

**Presentation to the  
Workers Compensation Act Review Committee 2004**

**Dorothy Wigmore  
Occupational hygienist/ergonomist and educator  
Winnipeg, Manitoba**

**My background**

An occupational hygienist and ergonomist by education and experience, I have been doing occupational health and safety work since the early 1980s. Using a public health perspective, I have worked for:

- the Canadian Centre for Occupational Health and Safety
- the Manitoba Workplace Safety and Health Division
- occupational health centres in Manitoba and Ontario
- a legal clinic helping non-unionised workers with health and safety issues
- the Canadian Union of Public Employees
- the Construction Occupational Health Project at University of Massachusetts Lowell
- the National Institute for Occupational Health and Safety (NIOSH)
- University of Michigan School of Public Health
- McMaster University
- health care health and safety projects in Manitoba (preparing and delivering joint health and safety committee training)

As you can see, I'm drawing on a lot of experience in a variety of settings, where my concern has always been about how to prevent people getting sick or hurt because of their work. I also have connections to the workers' compensation system, particularly in Ontario. There I represented workers with claims in the mid-1970s and became a claimant myself in 2001.

Finally, it's important that you know my ergonomics studies focused on occupational stressors and work organisation issues. My advisor was Robert Karasek, one of the two men behind the job strain theory about occupational stressors and what can be done to prevent them.

**The bottom line:**

***The WCB needs to compensate for the effects of occupational stressors***

Like others, I suspect, I've come to ask you to recommend the Manitoba WCB compensate workers affected by occupational stressors. In doing so, I'm combining my personal experience as a claimant, my professional training and experience and my belief in the public health approach that prevention is far better than compensation but that compensation is necessary when prevention fails.

I thought about how to present and back up my position.

Wearing my academic hat, it would be an extensive literature review, trying to impress you with the weight of the evidence. As a researcher, it would include some specifics from the "blood pressure in the workplace" study I co-ordinated for three years. As a health and safety educator, it would be discussions that workers and managers have had at the joint committee training sessions I've done in Winnipeg in the last year. As an employee, it could include my personal experiences working in situations where the organisation of the job took its toll on me mentally and physically.

I did some homework before deciding on my approach. I checked to see who's written about compensation for occupational stress in Canada in the last while. There's not much new in the last five years. At the same time, studies linking work organisation to occupational stress and other illnesses and disorders have come out in increasing numbers. An internet search took me to an interesting review done in 1998 for the Royal Commission on Workers' Compensation in British Columbia, information about Ontario's changes to its policy about "traumatic mental stress" and references to work done in 1996 by the Association of Workers' Compensation Boards of Canada.

In the end, I've decided to lean on all these "hats" and schools of knowledge to make the case in a different way. I will try to integrate my knowledge, ideas and

concerns to make a logically-organised set of recommendations about how the Board should proceed to tackle this controversial topic.

## **1. Occupational health is about our physical, mental and social well-being at work**

Back in 1950, the World Health Organisation and the International Labour Organisation ("labour" refers to its topic not the membership, which is tripartite) defined the goals of occupational health. They said the purpose of activities in this field should be:

- the promotion and maintenance of the highest degree of physical, mental and social well-being of workers;
- the prevention among workers of ill health caused by their working conditions;
- the protection of workers in their employment from factors promoting ill health; and
- the placing and maintenance of workers in an occupational environment adapted to their physiological and psychological condition.

In doing this, they were using what now is known as the precautionary principle (now part of the federal environment law) -- better safe than sorry -- and the WHO's holistic definition of health -- being sound in mind, body and spirit.

If these phrases sound familiar, they should be. The Manitoba Workplace Safety and Health Act defines health using the WHO definition of health and says it must be interpreted in terms of the purpose and objects of the Act, which just happen to be the 1950 definition.

