUTIONS

A number of regional organizations have been established to foster cooperation and political and economic integration or dialogue between governments in a particular geographical area. Some have adopted policies related to promotion of mental health and wellbeing and prevention of stress and related disorders, with the aim of integrating or coordinating national activities at regional level.

On the African continent, the Southern African Development Community (SADC) adopted the *Protocol on Health* (2004), according to which member States should coordinate efforts to prevent diseases and promote wellbeing, implementing policies and providing guidelines on health promotion and education, healthy lifestyle and reduction of substance abuse. It also calls for the development of legislation on mental health, regional training guidelines and the integration of mental health services into primary healthcare, along with provision of proper treatment and care that respects the dignity and human rights of mentally ill persons, development of supportive community care services and facilities, and cost-effective and culture-specific mental health research.<sup>199</sup>

The Executive Board of Health Ministers of the Cooperation Council for the Arab States of the Gulf (GCC) developed a number of technical programmes, covering mental health, occupational health, tobacco control and prevention of non-communicable diseases. In addition, the League of Arab States adopted in 2004 the *Arab Charter on Human Rights* which recognizes the right of

everyone to enjoy the highest attainable standard of physical and mental health.<sup>xxiv</sup> It also states that every worker has the right to enjoy just and favourable conditions of work (including appropriate remuneration, working hours, rest and holidays, preservation of occupational health and safety, non-discrimination between men and women, and the protection of women, young workers and disabled persons in the workplace).<sup>200</sup>

In the Asia-Pacific region, the Association of Southeast Asian Nations (ASEAN) adopted the *Regional Action Plan on Healthy ASEAN Lifestyles (2002-2020)* with the objective that ASEAN citizens lead healthy lifestyles consistent with their values, beliefs and culture in supportive environments. The strategies provided in the Action Plan include strengthening the contribution of health services, schools and workplaces in educating on healthy behaviour linking various activities of everyday living such as eating and drinking, physical activity, use of tobacco, alcohol and substance abuse, sexual behaviour, coping with stress, self-care, working, caring for others, and the quality and safety of the home, workplace and other environments. The *Programme of Work on Promoting Healthy ASEAN Lifestyles* calls member countries, in conjunction with appropriate partners, to take immediate action on priority policy areas including mental health and lifestyles, collaborating in such a way as to providing environments that promote social participation, minimize discrimination, and enhance economic opportunities, work settings and lifestyles, as well as promoting the adoption of healthy workplace initiatives.<sup>201</sup> The South Asian Association for Regional Cooperation (SAARC) adopted the *Delhi Declaration on Public Health Challenges* (2015). Signing the Declaration, Health Ministers of the member States agreed to cooperate in combating mental disorders through a multi-faceted approach.<sup>202</sup>

In the Americas, the Organization of American States (OAS) adopted the *Declaration of Commitment of Port of Spain Securing Our Citizens' Future by Promoting Human Prosperity, Energy Security and Environmental Sustainability* (2009).<sup>203</sup> This Declaration reaffirmed OAS countries' commitment to the ILO *Declaration on Fundamental Principles and Rights at Work* to promote decent work and to enforce national labour laws with a view to providing adequate working conditions and safe and healthy workplaces, free from violence, harassment and discrimination.<sup>204</sup> OAS Ministers of Labour adopted the *Declaration of Medellin* (2013) in which they committed to strengthening tripartite national strategies on occupational health so as to foster a culture of prevention and develop workers' health programmes in the region. These programmes are aimed at helping countries respond better to relevant challenges in the workplace, including the impact of substance addiction and non-communicable diseases such as cancer, diabetes, hypertension and mental health disorders in workers.<sup>205</sup> The Caribbean Community (CARICOM) established the *Caribbean Cooperation in Health Initiative* (1984) to optimize utilization of resources, promote technical cooperation among member countries, and develop and secure funding for the implementation of projects in priority health areas. The *Caribbean Cooperation in Health Phase III (2009-2015)* sets the direction and goals for public health for that period and includes mental health as a priority area.<sup>206</sup> The strategy for improving and maintaining the mental health of the Caribbean population focuses on the development of legislation, a regional mental health policy and action plan, the reform of mental health services, the management and care of mentally ill people including substance abusers, public information, education and communication. The Pan American Health Organization (PAHO) *Plan of Action on Mental Health (2015 to 2020)* is guiding mental health interventions in the Americas.<sup>xxv</sup> The objectives are promotion of mental wellbeing, prevention of mental and substance-related disorders, provision of care,

<sup>xxiv</sup> A first version of the Charter was created in 1994, but no State ratified it; it was then updated in 2004 and came into force in 2008 when seven of the member countries of the League of Arab States ratified it.

<sup>xxv</sup> PAHO is the specialized health agency of the Inter-American System and serves as the Regional Office of the WHO for the Americas.

enhancement of rehabilitation, and an emphasis on recovery, along with promotion of the human rights of persons with mental and substance use disorders with the aim of reducing morbidity, disability and mortality. Although the Plan is focused on the health systems, it recognises the role of other sectors as crucial to promoting and protecting mental health.<sup>207</sup>

The EU has also developed a number of relevant initiatives such as the *European Pact for Mental Health and Wellbeing* (2008) and the related *European Parliament Resolution on Mental Health* (2009). The first of these recognized that mental health and wellbeing are key resources for achieving the objectives of the Lisbon strategy in terms of growth and jobs, social cohesion and sustainable development. One of the five priorities of the Pact is *Mental Health in Workplace Settings*.<sup>208</sup> The Resolution called on member States to encourage research on working conditions which may increase the incidence of mental illness, particularly among women; it also calls on employers to promote a healthy working climate, paying attention to work-related stress, the underlying causes of mental disorders in the workplace, and to tackle those causes. Finally it calls for the Commission to require businesses and public bodies to publish an annual report on their policy and activities carried out for the mental health of their workers, on the same basis as they report on physical health and safety at work.<sup>209</sup>

The EC 6<sup>th</sup> Framework Programme of the EU Commission funded a collaborative project, for the development of a European framework for psychosocial risk management with a special focus on work-related stress and workplace violence (including harassment, bullying and mobbing). The *Psychosocial Risk Management – European Excellence Framework* (PRIMA-EF) was designed by a Consortium of partner institutions in 2011.<sup>210</sup> It was the first project in this area to be introduced regionally. It includes a virtual learning training programme intended to offer guidance on good practice in assessing and managing psychosocial risks at work for human resource managers and specialists, occupational health and safety specialists, managers and owners of small and medium-sized enterprises (SMEs), and workers' representatives.

The EU has several agencies, institutes and committees working on OSH. The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is a tripartite EU Agency, the role of which is to provide knowledge in the area of social and work-related policies. Eurofound runs two regular surveys on working life issues: the *European Working Conditions Survey* (EWCS) and the *European Company Survey* (ECS). The topics covered include employment status, working time duration and organization, work organization, learning and training, physical and psychosocial risk factors, health and safety, work-life balance, workers' participation, earnings and financial security. The European Agency for Safety and Health at Work (EU-OSHA) is the EU information agency for OSH. In 2009, EU-OSHA launched the *European Survey of Enterprises on New and Emerging Risks* (ESENER), which is the first Europe-wide survey on health and safety at the workplace. ESENER paid particular attention to the area of psychosocial risks, including stress. In this context two reports were published: *Drivers and barriers for psychosocial risk management: an analysis of the findings of the European Survey of Enterprises on New and Emerging Risks (ESENER)* (2012); and *Management of psychosocial risks at work: an analysis of the findings of the European Survey of Enterprises on New and Emerging Risks (ESENER)* (2012).

EU-OSHA also produced several reports on psychosocial risks and work-related stress, such as *Calculating the cost of work-related stress and psychosocial risks* (2014); *New risks and trends in the safety and health of women at work* (2013); *Wellbeing at work: creating a positive work environment* (2013); *Mental health promotion in the workplace – A good practice report* (2011); *Workplace Violence and Harassment: a European Picture* (2011); *Expert forecast on emerging psychosocial risks related to occupational safety and health (OSH)* (2007); *How to tackle psychosocial issues and reduce work-related stress* (2002); and *Prevention of psychosocial risks and stress at work in practice*

(2002). EU-OSHA in collaboration with Eurofound also published the report *Psychosocial risks in Europe: Prevalence and strategies for prevention* (2014). Finally, the 2014-15 *Healthy Workplaces* campaign organized by EU-OSHA was on the management of stress, providing support and guidance for workers and employers in managing psychosocial risks.

Within Europe, other regional organizations have developed relevant initiatives on psychosocial risks. For example, the Nordic Council, through the Nordic Council of Ministers, launched a project in 1994 to improve the scientific quality and comparability of data relating to the psychological, social and organizational work environment.<sup>xxvi</sup> The project team was given the task of developing and testing the General Nordic Questionnaire (QPSNordic) encompassing the most fundamental psychological and social factors at work.<sup>211</sup>

The NEW OSH ERA Consortium (an association of more than twenty funding organizations and European research institutes in the field of OSH) developed the *PSYRES (psychological health and wellbeing in restructuring: key effects and mechanisms)* project. PSYRES's outputs include national information (e.g. labour market systems, facts and figures); datasets and analyses, and a survey tool; a guidebook, *Steps towards sound change – initiatives for ensuring employee wellbeing during restructuring*; and two factsheets including key facts on restructuring, along with guidance on how to manage restructuring so as to maintain workers' wellbeing.<sup>212</sup>

## NATIONAL STRATEGIES AND INITIATIVES

Over the past decade, besides the development of legal frameworks, many countries have designed national strategies including the prevention of psychosocial risks and work-related stress. In addition, national authorities have often set up commissions or committees, or have engaged research institutes to develop a range of initiatives to address these issues, from scientific research to guidelines, tools, training and awareness-raising activities.<sup>xxvii</sup>

### STRATEGIES

In several countries, governments have explicitly included the prevention and management of psychosocial hazards and risks within their OSH national strategy. Often psychosocial risks or work-related stress are mentioned in the OSH strategy as priorities. Sometimes national strategies also provide for specific measures to address them such as the adoption or revision of legislation; design of protocols, guidelines and other tools; cooperation with social partners and other institutions.

For example, in Argentina the *II National Strategy for Health and Safety at Work 2015-2019* adopted by the Superintendence of Occupational Risks (SRT) from the Ministry of Labour includes several provisions related to psychosocial hazards and risks, such as development of protocols and guides for their assessment; design and validation of diagnostic instruments for their early detection and prevention;<sup>xxviii</sup> development of specific regulations in consultation with social partners; establishment of procedures

<sup>xxvi</sup> The Nordic Council is the official inter-parliamentary body in the Nordic Region. It was created in 1952 to promote cooperation between the parliaments and governments of Denmark, Iceland, Norway and Sweden; Finland joined in 1955. The Nordic Council established in 1971 the Nordic Council of Ministers, which is the official body for Nordic intergovernmental co-operation.

<sup>xxvii</sup> This part is intended to provide some examples of governmental initiatives and good practices to deal with work-related stress, rather than to provide an exhaustive compilation from all countries.

<sup>xxviii</sup> The study on the validation of the instrument was published in 2015.

and definition of responsibilities regarding the identification, evaluation, prevention, intervention and on-going monitoring of exposures; study and determination of the origin of diseases caused by work-related stress.<sup>213</sup>

In Australia, the *Work Health and Safety Strategy (2012–2022)* promotes a vision of healthy, safe and productive working lives, highlighting those categories of work-related disorders to be considered as a national priority (one of them being mental disorders) and sets the objectives to be achieved by 2022.<sup>214</sup>

In Denmark, psychosocial risks have been included as one of the priority areas in the national strategy for OSH for the period 2012–2020. The strategy adopted quantitative targets and aims at a twenty per cent reduction in the number of psychologically overloaded workers by 2020.<sup>215</sup>

In Finland, the *Policies for the Work Environment and Wellbeing at Work 2011–2020* adopted by the Ministry of Social Affairs and Health pay special attention to the work environment and wellbeing at work, including psychosocial risks.<sup>216</sup> Based on this framework, several initiatives have been implemented, including the *Working Life 2020* project, the *Forum for Wellbeing at Work*, the *Leadership development network*, and *Liideri – Business, Productivity and Joy at Work Programme 2012–2018*.<sup>217</sup>

In France, the government adopted the *Emergency plan for the prevention of stress at work* in October 2009, in the context of a wave of suicides.<sup>xxx</sup> The plan included four main objectives: (i) an obligation on enterprises employing more than 1,000 workers to start negotiations towards the elaboration of an Agreement or an Action Plan on stress at work; (ii) organization of regional seminars on psychosocial risks; (iii) work on integrating psychosocial risks into restructuring plans; (iv) creation of a Department on psychosocial risks in the General Labour Department of the Ministry of Labour.<sup>218</sup> In particular, this Department has developed a model for understanding and prevention of psychosocial risks, which has been used by the government to develop tools and guidance to help enterprises, in particular SMEs, to comply with their obligations and manage internal crises. Psychosocial risks have been integrated in the 2010–2014 national occupational health plan in which they have been prioritized as a top risk in the field of OSH.

In Germany, the *Joint German Occupational Safety and Health Strategy* sets out three goals to be achieved between 2013 and 2018: (i) to improve the organization of occupational health; (ii) to reduce work-related illnesses arising from musculoskeletal disorders; and (iii) to better protect workers from psychological strain at work. The Federal Ministry of Labour and Social Affairs and its social partners also issued a joint *Declaration on Mental Health in the Workplace* in 2013.<sup>219</sup> In relation to the third goal on psychological strain at work, a new programme named *Psyche* was launched in 2015.<sup>220</sup>

In Mauritius, the Ministry of Labour, Industrial Relations and Employment, in consultation with social partners, formulated in March 2015 a national OSH policy which refers to specific measures to be taken concerning physical, chemical, biological, ergonomic and psychosocial hazards in the workplace.<sup>221</sup>

In New Zealand, the *Workplace Health and Safety Strategy to 2015* envisioned a healthy workforce in safe and productive workplaces, where the term “healthy” encompasses physical, mental and social wellbeing. The strategy defined psychosocial work factors as one of the national priorities, including excessive workloads, low job control, aggression and violence at work, which can all contribute to chronic fatigue, stress-related disorders, alcohol and drug abuse, heart disease, upper limb musculoskeletal disorders, and suicide.<sup>222</sup>

Some countries shaped specific national strategies on mental health, which include promotion of mental health at work and the prevention of psychosocial risks. For example, the Mental Health Commission of Canada (MHCC) designed the first national mental health strategy, working to reduce stigma, advancing knowledge exchange on mental health, and examining how best to help people who are homeless and living with mental health problems.<sup>xxx</sup> The strategy consists of six strategic directions, including the promotion of lifelong mental health in homes, schools, and workplaces.<sup>223</sup> In Spain, the *Spanish Strategy on Mental Health of the National Health System* adopted in 2006 and updated in 2009, also includes objectives relating to occupational health, recommending in particular that regions should support the prevention of work-related stress, burn-out and mental disorders associated with work. The update of the strategy in 2009 added a recommendation that regions should tackle mental health and promote better working conditions for vulnerable groups, especially women.<sup>224</sup>

Some national institutions also conduct awareness-raising campaigns on work-related stress and mental health at work. For example, in Australia the National Mental Health Commission established the Mentally Healthy Workplace Alliance in 2013; the Alliance promotes a national approach by business, community and government to encourage Australian workplaces to become mentally healthy. In partnership with Beyond Blue (a non-profit organization working to address issues associated with depression, anxiety and mental disorders), the Alliance conducted the *Heads Up* national campaign, producing resources and interactive tools to enable large and small enterprises, managers and workers to identify psychosocial risks and take appropriate measures to create mentally healthy workplaces.<sup>225</sup> In South Africa the National Institute for Occupational Health (NIOH) has become an important resource for developing and supporting effective occupational health services in South Africa. NIOH, in collaboration with the Department of Health, conducted an awareness-raising campaign during October 2015, which has been declared *Mental Health Awareness Month* with the objective of educating the public on mental health and on reducing stigma and discrimination.<sup>226</sup>

## RESEARCH AND THE EVIDENCE-BASE

In many countries, national OSH institutes are in charge of conducting research and surveys in the field of psychosocial risks and work-related stress. For example, the Finnish Institute of Occupational Health (FIOH) has a team producing information on psychosocial factors and changes that have significant health effects, determining the mechanisms that influence health, studying the significance of social capital for wellbeing, and assessing the effectiveness of the methods used by organizations to prevent health problems and promote health.<sup>227</sup>

In France, the Directorate for Research, Studies and Statistics (DARES) conducts the national survey on *Medical Monitoring of Risks* (SUMER) which includes psychosocial exposure measurements. Based on the 2010 survey DARES designed a series of indicators on work demands, emotional demands, autonomy, social and labour relations, value conflicts, and socio-economic insecurity.<sup>228</sup> The National Institute of Research and Safety (INRS) aims at improving knowledge of psychosocial risks and their health effects, and understanding phenomena related to work activities or changes in the world of work that may lead to the degradation of physical or mental health or, conversely, its preservation. The INRS also analyses existing prevention practices with a view to developing and disseminating new approaches adapted to a range of work situations. Within this framework INRS produced a number of publications, guides and tools.<sup>xxxi</sup>

<sup>xxx</sup> Suicides in the France Télécom Orange telecommunications group during 2009 gave rise to jurisprudence once they had been recognized as having an occupational origin.

<sup>xxx</sup> The Federal Government created the Mental Health Commission of Canada (MHCC) in 2007 with a 10-year mandate (2007–2017).

<sup>xxxi</sup> The INRS resources on psychosocial risks are available in French at <http://www.inrs.fr/risques/psychosociaux/ce-qu-il-faut-retenir.html>

In Germany, the Federal Institute for Occupational Safety and Health (BauA) conducts research in the field of safety and health at work and promotes the transfer of knowledge into practice, including on work-related stress and psychosocial risks. For example, in 2012 BauA published the German report on stress (*Stressreport Deutschland 2012*) based on interviews with over 20,000 workers to estimate stress and strain exposure.<sup>229</sup>

In Japan, one of the research groups from the Japanese National Institute of Occupational Safety and Health (JNIOSH) is working in the field of health administration and psychosocial factors, investigating methods of assessment of workers' health conditions and health management. In recent years, the group developed a number of projects, such as *Health, performance, and wellbeing under flexible working time arrangements*, *Healthy work organizations for mental health in the workplace*, and *Associations between psychosocial stress and depressive symptoms among workers and preventive measures in the workplace*. A research project on *Facilitating recovery from fatigue at work* is currently on-going.<sup>xxxii</sup>

In 2000 the National Institute for Occupational Safety and Health (NIOSH) of the US started collaborating with the National Science Foundation to add to the *General Social Survey* a special module assessing the quality of work life.<sup>xxxiii</sup> Since 2002 this biannual survey includes the *Quality of Worklife* module (76 questions addressing a variety of work organization issues). In 2010 the module was modified to reflect emerging risk factors in relation to workers' safety and health.<sup>230</sup> The National Occupational Research Agenda (NORA) of NIOSH identified *organization of work* as one of the 21 priority areas for occupational health research since its conception in 1996. The organization of work team collaborated with academia, industry and other stakeholders to study how work organization is changing, the safety and health implications of these changes, and necessary prevention measures. In 2004 they published the report *The Changing Organization of Work and the Safety and Health of Working People*.

In Singapore, the Workplace Safety and Health (WSH) Institute is dedicated to providing education, knowledge, solutions and consultancy services, as well as conducting applied research. Work-related stress is one of the Institute's focus areas of research. In particular the WSH Institute is leading a two-year study in partnership with the Health Promotion Board, Changi General Hospital and the Institute of Mental Health on *Evaluating Resilience and Stress in Employment* (ERASE, 2015-2017). The study has the purpose of developing and validating a local instrument for the assessment of workers' psychosocial health, and the identification and management of psychosocial hazards and risks. The study aims at understanding how psychosocial hazards and individual resilience influences workers' stress levels and mental wellbeing. The study will result in a validated online tool for employers and workers to assess and manage psychosocial risks and stress levels. It will also provide evidence-based recommendations for industry on the management of psychosocial hazards and risks.<sup>231</sup>

The Swedish Council for Working Life and Social Research (FAS) supports the Stockholm Stress Center, which was created in 2009 as an interdisciplinary centre for research on work-related stress.<sup>232</sup>

In the UK, the Health and Safety Executive (HSE) produces statistical information on work-related stress, based on data from the annual *Labour Force Survey* and from the *Psychosocial Working Conditions* survey. HSE also has produced several papers and studies, in particular on stress management and interventions.<sup>xxxiv</sup>

<sup>xxxii</sup> A list of the studies of the Health Administration and Psychosocial Factor Research Group is available in English in the JNIOSH website ([https://www.jniosh.go.jp/en/groups/themes\\_health.html](https://www.jniosh.go.jp/en/groups/themes_health.html)).

<sup>xxxiii</sup> The General Social Survey is a biannual, national, personal interview survey of US households conducted by the National Opinion Research Center and funded by the National Science Foundation.

<sup>xxxiv</sup> A list of key research publications on work-related stress is available on HSE's website (<http://www.hse.gov.uk/stress/research.htm>).

## GUIDELINES

The first guidelines on the psychological and social aspects of the working environment (*Psykiska och sociala aspekter på arbetsmiljön*) were introduced in 1982 by the Swedish Working Environment Authority (AV). These guidelines highlighted the importance of personal and professional development, the need for social contact, the organization of work, workers' awareness of their coresponsibility for safety and health at the workplace, physical and chemical factors, and the planning of working hours.<sup>233</sup>

Since then several countries have developed guidelines on prevention of work-related stress, protection of mental health and assessment of psychosocial risks. For example, in Japan the government issued guidelines to help employers protect the mental health of workers. The guidelines were first released in 2000, then revised and in 2006 renamed the *New Mental Health Guidelines*. They require the employer to establish a system and a plan of action to protect the mental health of workers, based on discussion between the employer, workers' representatives, OSH professionals and the OSH workplace committee. These new guidelines focus on four activities which could be effective: (i) education, training and information dissemination; (ii) work environment improvement; (iii) early consultation with workers; and (iv) support for return to work of the mentally ill.<sup>234</sup>

The tripartite Economic and Social Council (CES) of Luxembourg has developed guidelines on work-related stress. The CES guidelines describe the negative individual and organizational impact of work-related stress. They provide a step-by-step approach to procedures for identification and management of psychosocial hazards and define the duties and rights of workplace actors.<sup>235</sup>

In Malaysia, the Department of Occupational Safety and Health (DOSH) published the *Guidance for the prevention of stress and violence at the workplace* (2001) to offer an integrated response to these problems which often arise together in the workplace. It introduced an innovative approach whereby workers' health, safety and wellbeing become integral parts of the economic sustainability and organizational development of enterprises. By directly linking health and safety with managerial and developmental issues the guidelines offer tools for immediate, self-sustained action at the workplace to reduce and eliminate stress and violence.<sup>236</sup>

In Mexico, the Directorate on OSH from the Ministry of Labour in consultation with the National Tripartite Committee on OSH (COCONASH) is developing technical guidelines on psychosocial risks to complement the new OSH Act.

In Singapore, following the adoption of the Protection from Harassment Act (POHA) in 2014,<sup>xxxv</sup> in order to help employers and workers adopt preventive measures and undertake proactive management and remedial actions (if harassment occurs) to ensure a safe and constructive workplace, the Ministry of Manpower (MOM), the National Trades Union Congress (NTUC), and Singapore's National Employers Federation (SNEF) jointly issued Tripartite Advisory guidelines on Managing Workplace Harassment.<sup>237</sup>

In Spain, the National Institute of Safety and Hygiene at Work (INSHT) adopted several preventive technical factsheets (NTP) on psychosocial risks and work-related stress, which help in identifying the risks and establishing preventive measures to address them.

<sup>xxxv</sup> The POHA was introduced by the Ministry of Law to provide civil and criminal recourse to better protect individuals from harassment and related anti-social behaviour. For more information see: <https://www.mlaw.gov.sg/content/minlaw/en/news/press-releases/protection-from-harassment-act-in-force.html>

## INTERVENTION TOOLS

National institutions from a number of countries have developed monitoring models, risk assessment and management tools, and other awareness-raising initiatives to help understand and prevent work-related stress.<sup>xxxvi</sup>

Among the monitoring models, the Copenhagen Psychosocial Questionnaire (COPSOQ) developed in 1997 by the National Research Centre for the Working Environment of Denmark, was the first to include population-based reference values to assess the need for action and to support the decision-making process on preventive measures at workplace level.<sup>xxxvii</sup> It included three versions of different length: a long version for research; and medium-length and short versions for workplace risk assessment, depending on workforce size. Since its initial development in Denmark, COPSOQ has been adapted and applied by researchers in several countries. It is relevant to mention its adaptation by the Trade Union Research Institute of Work, Environment and Health (ISTAS) in Spain with the name of COPSOQ/ISTAS21. This adaptation has been extensively used in Latin American countries and validated in Chile with the *Questionnaire SUSES/ISTAS 21*, complementing the *Protocol for Monitoring Psychosocial Risks at Work* adopted in 2013 by the Department of Occupational Health of the Ministry of Health.<sup>238</sup> The protocol also provides the *Tool for the Assessment of Preventive Measures for Psychosocial Risks at Work*. The COPSOQ/ISTAS21 was also validated in Argentina in 2015.<sup>239</sup> The Spanish National Institute of Occupational Safety and Hygiene (INSHT) developed its own method for evaluation of psychosocial risks in the workplace (F-Psico) to facilitate identification and evaluation of psychosocial risks.<sup>xxxviii</sup>

Examples of risk assessment and management tools developed by national institutions in collaboration with universities include the *Australian People at Work Project* launched in 2007 to help enterprises identify and manage psychosocial risks.<sup>xxxix</sup> The enterprises that participated in the project have access to an online risk assessment tool and resources for implementing psychosocial risk management and evaluating the effectiveness of chosen interventions. Data collection methods include worker surveys and focus groups with an optional follow-up measure.<sup>240</sup> Another example is provided by the HSE in the UK that developed a process based on a set of Management Standards to help employers, workers and their representatives manage and reduce work-related stress levels. The *Management Standards for Work-related Stress* refer to good management practices regarding six main psychosocial risks in the workplace (i.e. job demands, control, support from management and peers, relationships at work, clarity of role, and organizational change).<sup>xl</sup>

In several countries national institutions have also developed information resources to help employers and workers understand, assess, manage and prevent psychosocial risks. For example, the Canadian Centre for Occupational Health and Safety (CCOHS), governed by a tripartite Council, promotes total wellbeing (including physical, psychosocial and mental health) among Canadian workers by providing information, training, education and solutions that support health, safety and wellness programmes. CCOHS developed several resources on psychosocial hazards

<sup>xxxvi</sup> Relevant tools, including those mentioned in this section, are listed in Annex 1 with references and links (when available).

<sup>xxxvii</sup> COPSOQ is now available in more than 25 languages. More information at: <http://www.copsoq-network.org/index.php>

<sup>xxxviii</sup> The current version *Factores Psicosociales. Método de evaluación. Versión 3.1* (F-PSICO 3.1), updated in 2014, is available online on the INSHT website ([www.insht.es](http://www.insht.es)).

<sup>xxxix</sup> People at Work is a collaborative initiative between the Australian Federal Government, the Government of Queensland, Government of New South Wales, Safe Work Australia, WorkSafe Victoria, the University of Queensland and the Australian National University.

<sup>xl</sup> The Platform contains detailed guidance, an Indicator Tool, case studies from a range of enterprises, focus groups guides, and examples of interventions across sectors (<http://www.hse.gov.uk/stress/standards/>). The Management Standards developed by the HSE were incorporated in Ireland in the updated Work Positive tool (targeted at small enterprises) and in Italy.

and its outcomes, particularly on stress, violence, bullying, and other behaviour in the work environment.<sup>241</sup> In Costa Rica, the Occupational Health Council (CSO) of the Ministry of Labour and Social Security aims at promoting decent, safe and competitive workplaces. CSO provides information and resources on psychosocial factors and their impact.<sup>242</sup> In France, the National Agency for the Improvement of Working Conditions (ANACT) helps enterprises adopt policies for the prevention of psychosocial risks through direct interventions in enterprises and publication of guides.<sup>243</sup> In addition, ANACT manages the Fund for the Improvement of Working Conditions, which finances enterprise projects aimed at improving working conditions, one of the four focus areas being stress and psychosocial risks. In Ghana, the *Employee Wellbeing Programme* is a collaborative initiative between Ghana's Ministry of Health and the German Society for International Cooperation (GIZ). This voluntary initiative started with a focus on tackling HIV/AIDS and further developed into a general wellbeing programme, providing tools and policies for enterprises; it is heavily based on the WHO model for Healthy Workplaces. The psychosocial work environment is part of the health and safety aspects of the model.<sup>xli</sup> In Peru, the Center for Scientific Information and Documentation (CINDOC) of the National Center of Occupational Health and Environmental Protection for Health (CENSOPAS) provides information on psychosocial risks and on mobbing and bullying in the workplace, along with training for medical practitioners and engineers.<sup>244</sup> The Swedish Work Environment Authority (AV) produced several guides and reports on work-related stress for employers and union representatives, such as the *Systematic work environment management against stress* (2002) and *Illness and negative stress – in a changing work environment* (2002).<sup>245</sup> In the UK, the National Institute for Health and Clinical Excellence (NICE) produces guidelines for employers, such as *Mental wellbeing at work* (2009) and *Workplace health: management practices* (2015).<sup>246</sup>

## SOCIAL SECURITY INSTITUTIONS

Relevant initiatives have also been developed by national insurance institutions. For example, in Italy the Research Area of the National Insurance Institution for Occupational Injuries (INAIL) developed in 2011 a methodological proposal for the management of psychosocial risks. It consists of a dynamic path with four key phases (planning, preliminary assessment, in-depth assessment, and risk management) based on a continuous improvement cycle, as with other OSH management systems.<sup>247</sup> The German Social Accident Insurance (DGUV) developed a number of materials on work-related stress including checklists, guidelines, manuals and reports. An interesting DGUV initiative is the design of a module on stress for use by teachers in vocational training schools.<sup>248</sup> In Slovakia, the Public Health Authority (ÚVZ SR) and its regional offices have since 2008 been carrying out a range of activities aimed at preventing and reducing stress at work. These include registering those professions and jobs noted for a relatively high risk of stress, monitoring development trends in the mental health of the workforce in Slovakia and providing guidance for employers and workers in this field.<sup>249</sup> The Swiss National Accident Insurance Fund (Suva) is Switzerland's largest provider of accident insurance, managed by a board of employers, workers and federal representatives. Through the *Progress (Progrès)* project Suva aims at defining research priorities and developing prevention tools to address work-related diseases. The psychosocial effects (including stress, burnout, mobbing and work-life balance) and their impact on the human factor that can cause accidents are priority areas of the project. Additionally, the *Progress* working group is dedicated to the study of work and the cardiovascular system, work and physical activity, and work and aging.<sup>250</sup>

<sup>xli</sup> However the process of psychosocial risk assessment and management is at a very early stage in Ghana, and until now activities have been limited (GIZ, 2012).

# SOCIAL PARTNERS' ENGAGEMENT

Attention to psychosocial risks and work-related stress is growing among social partners at global, regional and national levels. Employers' organizations and trade unions have developed a number of independent initiatives including information dissemination and awareness-raising campaigns. Most joint activities developed in Europe are part of the implementation of the EU Framework Agreement on Work-related Stress mentioned above.<sup>XLII</sup>

## EMPLOYERS AND WORKERS JOINT ACTIVITIES

Several European social partners from different sectors (e.g. public administration, education, private security, construction, electricity sector) have included work-related stress in their social dialogue. For example, in the public administration the European Public Administration Network (EUPAN) and the Trade Unions' National and European Administration Delegation (TUNED) adopted in 2008 joint guidelines on work-related stress. In 2009 EUPAN and TUNED issued a report on good practice and policies on work-related stress to provide concrete illustrations of their joint position and help refine lessons learned on how to combat and prevent it. The European Sectoral Social Dialogue Committee for Education included the issue of "stress, violence and harassment" in its 2010-2011 work programme. The European Trade Union Committee for Education (ETUCE) conducted an initial project on teachers' work-related stress in 2007 and in 2008 adopted the ETUCE's *Action Plan on Teachers' Work-Related Stress*.

In 2004 the European Trade Union Confederation (ETUC), the Union of Industrial and Employers' Confederations of Europe (UNICE, now known as BUISNESSEUROPE), the European Association of Craft Small and Medium-sized Enterprises (UAEPME) the European Centre of Enterprises with Public Participation and of Enterprises of General Economic Interest (CEEP) signed the EU Framework Agreement on Work-related Stress. In 2008 the European social partners (ETUC, BUISNESSEUROPE, UAEPME and CEEP) issued a report on implementation of the Agreement, based on joint national reports from member organizations in 21 EU member States, Iceland and Norway.<sup>251</sup>

As part of the implementation of the Agreement, social partners jointly developed and disseminated brochures, guides and educational materials on psychosocial risks and work-related stress in a number of EU countries (e.g. Austria, Belgium, Czech Republic, Denmark, Estonia, France, Ireland, Latvia, Lithuania, Luxembourg, Germany, Poland, Spain, Sweden, and United Kingdom). For example, in Belgium social partners developed a brochure providing a comprehensive plan for designing a policy on stress at work. The brochure describes a step-by-step approach to evaluation and intervention in respect of psychosocial risks in the workplace. It also draws attention to specific risks that arise in times of restructuring and introduction of new technologies.<sup>252</sup>

In some countries social partners jointly organize training, workshops and conferences on these issues. For example, the Polish trade union NSZZ Solidarno, in partnership with other cross-industry social partners, carried out a transnational project on work-related stress. This included training, a brochure, and negotiation workshops in Poland, as well as an international conference during which social partners from Italy, Lithuania, Malta and Slovenia exchanged views on the challenges encountered in implementing the Agreement. In Sweden, the Confederation

of Swedish Enterprise, the Swedish Trade Union Confederation, and the Council for Negotiation and Cooperation (PTK), founded *Prevent* to provide guidance and training on work-related stress.<sup>XLIII</sup> In 2011 *Prevent* launched a new initiative on IT-related stress, which tackles stress arising from problems with technology, constant online presence and information, social media updates, the constant receiving of emails which require replies, and so forth.<sup>253</sup>

Employers' and workers' organizations also conducted national or sectoral awareness-raising campaigns. For example, in Latvia social partners organized an awareness-raising campaign on stress together with the State Labour Inspectorate (*Stop overwork!*), and another in cooperation with the Ministry of Health (*Love your Heart!*).<sup>254</sup>

Other relevant initiatives jointly implemented by social partners include assessment tools, such as the IMPULS test developed in Austria by occupational and health psychologists in cooperation with the Austrian Federal Economic Chamber (WKÖ), the Austrian Chamber of Labour (BAK) and the Austrian Trade Union Federation (ÖGB). IMPULS test is a questionnaire assessing working conditions and detecting stress factors. It identifies areas of intervention for optimising resources and implementing measures to reduce work-related stress.<sup>255</sup>

## EMPLOYERS' ORGANIZATIONS INITIATIVES

Employers' international organizations and networks are also demonstrating increased interest in addressing psychosocial risks and mental health at work. For example, the International Organization of Employers (IOE) supports national business organizations in guiding corporate members on matters of International Labour Standards, business and human rights, corporate social responsibility (CSR), OSH, and international industrial relations. The IOE has a number of guides and awareness factsheets to help employers promote good practice concerning workers' safety, health and wellbeing, work-related health risks including mental disorders.<sup>256</sup>

At regional level, BUSINESS EUROPE is committed to ensuring a safe, healthy and productive workforce, including protecting workers from psychosocial risks and work-related stress. BUSINESS EUROPE is engaged in developing expertise and tools which can be adapted to different realities to help enterprises address psychosocial risks.<sup>257</sup> Employers' networks are also active in this field. CSR Europe (the European Business Network for Corporate Social Responsibility) developed in 2009 the *Wellbeing guidebook*, which contains eleven straightforward practical tips for implementation, a detailed analysis of the elements affecting mental health and wellbeing, and a collection of best-practice examples in support of the suggestions and recommendations in the guidebook.<sup>258</sup> The network also provides examples of good practice adopted by enterprises in the field of OSH and wellbeing, including initiatives on mental health and stress at work.

