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CREATING HIGH-QUALITY HEALTH CARE WORKPLACES

by

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A Background Paper for Canadian Policy Research Networks' National Roundtable
Ottawa
October 29, 2001

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Foreword

Through recession and terrorist attacks, health care is still the number one public policy issue in Canada. And, at the heart of health care are the people who work there. Wages and professional fees account for a high percentage of health expenditures, and health care workers have a predominant influence on the way that patients experience their health care.

For the past decade, the call has been to ask these people to do more with less. But these are high demand / low control work environments. The people who deliver the care do not control these complex systems, which are regulated by governments and professional bodies, technology intensive, and exposed to intense media scrutiny. The rules of the game change often, as governments change and new ministers are appointed – 73 in the last nine years in Canada and the provinces.

The people who deliver the care have produced more with less, and coped with incessant change. But there has been a cost – in the form of burnout, declining morale, and staff shortages. The worry now is that health institutions will not be able to recruit and retain the talent they need. The connection is being made between the health and well-being of health care workers and the capacity of the system to meet patient needs. And so, finally, the human resource dimension is rising to the top of the agenda.

This synthesis paper is designed to give health care managers the background they need to begin to address the human resource challenge head on. The authors have identified the key ingredients of a healthy health care work environment, drawing on many research domains.

The participants in a CPRN-CHSRF Roundtable in October, 2001 used the paper as the foundation to talk through the formidable array of barriers to well-functioning workplaces. They made it clear that new thinking is needed across the whole leadership of health care systems in Canada, if these barriers are to be overcome.

I want to thank the Canadian Health Services Research Foundation and its staff for their partnership in this project, as well as Health Canada and The Change Foundation for their participation and support.

I also want to thank the 20 committed people from far and wide who participated in the Roundtable. And finally we must thank the five authors who each summarized a different literature, and then worked together effectively to give us a succinct statement of how those literatures meet and reinforce each other. Needless to say, there is more research to do. This project has given both researchers and practitioners new momentum in the quest for healthier workplaces and better patient care.

Judith Maxwell
January 2002

Abstract

Health human resources have emerged as a top priority for research and action. This paper echoes calls for a fundamentally new approach to the people side of the health care system – treating employees as assets that need to be nurtured rather than costs that need to be controlled.

The scope of the human resources crisis in health care is multi-dimensional in its symptoms, underlying causes, and consequences. Finding solutions to these problems starts with the recognition that the performance of any health care organization depends on motivated, knowledgeable, and well-resourced employees. Especially important are relationships among co-workers and between employees and employers. Furthermore, the same work environment factors that help to meet organizational goals (i.e., a 'healthy' or well-functioning organization), also contribute to positive worker outcomes ranging from physical well-being to skill development and job satisfaction.

The question guiding the paper is: "What are the key ingredients of a high-quality work environment in Canada's health care sector and how can this goal be achieved?" Synthesizing insights from a variety of research streams, the paper identifies many ingredients needed to create a high-quality workplace. We take a multidisciplinary and holistic approach, which complements other research initiatives on health human resources.

The paper suggests that health care organizations can, and must, achieve a virtuous circle connecting work environments, individual quality of work life, and organizational performance. Doing so will require a bold new vision of health human resources, supported by a workplace culture and leadership approach that fully values the contributions of all staff.

The paper makes 11 recommendations for policy and practice, many of which reflect discussions at a National Roundtable, organized by Canadian Policy Research Networks, in Ottawa on October 29, 2001.

Executive Summary

Health human resources have emerged as a top priority for research and action. This paper echoes calls for a fundamentally new approach to the people side of the health care system – treating employees as assets that need to be nurtured rather than costs that need to be controlled.

The scope of the human resources crisis in health care is multi-dimensional in its symptoms, underlying causes, and consequences. Finding solutions to these problems starts with the recognition that the performance of any health care organization depends on motivated, knowledgeable, and well-resourced employees. The same work environment factors that help to meet organizational goals (i.e., a 'healthy' or well-functioning organization), also contribute to positive worker outcomes ranging from physical well-being to skill development and job satisfaction.