Therefore, every time the word "health" appears in the Act or any legal document related to the Act, it has a holistic meaning in association with an approach emphasising prevention, dealing with hazards (the factors promoting ill health) and taking an ergonomic approach to working conditions (the last point in the statement).

This is consistent with the public health approach principles behind occupational health and safety activities.

Although the provincial compensation law doesn't incorporate these principles explicitly, the WCB and others often say that workers' compensation claims and

costs go down when employers take a preventive approach to occupational health and safety.

Surely that is the rationale behind the Board's recent "Safe work" campaign -- stop the hazard, assess the risk, find a safer way, every day. It also is the stated rationale for the WCB Community Initiatives and Research Programme; this year's request for proposals says: *The Workers Compensation Board, together with its partner, the Workplace Safety and Health Division, are committed to reducing the number of injuries which occur in Manitoba workplaces.* In fact, this year's priority was prevention.

### **Recommendations:**

1.1 Change the WCA to explicitly incorporate a preventive approach, reflecting some of its current activities and natural links with the WSHA.

1.2 Include the definition of health and the goals of occupational health enunciated in the WSHA.

1.3 Require that the Board work with the Workplace Safety and Health Division with the stated goal of preventing and reducing workplace injuries, illnesses, diseases and deaths (ie. make this an institutional collaboration not one dependent on individuals' good-will).

## **2. Symptoms and outcomes have causes; they're not "accidents"**

A preventive approach requires getting to the source of the problems causing the symptoms that lead to compensation claims. The problems -- hazards -- fall into a several categories. Attached is a copy of the model used in the WRHA committee training and elsewhere.

Although the original Manitoba Factory Act recognised workplace hazards can have health effects, the 1916 compensation law focused on safety in making its "compromise" that stopped workers suing their employers. It named work-related "accidents" as the causes that would be compensable, ignoring the five health hazard categories. "Occupational diseases" took a long time to make their way into the definition and to be recognised as compensable. Some occupational diseases such as musculoskeletal disorders (MSDs) -- usually linked to ergonomic hazards -- are still difficult to get compensated and many more go un-reported.

At the moment, the WCA defines anything that's compensable as an "accident" which

*... means a chance event occasioned by a physical or natural cause; and includes*

*(a) a willful and intentional act that is not the act of the worker,*

*(b) any*

*• event arising out of, and in the course of, employment, or*

*• thing that is done and the doing of which arises out of, and in the course of, employment, and*

*(c) an occupational disease,*

*and as a result of which a worker is injured;*

*... The definition of "accident" .. does not include any change in respect of the employment of a worker, including promotion, transfer, demotion, lay-off or termination.*

Occupational disease is defined as:

*.. a disease arising out of and in the course of employment and resulting from causes and conditions*

*(a) peculiar to or characteristic of a particular trade or occupation; or*

*(b) peculiar to the particular employment;*

*but does not include*

*(c) an ordinary disease of life; and*

*(d) stress, other than an acute reaction to a traumatic event*

Unfortunately, the definitions don't reflect reality.

Those working in the field of injury prevention talk about "incidents", getting away from the unrealistic idea about "chance events". As any health and safety professional will tell you, "chance events" are unlikely in the workplace; there is a root cause behind a near-miss, injury, illness or death. Even the Workplace Safety and Health Division recognises this, using the word "incident" rather than "accident" in its newer materials (eg. about programmes).

This makes sense when explained to joint health and safety committee members, amongst others. During the committee training, I encourage participants to use the

word "incident", referring them to the hazard categories chart for two reasons. One is that, when asked what causes their symptoms, they all come up with reasons that fit on the chart. Second, as studies continue to show, the root cause of many incidents is linked to work organisation, the hazards that are invisible stressors on the job.

Using the word "accident" has other effects. In my experience, it is associated with a "mind-set" that:

- blames individuals for what happens to them;
- ignores "near-misses";
- avoids looking for the real causes of near-misses, injuries, illnesses, diseases and deaths; and
- takes the short-term view of planning (or doesn't plan).