At national level, employers' organizations are starting to pay increasing attention to psychosocial risks, developing awareness-raising and training activities along with tools and materials to facilitate better understanding and prevention of work-related stress. For example, the Bulgarian Industrial Association (BIA) has developed questionnaires for the appraisal of work-related stress at enterprise level, which are used in its OSH training programme for employers and their representatives in safety and health committees and safety groups. On the basis of the findings, measures and services are offered to individual employers to help them develop programmes to limit stress.<sup>259</sup> The Irish Business and Employers' Confederation (IBEC) developed a guide providing information and orientation for line managers in promoting mental wellbeing and in understanding and supporting workers

<sup>XLII</sup> This section is intended to provide some examples of social partners' initiatives to deal with psychosocial risks and work-related stress, not to provide an exhaustive compilation from all countries.

<sup>XLIII</sup> Prevent is a non-profit organization owned by the Confederation of Swedish Enterprise, Swedish Trade Union Confederation, and the Council for Negotiation and Cooperation (*Förhandlings- och samverkansrådet, PTK*).

experiencing mental health problems, highlighting strategies for managing mental health related issues in the workplace.<sup>260</sup>

## TRADE UNION INITIATIVES

The International Trade Union Confederation (ITUC) in its Congress Resolutions on Decent Work of 2010, called its member organizations, partners and affiliates to work with the ILO to campaign for the extension of social protection to all, and for improving OSH in all countries, including prevention of exposure to hazardous chemicals, psychosocial hazards and occupational injuries and accidents.<sup>261</sup>

During its 16<sup>th</sup> World Trade Union Congress in 2011, the World Federation of Trade Unions (WFTU) issued a report on the *health and safety of workers in our time*. The report calls for action in the field of OSH, taking into account the fact that “health doesn’t only mean absence of illness, but a situation of physical, mental and social wellbeing”. The report states that the extension of the working day and the increase in the pace and intensity of work have serious consequences for the physical and mental health and social involvement of workers; that the increase in workers’ exposure to harmful physical, chemical, psychosocial and biological factors will lead to multiple changes in their health; that each type of flexible working arrangement limits the capability of workers to reclaim their free time; and that in this context regularity of working hours is essential for the normal social life of workers and is thus directly related to their state of health.<sup>262</sup>

Building and Wood Worker’s International (BWI) and IndustriALL Global Union are addressing specific psychosocial risks within the framework of promoting gender equality, advocating *inter alia* reduced segregation and discrimination, closing of the pay gap, tackling of violence (both physical and psychological) against women and an improved work-life balance. UNI Global Union is also active in the field of psychosocial risks. Its 2010 report, *From Work-Life Balance to Work-Life Management* identified the key work-life management issues faced by many professionals and managers, such as long hours, loss of talent, and flexibility. Many of these challenges apply in different ways across UNI’s sectors, (such as ICTS, finance, post and logistics, graphical, commerce and property services).<sup>263</sup> Since 2012 the Professionals and Managers group (UNI P&M) of UNI Global Union has organized the *Work-Life Management Fortnight*, a one-week campaign, aimed at discussing the impact of psychosocial risks, stress, anxiety or burnout on members and seeking to negotiate better policies and practices to improve work organization, reduce workload and pressure, and address the demand for constant availability.<sup>264</sup> Within the International Transport Workers’ Federation (ITF), the ITF Seafarers Section highlights psychological problems as health issues for seafarers, given that their isolated circumstances can cause loneliness, homesickness and burnout.<sup>265</sup>

The Labour 20 (L20) has represented the interests of workers at G20 level since 2011. It involves trade unions from G20 countries and Global Unions, and is convened by ITUC and the Trade Union Advisory Committee to the OECD (TUAC). In 2014 L20 was invited to discuss the way in which G20 countries could contribute to healthy and safe workplaces. L20 called for the development of country roadmaps for promoting safer workplaces, to address *inter alia* psychosocial risks, stress, harassment, bullying or mobbing and other forms of violence at work, along with improved attention to OSH protection for workers in non-standard forms of employment and for vulnerable workers.<sup>266</sup>

At regional level, the African Regional Organization of ITUC (ITUC-Africa) in its *Report to the African Union Labour and Social Affairs Commission* (2013) highlighted that globalization had given rise to new OSH challenges in the region, such as work-related stress, violence at work, drug abuse and alcoholism.<sup>267</sup> In addition, ITUC-Africa continues to pursue affirmative action to push forward the gender equality agenda in the context of trade union statutes.

The General Council on Gender Equality observed that violent situations at work result in emotional and psychological burdens for both women and men who have to cope with them.<sup>268</sup>

The European Trade Union Confederation (ETUC) produced two guides for interpretation of the framework agreements on work-related stress (2004) and on harassment and violence at work (2007). They expect to support member organizations in the implementation of these agreements and allow better monitoring and evaluation of the results achieved after their adoption.<sup>269</sup> The ETUC action programme 2015-2019 *Stand up in solidarity for quality jobs, workers’ rights and a fair society in Europe* calls for action in the field of work-related stress, emphasising that an increasing number of workers do not have enough working hours, while others suffer from stress due to work intensity or long working hours. In addition, considering that studies have shown that risk assessment still focuses mainly on physical hazards but takes little account of psychosocial hazards (such as those causing work-related stress, violence, harassment or mobbing), ETUC proposed the development of indicators to measure such risks, as well as well-designed and systematic work environment plans and measures.<sup>270</sup> The European Trade Union Institute (ETUI), the independent research and training centre of ETUC, organized the first European trade union seminar on psychosocial risks in June 2013. A European trade union network focusing on psychosocial risks at the workplace was officially set up during this meeting.<sup>271</sup>

At national level, trade union action often includes struggles against violence and harassment, discrimination, long working hours and precarious work. Even if considered outside the framework of work-related stress, these areas embody psychosocial hazards which can damage workers’ health and wellbeing. In the last decade some national trade unions started to consider psychosocial risks and work-related stress as critical areas of work, developing awareness-raising materials and campaigns along with questionnaires and assessment tools. For example, in Germany the Confederation of German Trade Unions (DGB) has developed the *Good Work Index*, a tool for conducting surveys among workers. Data are compiled in an annual survey to assess and monitor the quality of working conditions.<sup>272</sup> In addition, the trade union IG Metall has developed for its members a stress evaluation tool named *Stress Barometer*; while the trade union ver.di has published an online guidance document on psychosocial risk assessment.<sup>273</sup> In Spain, the Trade Union Institute of Work Environment and Health (ISTAS), together with a task force of specialists, adapted in 2003 the COPSOQ Copenhagen questionnaire to create the COPSOQ-ISTAS21 methodology, based on pilot projects aimed at producing an assessment tool adapted to the Spanish context.<sup>XLIV</sup> The Spanish General Workers Union (UGT) created in 2004 the Permanent Observatory of Psychosocial Risks, aiming at sharing of information and development of new initiatives to prevent psychosocial risks in collaboration with institutions, public administration and universities.<sup>XLV</sup>

<sup>XLIV</sup> The questionnaire is accessible online free of charge at the following link: <http://www.copsoq.istas21.net/>. It is available in a long version for enterprises employing more than twenty-five people, and in a short version for auto-evaluation and smaller enterprises.

<sup>XLV</sup> The Permanent Observatory of Psychosocial Risks has produced several resources on psychosocial risks, including fact sheets (available at: <http://portal.ugt.org/saludlaboral/observatorio/fichas/fichas.htm>) as well as their annual report (available at: [http://portal.ugt.org/saludlaboral/observatorio/indice\\_observatorio.htm](http://portal.ugt.org/saludlaboral/observatorio/indice_observatorio.htm)).

# PROFESSIONAL ASSOCIATIONS' AND NETWORKS' CONTRIBUTION

A number of professional bodies and associations and non-governmental organizations are active in promoting management of work-related stress and wellbeing at work, at international, regional and national levels. A number of regional and national professional networks are also active in the field of tackling psychosocial risks and promoting mental health and wellbeing at work by coordinating research with a view to a better understanding of the nature and impact of psychosocial risks and for designing effective interventions to tackle them at organizational level.<sup>XLVI</sup>

The International Commission on Occupational Health (ICOH) is an international non-governmental scientific society with the objective of fostering development of scientific knowledge on OSH. In 1996 ICOH created its scientific committee on Work Organization and Psychosocial Factors (WOPS). This committee aims at promoting awareness, research and education, dissemination of good practices and at influencing policy development in the area of work organization and psychosocial factors. In 2014 ICOH published the sixth version of the *Guide to Occupational Health and Safety for Entrepreneurs, Owners and Managers, Creating a Safe and Healthy Workplace*, which contains a chapter on stress, including a checklist of simple measures for managing it.<sup>274</sup>

The International Organization for Standardization (ISO) is the world's largest developer of voluntary international standards. The ISO 10075 series of standards covers principles, requirements and instruments for the measurement of mental workload. The standards are mainly intended for use by ergonomic experts (e.g. psychologists, occupational health specialists, and physiologists), with appropriate training in the theoretical background and practice of such methods, as well as in the interpretation of results.<sup>275</sup>

Other relevant international professional associations which cover protection of mental health and prevention of work-related stress as part of their scope include the International Ergonomic Association (IEA), which covers different areas of specialization within the ergonomics discipline, namely physical, cognitive and organizational ergonomics; the International Institute of Risk and Safety Management (IIRSM), a professional body which provides education, resources and networking opportunities for developing and implementing integrated risk policies (including raising awareness of the effects of psychosocial risks and how these are being affected by changes in organizational culture and new working methods); and the International Stress Management Association (ISMA) which promotes dissemination and exchange of knowledge and best practice through events and conferences, publication of *STRESSTalk* and other journals, guides and information, and professional networking.

In the Americas, the Ibero-American Network for Work-related Psychosocial Risks (RIPSOL) promotes communication and scientific collaboration on potentially harmful working conditions which are contributory causes of cardiovascular disorders, musculoskeletal injuries, mental health and behavioural disorders such as stress, burnout, harassment and psychological violence and behavioural disturbances. The network is developing and improving instruments and procedures for the assessment and diagnosis of such risks and their effects on health, along with techniques and procedures for psychosocial interventions on them. The Ibero-American

Network for Dignity at Work and in the Organizations was created in 2011 during the first Ibero-american Congress on Workplace and Institutional Harassment. The second Congress was held in 2013 and represented the starting point for the publication *Labour and Institutional Psychological Harassment in Latin America: State of the art and intervention experiences*.<sup>276</sup> The Latin American Research Network on Psychosocial Factors at Work (RIFAPT) is a non-profit organization of professionals focusing on promotion, dissemination and advancement of research and knowledge on psychosocial factors at work. It organizes a regional forum every two years.

In the Asian-Pacific region, the AESAN Occupational Safety and Health Network (AESAN-OSHNET) aims at fostering a safe and healthy working environment for a productive and competitive workforce with a better quality of life. To promote systemic stress reduction AESAN-OSHNET developed the *Stress Management Program in Workplace*, consisting of two parts, the first focusing on how to cope with stress-generating problems and handle emotional consequences, the second addressing self-management in preventing stress in particular areas, namely healthcare and emotional and psychological care.<sup>277</sup> The Asian Pacific Academy for Psychosocial Factors at Work (APA-PFAW) is a non-profit, non-governmental, scientific and professional organization. The goal of the Academy is to bring together academics, practitioners and policymakers from the region and beyond to discuss psychosocial factors at work, to share and generate knowledge, deliver education and training, build greater networks and opportunities to prevent work injury, contribute to better working arrangements, and to improve workplace health, safety, wellbeing and productivity in the region.<sup>278</sup>

In the EU, the European Academy of Occupational Health Psychology (EA-OHP) is an organization established in 1999 to support research, education, and professional practice on occupational health psychology across Europe. The Academy organizes a major international conference on occupational health psychology every two years to promote discussion and sharing of best practice in this field. EA-OHP is also associated with the journal *Work & Stress*, an international, multidisciplinary quarterly presenting peer-reviewed papers concerned with the psychological, social and organizational aspects of occupational and environmental health, and of stress and safety management.<sup>279</sup> The European Network Education and Training in Occupational Safety and Health (ENETOSH) was set up in 2005 to offer a platform for systematic knowledge-sharing on issues concerning education and training on OSH. One of the issues highlighted by ENETOSH (*Hot Topics*) is *Stress and Psychosocial Risks*, presenting a collection of good practice examples, tools, training materials, and useful documents.<sup>280</sup> The European Network for Mental Health Promotion (ENMHP) provides information, tools and methods, training and a communications platform for all who are interested in this area. The ENMHP has an online portal which comprises three other websites aimed at promoting mental health and wellbeing: *ProMenPol*, a database of tools and methods; *MindHealth*, with an e-learning course; and *MHP-Hands*, which contains the support manuals for implementing mental health promotion projects.<sup>281</sup> The European Network for Workplace Health Promotion (ENWHP) is an informal network of institutes concerned with national OSH, public health, health promotion, and statutory social insurance. It was formally established in 1996 to improve workplace health and wellbeing and to reduce the impact of work-related ill health on the European workforce. The areas of activity include life-styles, ageing, corporate culture staff leadership, staff development, work-life balance, mental health and stress, wellness, corporate social responsibility (CSR), nutrition and general health. With the European campaign named *Work in Tune with Life. Move Europe* (2009-1010), ENWHP launched an initiative to help promote mental health in workplaces with the aim of increasing the awareness

<sup>XLVI</sup> This section provides some examples of international and regional professional association and networks active in this field, but not of those operating at national level.

of enterprises and the general public of the needs and benefits of mental health promotion at work.<sup>282</sup> The Partnership for European Research in Occupational Safety and Health (PEROSH) was established in 2003 by national OSH institutes in twelve European countries to cooperate and coordinate their research and development efforts for a healthier, longer and more productive working life.<sup>XLVII</sup> PEROSH partners identified seven research challenges considered to be essential for future research in OSH up until 2020. Research in the field of psychosocial wellbeing in a sustainable working organization is being undertaken to contribute to better understanding of the factors that determine physical, psychological and mental health and their impacts, including the positive factors that may improve wellbeing, along with the development of integrated approaches to the management of psychological risks.<sup>283</sup> PEROSH is also carrying out a project on *wellbeing and work* to identify common needs for improving wellbeing and preventing ill-health, enabling those with ill-health to stay at work, and rehabilitating people who are away from work following ill-health or injury. The project aims at developing a common understanding of wellbeing and the drivers for research on wellbeing and interventions in the different countries, including the identification of similarities and differences between countries.<sup>284</sup>

## 5. GLOBAL TRENDS AND FORESIGHT OF FUTURE SCENARIOS

Two studies were carried out by the ILO to assess trends and forecast future scenarios in relation to the impact of psychosocial risks and work-related stress: an expert opinion survey to detect drivers, barriers and needs in relation to the prevention and management of work-related stress; and a two-round Delphi survey to identify and assess future scenarios and contributory factors (facilitators or inhibitors) in this area. Key experts were invited to take part in online surveys.<sup>XLVIII</sup> The outcomes from the expert opinion survey and the literature, legislative and policy reviews undertaken for this report were used to develop the first round of the Delphi survey, the results of which were used as inputs into the second round.

It should be noted that comparing regions can be challenging, particularly since the expectations and concerns of experts could be influenced by developments in their country.<sup>XLIX</sup> While the lack of initiatives to address an issue can lead to increased concern and prioritization of this issue, greater awareness can also raise the level of concern, even if measures have been taken to address it. The findings from this survey, however, clearly highlight that there is a need to develop policy initiatives to improve the prevention and management of psychosocial hazards and risks and work-related stress, as well as to further prioritize these issues. A summary of the key findings is presented below.

### EXPERT OPINION SURVEY

A total of 324 experts from 54 countries across the world, covering all ILO regions, responded to the expert opinion survey.<sup>L</sup> The findings from the survey indicated that work-

<sup>XLVIII</sup> The group of experts included academicians or researchers (149), government officials or policymakers (54), OSH practitioners (113) and representatives of social partners, namely employers' organizations and trade unions (8). Occupational health was the most prevalent discipline, followed by occupational psychology. Other areas of expertise included risk management, law and policy, and epidemiology.

<sup>XLIX</sup> The findings from the survey are based on aggregated data at country level to account for any in-country variation and to provide an equal weight to each country irrespective of the number of responses from the country. This was done using a mean value for each item of the survey which was calculated by averaging the responses received from experts in each country. This ensured that when compared across regions, each country had the same weight and the variation in responses received from each country did not have an impact on the comparisons between regions. One of the limitations of the survey is the under-representation of social partners and is associated with the call for participation oriented more to experts than social partners.

<sup>L</sup> The 324 experts were from Angola (4), Argentina (6), Australia (6), Austria (2), Belgium (4), Belize (4), Botswana (3), Brazil (9), Bulgaria (2), Burkina Faso (3), Canada (17), Chile (5), China (11), Colombia (2), Denmark (4), Egypt (3), Finland (3), France (10), Germany (4), Ghana (4), Greece (6), Hungary (6), India (15), Indonesia (3), Ireland (5), Italy (3), Ivory Coast (2), Japan (4), Libya (2), Malaysia (4), Mauritania (4), Mexico (12), Morocco (4), Netherlands (6), Norway (4), Poland (4), Portugal (21), Romania (4), Russia (4), Serbia (6), Singapore (13), South Africa (6), Spain (12), Sweden (2), Switzerland (2), Syrian Arab Republic (2), Tanzania (4), Thailand (2), Tunisia (2), Uganda (3), United Kingdom (22), United Arab Emirates (6), United States (19), Vietnam (4). Grouped by ILO regions, 44 experts were from Africa, 74 from the Americas, 8 from Arab States, 62 from Asia and the Pacific, and 136 from Europe and Central Asia.

<sup>XLVII</sup> The twelve European countries are: Belgium, Czech Republic, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Poland, Spain and United Kingdom.

related stress is a global problem, as over ninety per cent of all participating experts agreed that it was a concern in their country.<sup>LII</sup> Furthermore, nearly seventy per cent of them reported that work-related stress was a source of higher concern in specific sectors, particularly in healthcare, education, services, finance, the retail trade, transport and construction, and the public sector in general.

## CONCERNS AND PRIORITIES

In examining trends in relation to work-related stress, experts were asked to rate the extent to which various psychosocial factors overlapped as important concerns in their country; and to indicate if any were recognized as a priority area for action by policymakers and if initiatives had been or were being undertaken.

The highest concerns reported were work overload (in the Americas, Asia-Pacific region, Europe and Central Asia) and poor organizational culture (in Africa and the Arab States). Work-life balance was identified as a concern across regions and there was overall a substantial consensus that work overload and time pressure are high concerns (except in the Arab States). Poor organizational culture, poor management, low reward and low recognition feature high in Africa and the Arab States.

Physical violence, discrimination at work and harassment were perceived by the experts as the most prioritized areas in their countries, eighty-seven per cent agreeing that psychological violence is considered a priority by policymakers. Physical violence (and threat of physical violence) and discrimination at work were considered by most experts as concerns (over ninety-eight per cent for physical violence and ninety-six per cent for discrimination at work).<sup>LIII</sup> Harassment (including mobbing and bullying) was identified by all experts as an issue of concern in their country (with over fifty per cent reporting it as a major concern). However, experts from Africa and the Arab States highlighted the lack of prioritization of physical violence, harassment and discrimination issues in their regions.

## DRIVERS AND BARRIERS FOR MANAGING WORK-RELATED STRESS

Experts rated the extent to which certain factors enabled or hindered the prevention and management of psychosocial risks and work-related stress in their country.

The following elements were highlighted as the most important drivers facilitating development and implementation of initiatives: availability of resources (such as staff, time or money); integration of measures at the workplace level; understanding and awareness of psychosocial risks and work-related stress; and availability of appropriate tools and methods of intervention. These findings are generally consistent across regions (with the exception of the Arab States in some cases) as shown in Annex 2 (Figure 2.1).

Regarding the main barriers, experts highlighted conflict and competition between different governmental departments and lack of clear complementarity of roles as factors which can hinder communication and collaboration between key stakeholders. The following additional barriers were identified: the perception of stakeholders that workplace interventions for managing psychosocial risks are expensive or difficult to handle; lack of trained experts; and the role and influence of

cultural aspects, such as sensitivity to psychosocial issues, risk sensitivity and risk tolerance. The major contributing factors reported were lack of resources such as staff, time or money; inadequate enforcement of regulations; lack of consensus between the social partners; and poor integration of these issues at national and workplace levels.<sup>LIII</sup> The findings are generally consistent across regions and most of the barriers were rated as important or fairly important.<sup>LIV</sup> (See Annex 2, Figure 2.2).

## DEVELOPMENT OF COMPETENCES TO DEAL WITH WORK-RELATED STRESS

According to the experts' opinion survey, the key following elements should be taken into consideration in the development of competences to address work-related stress: capabilities for psychosocial risk management (at both national and workplace levels); adequate knowledge of key stakeholders; relevant and reliable information to support decision-making; availability of effective and user-friendly methods and tools; and competent support structures (specialists, consultants, services, institutions and research). Across a range of countries there are differences in existing knowledge and competences, especially in developing countries. For example, only seventeen point five per cent of experts from Africa reported being aware of guidelines on the management of work-related stress in their country as compared to over thirty per cent of those from other regions.

Concerning the necessary support and guidance for the prevention and management of work-related stress, the findings indicate that workplace guidance provided by independent specialists and consultants, trade unions, national health services, national OSH bodies and occupational health services was rated as more satisfactory than guidance provided by enforcement bodies, employers' organizations and local health services. Experts from Africa and the Arab States were less satisfied with the provision of support and guidance available in their countries. Furthermore, the overall provision of support and guidance was largely rated as unsatisfactory, stressing the need for the development of good quality guidance, accessible and widely disseminated.

Regarding training needs, only twenty per cent of experts from the Americas, Europe and Central Asia believed that practitioners in their country were appropriately trained. The situation was reported to be worse in Africa (fifteen per cent), Arab States (twelve point five per cent) and Asia and the Pacific (twelve point one per cent). The large majority of experts (ranging from eighty-nine point seven per cent in Europe and Central Asia, to a hundred per cent in the Arab States) were of the opinion that there is a need in their country for training of practitioners in the prevention and management of work-related stress.

<sup>LII</sup> Highest concern was reported by experts from the Americas and Europe-Central Asia (hundred per cent), followed by the Asia-Pacific region (eighty-eight point nine per cent), Africa (seventy-eight point six per cent) and the lowest concern was reported by the Arab States (fifty per cent).

<sup>LIII</sup> Discrimination on the basis of age, gender, ethnic origin, disability, sexual orientation.

<sup>LIII</sup> Contributing factors were considered in terms of the level of difficulty they pose and to the extent to which they can act as a barrier to the development and implementation of initiatives to prevent and manage work-related stress.

<sup>LIV</sup> Even if the findings were generally consistent across regions, it should be noted that inadequate infrastructure, lack of resources, lack of appropriate expertise, poor integration of these issues (both at national and workplace levels) were reported more often by experts based in Africa and the Arab States.

# FORESIGHT OF FUTURE SCENARIOS

## DELPHI ROUND 1

The first round of the Delphi was based mostly on open-ended questions that were thematically analysed. A total of 80 experts from 45 countries across the world covering all ILO regions responded to this survey.<sup>LV</sup>

The first four questions were presented within the framework of a SWOT analysis, identifying strengths, weaknesses, opportunities and threats in relation to the current situation in the prevention of psychosocial risks and work-related stress in their country (see Annex 2, Table 2.1). As regards the identified strengths, there were differences depending on the context in the country; for example, in countries where both regulations and voluntary policies existed, participants considered the strength of voluntary approaches as more relevant. However, legislation, social dialogue initiatives, a strong evidence-base, awareness-raising, workplace interventions and appropriately-trained occupational health services were highlighted as strengths across countries wherever they existed. Many of the issues reported as strengths were also highlighted as weaknesses in countries where they were lacking.<sup>LVI</sup> Even in countries where the policy and practice contexts are well developed, reference was made to inadequate enforcement of legislation, lack of political will to develop or implement new initiatives, and the existence of a compensation culture rather than a truly prevention-oriented culture. Additional concerns expressed were the inadequate evaluation of initiatives and a high prevalence of malpractice by consultants or practitioners. Exclusion of stress-related illnesses in lists of occupational diseases was identified as a weakness by the majority of respondents.

In terms of opportunities, the following were mentioned: increased experience and sharing of good practice across countries, international policies and codes of practice aimed at promoting responsible business practices, increasing emphasis on organizational sustainability and competitiveness, and coverage and inclusion of these issues in the national OSH system, the public health system or the social security system. These issues were not exclusively reported by respondents in countries with a stronger policy context and better-developed evidence-base. Finally, several of the threats identified were common to respondents. These included a poor economic climate and increased unemployment, organizational restructuring and downsizing, lack of political will, lack of financial resources at national or organizational level, an aging workforce, an increase in new forms of work organization, precarious work and non-standard work (e.g. shift-work, temporary work, part-time work). There was a widespread consensus that these issues represent threats to the prevention of psychosocial risks and work-related

stress. Other threats identified were the lack of adherence to legal requirements and corruption (e.g. in South America), and lobbying by businesses favouring deregulation (especially in Europe).

Experts were then asked to look 10 years into the future and forecast the most likely scenario, as well as the ideal scenario in their country regarding the prevention of psychosocial risks and work-related stress in the following key areas: (i) national OSH laws, regulations, technical standards and collective agreements addressing work-related stress and its outcomes; (ii) OSH policies and strategies focusing on psychosocial risks and work-related stress; (iii) technical guidance and awareness campaigns focusing on psychosocial risks and work-related stress; (iv) workplace initiatives focusing on psychosocial risks and work-related stress; and (v) research and the evidence-base on psychosocial risks and work-related stress. A summary of the expected and the ideal scenarios in relation to these issues is provided in Annex 2, Table 2.2.

In relation to national OSH laws, regulations, technical standards and collective agreements addressing work-related stress, the majority of the respondents forecast the introduction of more legislation in this area. However, in both the expected and the ideal scenarios situations forecast from new legislation to no change in existing legislation or outright deregulation. A similar range of options was identified in relation to OSH policies and strategies. The majority of respondents expected the introduction of new or additional policies and strategies in this area, while a focus on prevention, on training and competence development at national level and sharing of good practices were common elements of the ideal scenario across countries. Options also varied in relation to expected scenarios in the development of technical guidance and awareness campaigns. In the ideal scenarios guidance for SMEs was frequently reported. Less optimism and consensus was expressed in relation to the expected scenarios in the development of workplace initiatives, while in the ideal scenarios several common key issues were highlighted across countries, including development of a healthy organizational culture, psychosocial risk prevention and management, developing competences at workplace level, and management engagement. Incorporating psychosocial risk prevention as an integral part of OSH management systems was also mentioned by several respondents across countries. Finally, in relation to research and the evidence-base in this area, respondents in general forecast increased activity, with emphasis on key areas such as psychosocial risk management interventions, and the translation of research into practice. However, financial and political factors were highlighted as possible barriers. In several countries it was hoped that international organizations would stimulate research and intervention strategies. The ideal scenarios proposed reflected a high level of consensus across countries on development of information systems and databases for sharing of empirical evidence, more cross-country comparisons, and research evaluating interventions.

Experts also identified actions needed at national and workplace levels for the prevention and management of psychosocial risks and work-related stress and indicated how much additional effort is required in their country, taking account of various contributory factors. Finally they were asked to indicate the priority areas where there is a need for workplace action. An overview of the results regarding both necessary measures at national and workplace levels and priority actions at workplace level, are presented in Annex 2 (Table 2.3 and Table 2.4 respectively). A high level of consensus was reached between experts in relation to the measures needed, at both national and workplace levels. The following issues were reported to be the key measures needed at national level: developing competences for addressing psychosocial risks and work-related stress; enforcement of regulations (where they exist); building consensus between social partners; awareness-raising; integration at policy level (e.g. OSH and health promotion policies); and improving the availability

<sup>LV</sup> The 80 experts participating in the first round of the Delphi survey were from Argentina (1), Australia (2), Barbados (1), Belgium (2), Bosnia and Herzegovina (2), Brazil (2), Bulgaria (1), Canada (6), Chile (1), China (1), Colombia (2), Denmark (2), Egypt (1), Estonia (1), Finland (1), France (2), Germany (4), Ghana (1), Grenada (1), India (1), Italy (2), Ivory Coast (1), Japan (1), Kuwait (1), Libya (1), Malaysia (1), Mexico (3), Netherlands (3), Norway (2), Poland (1), Portugal (1), Romania (1), Saudi Arabia (1), Senegal (1), Singapore (1), Spain (4), Republic of Korea (2), Sweden (2), Switzerland (3), Syrian Arab Republic (1), Thailand (1), Tunisia (1), Uganda (1), United Kingdom (4), United States (5). As regards the ILO regions, 7 experts were from Africa, 22 from the Americas, 3 from Arab States, 10 from Asia and the Pacific, and 38 from Europe and Central Asia. The group of experts included academics or researchers (43), government officials or policymakers (15), health and safety practitioners/consultants (18), and representatives of social partners, namely employer associations and trade unions (4). The experts' backgrounds were in different areas, including OSH, ergonomics, public health, occupational health psychology, epidemiology, occupational medicine, nursing, occupational hygiene, management, and law.

<sup>LVI</sup> For example, several of these weaknesses were highlighted by respondents from the Arab States, Africa and, to some extent, Asia and the Pacific, and Latin American country respondents.

of intervention tools and assessment methods. At workplace level the following top priorities were identified: integration of the prevention of work-related stress in the organizational culture; integration of work-related stress prevention in management systems; awareness-raising; introducing policies and preventive measures in the workplace; and developing stakeholders' competences.

## DELPHI ROUND 2

The second round was developed on the basis of the results of the first round of the Delphi survey, with the aim of building further consensus on key issues and clarifying contributing factors for each area of concern. In total 31 experts responded from 25 countries across the world covering all ILO regions.<sup>Lvii</sup> The second round Delphi was mostly based on closed questions. Experts were asked to report on the likelihood of a number of scenarios in the key areas for the prevention and management of psychosocial risks and work-related stress identified in round 1, as well as the main contributory factors (see Annex 2, Table 2.5).

Awareness and engagement of policymakers, social dialogue, and the usefulness of translating the evidence-base into practice feature prominently as contributing factors across scenario options. Concerning the key areas of awareness-raising and guidance development, workplace level initiatives and the evidence-base, other strong contributory factors identified included resources and expertise availability, tools and sharing of good practice, and awareness and engagement of stakeholders at enterprise level (e.g. managers, workers). Respondents also highlighted a culture of prevention at country level as an important contributory factor in relation to workplace level initiatives and the suitability of scientific evidence on the impact of psychosocial risks to health, safety and productivity for translating evidence-base into practice.

## FINDINGS AND GLOBAL TRENDS

Both the expert opinion survey and the Delphi survey provided useful information for clarifying needs and in highlighting key drivers and barriers. The Delphi survey also highlighted expectations and the ideal scenarios relating to the key areas mentioned above. Despite variations across regions, there was a high degree of consensus among experts on the ideal scenarios in a number of key areas, the drivers and barriers to these scenarios, and the necessary actions needed to achieve them. Looking in more detail at the key areas explored in the Delphi, it should be noted that experts were quite optimistic in expecting more action in each of them.

Regarding legislation and policies, experts generally agreed that as awareness increases, there will be further national OSH laws, regulations, technical standards and collective agreements, as well as OSH policies and strategies addressing psychosocial risks and work-related stress. However, there was evidence of more pessimism in some European countries where a range of initiatives are already in place. Nevertheless, most experts agreed on the value of a strong policy context emphasizing it as a strength where it exists and a weakness where it does not.

<sup>Lvii</sup> The 31 experts participating at the second round of the Delphi survey were from Australia (2), Barbados (1), Belgium (2), Bosnia and Herzegovina (1), Bulgaria (1), Chile (1), China (1), Finland (1), Germany (3), Italy (1), Japan (1), Libya (1), Netherlands (1), Poland (1), Romania (1), Saudi Arabia (1), Singapore (1), Republic of Korea (1), Spain (1), Sweden (2), Syrian Arab Republic (1), Thailand (1), Uganda (1), United Kingdom (2), United States (1). Grouped by ILO regions, 2 experts were from Africa, 3 from the Americas, 2 from Arab States, 7 from Asia and the Pacific, and 17 from Europe and Central Asia. The group of experts included academics or researchers (18), government officials or policymakers (9), health and safety practitioners (3) and representative of trade unions (1).