The question guiding the paper is: "What are the key ingredients of a high-quality work environment in Canada's health care sector and how can this goal be achieved?" Synthesizing insights from a variety of research streams, the paper identifies many ingredients are needed to create a high-quality workplace. We take a multidisciplinary and holistic approach, which complements other research initiatives on health human resources in three ways. Specifically, this approach:

- Documents the links between work environments, employment and industrial relations, and 'healthy' outcomes for workers and organizations. This moves beyond previous studies that concentrate on one of these sets of factors.
- Views health as one aspect of a high-quality work environment that flows from specific organizational changes and human resource management practices.
- Presents a model of a high-quality work environment that draws on a broad base of evidence, adapting it to the distinctive features of health care workplaces.

The discussion of high quality workplaces draws widely on workplace and organizational research, focusing on four sets of factors that interact to enable or constrain the achievement of positive outcomes for employees, organizations and patients:

1) the work environment, broadly considered, and the human resource practices that shape it;
2) job design and organizational structure (including technology);
3) employment relationships, which covers issues from trust and commitment to communication; and
4) industrial relations.

The paper suggests that health care organizations can, and must, achieve a virtuous circle connecting work environments, individual quality of work life, and organizational performance. Doing so will require a bold new vision of health human resources, supported by a workplace culture and leadership approach that fully values the contributions of all staff.

The paper makes recommendations, summarized below, for policy and practice. Many of these recommendations were formulated at a National Roundtable, organized by Canadian Policy Research Networks, in Ottawa on October 29, 2001.

The recommendations call for a new vision of health human resources built around recruitment, retention, staff development and quality of work life. Progress depends on all players being committed to this vision – including ministries, unions, professional associations, and leaders and managers at all levels within health care organizations.

Broad Public Policy Recommendations:

1. Each jurisdiction is encouraged to negotiate an *accord* among institutional leaders, acknowledging that they share the goal of creating high quality work environments in health care and setting out principles to guide action.

2. Health care organizations need a stable policy and funding environment in which to make workplace improvements.

3. Blueprints for health care reform must explicitly consider their impact on workplaces and employees.

4. The Ministers of Health should establish an inter-disciplinary, applied research unit on Health Human Resource Management.

Union and Professional Association Recommendations:

5. While members of the different health care unions and professional associations have unique needs, it nonetheless is important for leaders of these organizations to develop a common, long-term workplace improvement agenda.

6. It would be useful for employer and employee groups to collaboratively document the 'lessons learned' from examples of cooperative labour-management relations, whether in health care or other industries.

7. Unions and professional associations need to address growing concerns about employee health and wellness in health care workplaces.

CEO and Management Recommendations:

8. There is a pressing need to promote workplace cultures that value employees as assets. Rebuilding commitment and trust between employee and employer must be a senior management priority within each workplace.

9. Organizational change must be guided by comprehensive strategies (rather than piece-meal programs) that involve all employee groups in design and implementation.

10. Where possible, jobs in the health care system should be designed to increase employees' skills, responsibility, autonomy and participation.

11. Integrated human resource information systems are an essential management tool, helping to make the case for specific human resource interventions—as well as showing the costs of inaction.

Introduction

The viability of Canada's health care sector is threatened by a crisis in the health care workplace. The quality of work life among health care workers has deteriorated to the point where it is impeding the capacity of the system to recruit and retain the staff needed to provide effective patient care.

Health human resources have emerged as a top priority for research and action (Canadian Health Services Research Foundation, 2001; Canadian Institute for Health Information, 2001). This paper echoes calls for a fundamentally new approach to the people side of the health care system – treating employees as assets that need to be nurtured rather than costs that need to be controlled. The much-valued public health system in Canada depends more than anything on the efforts of all groups of health care workers.

