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The Effectiveness of Joint Health and Safety Committees: A Systematic Review

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The effectiveness of joint health and safety committees:

A systematic review

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POINT FORM SUMMARY

- This synthesis resulted from a systematic review of the literature (searching Pub Med, Embase and Google Scholar) for articles published in English with empirical data related to joint health and safety committees, which included consultations from bringing together experts from across Canada, various sectors and perspectives of government, employers and unions. It can be concluded that there is consensus in the literature on the value of effective Joint (worker-employer) Health and Safety Committees (JHSCs).

- Trend analyses, taking advantage of natural experiments – such as the introduction of legislation making committees mandatory – allow for strong conclusions regarding not only the importance of JHSCs, but the importance of committees being mandatory. Canada has indeed been commended by other jurisdictions for initiatives in this regard.

- The literature, as well as our expert consultation, made it clear that legislation requiring committees, while necessary, is not sufficient. While the legislation sets the context, measures taken in support of commitment to the JHSCs are crucial.

- There is evidence that the perceived effectiveness of JHSCs, and ability of JHSCs to solve problems, does indeed correlate with safer workplaces, as evidenced, for example, by lower injury rates.

- There is evidence that the extent of worker involvement/empowerment is an important determinant of lower injury rates. There is also some evidence indicating that union activities in health and safety are also important.

- Studies have documented the need for more information by committee members, as well as better education and training.

- A major conclusion from this study is that having a clear mandate for the JHSC is crucial. An important implication of the research is indeed the desirability of greater guidance on terms of reference for committees, ensuring that these are sufficiently broad to cover the matters of greatest concern in today's changing workplaces, and most importantly, ensuring that committee members are trained and empowered with respect to this mandate.

- Leading indicators (including measurements of JHSC effective functioning) should be monitored, in addition to trailing indicators (such as incidents and lost time injury rates).

- Well-designed high quality intervention studies (e.g. cluster randomized controlled trials) of high quality JHSCs (proper selection of committee members, clear mandate, excellent training, provision of information and resources, etc.) may help develop concrete guidance for effective JHSCs.

EXECUTIVE SUMMARY

Joint Health and Safety Committees (JHSCs) are widely acknowledged to be important to a healthy and safe work environment. However, it is also widely believed that having a JHSC is necessary but not sufficient; the JHSC must be effective. This project was undertaken to determine the state of knowledge as to what determines the effectiveness of committees, and to outline the gaps in knowledge.

The study consisted of a systematic literature review with a particularly strong expert consultation process. The literature review was systematic in nature, combing the literature for all relevant articles, searching electronic databases for key words. As the purpose of the review was not to determine whether JHSCs are effective or not, but rather what determines their effectiveness, a realist review was undertaken in which the studies were reviewed for the purpose not of ascertaining their quality to determine a causal link between the existence of a committee and a specific outcome, but rather identify the characteristics associated with a successful outcome. Thirty-one studies were identified based on the search results – and these spanned not only Canadian studies but also studies from the United States, the United Kingdom and Australia. There were no intervention studies identified. The expert consultation [1] consisted of a full-day face-to-face workshop of 25 experts on JHSCs from across Canada – selected for their experience in various sectors, perspectives and jurisdictions. Academic experts were not included, as it was assumed that their contributions could be gleaned from the published literature.

The findings confirmed the weakness of the literature with respect to the questions of concern. Several themes were identified as important –such as provision of adequate information, appropriate composition of the committee as well as their education and training, and especially having a clear mandate for the committee and empowerment to fulfill that mandate. The problem-solving ability of the committee can be seen as a direct outcome of these mechanisms, seen within the legislative context of their jurisdiction.

The implications of this research are that it would be worthwhile to produce better guidance (or regulation) governing the provision of information, education, training and resources to JHSCs, and to ensure they have an appropriately broad mandate and empowerment to fulfill their mandate. Unfortunately, the literature is extremely weak with respect to the guidance needed. As such, research is warranted – and preferably high quality intervention research – to move beyond identifying issues of importance to JHSCs to ascertaining effectiveness of interventions. Cluster-randomized controlled trials should be feasible and are well-warranted.

Keywords*: joint health and safety committee; occupational safety; workplace; union; effectiveness; injury*.

1. INTRODUCTION

Workplace injuries and illness continue to take an unacceptably high toll on the well-being, safety and security of workers and their families. This also has an impact on the productivity of the workforce internationally [2-4]. Since the 19th century, workers have organized in trade unions and parties to strengthen their efforts at improving workplace health and safety, job conditions, working hours, wages, job contracts, and social security. Cooperation between workers/worker organizations and occupational health professionals is widely believed to be instrumental in improving regulation and legislation affecting workers' health [5]. The theory behind requiring joint worker-employer health and safety committees is that a safer workplace is best achieved through empowering workers (and managers) to ensure that standards and regulatory provisions are met [6]. A joint health and safety committee (JHSC) is composed of people who represent the workforce, and the JHSC is charged with the mandate of identifying potential health and safety problems and bringing them to the employer's attention [7]. While legislation differs by jurisdiction as to the exact make-up and rules surrounding JHSCs, such committees are a cornerstone of the safety and health policies of numerous countries [6].

In order to ascertain the determinants of success of a joint health and safety committee, we conducted this study, with the following research questions:

1) What are the factors which facilitate and impede JHSCs in performing their functions, and what are the relationships between these factors?

2) What are the gaps in knowledge, such that an informed research agenda can be formulated?

2. METHODOLOGY

A systematic literature review was conducted including a particularly strong component of stakeholder consultation to allow for synthesizing expert opinion. For the systematic review, we chose a realist review design, as realistic evaluation is grounded on the belief that social interventions, such as quality improvement initiatives, are complex, and that the way they bring about change is influenced by, dependent on, and in turn influences their contexts [7]. According to realist evaluation, an intervention (I) in a context (C) triggers a mechanism (M) which generates an outcome (O). Mechanisms thus explain what happens when a particular context plays host to an intervention. A complex social intervention can therefore yield different outcomes in different contexts due to contextual factors at the level of the individual, interpersonal relationships, institutional setting and the wider infrastructural setting – in other words, at the micro, meso and macro levels. A realist review synthesizes research about how complex interventions work; interventions are attended by explicit and/or implicit hypotheses and assumptions which can be articulated as an initial program theory, followed, evaluated and then refined, by looking at the inter-relationships between context, interventions, mechanisms and outcomes [8].

This realist review started with a systematic search in PubMed, Embase and Google Scholar (November 2010 to January 2011). Key terms were: joint health and safety committee, workplace health committee and occupational health and safety committee; these key terms were searched along with descriptors such as activities, involvement, outcomes, membership, training, education, union, management, mandate and information. A further selection was made based on the presence (or absence) of empirical data about joint health and safety committees- excluding studies that provided insufficient data. We then reviewed the reference

list from the articles that met the inclusion criteria and additional relevant articles were also included (see Figure 1 for a graphic representation of the search). Following the identification and review of the articles, we then characterized the Context, Mechanism and Outcome related to the JHSC, in order to discern a pattern, conducting a realist review to determine why and how joint health and safety committees are effective.

Consistent with guidelines for conducting systematic reviews[8], we hosted a workshop with key health and safety experts from across Canada (see Appendix 1 for a list of attendees and their affiliations) to present our findings to date and to further identify relevant studies, as well as to guide the synthesis of the literature and capture the experience of the expert group. The workshop itself was held on Thursday February 3rd, 2011, at the BC Government and Employees' Union (BCGEU) building in Burnaby, BC. A total of 25 experts working in the field of workplace health and safety were chosen to attend the workshop, and all but one attended (one missed a flight because of a snow storm). The attendees represented 5 provinces in addition to the Federal jurisdictions. Invitees were chosen by our team based on their occupation, geographic location, contributions to the field and interest in research on the topic of health and safety. The attendees for the workshop were selected by our research team explicitly because of their expertise; they all had a minimum of fifteen years of direct experience working in health and safety and were national leaders in the field. They had all worked or advised in a minimum of two provinces related to health and safety and had been instrumental in developing materials and training in health and safety in Canada. We elected to not invite academics but to focus on those with practical experience in the field of workplace health and safety to garner their input and suggestions on what was missing in our interim

results (focusing on the gaps needed to be addressed in future research). Appendix 3 is a report produced on the workshop itself and provides more detailed information on discussions and facilitations of that day.

The day had three parts: a) the preliminary results of the search were presented and discussed in plenary; b) a plenary discussion occurred as to how to organize the discussion into themes for further consideration; and c) small groups tackled the themes identified to provide greater depth. The presentations given at the workshop are included as Appendix 2.

3. PROJECT FINDINGS

Results of the Systematic Review:

The systematic search yielded 280 article references, of which we identified 28 potentially relevant articles. A search through the reference lists of the identified articles yielded six additional empirical studies (from academic journals or conference proceedings) and some reports. In the end, 31 empirical articles met our inclusion criteria.

These 31 studies included mostly cross-sectional surveys or descriptive studies, with only very few longitudinal/time-series studies. A few review articles were also found. There were no intervention studies. For the purposes of this review we chose to group our studies by their legislative environment in keeping with our contention that the context has a direct impact on the mechanisms and outcome. This is also in keeping with realist reviews in which it is more appropriate to group the studies by their context, rather than by their type.

Of the thirty-one articles included in the review they can be categorized as:

- 55% (n=17) studies examining the Canadian context;
- 10% (n=3) studies examining the context in the UK;

- 23% (n=7) studies examining the American context; and
- 6% (n=2) studies examining the Australian context.

Two review articles (6%) were not specific to the context of the location; the authors included all studies examining joint health and safety committees, regardless of location.

Canadian context

There are differences across the 13 Canadian jurisdictions on the requirement to establish joint health and safety committees. Table 1 shows the similarities and differences across the 13 Canadian "contexts".

Ontario

For Ontario, in workplaces with less than 50 workers, the Act requires the committee to have a minimum of two members [section 9(6)(a)]. Where there are 50 or more workers, the committee must have at least four members [section 9(6)(b)]. At least half the members on a committee must represent workers [section 9(7)], with the balance representing management [section 9(9)]. Larger committees in larger workplaces can be required by regulations under the Act [section 70(2)10.]. Whenever possible, committees should represent the health and safety concerns of the entire workplace.

As shown in Table 2, the research group of Shannon and his colleagues has made major contributions to the understanding of JHSCs and their effectiveness. In striving to better understand the relationship between workplace factors and injury rates, Shannon and colleagues found that lower injury rates in Ontario were associated with workplaces which espoused values of empowerment of the workforce (in general matters); delegation of safety activities; and an active role (in health and safety) of top management [9]. Lewchuk et al.[10] utilized the 637 manufacturing and retail workplaces from a previous study of the group [11] and surveyed the co-chairs of joint committees at these sites to ascertain when the committee was established. These workplaces were then cross-linked with Workers' Compensation Board (WCB) data on accepted time-loss injuries. Survey and WCB data were available for a total of 206 workplaces. These comprised a mix of manufacturing sector workplaces and retail workplaces; the mix is important because the retail sector was not initially subject to the requirement to establish joint committees. Lewchuk et al. posed two questions. First, were there differences in the change in injury performance between the manufacturing sector and

the retail sector that become evident with the implementation of the Occupational Health and Safety Act? Second, within the manufacturing sector, were there differences in the change in injury performance related to whether the joint committee was established prior to or after the statutory requirement? This study found that where workplaces moved towards establishing health and safety committees either before they were mandated or immediately upon the government indicating they were likely to be mandated, joint health and safety committees improved a workplace's health and safety record. However, where workplaces moved towards establishing JHSCs only reluctantly, sometimes after a period when they were in contravention of existing legislation, the formation of a committee had no clear effect. With respect to differences between the manufacturing and retail sector, Lewchuk et al. found strong support for the proposition that following enactment of the Occupational Health and Safety Act, injury rates in the manufacturing sector fell more significantly than in the retail sector. Since the requirement to establish joint committees did not apply to the retail sector, this provides prima facie support for the view that joint committees had an impact on injury performance. Although the context of the study was shaped by the legislative requirements, this study suggests that mechanism for effectiveness was actually the management commitment to health and safety, in these cases manifested by the presence of a committee prior to it being legislated, rather than simply where the committee exists. Shannon and colleagues, in a survey of manufacturing and retail facilities in that province, showed that companies with senior management commitment to health and safety, higher worker participation, better communication and better labour relations had lower lost time accident rates [12].

In another Ontario study, a survey of labour and management representatives at 1500 workplaces was carried out in 1994 and showed that improvement in health and safety was predicted by good communications, high employee job satisfaction, worker participation in decision making, and emphasis on teamwork in the company [13]. The major outstanding need noted in this study was for improvement in training of JHSCs, particularly in small institutions. Walters and Haines[14] in yet another Ontario study based on interviews with 492 workers, found that workers needed better access to information about their legal rights and mechanisms for dealing with hazards in the workplace.