They expected to see OSH legislation including the protection of workers' mental health across countries in the future. It was stressed that awareness of the relevance of OSH legislation for the protection and promotion of mental health is needed also in countries where relevant laws already exist. Experts also identified as areas for further improvement the harmonisation and adequate enforcement of legislation across countries, the recognition of stress-related disorders as occupational diseases, and the constraints on enforcement of legislation.<sup>Lviii</sup> In addition, the following key elements of the ideal scenario were also highlighted: focus on prevention of psychosocial risks and promotion of mental health in the workplace as essential elements of policies; sharing of good practice; and capacity-building of key stakeholders. Awareness and engagement of policymakers, improved social dialogue, the evidence-based knowledge and resource deployment were reported to be key contributory factors, either facilitating action towards achieving the ideal scenario or inhibiting change; a link with the Sustainable Development Goals agenda was mentioned as an opportunity.

A high level of consensus was expressed in relation to the development of further technical guidance and awareness campaigns on psychosocial risks and work-related stress. However, some experts saw such efforts becoming more focused on the individual worker rather than on a collective approach to the improvement of working conditions and primary prevention, especially in countries where preventive efforts were already in place. In addition, the design of good practice indicators for all stakeholders and the development of guidance for SMEs were considered highly desirable. Some differences could be observed among experts' views; for example, more emphasis was placed on participatory intervention approaches in Asia, and on targeting the national audience through mass media in Europe and Australia.

A lower degree of optimism and consensus was evident in relation to the expected scenarios for the development of workplace initiatives. In those countries with a stronger policy background, experts forecast that further workplace initiatives will be introduced; while in those countries where policies or legislation do not exist or are not sufficiently developed, workplace level action was expected to take place mainly as an outcome of governmental action. However, there were some cases in which experts foresaw that such initiatives could be undertaken by enterprises directly, independently of the legal or policy framework. There is also a mix of views on whether these initiatives would be focused on prevention, with several experts foreseeing an increase of reactive measures. A higher level of consensus was achieved both in expectations that there will be more initiatives from large enterprises and also in consideration of financial constraints as contributing obstacles to action. The key elements of the ideal scenario for workplace initiatives featured were as follows: increased trade union action, development of a preventive organizational culture, implementation of integrated approaches (including psychosocial risks in OSH management systems), evaluation of prevention interventions on psychosocial risk, competence development of key stakeholders, and sharing of knowledge and practice between large and small enterprises through networking. Key contributory factors included awareness and engagement of policymakers, quality of social dialogue, and engagement of social partners in this area. Availability of resources, expertise, tools and good practices, a culture of prevention at policy level, awareness and engagement of stakeholders at workplace level (e.g. managers, workers and their representatives) were all also indicated as important contributory factors in relation to workplace level initiatives.

In relation to research and the evidence-base in this area, most experts forecast increased activity, with emphasis on key areas such as the implementation and evaluation of psychosocial

<sup>Lviii</sup> Harmonisation of legislation on OSH exists in EU countries although some of them have more specific legislation on psychosocial risks and work-related stress than others.

risk management interventions, and the translation of research into practice. The ideal scenarios proposed exhibited strong consensus across countries on several issues, including national level research and periodic national surveys (if not yet available); development of information systems and databases to show empirical evidence; more cross-country comparisons; research evaluating interventions; research on a number of specific issues (such as the link between psychological and physical health, new types of work organization, precarious and non-standard work, boundary-less work, the business case); and guidance on the translation of such research into practice. The following additional options were reported, mainly by experts from countries with a stronger policy and practice background: inclusion of this area in research; development of policies and plans at national level with appropriate resource allocation; and research evaluating the impact of OSH inspections. Experts from Europe also referred to the need for national research institutes (with appropriate resources) which could conduct relevant studies in the light of closures and budget cuts in many European countries in recent years. Awareness and engagement of policymakers were identified as key contributory factors. Other contributory factors identified by experts included quality of social dialogue and engagement of social partners in this area; resource availability; suitability of scientific evidence on the impact of psychosocial risks on health, safety and productivity; and availability of expertise, tools and good practice.

It should be noted that there is a very high level of agreement between the findings of the Delphi and the previously-conducted expert opinion survey; both indicate the same drivers and barriers to action and the same priorities to be addressed. With reference to key areas to be addressed, a high level of consensus can be observed on the following issues: organizational culture (including poor management and leadership); workload, time pressure and work intensity; work-life balance; organizational change and restructuring; job security; precarious work; working time arrangements (including shift work, flexible schedules and rest from work); reward and recognition; control of work; harassment (including mobbing or bullying); physical violence (and threat of physical violence); and discrimination at work.

Finally it is important to mention that in different regions there was a mismatch between the concerns reported by the experts and the perceived priorities for action in their country, highlighting that the policy initiatives that have been or are being implemented may not necessarily be addressing the greatest areas of concern. This may be the result of poor awareness and prioritization by policymakers owing to their perceptions, or lack of social dialogue and social participation in the design of such policies. Therefore, particular efforts are still needed to define priorities for action in addressing psychosocial risks and work-related stress at national level.

## 6. WHY IS IT NECESSARY TO HAVE A COLLECTIVE APPROACH TO PREVENTING AND CONTROLLING THE CAUSES OF WORK-RELATED STRESS?

The magnitude of the negative impact of work-related stress and its health outcomes in an important part of the global working population is very evident owing to the wealth of the evidence-base on the prevalence of associated physical and mental health disorders at country and regional levels collected over more than 20 years. Unfortunately, evidence also shows that the incidence and severity are increasing in the present context.

The associated economic costs at national level, even if they only represent the tip of the iceberg, illustrate how work-related stress and its health outcomes also have a considerable impact in organizational safety, productivity and overall performance. Today work-related stress cannot be considered the problem of a few individuals. It has to be recognised as a collective problem with major implications for the wellbeing of workers, their families and societies as a whole.

While acknowledging the role played by researcher and policymakers in Nordic countries in leading the way, in most countries policymakers and social partners have only recently become involved in the design of legislation and concrete interventions to tackle the causes at their origin. However, this demonstrates that consciousness of the need for action has increased. There has been growing attention to the assessment and management of psychosocial risks and work-related stress and to the design of legislation, strategies and policies at international, regional and national levels; the attention of social partners to these issues has also increased; the dissemination of information and awareness-raising campaigns on these topics is greater than in the past; there is also a proliferation of research networks and professional associations willing to design effective interventions to tackle psychosocial risks and work-related stress at workplace level.

Employers should be aware of the negative effects of the psychosocial hazards that may affect workers as a result of overwork and lack of control over their tasks, with the consequences of work-related stress and related coping behaviours and health outcomes. Unfortunately, many people are only conscious that a harmful stress level has been reached once its negative effects have affected their work and wellbeing. Making employers and workers aware, informed and competent to address these new risks creates a safe and healthy working environment, builds a positive and constructive preventive culture in the organization, boosts engagement and effectiveness, protects the health and wellbeing of workers, and increases productivity.

In this complex context in which the workplace has become an important source of psychosocial risks and poor work-life balance, it has also become an ideal venue for addressing those psychosocial risks at the origin of work-related stress and its health outcomes. Enterprises should not only focus on an individual response to the problem. A collective approach to the prevention of work-related stress and the promotion of mental health at work has still to be fostered. Most initiatives on stress management in the workplace have included individual counselling, induction and mentoring of new staff, on-going support by co-workers and trade unions during unemployment, and individual support in addressing major life events by building up links with local NGOs. A comprehensive approach to promoting mental health at work, breaking away from traditional efforts and moving towards new effective responses by addressing both collective and individual measures, is necessary. The adoption of collective measures in the workplace can offer support and allow workers to become more productive without enduring the effects of negative stress. Conversely, it is generally agreed that improving the individual's ability to cope with stress can be a valuable complementary strategy as part of the wider, collective and organizational process of combating work-related stress. Therefore, it is essential to find innovative ways of handling the causes and the consequences of work-related stress with a combination of both collective and individual measures.

The ideal response to stress is to prevent its occurrence. This may be achieved by tackling the core of the problem, namely its causes. However, as multiple psychosocial factors can cause stress, it cannot be assessed and managed in isolation. The causes may have their origins at work, at home, in the social environment or in the community. In each of these contexts there may be one or more sources of stress, as well as resources that contribute in preventing or reducing its impact. Stress may also have an impact in more than one of these contexts. However, as we cannot be expected to deal with all these issues in these contexts, action at the workplace level should focus on interventions that can prevent or control work-related psychosocial risks. This would have a positive impact both in the workplace and beyond. The best way to address work-related stress is by means of strategies to tackle the psychosocial hazards at their source in working conditions, the working environment, and in the organizational culture and labour relations of the organization. Once the existence of work-related stress has been recognized and the psychosocial hazards at its origin identified, action to address them at the source should be taken. Therefore, action should be aimed at eliminating as many causes as possible, so that the action taken reduces and prevents future work-related stress.

An effective workplace programme to prevent work-related stress requires proper identification of psychosocial risks and assessment of work performance and personal problems resulting from stress. The assessment should be done in a systematic way and workers should be asked to express their concern about any situation that may be causing stress at work.

Specific preventive measures aimed at reducing the potential mental health consequences of psychosocial risks and work-related stress should be in place through a risk management approach. A comprehensive OSH management system should ensure improved preventive practices and incorporation of health promotion measures so as to include psychosocial risks in risk assessment and management measures with a view to effectively managing their impact in the same way as with other OSH risks in the workplace.<sup>LIX</sup>

This implies conducting an occupational health practice with a multi-faceted approach involving the following:

- Preventing occupational and other work-related diseases, as well as occupational injuries;
- Improving working conditions and work organization;
- Incorporating psychosocial hazards and risks into risk assessment and management measures, and implementing collective preventive measures (as done with other workplace hazards and risks) by adapting work organization and working conditions;
- Increasing the coping ability of workers;
- Building up social support systems for workers within the workplace; *and*
- Assessing the needs of the organization by taking into consideration organizational, individual and individual-organization interactions when evaluating workers' health requirements.

Workers' participation in this process is crucial. Workers and their representatives should be involved in identifying those psychosocial risks which they feel cause unnecessary stress in their jobs, and in rating them in such a way as to establish priorities for intervention. The assessment should be done in a systematic way and workers should be asked to express their concern about any situation that may be causing stress at work. Joint OSH committees can be instrumental in the management of psychosocial risks and work-related stress. ILO experience shows that the success of an organization is based on its workers and on its organizational culture. Workers in a safe and supportive environment feel better and are healthier, which in turn leads to reduced absenteeism, enhanced motivation, improved productivity and a positive organization's image. The prevention of occupational accidents and diseases, the promotion of a healthy working life and the building of a preventive culture is a shared responsibility of governments, employers and workers, health professionals and societies as a whole.

<sup>LIX</sup> Risk management is a problem-solving approach to health and safety hazards. It includes both assessment and management of risks. It is an integral part of an enterprise's OSH management system and contributes to the cycle of continuous improvement of work and working conditions.

# CONCLUDING REMARKS

The ILO focuses on protecting workers' health and promoting their wellbeing through improvements in their working conditions and working environments, and the prevention and control of occupational accidents and occupational and work-related diseases.

For the ILO, mental health is a state of health and wellbeing (both individually and collectively) in which workers realize their own abilities, work productively and contribute to their community. In this context, occupational health should "aim at the promotion and maintenance of the highest degree of physical, mental and social wellbeing of workers in all occupations".<sup>LX</sup> The fundamental right to the highest attainable standards of health at work and to a working environment that enables every woman and man in every workplace to live a socially and economically productive life is one of the ILO's main objectives. ILO's contribution to the design of workplace policies and preventive programmes on OSH takes into account global knowledge gained through the evidence-base and good practice. In times of change in the world of work coping successfully with psychosocial risks in the workplace is essential for protecting the health and wellbeing of workers while enhancing the productivity of organizations.

The ILO has a long tradition of developing national and workplace policies to protect workers' health and wellbeing and at the same time enhance productivity. The ILO's comparative advantage in tackling mental health at work lies in its experience in using social dialogue in the implementation of successful national, workplace and community initiatives addressing these problems by means of capacity-building in Decent Work Country Programmes in member States, with the involvement of employers, workers and their representatives, OSH practitioners, governments, policymakers, public services and NGOs. By providing mechanisms for addressing psychosocial risks at work through incorporation of preventive and health promotion measures, the ILO contributes to a more decent and human world of work.

As a result of the assessment carried out for this report, ILO future action in this field will aim at:

- Supporting research initiatives and strategic partnerships in coordination with other international organizations, national and regional policymakers and experts networks to support research, awareness raising, education, sharing of good practices, and development of global competencies.
- Supporting competencies development of key stakeholders and translation of research into practice, by means of promoting education and training through wider application of ILO tools such as SOLVE and the Stress Checkpoints, and additional guidance and training tools including e-learning programmes in collaboration with key experts.
- Supporting the harmonisation of national lists of occupational diseases by providing further guidance on the basis of the ILO list of occupational diseases.
- Supporting integration of psychosocial risk assessment and management in OSH management systems, and linking with sustainability of interventions.
- Facilitate social dialogue at global level for the prevention of work-related stress and its outcomes between ILO constituents.
- Globally promote an integrated approach to prevention and well-being, combining occupational health and health promotion in collaboration with WHO.

<sup>LX</sup> According to the comprehensive definition adopted by the Joint ILO-WHO Committee on Occupational Health at its First Session (1950) and revised at its 12<sup>th</sup> Session (1995); see ILO, Joint ILO/WHO Committee on Occupational Health. *Report of the Committee, 12<sup>th</sup> Session, Geneva, 5-7 April 1995.*

# REFERENCES

- 1 Selye (1936)
- 2 Selye (1974)
- 3 Engel (1977)
- 4 ILO (2012b)
- 5 ILO (1986)
- 6 Cox (1993); Cox, Griffiths (2005)
- 7 Cox (1993); Cox, Griffiths, Rial-Gonzalez (2000)
- 8 Cox, Griffiths, Rial-González (2000)
- 9 WHO (2010)
- 10 Cox, Griffiths, Rial-González (2000)
- 11 WHO (2010)
- 12 Bhalla et al. (1991)
- 13 Burke, 1988
- 14 Karasek (1990)
- 15 Cox, Griffiths, Rial-Gonzalez, (2000)
- 16 Wall et al (1990)
- 17 Cooper, Cartwright (1994); Frone et al. (1992)
- 18 ILO (2012b)
- 19 Cobb,Kasl (1977); Cohen, Willis (1985); House, Wells (1978)
- 20 Bennett, Lehman (1999)
- 21 WHO (2010)
- 22 Kornhauser (1965)
- 23 Kahn, et al (1964); Katz, Khan (1966); Sauter, Hurrell (1999); Zickar (2003)
- 24 Kahn, et al (1964); Kahn (1980)
- 25 Karasek (1979,1990)
- 26 Siegrist (1996)
- 27 Wall et al. (1990)
- 28 Antoniou, Cooper ( 2011)
- 29 ILO (2015)
- 30 EU-OSHA (2007), Kawachi (2008)
- 31 Benach et al. (2002); Quinlan (2004); Quinlan, Mayhew, Bohle (2001)
- 32 Barber, Santuzzi (2014)
- 33 Frone, Russel, Cooper (1992,1997); Greenhaus, Beutell (1985)
- 34 European Commission (2010)
- 35 ILO (2009a)
- 36 Jahoda (1982,1989)
- 37 OECD (2012)
- 38 Bohle, Quinlan, Kennedy, Williamson (2004); Weber, Hormann, Heipertz (2007)
- 39 WHO (2011b)
- 40 Zohar (1980,2000)
- 41 Bergh et al. (2014); Ghosh, Bhattacharjee, Chau (2004); Glasscock et al. (2006); Li et al. (2001) ; Sneddon, Mearns, Flin (2013); Stenfors et al. (2013); Vecchio et al. (2011)
- 42 Chan (2011); Mearns (2001); Payne et al. (2009)
- 43 Julila et al. (2013); Nakata et al. (2006) ; Salminen et al. (2003); Swaen et al. (2004)
- 44 Hilton, Whiteford (2010); Nahrgang, Morgeson, Hofmann (2011)
- 45 Domenighetti, D'Avanzo, Bisig (2000); Kouvonon et al. (2007) ; Macleod et al. (2001); Ng,Jeffery (2003); Nomura et al. (2010); Siegrist, Rödel (2006); Silva, Barreto (2012); Tsai (2012); Wempe, Rosvall (2005)
- 46 Darshan et al. (2013); Gershon, Lin, Li (2002); Head, Stansfeld, Siegrist (2004); Marchand (2008); Neves, Pinheiro (2012); Virtanen et al. (2015);
- 47 Radi, Ostry, Lamontagne (2007)
- 48 WHO, Tobacco (Fact sheet N°339, Updated 6 July 2015), <http://www.who.int/mediacentre/factsheets/fs339/en/> ; Alcohol (Fact sheet N°349, Updated January 2015), <http://www.who.int/mediacentre/factsheets/fs349/en/>
- 49 WHO , Physical activity (Fact sheet N°385, Updated January 2015), <http://www.who.int/mediacentre/factsheets/fs385/en/>
- 50 Fido, Ghali (2008); Rugulies et al. (2009); Magnusson Hanson, Chungkham, Åkerstedt, Westerlund (2014); Nordin, Westerholm, Alfredsson, Åkerstedt (2012)
- 51 WHO, Cardiovascular diseases (CVDs) (Fact sheet N°317, Updated January 2015), <http://www.who.int/mediacentre/factsheets/fs317/en/>
- 52 Hemingway, Marmot (1999)
- 53 Eller et al. (2009); Kivimäki et al. (2006, 2012); Marmot, Siegrist, Theorell (2006); Tsutsumi, Kawakami (2004).
- 54 Aboa-Eboulé et al. (2007); Berraho et al. (2006); Bonde et al. (2009); Chandola et al. (2008); Sultan-Taïeb et al. (2013); Kivimäki et al. (2002); Rosengren et al. (2004); Siedlecka, Bortkiewicz, Gadzicka (2012);Theorell et al. (1998); Westerlund, Theorell, Alfredsson (2004)
- 55 Bojar et al. (2011); Li, Jin (2007); Nurminen, Karjalainen (2001); Raikkonen et al. (1996); Schnall et al. (1998); Sultan-Taïeb et al. (2013)
- 56 Belkic et al. (2004); Bunker et al. (2003); Eller et al. (2009); Kristensen, Kronitzer, Alfredsson (1998); Schnall, Landsbergis, Baker (1994); Tennant (2000); Rosengren et al. (2004); Marmot et al. (1997); Rosengren et al. (2004)
- 57 Aboa-Éboulé et al. (2011); Allesøe et al. (2010); Alterman et al. (1994) ; Alterman et al. (1994) ; Bonde et al. (2009); De Bacquer et al. (2005); Juárez-García (2007); Kivimäki et al. (2002); Kornitzer et al. (2006); Kornitzer et al. (2006); Kuper, Adami, Theorell, Weiderpass (2006); Lee et al. (2004); Netterström, Kristensen, Sjø (2006); Peter et al. (2002); Xu et al. (2011)
- 58 Kivimäki et al. (2015); Kivimäki, Kawachi (2015); Liu, Tanaka (2002); Nakanishi et al. (2001); Puttonen, Härmä, Hublin (2010); Roohi, Hayee (2010)
- 59 Chaney et al. (2004); Deeney, O'Sullivan (2009); Fernandes et al. (2010)
- 60 Chaney et al. (2004); Kääriä et al. (2012); Min et al. (2014); Rugulies, Krause (2008); Saastamoinen et al. (2009); Stock, Tissot (2012); Takaki, Taniguchi, Hirokawa (2013)
- 61 Schaufeli, Greenglass (2001)
- 62 Maslach, Jackson (1981); Maslach, Schaufeli, Leiter (2001)
- 63 Maslach, Schaufeli, Leiter (2001); Lee, Ashforth (1993)
- 64 Ávila Toscano et al. (2010); Bagaajav et al. (2011); Batista et al. (2010); Borritz et al. (2006); Couto, Lawoko (2011); De Oliveira Jr, Chang, et al. (2013); Doppia et al. (2011); Estryn-Behar et al. (2008); Gascon et al. (2013); Hansez, Mairiaux, Firket, Braeckman (2011); Ibáñez et al. (2012); Kumar et al. (2007); Lagerström et al. (2010); Lim et al. (2010); Markwell, Wainer (2009); Mathisen, Einarsen, Mykletun (2008); Ndetei et al. (2008); Padyab et al. (2013); Rick et al. (2001); Sardiwalla, VandenBerg, Esterhuysen (2007); Schonfeld, Bianchi (2015)
- 65 Embriaco et al. (2007)
- 66 Alves et al. (2009); Shanafelt et al. (2006); Väänänen et al. (2008)
- 67 Hansez, Mairiaux, Firket, Braeckman (2011)
- 68 Borritz et al. (2006) ; Buddeberg-Fischer et al. (2008); Visser et al. (2003); Wu et al. (2011a); Xie, Wang, Chen (2011)
- 69 Ávila Toscano et al. (2010); Bagaajav et al. (2011); Cañadas-De la Fuente et al. (2015); de Oliveira Jr, Chang, Fitzgerald, Almeida, Castro-Alves, Ahmad, McCarthy (2013); Hansez, Mairiaux, Firket, Braeckman, L. (2011); Norlund et al. (2010); Oramas-Viera et al. (2007); Wu et al. (2011a); Xie, Wang, Chen (2011); Zazzetti et al. (2011).
- 70 WHO (2002)
- 71 Norlund et al. (2010)
- 72 WHO, Depression (Fact sheet N°369, October 2015), <http://www.who.int/mediacentre/factsheets/fs369/en/>
- 73 WFMH (2012)
- 74 APA (2015)
- 75 Mathers et al. (2005)
- 76 Bonde (2008); Ndjaboué, Brisson, Vézina (2012); Stansfeld et al. (1998)
- 77 Blackmore et al. (2007); Bonde (2008); De Lange et al. (2004); Firth, Herbison, McGee (2009); Gershon et al. (2009); LaMontagne et al. (2008); Park et al. (2009); Shankar, Famuyiwa (1991); Stansfeld, Candy (2006); Stansfeld et al. (2012); Tennant (2001); Virtanen et al. (2007); Wang (2005); Zhang et al. (2011)
- 78 Ahlberg et al. (2012); Al-Maskari et al. (2011); Arial, Gonik, Wild, Danuser (2010); Boran et al. (2012); Boya et al. (2008); Castañeda (2012); Cho et al. (2008); Cortés, González-Baltazar, Cortés (2012); Cummings, Estabrooks (2003); Duraisingam, Dollard (2005); Ferrie et al. (2002); Gómez, Hermosa, Perilla (2012); Juárez García et al. (2012); Kopp et al. (2008); Mino et al. (1999); Saijo (2008); Murcia, Chastang, Niedhammer (2013); Netterström et al. (2008); Niedhammer et al. (1998 ; 2006); Park et al. (2009); Rugulies et al. (2006 ;2008); Saijo (2008); Shields (2006); Stansfeld, Candy (2006); Stansfeld et al. (1999 ; 2012); Virtanen et al. (2012); Wang et al. (2008 ;2011); Westerlund et al. (2004); Wu et al. (2011b); Yu et al. (2008);
- 79 Al-Maskari et al. (2011); Arafa, et al. (2003); Cortés, González-Baltazar, Cortés (2012); Duraisingam, Dollard (2005); Gómez, Hermosa, Perilla (2012); Grynderup et al. (2013); Mino et al. (1999); Saijo (2008); Wang et al. (2008)
- 80 Bilgel, Aytac, Bayram (2006); Figueiredo-Ferraz, Gil-Monte, Olivares-Faúndez (2013); Hansen et al. (2006); Niedhammer, David, Degioanni (2006); Reknæs et al. (2013); Rugulies et al. (2012); Sá, Fleming (2008);
- 81 WHO; Gender and women's mental health; [http://www.who.int/mental\\_health/prevention/genderwomen/en/](http://www.who.int/mental_health/prevention/genderwomen/en/)
- 82 WHO, Depression (Fact sheet N°369, October 2015), <http://www.who.int/mediacentre/factsheets/fs369/en/>
- 83 WHO, Suicide (Fact sheet N° 398, Reviewed August 2015), <http://www.who.int/mediacentre/factsheets/fs398/en/>
- 84 Foster (2011)
- 85 Eurofound (2007)
- 86 EU-OSHA (2009)
- 87 EU-OSHA (2010a)
- 88 Eurofound, Eu-OSHA (2014)
- 89 Eurofound (2016)
- 90 OISS and INSHT (2012)
- 91 Cornelio et al. (2012); Cornelio (2013)
- 92 Santana, Santana (2011)
- 93 Duxbury, Higgins (2012)
- 94 Dirección del Trabajo, Gobierno de Chile (2012)
- 95 ACHS (2013)
- 96 Ministerio de la Protección Social, Colombia (2007)

- 97 APA (2015)
- 98 APS (2014)
- 99 MHLW (2011)
- 100 Choi, Ha (2009)
- 101 Kim, Park, Rhee, Kim (2015)
- 102 Herman et al. (2009) ; Sipsma et al. (2013)
- 103 Peltzer et al. (2009)
- 104 Al-Maskari, colleagues (2011); Amagasa, Nakayama, Takahashi (2005); Fridner et al. (2009); Fridner et al. (2011); Hawton, Malmberg, Simkin (2004); Nielsen et al. (2015); Routley, Ozanne-Smith (2012); Takada, colleagues (2009); Tsutsumi et al. (2007); Yildirim, Yildirim, Timucin (2007)
- 105 Routley, Ozanne-Smith (2012)
- 106 National Statistical Office, Institute for Population and Social Research and the Department of Mental Health (2008)
- 107 Thai Health Working Group (2010)
- 108 MHLW (2012)
- 109 Government of Japan, Cabinet Office (2012)
- 110 MHLW (2014)
- 111 Choi, Kang (2010)
- 112 Eurogip (2013)
- 113 Stuckler et al (2009)
- 114 APA (2010)
- 115 WHO (2011a); Eurofound (2013); EUOSHA (2013); EUOSHA (2014b)
- 116 ILO (2015)
- 117 ILO (2012a)
- 118 WHO (2002, 2011)
- 119 Flin, O'Connor, Crichton (2008)
- 120 Kivimaki et al (2003); Miche (2002); Spurgeon, Harrington, Cooper (1997); Vahtera, Pentti, Kivimaki (2004); Van den Berg et al. (2009)
- 121 Aronsson, Gustafsson, Dallner (2000)
- 122 Borritz et al. (2010); Bourbonnais, Mondor (2001); Chini (2003); Derycke et al. (2013); Ervasti et al. (2011); Fahlén et al. (2009); Figueiredo-Ferraz et al. (2012); Head et al. (2006); Holmgren, Fjällström-Lundgren, Hensing (2013); Ishizaki et al. (2006); Kiran, Günar, Demiral (2012); Kivimaki, Elovainio, Vahtera (2000); Kondo et al. (2006); Laaksonen et al. (2010); Magnavita, Garbarino (2013); Michie, Williams (2003); Moreau et al. (2003); Otsuka et al. (2007); Rehkopf, Kuper, Marmot (2010); Slany et al. (2013); Suominen et al. (2007); Virtanen et al. (2007)
- 123 Elstad, Vabø (2008)
- 124 Aronsson, Gustafsson (2005); Hansen, Andersen (2008)
- 125 Demerouti et al. (2009)
- 126 Faragher, Cass, Cooper (2005)
- 127 Al Khalidi, Wazaify (2013); Al-Ahmadi (2002); Al-Mashaan (2001); Chung, Kowalski (2012); Cortese, Colombo, Ghislieri (2010); De Croon et al. (2002); Farquharson et al. (2012); Ho et al. (2009); Jamal (1990); Kazi, Haslam (2013); Mosadeghrad, Ferlie, Rosenberg (2011); Nabirye et al. (2011); Quine (2001); Rodwell et al. (2009)
- 128 Abu Al Rub, Al-Zaru (2008); Jourdain, Chênevert (2010); Karantzas et al. (2012); Kuusio et al. (2013); Li et al. (2013); Ofili, Usiholo, Oronsaye (2009); Suadicani et al. (2013); Tominaga, Asakura, Akiyama (2007); Von Bonsdorff et al. (2010); Yeh, Yu (2009)
- 129 Kim, Lee (2009)
- 130 Matrix Insight (2012)
- 131 Safe Work Australia (2012a)
- 132 Dollard et al. (2012), Safe Work Australia (2013)
- 133 Anderssen (2011)
- 134 Trontin, Lassagne, Boini, Rinal (2010)
- 135 Bodeker, Friedrichs (2011)
- 136 EU OSHA (2014)
- 137 HSE (2015)
- 138 Sainsbury Centre for Mental Health (2007)
- 139 Declaracion sociolaboral del Mercosur, Rio de Janeiro, 10.12.1998; Art. 17
- 140 Instrumento Andino de Seguridad y Salud en el Trabajo. Decisión 584. Sustitución de la Decisión 547 (2004)
- 141 COUNCIL DIRECTIVE of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work (89/391/EEC)
- 142 COUNCIL DIRECTIVE of 29 May 1990 on the minimum safety and health requirements for work with display screen equipment (fifth individual Directive within the meaning of Article 16 (1) of Directive 87/391/EEC) (90/270/EEC)
- 143 EU Framework agreement on prevention from sharp injuries in the hospital and healthcare (2009)
- 144 COUNCIL DIRECTIVE of 10 May 2010 implementing the Framework Agreement on prevention from sharp injuries in the hospital and healthcare sector concluded by HOSPEEM and EPSU (2010/32/EU)
- 145 Hansen et al. (2015)
- 146 Directorate of Labour Inspection (Norway); Act of 17 June 2005 No. 62 relating to working environment, working hours and employment protection, etc. (The Working Environment Act – «Arbeidsmiljøloven») as subsequently amended, last by the Act of 14. December 2012 No. 80; Chap. 4, Section 4-3
- 147 Hansen et al (2015)
- 148 Secretaría del Trabajo y Prevision Social (Mexico); Reglamento Federal de Seguridad y Salud en el Trabajo, D.O.F. 13/11/2014; Art. 3 (XVII)
- 149 Parliament of Estonia (*Riigikogu*); Occupational Health and Safety Act, RT I 1999, 60, 616, Entry into force 26.07.1999, as amended (Last amendment: RT I, 10.07.2012, 2; 01.04.2013); Art. 9 (2)
- 150 Arrêté royal du 10 avril 2014 relatif à la prévention des risques psychosociaux au travail (M.B. 28.4.2014)
- 151 Ministerio de la Protección Social (Colombia); Resolución 002646 DE 2008 (julio 17) por la cual se establecen disposiciones y se definen responsabilidades para la identificación, evaluación, prevención, intervención y monitoreo permanente de la exposición a factores de riesgo psicosocial en el trabajo y para la determinación del origen de las patologías causadas por el estrés ocupacional
- 152 Ministry of Labour (Namibia); Regulations relating to the health and safety of employees at work (Government Notice No. 156 of 1997); Art. 200
- 153 Presidencia de la República Bolivariana de Venezuela; Ley Organica Del Trabajo, los Trabajadores y las Trabajadoras, Decreto N° 8.938 – 30 de abril de 2012; Tit. III, Cap. V, Art. 156
- 154 Assemblée Nationale du Burkina Faso; Loi N° 028-2008/AN portant Code du Travail au Burkina Faso (13 mai 2008) ; Art. 236
- 155 Ministry of Employment and Labor (Republic of Korea); Occupational Safety and Health Act, Act No. 3532, Dec. 31, 1981, as amended (Last amendment Act NO. 11882, Jun 12, 2013); Art 5 (1)
- 156 Secretaría del Trabajo y Prevision Social (Mexico); Reglamento Federal de Seguridad y Salud en el Trabajo, D.O.F. 13/11/2014; Art. 43
- 157 Ministry of Labour and Social Policies (Italy); Legislative Decree No. 81 of 9 April 2008 (Testo Unico sulla Salute e Sicurezza sul Lavoro); Art. 28
- 158 Minister for Social Security and Labour and the Minister for Health of the Republic of Lithuania; Regulations for occupational risk assessment approved by Order No A1-159/V-612 of 16 October 2003 (Žin., 2003, No 100-4504)
- 159 Ministry of Manpower (Oman); Occupational Safety Regulations governing by the Labour Code (Ministerial Decision 286/2008). Part Three, Art. 26
- 160 Presidencia de la República Bolivariana de Venezuela; Ley Organica Del Trabajo, los Trabajadores y las Trabajadoras (2012); Arts. 367 (15), 368 (12)
- 161 République du Niger; Loi No. 2012-45 du 25 septembre 2012 portant Code du travail de la République du Niger; Art. 155
- 162 República de El Salvador; Reglamento General en materia de Prevención de Riesgos en los Lugares de Trabajo (Decreto núm. 89 de 27 de abril de 2012); Sec. VI; Artt. 278-282
- 163 Constitución política del estado de Plurinacional de Bolivia (2009); Art. 49 III
- 164 Hansen et al. (2011)
- 165 Duffy, Sperry (2012)
- 166 European Social Dialogue: Multi-sectoral guidelines to tackle third-party violence and harassment related to work, <http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=896&furtherNews=yes>
- 167 European Commission (2013)
- 168 Eurogip (2013)
- 169 Dollard (2014); MHLW (2012)
- 170 National Assembly of Nigeria; Employees Compensation Act (2010). Minister of Social Affairs and Labour (Syrian Arab Republic); Decision No. 990 on stress as a cause for work injury. Al Jarida Al Rasmiyya, 2002-06-10, No.28, p. 1740
- 171 PAS 1010 Guidance on the management of psychosocial risks in the workplace; [www.bsigroup.com/pas1010](http://www.bsigroup.com/pas1010)
- 172 CAN/CSA-Z1003-13/BNQ 9700-803/2013 – Psychological health and safety in the workplace – Prevention, promotion, and guidance to staged implementation; <http://shop.csa.ca/en/canada/occupational-health-and-safety-management/canca-z1003-13bnq-9700-8032013/invt/z10032013>
- 173 European Commission (2011)
- 174 European Commission (2011)
- 175 European Commission (2011)
- 176 Eurofound, EU-OSHA (2014)
- 177 ILO (2014)
- 178 Eurofound, EU-OSHA (2014)
- 179 Velázquez (2012)
- 180 Hansen et al. (2015)
- 181 Jhonstone, Quinlan, McNamara (2011)
- 182 European Commission (2011)
- 183 Velázquez (2012)
- 184 Velázquez (2012)
- 185 Velázquez (2012)
- 186 Ministerio de Trabajo e Inmigración, España; Criterio Técnico 69/2009 sobre las Actuaciones de la Inspección de Trabajo y Seguridad Social en materia de Acoso y Violencia en el Trabajo; 19/02/2009
- 187 Velázquez (2012)
- 188 ILO (2012c)
- 189 ILO (2012b)
- 190 ILO (1996)
- 191 WHO (2007b)
- 192 WHO (2010a)