Using this phrase also is inconsistent with the prevention goals of occupational health and safety, and in particular with encouraging the development of prevention-oriented health and safety programmes (now required by the WSHA),

### **Recommendations:**

- 2.1 Remove the word "accident" from the WCA. Replace it with "incident".
- 2.2 Change other parts of the WCA that rely on the "chance event" definition, to be consistent with a public health/prevention approach.

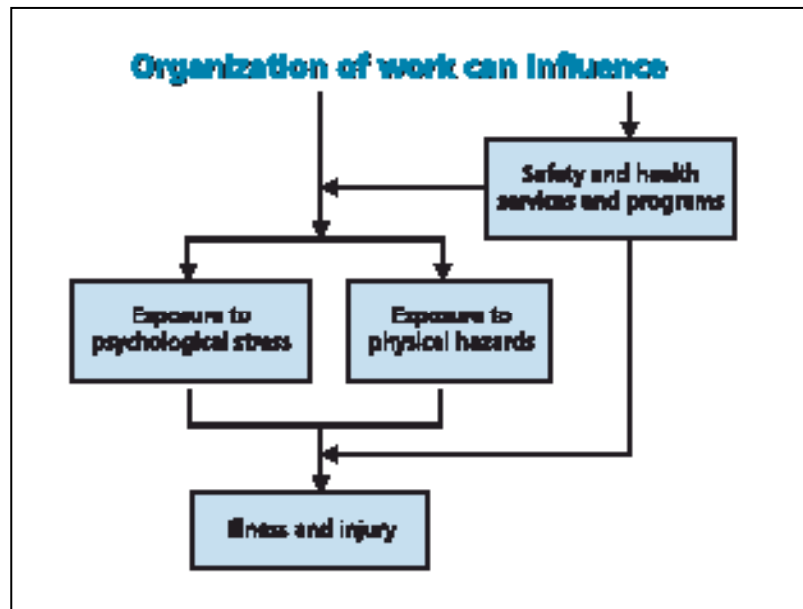
### **3. Work organisation is a key hazard**

If you look at the hazard categories chart, you'll see that the five circles on the outside overlap the centre circle-- work organisation. This is the category of stressors that lead to adverse symptoms and outcomes commonly called "stress".

To be clear about it, work organisation can be defined as *the social context of work which structures:*

- *the physical arrangements of work, including the machinery, equipment and tools used, and the space in which they are used;*
- *the division of work tasks;*
- *how fast and hard people work;*
- *how long they work;*

- how much say they have about all aspects of their work (including what they do, how and with whom);
- social relations with co-workers, managers and others in the community;
- the time and space in which people do their work and are able to do other things outside the workplace (especially family and community activities);
- the positive and negative health effects of the work; and
- the resulting feelings about work, the work environment, change in that environment and self.



Work organisation is at the centre of the diagram because it affects all other categories. Often "invisible", work organisation hazards (sometimes called

psychosocial environmental hazards) have very real and far-reaching consequences. The larger picture is demonstrated in the diagram, adapted from the 2002 U.S. National Institute for Occupational Safety and Health (NIOSH) booklet, *The changing organization of work and the safety and health of working people. Knowledge gaps and research directions* (available at <http://www.cdc.gov/niosh/O2-116pd.html>).

It shows that those with the purse-strings control the presence or absence of other hazards. "It all comes down to money" and "they decide" are the mantras in joint committee training workshops. If the decisions about the physical and social environments of a workplace include a fast work pace and repetitive motions with inadequate rest breaks and supervisor support, there are ergonomic hazards. If the decisions include buying products with no thought about their toxicity, even with a WHMIS label and MSDS, employees face chemical hazards. There are parallels in each category, in practice and according to a variety of studies.