The scope of the human resources crisis in health care is multi-dimensional in its symptoms, underlying causes, and consequences. The labour relations climate has been deteriorating for years, exacerbated by the latest round of strikes and other job actions by health care workers. Employment relationships have weakened, with employee commitment to their employer at a seriously low level (Lowe and Schellenberg, 2001). Worker health trends in the sector also raise concerns, with nurses having among the highest rates nationally of job absence due to personal illness or injury. Psychological distress and burnout are also problems, as captured in the Clair Commission's comment about the "moroseness" among Quebec's health care workers (Maioni, 2001). Finally, a growing number of studies of health professionals (e.g., Kreitzer et al., 1997, Aiken et al., 2001, Dallender et al., 1998; Canadian Institute for Health Research, 2001) recommend the creation of 'healthier' work environments that support worker well-being and organizational performance.

Finding solutions to these problems starts with the recognition that the performance of any health care organization depends on motivated, knowledgeable, and well-resourced employees. Especially important are relationships among co-workers and between employees and employers. Furthermore, the same work environment factors that help to meet organizational goals (i.e., a 'healthy' or well-functioning organization), also contribute to positive worker outcomes ranging from physical well-being to skill development and job satisfaction.

We suggest that health care organizations can, and must, achieve a virtuous circle connecting work environments, individual quality of work life, and organizational performance. Doing so will require a bold new vision of health human resources, supported by a workplace culture and leadership approach that fully values the contributions of all staff.

Objectives and Approach

To begin to fill this gap, this paper synthesizes the insights from a variety of research streams, so that health care employers, unions, professional associations, and policy makers will have better tools for creating the kind of workplace conditions that contribute to human resource renewal *and* the overall sustainability of the health care system. We conducted an extensive review of relevant literatures; what's summarized in the paper is selective and illustrative. The question guiding the paper is: *"What are the key ingredients of a high-quality work environment in Canada's health care sector and how can this goal be achieved?"*

Many ingredients are needed to create a high-quality workplace. No single discipline can capture the range of factors and their interactions. Consequently, we have developed a *multidisciplinary* and *holistic* approach, which complements other research initiatives on health human resources in three ways. Specifically, this approach:

- Documents the links between work environments, employment and industrial relations, and 'healthy' outcomes for workers and organizations. This moves beyond previous studies that concentrate on one of these sets of factors.
- Views health as one aspect of a high-quality work environment that flows from specific organizational changes and human resource management practices.
- Presents a model of a high-quality work environment that draws on a broad base of evidence, adapting it to the distinctive features of health care workplaces.

The paper served as the basis for a National Roundtable, organized by Canadian Policy Research Networks, in Ottawa on October 29, 2001. The Roundtable provided an opportunity for approximately 20 stakeholder representatives from the health sector to discuss the issues raised in the paper. Specifically, the purpose of the day-long Roundtable was to:

1. Assess the usefulness of a multidisciplinary approach to human resource issues in the health sector;
2. Identify knowledge gaps, especially from the perspective of practitioners;
3. Highlight the barriers and opportunities regarding improvements in healthcare work environments; and
4. Prioritize the implications of the paper for strategic human resource management, change management, and public policy.

The paper was revised to incorporate feedback received at the Roundtable. The recommendations, in the final section, summarize the key practical suggestions flowing from the day's discussion.