- 193 WHO (2010a)
- 194 WHO (2013)
- 195 ISSA (2012)
- 196 OECD (2012)
- 197 World Bank Group (2015)
- 198 WEF, Global Agenda Council on Mental Health, <http://www.weforum.org/communities/global-agenda-council-on-mental-health>
- 199 SADC, Protocol on Health; Date Signed: 1999-08-18; Entry Into Force: 2004-08-18. [http://www.sadc.int/files/7413/5292/8365/Protocol\\_on\\_Health1999.pdf](http://www.sadc.int/files/7413/5292/8365/Protocol_on_Health1999.pdf)
- 200 League of Arab States, Revised Arab Charter on Human Rights, May 22, 2004, entered into force March 15, 2008
- 201 Regional Action Plan on Healthy ASEAN Lifestyles, [http://www.asean.org/?static\\_post=regional-action-plan-on-healthy-asean-lifestyles](http://www.asean.org/?static_post=regional-action-plan-on-healthy-asean-lifestyles)
- 202 SAARC, Delhi Declaration on Public Health Challenges (8 April 2015), SAARC Health Ministers: Fifth Meeting [http://www.saarc-sec.org/areaofcooperation/detail.php?activity\\_id=52](http://www.saarc-sec.org/areaofcooperation/detail.php?activity_id=52)
- 203 Declaration of Commitment of Port of Spain, Fifth Summit of the Americas (2009), <http://www.state.gov/documents/organization/122843.pdf>
- 204 ILO (1998)
- 205 OAS, Declaration of Medellín 2013: 50 Years of Inter-American Dialogue for the Promotion of Social Justice and Decent Work: Progress and Challenges Towards Sustainable Development; Approved during the closing session held on November 12, 2013; Inter-American Council for Integral Development
- 206 CARICOM (2010)
- 207 PAHO (2014)
- 208 European Pact for Mental Health and Wellbeing (2008)
- 209 European Parliament resolution of 19 February 2009 on Mental Health (2008/2209(INI))
- 210 PRIMA-EF Psychosocial Risk Management Excellence Framework; <http://www.prima-ef.org/>
- 211 Lindstrom et al. (2000)
- 212 PSYRES, <http://www.psyres.pl/>
- 213 Ministerio de Trabajo, Empleo y Seguridad Social, SRT, II Estrategia Argentina De Salud Y Seguridad En El Trabajo 2015 – 2019; Buenos Aires, 2015
- 214 Safe Work Australia (2012)
- 215 Ministry of Employment, Denmark , A strategy for working environments efforts up to 2020
- 216 Ministry of Social Affairs and Health, Finland , Policies for the Work Environment and Well-being at Work until 2020 <https://www.julkari.fi/bitstream/handle/10024/112065/URN%3ANBN%3Afi-fe201504223826.pdf?sequence=1>
- 217 Eurofound, EU-OSHA (2014)
- 218 European Parliament (2013)
- 219 Federal Ministry of Labour and Social Affairs, Confederation of German employers' Associations, German Trade Union Confederation, Joint Declaration on Mental Health in the Workplace, [http://www.bmas.de/SharedDocs/Downloads/DE/PDF-Publikationen/a449e-joint-declaration.pdf?\\_\\_blob=publicationFile](http://www.bmas.de/SharedDocs/Downloads/DE/PDF-Publikationen/a449e-joint-declaration.pdf?__blob=publicationFile)
- 220 Eurofound, EurWORK, Germany: Occupational health strategy focuses on work-related stress (Published on: 15 February 2016), <https://www.eurofound.europa.eu/observatories/eurwork/articles/working-conditions/germany-occupational-health-strategy-focuses-on-work-related-stress>
- 221 Ministry of Labour, Industrial Relations and Employment, Mauritius, National Occupational Safety and Health Policy – Mauritius (Revised 2015), [http://www.ilo.org/wcmsp5/groups/public/---ed\\_protect/---protrav/---safework/documents/policy/wcms\\_354301.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/policy/wcms_354301.pdf)
- 222 Ministry of Business, Innovation and Employment, New Zealand, Workplace Health and Safety Strategy for New Zealand to 2015 (<http://dol.govt.nz/whss/strategy/index.asp>)
- 223 Mental Health Commission of Canada (2012)
- 224 Ministerio de Sanidad, España, Estrategia en Salud Mental del Sistema Nacional de Salud, 2006 ([http://www.mssi.gob.es/organizacion/sns/planCalidadSNS/pdf/excelencia/salud\\_mental/ESTRATEGIA\\_SALUD\\_MENTAL\\_SNS\\_PAG\\_WEB.pdf](http://www.mssi.gob.es/organizacion/sns/planCalidadSNS/pdf/excelencia/salud_mental/ESTRATEGIA_SALUD_MENTAL_SNS_PAG_WEB.pdf)); Estrategia en Salud Mental del Sistema Nacional de Salud 2009-2013 (<http://www.mssi.gob.es/organizacion/sns/planCalidadSNS/docs/saludmental/SaludMental2009-2013.pdf>)
- 225 Heads up, <https://www.headsup.org.au/>
- 226 NIOH, Mental Health Awareness Month 2015, <http://www.nioh.ac.za/?page=topical&id=13&rid=597>
- 227 FIOH, Psychosocial Factors, [http://www.ttl.fi/en/fioh/organization/work\\_organizations/psychosocial\\_factors/Pages/default.aspx](http://www.ttl.fi/en/fioh/organization/work_organizations/psychosocial_factors/Pages/default.aspx)
- 228 DARES (2015)
- 229 Lohmann-Haislah (2012)
- 230 NIOSH, <http://www.cdc.gov/niosh/topics/stress/>
- 231 WSH Institute, <https://www.wsh-institute.sg/psychosocialstress>
- 232 European Parliament (2013)
- 233 Hansen et al. (2015)
- 234 Dollard (2014)
- 235 European Parliament (2013)
- 236 DOSH, Guidance for the Prevention of Stress and Violence at the Workplace, 2001 [http://www.dosh.gov.my/index.php?option=com\\_docman&task=catview&gid=16&Itemid=179&lang=en](http://www.dosh.gov.my/index.php?option=com_docman&task=catview&gid=16&Itemid=179&lang=en)
- 237 Tripartite Advisory on Managing Workplace Harassment, <http://www.mom.gov.sg/~media/mom/documents/employment-practices/guidelines/tripartite-advisory-on-managing-workplace-harassment.pdf?la=en>
- 238 Ministerio de Salud, Chile (2013), Resolución Exenta N° 336 (12/06/2013) que aprueba el Protocolo de Vigilancia de Riesgos Psicosociales en el Trabajo
- 239 SRT, Universidad Nacional de Avellaneda (2015)
- 240 People at Work; <http://www.peopleatworkproject.com.au/>
- 241 CCOHS, Psychosocial Hazards, <http://www.ccohs.ca/topics/hazards/psychosocial/>
- 242 CSO, Factores psicosociales, <http://www.cso.go.cr/tematicas/psicosociales.html>
- 243 ANACT, Risques psychosociaux, <http://www.anact.fr/themes/risques-psychosociaux>
- 244 CINDOC-CENSOPAS, <https://censopascindoc.wordpress.com/material-censopas/>
- 245 European Parliament (2013)
- 246 NICE Guidance, Mental health and wellbeing, <http://www.nice.org.uk/guidance/lifestyle-and-wellbeing/mental-health-and-wellbeing>
- 247 Di Tecco et al. (2015)
- 248 DGUV; Lernen und Gesundheit das Schulportal der DGUV, <http://www.dguv-lug.de/845697.php>
- 249 European Parliament (2013)
- 250 Suva; Progrès – La réponse de la Suva sur le développement des troubles de la santé associés au travail, <http://www.suva.ch/fr/startseite-suva/praevention-suva/arbeit-suva/progres-suva.htm#pageindex76581>
- 251 European Social Partners (2008)
- 252 European Parliament (2013)
- 253 European Parliament (2013)
- 254 European Commission (2011)
- 255 European Commission (2011)
- 256 IOE (2012, 2013)
- 257 BUSINESS EUROPE, European campaign on stress and psychosocial risks. Our message, <https://www.busineurope.eu/sites/buseur/files/media/imported/2015-00197-E.pdf>
- 258 CSR Europe (2009)
- 259 European Commission (2011)
- 260 IBEC (2012)
- 261 ITUC (2010)
- 262 WFTU, The health and safety of workers in our time; 16<sup>th</sup> World Trade Union Congress, 6-10 April 2011, [http://www.wftucentral.org/download/wftu\\_congress-documents\\_health-and-safety\\_2011\\_en\\_esp\\_fr\\_ar\(2\).pdf](http://www.wftucentral.org/download/wftu_congress-documents_health-and-safety_2011_en_esp_fr_ar(2).pdf)
- 263 UNI Global Union (2010)
- 264 UNI Work Life Management Fortnight ; [http://www.uniworklifemanagement.org/?page\\_id=2](http://www.uniworklifemanagement.org/?page_id=2)
- 265 ITF Seafarers; <http://www.itfseafarers.org/ITI-health.cfm>
- 266 ITUC; Workers' health and safety to be addressed by G20; <http://www.ituc-csi.org/workers-health-and-safety-to-be>
- 267 ITUC Africa (2013)
- 268 ITUC Africa, Communiqué du Conseil Général de la CSI-Afrique sur les questions d'égalité entre les hommes et les femmes, <http://www.ituc-africa.org/Communique-du-Conseil-General-de.html?lang=fr>
- 269 ETUC (2004, 2007)
- 270 ETUC, Action Programme 2015-2019, [https://www.etuc.org/sites/www.etuc.org/files/other/files/20151007\\_action\\_programme\\_en-consolidated\\_0.pdf](https://www.etuc.org/sites/www.etuc.org/files/other/files/20151007_action_programme_en-consolidated_0.pdf)
- 271 ETUI, Stress, Harassment and Violence; <http://www.etui.org/Topics/Health-Safety/Stress-harassment-and-violence>
- 272 DGB (2015)
- 273 European Parliament (2013)
- 274 ICOH (2014)
- 275 ISO (2004)
- 276 Bustos Villar et al.(2015)
- 277 AESAN-OSHNET; Stress mangement program in workplace; [http://www.aseanoshnet.org/index.php?option=com\\_k2&view=item&id=125:stress-management-program-in-workplace](http://www.aseanoshnet.org/index.php?option=com_k2&view=item&id=125:stress-management-program-in-workplace)
- 278 Constitution of the Asia Pacific Academy for Psychosocial Factors at Work, [http://icg-ohp.weebly.com/uploads/1/1/0/2/11022736/constitution\\_of\\_the\\_asia\\_pacific\\_academy\\_for\\_psychosocial\\_factor\\_at\\_work\\_-\\_final\\_-\\_06122013.pdf](http://icg-ohp.weebly.com/uploads/1/1/0/2/11022736/constitution_of_the_asia_pacific_academy_for_psychosocial_factor_at_work_-_final_-_06122013.pdf)
- 279 EAHP; <http://www.eahp.org/>
- 280 ENETOSH; [http://www.enetosh.net/webcom/show\\_article.php/\\_c-178/\\_lkm-150/i.html](http://www.enetosh.net/webcom/show_article.php/_c-178/_lkm-150/i.html)
- 281 ENMHP; <http://www.mentalhealthpromotion.net/?i=portal.en.about>
- 282 ENWHP; Work in tune with life; <http://www.enwhp.org/enwhp-initiatives/8th-initiative-work-in-tune-with-life.html>
- 283 PEROSH; Psychosocial well-being in a sustainable working organisation; <http://www.perosh.eu/research-priorities/psychosocial-well-being-in-a-sustainable-working-organisation/>
- 284 PEROSH; Well Being and Work; <http://www.perosh.eu/research-projects/perosh-projects/well-being-and-work/>

# ANNEX 1. ASSESSMENT AND INTERVENTION TOOLS

**TABLE 1.1 · QUESTIONNAIRES TO ASSESS PSYCHOSOCIAL RISKS, WORK-RELATED STRESS AND BURNOUT**

<b>BURNOUT MEASURE (BM) (PINES &amp; ARONSON 1988) [1981]</b>	
TOPICS	Burnout – Physical exhaustion, emotional exhaustion & mental exhaustion
LANGUAGES	Dutch, English
<b>CANEVAS (DELAUNOIS ET AL. 2002) [1995]</b>	
TOPICS	Company stress diagnosis at given moment. Initial global evaluation of situation (service, department, company, organization) in terms of risks/ confirmation of stress
LANGUAGE	French
<b>COPENHAGEN PSYCHOSOCIAL QUESTIONNAIRE (COPSOQ) (KRISTENSEN ET AL. 2005) [2002]</b>	
TOPICS	Psychosocial factors, stress, individual health/wellbeing, personality factors (coping style, sense of coherence, etc.)
LANGUAGES	Chinese, Croatian, Danish, Dutch, English, Flemish, German, Malaysian, Norwegian, Persian, Portuguese, Spanish, Swedish
<b>COPENHAGEN BURNOUT INVENTORY (CBI) (KRISTENSEN ET AL., 2005) [2005]</b>	
TOPICS	Burnout – Fatigue and exhaustion
LANGUAGES	Cantonese, Danish, English, Finnish, French, Japanese, Mandarin, Slovenian, Swedish
<b>EFFORT-REWARD IMBALANCE (ERI) (SIEGRIST ET AL. 2004) [1994]</b>	
TOPICS	Effort-reward relations as determinants of well-being
LANGUAGES	Chinese, Czech, Danish, Dutch, English, Finnish, French, German, Italian, Japanese, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish
<b>GENERAL NORDIC QUESTIONNAIRE (QPS NORDIC) (LINDSTROM 2002) [2000]</b>	
TOPICS	Psychological/social factors (as potential determinants of motivation, health and well-being)
LANGUAGES	Danish, English, Finnish, Greek, Icelandic, Norwegian, Swedish
<b>HSE INDICATOR TOOL (HSE) [2004]</b>	
TOPICS	Conditions known to be potential determinants of work-related stress
LANGUAGES	Arabic, Bengali, Chinese, English, Farsi, Gujarati, Hindi, Hungarian, Kurdish, Pashto, Polish, Punjabi, Russian, Tamil, Turkish, Urdu, Welsh
<b>JOB CHARACTERISTICS INDEX (JCI) (SIMS ET AL. 1976)</b>	
TOPICS	Subjectively perceived job characteristics
LANGUAGE	English
<b>JOB CONTENT QUESTIONNAIRE (JCQ) (KARASEK ET AL. 1998) [1985]</b>	
TOPICS	Content of respondents' work tasks using high-demand/low-control/low-support model of job strain development
LANGUAGES	Bulgarian, Chinese, Czech, Dutch, English, Flemish, French, German, Greek, Iceland, Italian, Japanese, Korean, Malaysian, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish, Thai
<b>JOB DIAGNOSTIC SURVEY (JDS) (HACKMAN AND OLDFHAM 1975) [1975]</b>	
TOPICS	Subjectively perceived job characteristics
LANGUAGE	English
<b>JOB STRESS SURVEY (JSS) (VAGG AND SPIELBERG 1999) [1994]</b>	
TOPICS	Severity/frequency of working conditions
LANGUAGES	English, French
<b>MASLACH BURNOUT INVENTORY (MBI) (MASLACH ET AL. 1996) [1981]</b>	
TOPICS	Burnout – emotional exhaustion, depersonalization, and reduced personal accomplishment (relabelled as: Exhaustion, Cynicism and Professional competence)
LANGUAGES	Dutch, English, Greek, others
<b>MULTIDIMENSIONAL ORGANIZATIONAL HEALTH QUESTIONNAIRE (MOHQ) (AVALLONE AND PAMPLOMATAS 2005) [2003]</b>	
TOPICS	Indicators of organizational wellbeing
LANGUAGE	Italian
<b>NIOSH GENERIC JOB STRESS QUESTIONNAIRE (HURRELL AND MCLANEY 1988) [1988]</b>	
TOPICS	Job characteristics, psychosocial factors, physical conditions, safety hazards, stress, health and job satisfaction
LANGUAGES	Chinese, English, Japanese, Korean, Spanish
<b>NOVA WEBB QUESTIONNAIRE (HUYS AND DE RICK 2005) [1992]</b>	
TOPICS	Stress-related risks
LANGUAGE	Dutch

(CONT.) >>

TABLE 1.1 · QUESTIONNAIRES TO ASSESS PSYCHOSOCIAL RISKS, WORK-RELATED STRESS AND BURNOUT (CONT.)

<b>OCCUPATIONAL STRESS INDEX (OSI) (BELKIC 2000) [2003]</b>	
TOPICS	Occupational stress burdens
LANGUAGES	Bosnian, English, Serbian, Swedish
<b>OCCUPATIONAL STRESS INDICATOR (OSIND) (COOPER ET AL. 1988) [1988]</b>	
TOPICS	Stressful working conditions
LANGUAGES	Chinese, English, Italian
<b>OCCUPATIONAL STRESS INVENTORY (OSINV) (OSIPOW 1992) [1980]</b>	
TOPICS	Occupational adjustment in terms of job stressors, personal strain, and coping
LANGUAGES	Chinese, English
<b>OCCUPATIONAL STRESS QUESTIONNAIRE (ELO ET AL. 1998) [1992]</b>	
TOPICS	Occupational stress: perceived work/environmental stressors, individual stress reactions, and organizational influence
LANGUAGES	English, Finnish
<b>OLDENBURG BURNOUT INVENTORY (OLBI) (HALBESLEBEN AND DEMEROUTI 2005) [1999]</b>	
TOPICS	Burnout – exhaustion and disengagement
LANGUAGES	English, German, Greek
<b>POSITION ANALYSIS QUESTIONNAIRE (PAQ) (MCCORMICK ET AL. 1972) [1972]</b>	
TOPICS	Position and job stress evaluations
LANGUAGE	English
<b>PRESSURE MANAGEMENT INDICATOR (WILLIAMS AND COOPER 1998) [1998]</b>	
TOPICS	Workplace pressure
LANGUAGES	English, “over 20 languages”
NOTES	Developed from Occupational Stress Indicator
<b>PSYCHOSOCIAL WORKING CONDITIONS (PWC) (WIDERSZAL-BAZYL AND CIESLAK 2000) [2000]</b>	
TOPICS	Stress impact of psychosocial working conditions
LANGUAGE	Polish
<b>STRESS DIAGNOSTIC SURVEY (SDS) (IVANCEVICH ET AL. 1983) [1983]</b>	
TOPICS	Identify specific areas of high job stress in work environment
LANGUAGE	English
<b>STRESS D'ORGANISATION QUESTIONNAIRE (VOS-D) (PREVENT 2005) [1986]</b>	
TOPICS	Work conditions to facilitate task accomplishment for challenged workers
LANGUAGES	Dutch, French
<b>STRESS PROFILE (SETTERLIND AND LARSON 1995) [1995]</b>	
TOPICS	Psychosocial work environment
LANGUAGES:	Danish, English, Estonian, Finnish, French German, Norwegian
<b>STRESS RISK ASSESSMENT QUESTIONNAIRE (SRA) (STRESSRISK.COM) [2003]</b>	
TOPICS	Workplace stress
LANGUAGE	English
<b>TRAVAIL ET SANTÉ (VAG) (CONSEIL NATIONAL DU TRAVAIL (CNT) 2004; FÉDÉRATION GÉNÉRALE DU TRAVAIL DE BELGIQUE (FGTB) 2002) [1993]</b>	
TOPICS	Characteristics of workplace stress
LANGUAGES	Dutch, French
<b>TRIPOD SIGMA QUESTIONNAIRE (WIEZER AND NELEMANS 2005) [2003]</b>	
TOPICS	Stress management tool
LANGUAGE	Dutch
<b>VRAGENLIJST BELEVING EN BEOORDELING VAN DE ARBEID (VBBA) (VAN VELDHOVEN AND BROERSEN 2003) [1994]</b>	
TOPICS	Causes and consequences of work-environment factors
LANGUAGES	Dutch, French (Questionnaire sur le Vécu du Travail; VT)
<b>WORK ENVIRONMENT SCALE (WES) (MOOS 1981) [1981]</b>	
TOPICS	Social climate of work units
LANGUAGE	English
<b>WORKING CONDITIONS AND CONTROL QUESTIONNAIRE (WOCQC) (DE KEYSER AND HANSEZ 1996) [2001]</b>	
TOPICS	Psychosocial risk and workers' job-control
LANGUAGES	Dutch, English, French

**TABLE 1.2 · TOOLS FOR THE ASSESSMENT, MANAGEMENT AND PREVENTION OF PSYCHOSOCIAL RISKS AND WORK-RELATED STRESS**

<b>DOSSIER RISQUES PSYCHOSOCIAUX</b>	
TYPE	Guide
DEVELOPED BY	Institut national de recherche et de sécurité (INRS), <i>France</i>
LANGUAGE	French
LINK	<a href="http://www.inrs.fr/risques/psychosociaux.html">www.inrs.fr/risques/psychosociaux.html</a>
<b>ERGO.ONLINE</b>	
TYPE	On line platform
DEVELOPED BY	Hessian Ministry of Social Affairs, <i>Germany</i>
LANGUAGE	German
LINK	<a href="http://www.ergo-online.de/">http://www.ergo-online.de/</a>
<b>FICHAS DE PREVENCIÓN DE RIESGOS PSICOSOCIALES</b>	
TYPE	Guide / Fact sheet
DEVELOPED BY	Observatorio de riesgos psicosociales de la Unión General de Trabajadores (UGT), <i>Spain</i>
LANGUAGE	Spanish
LINK	<a href="http://portal.ugt.org/saludlaboral/observatorio/fichas/fichas.htm">http://portal.ugt.org/saludlaboral/observatorio/fichas/fichas.htm</a>
<b>FPSICO 3.1</b>	
TYPE	On line platform
DEVELOPED BY	Instituto Nacional de Seguridad e Higiene en el Trabajo (INSHT), <i>Spain</i>
LANGUAGE	Spanish
LINK	<a href="http://www.insht.es/portal/site/Insht/menuitem.1f1a3bc79ab34c578c2e8884060961ca/?vgnextoid=0b3deb0844790310VgnVCM1000008130110aRCD&amp;vgnnextchannel=ac18b12ff8d81110VgnVCM100000dc0ca8c0RCRD">http://www.insht.es/portal/site/Insht/menuitem.1f1a3bc79ab34c578c2e8884060961ca/?vgnextoid=0b3deb0844790310VgnVCM1000008130110aRCD&amp;vgnnextchannel=ac18b12ff8d81110VgnVCM100000dc0ca8c0RCRD</a>
<b>GOOD WORK. GOOD HEALTH. IMPROVING THE MENTAL WELLBEING OF WORKERS WITHIN THE TELECOMMUNICATIONS SECTORS.</b>	
TYPE	Guide
DEVELOPED BY	European Telecommunication Network Operators Association (ETNO) and UNI global union Europa, <i>EU</i>
LANGUAGE	English
LINK	<a href="https://www.etno.eu/datas/publications/studies/etno-goodpracticeguidelines-en.pdf">https://www.etno.eu/datas/publications/studies/etno-goodpracticeguidelines-en.pdf</a>
<b>GUIDANCE FOR THE PREVENTION OF STRESS AND VIOLENCE AT THE WORKPLACE</b>	
TYPE	Guide
DEVELOPED BY	Department of Occupational Safety and Health (DOSH), <i>Malaysia</i>
LANGUAGES	English, Malaysian
LINK	<a href="http://www.dosh.gov.my/index.php?option=com_docman&amp;task=cat_view&amp;gid=16&amp;Itemid=179&amp;lang=en">http://www.dosh.gov.my/index.php?option=com_docman&amp;task=cat_view&amp;gid=16&amp;Itemid=179&amp;lang=en</a>
<b>GUIDANCE ON WORK-RELATED STRESS – SPICE OF LIFE OR KISS OF DEATH?</b>	
TYPE	Guide
DEVELOPED BY	European Commission, <i>EU</i>
LANGUAGES	English, French, German, Italian, Spanish
LINK	<a href="https://osha.europa.eu/en/legislation/guidelines/guidance-on-work-related-stress">https://osha.europa.eu/en/legislation/guidelines/guidance-on-work-related-stress</a>
<b>GUIDE PRATIQUE DU DÉLÈGUE À LA SÉCURITÉ. AGIR AU QUOTIDIEN, AUX CÔTÉS DES SALARIÉS. LA PRÉVENTION DES RISQUES PSYCHOSOCIAUX.</b>	
TYPE	Guide
DEVELOPED BY	Chambre des salariés (CSL), <i>Luxembourg</i>
LANGUAGE	French
LINK	<a href="http://www.csl.lu/component/rubberdoc/doc/2092/raw">http://www.csl.lu/component/rubberdoc/doc/2092/raw</a>
<b>HEADS UP</b>	
TYPE	On line platform
DEVELOPED BY	Mentally Healthy Workplace Alliance and Beyondblue, <i>Australia</i>
LANGUAGE	English
LINK	<a href="https://www.headsup.org.au/">https://www.headsup.org.au/</a>
<b>HEALTH &amp; SAFETY FACT SHEETS (OSH ANSWERS)</b>	
TYPE	On line resources
DEVELOPED BY	Canadian Centre for Occupational Health and Safety (CCOHS), <i>Canada</i>
LANGUAGES	English, French
LINK	<a href="http://www.ccohs.ca/topics/hazards/psychosocial/stress/">http://www.ccohs.ca/topics/hazards/psychosocial/stress/</a>
<b>HERRAMIENTAS DE GESTIÓN DE LOS RIESGOS PSICOSOCIALES EN EL SECTOR EDUCATIVO</b>	
TYPE	On line platform
DEVELOPED BY	Fundación para la prevención de riesgos laborales, <i>Spain</i>
LANGUAGE	Spanish
LINK	<a href="http://www.prl-sectoreducativo.es/introduccion.html">http://www.prl-sectoreducativo.es/introduccion.html</a>

**TABLE 1.2 - TOOLS FOR THE ASSESSMENT, MANAGEMENT AND PREVENTION OF PSYCHOSOCIAL RISKS AND WORK-RELATED STRESS (CONT.)**

<b>IMPULS-TEST: ANALYSIS OF STRESSORS AND HUMAN RESOURCES COMPANIES</b>	
TYPE	On line platform
DEVELOPED BY	Austrian Social Insurance for Occupational Risks (AUVA), <i>Austria</i>
LANGUAGE	German
LINK	<a href="http://www.impulstest.at/">http://www.impulstest.at/</a>
<b>ISTAS 21</b>	
TYPE	Questionnaire and guide
DEVELOPED BY	Instituto Sindical de Trabajo, Ambiente y Salud (ISTAS), <i>Spain</i>
LANGUAGES	Spanish, Catalan, Galician
LINK	<a href="http://www.copsoq.istas21.net/">http://www.copsoq.istas21.net/</a>
<b>LERNEN UND GESUNDHEIT - STRESS</b>	
TYPE	On line platform
DEVELOPED BY	Deutsche Gesetzliche Unfallversicherung (DGUV), <i>Germany</i>
LANGUAGE	German
LINK	<a href="http://www.dguv-lug.de/845697.php">http://www.dguv-lug.de/845697.php</a>
<b>MANAGEMENT STANDARDS FOR WORK RELATED STRESS</b>	
TYPE	On line platform
DEVELOPED BY	Health and Safety Executive (HSE), <i>United Kingdom</i>
LANGUAGE	English
LINK	<a href="http://www.hse.gov.uk/stress/standards/">http://www.hse.gov.uk/stress/standards/</a>
<b>MENTAL HEALTH ACTION CHECKLIST, MHACL</b>	
TYPE	Checklist
DEVELOPED BY	Yoshikawa, Kawakami, Kogi, Tsutsumi, Shimazu, Nagami, Shimazu, <i>Japan</i>
LANGUAGE	Japanese
LINK	<a href="https://www.jstage.jst.go.jp/article/sangyoeisei/49/4/49_4_127/_article/-char/ja/">https://www.jstage.jst.go.jp/article/sangyoeisei/49/4/49_4_127/_article/-char/ja/</a>
<b>MENTAL HEALTH AND WELLBEING: A LINE MANAGER'S GUIDE</b>	
TYPE	Guide
DEVELOPED BY	Irish Business and Employers Confederation (IBEC), <i>Ireland</i>
LANGUAGE	English
LINK	<a href="https://www.ibec.ie/IBEC/DFB.nsf/vPages/Social_affairs~Resources~mental-health-and-wellbeing-a-line-manager's-guide-04-10-2012?OpenDocument#.VjbbYLeRph">https://www.ibec.ie/IBEC/DFB.nsf/vPages/Social_affairs~Resources~mental-health-and-wellbeing-a-line-manager's-guide-04-10-2012?OpenDocument#.VjbbYLeRph</a>
<b>NAPO IN...WHEN STRESS STRIKES</b>	
TYPE	Video
DEVELOPED BY	Napo Consortium, <i>EU</i>
LANGUAGES	Multilingual
LINK	<a href="https://www.napofilm.net/en/napos-films/napo-when-stress-strikes">https://www.napofilm.net/en/napos-films/napo-when-stress-strikes</a>
<b>OHS REPS - STRESS</b>	
TYPE	On line platform
DEVELOPED BY	Victorian Trades Hall Council, <i>Australia</i>
LANGUAGES	English
LINK	<a href="http://www.ohsrep.org.au/hazards/stress">http://www.ohsrep.org.au/hazards/stress</a>
<b>ONLINE INTERACTIVE RISK ASSESSMENT - OIRA</b>	
TYPE	On line platform
DEVELOPED BY	European Agency for Safety and Health at Work (EU OSHA), <i>EU</i>
LANGUAGES	Bulgarian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Icelandic, Irish, Italian, Latvian, Lithuanian, Maltese, Norwegian, Polish, Portuguese, Romanian, Slovak, Slovenian, Spanish, Swedish
LINK	<a href="http://www.oiraproject.eu/about">http://www.oiraproject.eu/about</a>
<b>PEOPLE AT WORK</b>	
TYPE	On line platform
DEVELOPED BY	University of Queensland and Australian National University, <i>Australia</i>
LANGUAGE	English
LINK	<a href="http://www.peopleatworkproject.com.au">www.peopleatworkproject.com.au</a>
<b>PRÉVENIR LES RISQUES PSYCHOSOCIAUX : LA MÉTHODE ANACT</b>	
TYPE	Guide
DEVELOPED BY	Agence Nationale pour l'Amélioration des Conditions de Travail (ANACT), <i>France</i>
LANGUAGE	French
LINK	<a href="http://www.anact.fr/prevenir-les-risques-psychosociaux-la-methode-anact">http://www.anact.fr/prevenir-les-risques-psychosociaux-la-methode-anact</a>

(CONT.) >>

TABLE 1.2 · TOOLS FOR THE ASSESSMENT, MANAGEMENT AND PREVENTION OF PSYCHOSOCIAL RISKS AND WORK-RELATED STRESS (CONT.)