As an ergonomist with a public health perspective, work organisation is in my purview because it affects and overlaps many of the other risk factors associated with ergonomic hazards. Its inclusion also is consistent with the earlier definition

of "health" and the goals of occupational health spelled out in the WSHA. Thus, ergonomics can be defined as:

*the science and art of changing the workplace and the work to fit the worker, with special attention to the often-invisible compromises made between the job constraints and demands and the worker's mental and physical capacities.*

There are several theories about what aspects of work organisation lead to stress reactions or strains (a better word, to avoid confusion between the causes and effects). Two theories dominate the field these days: the demand-control-support (job strain) model and the effort-reward imbalance.

The demand-control-support or job strain approach says that what stresses us is a combination of:

- a lot of demands -- psychological/mental and physical, ie workload;
- very little control -- say/latitude/choice -- about what we do and how we do it; and
- little support -- from supervisors, co-workers, others

Control is different from power. Control is how much say you have given what's already in place - how you do the job. Power is control at a higher level - it's about making decisions that determine what technology is in place, the overall schedule (and whether overtime is built into it), layoffs, privatising jobs, etc.

Effort-reward imbalance includes some features of the job strain approach but is different. There are two parts:

- a mis-match between high efforts (workload/demands) and low rewards (wages, respect, job security, promotion prospects); and
- work-related over-commitment, a set of attitudes, behaviours and emotions that shows up as excessive efforts and a strong desire for approval

Literally hundreds of studies have been done using these and other theories about work organisation and its effects. The two concepts are intertwined in some of the recent work about "organisational justice", in which respect is a key component.

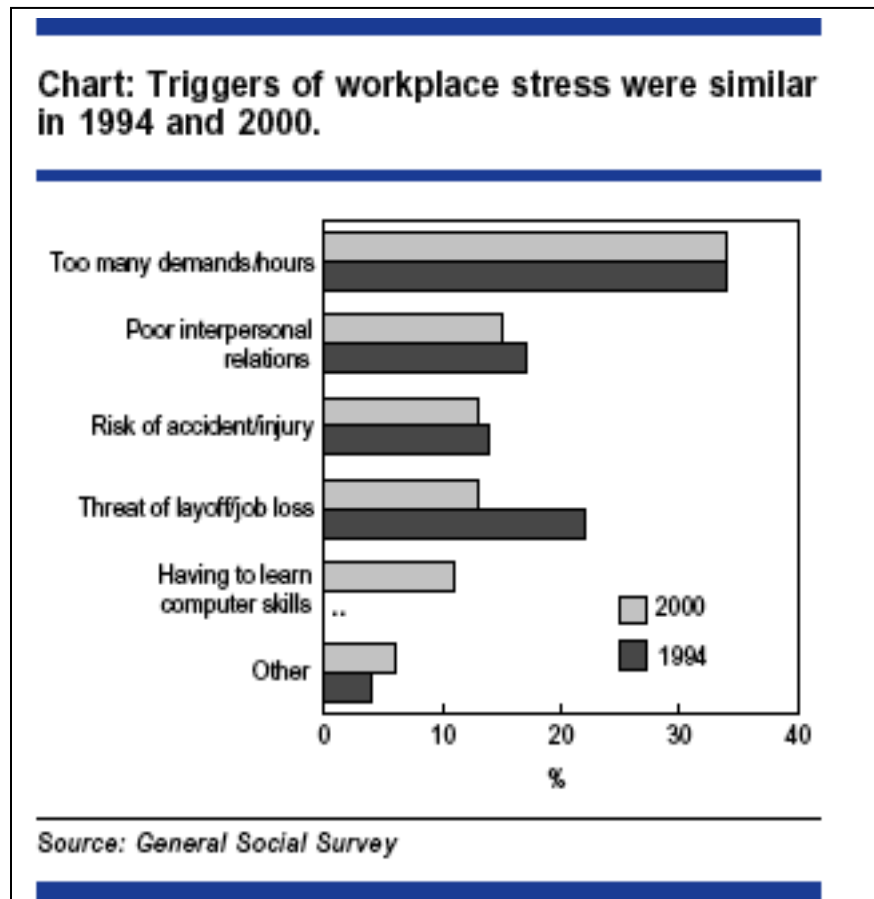
#### **4. Work organisation hazards have many effects**