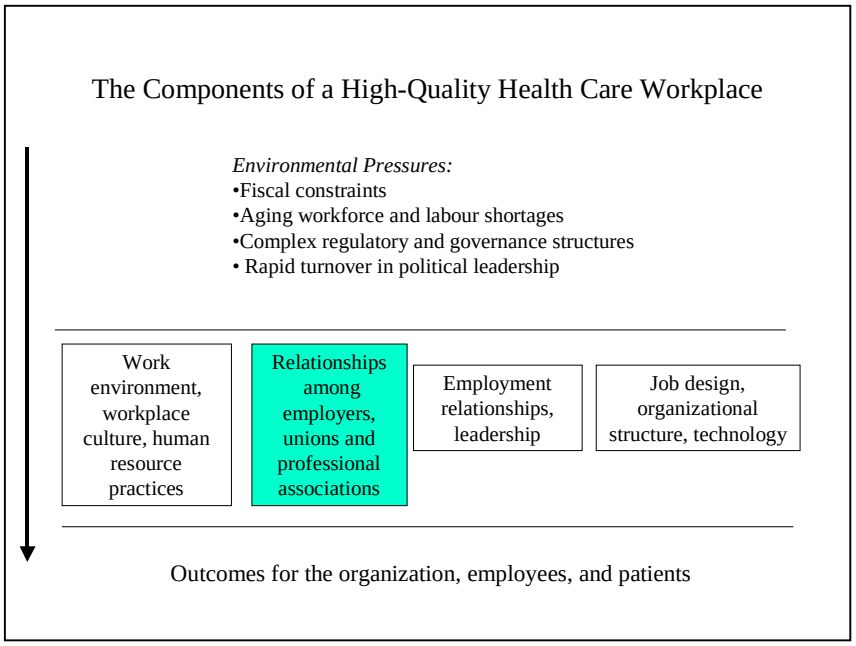
Components of a High-Quality Workplace

In this section, we lay out the elements of a high-quality workplace. We define quality from the perspective of three stakeholders: employers, employees, unions and

professional associations, and customers (or citizens in the case of the public sector). Ideally, quality is a convergent goal that benefits all stakeholders. In practice, however, achieving optimal results for everyone can be impeded by tensions emanating from industrial and employment relations, as we note below.

The figure below outlines the main components of a high-quality workplace. The multi-dimensional nature of the model is consistent with the holistic approach proposed in recent literature on the quality of work (e.g., Lowe, 2000). This model suggests that four sets of factors interact to enable or constrain the achievement of positive outcomes for employees, organizations and patients:

1) the work environment, broadly considered, and the human resource practices that shape it;
2) job design and organizational structure (including technology);
3) employment relationships, which covers issues from trust and commitment to communication; and
4) industrial relations.



The above model draws widely on workplace and organizational research, so it could be adapted to any industry. For example, industrial relations is included here as a key factor because in Canada's public sector, these dynamics can help or hinder workplace reform and workforce renewal (Lowe, 2001; Advisory Committee on Labour Management Relations in the Federal Public Service, 2001). However, industrial relations are not an issue in nonunion private sector firms. Furthermore, professional associations exert considerable power within the health care system, giving them a pivotal role at the workplace level in any initiatives aimed at improving working conditions. In this respect,

the specific ingredients of a high-quality work environment for nurses or physicians may be different from what contributes to such an environment for other health professions or technical and support staff.

Generally, the model provides a framework for understanding how environmental factors, workplace characteristics, and outcomes are linked. Indeed, the bottom part of the model is the cutting edge of current academic research on human resource management (Wood, 1999). More studies are required to understand the mechanisms or processes linking a particular intervention (e.g., family-friendly work schedules) to positive outcomes for employees (e.g.,. job satisfaction, commitment) and the organization (e.g., reduced absenteeism or turnover, patient care).

We now will briefly elaborate the elements of the model, beginning with macro factors that shape the larger environment of health care organizations.

Environmental Pressures Affecting Health Care Workplaces

Many organizations are embedded in a complex, fast-changing and increasingly uncertain environment. Decision-makers often respond to external trends and pressures in ways that have intended and unintended consequences for workers, their jobs, and the overall work environment. Three macro pressures and trends – the political pressures to eliminate deficits and cut costs in the 1990s, labour supply and demand imbalances, and workforce and population ageing – have collided this decade, placing health care human resources under considerable strain.