<b>PRIMA- EF: GUIDANCE ON THE EUROPEAN FRAMEWORK FOR PSYCHOSOCIAL RISK MANAGEMENT: A RESOURCE FOR EMPLOYERS AND WORKER REPRESENTATIVES</b>	
TYPE	Guide
DEVELOPED BY	PRIMA-EF Consortium, <i>EU</i>
LANGUAGES	Dutch, English, Finnish, German, Italian, Polish
LINK	<a href="http://www.prima-ef.org/prima-ef-guide.html">http://www.prima-ef.org/prima-ef-guide.html</a>
<b>PROMOTING MENTAL WELLBEING AT WORK</b>	
TYPE	Guide
DEVELOPED BY	National Institute for Health and Care Excellence (NICE), <i>United Kingdom</i>
LANGUAGE	English
LINK	<a href="http://pathways.nice.org.uk/pathways/promoting-mental-wellbeing-at-work">http://pathways.nice.org.uk/pathways/promoting-mental-wellbeing-at-work</a>
<b>PSYRES FACTSHEETS ON RESTRUCTURING AND EMPLOYEE WELL-BEING</b>	
TYPE	Guide
DEVELOPED BY	PSYRES Consortium, <i>EU</i>
LANGUAGES	Danish, Dutch, English, Finnish, Polish
LINK	<a href="https://www.ciop.pl/CIOPPortalWAR/appmanager/ciop/en;jsessionid=Dv7pTlyRcKqLpY2GxhLJ6lQKR2Q5BQ4NkJ8H521mQ6L5FnXpJcYHl-1104088908?_nfpb=true&amp;pageLabel=P21400150341386920320767&amp;html_tresc_root_id=28571&amp;html_tresc_id=28612&amp;html_klucz=28571&amp;html_klucz_spis=">https://www.ciop.pl/CIOPPortalWAR/appmanager/ciop/en;jsessionid=Dv7pTlyRcKqLpY2GxhLJ6lQKR2Q5BQ4NkJ8H521mQ6L5FnXpJcYHl-1104088908?_nfpb=true&amp;pageLabel=P21400150341386920320767&amp;html_tresc_root_id=28571&amp;html_tresc_id=28612&amp;html_klucz=28571&amp;html_klucz_spis=</a>
<b>PSR RAIL. A GUIDE TO IDENTIFYING AND PREVENTING PSYCHOSOCIAL RISKS AT WORK IN THE RAILWAY SECTOR</b>	
TYPE	Guide
DEVELOPED BY	European Transport Workers' Federation (ETF) and the Community of European Railways and Infrastructure Companies (CER), <i>EU</i>
LANGUAGES	English, French, German
LINK	<a href="http://www.etf-europe.org/etf-3895.cfm">http://www.etf-europe.org/etf-3895.cfm</a>
<b>RESPECT AT WORK</b>	
TYPE	On line platform
DEVELOPED BY	Federal Public Service Employment, Labour and Social Dialogue, <i>Belgium</i>
LANGUAGES	Dutch, French
LINK	<a href="http://www.respectautravail.be">www.respectautravail.be</a>
<b>SAFETY &amp; WORK</b>	
TYPE	On line platform
DEVELOPED BY	International Social Security Association (ISSA)
LANGUAGE	English
LINK	<a href="http://safety-work.org/en/pages/topics/stress.html">http://safety-work.org/en/pages/topics/stress.html</a>
<b>SOLVE: INTEGRATING HEALTH PROMOTION INTO WORKPLACE OSH POLICIES</b>	
TYPE	Training package
DEVELOPED BY	International Labour Organization (ILO)
LANGUAGES	English, French, Spanish
LINK	<a href="http://www.ilo.org/safework/info/instr/WCMS_178438/lang--en/index.htm">http://www.ilo.org/safework/info/instr/WCMS_178438/lang--en/index.htm</a>
<b>SOBANE</b>	
TYPE	On line platform
DEVELOPED BY	Belgian Ministry of Labour and the European Social Fund.
LANGUAGES	Dutch, French
LINK	<a href="http://www.sobane.be/sobane/index.aspx">http://www.sobane.be/sobane/index.aspx</a>
<b>STRESS PREVENTION CHECKPOINTS</b>	
TYPE	Checklist
DEVELOPED BY	International Labour Organization (ILO)
LANGUAGES	English, French, Spanish
LINK	<a href="http://www.ilo.org/safework/info/instr/WCMS_177108/lang--en/index.htm">http://www.ilo.org/safework/info/instr/WCMS_177108/lang--en/index.htm</a>
<b>STOP IT! PREVENTING THIRD PARTY VIOLENCE IN COMMERCE. A TOOLKIT</b>	
TYPE	Guide
DEVELOPED BY	UNI global union Europa (Commerce and EuroCommerce), <i>EU</i>
LANGUAGES	English, French, German
LINK	<a href="http://www.eurocommerce.eu/policy-areas/social-dialogue/policy-updates/2013/projects/third-party-violence/third-party-violence.aspx">http://www.eurocommerce.eu/policy-areas/social-dialogue/policy-updates/2013/projects/third-party-violence/third-party-violence.aspx</a>
<b>STRESS, HARASSMENT AND VIOLENCE</b>	
TYPE	On line resources
DEVELOPED BY	European Trade Union Institute (ETUI), <i>EU</i>
LANGUAGES	English, French
LINK	<a href="http://www.etui.org/Topics/Health-Safety/Stress-harassment-and-violence">http://www.etui.org/Topics/Health-Safety/Stress-harassment-and-violence</a>

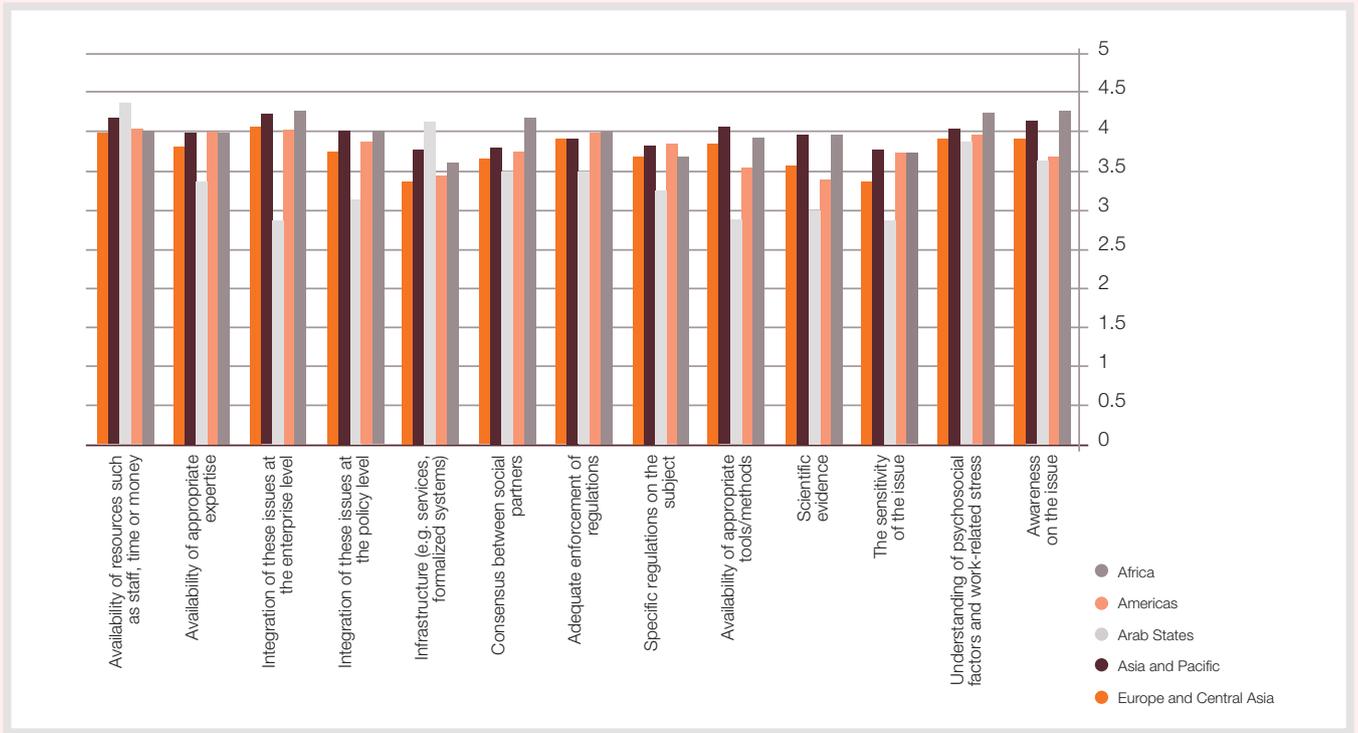
(CONT.) >>

TABLE 1.2 · TOOLS FOR THE ASSESSMENT, MANAGEMENT AND PREVENTION OF PSYCHOSOCIAL RISKS AND WORK-RELATED STRESS (CONT.)

<b>STRESSNOSTRESS</b>	
TYPE	On line platform
DEVELOPED BY	SECO, SUVA and Promotion Santé Suisse, <i>Switzerland</i>
LANGUAGES	French, German, Italian
LINK	<a href="http://www.stressnostress.ch">www.stressnostress.ch</a>
<b>TOOL FOR IDENTIFYING PSYCHOSOCIAL RISK FACTORS IN THE WORKPLACE</b>	
TYPE	Checklist
DEVELOPED BY	Institut national de santé publique du Québec (INSPQ), <i>Canada</i>
LANGUAGES	English, French
LINK	<a href="https://www.inspq.qc.ca/en/tool-psychosocial-risk-factors">https://www.inspq.qc.ca/en/tool-psychosocial-risk-factors</a>
<b>TRAVAILLER MIEUX – RISQUES PSYCHOSOCIAUX</b>	
TYPE	On line platform
DEVELOPED BY	Ministère du Travail, de l'Emploi, de la Formation professionnelle et du Dialogue social, <i>France</i>
LANGUAGE	French
LINK	<a href="http://travail-emploi.gouv.fr/sante-au-travail/prevention-des-risques/risques-psychosociaux/">http://travail-emploi.gouv.fr/sante-au-travail/prevention-des-risques/risques-psychosociaux/</a>
<b>TROUSSE LA SANTÉ PSYCHOLOGIQUE AU TRAVAIL</b>	
TYPE	Guide
DEVELOPED BY	University of Laval, <i>Canada</i>
LANGUAGES	English, French
LINK	<a href="http://www.cgsst.com/eng/publications-sante-psychologique-travail/trousse-la-sante-psychologique-au-travail.asp">http://www.cgsst.com/eng/publications-sante-psychologique-travail/trousse-la-sante-psychologique-au-travail.asp</a>
<b>WEBA (WEBA-METHODIEK : EEN INSTRUMENT VOOR HET BEOORDELEN VAN KWALITEIT VAN DE ARBEID)</b>	
TYPE	Report / Assessment tool
DEVELOPED BY	Dutch Institute of Preventive Healthcare, the Netherlands
LANGUAGE	Dutch
LINK	<a href="http://repository.tudelft.nl/view/tno/uuid%3Aeeefdd10-e596-4a2d-a4af-ffb86cf743a3/">http://repository.tudelft.nl/view/tno/uuid%3Aeeefdd10-e596-4a2d-a4af-ffb86cf743a3/</a>
<b>WELL-BEING AT WORK</b>	
TYPE	On line resources
DEVELOPED BY	Finnish Institute of Occupational Health (FIOH), <i>Finland</i>
LANGUAGES	English, Finnish, Swedish
LINK	<a href="http://www.ttl.fi/sv/valmaende/Sidor/default.aspx">http://www.ttl.fi/sv/valmaende/Sidor/default.aspx</a>
<b>WORK IN TUNE WITH LIFE</b>	
TYPE	Guide
DEVELOPED BY	European Network for Workplace Health Promotion (ENWHP), <i>EU</i>
LANGUAGES	English, German
LINK	<a href="http://www.enwhp.org/enwhp-initiatives/current-initiative-work-in-tune-with-life/mental-health-at-the-workplace.html">http://www.enwhp.org/enwhp-initiatives/current-initiative-work-in-tune-with-life/mental-health-at-the-workplace.html</a>
<b>WORK-RELATED STRESS TIP SHEETS</b>	
TYPE	Guide
DEVELOPED BY	Work Cover Authority of New South Wales, <i>Australia</i>
LANGUAGE	English
LINK	<a href="http://www.workcover.nsw.gov.au/health-and-safety/safety-topics-a-z/mental-health/stress-tip-sheets-accordion/overview-of-work-related-stress-tip-sheet-one">http://www.workcover.nsw.gov.au/health-and-safety/safety-topics-a-z/mental-health/stress-tip-sheets-accordion/overview-of-work-related-stress-tip-sheet-one</a>
<b>WORKPLACE SAFETY AND HEALTH GUIDELINES. HEALTHCARE</b>	
TYPE	Guide
DEVELOPED BY	Workplace Safety and Health (WSH) Council and the Ministry of Manpower, <i>Singapore</i>
LANGUAGE	English
LINK	<a href="https://www.wshc.sg/files/wshc/upload/cms/file/2015/WSH_Guidelines_Healthcare.pdf">https://www.wshc.sg/files/wshc/upload/cms/file/2015/WSH_Guidelines_Healthcare.pdf</a>
<b>WORKPLACE STRESS</b>	
TYPE	On line platform
DEVELOPED BY	Health and Safety Authority (HSA), <i>Ireland</i>
LANGUAGE	English
LINK	<a href="http://www.hsa.ie/eng/Workplace_Health/Workplace_Stress/">http://www.hsa.ie/eng/Workplace_Health/Workplace_Stress/</a>
<b>WORK WELL MODEL</b>	
TYPE	On line platform
DEVELOPED BY	Business in the Community (BITC), <i>United Kingdom</i>
LANGUAGE	English
LINK	<a href="http://www.bitc.org.uk/programmes/wellbeing/workwell-model">http://www.bitc.org.uk/programmes/wellbeing/workwell-model</a>

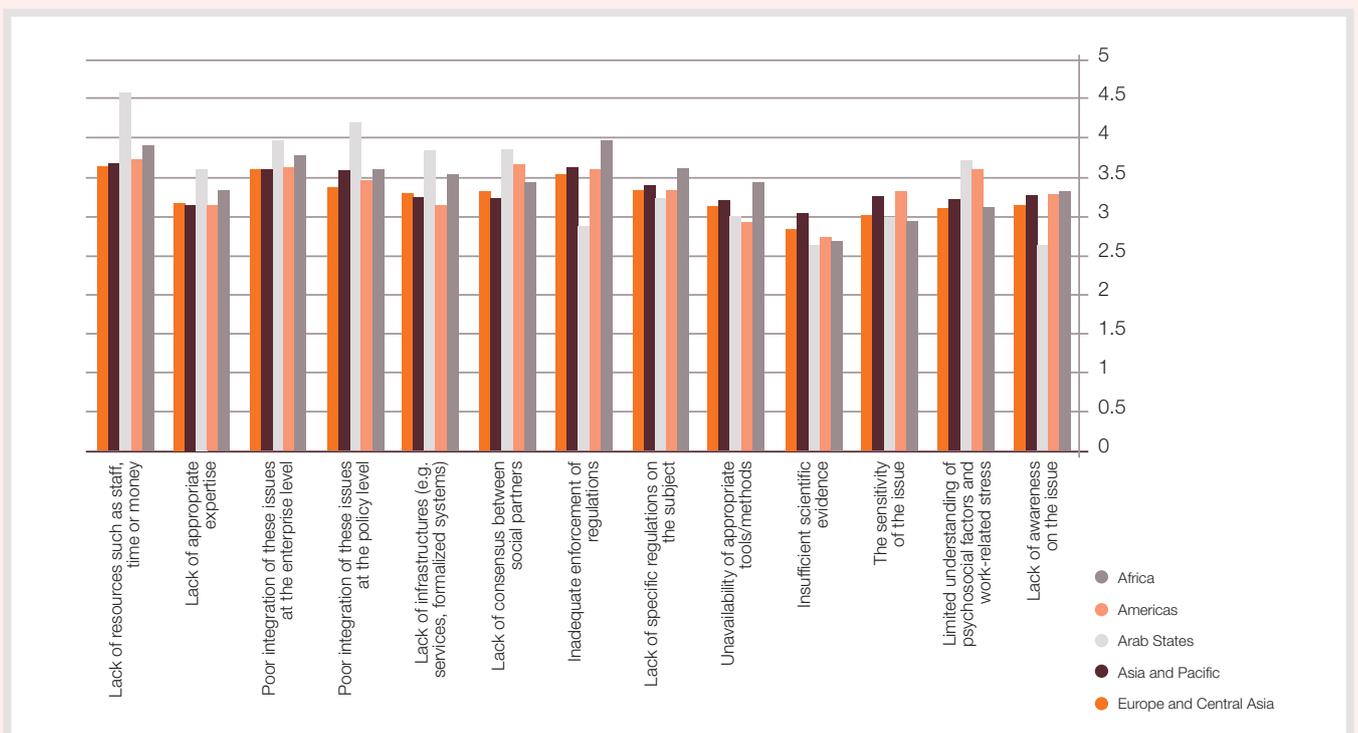
# ANNEX 2. GLOBAL TRENDS AND FORESIGHT OF FUTURE SCENARIOS

**FIGURE 2.1 · FACTORS ‘CRITICAL TO THE SUCCESS OF THE INITIATIVES’, BY ILO REGION**



Note: Based on aggregated data at the country level

**FIGURE 2.2 · BARRIERS FOR THE DEVELOPMENT/IMPLEMENTATION OF INITIATIVES, BY ILO REGION**



Note: Based on aggregated data at the country level

**TABLE 2.1 • DELPHI ROUND 1: STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS IDENTIFIED FOR THE PREVENTION OF PSYCHOSOCIAL RISKS AND WORK-RELATED STRESS IN RELATION WITH THE SITUATION IN THEIR COUNTRY**

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>Specific legal requirements (e.g. psychosocial risk assessment obligatory part of workplace risk assessment, legislation on harassment/bullying at work)</li> <li>Inclusion of stress-related illnesses in list of occupational diseases</li> <li>Development of non-regulatory standards and guidance</li> <li>Initiatives taken by regulators and inspectors for psychosocial risk prevention and mental health promotion in the workplace</li> <li>Tripartite initiatives, social dialogue</li> <li>Stakeholder involvement and participation</li> <li>Availability of epidemiological data and statistics</li> <li>Increased research and stronger evidence-base</li> <li>Collaboration between policymakers and researchers/academics</li> <li>Awareness raising campaigns, events and initiatives</li> <li>Availability of training courses in this area for all stakeholders</li> <li>Qualified and trained occupational health services (not only on rehabilitation but also prevention)</li> <li>Availability of technical support in this area</li> </ul>	<ul style="list-style-type: none"> <li>Absence of legislation or lack of specific legislation</li> <li>Inadequate enforcement of legislation</li> <li>Lack of political will to develop/implement new initiatives</li> <li>Lack of awareness of issues</li> <li>Lack of trained/qualified professionals</li> <li>Lack of funding for research in this area</li> <li>Lack of epidemiological data and statistics</li> <li>Emphasis on individual attributes (coping skills, lifestyle etc.) rather than on working conditions including the psychosocial work environment</li> <li>Culture of compensation rather than prevention</li> <li>Stigma and social prejudice associated with mental health and work-related stress</li> <li>Weak trade unions or employee voice</li> <li>Lack of guidance for risk assessment and inadequate follow up</li> <li>Over emphasis on voluntary/non-regulatory approaches</li> <li>Lack of employer involvement and participation</li> <li>Inadequate evaluation of initiatives, highlighting benefits, return on investment</li> <li>Lack of collaboration between policymakers and researchers/academics</li> <li>High prevalence of malpractice by consultants/practitioners</li> <li>Social security does not cover workers for stress-related illnesses / Exclusion of stress-related illnesses in list of occupational diseases</li> <li>Lack of national strategies/programmes aimed at prevention, also focusing on SMEs, self-employed and informal workers</li> </ul>	<ul style="list-style-type: none"> <li>Growing interest in these areas in policy research and practice</li> <li>Sectoral initiatives</li> <li>New legislation/updates of existing legislation</li> <li>Development of new standards and guidelines</li> <li>New social dialogue initiatives</li> <li>Increasing availability of new training courses</li> <li>Increasing number of trained professionals, including occupational health psychologists, ergonomists, etc.</li> <li>Increasing public awareness of these issues</li> <li>Increased awareness of financial costs associated with these issues for individuals, organizations and society</li> <li>Increasing evidence of psychosocial risk management leading to benefits such as higher productivity, lower sickness absence, etc.</li> <li>Increase in the compensation being granted for cases of mental illness caused by work-related stress</li> <li>Availability of high quality research</li> <li>Increased worker involvement</li> <li>Increased experience and good practice sharing across countries</li> <li>International policies and codes of practice aimed at promoting responsible business practices</li> <li>Increasing emphasis on organizational sustainability and competitiveness</li> <li>Coverage and inclusion of these issues in the national public health system</li> </ul>	<ul style="list-style-type: none"> <li>Modifications of laws not aimed at prevention but focusing on compensation</li> <li>Poor economic climate and increasing unemployment</li> <li>Organizational restructuring and downsizing leading to job losses</li> <li>Aging workforce</li> <li>Lack of political will</li> <li>Lobbying by businesses to deregulate</li> <li>Lack of financial resources at both the national and workplace level</li> <li>Stigma linked to mental health</li> <li>Insufficient surveillance and enforcement of legislation</li> <li>Lack of initiatives aimed at developing technical capacity to deal with issues within the enterprise</li> <li>Weak social dialogue and conflicting opinions of trade unions and employer associations</li> <li>Apathetic culture</li> <li>Inadequate social security provisions</li> <li>Increase in new forms of work organization, precarious work/non-standard work (shift-work, temporary work, part-time work, etc.)</li> <li>Lack of adherence to legal requirements and corruption</li> </ul>

**TABLE 2.2 · DELPHI ROUND 1: EXPECTED AND IDEAL SCENARIOS ON KEY THEMES**

KEY THEMES	EXPECTED SCENARIOS	IDEAL SCENARIOS
<b>National OSH laws, regulations, technical standards and collective agreements dealing with work-related stress</b>	<ul style="list-style-type: none"> <li>■ No change (due to political and/or financial reasons, weak social dialogue, weak position of employees in labour market)</li> <li>■ More legislation and other policies such as standards and collective agreements</li> <li>■ More legislation but only on specific issues (such as harassment and bullying, discrimination, retirement age)</li> <li>■ Update of legislation towards primary prevention</li> <li>■ No new legislation but more voluntary standards</li> <li>■ No new legislation or other policies but more workplace initiatives</li> <li>■ Deregulation (less legislation and other policies)</li> </ul>	<ul style="list-style-type: none"> <li>■ No change in existing legislation and policies</li> <li>■ Introduction of new legislation covering the identification, monitoring and control of psychosocial hazards on the basis of prevention principles</li> <li>■ Introduction of new legislation, approved codes of practice, standards, and tripartite agreements covering the identification, monitoring and control of psychosocial hazards on the basis of prevention principles</li> <li>■ Introduction of new legislation but only on specific issues (such as harassment and bullying, discrimination, retirement age)</li> <li>■ Adoption of harmonised, common set of laws and regulations based on prevention at regional or international level</li> <li>■ Update of existing legislation towards primary prevention</li> <li>■ Update of existing legislation to include provisions for small enterprises, the self-employed and non-regular employment</li> <li>■ Courts interpreting existing legislation appropriately and according to good practice</li> <li>■ No new legislation but adequate enforcement of existing legislation</li> <li>■ No new legislation but political will and deployment of adequate resources to implement existing legislation appropriately</li> <li>■ No new legislation but development of voluntary standards and agreements including guidance on the identification, monitoring and control of psychosocial hazards on the basis of prevention principles</li> <li>■ Compliance with UN and ILO standards</li> <li>■ Recognition of stress-related illnesses as occupational diseases</li> <li>■ Social partners treating working conditions including the psychosocial work environment as an essential part of social dialogue</li> <li>■ Support of workers' representatives and empowerment of employees</li> <li>■ Evaluation of existing legislation and policies to drive improvement</li> <li>■ Deregulation (less legislation and other policies)</li> </ul>
<b>OSH policies and strategies focussing on psychosocial risks and work-related stress</b>	<ul style="list-style-type: none"> <li>■ No change</li> <li>■ More government/regional action to introduce new policies and strategies focussing on psychosocial risks and work-related stress</li> <li>■ More government/regional action to extend/update policies and strategies to focus on awareness raising and dissemination of good practices</li> <li>■ No government/regional action but more action at workplace level</li> <li>■ Less policies and strategies in this area</li> </ul>	<ul style="list-style-type: none"> <li>■ No change</li> <li>■ Update and reorientation of OSH policies away from traditional focus on physical hazards towards psychosocial hazards</li> <li>■ Development of national strategies focussing on psychosocial risk prevention and mental health promotion in the workplace in collaboration with all key stakeholders</li> <li>■ Development of regional strategies focussing on psychosocial risk prevention and mental health promotion in the workplace in collaboration with all key stakeholders</li> <li>■ Development of sectoral strategies focussing on psychosocial risk prevention and mental health promotion in the workplace in collaboration with all key stakeholders</li> <li>■ Development of strategies focussing on training and competency development on psychosocial risk prevention for key stakeholders (e.g. managers, social partners and occupational health services)</li> <li>■ Development of strategies linking the work environment, psychosocial risk prevention and mental health promotion with sustainability (economic, social, human and demographic)</li> <li>■ Adoption of policies and strategies on psychosocial risk prevention and mental health promotion in the workplace by the majority of organizations</li> <li>■ Sharing knowledge and practice in psychosocial risk prevention and mental health promotion across countries on the basis of good practice examples</li> <li>■ Strategies to promote the implementation of knowledge into practice supported by appropriate resource deployment</li> <li>■ Mental health in the workplace should be an essential part of all policies (e.g. employment, public health, economy, education)</li> </ul>

(CONT.) >>

TABLE 2.2 · DELPHI ROUND 1: EXPECTED AND IDEAL SCENARIOS ON KEY THEMES (CONT.)

KEY THEMES	EXPECTED SCENARIOS	IDEAL SCENARIOS
<b>Technical guidance and awareness campaigns focussing on psychosocial risks and work-related stress</b>	<ul style="list-style-type: none"> <li>■ No change</li> <li>■ More government action on raising awareness and developing guidance on prevention and reducing stigma in this area</li> <li>■ More government action on raising awareness and developing guidance but focussed on the worker – not the workplace (less focus on prevention)</li> <li>■ More government action on awareness raising but no new guidance in this area</li> <li>■ More sectoral guidance in this area</li> <li>■ No awareness raising and guidance development in this area from the government but at regional or workplace level</li> <li>■ More awareness raising through networking at national/international level</li> <li>■ Less awareness raising and guidance development in this area</li> </ul>	<ul style="list-style-type: none"> <li>■ No change</li> <li>■ Development of campaigns and guidance on prevention and reducing stigma in this area</li> <li>■ Development of campaigns and guidance on psychosocial risk assessment and management including definition of good practice indicators for all stakeholders (including employees, managers, social partners, occupational health services personnel, policymakers)</li> <li>■ Development of campaigns and guidance on interventions using participatory approaches</li> <li>■ Development of evidence-based sectoral guidance in this area</li> <li>■ More focussed technical guidance and awareness raising campaigns on key issues (e.g. risk assessment, business case, link of psychosocial risks and physical health)</li> <li>■ More focussed technical guidance and awareness raising campaigns for small and medium-sized enterprises</li> <li>■ Awareness raising campaigns targeted to the national audience through various mass media</li> <li>■ Awareness raising on the link between a healthy and motivated workforce, a competitive economy and a healthy and productive society (linked to sustainability)</li> <li>■ Awareness raising and guidance on the basis of cross fertilization of knowledge and practice in psychosocial risk prevention and mental health promotion across countries on the basis of good practice examples and case studies</li> </ul>
<b>Workplace initiatives focussing on psychosocial risks and work-related stress</b>	<ul style="list-style-type: none"> <li>■ No change</li> <li>■ Workplace-level initiatives to be introduced only if more legislation is put into place</li> <li>■ Workplace-level initiatives to be introduced only if business case is established</li> <li>■ Workplace-level initiatives to be introduced only through further trade union action</li> <li>■ Workplace-level initiatives to be introduced only in specific sectors</li> <li>■ Workplace-level initiatives to be introduced only in large enterprises</li> <li>■ More workplace-level initiatives to be introduced focussing on prevention and developing a healthy organizational culture</li> <li>■ More workplace-level initiatives to be introduced but focussing on the individual and wellness (not on the workplace and prevention)</li> <li>■ More focussed workplace-level initiatives to be introduced on issues such as risk assessment, surveillance, training, competency development</li> <li>■ Less workplace-level initiatives in this area (due to political and financial reasons, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>■ No change</li> <li>■ Workplace-level initiatives on psychosocial risk prevention and mental health promotion in the workplace</li> <li>■ Workplace-level initiatives focussing on prevention and developing a healthy organizational culture</li> <li>■ Workplace-level initiatives focussing on the implementation and evaluation of interventions for psychosocial risk prevention and mental health promotion in the workplace</li> <li>■ Workplace-level initiatives to raise awareness, reduce stigma and develop competencies of employees and managers, using easily accessible materials</li> <li>■ Workplace-level initiatives will include joint committees (employees and managers) and agreements to prevent psychosocial risks and promote mental health in the workplace</li> <li>■ Workplace-level initiatives on proactive, participatory approaches applicable to all sizes of enterprises</li> <li>■ Implementation of an integrated approach to OSH (OSH management systems) including psychosocial risk prevention as an integral part</li> <li>■ Sharing knowledge and good practices between large and small enterprises through networking at local, regional level</li> <li>■ Management will be engaged in improving working conditions including the psychosocial work environment not only due to regulations but because they recognize positive benefits such as improved workforce health and engagement, improved productivity and organizational performance</li> <li>■ More action from trade unions at the workplace level in this area</li> </ul>
<b>Research and the evidence-base on psychosocial risks and work-related stress</b>	<ul style="list-style-type: none"> <li>■ No change</li> <li>■ More research at national level (more resource deployment for research)</li> <li>■ More research but not at national level (regional or organizational level research)</li> <li>■ More research focussing on specific issues (such as psychosocial risk assessment, the link between psychological and physical health, interventions)</li> <li>■ More initiatives on translating research into practice</li> <li>■ Less research (due to political and financial reasons, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>■ No change</li> <li>■ National level research (through appropriate resource deployment) including periodic national surveys</li> <li>■ Ensuring the existence of national research institutes (with appropriate resources) that conduct relevant research</li> <li>■ Collaboration between national OSH research institutes and other key stakeholders (e.g. labour inspectors, occupational health services, social partners) in this area</li> <li>■ Inclusion of this area in Research and Development policies and plans at national level with appropriate resource allocation</li> <li>■ Development of information systems/databases to show empirical evidence and allow benchmarking</li> <li>■ More longitudinal studies in this area</li> <li>■ More RCTs in this area (if possible)</li> <li>■ More research focussing on SMEs</li> <li>■ More research on cross-country and cross-cultural comparisons to allow cross fertilization of knowledge and practice</li> <li>■ Research on the implementation and evaluation of psychosocial risk prevention and mental health promotion in the workplace</li> <li>■ Research evaluating OSH inspections with a focus on this area</li> <li>■ More research on specific issues such as the link between psychological and physical health, new types of work organization, precarious /non-standard work, boundaryless work, the business case, interventions</li> <li>■ Translation of research into practice in this area (and especially removing barriers to action)</li> </ul>

**TABLE 2.3 · DELPHI ROUND 1: NECESSARY ACTIONS AT NATIONAL AND WORKPLACE LEVEL**

<b>NECESSARY ACTIONS AT NATIONAL LEVEL</b>	<b>MEAN</b>	<b>MEDIAN</b>	<b>S.D.</b>
Developing competencies for dealing with work-related stress and psychosocial risks	4.52	5	.71
Adequate enforcement of regulations	4.41	5	.90
Building consensus between social partners	4.32	5	.87
Raising awareness to improve the understanding of psychosocial factors and work-related stress	4.32	5	1.01
Integration of these issues at the policy level (e.g. OSH policies, health promotion policies)	4.27	5	.90
Improving the availability of appropriate tools/methods for assessing psychosocial risks and managing work-related stress	4.27	5	.957
Existence of surveys (national surveys, employers' surveys, union surveys, expert surveys) and other studies on the prevalence and effects of these issues	4.15	5	1.07
Statistics and data on occupational diseases, court cases, disability case registers or compensated sick leave due to psychosocial factors	4.13	4	1.05
Development of supportive infrastructure (e.g. services, formalized systems)	4.09	5	.96
Inclusion of effects of work-related stress and psychosocial risks in lists of occupational diseases	3.89	4	1.27
Developing and implementing specific regulations on the subject	3.84	4	1.24
<b>NECESSARY ACTIONS AT WORKPLACE LEVEL</b>			
Integration of the prevention of work-related stress in the organizational culture, leader values, etc.	4.68	5	.54
Integrating the prevention of work-related stress in management systems	4.57	5	.76
Increasing knowledge about psychosocial risks and their health outcomes	4.49	5	.71
Appropriate policies and preventive measures to tackle psychosocial risks	4.47	5	.78
Assessment and management of psychosocial risks and work-related stress	4.46	5	.83
Increasing knowledge about work-related stress	4.43	5	.80
Availability of internal professional skills to deal with the prevention of work-related stress	4.29	4	.77
Availability of training to workers on the prevention of work-related stress	4.27	4	.83
Availability of financial resources to deal with prevention of work-related stress	4.16	4	.95
Availability of external expertise to deal with work-related stress	3.81	4	1.04
Dealing with specific cases (individual interventions)	3.80	4	1.11
Initiatives to prevent impact of stress on life habits (addictions, diet, exercise, sleep, etc.)	3.80	4	1.20

**TABLE 2.4 · DELPHI ROUND 1: PRIORITY ACTIONS AT WORKPLACE LEVEL**

<b>PRIORITY ACTIONS AT WORKPLACE LEVEL</b>	<b>MEAN</b>	<b>MEDIAN</b>	<b>S.D.</b>
Organizational culture (including poor management and leadership)	4.38	5	.80
Workload, time pressure and work intensity	4.29	4	.77
Work-life balance	4.27	4	.86
Organizational change and restructuring	4.15	4	.95
Job security	4.13	4	.97
Precarious work	4.09	4	.97
Working time arrangements (including schedules, shift work, flexible schedules and rest from work)	4.05	4	.88
Reward and recognition	4.03	4	.95
Harassment, mobbing or bullying at work	3.97	4	1.00
Control over work	3.97	4	.87
Support at work	3.95	4	.97
Work design	3.94	4	.90
Impact of societal factors (such as socioeconomic and political conditions) on the workplace	3.89	4	1.01
Interpersonal (social) climate	3.79	4	.96
Burnout	3.78	4	1.09
Impact of technological advancements on nature of work and work organization	3.73	4	.98
Discrimination (e.g. due to age, gender, ethnic origin, disability, sexual orientation)	3.71	4	1.01
Repetitive or monotonous work	3.69	4	.97
Work engagement	3.64	4	1.00
Violence (physical) in the workplace	3.50	3	1.03
Equipment and environment	3.42	3	1.01

**TABLE 2.5 · DELPHI ROUND 2: SCENARIOS ON KEY THEMES, WITH CONTRIBUTING FACTORS<sup>LXI</sup>**

SCENARIOS	MEAN	MEDIAN	S.D.	CF1	CF2	CF3	CF4	CF5	CF6	CF7	CF8	CF9	CF10
<b>KEY THEME: NATIONAL OSH LAWS, REGULATIONS, TECHNICAL STANDARDS AND COLLECTIVE AGREEMENTS DEALING WITH WORK-RELATED STRESS</b>													
General OSH legislation will include the protection of workers' mental health	3.68	4	1.08	61%	42%	35%	29%	39%	35%	29%	39%	32%	29%
Introduction of new legislation will be limited to specific issues (such as harassment and bullying, discrimination, retirement age, work-life balance, etc.)	3.32	3	1.01	65%	39%	39%	32%	32%	35%	35%	39%	16%	32%
Better enforcement of existing legislation (by labour inspectorates)	3.32	4	1.14	39%	29%	45%	52%	29%	23%	26%	26%	16%	19%
Development of more/new voluntary standards in this area instead of further legislation	3.32	3	1.05	29%	32%	23%	16%	39%	26%	23%	32%	23%	32%
Development of more/new national/sectoral collective agreements dealing with the psychosocial work environment	3.32	3	0.91	42%	55%	29%	23%	32%	23%	23%	29%	19%	35%
Introduction of more/new legislation covering the identification, monitoring and control of psychosocial hazards on the basis of prevention principles	3.26	3	1.12	65%	48%	42%	29%	42%	52%	35%	39%	39%	35%
Update of existing legislation to include provisions for vulnerable worker groups (e.g. precarious/non-standard workers, women, young or older workers, informal workers)	3.26	3	0.81	58%	55%	35%	39%	35%	16%	10%	23%	23%	26%
Courts interpreting relevant legislation to recognise the importance of the protection and promotion of mental health in the workplace	3.06	3	1.12	42%	29%	13%	3%	26%	32%	23%	13%	10%	6%
Recognition of stress-related illnesses in lists of occupational diseases	2.90	3	1.25	48%	16%	16%	13%	42%	39%	16%	26%	19%	13%
Update of existing legislation to include provisions for small enterprises and the self-employed	2.81	3	1.05	39%	29%	42%	26%	29%	23%	13%	19%	16%	19%
No change in existing legislation	2.71	3	1.27	52%	32%	42%	35%	39%	42%	19%	32%	29%	32%
Deregulation (less legislation)	1.90	2	0.94	29%	19%	29%	13%	16%	13%	16%	6%	10%	6%
<b>KEY THEME: OSH POLICIES AND STRATEGIES</b>													
Development of more/new strategies focussing on training and competency development on psychosocial risk and work-related stress prevention for key stakeholders (e.g. managers, social partners and occupational health services)	3.65	4	0.84	52%	32%	13%	29%	35%	35%	23%	48%	26%	48%
Development of more/new national strategies focussing on psychosocial risk and work-related stress prevention	3.58	4	1.06	55%	52%	29%	26%	39%	32%	16%	32%	32%	26%
Development of more/new sectoral strategies focussing on psychosocial risk and work-related stress prevention	3.55	4	0.67	48%	45%	16%	29%	39%	39%	26%	32%	23%	45%
Development of more/new policies and strategies to include provisions for the prevention of psychosocial risks and work-related stress in vulnerable worker groups (e.g. precarious/non-standard workers, women, young or older workers, informal workers)	3.48	4	0.81	55%	42%	23%	23%	42%	26%	32%	42%	29%	45%
Development of strategies linking the work environment, psychosocial risk and work-related stress prevention with sustainability (economic, social, human and demographic)	3.48	4	0.93	55%	55%	19%	16%	29%	45%	23%	39%	26%	29%
Development of more/new international and cross-country strategies that will result in more national policies focussing on psychosocial risk and work-related stress prevention	3.35	4	0.98	48%	35%	23%	23%	52%	26%	13%	32%	26%	26%
Mental health in the workplace will be an essential part of all policies (e.g. employment, public health, economy, education)	3.13	3	1.06	61%	48%	32%	26%	29%	32%	32%	26%	26%	45%
No change in current OSH policies and strategies	2.48	2	0.96	48%	35%	32%	26%	26%	19%	10%	19%	13%	26%
Less policies and strategies in this area	2.03	2	1.17	29%	10%	16%	10%	13%	3%	10%	10%	10%	10%
<b>KEY THEME: TECHNICAL GUIDANCE AND AWARENESS CAMPAIGNS</b>													
More/new campaigns and guidance on psychosocial risk assessment and management including definition of good practice indicators for all stakeholders	3.65	4	1.02	45%	39%	16%	23%	23%	32%	26%	32%	29%	48%
More/new guidance and awareness raising on dealing with psychosocial risks and work-related stress at workplace level	3.65	4	1.11	35%	32%	26%	29%	26%	26%	29%	39%	32%	61%
More/new awareness raising campaigns through mass media targeted to the national audience	3.35	4	1.14	45%	39%	16%	32%	39%	26%	23%	29%	26%	26%
More focussed technical guidance and awareness raising campaigns for SMEs	3.29	4	1.04	48%	32%	13%	29%	26%	23%	16%	42%	32%	32%

(CONT.) >>

<sup>LXI</sup> Contributing Factors – CF1: Awareness & engagement of policymakers; CF2: Quality of Social Dialogue & engagement of social partners in this area; CF3: Impact of economic climate on working conditions; CF4: Resource availability; CF5: Influence of international organizations & associations (e.g. European Commission, ILO, WHO); CF6: Suitability of scientific evidence of impact of psychosocial risks on health, safety, productivity etc.; CF7: Awareness of importance of, and stigma associated with, these issues; CF8: Availability of expertise, tools and good practices; CF9: Culture of prevention at national level (e.g. goes of zero harm to workers' health); CF10: Awareness & engagement of stakeholders at workplace level

TABLE 2.5 · DELPHI ROUND 2: SCENARIOS ON KEY THEMES, WITH CONTRIBUTING FACTORS (CONT.)