Studies and personal experiences tell us that work organisation hazards are real and take a toll. The toll ranges from increased physical and mental health problems, inappropriate behavioural responses (eg. excessive alcohol and drug consumption, emotional outbursts) and preventable hazards that lead to injuries, illnesses, diseases and deaths. I won't elaborate here about the extensive literature about these issues.

Suffice to say, we've known about the links and effects for a long time, and the picture isn't getting any brighter. In keeping with my opening remarks, here are a few recent facts and reports about the effects of work organisation.

#### 4.1 The hazards are real

Let's start with the 2003 Statistics Canada report, *Sources of workplace stress*. Causes depend on what Stats Canada calls "work structure and characteristics", ie. work organisation hazards, and are reflected in differences based on sex, age, employment status, sector and type of job. The most common reason Canadians felt "stressed" by work is too many demands or too many hours. Hours also showed up for those doing rotating shifts; one-quarter of them were concerned about the risk of incidents or injuries, compared to 11 percent of regular day-time workers.



There are two charts from this report. The first (above) shows that the "triggers" or stressors haven't changed much between 1994 and 2002. The second shows how

demographics affect the odds of feeling strain by comparing some work organisation hazards or stressors by age and sex.

Still on the Canadian front, Institute for Work & Health researcher Harry Shannon cites a report by Aon Consulting study reported in MacLean's May 31, 1999, and the numbers answering yes to the statement: *My job often is so stressful I feel burned out:*

Canadians are not alone. Studies around the world tell the same story. Workplace organisational stressors are taking a toll on individuals, their workplaces, their families and their communities.

In 2003, the World Health Organisation came out with *Work organisation and stress. Systematic problem approaches for employers, managers and trade union representatives*. In setting out the problem, the authors discuss the European Union's surveys about working conditions. The 1999 survey of workers across Europe found:

- 1/2 working under considerable pressure
- 1/3 have little freedom to organise tasks (autonomy)

- 45% carry out monotonous work

More and more authors say that we need to pay special attention to how these occupational stressors affect women. That's the message from Quebec researcher Karen Messing and others. Messing's ground-breaking work shows that many women's jobs usually involve fewer traumatic injuries or toxic exposures and are more likely to include hazards causing chronic effects such as MSDs or stress-related illness. For example, her studies have linked work organisation hazards to chronic fatigue and MSDs.

#### 4.2 Work organisation stressors are linked directly and indirectly to injuries, illnesses and diseases, ie. strains

You'll note I use the word "stressors". It's deliberate. "Stress" is widely used to include symptoms and the causes behind them. This is both inaccurate and confusing.

Like more and more people concerned with these issues, Australia's organisational researcher Sharon Parker wants to avoid the confusion. She names the mental, physical and behavioural outcomes and symptoms as "strain". They include anxiety, depression, burnout, distress, raised blood pressure, headaches, depressed mood, anxiety, excess drinking, irritability, insomnia, etc.

Stressors are external demands - psychological or physical - that cause a natural series of reactions in our brain. The reactions involve hormones, muscles, the circulatory and immune systems and body fats, trying to give the body the ability to fight or take flight. Normal stress is good for us but not "toxic stress" -- the on-going reaction to chronic or prolonged demands. Hazards to the mind -- the "toxic stressors" -- become hazards for the physical, emotional and spiritual body, showing up as symptoms. These symptoms or strains include injuries, illness and diseases. Here are a few examples.