Hall et al. [15], interviewing unionized health and safety representatives in the auto industry in Ontario, identified different approaches of health and safety representation with differing degrees of effectiveness; they found that the most effective was a technique they deemed “knowledge activism”, which is a form of activism organized around the collection and use of health and safety knowledge. The distinguishing features of the knowledge activists were their autonomous collection and strategic application of legal, technical, and medical knowledge as political tools [15].

In the wake of SARS, Nichol et al. undertook a cross-sectional survey of JHSC co-chairs in acute care hospitals in Ontario[16]. The results of this survey revealed that the strengths of the current state of JHSCs functioning in Ontario hospitals include legislative compliance and availability of resources and experts. Gaps identified by Nichol and colleagues in current functioning of JHSCs include a lack of JHSC member education beyond certification training and suboptimal JHSC status and visibility within healthcare organizations[16]. Geldart et al. [17] administered a mailed survey and conducted cross-sectional analysis of workplace level health

and safety policies, practices and attitudes correlating the findings with lost-time injury data. This study was carried out on 312 manufacturing firms in the province of Ontario. The mean number of worker (vs. management) members on the JHSC was higher for lower injury sites. This study also found that workplaces with lower lost-time claims benefited by having JHSCs with more executive functions and greater worker involvement. SPR Associates [13] conducted a survey which was based on a mailed questionnaire to joint committee co-chairs in 3,000 workplaces in Ontario. The study concluded that approximately 80% of workplaces were in compliance on 80% of requirements. Significantly this study revealed that in 25.5% of workplaces, worker representatives to joint committees were selected by management. Joint committees were generally not in compliance with the requirement for monthly inspections of the workplace. Thirty-five percent of worker members and 41% of management members reported having received no training whatsoever in health and safety matters[13].

Ontario and Quebec

Tuohy and Simard discussed two different studies[18]. The first examines the Ontario experience, the second the Quebec experience. The Ontario study relied on a survey based on pooled data for the period 1980-1985, conducted for the Advisory Council on Occupational Health and Occupational Safety. This survey examined the functioning of joint committees in terms of indicators such as frequency of meetings, record maintenance, number of inspections, depth of management participation and formulation of recommendations. Tuohy correlated these data with administrative data on accepted injury claims, Ministry of Labour inspections and compliance orders. A total of 920 complete observations form the basis for the study. The second study drew on 117 usable survey returns correlated to administrative data. The survey

was conducted in 1985-86 and assessed committees in terms of certain performance and capacity indicators. The main findings from this work include: the most important variable explaining lower relative injury rates was the presence of an experienced, stable workforce and, for workplaces with more than 75 employees, the impact of joint committees was positive for all injury performance measures. In smaller workplaces, this pattern did not hold.

Other provinces and the Canadian context overall

Also in Canada, but focusing on the context in Alberta, Bryce and Manga [19] used data from a study undertaken in the 1970s, soon after passage of legislation establishing JHSCs. In this study, 36 JHSCs were randomly selected. Committee members were asked if they thought the JHSCs had improved health and safety in their workplaces. Both labour and management representatives agreed that JHSCs had been successful in their estimation [19].

Table 2 also profiles other studies conducted in various Canadian provinces, and O'Grady, in his chapter on JHSCs, focuses on the potential for committees as well as their limitations, reviewing the Canadian experience overall [20]. He cautions that committees must be considered within the external factors which can augment or diminish the impact of JHSCs.

Parsons [21] conducted a review of the history and the specific experiences in select Canadian provinces with regard to joint health and safety committees. He concludes with five lessons gleaned from the Canadian experience, as noted in Table 2:

1. legislated mandatory JHSCs are needed;
2. there must be a clear set of rights for JHSCs;
3. unions must bargain over health and safety matters;
4. there must be strong government enforcement; and
5. committees must be given direct responsibility.

U.S. Context

Studies of the association between presence of committees and injury rates have been mixed and note both the need for additional details about the committees and concerns with understanding the direction of causality, since they are based on cross-sectional studies where higher injury rates may lead to creation of JHSCs. Eaton and Nocerino, comparing elements of JHSCs to injury and illness reports in the public sector in New Jersey, found that committee scope and training were related to perceptions of committee effectiveness, and that higher worker involvement was associated with fewer reported injuries and illnesses[6].

A particularly important study was conducted by David Weil, in which he examined Occupational Safety and Health Administration (OSHA) enforcement activity (using seven different outcomes) as a function of three main factors: workplace factors that influence employee exercise of rights (for example, demographic characteristics of the work force, presence of safety and health committees, unionization); factors associated with the workplace's state of compliance with OSHA standards (for example, employer size, industry), and variables related to explicit and implicit policies of OSHA at the time of the workplace inspection (for example, scope of inspection, health versus safety focus). Focusing then on the particular effect of JOHSC mandates on comparative enforcement in union and nonunion establishments, Weill created a regression model for pre- and post-mandate periods, with the empirical task of separating out the impact of committee mandates on union/ nonunion differentials in OSHA enforcement from the impact of other causal factors that were also shifting over time. He found a growth in union/nonunion differentials in all areas of enforcement except for complaint inspection, suggesting that JOHSCs do not negate the importance of unions. He further notes, though, that the magnitude of the separate effects (of

unions and of JOHSCs) is such that even if committees on average widen the enforcement gap between union and non-union environments, the existence of JOHSCs do result in important changes in nonunion workplaces[22].

A study of 107 Ohio companies found that management leadership and worker involvement were protective (OR = 0.36) for OSHA safety violation; employer commitment and employee involvement were found to be two key areas for health and safety committee effectiveness [23]. Moreover, Boden et al. [21], having conducted a survey of 127 Massachusetts manufacturing companies and in-depth interviews with 13 of these firms, found that the mere existence of a JHSC seems to have no impact on safety; only where the JHSCs are seen as effective are there fewer complaints and fewer serious hazards. Again, though, the cross-sectional nature of this study makes it impossible to determine whether this is an association or causal relationship.

In the United States, Cooke and Gautschi used data from 113 manufacturing companies in Maine over a six-year period [24]. After controlling for the number of employees in the plants and the impacts of business cycles, they found that the presence of a JHSC in the workplace was associated with a small decrease in time-loss claims due to injury. Morse and colleagues [25] conducted an exploratory study in Connecticut, a state which requires JHSCs in all workplaces with at least 25 employees, analyzing administrative data (including JHSC meeting minutes) of 29 committees. The authors found that lower injury rate companies had a higher ratio of hourly workers to managers on the JHSC, a larger committee compared to size of the employer, and reviewed a larger average number of worker complaints and suggestions [25]. Walters and colleagues[26], in a mixed methods study (qualitative and quantitative) in the UK, concluded

that worker representation and consultation have a significant role to play in improving health and safety at work. They have the potential to raise health and safety awareness amongst both workers and managers, effect improvement in arrangements for managing health and safety, improve the practical implementation of these arrangements, and contribute to improved health and safety performance.

UK context

In the UK, Reilly and colleagues [27] used a sample from the Workplace Industrial Relations Survey of manufacturing plants and found that workplaces with joint committees had, on average, 5.7 fewer injuries per 1000 employees compared with workplaces without JHSCs. Also in the UK, Beaumont and Leopold [28] looked at the role of the senior manager on a JHSC; this presence was found to be a necessary condition for that committee being an effective one. The authors found that other factors were important such as the commitment of the committee members to the importance of health and safety, good communications, regular meetings, training and general co-operation between workers and management.

Australian context

Warren-Langford et al. [29] examined the situation in Australia through a survey regarding unions and joint committees. This study found that workers who were surveyed felt that they would benefit from further training and information about health and safety and that management especially needed training and education with regard to rights and responsibilities.

Pragnell [30] also conducted a study in Australia, focused specifically on New South Wales, based on the Australian Workplace Industrial Relations Survey (AWIRS) which covered 2,004 workplaces with more than 20 employees, of which 762 were in New South Wales, and

found that larger workplaces are more likely to have committees. Eighty-three percent of companies with 200 or more employees had committees compared to 26% of companies with 20 to 49 employees. The likelihood of a committee being established declined as the proportion of part-time employees increased. Only 9% of non-union workplaces had committees [30].

Havlovic and McShane [31], in a questionnaire study on the attributes of forest product mills of British Columbia that contribute to a safer work environment and lower injury rates, found that mills where management received the JHSC meeting minutes had lower serious accident rates.

Milgate et al. [32] also undertook a review, specific to an Australian context, to ascertain the factors which make health and safety committees, and representatives, effective. The authors found that most of the evidence is anecdotal but that the fundamental factors for effective committees include management commitment, communication, training and information, union involvement, the infrastructure of an organization, committee processes and the involvement of professional experts. The authors concluded by stating that more targeted studies are needed to ensure committees are achieving the goals towards which they were created.

Non-specific to context (review studies – looking at varying contexts)

Burke et al.[33], in a review evaluating the effectiveness of different forms of training in health and safety, found that more engaging training resulted in greater knowledge acquisition, and reductions were seen in accidents, illnesses, and injuries. Shannon et al. [9] pulled data from ten studies examining the relationship between organizational and workplace factors and injury rates. They found that the variables associated with lower injury rates were:

empowerment of the workforce (in general matters), delegation of safety activities, and an active role (in health and safety) of top management.

After our team conducted the preliminary stages of this review we gathered together experts in the field to discuss our findings and discuss next steps on this project, as noted above. The results from the expert workshop are described below.

Results of the expert workshop

Results from the plenary discussion of the presentation

The experts assembled noted that most of what we identified from the literature so far were commentaries, and descriptive trends, rather than studies with adequate detail for informing a discussion of determinants of effectiveness. The need for better research was quite evident.

The experts also expressed surprise at the lack of inclusion of studies from Northern Europe and Scandinavia in particular, where worker participation and JOHSCs were quite advanced and from where major contributions to world knowledge has indeed emerged. The research team agreed with the experts that it is unfortunate that the inclusion and exclusion criteria for the literature synthesis (particularly the requirement for empirical data) did not capture this experience, and it was agreed that future research may have to be framed differently to allow being informed by this body of knowledge as well. All agreed, however, that the experience from Northern Europe supports the conclusions drawn in this review.

The group agreed that JHSCs may increase the reporting of injuries, as do stronger workers' compensation boards, therefore noted that it is problematic that most of the literature evaluating the effectiveness of committees ignores leading indicators (or process

indicators such as good practices) and focuses just on trailing indicators (or outcome indicators such as injury rate). This is an area that should receive more research attention.

The importance of including not just safety as a target for committees, but also health, including mental health in the workplace, was stressed by the group. The group strongly felt that it is important that the scope and mandate of committees not be too narrow, and even more importantly, that the mandate of the committee be clear and that the committee is empowered accordingly. Without knowing whether a committee had a clear mandate and was empowered properly to address that mandate makes it impossible to assess the value of that committee.

Another example of the issue of scope of the committee was the need to have JHSC involvement in building design, introduction of new technology, machinery or equipment, and the organization of work. Although this is not always feasible as JHSCs may not exist before a workplace is built, where an employer is bringing in new technology, machinery or equipment, re-organizing work, relocating workers or changing locations, there should be some mechanism for discussion by the JHSC.

Considerable discussion occurred on the comparison of jurisdictions and provinces, making note that such comparisons can be misleading, particularly as jurisdictions may in fact have very different practices of enforcement. This review, therefore, did not attempt to compare across jurisdictions, but rather focus on seeking the mechanisms used within jurisdictions to achieve targeted results.

Participants noted that it was not only important to assess the effectiveness of JHSCs where they have been implemented, but also the potential usefulness of expanding the

coverage of the workforce with joint committees, for example to small workplaces and where health and safety expertise does not exist. It was noted that only 30% of the workforce is covered by JHSC legislation regarding formal joint committees. Some examples of how other jurisdictions reach small workplaces were noted, such as using roving worker safety representatives which are prevalent in Sweden. This is highlighted as an area for further research.

The discussion also noted that committee members are not united in interest – and that enforcement of JHSC from WorkSafeBC needs to be sensitive to this. For example, employer members may be concerned about budget implications and lost time as the most important outcome, whereas worker members of the committee may have other perspectives and priorities. The need to assess the usefulness of committees from the perspective of the different workplace parties was therefore highlighted, as was the conflicting interests within the committee. We also noted that the literature does not address this issue well.

Discussion centered on the Internal Responsibility System (IRS) and participants raised the IRS as a barrier to effective committees, if enforcement is not maintained by the regulatory agency. The problems that were raised regarding this system included the fact that it invites less enforcement and shifting of responsibility away from employers to workers and committees, without increasing empowerment of committees or providing them with sufficient training and information.