SCENARIOS	MEAN	MEDIAN	S.D.	CF1	CF2	CF3	CF4	CF5	CF6	CF7	CF8	CF9	CF10
More supportive infrastructure (e.g. services, systems) will be developed to provide guidance in this area	3.29	4	1.13	45%	26%	16%	45%	23%	26%	23%	32%	32%	39%
More focussed technical guidance and awareness raising campaigns at sectoral level	3.26	4	1.03	39%	32%	19%	32%	29%	32%	19%	32%	23%	29%
Awareness raising on the link between the work environment, psychosocial risk prevention and sustainability (economic, social, human and demographic)	3.26	3	1.06	42%	35%	23%	26%	26%	29%	23%	39%	19%	29%
More campaigns and guidance will be focussed on individual resilience and psychological rehabilitation/return to work (less focus on psychosocial hazards and working conditions)	3.06	3	0.96	55%	32%	16%	26%	13%	32%	23%	26%	29%	42%
No change in relation to technical guidance and awareness raising in this area	2.35	2	1.02	42%	29%	13%	26%	16%	26%	13%	19%	13%	16%
There will be less awareness raising and guidance development in this area	1.84	2	0.93	19%	10%	10%	13%	16%	6%	6%	16%	10%	10%
<b>KEY THEME: WORKPLACE LEVEL INITIATIVES</b>													
More action from trade unions/workers' organizations at the workplace level in this area	3.71	4	0.69	39%	48%	16%	16%	23%	19%	29%	23%	26%	32%
More/new workplace level initiatives on psychosocial risk and work-related stress prevention and developing an organizational culture that promotes OSH	3.55	4	0.89	29%	35%	26%	26%	23%	19%	35%	32%	42%	45%
More integrated approaches (OSH management systems) including psychosocial risk prevention as an integral part	3.55	4	1.06	48%	29%	16%	29%	23%	23%	19%	32%	35%	35%
More availability of expertise and support (e.g. occupational health psychologists, ergonomists, occupational health services) for workplace initiatives in this area	3.45	4	0.96	26%	19%	13%	45%	13%	29%	23%	39%	29%	32%
More/new workplace level initiatives to develop competencies of managers and employees to assess and manage psychosocial risks	3.42	4	0.96	32%	35%	19%	32%	19%	19%	29%	32%	35%	52%
More/new workplace level initiatives focussing on the individual and on wellness (coping skills and lifestyle) rather than on psychosocial working conditions and prevention	3.39	4	0.96	26%	35%	16%	32%	13%	23%	29%	39%	32%	42%
More action from labour inspectorates at the workplace level in this area	3.39	4	0.99	48%	29%	13%	32%	16%	16%	13%	19%	29%	26%
Workplace initiatives will be developed through enterprise networking and sharing of knowledge and good practices in this area	3.39	4	0.81	32%	32%	10%	35%	13%	26%	23%	35%	26%	42%
More/new sectoral initiatives focussing on psychosocial risk and work-related prevention	3.35	4	0.98	29%	39%	10%	23%	16%	19%	23%	29%	29%	26%
More/new workplace level initiatives focussing on the evaluation of interventions for psychosocial risk and work-related stress prevention	3.32	4	0.94	19%	32%	19%	42%	19%	23%	23%	52%	26%	48%
More/new workplace level initiatives on participatory approaches to manage psychosocial risks applicable to all sizes of enterprises	3.29	4	0.97	29%	39%	16%	35%	19%	16%	23%	29%	32%	45%
More/new workplace level initiatives will include joint committees (workers and their representatives, and employers/ managers) and agreements to prevent psychosocial risks and work-related stress	3.23	4	1.02	23%	32%	23%	32%	16%	19%	19%	29%	35%	42%
Workplace initiatives will be limited to large enterprises (limited workplace initiatives in SMEs) in this area	3.16	3	1.01	35%	19%	13%	32%	10%	16%	19%	23%	29%	39%
More action from employer organizations at the workplace level in this area	3.10	3	0.91	32%	26%	29%	19%	16%	13%	10%	23%	23%	45%
No change in relation to workplace initiatives in place	2.39	2	1.09	26%	16%	29%	23%	10%	10%	23%	26%	23%	26%
Less workplace level initiatives in this area	2.19	2	1.08	32%	23%	6%	23%	13%	16%	10%	13%	13%	19%
<b>KEY THEME: RESEARCH AND EVIDENCE BASE</b>													
Research on the implementation and evaluation of psychosocial risk and work-related stress prevention measures	3.61	4	0.99	58%	19%	13%	48%	19%	32%	10%	29%	19%	29%
More workplace level research	3.58	4	0.92	39%	29%	23%	35%	19%	29%	13%	26%	26%	35%
Prioritization and inclusion of this area in Research and Development policies and plans at national level	3.58	4	1.15	58%	39%	16%	29%	29%	29%	16%	29%	29%	23%
More/new periodic national surveys and other studies on the prevalence and effects of psychosocial hazards and work-related stress will be developed	3.55	4	0.96	55%	26%	13%	42%	39%	35%	10%	32%	19%	26%
More research on vulnerable worker groups (e.g. precarious /non-standard workers, women, young or older workers, informal workers)	3.52	4	0.93	42%	29%	13%	35%	29%	32%	26%	23%	23%	23%
Collaboration between national OSH research institutes and other key stakeholders (e.g. labour inspectors, occupational health services, social partners) in this area	3.48	4	1.03	39%	29%	13%	45%	23%	35%	16%	29%	19%	23%
More focus on translation of research into practice in this area	3.48	4	1.00	42%	29%	13%	35%	23%	23%	13%	32%	23%	29%
Development of information systems/databases to show empirical evidence and allow benchmarking (including data on occupational diseases, sick leave, etc. due to psychosocial hazards)	3.32	3	1.26	39%	29%	13%	42%	29%	32%	19%	26%	19%	23%

# BIBLIOGRAPHY

- Aboa-Eboulé et al. 2007. "Job Strain and Risk of Acute Recurrent Coronary Heart Disease Events" in *Journal of the American Medical Association*, Vol. 298, No.14, pp. 1652-1660.
- Aboa-Eboule, C. et al. 2011. "Effort-reward imbalance at work and recurrent coronary heart disease events: a 4-year prospective study of post-myocardial infarction patients" in *Psychosomatic Medicine*, Vol. 73, No. 6, pp. 436-447.
- AbuAlRub, R. F.; Al-Zaru, I. M. 2008. "Job stress, recognition, job performance and intention to stay at work among Jordanian hospital nurses" in *Journal of Nursing Management*, Vol. 16, No. 3, pp. 227-236.
- Ahlborg, G. A. et al. 2012. *Work and family factors as predictors of stress-related Exhaustion Disorder: A longitudinal study of Swedish healthcare workers*, Paper presented at the 30<sup>th</sup> International Congress on Occupational Health (March 18-23, 2012), Cancun, Mexico.
- Al Khalidi, D.; Wazaify, M. 2013. "Assessment of pharmacists' job satisfaction and job related stress in Amman" in *International Journal of Clinical Pharmacy*, Vol. 35, No. 5, pp. 821-828.
- Al-Ahmadi, H. A. 2002. "Job satisfaction of nurses in Ministry of Health Hospitals in Riyadh, Saudi Arabia" in *Saudi Medical Journal*, Vol. 23, No. 6, pp. 645-650.
- Allesøe K. et al. 2010. "Psychosocial work environment and risk of ischaemic heart disease in women: the Danish Nurse Cohort Study" in *Occupational and Environmental Medicine*, Vol. 67, No. 5, pp. 318-322.
- Al-Mashaan, O. S. 2001. "Job stress and job satisfaction and their relation to neuroticism, type a behavior, and locus of control among Kuwaiti personnel" in *Psychological Reports*, Vol. 88, No. 3, pp. 1145-1152.
- Al-Maskari, F. et al. 2011. "Prevalence of depression and suicidal behaviors among male migrant workers in United Arab Emirates" in *Journal of Immigrant and Minority Health*, Vol. 13, No. 6, pp. 1027-1032.
- Alterman, T. et al. 1994. "Decision latitude, psychologic demand, job strain, and coronary heart disease in the Western Electric Study" in *American Journal of Epidemiology*, Vol. 139, No. 6, pp. 620-627.
- Al-Turki, H. A. et al. 2010. "Burnout syndrome among multinational nurses working in Saudi Arabia" in *Annals of African Medicine*, Vol. 9, No. 4, pp. 226-229.
- Alves, M. G., Chor, D., Faerstein, E., Werneck, G. L., & Lopes, C. S. 2009. "Job strain and hypertension in women: Estudo Pro-Saúde (Pro-Health Study)" in *Revista de Saúde Pública*, 43, 893-896.
- Amagasa, T.; Nakayama, T.; Takahashi, Y. 2005. "Karojisatsu in Japan: characteristics of 22 cases of work-related suicide" in *Journal of Occupational Health*, Vol. 47, No. 2, pp. 157-164.
- American Psychological Association (APA). 2010. *Stress in America. Stress and gender*. DC: APA.
- . 2015. *Stress in America, Paying With Our Health*. Washington, DC: APA.
- Anderssen, E. 2011. "Ottawa to fund mental-health strategy: First-ever Canadian-wide standards to tackle problem estimated to cost \$20-billion a year in workplace losses alone" in *The Globe and Mail*, June 17, 2011.
- Antoniou, A.G.; Cooper, C.L. 2011. *New directions in organizational psychology and behavioural medicine*, England: Gower publishing Ltd.
- Arafa, M. A. et al. 2003. "Predictors of psychological well-being of nurses in Alexandria, Egypt" in *International Journal of Nursing Practice*, Vol. 9, No. 5, pp. 313-320.
- Arial, M. et al. 2010. "Association of work related chronic stressors and psychiatric symptoms in a Swiss sample of police officers; a cross sectional questionnaire study" in *International Archives of Occupational and Environmental Health*, Vol. 83, No. 3, pp. 323-331.
- Aronsson, G.; Gustafsson, K. 2005. "Sickness presenteeism: prevalence, attendance-pressure factors, and an outline of a model for research" in *Journal of Occupational and Environmental Medicine*, Vol. 47, No. 9, pp. 958-966.
- Aronsson, G.; Gustafsson, K.; Dallner, M. 2000. "Sick but yet at work. An empirical study of sickness presenteeism" in *Journal of Epidemiology and Community Health*, Vol. 54, No. 7, pp. 502-509.
- Ashford, S.J.; Lee, C.; Bobko, P. 1989. "Content, cause, and consequences of job insecurity: A theory-based measure and substantive test" in *Academy of Management Journal*, Vol. 32, No. 4, pp. 803-829.
- Aust, B.; Ducki, A. 2004. "Comprehensive health promotion interventions at the workplace: experiences with health circles in Germany" in *Journal of Occupational Health Psychology*, Vol. 9, No. 3, pp. 258-270.
- Australian Psychological Society (APS). 2014. Authored by Casey, L.; Pui-Tak Liang, R. [Eds.] *Stress and Wellbeing Survey 2014*. Australia: APS.
- Ávila Toscano, J.H. et al. 2010. "Características demográficas y laborales asociadas al Síndrome de Burnout en profesionales de la salud" in *Pensamiento Psicológico*, Vol. 8 (15).
- Bagaajav, A.; Myagmarjav, S.; Nanjid, K.; Otgon, S.; Chae, Y. M. 2011. "Burnout and job stress among Mongolian doctors and nurses" in *Industrial Health*, 49, 582-588.
- Bakker, A. B.; Demerouti, E. 2007. "The job demands-resources model: State of the art" in *Journal of managerial psychology*, Vol. 22, No. 3, pp. 309-328.
- Barber, L.K.; Santuzzi, A.M. 2014. "Please Respond ASAP: Workplace Telepressure and Employee Recovery" in *Journal of Occupational Health Psychology* 2015 Apr; Vol. 20(2), pp. 172-189.
- Barling, J.; Kelloway, E. K.; Iverson, R. D. 2003. "High-Quality Work, Job Satisfaction, and Occupational Injuries" in *Journal of Applied Psychology*, Vol. 88, No. 2, pp. 276-283.
- Batista, J.B.; Carlotto, M.S.; Coutinho, A.S.; Augusto, L.G. 2010. "Prevalence of Burnout Syndrome and sociodemographic and work factors of elementary education teachers of the City of João Pessoa" in *Revista Brasileira de Epidemiologia*, Vol. 13, pp. 502-512.
- Belkic, K.L. et al. 2004. "Is job strain a major source of cardiovascular disease risk?" in *Scandinavian Journal of Work, Environment and Health*, Vol. 30, No. 2, pp. 85-128
- Benach, J. et al. 2002. "The consequences of flexible work for health: are we looking at the right place?" in *Journal of Epidemiology and Community Health*, Vol. 56, No. 6, pp. 405-406.
- Bennett, J.B.; Lehman, W.E. 1999. "The relationship between problem co-workers and quality work practices: A case study of exposure to sexual harassment, substance abuse, violence and job stress" in *Work & Stress*, Vol. 13, No. 4, pp. 299-311.
- Bergh, L. et al. 2014. "Psychosocial risks and hydrocarbon leaks: an exploration of their relationship in the Norwegian oil and gas industry" in *Journal of Cleaner Production*.
- Berraho, M. et al. 2006. "Measuring levels of professionally-related stress in taxi drivers in Fes, Morocco" in *Santé Publique*, Vol. 18, No. 3, pp. 375-387.
- Bhalla, S., Jones, B., & Flynn, D. M. 1991. "Role stress among Canadian white-collar workers" in *Work & Stress*, Vol. 5, pp. 289-299.
- Bilgel, N.; Aytac, S.; Bayram, N. 2006. "Bullying in Turkish white-collar workers" in *Occupational Medicine*, Vol. 56, No. 4, pp. 226-231.
- Bishop, G. D.; Robinson, G. 2000. "Anger, harassment, and cardiovascular reactivity among Chinese and Indian men in Singapore" in *Psychosomatic Medicine*, Vol. 62, No. 5, pp. 684-692.
- Bjerkan, A. M. 2010. "Health, environment, safety culture and climate—analysing the relationships to occupational accidents" in *Journal of Risk Research*, Vol. 13, No. 4, pp. 445-477.
- Blackmore, E. et al. 2007. "Major depressive episodes and work stress: results from a national population survey" in *American Journal of Public Health*, Vol. 97, No. 11, pp. 2088-2093.
- Bodeker, W.; Friedrichs, M. 2011. "Kosten der psychischen Erkrankungen und Belastungen in Deutschland" in Kamp, L.; Pickshauss, K. [Eds.]. *Regelungslücke psychische Belastungen schliessen*, Hans Bockler Stiftung, Dusseldorf, 2011, pp. 69-102.
- Bohle, P.; Quinlan, M.; Kennedy, D.; Williamson, A. 2004. "Working hours, work-life conflict and health in precarious and "permanent" employment" in *Revista de Saude Publica*, Vol. 38(Supl), pp.19-25.
- Bojar, I. et al. 2011. "Exposing women to workplace stress factors as a risk factor for developing arterial hypertension" in *Annals of agricultural and environmental medicine: AAEM*, Vol. 18, No. 1, 175.
- Bonde, J.P. 2008. "Psychosocial factors at work and risk of depression: a systematic review of the epidemiological evidence" in *Occupational and Environmental Medicine*, Vol. 65, No. 7, pp. 438-445.
- Bonde, J.P. et al. 2009. "Job strain and ischemic heart disease: a prospective study using a new approach for exposure assessment" in *Journal of Occupational and Environmental Medicine*, Vol. 51, No. 6, pp. 732-738.
- Boran, A. et al. 2012. "Work-related stress among health professionals in northern Jordan" in *Occupational Medicine*, Vol. 62, No. 2, pp. 145-147
- Borritz, M. et al. 2006. "Burnout among employees in human service work: design and baseline findings of the PUMA study" in *Scandinavian Journal of Public Health*, Vol. 34, No. 1, pp. 49-58.
- Borritz, M. et al. 2010. "Impact of burnout and psychosocial work characteristics on future long-term sickness absence. Prospective results of the Danish PUMA Study among human service workers" in *Journal of Occupational and Environmental Medicine*, Vol. 52, No. 10, pp. 964-970.
- Bourbonnais, R.; Mondor, M. 2001. "Job strain and sickness absence among nurses in the province of Quebec" in *American Journal of Industrial Medicine*, Vol. 39, No. 2, pp. 194-202.
- Boya, F. et al. 2008. "Effects of perceived job insecurity on perceived anxiety and depression in nurses" in *Industrial Health*, Vol. 46, No. 6, pp. 613-619.
- Broughton, A. et al. 2009. *Managing stress and sickness absence. Progress of the Sector Implementation Plan – Phase 2. Research Report RR694* (Sudbury, HSE books).
- Buddeberg-Fischer, B. et al. 2008. "Work stress and reduced health in young physicians: prospective evidence from Swiss residents" in *International Archives of Occupational and Environmental Health*, Vol. 82, No. 1, pp. 31-38.

- Bunker, S. et al. 2003. "Stress and coronary heart disease: psychosocial risk factors" in *Medical Journal of Australia*, Vol. 178, No. 6, pp. 272-276.
- Burke, R.J. 1988. "Sources of Managerial and Professional Stress in Large Organizations" in Cooper, C.L.; Payne, R. [Eds.] *Causes, Coping and Consequences of Stress at Work*, Chichester, John Wiley and Sons.
- Bustos Villar, E.; Caputo, M.; Aranda Coria, E.; Gimenez, M. 2015. *Hostigamiento Psicológico Laboral e Institucional en Iberoamérica: Estado del arte y experiencias de intervención*. Buenos Aires: Sb editorial.
- Cabinet Office, Government of Japan. 2012. *White paper on Suicide Prevention in Japan*. Tokyo: Cabinet Office.
- Cañadas-De la Fuente, G.; Vargas, C.; San Luis, C.; García, I.; Cañadas, G.; De la Fuente E. 2015. "Risk factors and prevalence of burnout syndrome in the nursing profession" in *International Journal of Nursing Studies*, Vol. 52(1), pp. 240-249.
- Caribbean Community and Common Market (CARICOM). 2010. "Investing in Health for Sustainable Development". Caribbean Cooperation in Health Phase III (CCH III), Regional Health Framework 2010-2015.
- Carod-Artal F.J.; Vázquez-Cabrera, C. 2013. "Burnout Syndrome in an International Setting" in Bährer-Kohler, S. [Ed.]. *Burnout for Experts: Prevention in the Context of Living and Working*. Springer.
- Caro-Villamil, A.Y. 2007. *The relationship between working conditions and health in the working population affiliated to the General System of Occupational Hazards Colombia: Results of the First National Survey of Health and Working Conditions (I-ENCST)*.
- Castañeda, H. 2012. *Psychosocial factors at work and mental health workers in a primary care unit in Tepic Nayarit, Mexico*. Paper presented at the 30<sup>th</sup> International Congress on Occupational Health (March 18-23, 2012), Cancun, Mexico.
- Chan, M. 2011. "Fatigue: the most critical accident risk in oil and gas construction" in *Construction Management and Economics*, Vol. 29, No. 4, pp.341-353.
- Chandola, T. et al. 2008. "Work stress and coronary heart disease: what are the mechanisms?" in *European Heart Journal*, Vol. 29, No. 5, pp.640-648.
- Chaney, C. et al. 2004. "Etude des facteurs de risque de troubles musculosquelettiques (TMS) dans une population de 334 hôtesse de caisse de la région parisienne" in *Cahiers de médecine interprofessionnelle*, Vol. 44, No. 3, pp. 319-328.
- Cheng, G.; Chan, D. 2008. "Who Suffers More from Job Insecurity? A Meta-Analytic Review" in *Applied Psychology*, Vol. 57, No. 2, pp. 272-303.
- Chilean Safety Association (ACHS). 2013. *Accidentalidad laboral en Chile bajó a un mínimo histórico en 2012*. Santiago, 19.03.2013.
- Chini, B. 2003. "Occupational stress factors – Survey among employees of inter-company services. Les facteurs de stress professionnel – Enquête auprès des salariés des services interentreprises" in *Archives des maladies professionnelles et de médecine du travail*, Vol. 64, No. 5, pp. 297-309.
- Cho, J. et al. 2008. "Occupational stress and depression in Korean employees" in *International Archives of Occupational and Environmental Health*, Vol. 82, No. 1, pp. 47-57.
- Choi, E.; Ha, Y. 2009. "Work-related Stress and Risk Factors among Korean Employees" in *Journal of the Korean Academy of Nursing*, Vol. 39, No. 4, pp. 549-561.
- Choi, K.S.; Kang, S.K. 2010. "Occupational Psychiatric Disorders in Korea", in *Journal of Korean Medical Science*, Vol. 25 (suppl), pp. 87-93.
- Chung, C.; Kowalski, S. 2012. "Job stress, mentoring, psychological empowerment, and job satisfaction among nursing faculty" in *Journal of Nursing Education*, Vol. 51, No. 7, pp. 381-388.
- Cobb, S.; Kasl, S.V. 1977. *Termination: The consequences of job loss*. NIOSH Research report. Washington, DC: U.S. Government Printing Office, DHEW (NIOSH) Publication No. 77-224
- Cohen, S.; Wills, T.A. 1985. "Stress, social support, and the buffering hypothesis" in *Psychological Bulletin*, Vol. 98, pp. 310-357.
- Committee of Senior Labour Inspectors (SLIC). 2012. *Psychosocial risk assessments – SLIC Inspection Campaign 2012: Final report*. SLIC.
- Cooper, C.L.; Cartwright, S. 1994. "Healthy mind, healthy organisation: A proactive approach to occupational stress" in *Human Relations*, Vol. 47, pp. 455-470.
- Cooper, C.L.; Cartwright, S. 1997. "An intervention strategy for workplace stress" in *Journal of Psychosomatic Research*, Vol. 43, No. 1, pp. 7-16.
- Cornelio, C. [Coord.] 2013. *Primera Encuesta Nacional a Trabajadores, Empleo, Trabajo, Condiciones y Medio Ambiente Laboral Argentina 2009, Informe final*. Argentina, SRT, Ministerio de Trabajo, Empleo y Seguridad Social.
- Cortés, S.; González-Baltazar, R.; Cortés, M. 2012. *Job stress, absenteeism and near miss accidents in thermic central workers*. Paper presented at the 30<sup>th</sup> International Congress on Occupational Health, March 18-23, (Cancun, Mexico).
- Cortese, C.; Colombo, L.; Ghislieri, C. 2010. "Determinants of nurses' job satisfaction: the role of work-family conflict, job demand, emotional charge and social support" in *Journal of Nursing Management*, Vol. 18, No. 1, pp. 35-43.
- Couto, M.; Lawoko, S. 2011. "Burnout, workplace violence and social support among drivers and conductors in the road passenger transport sector in Maputo City, Mozambique" in *Journal of Occupational Health*, Vol. 53, No. 3, pp. 214-221.
- Cox, T. 1993. *Stress research and stress management: Putting theory to work* (Sudbury, HSE Books).
- Cox, T. et al. 2009. *Developing the Management Standards approach within the context of common health problems in the workplace: A Delphi study*. Norwich: HSE Books.
- Cox, T., Griffiths, A., & Rial-Gonzalez, E. 2000. Research on Work Related Stress. European Agency for Safety and Health at Work, Office for Official Publications of the European Communities, Luxembourg, 2000.
- Cox, T.; Griffiths, A. 2005. "The nature and measurement of work-related stress" in J. Wilson, N., Corlett, [Eds.] *Evaluation of Human Work: A Practical Ergonomics Methodology*. Boca Raton, FL: CRC Press.
- Crompton, S. 2011. "What's stressing the stressed? Main sources of stress among workers" in *Canadian Social Trends, Statistics Canada*.
- CSR Europe. 2009. *It's not just about fruit... An employer's guide to achieving corporate wellbeing*. Wellbeing in the Workplace (2009); Business Action on Health.
- Cummings, G.; Estabrooks, C. 2003. "The effects of hospital restructuring that included layoffs on individual nurses who remained employed: A systematic review of impact" in *International Journal of Sociology and Social Policy*, Vol. 23, No. 8/9, pp. 8-53.
- Darshan, M. et al. 2013. "A study on professional stress, depression and alcohol use among Indian IT professionals" in *Indian Journal of Psychiatry*, Vol. 55, No. 1, pp. 63-69.
- De Bacquer, D. et al. 2005. "Perceived job stress and incidence of coronary events: 3-year follow-up of the Belgian Job Stress Project cohort" in *American Journal of Epidemiology*, Vol. 161, No. 5, pp. 434-441.
- De Croon, E.M. et al. 2002. "Job stress, fatigue, and job dissatisfaction in Dutch lorry drivers: Towards an occupation specific model of job demands and control" in *Occupational and Environmental Medicine*, Vol. 59, No. 6, pp. 356-361.
- De Lange, A. H. et al. 2004. "The relationships between work characteristics and mental health: examining normal, reversed and reciprocal relationships in a 4-wave study" in *Work and Stress*, Vol. 18, No. 2, pp. 149-166.
- De Oliveira, G.S.Jr.; Chang, R.; Fitzgerald, P.C.; Almeida, M.D.; Castro-Alves L.S.; Ahmad S.; McCarthy R.J. 2013. "The prevalence of burnout and depression and their association with adherence to safety and practice standards: a survey of United States anesthesiology trainees" in *Anesthesia & Analgesia Journal*, 2013 Jul, Vol. 117(1); pp.182-93.
- Deeney, C.; O'Sullivan, L. 2009. "Work related psychosocial risks and musculoskeletal disorders: potential risk factors, causation and evaluation methods" in *Work*, Vol. 34, No. 2, pp. 239-248.
- Demerouti, E. et al. 2009. "Present but sick: A three-wave study on job demands, presenteeism and burnout" in *Career Development International*, Vol. 14, No. 1, pp. 50-68.
- Derycke, H. et al. 2013. "The impact of effort-reward imbalance and learning motivation on teachers' sickness absence" in *Stress Health*, Vol. 29, No. 1, pp. 14-21.
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). 2012. *More than just good business: Employee wellbeing programmes in Ghana*. Germany: GIZ.
- DGB-Index Gute Arbeit. 2015. *DGB-Index Gute Arbeit Der Report 2015*. Berlin: Institut DGB-Index Gute Arbeit.
- Di Tecco, C. et al. 2015. "Do Italian Companies Manage Work-Related Stress Effectively? A Process Evaluation in Implementing the INAIL Methodology" in *BioMed Research International*, Vol. 2015 (2015), Article ID 197156.
- Dirección del Trabajo. 2012. *Encl. 2011. Informe de resultados. Séptima Encuesta Laboral*. Santiago: Gobierno de Chile, 12.2012.
- Direction de l'animation de la recherche, des études et des statistiques (Dares). 2015. "Pilote du travail et risques psychosociaux" in *Dares Analyses*, Janvier 2015, N. 003.
- Dollard, M. et al. 2012. *The Australian Workplace Barometer: Report on psychosocial safety climate and worker health in Australia*. Canberra: Safe Work Australia.
- Dollard, M. et al. 2014. *Psychosocial Factors at Work in the Asia Pacific*. Springer.
- Domenighetti, G.; D'Avanzo, B.; Bisig, B. 2000. "Health effects of job insecurity among employees in the Swiss general population" in *International Journal of Health Services*, Vol. 30, No. 3, pp. 477-490.
- Doppia, M. et al. 2011. "Burnout in French doctors: a comparative study among anesthesiologists and other specialists in French hospitals (SESMAT study)" in *Annales Françaises d'Anesthésie et de Réanimation*, Vol. 30, No. 11, pp. 782-794.
- D'Souza, R. et al. 2003. "Work and health in a contemporary society: demands, control, and insecurity" in *Journal of Epidemiology and Community Health*, Vol. 57, No. 11, pp. 849-854.
- Duffy, M.; Sperry, L. 2012. *Mobbing: Causes, Consequences, and Solutions*. New York: Oxford University Press.
- Duraisingam, V.; Dollard, M. 2005. "The management of psychosocial risk factors amongst rural development workers in India" in *International Journal of Rural Management*, Vol. 1, No. 1, pp. 97-123.
- Duxbury, L.; Higgins, C. 2012. *Revisiting Work-Life Issues in Canada: The 2012 National Study on Balancing*. Ottawa, ON: Carleton University & The University of Western Ontario.