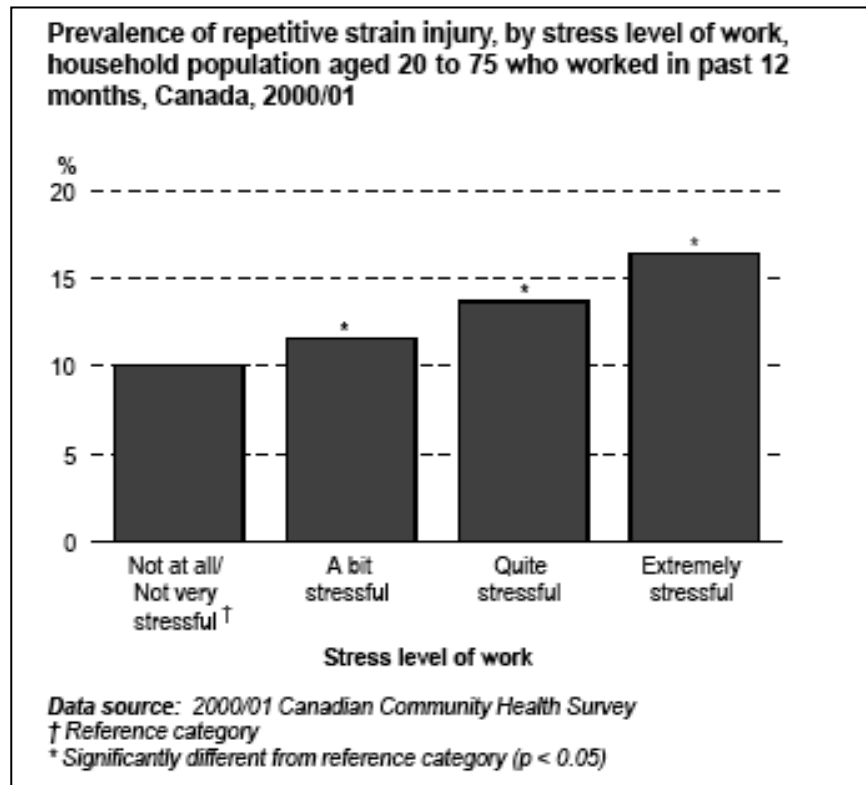
Stats Can says that "stress" increases the risk of musculoskeletal disorders -- the strains and sprains accounting for more than half of the claims accepted by the Manitoba WCB in 2003.

Last year, it published the results of a study about musculoskeletal disorders (they call them "repetitive strain injuries"). The graph at the right shows a clear trend. This was "especially true for women who indicated that their work was 'extremely'

stressful .." [Michael Tjepkema (2003) Repetitive strain injury. *Health Reports*, 14(4): 11 - 30.]

The Canadian results are consistent with at least 15 years of studies reporting, with increasing frequency, that there is a connection between MSDs and work organisation or psychosocial factors (another reason for ergonomists to pay attention). In fact, there is evidence that these

factors set workers up for MSDs, particularly in the lower back and neck-shoulder regions of the body; some of the first studies showing this were of all-male, industrial cohorts.



It also is consistent with the experience of hundreds of Manitoba workers and managers in the joint committee and supervisor training I've done in the last year. Asked to mark where their aches and pains and "stress" show up, there always are overlaps between the red dots for the former and green dots for the latter, depending on how individuals think of the symptoms. (See the picture of a "body map" from a typical workshop.)

In a disturbing finding, researchers working on the CAW-McMaster "blood pressure in the workplace" study reported that younger auto plant workers reported significantly-lower levels of excellent health than did the general population of a similar age. They also tended to be in the most stressful jobs. (For more information, see Wayne Lewchuk's 2003 presentation to the American Public Health Association, available at:

A recent study of French workers [I. Niedhammer and M. Chea (2003) Psychosocial factors at work and self reported health: comparative results of

cross sectional and prospective analyses of the French GAZEL cohort. *Occupational and Environmental Medicine*. 60: 509-515] found that :

- psychosocial factors at work (ie. work organisation hazards) predicted poor self reported health in a one-year follow up study; and
- gender-specific associations were observed, as psychological demands for both genders, decision authority for men only, and social support and physical demands for women only predicted poor health.