The discussion noted that this approach placed too much responsibility on workers without providing them with the power to exert an influence over management. A participant pointed out that the committees and representatives only had advisory powers. Participants

expressed the view that self-regulation was not the key to the control of risks at work; the participants were of the view that there is an ongoing need for external monitoring and enforcement. The role of enforcement was discussed at great length and was seen by participants as being integral to the committee's ability to function. It was the view of the participants that enforcement must set the system standard and not be subordinated to internal responsibility. When enforcement is weak and waits on IRS, it does not assist the worksite health and safety committee. When enforcement is strong, it ensures system compliance as a basis from which prevention activities can be encouraged. The experience of the group was that orders and penalty is a legislated process that enables workers and employers to work cooperatively in identifying and controlling workplace hazards that jeopardize the safety or health of workers.

Discussion occurred about the differences not only between large and small workplaces but also public versus private. An interesting point was raised about the situation when the employer is also responsible for the legislation. The example of the Federal government was raised.

Results for discussion of themes:

After reviewing the literature on the effectiveness of JHSCs and compiling a list of 115 documents of interest, our research team had proposed 6 themes to aid in the discussion for the day. The original themes were:

1. empowerment of committees,
2. training,
3. access to information,

4. legislation and enforcement,

5. role of unions in health and safety committees, and

6. management commitment.

We all agreed that dividing the issues into categories is challenging. For example, it was noted that training should be called “education and training” and it is essential to be explicit about whether we are referring to worker training versus “committee training”.

The mechanism of how JHSCs improve the workplace is also important to consider – is it through improving access to education and training of workers, for example?

The discussion around “management commitment” for example, noted that management commitment to health and safety is not the same as management commitment to the JHSC. For example, management needs to provide worker members of the health and safety committee with the tools to enable them to be effective, as well as resources and “permission” to do their JHSC work during work hours. An additional important point raised about “the internal responsibility” system was that the role of joint committees is strongly undermined by experience rating.

From this discussion we arrived at 10 themes that were an elaboration/refinement of the original 6:

1. Empowerment of committees and the role of worker members with respect to their coworkers (i.e. rights of the committee members to have time for their roles and to interact with the constituencies).

2. Scope of the committee (i.e. harassment, mental health issues, not just safety issues)

3. Extending Committees to workplaces where they do not exist

4. Composition of the committee

5. Training and education of committee members

6. Access to information by committees

7. Legislation and enforcement regarding committees

8. Role of unions in health and safety committees

9. Management embracing the value of committees – management support

10. Management practices and system regarding occupational health and safety

For ease of further discussion we grouped these into four themes and small groups were convened to identify the key issues that need further exploration. (Because of the large overlap that occurred in the discussions in the first two groups, we further combined these in the discussion that follows.)

1. **Role of Committees:** Empowerment of committees and the role of worker members with respect to their co-workers (e.g. the rights of the committee members to have time for their roles and to interact with their constituencies).

2. **Scope of the committee** (e.g. harassment, mental health issues, not just safety issues, including extending committees to workplaces where they do not exist).

3. **Committee membership and building member capacity,** including composition of the committee (selection and number of worker members); training and education of committee members; and access to information by committees; and

4. **Management and external supports for committees:** Legislation and enforcement regarding committees; role of unions in health and safety committees; management embracing the value

of committees - management support; management practices and systems regarding occupational health and safety.

Key results from expert discussion groups:

ROLE AND SCOPE OF COMMITTEES:

It was noted that JHSCs have a lack of power as they can only make recommendations; they are not empowered to act, just to advise. The role of committees can be different depending on the workplace conditions that are prevalent in the specific worksite as well as the industry. It was noted that there is a hierarchy, both within the workplace but also within the committee. Participants noted that it is in fact the employer who needs to act to improve workplace conditions. It was noted that measuring the worth/value of committees is unclear – i.e. the types of outcomes of interest need to be ascertained and specified. There was also discussion around the "spin off" effects of committees such as their ability to impact positively on workplace industrial relations, productivity and other important issues. The discussion on this topic also stressed that the role of committees can change over time and is always evolving, along with its scope.

The scope of the committee discussion began by focusing on asking what the ideal size is for the committee, then proceeded to the mix of the committee members (i.e. employee to management, union to non-union). It was noted that there is no data available to provide guidance on this. It was also noted that many workplaces are simply too small to have effective committees; in this context the notion of roving health and safety committees was raised by a participant and a group discussion ensued on how these should be funded. There were also comments by participants on literature available from other countries, and probably in other

languages, which highlighted different practices that work in different jurisdictions. The role of the committee was, again, noted to be closely related to the scope of its mandate.

COMMITTEE MEMBERSHIP AND BUILDING MEMBER CAPACITY:

Participants focused on the membership of committees. Specifically they discussed the logistics of meetings and attendance. One participant noted that worker representatives might feel less inhibited if they were to meet separately, and it was noted that the Ontario Occupational Health and Safety Act requires the employer to allow worker JHSC members one hour caucus time. There was discussion on the legislated mandate of committees and the potential problematic nature of the selection process. In BC, an example was given of a union which received an order for non-compliance regarding worker representatives. The group felt that there needs to be greater clarity on the additional roles, if any, unions could/should have in committees.

It was noted that data from a properly conducted evaluation of what committee membership structure works best (e.g. all worker reps with no employer or more worker reps then employers) would be useful to have. An important point made was on the need to hear from committees themselves, as to what committees think works best and why. One of the group members told an anecdote of both parties seeing the committee very differently: management may feel they are very supportive of the committee but perhaps the committee does not feel this way about management.

This group then moved on to time constraints and discussing how committees are not a priority for all worksites. There may not be adequate time for investigations, follow-up or implementation of recommendations, etc.

Considerable attention was devoted to capacity-building, specifically focusing on education and training. There was consensus in the group that both education and training should be a right for committee members. It was noted that more work is needed on defining how much training is meaningful, which, in turn, could be dependent on sectors, and size of workplace. The group agreed that the format of the training should be specified; all agree that only having on-line training materials is problematic, as the employer tends to ask workers to do such training on their own time. Moreover, while information and communication technology can be very useful in promoting health and safety, and enhancing JHSC function, it should never replace the important group interaction and discussion amongst the workplace parties and in the education and training session with a discussion leader. The scope of the safety and health training matters, e.g. psycho-social issues, should be included.

This discussion then moved on to who should fund the training. There was a brainstorming session with many ideas of how training and education should be funded. One participant noted that a central fund from WorkSafeBC, where employers could access funding for education and training of committee members, would be a welcome part of their portfolio and could do a lot to create goodwill. There was then a discussion on tracking of training and the

need for a central repository to track training as well as notify worksites when refresher training is needed.

MANAGEMENT AND EXTERNAL SUPPORTS FOR COMMITTEES:

This group began with a debate around the notion of enforcement and the positives and negatives of the enforcement principle. All agreed that the terms of reference are key and it was noted that very little is known about terms of reference, whether or not they are used by committees and what role they can/do play in committees' effectiveness. The notion of committees' empowerment was explored and the group brainstormed around innovative ways to empower committees such as giving the committee the power to write orders. For example, it was noted that in the Australian State of Victoria and Queensland worker occupational health and safety representatives have the power to write Provisional Improvement Orders on the employer to which the employer must either comply forthwith or appeal to the government occupational health and safety authority. There was also a useful discussion within this group on the role of employer associations. There was a consensus around more research needed on associations and their value.

This group then discussed the emerging roles for committees as there has been such an evolution and change in workplaces but with no regard to the definition of what a workplace is. This group then focused their efforts on discussing whether or not regulations are keeping up with changing workplaces. A key concern raised at the end of discussion was the increased precariousness of employment resulting from extensive economic restructuring. This creates problems with ensuring workers understand and can exercise their responsibilities without fear

of reprisal. Increased precarious employment takes many forms such as temporary agencies and contract employment. There are now more people working multiple part-time jobs and more people in self-employment and the discussion focused on who represents these individuals' rights and where they can go for help on health and safety issues.

Overall Context-Mechanism-Outcome Analysis:

As has been found in other realist reviews, often the "outcome" in one study constitutes the "mechanism" in another. For example, the outcome of effective problem-solving by JHSCs may be a mechanism to achieve lower lost-time injuries in another study. Regardless, what is clear is that the legislative context, i.e. the extent to which JHSCs are mandatory, and the extent of enforcement, sets the stage for the mechanisms that are adopted to achieve the desired outcome. The mechanisms identified in the studies to achieve effectiveness (however defined) include: adequate information provided to the committee; proper selection, education and training of committee members; clear mandate with the committee empowered to act within its mandate; and good problem-solving within committees.

4. IMPLICATIONS FOR FUTURE OCCUPATIONAL HEALTH RESEARCH

The most striking finding from this project was the paucity of good quality evidence from which to develop policy recommendations. The literature review demonstrated that merely having a JHSC is not sufficient – it must be an effective committee, yet there was no consistency across studies as to the outcome of interest. The literature as well as the experts assembled support for the value of JHSCs but identified that there are many contextual factors that determine success. The nature of the legislation seemed paramount – although

without cross-jurisdictional comparisons, the only strong conclusion that can be made is that JHSs cannot take the place of regulation and government enforcement. The nature of power relations in the workplace mean that regulation and government enforcement will always still be needed. Issues particularly highlighted for more research focused on obtaining more clarity on variations in outcome depending on the committee mandate; optimum size and composition, including manner of selection of members and role of unions; training and education; and management support for the committee (not just for generally promoting a healthy workplace). It is these mechanisms employed to address these workplace based factors, under the backdrop of the legislative context, that seem to make or break a committee's effectiveness. Most importantly, it was stressed that the outcome of interest may be different amongst the committee members, and defining outcome of interest is essential to evaluating the effectiveness of committees.

At the workshop, the team and attendees discussed the next steps in this project and what is needed for joint health and safety committees to be more effective. It was an opportunity to brainstorm, and dream, around what is needed and where committees are headed. Some of the ideas generated on future research included doing a survey of existing workplaces to ascertain if committees in non-unionized workplaces have as much training as those that are unionized; and, if so, where does the training come from. Indeed it was noted that while the general principles of what makes JHSCs effective are becoming clear, what is lacking is guidance as to how to implement these principles – e.g. not only whether bi-partite training is superior to training by an external agency (including unions), but how long such training programs should be, and what issues beyond the basic roles and responsibilities of

the committee need to be covered; what information and resources need to be made available to committees, and what is the role of information and communication technology. It is noteworthy in this regard that the parties sponsoring this project (BC Public Service Agency {BCPSA], the BC Government Employees Union [BCGEU] and the University of British Columbia's Global Health Research Program (GHRP), are also partners in creating a web-based resource tool for joint health and safety committees (innovation.ghrp.ubc.ca/johsc) which has received glowing reviews at the first stage of evaluation, and is now proceeding to evaluation at the worksite. Such tools may enhance, but as noted above, should never replace, face-to-face education and training.

A concrete recommendation that emerged from the expert panel, in light of the paucity of literature, is to conduct a cluster-randomized controlled trial – perhaps using paired randomization – of a model JHSC program - which could be implemented and evaluated against a set of relevant outcome measures – sufficiently broad to encompass the perspective of the different workplace parties. This model JHSC program should consist of a top-notch program of education and training, provision of high quality information, clear mandate and empowerment through detailed terms of reference, policies and procedures, and measures put in place to address each of the items identified as important (or likely important) in this systematic review.

It was noted by the co-investigator team that the B.C. Public Service Agency (BCPSA)workplaces could constitute an ideal environment for such a study, given the large number of JHSC committees under its jurisdiction. A detailed protocol could be developed as a follow-up to the current research project.

5. APPLICATIONS FOR POLICY AND PREVENTION

This project clearly identified that having a JHSC committee is necessary but not sufficient to promote workplace health and safety. There are key elements that must be met for JHSCs to be effective. The implication for policy and prevention is the desirability of clear guidelines on each of these elements – for example, a detailed JHSC Regulation may be desirable which specifies the minimum standards that have to be met in each workplace. These standards may have to provide details of how committee members are to be selected, the role of the union, the optimal size of the committee according to different workplace factors, the mandate and scope of the committee and how this should be enshrined in terms of reference, the composition, duration and manner of delivery of education and training, and access to other needed information and resources.

These would be considered "leading indicators" of workplace health and safety – to supplement the "trailing indicators" that are commonly monitored such as rates of injuries and time lost from work. When workplaces are inspected these leading indicators would be assessed and recommendations offered – possibly even orders written for failure to comply. While considerably more research is desirable to support the greater detail that would be optimal, there is a clear enough consensus to allow some initiatives to move forward to strengthen committees with respect to each of the factors discussed above.