- Eller, N. et al. 2009. "Work-related psychosocial factors and the development of ischemic heart disease: a systematic review" in *Cardiology in Review*, Vol. 17, No. 2, pp. 83-97.
- Elstad, J.; Vabo, M. 2008. "Job stress, sickness absence and sickness presenteeism in Nordic elderly care" in *Scandinavian Journal of Public Health*, Vol. 36, No. 5, pp. 467-474.
- Embraccio, N.; Papazian, L.; Kentish-Barnes, N.; Pochard, F.; Azoulay, E. 2007. "Burnout syndrome among critical care healthcare workers" in *Current Opinion in Critical Care*, Vol. 13, pp. 482-488.
- Engel, G.L. 1977. "The need for a new medical model: A challenge for biomedicine" in *Science* Vol. 196, pp. 129-136.
- Ertel, M. et al. 2010. "European social dialogue on psychosocial risks at work: Benefits and challenges" in *European Journal of Industrial Relations*, Vol. 16, No. 2, 2010, pp. 169-183.
- Ervasti, J. et al. 2011. "Sickness absence among Finnish special and general education teachers" in *Occupational Medicine*, Vol. 61, No. 7, pp. 465-471.
- Estry-Behar, M. et al. 2008. "Violence risks in nursing--results from the European "NEXT" Study" in *Occupational Medicine*, Vol. 58, No. 2, pp. 107-114.
- Eurogip. 2013. *What recognition of work-related mental disorders? A study on 10 European countries*. Report Eurogip-81/E, Paris.
- European Agency for Safety and Health at Work (EU-OSHA). 2007. *Expert forecast on emerging psychosocial risks related to occupational safety and health*. Luxembourg: Publications Office of the European Union.
- . 2009. *OSH in figures: stress at work – facts and figures*. Luxembourg: Publications Office of the European Union.
- . 2010a. *European Survey of Enterprises on New and Emerging Risks: Managing safety and health at work*. Luxembourg: Publications Office of the European Union.
- . 2012. *Drivers and Barriers for Psychosocial Risk Management: An analysis of findings of the European survey of enterprises on new and emerging risks*. Luxembourg: Publications Office of the European Union.
- . 2013. *New risks and trends in the safety and health of women at work*. Luxembourg: Publications Office of the European Union.
- . 2014a. *Calculating the cost of work-related stress and psychosocial risks European Risk Observatory Literature Review*. Luxembourg: Publications Office of the European Union.
- . 2014b. *Mainstreaming gender into occupational safety and health practice*. Luxembourg: Publications Office of the European Union.
- European Commission (EC). 2010. *Psychosocial Risks and Health Effects of Restructuring – Background Paper Investing in Well-Being at Work: Addressing Psychosocial Risks in Times of Change*.
- . 2011. *Report on the implementation of the European social partners – Framework Agreement on Work-related Stress*. SEC (2011) 241 final, Commission staff working paper.
- . 2013. *Report on the current situation in relation to occupational diseases' systems in EU Member States and EFTA/EEA countries, in particular relative to Commission Recommendation 2003/670/EC concerning the European Schedule of Occupational Diseases and gathering of data on relevant related aspects*.
- European Foundation for the Improvement of Living and Working Conditions (Eurofound). 2007. *Fourth European survey on working conditions 2005*. Luxembourg: Publications Office of the European Union.
- . 2012. *Working Conditions in Korea: Survey highlights*. Luxembourg: Publications Office of the European Union.
- . 2012b. *Fifth European Working Conditions Survey – Overview report*. Luxembourg: Publications Office of the European Union.
- . 2013. *Women, men and working conditions in Europe*. Luxembourg: Publications Office of the European Union.
- . 2016. *First findings: Sixth European Working Conditions Survey*. Luxembourg: Publications Office of the European Union.
- European Foundation for the Improvement of Living and Working Conditions (Eurofound); European Agency for Safety and Health at Work (EU-OSHA). 2014. *Psychosocial risks in Europe: Prevalence and strategies for prevention*. Luxembourg: Publications Office of the European Union.
- European Pact for Mental Health and Wellbeing 2008. EU High Level Conference "Together for mental health and wellbeing", Brussels, 12-13 June 2008.
- European Parliament. 2009. *European Parliament resolution of 19 February 2009 on Mental Health T6-0063/2009, Reference 2008/2209(INJ)*.
- . 2013. *Occupational health concerns: stress-related and psychological problems associated with work*. European Union: Directorate General for Internal Policies, Policy Department A: Employment Policy.
- European Social Partners. 2008. *Implementation of the European Framework Agreement on Work-related Stress; Report by the European Social Partners (ETUC/CES, BUSINESSEUROPE, CEEP, UEAPME)*. Adopted at the Social Dialogue Committee on 18 June 2008.
- European Trade Union Confederation (ETUC). 2004. *Framework agreement on work-related stress*. An ETUC interpretation guide. Bruxelles.
- . 2007. *Autonomous Framework Agreement on Harassment and Violence at Work*. An ETUC interpretation guide. Bruxelles.
- Fahlén, G. et al. 2009. "Effort-reward imbalance, "locked in" at work, and long-term sick leave" in *International Archives of Occupational and Environmental Health*, Vol. 82, No. 2, pp. 191-197.
- Faragher, E.; Cass, M.; Cooper, C. 2005. "The relationship between job satisfaction and health: a meta-analysis" in *Occupational and Environmental Medicine*, Vol. 62, No. 2, pp. 105-112.
- Farquharson, B. et al. 2012. "Stress amongst nurses working in a healthcare telephone-advice service: relationship with job satisfaction, intention to leave, sickness absence, and performance" in *Journal of Advanced Nursing*, Vol. 68, No. 7, pp. 1624-1635.
- Fernandes Rde, C. et al. 2010. "Musculoskeletal disorders among workers in plastic manufacturing plants" in *Rev Bras Epidemiol*, Vol. 13, No. 1, pp. 11-20.
- Ferrie, J. et al. 2002. "Change in health inequalities among British civil servants: the Whitehall II study" in *Journal of Epidemiology and Community Health*, Vol. 56, No. 12, pp. 922-926.
- Fevre, M.L.; Kolt, G.S.; Matheny, J. 2006. "Eustress, distress and their interpretation in primary and secondary occupational stress management interventions: which way first?" in *Journal of Managerial Psychology*, Vol. 21 (6), pp. 547-565.
- Fido, A.; Ghali, A. 2008. "Detrimental effects of variable work shifts on quality of sleep, general health and work performance" in *Medical Principles and Practice*, Vol. 17, No. 6, pp. 453-457.
- Figueiredo-Ferraz, H. et al. 2012. "Influence of some psychosocial factors on mobbing and its consequences among employees working with people with intellectual disabilities" in *Journal of Applied Research in Intellectual Disabilities*, Vol. 25, No. 5, pp. 455-463.
- Figueiredo-Ferraz, H.; Gil-Monte, P. R.; Olivares-Faundez, V. E. 2013. "Influence of mobbing (workplace bullying) on depressive symptoms: a longitudinal study among employees working with people with intellectual disabilities" in *Journal of Intellectual Disability Research*.
- Firth, H.; Herbison, P.; McGee, R. 2009. "Stress and health among New Zealand farmers" in *Journal of Occupational Health and Safety – Australia and New Zealand*, Vol. 25, No. 2, pp. 89-97.
- Flin, R.; O'Connor, P.; Crichton, M. 2008. *Safety at the sharp end: Training non-technical skills*. Ashgate Publishing.
- Foster T. 2011. "Adverse life events proximal to adult suicide: a synthesis of findings from psychological autopsy studies" in *Archives of Suicide Research*, Vol. 2011; 15(1), pp. 1-15.
- Fridner, A. et al. 2009. "Survey on recent suicidal ideation among female university hospital physicians in Sweden and Italy (the HOUPE study): cross-sectional associations with work stressors" in *Gender Medicine*, Vol. 6, No. 1, pp. 314-328.
- Fridner, A. et al. 2011. "Work environment and recent suicidal thoughts among male university hospital physicians in Sweden and Italy: the health and organization among university hospital physicians in Europe (HOUPE) study" in *Gender Medicine*, Vol. 8, No. 4, pp. 269-279. Frone et al., 1992
- Frone, M.R.; Russell, M.; Cooper, M.L. 1992. "Antecedents and outcomes of work-family conflict: Testing the model of the work-family interface" in *Journal of Applied Psychology*, Vol. 77, pp. 65-78.
- . 1997. "Relation of work-family conflict to health outcomes: A four-year longitudinal study of employed parents" in *Journal of Occupational and Organizational Psychology*, Vol. 70, pp. 325-335.
- Gascon, S. et al. 2013. "The role of aggressions suffered by healthcare workers as predictors of burnout" in *Journal of Clinical Nursing*, Vol. 22, No. 21-22, pp. 3120-3129.
- Gershon, R. et al. 2009. "Mental, physical, and behavioral outcomes associated with perceived work stress in police officers" in *Criminal Justice and Behavior*, Vol. 36, No. 3, pp. 275-289.
- Gershon, R.; Lin, S.; Li, X. 2002. "Work stress in aging police officers" in *Journal of Occupational and Environmental Medicine*, Vol. 44, No. 2, pp. 160-167.
- Ghosh, A.; Bhattacharjee, A.; Chau, N. 2004. "Relationships of working conditions and individual characteristics to occupational injuries: a case-control study in coal miners" in *Journal of Occupational Health*, Vol. 46, No. 6, pp. 470-480.
- Giga, S. et al. 2003. "The UK perspective: A review of research on organisational stress management interventions" in *Australian Psychologist*, Vol. 38, pp. 158-164.
- Glasscock, D. et al. 2006. "Psychosocial factors and safety behaviour as predictors of accidental work injuries in farming" in *Work and Stress*, Vol. 20, No. 2, pp. 173-189.
- Gómez, V.; Hermosa, A.; Perilla, E. 2012. *Sources of occupational stress and their impact on the health of Faculty in Colombia*. Paper presented at the 30<sup>th</sup> International Congress on Occupational Health (March 18-23, 2012), Cancun, Mexico.
- Greehaus, J.H.; Beutell, N.J. 1985. "Sources of conflict between work and family roles" in *Academy of Management Review*, Vol. 10, pp. 76-88.
- Grynderup, M. et al. 2013. "Work-unit measures of organisational justice and risk of depression--a 2-year cohort study" in *Occupational and Environmental Medicine*, Vol. 70, No. 6, pp. 380-385.
- Guic, E.; Bilbao, R.; Bertin, C. 2002. "Occupational stress and health in a sample of Chilean executives" in *Revista Medica De Chile*, Vol. 130, No. 10, pp. 1101-1112.

- Guthrie, R.; Ciccarelli, M.; Babic, A. 2010. "Work-related stress in Australia: The effects of legislative interventions and the cost of treatment" in *International Journal of Law and Psychiatry*, Vol. 33, pp. 101–115.
- Hansen A.M. and the Nordic bullying network group. 2011. *State of the art report on bullying at the workplace in the Nordic countries*. TemaNord 2011:515. Copenhagen: Nordic Council of Ministers
- Hansen, A. M. et al. 2006. "Bullying at work, health outcomes, and physiological stress response" in *Journal of Psychosomatic Research*, Vol. 60, No. 1, pp. 63–72.
- Hansen, C.D.; Andersen, J. 2008. "Going ill to work--what personal circumstances, attitudes and work-related factors are associated with sickness presenteeism?" in *Social Science and Medicine*, Vol. 67, No. 6, pp. 956–964.
- Hansen, T., et al. 2015. *Psychosocial working environment: Workplace Inspection of the psychosocial working environment in the Nordic countries*. TemaNord 2015:508. Copenhagen: Nordic Council of Ministers.
- Hansez, I.; Mairiaux, P.; Firket, P.; Braeckman, L. 2011. *Recherche sur le Burnout au sein de la population active belge*. Brussels: Service public fédéral Emploi, Travail et Concertation sociale.
- Hawton, K.; Malmberg, A.; Simkin, S. 2004. "Suicide in doctors. A psychological autopsy study." In *Journal of Psychosomatic Research*, Vol. 57, No. 1, pp. 1–4.
- Head, J. et al. 2006. "Influence of change in psychosocial work characteristics on sickness absence: The Whitehall II Study" in *Journal of Epidemiology and Community Health*, Vol. 60, No. 1, pp. 55–61.
- Head, J.; Stansfeld, S.; Siegrist, J. 2004. "The psychosocial work environment and alcohol dependence: a prospective study" in *Occupational and Environmental Medicine*, Vol. 61, No. 3, pp. 219–224.
- Health and Safety Executive (HSE). 2015. *Work related Stress, Anxiety and Depression Statistics in Great Britain 2015*. HSE, National Statistics, October 2015.
- Hemingway, H.; Marmot, M. 1999. "Evidence based cardiology: psychosocial factors in the aetiology and prognosis of coronary heart disease. Systematic review of prospective cohort studies" in *BMJ*, Vol. 318, No. 7196, pp. 1460–1467.
- Herman, A. et al. 2009. "The South African Stress and Health (SASH) study: 12-month and lifetime prevalence of common mental disorders" in *South African Medical Journal*, Vol. 99, No. 5, pp. 339–344.
- Hilton, M.; Whiteford, H. A. 2010. "Associations between psychological distress, workplace accidents, workplace failures and workplace successes" in *International Archives of Occupational and Environmental Health*, Vol. 83, No. 8, pp. 923–933.
- Hinkka, K. et al. 2013. "Psychosocial work factors and sick leave, occupational accident, and disability pension: a cohort study of civil servants" in *Journal of Occupational and Environmental Medicine*, Vol. 55, No. 2, pp. 191–197.
- Ho, W. et al. 2009. "Effects of job rotation and role stress among nurses on job satisfaction and organizational commitment" in *BMC Health Services Research*, Vol. 9, No. 8.
- Holmgren, K.; Fjallstrom-Lundgren, M.; Hensing, G. 2013. "Early identification of work-related stress predicted sickness absence in employed women with musculoskeletal or mental disorders: a prospective, longitudinal study in a primary health care setting" in *Disability and Rehabilitation*, Vol. 35, No. 5, pp. 418–426.
- House, J.S.; Wells, J.A. 1978. "Occupational stress, social support, and health" in McLean, A.A. [Ed.], *Reducing occupational stress: Proceedings of a conference* (HEW, No. 78-104). Washington DC: U.S. Government Printing Office, 1978.
- Iavicoli, S. et al. 2013. "Hard and soft law approaches to addressing psychosocial risks in Europe: Lessons learned in the development of the Italian approach" in *Journal of Risk Research*. Vol. 17, Issue 7, pp. 855–869.
- Ibáñez, J. et al. 2012. "Variables sociodemográficas relacionadas al Síndrome de Burnout en docentes de colegios distritales" in *Psychología: avances de la disciplina*, Vol. 6, N. 2 (2012).
- Inoue, K.; Matsumono, M. 2000. "Karo jusatsu (suicide from overwork): a spreading occupational threat" in *Occupational & Environmental Medicine*, Vol. 57, pp. 284–285.
- International Commission on Occupational Health (ICOH). 2014. *Creating a Safe and Healthy Workplace. A Guide to Occupational Health and Safety for Entrepreneurs, Owners and Managers*; International Commission on Occupational Health.
- International Labour Organization (ILO). 1986. *Psychosocial factors at work: Recognition and control*. Report of the Joint International Labour Office and World Health Organization on Occupational Health, Ninth Session, Geneva, 18–24 September 1984. Occupational Safety and Health Series No. 56. Geneva: International Labour Office
- . 1996. *Management of alcohol and drug related issues in the workplace*; Geneva: International Labour Office, 1996
- . 1998. *ILO Declaration on Fundamental Principles and Rights at Work and its Follow-up*. Adopted by the International Labour Conference at its Eighty-sixth Session, Geneva, 18 June 1998 (Annex revised 15 June 2010)
- . 2004. *Global Strategy on Occupational Safety and Health*. Geneva: International Labour Office.
- . 2005. Authored by Lawrence, S.; Ishikawa, J. *Social Dialogue Indicators Trade union membership and collective bargaining coverage: Statistical concepts, methods and findings*. Working Paper No. 59. Geneva: International Labour Office.
- . 2006. *Violence at Work 3<sup>rd</sup> Edition*. Geneva: International Labour Office.
- . 2009 a. *Emerging risks and new patterns of prevention in a changing world of work*, Geneva: International Labour Office
- . 2009b. *Technical backgrounder on the problematic diseases in the proposed list to replace the list annexed to the List of Occupational Diseases Recommendation, 2002 (No. 194); Meeting of Experts on the Revision of the List of Occupational Diseases (Recommendation No. 194) (Geneva, 27–30 October 2009)*
- . 2012a. *Global Employment Trends for Women 2012*. Geneva: International Labour Office
- . 2012b. *SOLVE: Integrating health promotion into workplace OSH policies – Trainer's guide*. Geneva: International Labour Office.
- . 2012c. *Stress prevention at work checkpoints: Practical improvements for stress prevention in the workplace*. Geneva: International Labour Office.
- . 2014. Unpublished working document; International Labour Inspection (Tool/Guide/ Handbook) to deal with psychosocial risks at work. Geneva: International Labour Office
- . 2015. Report of the Director-General Report I The future of work centenary initiative International Labour; International Labour Conference, 104<sup>th</sup> Session, 2015. Geneva: International Labour Office.
- International Organization for Standardization (ISO). ISO 10075-3:2004. *Ergonomic principles related to mental workload -- Part 3: Principles and requirements concerning methods for measuring and assessing mental workload*. Geneva: ISO.
- International Organization of Employers (IOE). 2012. *IOE helping employers: manage employees work-related health risks*. Geneva: IOE.
- . 2013. *Fact Sheet for Business – Mental health, neurological disorders (MNDs) and psychosocial wellbeing*. Geneva: IOE.
- International Social Security Association (ISSA). 2012. *ISSA Section for a Culture of Prevention*. Newsletter. June 2012, Vol. 1.
- International Trade Union Confederation (ITUC) Africa. 2013. *Report to the African Union Labour and Social Affairs Commission*, April, 2013.
- International Trade Union Confederation (ITUC). 2010. *ITUC Congress Resolutions on Decent Work*. Brussels: ITUC.
- Irish Business and Employers Confederation (IBEC). 2012. *Mental health and wellbeing: A line manager's guide*. Dublin: IBEC, October 2012.
- Ishizaki, M. et al. 2006. "Psychosocial work characteristics and sickness absence in Japanese employees" in *International Archives of Occupational and Environmental Health*, Vol. 79, No. 8, pp. 640–646.
- Jahoda, M. 1982. *Employment and unemployment: A social-psychological analysis*. Cambridge, England: Cambridge University Press.
- . 1989. "Economic recession and mental health: some conceptual issues" in *Journal of Social Issues*, Vol. 44(4), pp. 13–24.
- Houdmont, J.; Leka, S. [Eds.]. 2010. *Contemporary Occupational Health Psychology: Global perspectives on research and practice*. Chichester, England: Wiley-Blackwell.
- Jamal, M. 1990. "Relationship of Job Stress and Type-A Behavior to Employees' Job Satisfaction, Organizational Commitment, Psychosomatic Health Problems, and Turnover Motivation" in *Human Relations*, Vol. 43, No. 8, pp. 727–738.
- Japan Industrial Safety & Association, JISHA. 2010. *Statistics of Workers' Health Condition in Japan*. Tokyo: JISHA.
- Johns, G. 2010. "Presenteeism in the workplace: A review and research agenda" in *Journal of Organizational Behavior*, Vol. 31, No. 4, pp. 519–542.
- Johnstone, R.; Quinlan, M.; McNamara, M. 2011. "OHS inspectors and psychosocial risk factors: Evidence from Australia" in *Safety Science*, Vol. 49, No. 4, pp. 547–557.
- Jourdain, G.; Chenevert, D. 2010. "Job demands-resources, burnout and intention to leave the nursing profession: a questionnaire survey" in *International Journal of Nursing Studies*, Vol. 47, No. 6, pp. 709–722.
- Juárez García, A. et al. 2012. *Job Strain and Mental Health: a Comparison in Human Services Professionals from Six Latin-American Countries*. Paper presented at the 30<sup>th</sup> International Congress on Occupational Health (March 18–23, 2012), Cancun, Mexico.
- Juarez-Garcia, A. 2007. "Psychosocial work factors associated to blood pressure and cardiovascular symptoms among Mexican nurses" in *Salud Publica de México*, Vol. 49, No. 2, pp. 109–117.
- Julia, M. et al. 2013. "The impact of job stress due to the lack of organisational support on occupational injury" in *Occupational and Environmental Medicine*, Vol. 70, No. 9, pp. 623–629.
- Kaaria, S. et al. 2012. "Risk factors of chronic neck pain: a prospective study among middle-aged employees" in *European Journal of Pain*, Vol. 16, No. 6, pp. 911–920.
- Kahn, R.L.; Antonucci, T. C. 1980. "Convoys over the life course: Attachment, roles, and social support" in Baltes, P.B.; Brim, O. [Eds.] *Life-span development and behavior* (Vol. 3, pp. 253–268), New York: Academic Press
- Kahn, R.L.; Wolfe, D.M.; Quinn, R.P.; Snoek, J.D.; Rosenthal, R.A. 1964. *Organisational Stress: Studies in Role Conflict and Ambiguity*. New York: Wiley.

- Karantzias, G. et al. 2012. "Intentions to quit work among care staff working in the aged care sector" in *Gerontologist*, Vol. 52, No. 4, pp. 506-516.
- Karasek, R.; Theorell, T. 1990. *Healthy Work, Stress, Productivity and the Reconstruction of Working Life*. New York, NY: Basic Books.
- Karasek, R.A. 1979. "Job demands, job decision latitude, and mental strain: Implications for job redesign" in *Administrative Science Quarterly*, Vol. 24
- Katz, D.; Khan, R. 1966. *Social Psychology of Organizations*. New York, NY: Wiley.
- Kawachi, I. 2008. "Globalization and workers' health" in *Industrial Health*, Vol. 46, No. 5, pp. 421-423.
- Kawakami, N. 2009. Challenges for improving mental health among workers: Experiences from Japan. Mental Health and Employment – International Round Table, London 20 February 2009. The Nuffield Trust, London, UK.
- Kazi, A.; Haslam, C. 2013. "Stress management standards: a warning indicator for employee health" in *Occupational Medicine*, Vol. 63, No. 5, pp. 335-340.
- Keegel, T.; Ostry, A.; La Montagne, A. 2009. "Job strain exposures vs. stress-related workers compensation claims in Victoria, Australia: Developing a public health response to job stress" in *Journal of Public Health Policy*, Vol. 30, No. 1, pp. 17-39.
- Kieselbach, T. et al. 2009. *Health in Restructuring: Innovative Approaches and Policy Recommendations*. Mering, Rainer Hampp Verlag.
- Kim, H.; Lee, S. 2009. "Supervisory communication, burnout, and turnover intention among social workers in health care settings" in *Social Work in Health Care*, Vol. 48, No. 4, pp. 364-385.
- Kim, Y.S.; Park, J.; Rhee, K.Y.; Kim, H.M. 2015. "A Comparison between the Second Korean Working Conditions Survey (KWCS) and the First KWCS" in *Safety and Health at Work*, Vol. 2015 6(2), pp. 85-89.
- Kiran, S.; Günar, A.; Demiral, Y. 2012. *Job stress, absenteeism and near miss accidents in thermic central workers*. Paper presented at the 30<sup>th</sup> International Congress on Occupational Health (March 18-23, 2012), Cancun, Mexico.
- Kivimäki, M. et al. 2002. "Work stress and risk of cardiovascular mortality: Prospective cohort study of industrial employees" in *British Medical Journal*, Vol. 325, No. 7369, p. 857.
- Kivimäki, M. et al. 2003. "Sickness absence as a global measure of health: Evidence from mortality in the Whitehall II prospective cohort study" in *British Medical Journal*, Vol. 327, No. 7411, pp. 364-368.
- Kivimäki, M. et al. 2006. "Work stress in the aetiology of coronary heart disease – a meta-analysis" in *Scandinavian Journal of Work Environment & Health*, Vol. 32, No. 6, pp. 431-442.
- Kivimäki, M. et al. 2012. "Job strain as a risk factor for coronary heart disease: a collaborative meta-analysis of individual participant data" in *The Lancet*, Vol. 380, No. 9852, pp. 1491-1497.
- Kivimäki, M.; Elovainio, M.; Vahtera, J. 2000. "Workplace bullying and sickness absence in hospital staff" in *Occupational and Environmental Medicine*, Vol. 57, No. 10, pp. 656-660.
- Kivimäki, M.; Kawachi, I. 2015. "Work Stress as a Risk Factor for Cardiovascular Disease" in *Current Cardiology Reports*, Vol. 17(9) 2015, p. 74.
- Kivimäki, M.; Virtanen, M.; Vartiainen, M.; Elovainio, M.; Vahtera, J.; Keltikangas-Jarvinen, L. 2003. "Workplace bullying and the risk of cardiovascular disease and depression" in *Occupational and Environmental Medicine*, Vol. 60(10), pp. 779-783.
- Kobayashi, Y. et al. 2008. "Effects of a worker participatory program for improving work environments on job stressors and mental health among workers: a controlled trial" in *Journal of Occupational Health*, Vol. 50, No. 6, pp. 455-470.
- Kompier, M.A.J. 2006. "New systems of work organization and workers' health" in *Scandinavian Journal of Work Environment & Health*, Vol. 32, No. 6, special issue, pp. 421-430.
- Kondo, K. et al. 2006. "Job strain and sick leave among Japanese employees: a longitudinal study" in *International Archives of Occupational and Environmental Health*, Vol. 79, No. 3, pp. 213-219.
- Kopp, M.S.; Stauder, A.; Purebl, G.; Janszky, I.; Skrabski, A. 2008. "Work stress and mental health in a changing society" in *European Journal of Public Health*, Vol. 18(3), pp. 238-244.
- Kornhauser, A. 1965. *Mental Health of the Industrial Worker*. New York, NY: Wiley.
- Kornitzer, M. et al. 2006. "Job stress and major coronary events: results from the Job Stress, Absenteeism and Coronary Heart Disease in Europe study" in *European Journal of Cardiovascular Prevention and Rehabilitation*, Vol. 13, No. 5, pp. 695-704.
- Kortum, E.; Leka, S. 2013. "Tackling psychosocial risks and work-related stress in developing countries: The need for a multi-level intervention framework" in *International Journal of Stress Management*, Vol. 21(1), pp. 7-26.
- Kouvonen, A. et al. 2007. "Job strain and adverse health behaviors: The Finnish public sector study" in *Journal of Occupational and Environmental Medicine*, Vol. 49, No. 1, pp. 68-74.
- Kristensen, T. et al. 2005. "The Copenhagen Burnout Inventory: A new tool for the assessment of burnout" in *Work & Stress*, Vol. 19, No. 3, pp. 192-207.
- Kristensen, T.; Kronitzer, M.; Alfedsson, L. 1998. *Social factors, work, stress and cardiovascular disease prevention*. Brussels: European Heart Network.
- Kumar, S. 2007. "Burnout in psychiatrists" in *World Psychiatry*, Vol. 6, N. 3, pp. 186-9.
- Kuper, H. et al. 2006. "Psychosocial determinants of coronary heart disease in middle-aged women: A prospective study in Sweden" in *American Journal of Epidemiology*, Vol. 164, pp. 349-357.
- Kurabayashi, L. 2009. "Current status of occupational mental health in Japan: A comparison of the Administrative Guidelines published in 2000 and 2006" in *World Cultural Psychiatry Research Review*, pp. 53-59.
- Kuusio, H. et al. 2013. "Psychosocial stress factors and intention to leave job: differences between foreign-born and Finnish-born general practitioners" in *Scandinavian Journal of Public Health*, Vol. 41, No. 4, pp. 405-411.
- Laaksonen, M. et al. 2010. "Work arrangements, physical working conditions, and psychosocial working conditions as risk factors for sickness absence: Bayesian analysis of prospective data" in *Annals of Epidemiology*, Vol. 20, No. 5, pp. 332-338.
- Lagerström, M.; Josephson, M.; Arsalani, N.; Fallahi-Khoshknab, M. 2010. "Striving for balance between family and work demands among Iranian nurses" in *Nursing Science Quarterly*, Vol. 23, pp.166-172.
- LaMontagne, A. et al. 2008. "Job strain – Attributable depression in a sample of working Australians: Assessing the contribution to health inequalities" in *BMC Public Health*, Vol. 8, p. 181.
- Lee, R.T.; Ashforth, B.E. 1993. "A further examination of managerial burnout: Toward an integrated model" in *Journal of Organizational Behaviour*, Vol. 14, pp. 3-20.
- Lee, S. et al. 2004. "Prospective study of job insecurity and coronary heart disease in US women" in *Annals of Epidemiology*, Vol. 14, No. 1, pp. 24-30.
- Leka, S. et al. 2011b. "The development of the European framework for psychosocial risk management: PRIMA-EF" in *Journal of Occupational Health*, Vol. 53, pp. 137-143.
- Leka, S. et al. 2011c. "Developing a standard for psychosocial risk management: PAS1010" in *Safety Science*, Vol. 49, No. 7, pp. 1047-1057.
- Leka, S.; Cox, T. [Eds.]. 2008. *The European Framework for Psychosocial Risk Management: PRIMA-EF*. Nottingham, UK: Publications of the Institute of Work, Health and Organisations, University of Nottingham.
- Levi, L. 1970. "The psychosocial environment and psychosomatic diseases. Proceedings of an International Interdisciplinary Symposium held in Stockholm, April 1970." in *Society, stress and disease*, Vol. 1.
- Levi, L. 1976. "Psychosocial conditions in the work environment: Effects on health and well-being" in *Arbetsmiljöutredningens betänkande*, Bilage, Vol. 2, pp. 87-118.
- Levi, L. 2000. "Guidance on work-related stress – Spice of life or kiss of death?" Luxembourg: Publications of the European Communities.
- Li, C. Y. et al. 2001. "Job stress and dissatisfaction in association with non-fatal injuries on the job in a cross-sectional sample of petrochemical workers" in *Occupational Medicine*, Vol. 51, No. 1, pp. 50-55.
- Li, J. et al. 2013. "Psychosocial work environment and intention to leave the nursing profession: a cross-national prospective study of eight countries" in *International Journal of Health Services*, Vol. 43, No. 3, pp. 519-536.
- Li, J.; Jin, T. 2007. "Work stress and health – current research activities and implications in China" in *WHO Global Occupational Health Network (GOHNET) Newsletter*, Special Issue, pp. 25-28.
- Lin, Y. et al. 2010. "Perceived job stress and health complaints at a bank call center: Comparison between inbound and outbound services" in *Industrial Health*, Vol. 48, No. 3, pp. 349-356.
- Lindstrom, K. et al. 2000. User's Guide for the QPSNordic, General Nordic Questionnaire for Psychological and Social Factors at Work; TemaNord 2000:603. Copenhagen: Nordic Council of Ministers.
- Lippel, K. 2010. "The Law of Workplace Bullying: An International Overview" in *Comparative Labor Law and Policy Journal*, Vol. 32, No. 1, pp. 1-13.
- Liu, Y.; Tanaka, H. 2002. "Overtime work, insufficient sleep, and risk of non-fatal acute myocardial infarction in Japanese men" in *Occupational and Environmental Medicine*, Vol. 59, No. 7, pp. 447-451.
- Lohmann-Haislah. 2012. *Stressreport Deutschland 2012*. Psychische Anforderungen, Ressourcen und Befinden; BauA 2012
- Lopes-Cardozo, B. et al. 2012. "Psychological distress, depression, anxiety, and burnout among international humanitarian aid workers: a longitudinal study" in *PLoS One*, Vol. 7, No. 9.
- Mackay, C.; Palferman, D. 2013. "Policy Level Interventions for Organizational Health: Development and Evolutions of the UK Management Standards" in G.F. Bauer, G.J. Jenny, *Salutogenic Organizations and Change*. Springer.
- Macleod, J. et al. 2001. "Are the effects of psychosocial exposures attributable to confounding? Evidence from a prospective observational study on psychological stress and mortality" in *Journal of Epidemiology & Community Health*, Vol. 55, No. 12, pp. 878-884.
- Magnavita, N.; Garbarino, S. 2013. "Is absence related to work stress? A repeated cross-sectional study on a special police force" in *American Journal of Industrial Medicine*, Vol. 56, No. 7, pp. 765-775.
- Magnusson Hanson, L. L., Chungkham, H. S., Åkerstedt, T., & Westerlund, H. 2014. "The role of sleep disturbances in the longitudinal relationship between psychosocial