As more and more attention is focused on workplace violence, sometimes called bullying, researchers are studying its health effects. A recent study found a *strong association between workplace bullying and subsequent depression (which suggests that bullying is an aetiological factor for mental health problems. The victims of bullying also seem to be at greater risk of cardiovascular disease, but this risk may partly be attributable to overweight.* [M Kivimaki, and others. (2003) Workplace bullying and the risk of cardiovascular disease and depression. *Occupational and Environmental Medicine*. 60: 779-783.]

Organisational justice researchers in Finland reported last year that "the extent to which people are treated with justice in workplaces independently predicts their health". [M. Kivimaki and others. (2003) Organisational justice and health of employees: prospective cohort study. *Occupational and environmental medicine*. 60: 27 - 34.]

The list of adverse health outcomes continues to grow as investigators look at this. For brevity, I am ignoring all the standard effects of organisational stressors that are well-documented elsewhere,

#### 4.3 Work organisation stressors have other costs

In the committee training, we talk about setting priorities using criteria. One of them is: How much does the problem cost? More and more authors are looking at this question, asking about the costs of work-related organisational stressors. The WHO document says work-related strain *is thought to affect organisations by:*

- *increasing absenteeism*
- *decreasing commitment to work*
- *increasing staff turn-over*
- *impairing performance and productivity*
- *increasing unsafe working practices and "accident" rates*

- *increasing complaints from clients and customers*
- *adversely affecting staff recruitment*
- *increasing liability to legal claims and actions by stressed workers*
- *damaging the organisation's image both among its workers and externally.*

On their website, the Canadian Mental Health Association cites two government statistics about what strain (the effect of stressors) costs the Canadian economy:

*"Annual cost of work time lost to stress in Canada is estimated to be \$12 billion." -- Statistics Canada, 1999*

*Poor employee mental health costs the Canadian economy \$14.4 billion every year. -- Health Canada study, June 2001*

Estimates from around the world indicate that it's an expensive proposition to ignore work organisation hazards. Without a preventive approach, more and more workers and their employers pay a price. At the same time, employers are given little incentive to do this, because their workers' compensation rates are artificially low. Without compensation coverage for all work-related strains, employers still pay part of the price through their benefit plans and insurance policies, as well as indirectly in other ways.

This raises two interesting questions:

1. Why are the outcomes of occupational stressors covered by other forms of workplace insurance but not by workers' compensation?
2. If the strains of work organisation hazards are recognised but not covered by compensation, when will workers start suing to recover their direct and indirect costs?

On the latter point, if the great "trade-off" -- no legal suits for quick, financial settlements -- doesn't work, why can workers not sue? Will it take a Charter of Rights case to make this point? More important, why wait for this kind of effort? Employers and the WCB might look at recent trials in the United Kingdom, where workers have won cases against employers for the effects of excess workload.

**Recommendations:**

- 4.1 The WCB immediately commission (with the Workplace Safety and Health Division) a review of the literature about the links between work organisation hazards and their outcomes, particularly physical, mental and behavioural strains.
- 4.2 The WCB and WSHD also establish a bi-partite committee to oversee the literature review and make recommendations, based on the findings, about how to address work organisation hazards and their outcomes using everything from preventive measures to compensation. This committee should report its recommendations within the year.
- 4.3 In particular, the WCB and WSHD should focus on work done for the Royal Commission on Workers' Compensation in British Columbia, the UK Health and Safety Executive and the European Union's health and safety agency, as a starting point for these activities.
- 4.4 The literature review and recommendations must pay special attention to the needs of women and other workers whose circumstances present them with particular work organisation stressors (eg. young workers, workers of colour).