6. KNOWLEDGE TRANSLATION AND EXCHANGE

This project has involved stakeholders and experts in the project from conception right through to project completion. The workshop discussed in this report was conceived to ensure that the opinions and experiences of those most familiar with joint health and safety committees were included. All of those working in the field who came to the workshop expressed the importance of health and safety personnel from different jurisdictions and different sectors coming together to share their experiences. This knowledge exchange was invaluable to the project but will also have implications in the field.

We are planning to submit abstracts on this project to upcoming conferences such as the CARWH conference. We have had a poster on this project accepted to the International Commission on Occupational Health conference which is being hosted in Mexico in March of 2012. We intend to do a more in-depth analysis and submit it for a peer-reviewed journal publication. A manuscript is currently being prepared which the authorship team plan to complete and submit within the next few months. It will be submitted to *the Journal of Occupational and Environmental Medicine* and will describe the process followed in this review and the key findings.

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Table 1 - Legislation Requirements for Health and Safety Committees[i]

Location	When is a committee required	Size of Committee	Representation
Canada	Mandatory - 20 or more employees	At least 2	At least half to represent employees
British Columbia	Mandatory - when 20 or more employees or "required by order"	Not less than 4	At least one half must be worker representatives
Alberta	As directed by the Minister	3 -12	At least two employees and one employer or at least half employees
Saskatchewan	Mandatory - 10 employees or more	2 - 12	At least half to represent employees
Manitoba	Mandatory - 20 or more employees as designated by Lt Governor	4 -12	At least half to represent employees
Ontario	Mandatory - 20 or more employees, or when ordered by Minister, or where a designated substance is in use (no minimum no. of employees)	At least 2 (fewer than 50 employees); At least 4 (50 or more employees	At least half to represent employees
Quebec	20 or more employees and where required by Commission de la santé et de la sécurité du travail (CSST)	At least 4	At least half to represent employees
New Brunswick	Mandatory - 20 or more employees	As agreed upon by employees and employer	Equal Representation
Nova Scotia	Mandatory - 20 or more employees	As agreed upon by employees and employer	At least half to represent employees
Prince Edward Island	Mandatory - 20 or more employees	As agreed upon by employees and employer	At least half to represent employees
Newfoundland	Mandatory - 10 or more employees	2 -12	At least half to represent employees
Yukon	Mandatory - 20 or more employees	At least 4 and not more than 12	At least half to represent employees
Northwest Territories	As directed by Chief Safety Officer	Not Specified	Equal Representation

Table 2 – Canadian studies

	Article	Methodology	Findings
1.	Advisory Council on Occupational Health and Occupational Safety. An Evaluation of Joint Health and Safety Committees in **Ontario**, Eighth Annual Report, vol. 2, 1986 (Toronto: Province of Ontario)	The ACOHOS Survey was undertaken in 1985-86, approximately 5 years after the requirement to establish joint committees had been fully operative. This was a descriptive study using a questionnaires mailed to 3,000 labour and management members of joint committees and a separate survey of management in 3,800 workplaces. Response rates were 76% among joint committee members and 93% among managers.	Joint committees had been established in 93% of workplaces where committees were mandatory (88% of non-union workplaces and 96% of unionized establishments.) Joint committees were functioning well in 58% of workplaces, adequately in 30% of workplaces and poorly in 12%. Survey results, highlighted the difficulties of joint committee members - principally labour members obtaining what they regarded as the necessary information to perform their tasks: 28% of worker members and 9% of management members reported not having adequate information. Also highlighted the absence of training among joint committee members: 19% of worker members and 13% of management members were not aware of the health and safety implications of designated substances.
2.	Bryce G, Manga F. The effectiveness of joint health and safety committees. *Relations Industrielles* 1985;40(2):257-82.	Used data from a previous survey conducted in **Saskatchewan and Alberta** of joint committees that had been established by Ministerial order 8 months earlier (total of 36 committees out of the 74 were surveyed).	KEY FACTORS: 1. commitment from employers 2. the mandate of the committee – authority and responsibility 3. committee existence – mandatory committee vs. volunteer 4. committee's involvement in the worker's right to know
3.	Geldart S, Shannon HS, Lohfeld L. Have companies improved their health and safety approaches over the last decade? A longitudinal study. *American journal of industrial medicine* 2005;47(3):227-36.	Analytic mail survey, with telephone interview to ascertain workplace level health and safety (H&S) policies, practices and attitudes. Analyses were conducted to ascertain relationship with lost-time frequency rate (LTFR). Data were provided by the Workplace Safety and Insurance Board (WSIB) in	Lower lost-time frequency rates (LTFRs) were associated with recording of H&S measures, greater involvement of workers in decision-making, and better managerial attitudes concerning the importance of H&S. The composition of the JHSC, differed according to LTFR: the mean number of worker (vs. management) members on the JHSC was higher for lower injury sites, and the mean number of worker members attending JHSC meetings was also higher for lower injury worksites. Workplaces with lower LTFR

	Article	Methodology	Findings
		Ontario for 435 workplaces from an original pool of 770 manufacturing workplaces in 1990 that remained open in 2001 with the same WSIB firm number. Authors supplemented this pool with an additional 279 workplaces sampled from the WSIB database to increase the power of this study.	benefited by having JHSCs with more executive functions and greater worker involvement. Managerial and worker participation in H&S initiatives characterizes safer workplaces. Also, general concern of management towards H&S—illustrated by both attitudes and concrete actions—was also associated with lower injury rates.
4.	Hall A, Forrest A, Sears A, Carlan N. Making a difference: Knowledge activism and worker representation in Joint OHS Committees. *Relations Industrielles* 2006;61:408-36.	Open-ended interviews with unionized worker health and safety representatives from **27** different small to medium-sized (50–500 employees) **Ontario** auto parts plants and 4 larger assembly plants. Most were union co-chairs of the joint health and safety committee in their workplace and the designated certified representatives.	"Knowledge activists" reported a higher degree of effectiveness than other worker representatives in that they were more likely to identify significant workplace hazards and more likely to convince management (and workers) that particular problems were serious enough to warrant expenditures or major changes in work process, or that changes would pay off in terms of productivity, cost savings, or worker satisfaction.
5.	Havlovic P, McShane, S. L., (1997) The Effectiveness of Joint Health and Safety Committees and Safety Training in Reducing Fatalities and Injuries in British Columbia Forest Product Mills, Richmond: Workers Compensation Board of British Columbia (BC).	Analytic study using questionnaires to management (n=106) and employee (n=137) representatives from 137 mills in **BC** participated to ascertain relationship between JHSCs and injuries.	Longer service on JHSCs by employee representatives was positively related to serious injury rates. Favourable employee-management JHSC committee relationships were negatively related to serious injury rates. Posting the JHSC minutes in the workplace was related to fewer serious incidents. The more effective the JHSC was perceived to be, the lower the minor incident rates; and the implementation of JHSC recommendations was related to serious injury rates.
6.	Levesque, Christian. 1995. "State Intervention in	This descriptive study consisted of direct interviews of labour and	Levesque's data suggest that most members of joint committees, whether employer or labour representatives, typically use both

	Article	Methodology	Findings
	Occupational Health and Safety: Labour-Management Committees Revisited," in Giles, A; Smith, A; Wetzel, K (eds.) Proceedings of the XXXIst Conference of the Canadian Industrial Relations Association Toronto: CIRA. p 217-231.	management representatives in 71 unionized **Quebec** manufacturing establishments focused on the tactics they employ in JHSCs and their perception of the tactics used by the other party.	coercive and persuasive tactics. In only 18% of joint committees did both parties confine themselves to persuasive tactics. In an insignificant number of committees, both parties used chiefly coercive tactics. Overall, 64% of management respondents and 56% of labour respondents relied on a mix of coercive and persuasive tactics.
7.	Lewchuk W, Robb L, Walters V. The effectiveness of Bill 70 and joint health and safety committees in reducing injuries in the workplace: The case of Ontario. *Canadian Public Policy* 1996;22:225-43.	Analytic study to assess the effectiveness of the Internal Responsibility System by comparing the safety performance of workplaces before and after the introduction of Bill 70 in **Ontario** and before and after the creation of a JHSC at a workplace. Three data sources: 1. A 1991 Industrial Accident Prevention Association (IAPA) srate group classification study 2. WCB 1976 -1989 annual lost-time claims records, short-run compensation costs, long-run compensation costs and employment levels by rate group. 3. Survey of manufacturing workplaces in 1994 concerning the formation and activities of JHSCs. required under the 1979 legislation.	These results suggest a major drop in injury and illness rates after a JHSC was formed at workplaces where the JHSC was formed prior to 1980, but an insignificant effect (possibly an increase) for committees formed after the legislation came into effect. Workplaces where the first committee was formed after 1980 did not enjoy a drop in injury and illness frequency when the committee was formed — though the effect of the legislation as a whole (Bill 70) still resulted in a net reduction in lost-time claim frequency.
8.	Nichol K, Kudla I, Manno M, McCaskell L, Sikorski J, Linn Holness D. Form and	Descriptive study based on survey of co-chairs at acute care hospitals in **Ontario**. Hospitals were identified	JHSCs functioning in Ontario hospitals include legislative compliance and availability of resources and experts. Gaps identified include a lack of JHSC member education beyond

	Article	Methodology	Findings
	function of Joint Health and Safety Committees in Ontario acute care hospitals. *Healthcare Quarterly* 2009;12.	form a list provided by OSACH, the safe workplace association designated for the healthcare sector by the WSIB of Ontario. 378 surveys were sent to worksites deemed eligible; 220 were returned.	certification training and suboptimal JHSC status and visibility within healthcare organizations.
9.	Shannon H, Walters V, Lewchuck W, Richardson J, Verma D, Haines T, et al. 1992. Health and Safety Approaches in the Workplace: A Report Prepared by the Interdisciplinary Health and Safety Research Group of McMaster University in Hamilton, Ontario. Toronto:IAPA	Analytic study undertaken for the **Ontario** Industrial Accident Prevention Association based on a survey of 1,000 employers in eight sectors, supplemented by interviews.	Survey confirmed that joint committees typically did not exercise executive authority. However, "workplaces with low LTFR were more likely to have JHSCs with executive duties. Union structure was also a factor of some consequence. Each additional steward per 100 members reduced LTFR by almost 8%. This result suggests that unions that provide union responsibility at the frontlines are more likely to have a positive impact through their structure than unions with H&S responsibility only centralized.
10.	Shannon HS, Walters V, Lewchuk W, Richardson J, Moran LA, Haines T, Verma D. Workplace organizational correlates of lost-time accident rates in manufacturing. Am J Ind Med 1996;29:258-68.	Six types of industries in **Ontario** were chosen: metal articles, plastic articles, grain products, textile manufacturing, printing, and automobile manufacturing. Separate questionnaires for management and workers were constructed.	Lower LTFR were associated with greater worker participation as well as lower expectation that workers simply follow management instructions – suggesting that "empowerment" is important.. H&S policy was related to lower rates. Factors related were: defining H&S in every manager's job description and annual appraisals; and attendance by the senior manager at H&S meetings. Main features of the JHSC that related to LTFR was i problem-solving style- a less effective JHSC is one in which the parties make less effort to solve disagreements internally.
11.	SPR Associates Inc. Highlights of the 1994 **Ontario** Survey of OHS and JSHCs. Toronto: SPR Associates and Workplace	Descriptive survey based on a mailed questionnaire to joint committee co-chairs in 3,000 workplaces. The response rate was 71.7%.	The study found that approximately 80% of workplaces were in compliance on 80% of requirements; in 25.5% of workplaces, worker representatives to JHSCS were selected by management. Joint committees were generally not in compliance with requirement for monthly workplace inspections, and 35% of

	Article	Methodology	Findings
	Health and Safety Agency; 1994.		worker members and 41% of management members reported having received no training whatsoever in health and safety matters.
12.	Tuohy C, Simard M. The impact of joint health and safety committees in Ontario and Quebec: A study prepared for the Canadian Association of Administrators of Labour Law; 1993 January.	Two analytic studies, one in **Ontario** , the second in **Quebec**. The Ontario study used a survey based on pooled data for 1980-1985, conducted for the ACOHOS, examining the functioning of JHSCs in terms of indicators such as frequency of meetings, record maintenance, number of inspections, depth of management participation and formulation of recommendations. The authors correlated these data with administrative data on accepted injury claims, Ministry of Labour inspections and compliance orders. A total of 920 complete observations form the basis for the study. The second study used 117 surveys from 1985-86 correlated to the above administrative data and assessed performance and committee capacity indicators.	The authors found that, by far the most important variable explaining lower relative injury rates was the presence of an experienced, stable workforce. Comments included: "we did not find the age of the committee, or the presence of senior managers on the committee in small and non-union workplaces, to be directly related to lower injury rates, yet these were factors which reduced the likelihood of inspection." "a general tendency for workplace factors to have a greater impact, when compared to committee factors..." The study noted that for workplaces with more than 75 employees, the impact of joint committees is positive for all injury performance measures. In smaller workplaces, this pattern does not hold.
13.	Walters D, 1985. The Politics of Occupational Health and Safety: Interviews with Workers' Health and Safety Representatives and Company Doctors. Can Review of Sociology and Anthropology. 22(1): 57-79.	Descriptive study based on interviews with 14 workers' health and safety representatives and 24 company doctors employed by 10 companies in **Ontario**.	The study found that workers' representatives were concerned about delays in getting joint committees to address problems or in getting senior management to respond to recommendations: "management, emphatically retains its right to make decisions. The [joint] committees are useful but they are strictly advisory."