Political decisions to cut health care budgets are still reverberating through the health care system. Government spending on hospitals as a percentage of total health care expenditures declined from 40.6 percent to 33.6 percent in the ten-year period between 1987 and 1997 (Naylor, 1999). The system was restructured in the wake of such cuts – including bed closures, regionalization, workforce reductions, and work reorganization. This restructuring typically had a short-term, bottom-line focus that did not consider the longer-term consequences for health human resources. For example, downsizing and restructuring at a large teaching hospital resulted in significant increases in mental health problems (Woodward, 1999) and time off with musculoskeletal pain (Shannon, 2001) among health care workers over the long term.

Funding cuts and restructuring significantly disrupted any possible equilibrium between supply and demand in the health care labour market. A combination of lack of recruitment, reduced intake into training programs, and deteriorated working conditions fuelled labour shortages, which in some professional sectors are acute and increasingly intractible.

For example, the Canadian Nurses Association (2000) predicts a shortage in Canada of approximately 60,000 nurses by 2011 – about 25 percent of the current nursing labour force. In the next five to ten years, medical laboratory technologists (Davis, 2001),

radiological technologists, physical therapists, occupational therapists, audiologists and speech pathologists will also be in short supply. A recent survey by the College of Family Physicians of Canada (2001) predicts a shortage of 6,000 family physicians by 2011, based on the current situation. The Canadian College of Health Service Executives predicts a "crisis in leadership" in health care management, given the impending retirement of the current management/leadership cadre and the challenge of succession that will be faced. The situation among physicians is more complex. While health policy researchers debate when, and to what extent, Canada will face physician shortages; groups such as the College of Family Physicians of Canada (2001) point to immediate and growing shortages in their ranks.

Workforce demographic trends raise concerns about how health care employers are preparing for the imminent wave of baby-boomer retirements, given that the average age of physicians in Canada is now 47.5 years, and for medical specialists it is 49 years – well above the labour force average. There is also concern about the potential demands placed on the health care sector by an ageing population, although there is debate about the true cost burden on the system.

While other sectors of the economy are affected by labour shortages and demographics, what makes the health care sector stand out is the magnitude and timing of these pressures. Of all the public sector cost-cutting and restructuring in the 1990s, what happened in health care most directly affected the public. Furthermore, within the broad public sector, health care will be the first to be hit by the combined crunch of labour shortages and workforce aging. Responding to these pressures is complicated by discontinuities in political leadership (there have been 73 Ministers of Health and 87 Deputy Ministers of Health federally and provincially in the past 9 years) and complex governance structures. Coordinating responsibility for these human resource challenges depends on extensive cooperation among Health Canada, provincial health ministries, health regions and organizational units.

Work Environments

The work environment has physical and psycho-social dimensions which are influenced by human resource management practices. The most relevant issues for health care identified in work environments research include: physical health hazards, workload and other pressures, work schedules, job control, role stressors, and job insecurity. A key research finding is that these factors influence employee health. The organizational and patient care outcomes that flow from poor quality work environments are less well documented in research – a major gap that future studies must address.

Health care workers will always face some risk of exposure to physical hazards in the work environment, such as infections from contagious patients, violence from patients with dementia, or allergic reactions from chemical agents. The physical demands of health care occupations are associated with both patient care and non-patient care tasks.

Workers' health outcomes are also influenced by lifestyle behaviours, such as smoking and exercise.

Looking beyond physical working conditions, many analysts now argue that the psychosocial work environment is also an important determinant of employee health. Evidence consistently shows there has been a rise in psychological stresses as a result of job intensification, technological changes and time pressures (Sullivan & Adler, 1999; Houtman, 1995). In short, significant improvements in the well-being of health care workers likely could be achieved by paying more attention to the psychosocial and physical hazards in their work environments.

The two dominant models in the field of psychosocial work environment are the Demand-Control Model (Karasek & Theorell, 1990) and the Effort-Reward Imbalance Model (Siegrist J, 1996).