## 5. Prevention works

More and more reports, whether or not they're official studies, talk about "healthy workplaces" and interventions to deal with the hazards posed by work organisation. In fact, Canadians are in the forefront of this work. Three examples are:

- in *Healthy Workplace Strategies: Creating Change and Achieving Results*, Graham Lowe answers the question, "How can we design effective strategies to change workplaces so they become healthier and more productive?"  
<http://www.cprn.org/en/doc.cfm?doc=536>;
- the Institute for Work & Health, which receives most of its funds from the Ontario WSIB, has done practical projects, sponsored studies and produced documents about "knowledge transfer" and work organisation hazards; and
- the MFL Occupational Health Centre has a "stress initiative", again trying to develop and promote practical solutions for work organisation hazards.

The lessons from these examples, and the literature, show that structural changes are required, rather than focusing just on individuals and their reactions to workplace organisation stressors. Like treating individuals, compensation also is an "end of pipe" solution, to borrow from Martin Shain of the Centre for Addiction

and Mental Health in Toronto. But it's necessary -- just like treating individuals is -  
- when preventive measures fail or are inadequate.

### **Recommendation:**

5.1 The literature review also must examine the experiences and recommendations of those who have "gone before" in dealing with "healthy workplaces". In particular, they should consult with the IWH, Graham Lowe and the MFL OHC, about the work they have done.

## **6. Employers and workers are confused about dealing with work organisation hazards**

As noted earlier, the Workplace Safety and Health Act includes the strains associated with work-related stressors in its definition of "health". Its stated purpose and objectives carries this further, saying that work-related hazards must be prevented and that workers are not supposed to get sick or hurt because of their jobs.

Elsewhere in the legislation, employers are given the responsibility to deal with workplace hazards and prevent their workers getting sick or hurt at work. The only caveat is "reasonably practicable". This legal term means that, unless there is a "gross disproportion" between the cost in time, money and effort of fixing a hazard or not, employers must deal with health and safety problems. The greater the risk involved, the greater the disproportion must be before it is not "reasonably practicable" to take action.

Coupled with the requirement of "due diligence", it is clear that the health and safety law in Manitoba requires employers to deal with work organisation hazards. (This doesn't mean that the WSHD likes to enforce this, just that the law says they should.)

Therefore, even if the WCB does not recognise work-related strains, the WSHA requires employers to prevent them.

It's unfair to Manitoba employers and workers to ignore this disconnect between two laws that should be co-ordinated. This is not an argument to change the WSHA but to change the WCA.

## **Recommendation:**

6.1 The WCB and WSHD be required to develop a co-ordinated approach, based on the principles set out in section 2 of the WSHA, to deal with work organisation hazards in Manitoba workplaces. This should happen sooner, rather than later, so deadlines of not more than two years should be set.

## **7. Other points to consider**

This is a complex topic, but it must be tackled soon. Work organisation hazards are out there, and having effects. The Manitoba WCB, and other compensation boards, can only bury their heads in the sand for so long, before individuals will devise creative and effective ways to have the effect of these hazards compensated.

As part of your deliberations on this topic, I recommend reading William Gnam's piece prepared for the BC Royal Commission in 1998. Available on the web, it's called "Mental disorders, mental disability at work, and workers' compensation". I also recommend perusing the other related papers prepared for the same Commission.

Gnam hints in the paper that there is a fundamental unfairness underlying compensation boards' decisions about occupational "stress". Why do they treat mental health/work-related strain differently than other conditions? For how long will this head-in-the-sand approach be acceptable or tolerated? Who pays the price for these policies?

As he says in his conclusion:

*.. boards across North America would benefit from better evaluation of the outcomes of various mental claims policies.*

*The difficulties posed by mental conditions and mental-mental claims will prompt boards across North America to periodically revisit the issues raised by this paper.*

I hope the Manitoba WCB will do the right thing and not wait for years to revisit this important topic. I recommend they start soon to deal with it, for the benefit of Manitoba workers and employers alike.

If you would like more information or have questions, please let me know.