	Article	Methodology	Findings
14.	Walters V, Haines T. Workers' perceptions, knowledge and responses regarding occupational health and safety: a report on a Canadian study. *Social science & medicine* (1982) 1988;27:1189-96.	Interviews with 492 workers, drawn from eight workplaces in a highly industrialized area in southern **Ontario**. In selecting these the authors aimed to include unionized and non-unionized, large and small, public and private sector workplaces.	With respect to information seeking, only 23% of respondents reported asking for information. Those who had asked were more likely to know at least one aspect of the legislation and to know the identity of their health and safety representative.
15.	Walters D, Nichols T, Connor J, Tasiran AC, Cam S. The role and effectiveness of safety representatives in influencing workplace health and safety. Research Report 363. Cardiff University for the Health & Safety Exec 2005.	Reviews the quantitative and qualitative evidence for the link between representative worker participation and effective health and safety, though a series of case studies in two sectors of the economy,	The findings from this study confirm that there are certain preconditions for effective representation and consultation. Yet despite the legal basis of these preconditions this report found that they were by no means always in evidence at the workplaces studied. In short, these legal requirements had not been implemented.
16.	O'Grady J. Joint health and safety committees: Finding a balance. In: Sullivan Terrence, ed. *Injury and the new world of work*. Vancouver, BC: UBC; 2000.	Review	Examination of the **Canadian context** as well as focusing more generally on what makes committees effective (grouped by the Cdn context and then international)
17.	Parsons M. Worker Participation In Occupational Health and Safety: Lessons from the. **Canadian Experience.** *Labour Studies Journal*. 2001;winter:22-32.	Review	5 key factors in achieving effective JHSCs: 1. government-legislated mandatory JHSCs; 2. a clear set of rights for JHSCs; 3. unions must bargain over health and safety matters; 4. strong government enforcement; and 5. committees must be given direct responsibility.

Table 3 – U.S. Studies

	Article	Methodology	Findings
1.	Akbar-Khanzadeh F, Wagner O. Safety and Health Program Assessment in Relation to the Number and Type of Safety and Health Violations. *Am Ind Hyg Assoc J* 2001; 62:605-10.	Analytic study to determine characteristics associated with OSHA safety violations. Data was collected from **107 Ohio companies** on 25 indicators related to the sites' health and safety programs	Found that management leadership and worker involvement were protective (OR = 0.36) for OSHA safety violation.
2.	Boden LI, Hall JA, Levenstein C, Punnett L. The impact of health and safety committees. A study based on survey, interview, and Occupational Safety and Health Administration data. *J Occup Med* 1984;26(11):829-34.	Analytic study to determine characteristics associated with OHSA complaints and workplace hazards. Survey of **127 Massachusetts manufacturing companies** and interviews with 13 of these firms.	While the existence of a JHSC had no effect on either the number of OSHA complaints or workplace hazards– those with a JHSC that was seen as effective had fewer complaints and fewer serious hazards.
3.	Cooke W, Gautschi F. OSHA, Plant Safety Programs, and Injury Reduction. *Industrial Relations*. 1981;20:245-247.	Analytic study to determine the association between JHSC and time-loss injuries. Six years of data from **113 manufacturing companies in Maine,** controlling for the number of employees in the plants and the impacts of business cycles.	The presence of a JHSC in the workplace was associated with a small decrease in time-loss claims due to injury.
4.	Eaton A, Nocerino T. The Effectiveness of Health and Safety Committees: Results of a Survey of Public-Sector Workplaces. *Industrial Relations* 2000;39(2):265-90.	Labour and management representatives of **New Jersey public-sector work sites** were surveyed regarding the existence of JSHCs as well as details of committee structure and perceptions of effectiveness. The survey data also were matched with state-collected injury and illness incidents.	Consensus was that injury and illness are NOT the best measure of committee effectiveness. Also consensus that JHSCs alone are not enough – employers need to dedicate attention and resources to health and safety in general and to committees in particular. The study concluded that there should be state sponsored guidelines about the minimum requirements of committees rather than just the existence of committees.

	Article	Methodology	Findings
5.	Kochan Thomas, Dyer Lee, Lipsky David. The Effectiveness of Union-Management Safety and Health Committees. Kalamazoo: W.E. Upjohn Institute for Employment Research, 1977	This descriptive study was based on administered questionnaires that covered labour and management co-chairs in unionized **51 manufacturing plants in New York state**. All of these committees were voluntary between the parties.	The study found that three-quarters of management members of committees viewed themselves as being authorized to make all or most relevant decisions on health and safety. Their union counterparts had a more ambiguous perception. Only half of union members believed that the management members of committees could make all or most relevant decisions.
6.	Morse T, Goyzueta J, Curry L, Warren N. Characteristics of Effective Job Health and Safety Committees. *NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy* 2008;18:441-57.	Analytic study using administrative data (including HSC meeting minutes) of a stratified random sample **29 committees in three industry sectors** (manufacturing, health care, and transportation).	Lower injury rate companies were found to have a larger JHSC compared to size of the employer, and reviewed a larger average number of worker complaints and suggestions
7.	Weil D. Are Mandated Health and Safety Committees Substitutes for or Supplements to Labor Unions. *Industrial and Labor Relations Review* 1999;52:339-60.	Pre-post study: Extracted Oregon data from 1988-89 and 1992-93 on OSHA inspections conducted in **Oregon** – one year prior to legislated committees and the year after. A total of 23,536 records were included.	Found that the overall incidence of the complaint inspections increased following the passage of mandated committees: 12.5% to 15.7% (p=0.05). This changes was primarily in the non-union sector.

Table 4 – UK Studies

	Article	Methodology	Findings
1.	Reilly B, Paci P, Holi P. Unions, safety committees, and workplace injuries. *British Journal of Industrial Relations*. 1995;33:275-289	Analytic study exploiting data from the Workplace Industrial Relations Survey of **manufacturing plants in the UK** to ascertain relationship between JHSCs and injury rates.	Workplaces with JHSCs had, on average, 5.7 few injuries per 1000 employees compared with workplaces without committees.
2.	Beaumont P, Leopold J. A failure of voluntarism: The case of joint health and safety committees in Britain. *New Zealand Journal of Industrial Relations* 1982;7(5):61-75.	Review	Documented details of the failure of voluntarism to lead to a satisfactory diffusion of joint health and safety committees in the UK

Table 5 – Australian studies

	Article	Methodology	Findings
1.	Pragnell B. 1994. Occupational & Health Committees in NSW: An Analysis for the AWIRS Data. Sydney: Australian Centre for Industrial Relations Research and Teaching.	Descriptive study based on the Australian Workplace Industrial Relations Survey (AWIRS) conducted in 1989-90. The survey covered 2004 workplaces with more than 20 employees, of which 762 were in New South Wales - the focus of this study.	Larger workplaces more likely to have committees: 83% of companies with 200 or more employees compared to 26% of companies with 20- 49 employees. The likelihood of a committee being established declined as the proportion of part-time employees increased, and only 9% of non-union workplaces had committees. Pragnell concludes that "less voluntaristic arrangements, for instance mandatory committees as is the case in Canada, might be considered to overcome the lack of penetration of committees".
2.	Warren-Langford P, Biggins D, Phillips M. Union Participation in Occupational Health and Safety in Western Australia. Journal of Industrial Relations. 1993;35:585-606	Descriptive phone survey, of union officials on unions' participation in OHS matters. All 52 unions listed in the Trades and Labor Council (Western Australia) 1991 Directory were contacted; responses obtained from all except 6 small unions.	Unions reported that workers felt that they would benefit from further training and information with regard to health and safety and that management especially needed training and education with regard to rights and responsibilities.
3.	Milgate N, Innes E, O'Loughlin K. Examining the effectiveness of H&S ommittees and representatives: a review. *Work (Reading, Mass*. 2002;19:281-290.	Review	Management commitment, communication, training and information, union involvement, the infrastructure of an organization, committee processes and the involvement of professional experts are key to effective committees.

Table 6 – Studies non-specific to location

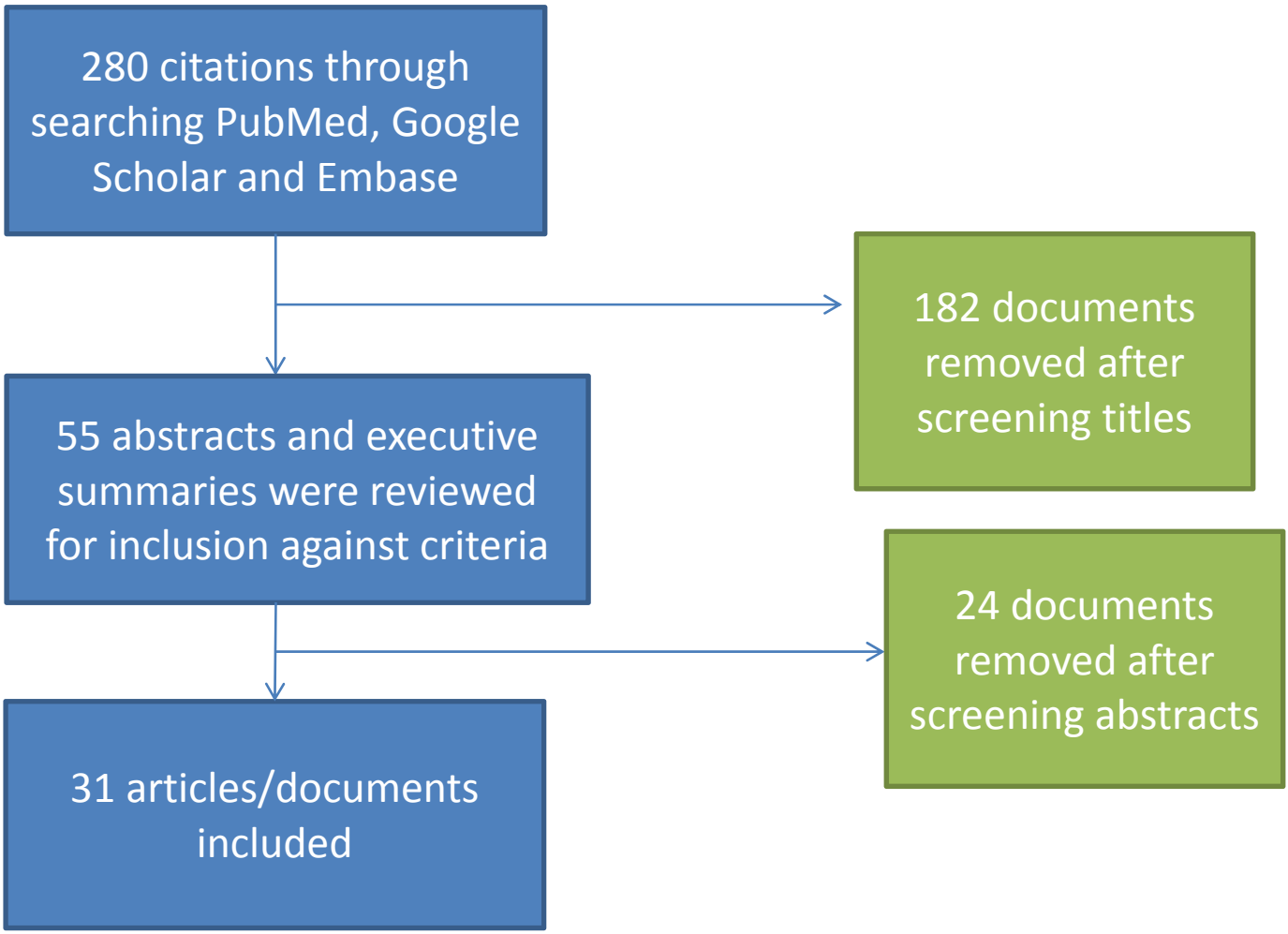
	Article	Methodology	Findings
1.	Burke MJ, Sarpy SA, Smith-Crowe K, Chan-Serafin S, Salvador RO, Islam G. Relative effectiveness of worker safety and health training methods. *American journal of public health*. 2006;96:315-324.	Review	More engaging training resulted in greater knowledge acquisition, and reductions were seen in accidents, illnesses, and injuries.
2.	Shannon H, Mayr J, Haines T. Overview of the relationship between organizational and workplace factors and injury rates. *Safety Science* 1997; 26:201-17.	Review - pulled data from ten studies examining the relationship between organizational and workplace factors and injury rates.	Found that the variables associated with lower injury rates were: empowerment of the workforce (in general matters), delegation of safety activities, and an active role (in health and safety) of top management.