According to the Demand-Control Model, job strain is the result of the joint effects of high psychological job demands and a low range of decision-making freedom, influence and skill development opportunities available to the workers in meeting the demands. Social support available in the workplace from coworkers and supervisors can "buffer" the interaction between high demand and low control (Johnson, 1986). The Effort-Reward Imbalance model argues that the greatest risk to health occurs where people experience a mismatch between high efforts spent (demands, pressures, responsibilities) and low occupational rewards (salary, support, treatment).

Both these models have linked the psychosocial work environment to health outcomes or stress effects among workers in many sectors, including health care. Studies on health care workers have documented significant relationships between psychosocial conditions at work and physiological stress responses including increased blood pressure and stress hormone responses (Theorell et al., 1993; Fox et al., 1993), after adjustment for demographic and clinical factors, and sickness absence (Bourbonnais & Mondor, 2001).

The factors consistently identified as important to a good work environment for health care workers include many of the factors generally identified in the Demand-Control and Effort-Reward models. For nurses (Gleason Scott et al., 1999), positive health outcomes are associated with high job control, a balance of job demands with sufficient resources (adequate staffing, time available to plan and carry out work), relationships with colleagues and supervisors, skill development (use of existing skills and opportunities to develop new ones), and leadership (ratings of various aspects of immediate nursing supervisor, regular communication and feedback). Hospitals exhibiting these positive characteristics have demonstrated better organizational performance, in terms of staff recruitment and retention, and patient outcomes (Aiken et al., 1994).

Workload, work pace and work scheduling – all potential stressors – are among the most important work environment issues facing health care workers. An increasing number of nurses in Canada have faced mandatory overtime, mandatory on-call, refusal of holidays and time off for education and training, and placements in areas outside of their specialty.

A recent international survey of registered nurses (Aiken et al., 2000) found that less than half of the respondents reported adequate human resources to meet demands in terms of numbers of RNs or support staff. Research findings like these raise serious concerns about the ability of health care employers to recruit and retain staff.

Two additional work environment factors are role stressors and job insecurity (Burke, 2001). Role stressors are a particular concern for nurses who have been increasingly required to work in areas outside of their specialization in the current climate of restructuring and downsizing. As well, job security has declined, given that between 1992 and 1998, the percentage of RNs working part-time in Canada rose from 36 percent to 48 percent (Statistics Canada, 1999). Moreover, a significant percentage of Canadian nurses (15 percent in 2000) are employed on a casual basis without the security of a permanent contract or employee benefits. Casual work has become the usual way to enter the nursing labour market for new graduates (Lanctot, 1999).

Most of the health care work environment research has focused on nursing staff, so future studies must include other groups of professions and occupations. There is, for example, growing evidence that the work environment of physicians is becoming increasingly stressful and less satisfying. Higher levels of physician stress and dissatisfaction have been linked to a variety of adverse work outcomes that affect not only the health and well-being of the physician, but also impact other health care employees, as well as patients. Negative consequences for physicians include diminished work performance, higher levels of absenteeism and turnover, increase in the frequency of accidents and adverse events, and greater alcohol and drug abuse, and suicide. (Williams et. al., 2001). For instance, the societal costs of a family physician leaving a medical practice is $236,383 US (Buchbinder et. al., 1999).

Most of the above psychosocial and physical health risk factors result from broader management strategies that impact the work environment. Too often, the human resource management function in health care has limited influence on reorganization decisions, resulting in little consideration of the impact of these changes on the work environment. Decisions to downsize or use more contingent workers are often made by senior operational managers who are far more focused on cost reductions and efficiencies than on the quality of work life or patient outcomes. Changing this orientation requires a major shift in leadership thinking and in the culture of the organization so that human assets are more highly valued and nurtured over the long-term.