- working conditions, measured by work demands and support, and depression" in *Sleep*, Vol. 37(12), pp. 1977-1985.
- Marchand, A. 2008. "Alcohol use and misuse: what are the contributions of occupation and work organization conditions?" in *BMC Public Health*, Vol. 8, p. 333.
- Markwell, A.L.; Wainer, Z. 2009. "The health and wellbeing of junior doctors: Insights from a national survey" in *Journal of the Australian Medical Association*, Vol. 191, pp. 441-4.
- Marmot, M. et al. 1997. "Contribution of job control and other risk factors to social variations in coronary heart disease incidence" in *The Lancet*, Vol. 350, pp. 235-239.
- Marmot, M.; Siegrist, J.; Theorell T. 2006. "Health and the psychosocial environment at work" in: Marmot, M.; Wilkinson, R.G. [Eds.] *Social determinants of health*. Oxford: Oxford University Press.
- Maslach, C. 1976. "Burned-out" in *Human Behaviour*, Vol. 5(9), pp. 16-22.
- Maslach, C.; Jackson, S. 1981. "The measurement of experienced burnout" in *Journal of Occupational Behaviour*, Vol. 2, pp. 99-113.
- Maslach, C.; Schaufeli, W.; Leiter, M. 2001. "Job burnout" in *Annual Review of Psychology*, Vol. 52, pp. 397-422.
- Mathers, C. et al. 2005. "Counting the dead and what they died from: an assessment of the global status of cause of death data" in *Bulletin of the World Health Organization*, Vol. 83, No. 3, pp. 171-177.
- Mathisen, G.; Einarsen, S.; Mykletun, R. 2008. "The occurrences and correlates of bullying and harassment in the restaurant sector" in *Scandinavian Journal of Psychology*, Vol. 49, No. 1, pp. 59-68.
- Matrix Insight: Executive Agency for Health and Consumers. 2012. *Economic analysis of workplace mental health promotion and mental disorder prevention programmes and of their potential contribution to EU health, social and economic policy objectives*, Matrix Insight.
- McKee-Ryan, F. et al. 2005. "Psychological and physical well-being during unemployment: A meta-analytic study" in *Journal of Applied Psychology*, Vol. 90, pp. 53-76.
- Mearns, K. et al. 2001. "Human and organizational factors in offshore safety" in *Work and Stress*, Vol. 15, No. 2, pp. 144-160.
- Medibank. 2008. *The cost of workplace stress in Australia*. Medibank Private Limited.
- Mehrdad, R. et al. 2010. "Association between psychosocial factors and musculoskeletal symptoms among Iranian nurses" in *American Journal of Industrial Medicine*, Vol. 53, No. 10, pp. 1032-1039.
- Mendes, A. et al. 2011. *Diagnosis of occupational risks for psychosocial disorder in the different sectors of industry*. Brasília: SESI.
- Mental Health Commission of Canada (MHCC). 2012. *Changing directions, changing lives: The mental health strategy for Canada*. Calgary, AB: Author.
- Michie, S. 2002. "Causes and management of stress at work" in *Occupational & Environmental Medicine*, Vol. 59, pp. 67-72.
- Michie, S.; Williams, S. 2003. "Reducing work related psychological ill health and sickness absence: A systematic literature review" in *Occupational and Environmental Medicine*, Vol. 60, No. 1, pp. 3-9.
- Min, J. et al. 2014. "Workplace injustice and self-reported disease and absenteeism in South Korea" in *American Journal of Industrial Medicine*, Vol. 57, No. 1, pp. 87-96.
- Ministerio de la Protección Social. 2007. *Primera Encuesta Nacional de Condiciones de Salud y Trabajo en el Sistema General de Riesgos Profesionales*, Bogotá: Ministerio de la Protección Social, Gobierno de Colombia.
- Ministerio de Salud (MINSAL); Dirección del Trabajo (DT); Instituto de Seguridad Laboral (ISL). 2011. *Primera Encuesta Nacional de Empleo, Trabajo, Salud y Calidad de Vida de los Trabajadores y Trabajadoras en Chile (ENETS 2009-2010)*. Santiago: Gobierno de Chile.
- Ministry of Health, Labour, and Welfare (MHLW). 2011. *Survey on the Prevention of Industrial Accidents* (Tokyo, MHLW).
- . 2012. *Occupational disease recognition of mental disorders* (Tokyo, MHLW).
- . 2014. *Annual Health, Labour and Welfare Report for the Realization of a Society of Health and Longevity – First Year of Health and Prevention*. 2014 Edition. Tokyo: MHLW.
- Mino, Y. et al. 1999. "Perceived job stress and mental health in precision machine workers of Japan: a 2 year cohort study" in *Occupational and Environmental Medicine*, Vol. 56, No. 1, pp. 41-45.
- Moreau, M. et al. 2003. "Occupational stress and incidence of sick leave in three sectors of activity of the Belgian workforce: The Belstress Study" in *Archives belges de médecine sociale, hygiène, médecine du travail et médecine légale*, Vol. 61, No. 1-2, pp. 101-125.
- Mosadeghrad, A.; Ferlie, E.; Rosenberg, D. 2011. "A study of relationship between job stress, quality of working life and turnover intention among hospital employees" in *Health Services Management Research*, Vol. 24, No. 4, pp. 170-181.
- Murcia, M.; Chastang, J.; Niedhammer, I. 2013. "Psychosocial work factors, major depressive and generalised anxiety disorders: results from the French national SIP study" in *Journal of Affective Disorders*, Vol. 146, No. 3, pp. 319-327.
- Nabiye, R. et al. 2011. "Occupational stress, job satisfaction and job performance among hospital nurses in Kampala, Uganda" in *Journal of Nursing Management*, Vol. 19, No. 6, pp. 760-768.
- Nag, A.; Vyas, H.; Nag, P. 2010. "Gender differences, work stressors and musculoskeletal disorders in weaving industries" in *Industrial Health*, Vol. 48, No. 3, pp. 339-348.
- Nahrgang, J.; Morgeson, F.; Hofmann, D. 2011. "Safety at work: a meta-analytic investigation of the link between job demands, job resources, burnout, engagement, and safety outcomes" in *Journal of Applied Psychology*, Vol. 96, No. 1, pp. 71-94.
- Nakanishi, N.; Nishina, K.; Yoshida, H.; Matsuo, Y.; Nagano, K.; Nakamura, K.; Suzuki, K.; Tatara, K. 2001. "Hours of work and the risk of developing impaired fasting glucose or 13 type 2 diabetes mellitus in Japanese male office workers" in *Occupational and Environmental Medicine*, Vol. 58, pp. 569-74.
- Nakata, A. et al. 2006. "Impact of psychosocial job stress on non-fatal occupational injuries in small and medium-sized manufacturing enterprises" in *American Journal of Industrial Medicine*, Vol. 49, No. 8, pp. 658-669.
- National Statistical Office, Institute for Population and Social Research and the Department of Mental Health. 2008. *The 2008 Survey on Conditions of Society, Culture and Mental Health*. Thailand: National Statistical Office.
- Ndetei, D.M.; Pizzo, M.; Maru, H.; Ongecha, F.A.; Khasakhala, L.I.; Mutiso, V. et al. 2008. "Burnout in staff working at the Mathari psychiatric hospital" in *African Journal of Psychiatry*, Vol. 11, pp. 199-203.
- Ndjaboue, R.; Brisson, C.; Vezina, M. 2012. "Organisational justice and mental health: a systematic review of prospective studies" in *Occupational and Environmental Medicine*, Vol. 69, No. 10, pp. 694-700.
- Neffa, J.C. 2015. *Los riesgos psicosociales en el trabajo: contribución a su estudio*. Buenos Aires: Centro de Estudios e Investigaciones Laborales – CEIL-CONICET / Facultad de Ciencias Económicas de la Universidad Nacional de Nordeste / Facultad de Ciencias Económicas de la Universidad Nacional de La Plata / Departamento de Economía y Administración de la Universidad Nacional de Moreno / Centro de Innovación para los Trabajadores CITRA CONICET-UMET.
- Netterstrom, B. et al. 2008. "The relation between work-related psychosocial factors and the development of depression" in *Epidemiologic Reviews*, Vol. 30, pp. 118-132.
- Netterström, B.; Kristensen, T.; Sjøll, A. 2006. "Psychological job demands increase the risk of ischaemic heart disease: A 14-year cohort study of employed Danish men" in *European Journal of Cardiovascular Prevention & Rehabilitation*, Vol. 13, No. 3, pp. 414-420.
- Neves, B.S.; Pinheiro T.M.M. 2012; "Perfil Epidemiológico e Ocupacional dos Anestesiologistas Inseridos no Mercado de Trabalho de Belo Horizonte, Minas Gerais, em 2010" in *Rev. Bras. Anestesiol.*, Vol. 62(5), pp. 612-24.
- Ng, D.; Jeffery, R. 2003. "Relationships between perceived stress and health behaviors in a sample of working adults" in *Health Psychology*, Vol. 22, No. 6, pp. 638-642.
- Niedhammer, I. et al. 2006. "Psychosocial work environment and mental health: Job-strain and effort-reward imbalance models in a context of major organizational changes" in *International Journal of Occupational and Environmental Health*, Vol. 12, No. 2, pp. 111-119.
- Niedhammer, I.; David, S.; Degioanni, S. 2006. "Association between workplace bullying and depressive symptoms in the French working population" in *Journal of Psychosomatic Research*, Vol. 61, No. 2, pp. 251-259.
- Niedhammer, I.; Goldberg, M.; Leclerc, A.; Bugel, I.; & David, S. 1998. "Psychosocial factors at work and subsequent depressive symptoms in the Gazel cohort" in *Scandinavian Journal of Work Environment & Health*, Vol. 24, pp.197-205.
- Nielsen M.B.; Nielsen, G.H.; Notelaers, G.; Einarsen, S. 2015. "Workplace Bullying and Suicidal Ideation: A 3-Wave Longitudinal Norwegian Study" in *American Journal of Public Health*, Vol. 105, N. 11, pp. e22-e28.
- Nomura, K. et al. 2010. "Job stress and healthy behavior among male Japanese office workers" in *American Journal of Industrial Medicine*, Vol. 53, No. 11, pp. 1128-1134.
- Nordin, M.; Westerholm, P.; Alfredsson, L.; Åkerstedt, T. 2012. "Social support and sleep. Longitudinal relationships from the WOLF-Study" in *Psychology* Vol. 03 (12), pp. 1223-1230.
- Norlund, S.; Reuterwall, C.; Höög, J.; Lindahl, B.; Janlert, U.; Birgander, L.S. 2010. "Burnout, working conditions and gender—results from the northern Sweden MONICA Study" in *BioMed Central Public Health*, Vol. 10, p. 326.
- Nurminen, M.; Karjalainen, A. 2001. "Epidemiologic estimate of the proportion of fatalities related to occupational factors in Finland" in *Scandinavian Journal of Work Environment & Health*, Vol. 27, No. 3, pp. 161-213.
- O'Neill, D.H. 2000. "Ergonomics in industrially developing countries: Does its application differ from that in industrially advanced countries?" in *Applied Ergonomics*, Vol. 31, pp. 631-640.
- Ocegüera, A.; Aldrete, G.; Ruiz-Moreno, A. 2009. "Estudio comparado de la legislación del mobbing en Latinoamérica" in *Política y Sociedad*, Vol. 8, pp. 83-94.
- Ofilii, A.; Usholo, E.; Oronsaye, M. 2009. "Psychological morbidity, job satisfaction and intentions to quit among teachers in private secondary schools in Edo-State, Nigeria" in *Annals of African Medicine*, Vol. 8, No. 1, pp. 32-73.
- Oramas Viera A.; Almirall hernandez P.; Fernández, I. 2007. "Occupational stress and burnout syndrome among Venezuelan teachers. Estrés laboral y el síndrome de burnout en docentes venezolanos" in *Salud de los Trabajadores*, Vol. 15, No. 2, 71-87.

- Organisacion Iberoamericana de Seguridad Social (OISS); Instituto Nacional de Seguridad e Higiene en el Trabajo (INSHT). 2012. *I Encuesta sobre Condiciones de Trabajo y Salud en Iberoamérica (I ECCTS)*. Informe general (Estudio cuantitativo).
- Organization for Economic Co-operation and Development (OECD). 2012. *Sick on the Job? Myths and Realities about Mental Health and Work*. Paris: OECD.
- . 2013. *A Good Life in Old Age? Monitoring and Improving Quality in Long-term Care*. Paris: OECD.
- Otsuka, Y. et al. 2007. "Sickness absence in relation to psychosocial work factors among daytime workers in an electric equipment manufacturing company" in *Industrial Health*, Vol. 45, No. 2, pp. 224-231.
- Otsuka, Y.; Horita, Y. 2013. "Statistics on suicides of Japanese workers" in *Japan labor review*, Vol. 10.2013, 4, pp. 44-54
- Padyab, M. et al. 2013. "Burnout among social workers in Iran: relations to individual characteristics and client violence" in *Global Journal of Health Science*, Vol. 5, No. 4, pp. 142-150.
- Pan American Health Organization (PAHO). 2014. *Plan of Action on Mental Health 2015-2020*. 53<sup>rd</sup> Directing Council 66<sup>th</sup> Session of the Regional Committee of WHO for the Americas. Washington, D.C., USA, 29 September-3 October 2014.
- Park, S.; Min, K.; Chang, S.; Kim, H.; Min, J. 2009. "Job stress and depressive symptoms among Korean employees: the effect of culture on work" in *International Archives of Occupational and Environmental Health*, Vol. 82, No. 3, pp. 397-405.
- Payne, S. et al. 2009. "Safety climate: Leading or lagging indicator of safety outcomes?" in *Journal of Loss Prevention in the Process Industries*, Vol. 22, No. 6, pp. 735-739.
- Peltzer, K. et al. 2009. "Job stress, job satisfaction and stress-related illnesses among South African educators" in *Stress and Health*, Vol. 25, No. 3, pp. 247-257.
- Peter, R. et al. 2002. "Psychosocial work environment and myocardial infarction: Improving risk estimation by combining two complementary job stress models in the SHEEP Study" in *Journal of Epidemiology & Community Health*, Vol. 56, No. 4, pp. 294-300.
- Puttonen, S.; Härmä, M.; Hublin, C. 2010. "Shift work and cardiovascular disease – Pathways from circadian stress to morbidity" in *Scandinavian Journal of Work, Environment and Health*, Vol. 36, No. 2, pp. 96-108.
- Quine, L. 2001. "Workplace bullying in nurses" in *Journal of Health Psychology*, Vol. 6, No. 1, pp. 73-84.
- Quinlan, M. 2004. "Workers' compensation and the challenges posed by changing patterns of work" in *Policy & Practice in Safety & Health*, Vol. 2, No. 1, pp. 25-52.
- Quinlan, M.; Mayhew, C.; Bohle, P. 2001. "The global expansion of precarious employment, work disorganisation, and consequences for occupational health: A review of recent research" in *International Journal of Health Services*, Vol. 31, No. 2, pp. 335-414.
- Radi, S.; Ostry, A.; Lamontagne, A. 2007. "Job stress and other working conditions: Relationships with smoking behaviors in a representative sample of working Australians" in *American Journal of Industrial Medicine*, Vol. 50, No. 8, pp. 584-596.
- Raikkonen, K. et al. 1996. "Association of chronic stress with plasminogen activator inhibitor-1 in healthy middle-aged men" in *Arteriosclerosis, Thrombosis & Vascular Biology*, pp. 363-367.
- Rasmussen, M.; Hansen, T.; Nielsen, K. T. 2011. "New tools and strategies for the inspection of the psychosocial working environment: The experience of the Danish Working Environment Authority" in *Safety Science*, Vol. 49, pp. 565-574.
- Rehkopf, D.; Kuper, H.; Marmot, M. 2010. "Discrepancy between objective and subjective measures of job stress and sickness absence" in *Scandinavian Journal of Work, Environment and Health*, Vol. 36, No. 6, pp. 449-457.
- Reknes, I. et al. 2013. "Exposure to bullying behaviors as a predictor of mental health problems among Norwegian nurses: Results from the prospective SUSSH-survey" in *International Journal of Nursing Studies*.
- Rick, J. et al. 2001. "A critical review of psychosocial hazard measures" in *Health & Safety Executive research report no. CRR 356* (Sudbury, HSE Books).
- Rodwell, J. et al. 2009. "The impact of the work conditions of allied health professionals on satisfaction, commitment and psychological distress" in *Health Care Management Review*, Vol. 34, No. 3, pp. 273-283.
- Roesler, U.; Jacobi, F.; Rau, R. 2006. "Work and mental disorders in a German national representative sample" in *Work and Stress*, Vol. 20, No. 3, pp. 234-244.
- Roohi, N.; Hayee, S. 2010. "Work stress related physiological responses in professional bus drivers" in *Acta Physiologica Hungarica*, Vol. 97, No. 4, pp. 408-16.
- Rosengren, A. et al. 2004. "Association of psychosocial risk factors with risk of acute myocardial infarction in 11 119 cases and 13 648 controls from 52 countries (the INTERHEART study): Case-control study" in *The Lancet*, Vol. 364, pp. 953-962.
- Routley, V.; Ozanne-Smith, J. 2012. "Work-related suicide in Victoria, Australia: a broad perspective" in *International Journal of Injury Control and Safety Promotion*, Vol. 19, No. 2, pp. 131-134.
- Rugulies, R. et al. 2012. "Bullying at work and onset of a major depressive episode among Danish female eldercare workers" in *Scandinavian Journal of Work, Environment and Health*, Vol. 38, No. 3, pp. 218-227.
- Rugulies, R.; Bültmann, U.; Aust, B.; Burr, H. 2006. "Psychosocial work environment and incidence of severe depressive symptoms: Prospective findings from a 5-year follow-up of the Danish work environment cohort study" in *American Journal of Epidemiology*, Vol. 163, No. 10, pp. 877-887.
- Rugulies, R.; Krause, N. 2008. "Effort-reward imbalance and incidence of low back and neck injuries in San Francisco transit operators" in *Occupational & Environmental Medicine*, Vol. 65, No. 8, pp. 525-533.
- Rugulies, R.; Norborg, M.; Sørensen, T.S.; Knudsen, L.E.; Burr, H. 2009. "Effort-reward imbalance at work and risk of sleep disturbances: Cross-sectional and prospective results from the Danish Work Environment Cohort Study" in *Journal of Psychosomatic Research*, Vol. 66, No. 1, pp. 75-83.
- Sa, L.; Fleming, M. 2008. "Bullying, burnout, and mental health amongst Portuguese nurses" in *Issues in Mental Health Nursing*, Vol. 29, No. 4, pp. 411-426.
- Saastamoinen, P. et al. 2009. "Psychosocial risk factors of pain among employees" in *European Journal of Pain*, Vol. 13, No. 1, pp. 102-108.
- Safe Work Australia. 2012a. *The cost of work-related injury and illness for Australian employers, workers and the community: 2008-09*. Canberra, Safe Work Australia.
- . 2012b. *Australian Work Health and Safety Strategy 2012-2022*. Canberra: Safe Work Australia.
- Saijo, Y.; Ueno, T.; Hashimoto, Y. 2008. "Twenty-four-hour shift work, depressive symptoms, and job dissatisfaction among Japanese firefighters" in *American Journal of Industrial Medicine*, Vol. 51, pp. 380-91.
- Sainsbury Centre for Mental Health. 2007. *Mental health at work: developing a business case, policy paper*. London: Centre for Mental Health.
- Salminen, S. et al. 2003. "Stress factors predicting injuries of hospital personnel" in *American Journal of Industrial Medicine*, Vol. 44, No. 1, pp. 32-36.
- Santana, V.; Santana, M. 2011. *Costs and impact on productivity in Brazilian industry: Leave of absence due to accidents and work related diseases*. Brasília: SESI.
- Sardiwalla, N.; VandenBerg, H.; Esterhuysen, K.G. 2007. "The role of stressors and coping strategies in the burnout experienced by hospice workers in South Africa" in *Cancer Nursing*, Vol. 30, No. 6, pp. 488-497.
- Sauter, S.L. et al. 2002. "The changing organisation of work and the safety and health of working people: Knowledge gaps and research directions" in *Cincinnati National Institute for Occupational Safety and Health*.
- Schaufeli, W.; Greenglass, E. 2001. "Introduction to special issue on burnout and health" in *Psychology and Health*, Vol. 16, pp. 501-510.
- Schnall, P. et al. 1998. "A longitudinal study of job strain and ambulatory blood pressure: Results from a 3-year follow-up" in *Psychosomatic Medicine*, Vol. 60, pp. 697-706.
- Schnall, P.; Landsbergis, P.; Baker, D. 1994. "Job strain and CVD" in *Annual Review of Public Health*, Vol. 15, pp. 381-411.
- Schneider, S. et al. 2005. "Workplace stress, lifestyle and social factors as correlates of back pain: a representative study of the German working population" in *International Archives of Occupational and Environmental Health*, Vol. 78, No. 4, pp. 253-269.
- Schonfeld, I.S.; Bianchi, R. 2015. "Burnout or depression?" Paper presented at the 11<sup>th</sup> International Conference on Occupational Stress and Health of the APA/NIOSH/SOHP, Atlanta, GA, USA.
- Schultz, A.; Edington, D. 2007. "Employee health and presenteeism: A systematic review" in *Journal of Occupational Rehabilitation*, Vol. 17, No. 3, pp. 547-579.
- Selye H. 1974. *Stress without distress*. Philadelphia: J.B. Lippincott Co.
- Selye, H. 1936. "A Syndrome Produced by Diverse Nocuous Agents" in *Journal of Neuropsychiatry & Clinical Neurosciences*.
- Shanafelt, T.D.; Chung, H.; White, H.; Lyckholm, L.J. 2006. "Shaping your career to maximize personal satisfaction in the practice of oncology" in *Journal of Clinical Oncology*, Vol. 24, pp. 4020-26.
- Shankar, J.; Famuyiwa, O. 1991. "Stress among factory workers in a developing country" in *Journal of Psychosomatic Research*, Vol. 35, No. 2-3, pp. 163-171.
- Shields, M. 2006. "Stress and depression in the employed population" in *Health Reports*, Vol. 17, No. 4, p. 18.
- Siedlecka, J. et al. 2012. "Job stress and blood pressure in public transport drivers" in *International Journal of Psychophysiology*, Vol. 85, No. 3, 409.
- Siegrist, J. 1996. "Adverse health effects of high-effort/low-reward conditions" in *Journal of Occupational Health Psychology*, Vol. 1, pp. 27-41.
- Siegrist, J.; Rödel, A. 2006. "Work stress and health risk behaviour" in *Scandinavian Journal of Work Environment & Health*, Vol. 32, No. 6, pp. 473-481
- Silva, L.S.; Barreto, S.M. 2012. "Adverse psychosocial working conditions and poor quality of life among financial service employees in Brazil" in *Journal of Occupational Health*, Vol. 54(2), pp. 88-95.
- Sipsma, H. et al. 2013. "Poor mental health in Ghana: who is at risk?" in *BMC Public Health*, Vol. 13, p. 288.
- Slany, C. et al. 2013. "Psychosocial work factors and long sickness absence in Europe" in *International Journal of Occupational and Environmental Health*, Vol. 20(1), PP. 16-25.

- Sneddon, A.; Mearns, K.; Flin, R. 2013. "Stress, fatigue, situation awareness and safety in offshore drilling crews" in *Safety Science*, Vol. 56, No. 0, pp. 80-88.
- Spurgeon, A.; Harrington, J.; Cooper, C. 1997. "Health and safety problems associated with long working hours: A review of the current position" in *Occupational & Environmental Medicine*, Vol. 54, No. 6, pp. 367-375
- Stansfeld, S. et al. 1998. "Psychosocial work characteristics and social support as predictors of SF-36 health functioning: The Whitehall II study" in *Psychosomatic Medicine*, Vol. 60, pp. 247-255.
- Stansfeld, S. et al. 1999. "Work characteristics predict psychiatric disorder: Prospective results from the Whitehall II study" in *Occupational & Environmental Medicine*, Vol. 56, pp. 302-307.
- Stansfeld, S. et al. 2012. "Repeated job strain and the risk of depression: longitudinal analyses from the Whitehall II study" in *American Journal of Public Health*, Vol. 102, No. 12, pp. 2360-2366.
- Stansfeld, S.; Candy, B. 2006. "Psychosocial work environment and mental health – a meta-analytic review" in *Scandinavian Journal of Work Environment & Health*, Vol. 32, No. 6, pp. 443-462.
- Statistics Canada. 2009. *Stress and well-being*. Health Reports. Statistics Canada Catalogue.
- Stenfors, C. et al. 2013. "Psychosocial working conditions and cognitive complaints among Swedish employees" in *PLoS One*, Vol. 8, No. 4
- Stock, S.; Tissot, F. 2012. "Are there health effects of harassment in the workplace? A gender-sensitive study of the relationships between work and neck pain" in *Ergonomics*, Vol. 55, No. 2, pp. 147-159.
- Stuckler, D. et al. 2009. "The public health effect of economic crises and alternative policy response in Europe: An empirical analysis" in *Lancet*, Vol. 374, pp. 315-323.
- Suadicani, P. et al. 2013. "Job satisfaction and intention to quit the job" in *Occupational Medicine*, Vol. 63, No. 2, pp. 96-102.
- Sultan-Taieb, H. et al. 2013. "The annual costs of cardiovascular diseases and mental disorders attributable to job strain in France" in *BMC Public Health*, Vol. 13, p. 748.
- Sultan-Taieb, H.; Chastang, J.F.; Mansouri, M.; Niedhammer, I. 2013. "The annual costs of cardiovascular diseases and mental disorders attributable to job strain in France" in *BMC Public Health*, Vol. 13, p. 748.
- Suominen, S. et al. 2007. "Job strain, life events, and sickness absence: a longitudinal cohort study in a random population sample" in *Journal of Occupational and Environmental Medicine*, Vol. 49, No. 9, pp. 990-996.
- Superintendencia de Riesgos del Trabajo (SRT); Universidad Nacional de Avellaneda. 2015. *Estudio de adaptación y validación para argentina del cuestionario psicossocial de Copenhague (CoPsoQ-ISTAS21)*. Buenos Aires: SRT, Agosto 2015.
- Swaen, G. 2004. "Psychosocial work characteristics as risk factors for being injured in an occupational accident" in *Journal of Occupational and Environmental Medicine*, Vol. 46, No. 6, pp. 521-527.
- Tabanelli, C. et al. 2008. "Available instruments for measurement of psychosocial factors in the work environment" in *International Archives of Occupational and Environmental Health*, Vol. 82(1), pp. 1-12.
- Takada, M. et al. 2009. "Associations between lifestyle factors, working environment, depressive symptoms and suicidal ideation: a large-scale study in Japan" in *Industrial Health*, Vol. 47, No. 6, pp. 649-655.
- Takaki, J.; Taniguchi, T.; Hirokawa, K. (2013). "Associations of workplace bullying and harassment with pain" in *International Journal of Environmental Research and Public Health*, Vol. 10, No. 10, pp. 4560-4570.
- Taris, T.; Van der Wal, I.; Kompier, M. 2010. "Large-scale job stress interventions: The Dutch experience" in Houdmont, J.; Leka, S. [Eds.] *Contemporary Occupational Health Psychology: Global perspectives in research and practice*. Chichester, England: Wiley-Blackwell.
- Tennant, C. 2000. "Work stress and coronary heart disease" in *Journal of Cardiovascular Risk*, Vol. 7, No. 4, pp. 273-276.
- Tennant, C. 2001. "Work-related stress and depressive disorders" in *Journal of Psychosomatic Research*, Vol. 51, pp. 697-704.
- Thai Health Working Group. 2010. *Mental Health and Well-being of Workforce*. Health Indicators of Thailand's Workforce. Thailand: Thai Health Working Group.
- Theorell, T. 1998. "Measuring psychosocial factors in working life" in Working Life Research and Development News, Newsletter no 5. Stockholm, National Institute for Working Life.
- Thorsen, V.C.; Teten Sharp, A.L.; Meguid, T. 2011. "High rates of burnout among maternal health staff at a referral hospital in Malawi: A cross-sectional study" in *BMC Nursing*, Vol. 10, p. 9.
- Tominaga, M.; Asakura, T.; Akiyama, T. 2007. "The effect of micro and macro stressors in the work environment of computer professionals' subjective health status and productive behavior in Japan" in *Industrial Health*, Vol. 45, No. 3, pp. 474-486.
- Trontin, C. et al. 2010. *Le coût du stress professionnel en France en 2007*. Paris: Institut National de Recherche et de Sécurité (INRS).
- Tsai, S.Y. 2012. "A study of the health-related quality of life and work-related stress of white-collar migrant workers" in *International Journal of Environmental Research and Public Health*, Vol. 9, No. 10, pp. 3740-3754.
- Tsutsumi, A. et al. 2007. "Low control at work and the risk of suicide in Japanese men: a prospective cohort study" in *Psychotherapy and Psychosomatics*, Vol. 76, No. 3, pp. 177-185.
- Tsutsumi, A.; Kawakami, N. 2004. "A review of empirical studies on the model of effort-reward imbalance at work: Reducing occupational stress by implementing a new theory" in *Social Science & Medicine*, Vol. 59, No. 11, pp. 2335-2359.
- UNI Global Union. 2010. *From Work-Life-Balance to Work-Life-Management*. UNI Europa P&MS Conference 2010 2-3 December 2010, Budapest, Hungary
- Väänänen, A.; Koskinen, A.; Joensuu, M.; Kivimäki, M.; Vahtera, J.; Kouvonen, A.; et al. 2008. "Lack of predictability at work and risk of acute myocardial infarction: An 18-year prospective study of industrial employees" in *American Journal of Public Health*, Vol. 98, pp. 2264-2271.
- Vahtera, J.; Pentti, J.; Kivimäki, M. 2004. "Sickness absence as a predictor of mortality among male and female employees" in *Journal of Epidemiology & Community Health*, Vol. 58, No. 4, pp. 321-326.
- Van den Berg, T. et al. 2009. "The effects of work-related and individual factors on the Work Ability Index: A systematic review" in *Occupational & Environmental Medicine*, Vol. 66, pp. 211-220.
- Van Gyes, G.; Szekeér, L. 2013. *Impact of the crisis on working conditions in Europe*. Dublin: Eurofound.
- Vecchio, N. et al. 2011. "Work-related injury in the nursing profession: an investigation of modifiable factors" in *Journal of Advanced Nursing*, Vol. 67, No. 5, pp. 1067-1078.
- Velázquez, M. 2012. *Ispettorati del lavoro Europei affrontano i rischi psicosociali*. Italy: Società Nazionale degli Operatori della Prevenzione.
- Vézina, M. et al. 2011. *Québec Survey on Working and Employment Conditions and Occupational Health and Safety (EQCOTESST)*. Quebec: Gouvernement du Québec, Institut national de santé publique du Québec, Institut de la statistique du Québec, Institut de recherche Robert-Sauvé en santé et en sécurité du travail.
- Virtanen, M. et al. 2007. "Job strain and psychologic distress influence on sickness absence among Finnish employees" in *American Journal of Preventive Medicine*, Vol. 33, No. 3, pp. 182-187.
- Virtanen, M. et al. 2012. "Overtime Work as a Predictor of Major Depressive Episode: A 5-Year Follow-Up of the Whitehall II Study" in *PLoS One*, Vol. 7(1): e30719.
- Virtanen, M. et al. 2015. "Long working hours and alcohol use: systematic review and meta-analysis of published studies and unpublished individual participant data" in *British Medical Journal*, Vol. 350, g7772
- Visser, M. 2003. "Stress, satisfaction and burnout among Dutch medical specialists" in *Canadian Medical Association Journal*, Vol. 168, No. 3, pp. 271-275.
- Von Bonsdorff, M. et al. 2010. "Employee well-being, early-retirement intentions, and company performance" in *Journal of Occupational and Environmental Medicine*, Vol. 52, No. 12, pp. 1255-1261.
- Walters, D. et al. 2012. *Worker representation and consultation on health and safety. An analysis of the findings of the European Survey of Enterprises on New and Emerging Risks (ESENER)*. Luxembourg: Publications Office of the European Union.
- Wall, T.D.; Corbett, J.M.; Martin, R.; Clegg, C.W.; Jackson, P.R. 1990. "Advanced manufacturing technology, work design and performance: a change study" in *Journal of Applied Psychology*, Vol. 75, pp. 691-7.
- Wang, J. 2005. "Work stress as a risk factor for major depressive episode(s) in *Psychological Medicine*, Vol. 35, No. 6, pp. 865-871.
- Wang, J. et al. 2008. "The relationship between work stress and mental disorders in men and women: Findings from a population-based study" in *Journal of Epidemiology & Community Health*, Vol. 62, No. 1, pp. 42-47.
- Wang, L. et al. 2011. "Active job, healthy job? Occupational stress and depression among hospital physicians in Taiwan" in *Industrial Health*, Vol. 49, pp. 173-184.
- Warr, P. 1994. Age and job performance. In: Snel J, Cremer R, editors. *Work and aging: A European perspective*. London and Bristol, PA: Taylor & Francis, LTD, pp. 309-322.
- Weber, A.; Hörmann, G.; Heipertz, W. 2007. "Arbeitslosigkeit und Gesundheit aus sozialmedizinischer Sicht" in *Dtsch Arztebl*, Vol. 104(43), pp. 2957-2962.
- Wempe, K.M.; Rosvall, M. 2005. "Work related and non-work related stress in relation to low leisure time physical activity in a Swedish population" in *Journal of Epidemiology & Community Health*, Vol. 59, No. 5, pp. 377-379.
- Westerlund, H.; Theorell, T.; Alfredsson, L. 2004. "Organizational instability and cardiovascular risk factors in white-collar employees: An analysis of correlates of structural instability of workplace organization on risk factors for coronary heart disease in a sample of 3,904 white collar employees in the Stockholm region" in *European Journal of Public Health*, Vol. 14, No. 1, pp. 37-42.
- World Health Organization (WHO). 2002. *World Health Report 2002 – Reducing risks, promoting healthy life*. Geneva: WHO.
- . 2003. Authored by S. Leka, A. Griffiths, & T. Cox, *Work Organization and Stress. Protecting Workers' Health Series*, No. 3. Geneva: WHO.
- . 2007a. Authored by I. Houtman, A., K. Jettinghoff, & L. Cedillo, *Raising awareness of stress at work in developing countries: A modern hazard in a traditional working environment: advice to employers and worker representatives*. Protecting Workers' Health Series, No. 6. Geneva: WHO.

- . 2007b. "Addressing psychosocial risks and work-related stress in countries in economic transition, in newly industrialized countries, and in developing countries". WHO GOHNET Special Newsletter.
  - . 2007c. Authored by Juárez-García, A.; Schnall, P.L. "Psychosocial factors and work stress research in Mexico: A new Latin- American Network". WHO GOHNET Special Newsletter.
  - . 2008. Authored by Leka, S.; Cox, T. *PRIMA-EF Guidance on the European Framework for Psychosocial Risk Management: A Resource for Employers and Worker Representatives*. WHO Protecting Workers' Health series, number 9. Geneva: WHO.
  - . 2010. *Health Impact of Psychosocial Hazards at Work: An Overview*. Geneva: WHO.
  - . 2011a. *Gender, Work and Health*. Geneva: WHO.
  - . 2011b. *Impact of economic crises on mental health*. Copenhagen: WHO Regional Office for Europe.
  - . 2013. *Mental health action plan 2013-2020*. Geneva: WHO.
- World Bank Group. 2015. *World Development Report 2015: Mind, Society, and Behavior*. Washington, DC: International Bank for Reconstruction and Development / The World Bank
- World Federation for Mental Health (WFMH). 2012. *Depression: A Global Crisis*. World Mental Health Day, October 10, 2012.
- Wu, S. et al. 2011a. "A comparison of the effect of work stress on burnout and quality of life between female nurses and female doctors" in *Archives of Environmental and Occupational Health*, Vol. 66, No. 4, pp. 193-200.
- Wu, S. et al. 2011b. "Depressive symptoms and occupational stress among Chinese female nurses: the mediating effects of social support and rational coping" in *Research in Nursing & Health*, Vol. 34, No. 5, pp. 401-407.
- Wu, S. et al. 2012. "Effect of work stressors, personal strain, and coping resources on burnout in Chinese medical professionals: a structural equation model" in *Industrial Health*, Vol. 50, No. 4, pp. 279-287.
- Xie, Z.; Wang, A.; Chen, B. 2011. "Nurse burnout and its association with occupational stress in a cross-sectional study in Shanghai" in *Journal of Advanced Nursing*, Vol. 67, No. 7, pp. 1537-1546.
- Xu, W. et al. 2011. "Association between job stress and newly detected combined dyslipidemia among Chinese workers: findings from the SHISO study" in *Journal of Occupational Health*, Vol. 53, No. 5, pp. 334-342.
- Yeh, M.; Yu, S. 2009. "Job stress and intention to quit in newly-graduated nurses during the first three months of work in Taiwan" in *Journal of Clinical Nursing*, Vol. 18, No. 24, pp. 3450-3460.
- Yildirim, D.; Yildirim, A.; Timucin, A. 2007. "Mobbing behaviors encountered by nurse teaching staff", *Nursing Ethics*, Vol. 14, No. 4, pp. 447-463.
- Yu, S. et al. 2008. "Psychosocial work environment and well-being: A cross-sectional study at a thermal power plant in China" in *Journal of Occupational Health*, Vol. 50, No. 2, pp. 155-162.
- Zazzetti, F.; Carricaburu, M.V.; Ceballos, J.L.; Miloc, E. 2011. "Prevalencia de síndrome de burnout en médicos y enfermeros de unidades de terapia intensiva privadas en argentina" in *Alcmeon, Revista Argentina de Clínica Neuropsiquiátrica*, Vol. 17, Nº 2, pp.120 a 128
- Zhang, X. et al. 2011. "Occupational stress and psychosomatic complaints among health professionals in Beijing, China" in *Work*, Vol. 40, No. 2, pp. 239-45.
- Zickar, M.J. 2003. "Remembering Arthur Kornhauser: industrial psychology's advocate for worker well-being" in *Journal of Applied Psychology*, Vol. 88(2), pp. 363-9.
- Zohar, D. 1980. "Safety climate in industrial organizations: theoretical and applied implications" in *Journal of Applied Psychology*, Vol. 65, pp. 95-102.
- . 2000. "A group level model of safety climate: testing the effects of group climate on microaccidents in manufacturing jobs" in *Journal of Applied Psychology*, Vol. 85, pp. 587-96.





LABOUR ADMINISTRATION, LABOUR INSPECTION AND  
OCCUPATIONAL SAFETY AND HEALTH BRANCH (LABADMIN/OSH)

☎ Tel: +41 22 799 67 15

☎ Fax: +41 22 799 68 78

✉ Email: [safeday@ilo.org](mailto:safeday@ilo.org)

[www.ilo.org/safeday](http://www.ilo.org/safeday)

ISBN: 978-92-2-130641-2



9 789221 306412