Table 7 – List of attendees for JHSC workshop held at BCGEU (Feb. 3rd, 2011)

Brad Buck, **Team lead, Safety Advisory Services, BC Public Service Agency (BCPSA)**
Peter Cahill **Safety Specialist, Health Promotion & Safety, Client Services, BC Public Service Agency (BCPSA)**
Mike Clarke **Vice-President, BC Government Employees' Union (BCGEU)**
Susan Dixon, **Manager, Knowledge Transfer, Policy and Research Division, WorkSafeBC**
Dave Earle **Director, Human Resource Services and Government Relations, Construction Labour Relations Assoc. of BC**
David Farrell **Prevention Officer, Compensation Employees' Union**
Len Hong **President and Chief Executive Officer, Canadian Centre for Occupational Health and Safety**
Don Hurst **Assistant Deputy Minister, Workplace Safety and Health, Manitoba Labour and Immigration**
Terry Ison **Professor Emeritus, Osgoode Hall Law School, & Former Chairman, Workers' Compensation Board of BC**
Nancy Johnson **Labour Relations Specialist, Occupational Health and Safety, Ontario Nurses' Association**
Andrew King **Department Leader, Health Safety and Environment, United Steelworkers Union**
Karen Lockhart **Research Manager, Global Health Research Program (GHRP), UBC**
Steve Milne

WCB Appeals/OHS Coordinator, COPE 378
Sheila Moir **OH&S Officer, BC Government Employees' Union (BCGEU)**
Brooks Patterson **Safety Manager, The Pacific Group of Companies**
Ana Rahmat **Health and Safety Representative, Hospital Employees' Union (HEU)**
Ray Roch **Director, Emerging Issues, Prevention, WorkSafeBC**
Denis St-Jean **National Health & Safety Officer, Public Service Alliance of Canada**
Sari Sairanen **National Health and Safety Director, Canadian Auto Workers (CAW)**
Norm Schlosser **Prevention Officer, Compensation Employees' Union**
Larry Stoffman **Labour Consultant, Occupational and Environmental Health and Safety**
Mona Sykes **Consultant, Former Health and Safety Officer, BC Government Employees' Union (BCGEU)**
Allan Walker **Former Assistant Deputy Minister of Labour, Saskatchewan**
Cathy Walker **Former National Health and Safety Director, Canadian Auto Workers (CAW)**
Annalee Yassi, **Professor and Canada Research Chair, Global Health Research Program (GHRP), UBC**

Figure 1 – search tree diagram



Appendix 1 – presentations given at workshop on February 3rd, 2011

Objectives of the project

Systematic review of Joint Health and Safety Committees: the compliance and effectiveness of JHSC

Dr. Annalee Yassi
CRC and Professor
University of British Columbia

Background

- **Workplace injuries and illness** continue to take an unacceptably high toll on the well-being of workers and the productivity of the workforce locally, nationally and internationally.
- It has long been thought that a major method to address this problem is to form **joint labour-employer health and safety committees.**

Ham Report

The Ham Report set out four main principles.

- First, adopt an **"internal responsibility system"** in which **workplaces require joint health and safety committees.**
- Second, the **joint committees should have the power to inspect, investigate** and, in some readings, the **power to make decisions** respecting health and safety.
- Third, individual workers should have the **right to refuse unsafe work.**
- Fourth, workers should have **the right to be informed** of substances used in the workplace that could be harmful.

Ham's four principles inform health and safety legislation in all jurisdictions; the Ham report was a starting point.

Project objectives

1) Determine the factors which **facilitate and impede JHSCs in performing their functions**, and the relationship between these factors, to the extent possible. And,

2) **Determine the gaps in knowledge**, such that an informed research agenda can be formulated.

The intent is to guide workplaces throughout British Columbia and the rest of Canada in setting up effective Joint Health and Safety Committees, thus resulting in safer workplaces.

The information is to be disseminated in written form as well as in creative user-friendly tools.

Short-term objectives

Answers to the questions:

1. Are the 6 inter-related themes discussed in this document (empowerment of committees, training, access to information, legislation and enforcement, role of unions in health and safety committees, and management commitment) indeed the key factors determining the effectiveness of JHSC in the experience of the group?

   If not, what is missing? Are any of these not needed? Is there a better way to group the various inter-related factors?

Short-term objectives cont'd

2. Within each of the themes identified, **what needs to be defined?** (e.g. what constitutes "management commitment" and how is this shown?; how much training do committee members need, in what, by whom, for whom, how – i.e. what constitutes adequate training?

   should certified training be required? Should JHSC members be certified? etc.)

3. **Can the assembled group come to a consensus in defining each of the above elements** that need defining – either at the meeting, or in small work groups after the meeting? And

4. According to the assembled group, what is the best way to move forward in defining the factors critical to the success of a JHSC? (Evidence-based? Rights-based? Combination? If there are research needs -- what is the research that needs to be done?)

Medium term-objectives

- The medium-term objective is to unite this group to continue to play a leading role (according to availability of the various individuals assembled and/or others they recommend) in developing, finalizing and disseminating the products developed from this work.

Long-term objectives

- The long-term objective is to form **strong working relations that will allow the sharing of expertise** informally or otherwise, to the extent possible, well into the future, to promote healthier and safer work environments across Canada and beyond.

Systematic review of Joint Health and Safety Committees: the compliance and effectiveness of JHSC

Methods and interim findings of the systematic review

Karen Lockhart
Research Manager
Global Health Research Program (GHRP), UBC

Outline

1. The definition of a systematic review
2. The steps in a systematic review
3. Our review – the questions, the criteria and the search
4. Findings and analysis
5. Conclusions and next steps

2

What is a systematic review?

"A review that is conducted according to clearly stated, scientific research methods, and is designed to minimize biases and errors inherent to traditional, narrative reviews."

Margaliot, Zvi, Kevin C. Chung. Systematic Reviews: A Primer for Plastic Surgery Research. PRS Journal. 120/7 (2007)

3

Steps in a systematic review

- Formulate a question
- Conduct a literature search
- Refine the search by applying explicit predetermined inclusion and exclusion criteria
- Extract the appropriate data and assess their quality and validity
- Synthesize, interpret, and report data

4

Formulating the question

- The structured question will determine the inclusion and exclusion criteria:
  - What is the population of interest?
  - What are the interventions?
  - What is the comparison group?
  - What are the outcomes of interest?

5

Our question(s)

Population	**Intervention**	**Comparison**	**Outcome**
A workforce	Joint health and safety committee	Self-comparison (presence and absence)	Effectiveness and Success*

**how do we define success??*

problems/issues identified and solved, workplace culture (improvements), reduction in injuries, fewer hazards, etc.

1. What factors facilitate JHSCs in performing their functions?

2. What factors impede JHSCs in performing their functions?

6

Inclusion/exclusion criteria

1. Does the study focus on joint health and safety committees?
2. Is the study published in English or French?
3. Is the date of publication between 1975 and September 2010?
4. Is the document concerned with an intervention involving the acquisition of quantitative or qualitative data?
5. Does the study make conclusions with regard to the effectiveness of joint committees function?
6. Is the study published in a peer-reviewed scientific journal or been the subject of peer-review by an external body?

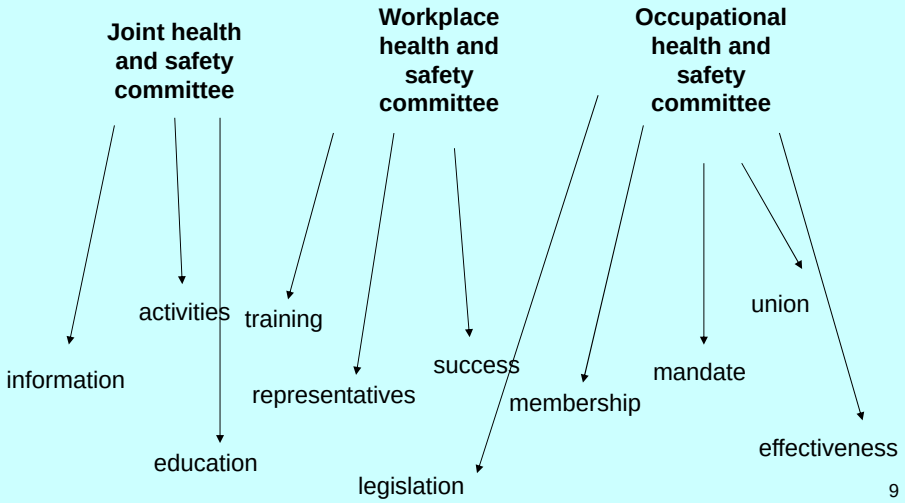
7

The search

- MEDLINE
- EMBASE
- Web of Science (ISI Web of Knowledge)
- Canadian Centre for Occupational Health and Safety (CCOHS)
- National Institute for Occupational Safety and Health (NIOSH)
- Google Scholar
- Association of Workers' Compensation Boards of Canada (also individual WCBs such as WSIB, WorkSafeBC, etc.)
- Etc.

8

Search terms



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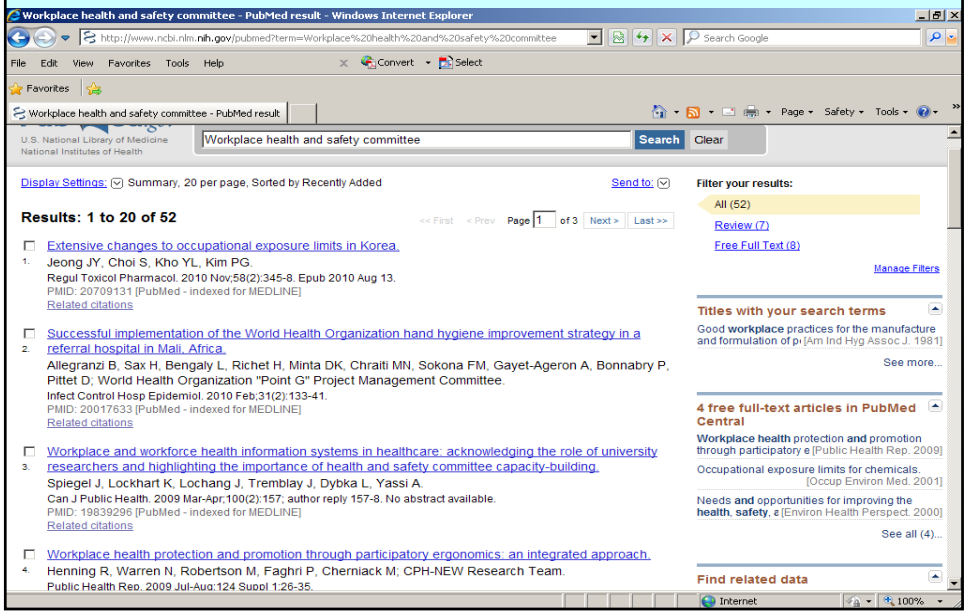
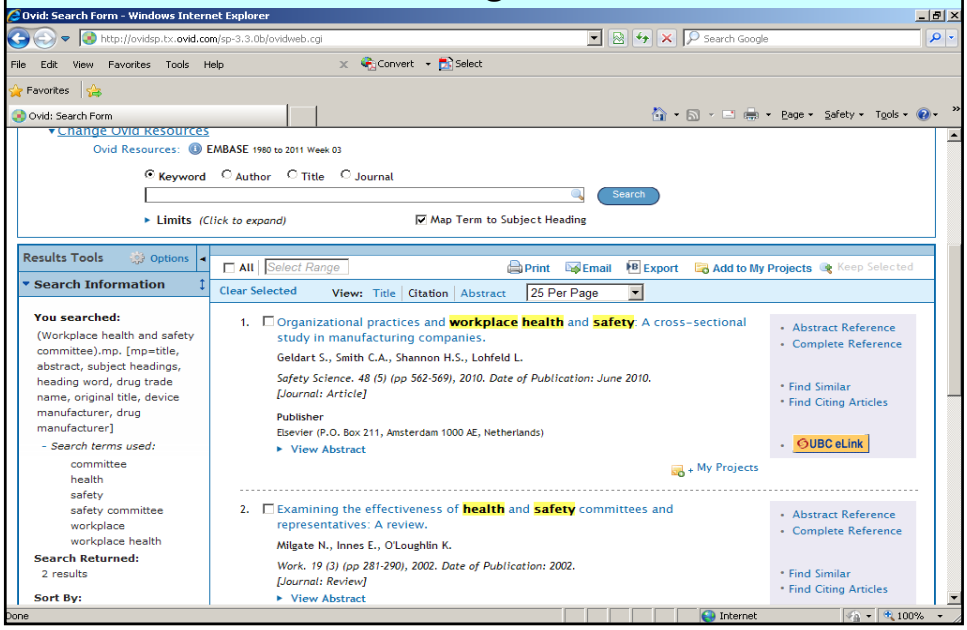
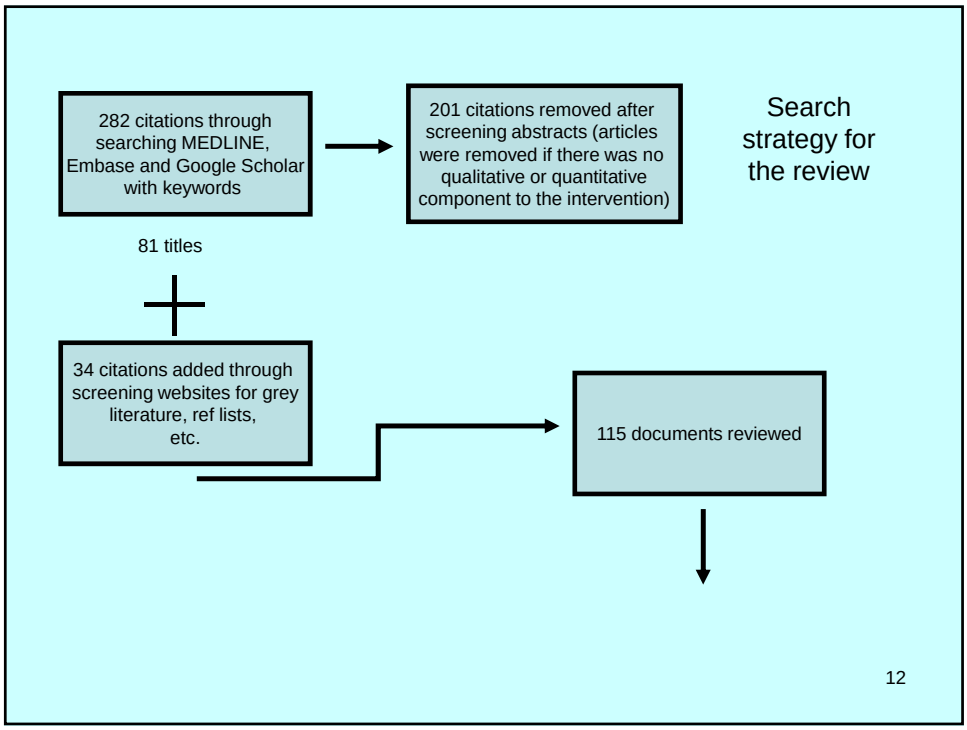
Searching MEDLINE



Searching EMBASE





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Analysis

- All 115 articles were read by a reviewer and 6 themes were decided upon:
  - empowerment of committees,
  - training,
  - access to information,
  - legislation and enforcement,
  - role of unions in health and safety committees,
  - management commitment.

13

Themes

- Empowerment of committees (28/115)
- Training (79/115)
- Access to information (51/115)
- Legislation and enforcement (45/115)
- Role of unions in health and safety committees (33/115), and
- Management commitment (72/115).

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Findings

Empowerment of Committees

- Many of the studies which focused on **empowerment of committees** really focused on **worker empowerment** and **"knowledge activism"** (Hall et al. 2006)
- Committees exist within organizations therefore it is difficult to extract the hierarchical and financial relationships and truly discuss "empowerment of committees".
- Empowerment of committees is really *worker involvement in decision-making.*

16

Training committee members

- Burke et al. (2006) in a review evaluating the **effectiveness of different forms of training in health and safety** found that more **engaging** training resulted in **greater knowledge acquisition, and reductions were seen in accidents**, illnesses, and injuries.
- A large portion of the literature reviewed did include “training” as a variable of interest.
- The differing requirements in Canada for training of JHSC -- what works and what doesn’t.

17

Access to information

- Walters and Haines (1988) present data from interviews with 492 workers.
  - Workers **needed better access to information about their legal rights and mechanisms for dealing with hazards in the workplace**.
- Does access to information equal power and therefore more effective committees?

18

Legislation and enforcement

- Lewchuk et al. (1996) study on role of legislation
  - **Where workplaces moved towards the Internal Responsibility System either before they were mandated** or immediately upon the state indicating they were likely to be mandated, **JHSCs improved a workplace's health and safety record**.
  - Where **workplaces moved** towards the Internal Responsibility System **only reluctantly**, sometimes after a period when they were in contravention of existing legislation, the **formation of a committee had no clear effect**.
- Obviously, legislation and enforcement are important but what about the differing types of legislation in Canada – analysis of what works in different jurisdictions and why?

19

Role of unions in support of health & safety

- Union structure was a factor of consequence in a study by Shannon et al.
  - Where **labour members received some health and safety training there were lower lost-time frequency rates**." (Shannon et al. 1992).
- Again, how does this differ across Canada and any insights into what works better in different jurisdictions and why?

20

Management commitment/support

- Key variable in effectiveness of JHSCs.
- Mentioned in most studies as a variable of interest.
- This “commitment” can take many forms (time for meetings, resources, training, etc.) but what works best (all of the above??) and why?

21

Discussing the findings

- Decided to group the studies by their type and by their theme
  - 4 categories
    - intervention with comparison (natural experiment),
    - time series analysis,
    - observational or cross-sectional,
    - qualitative studies

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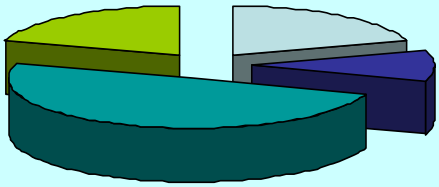
Types of studies



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Intervention with comparison, natural experiment

- Boden (1984) correlated data from Occupational Health and Safety Administration (OSHA) complaints with presence or absence of committees. Also conducted in-depth interviews with sample of firms.
  - **No correlation between absence/presence of committees and complaints** but did find that those **committees considered "effective" had fewer complaints** and fewer serious citations.

24

Time series

- Lewchuk et al. (1996) examined the **effectiveness** of the **mandating of Joint Health and Safety Committees in the early 1980s** using firm level **data provided by the Worker's Compensation Board on lost-time accidents from 1976 to 1989**
  - Findings suggested that Bill 70 and JHSCs **helped reduce the number of lost-time claims** made in Ontario.
  - Analysis suggest that the **introduction of JHSCs may have reduced lost-time claims by as much as 18 percent**.

25

Cross-sectional

- Geldart et al. (2010) administered a mailed survey and conducted cross-sectional analysis of workplace level health and safety policies, practices and attitudes correlated with lost-time accident data.
  - The mean number of **worker (vs. management) members on the JHSC was higher for lower injury sites.**
  - Workplaces with lower lost-time claims benefited by having **JHSCs with more executive functions** and **greater worker involvement**.

26

Qualitative

- Hall et al. (2006) conducted interviews with unionized health and safety representatives in the auto industry in Ontario.
  - They identified different approaches of H&S representation with differing degrees of effectiveness.
  - Most effective was **knowledge activism**, described as a form of activism organized around the collection and use of health and safety knowledge.
  - The distinguishing features of the knowledge activists were their **autonomous collection and strategic application of legal, technical, and medical knowledge as political tools.**

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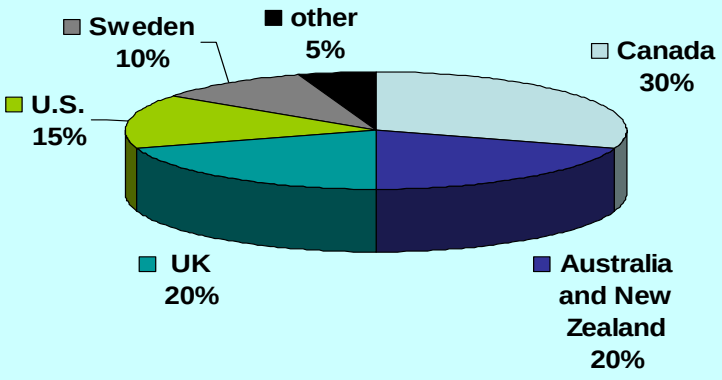
Where were the studies conducted



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Conclusions….

- While there are good studies available on what aids JHSCs in being effective there are gaps
- Now we need your help
  - 2 parts to our review
  1. Systematic
  2. Expert opinion

29

Questions and comments?

30

Appendix 2 – Objectives given to workshop attendees

Short-term objectives	To obtain responses to the following questions: 1. Are the 6 inter-related themes discussed in this document (empowerment of committees, training, access to information, legislation and enforcement, role of unions in health and safety committees, and management commitment) indeed the key factors determining the effectiveness of JHSC in the experience of the group? If not, what is missing? Are any of these not needed? Is there a better way to group the various inter-related factors? 2. Within each of the themes identified, what needs to be defined? (e.g. what constitutes "management commitment" and how is this shown?; how much training do committee members need, in what, by whom, for whom, how – i.e. what constitutes adequate training? should certified training be required? Should JHSC members be certified? etc.) 3. Can the assembled group come to a consensus in defining each of the above elements that need defining – either at the meeting, or in small work groups after the meeting? And, 4. According to the assembled group, what is the best way to move forward in defining the factors critical to the success of a JHSC? (Evidence-based? Rights-based? Combination? If there are research needs - -what is the research that needs to be done?)
Medium-term objectives	To unite this group to continue to play a leading role (according to availability of the various individuals assembled and/or others they recommend) in developing, finalizing and disseminating the products developed from this work.
Long-term objectives	To form strong working relations that will allow the sharing of expertise informally or otherwise, to the extent possible, well into the future, to promote healthier and safer work environments across Canada and beyond.

[i] From CCOHS website http://www.ccohs.ca/oshanswers/hsprograms/hscommittees/whatisa.html Accessed October 11, 2011

Appendix 3 – Report produced on the workshop

Summary of Joint Health and Safety Committee effectiveness workshop

On Thursday February 3rd, 2011, a workshop was held at the BC Government and Employees' Union (BCGEU) building in Burnaby, BC. The meeting was organized by our research team, comprised of researchers from the University of British Columbia (UBC) and representatives from the BC Public Service Agency (BCPSA) and BCGEU. Our team received funds from WorkSafeBC to determine, through a systematic review of the literature, the barriers and facilitators to effective joint health and safety committees (JHSCs). As part of our project we invited experts from across Canada in workplace health and safety to discuss our preliminary findings.

Below is a brief description of the day: the attendees; the project presentation and discussion; the themes we had derived from the literature and refined through discussions as a large group and in small groups; and finally an outline of the next steps.

Attendees:

A total of 25 experts working in the field of workplace health and safety were chosen to attend the workshop. The attendees came from 5 provinces as well as Provincial and Federal jurisdictions, and reflected various sectors and stakeholder groups. Invitees were chosen by our team based on their occupation, geographic location, contributions to the field and interest in research on the topic of health and safety. We elected to not invite academics but rather to focus on those with practical experience in the field of workplace health and safety to garner their input and suggestions on what was missing from the literature, as reflected in our interim results (focusing on the gaps needed to be addressed in future research). The full list of attendees is included in Table 1.

The objectives:

The short-term objective – i.e. what we hoped to derive from the meeting on February 3rd - was to obtain responses to the following questions:

1. **Are the 6 inter-related themes discussed in this document (empowerment of committees, training, access to information, legislation and enforcement, role of unions in health and safety committees, and management commitment) indeed the key factors determining the effectiveness of JHSC in the experience**

of the group? If not, what is missing? Are any of these not needed? Is there a better way to group the various inter-related factors?

2. **Within each of the themes identified, what needs to be defined? (e.g. what constitutes "management commitment" and how is this shown?; how much training do committee members need, in what, by whom, for whom, how – i.e. what constitutes adequate training? should certified training be required? Should JHSC members be certified? etc.)**

3. **Can the assembled group come to a consensus in defining each of the above elements that need defining – either at the meeting, or in small work groups after the meeting? And,**

4. **According to the assembled group, what is the best way to move forward in defining the factors critical to the success of a JHSC? (Evidence-based? Rights-based? Combination? If there are research needs - -what is the research that needs to be done?)**

<u>The medium-term objective</u> was to unite this group to continue to play a leading role (according to availability of the various individuals assembled and/or others they recommend) in developing, finalizing and disseminating the products developed from this work.

<u>The long-term objective</u> was to form strong working relations that will allow the sharing of expertise informally or otherwise, to the extent possible, well into the future, to promote healthier and safer work environments across Canada and beyond.

Project presentation and discussion:
The morning discussion began after two presentations on the background of this initiative, the objectives and the methods and interim results. These are included as Appendix 1.

Questions from the audience were addressed after the presentations. Some of the issues raised included the following:

- **A participant noted the good work that is going on in the UK and asked if we had found much useful literature from the UK. The team noted that most of what we identified from the literature so far were commentaries, and descriptive trends, rather than studies with adequate detail for informing a discussion of determinants of effectiveness.**

- **Questions were raised regarding how we are handling confounders in assessing the role of JHSCs in reducing injuries, rather than other factors, such as legislation accounting for the improved outcome. All agreed that JHSC do not displace the need for enforcement.**

- **The group agreed that JHSCs may increase the reporting of injuries, as do stronger compensation boards. The main point we drew from that discussion was that we should focus on *process* measures and what has been learned about JHSCs– *not just on outcome* measures such as reduced injuries.**

- **A participant noted the importance of including not just safety as a target for committees but also health, including mental health in the workplace. In the discussion, a participant noted a *Lancet* article, "music while you work", noting that this actually may cause stress. The participant pointed out that the use of music at work is not generally discussed by JHSCs – again illustrating the current limitations of searching for literature specific to JHSCs.**

- **Others agreed that it is important that the scope and mandate of committees not be too narrow. The need to define the mandate of committees, and empower them accordingly, figured prominently in the discussion.**

- **Considerable discussion occurred on the comparison of jurisdictions and provinces, noting that such comparisons can be misleading. Jurisdictions may in fact have very different practices of enforcement.**

- **Discussion occurred about what happens before JHSCs existed, and providing historical background in the final report would be useful. A participant noted that the Board produced a history of requirements for JHSC – and suggested that this information be included in our report of the findings of our systematic review. A specific comment suggested that the team should look at the 1980 – Economic Council of Canada's calls for deregulation.**

- **Another example of the issue of scope of the committee was the need, noted by a participant, to have JHSC involvement in building design, noting, however, that it is not really feasible to have JHSC involvement as JHSCs do not exist before a workplace is built. Participants felt that there should be some mechanism of discussion before construction of worksites**

- **The scope not only of the mandate of committees but of our review itself was discussed. For example, a participant suggested that we not limit our review to assessing the effectiveness of JHSCs *where they have been implemented*, but *also the potential useful of expanding the coverage* of the workforce with joint committees, for example to small workplaces and where health and safety expertise does not exist. It was noted that only 30% of the workforce is covered by JHSC legislation. Some examples of how other jurisdictions reach small workplaces were noted.**

- **The discussion also noted that committees are not united in interest – and that enforcement of JHSC from WorkSafeBC needs to be sensitive to the different perspectives from labour versus management.**

- **Discussion centered on the Internal Responsibility System (IRS) and participants raised the IRS as a barrier to effective committees, if enforcement is not maintained. The history of Internal Responsibility System was provided by one of the participants, noting that IRS was to characterize internal workplace systems to address workplace hazards, but problems raised regarding this system were: 1) less enforcement; 2) more responsibility and shifting of responsibility to workers and committees and away from employers; 3)no increase in empowerment of committees; and 4) insufficient training and knowledge for committees**

- **The discussion brought up that this approach placed too much responsibility on workers without providing them with the power to exert an influence over management. A participant pointed out that the committees and representatives only had advisory powers.**

- **Participants expressed the view that self-regulation was not the key to the control of risks at work; the participants were all generally of the view that there is an ongoing need for external monitoring and enforcement.**

- **The role of enforcement was discussed at great length and was seen by participants as being integral to the committee's ability to function. It was the view of the participants that enforcement must set the system standard and not be subordinated to internal responsibility. When enforcement is weak and depends on IRS, it does not assist the worksite health and safety committee. When enforcement is strong, it ensures system compliance as a basis from which prevention activities can be encouraged. The experience of the group was that citations and penalty is a legislated process that enables workers and employers to work cooperatively in identifying and controlling workplace hazards that jeopardize the safety or health of workers.**

- **Discussion occurred about the differences not only between large and small workplaces but also public versus private. An interesting point was raised about**

the situation when the employer is also responsible for the legislation. The example of the Federal government was raised.

Numerous points raised in discussion were used to revise the themes we had previously identified, as discussed below.

Themes:

After reviewing the literature on the effectiveness of JHSCs and compiling a list of 115 documents of interest, our research team had proposed 6 themes to aid in the discussion for the day.

The original themes were:

1. **empowerment of committees,**
2. **training,**
3. **access to information,**
4. **legislation and enforcement,**
5. **role of unions in health and safety committees, and**
6. **management commitment.**

Some of the points that emerged in the discussion with respect to training included the following:

- **Training should be "education and training" as education must accompany the training.**
- **It is essential to be explicit about whether we are referring to worker training versus "committee training", as it is the latter that is the focus of this review, albeit the former is also important.**
- **More work is needed on defining how much training is meaningful? (2 hours? 18 hours?)**
- **The format of the training should be specified; all agree that only having on-line training materials is problematic, as the employer tends to ask workers to do such training on their own time. There was general concensus that on-line training materials can be a resource for training but not a substitute for training.**
- **The scope of the safety and health training matters, e.g. psycho-social issues should be included.**

We all agreed that dividing the issues into categories is challenging. For example, it was noted that:

- **The mechanism of *how* JHSCs improve the workplace is important to consider; is it *through* improving access to education and training of workers, for example?**

The discussion around "management commitment" for example, noted the following:

- **Management commitment to health and safety is not the same as management commitment to the JHSC. For example, management needs to provide worker**

members of the health and safety committee with the tools to enable them to be effective, such as resources and "permission" to do their JHSC work during work hours.
- **It was also noted that the role of joint committees is strongly undermined by experience rating.**

Regarding the effectiveness of committees generally:
- **It was also noted that there are different roles on the committees. Some objectives are shared by all JHSC members whereas others are not shared –e.g. budget concerns. It was therefore noted that the conflicting interests within the committee need to be recognized.**
- **Committees make recommendations to management, but according to the law, health and safety is ultimately a management responsibility.**
- **It was also noted that management should have accountability for successful committees.**

From this discussion we arrived at 10 themes which were an elaboration/refinement of the original 6:

1. Empowerment of committees and the role of worker members with respect to their coworkers (i.e. rights of the committee members to have time for their roles and to interact with the constituencies).
2. Scope of the committee (i.e. harassment, mental health issues, not just safety issues)
3. Extending Committees to workplaces where they do not exist
4. Composition of the committee
5. Training and education of committee members
6. Access to information by committees
7. Legislation and enforcement regarding committees
8. Role of unions in health and safety committees
9. Management embracing the value of committees – management support
10. Management practices and system regarding occupational health and safety

For ease of further discussion we grouped these into four themes and small groups were convened to identify the key issues that need further exploration.

<u>1. Role of Committees:</u>
- **Empowerment of committees and the role of worker members with respect to their co-workers (e.g. the rights of the committee members to have time for their roles and to interact with their constituencies)**

2. Scope of the committee (e.g. harassment, mental health issues, not just safety issues):

- **Extending committees to workplaces where they do not exist**

3. Committee membership and building member capacity:

- **Composition of the committee (selection and number of worker members)**
- **Training and education of committee members**
- **Access to information by committees**

4. Management and external supports for committees:

- **Legislation and enforcement regarding committees**
- **Role of unions in health and safety committees**
- **Management embracing the value of committees - management support**
- **Management practices and systems regarding occupational health and safety**

The workshop participants were asked to brainstorm in small groups around the gaps in knowledge related to the 4 main themes. Below are some of the main points from the discussion grouped under the new themes as outlined above.

1. ROLE OF COMMITTEES:

- **The discussion in this group on the role of committees focused actually on the *scope* of JHSCs and their *sphere of influence*.**
- **It was noted that JHSCs have a lack of power as they can only make recommendations they are not empowered to act, just to advise. Participants noted that it is in fact the employer who needs to act to improve workplace conditions.**
- **Another workshop participant noted that there is a *hierarchy, both within the workplace but also within the committee.***
- **An important point raised was on the worth/value of committees. A group discussion focused on how committee value could be ascertained, is this a cost-benefit analysis and, if so, what types of outcomes would be of interest.**

2. SCOPE OF THE COMMITTEE:

- **The scope of the committee discussion began with a focused discussion on the *size* of committees and what is the ideal size.**
- **This discussion then advanced to the participants focusing on the *mix* of the committee (i.e. employee to management, union to non-union).**
- **When there is no committee, the avenue for resolution of worker concerns is unclear.**

- **The notion of roving health and safety committees was raised by a participant and a group discussion ensued on how these should be funded.**

3. COMMITTEE MEMBERSHIP AND BUILDING MEMBER CAPACITY:

- **This discussion began with the participants focusing on the membership of committees. Specifically they discussed the *logistics of meetings and attendance*.**
- **One participant noted that worker representatives might feel less inhibited if they were to meet separately.**
- **There was discussion on the *legislated mandate of committees* and the potential problematic nature of the selection process. In BC, an example was given of a union which had an order for non-compliance regarding worker representatives. A debate occurred in the group as to what additional roles, if any, unions could/should have in committees.**
- **Another participant noted that it would be useful to have actual data from an evaluation of what committee membership works best (i.e. all worker reps with no employer or more worker reps then employers).**
- **This group then moved on to discuss *employer commitment.***
- **An important point made was on the need to hear from committees themselves: what do committees think works best and why?**
- **One of the group members told an anecdote of both parties seeing the committee very differently: management may feel they are very supportive of the committee but perhaps the worker members of the committee do not feel this way about management.**
- **This group then moved on to *time constraints* and discussing how committees are not a priority for all worksites. There may not be *adequate time for investigations, follow-up of implementation of recommendations*, etc.**
- **This group then moved on to the notion of *capacity-building*, specifically focusing on education and training. There was consensus in the group that both education and training should be a right for committee members.**
- **This discussion then moved on to who should *fund the training*. There was a brainstorming session with many ideas of how training and education should be funded. One participant noted that a central fund from WorkSafeBC, where employers could access funding for education and training of committee members, would be a welcome part of their portfolio and could do a lot to create goodwill.**
- **There was then a discussion on *tracking of training* and the need for a central repository to track training as well as notify worksites when refresher training is needed.**

4. MANAGEMENT AND EXTERNAL SUPPORTS FOR COMMITTEES:

- **This group began with a debate around the notion of *enforcement* and the positives and negatives of the enforcement principle.**
- **The group then moved on to terms of reference and focused their discussion on what is known about *terms of reference*, whether or not they are used by committees and what role they can/do play in committees' effectiveness.**
- **The notion of *committee' empowerment* was explored and the group brainstormed around innovative ways to empower committees *such as giving the committee the power to write orders.***
- **There was also a useful discussion within this group on the *role of employer associations.* There was a consensus around more research needed on associations and their value.**
- **This group then discussed the emerging roles for committees as there has been such an evolution and *change in workplaces* but there has been no with regard to the definition of what a workplace is.**
- **This group then focused their efforts on discussing whether or not regulations are keeping up with changing workplaces.**
- **A key concern raised at the end of discussion was the increased precariousness of employment resulting from extensive economic restructuring. This creates problems with ensuring workers understand and can exercise their responsibilities without fear of reprisal. Increased precarious employment takes many forms such as temporary agencies and contract employment. There are now more people working multiple part-time jobs and more people in self-employment and the discussion focused on who represents these individuals rights and where can they go for help on health and safety issues.**

Concepts which were discussed as meriting further investigation included the following:

- **The concept of the committee of the whole which exists in Italy**
- **The concept of the roving health and safety officers which exists Sweden**
- **Proactive model in Australia (Canadian model is reactive) – Australia has a model of empowerment workers can write orders – any evaluation of this type of model?**

Additionally:

- **It was recommend that a survey be undertaken as to whether members on a committee in non-unionized workplaces have as much training as their counterparts in unionized workplaces; and whether there are adequate access to information in the proper format.**

Next steps:

The draft systematic review report will be prepared and circulated to all of the attendees from the workshop. The report will include a chapter on the review, what was found, lessons, and gaps. It will include the input from the group from the February 3rd workshop (i.e. the themes will be grouped different, education and training as a topic instead of just "training", etc.). It will include a second chapter on the workshop, the topics that were covered and the gaps that the experts feel exist. The final chapter of the report will be a discussion on the next steps, where do we go from here.

Timeline:

Draft report prepared and circulated to group – end of July
Feedback collected and incorporated – mid-August
Final report circulated to all and submitted to WorkSafeBC – September 2011

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