Job Design and Organizational Structure

The design of jobs and how they are integrated into organizational systems provides the foundation for a high-quality workplace. This is one of the main lessons we can draw from the research, noted above, on the psychosocial work environment. These studies represent only one stream of research that document the importance of job design and organizational structure for firms and individual workers. As we outline in this section,

research across a range of disciplines identifies the following as key features of a high-quality workplace:

- Tasks that are varied and require the use of a broad spectrum of skills;
- Worker involvement in the whole job, not just part of it;
- Jobs and organizational systems that enable workers to exercise discretion and autonomy in how the work is done;
- Feedback from supervisors and coworkers on an individual's job performance; and
- Opportunities for workers to have an input on decisions that affect their jobs and work environment.

There is abundant evidence that job design (Rinehart et al., 1997, Karasek and Theorell, 1990; Schnall et al., 2000), job rewards (Seigrist, 1997), family-friendly management practices (Duxbury et al., 1999), organizational change (North et al., 1996, Kivimaki et al., 2000, Vahtera et al., 2000) and job security (Quinlan et al., 2001; Ferrie et al., 2001) can have major health implications for workers. There also are models of workplace health, which focus on improving employee health and wellness (Robson, Shannon and Polanyi, 1999; Bachmann, 2000; Sullivan, 2000). While such studies make important contributions to our understanding of what constitutes a healthy workplace, there has only been a few efforts to combine these empirical findings into a model that could guide health human resource management practices (Health Canada, 2000).

These work reforms have been introduced in various forms by public and private sector employers over the last 10 to 15 years. When assessing implementation, it is important to consider two points.

First, it is crucial to document the scope and depth of change. For example, if teams are being introduced, how much decision-making authority is being delegated to each team? And what proportion of employees will participate in the teams? Work reorganization in health care typically focuses on narrow interventions rather than sweeping transformations. Furthermore, often changes are motivated by contradictory objectives (e.g., cost cutting, increased quality of patient care, and improved human resource utilization) in which economic imperatives win out.

Second, the research on high-performance workplaces (sometimes called high-involvement workplaces or flexible workplaces) emphasizes the importance of 'bundling' initiatives so that job redesign is integrated with other supporting human resource practices (Lowe, 2001; Lowe, 2000). This bundled approach to workplace innovation has greater potential pay-offs for workers, employers, clients and shareholders (e.g., Appelbaum et al., 2000; Rondeau and Wagar, 2001). However, it is clear that the 'change management' challenges posed by the high-performance workplace are considerable, which partly explains why relatively few organizations have moved in this direction.

Job redesign efforts frequently involve job enlargement (increasing the variety and types of tasks that are done) and/or job enrichment (increasing the autonomy, recognition, and

control associated with a particular job). For example, nursing 'case management' draws on both approaches, giving nurse case managers responsibility for all of the patient's needs. Related work redesign initiatives have attempted to increase the degree of patient-centeredness in care delivery by decentralizing services to the patient care unit (Lathrop, 1993; Weber, 1991).

While team work can enlarge and enrich the tasks performed by team members, it has the potential to go even further. For example, cross-disciplinary teams reorganize health professionals into integrated and flexible teams of patient care providers. Such teams can be self-directed and autonomous, determining for themselves the flow and direction of their work. In theory, this should increase employee participation and empowerment, while making teams more directly accountable for patient care delivery and health outcomes. However, the delegation of authority and accountability on which this approach depends for success is the main reason the theory often does not get put into practice. Department managers and professions are unwilling to relinquish or share power – a barrier that is by no means unique to health care organizations.

The work redesigns outlined above strives to increase horizontal communication and collaboration across organizational units, departments and functions. The ultimate goals are reduced costs, increased staffing flexibility, and improved employee and patient satisfaction (outcomes that require further documentation). But as a note of caution, expanding jobs to include a wider range of tasks could increase role ambiguity and role conflict (Parker and Wall, 1998). This is probably why some nurses are concerned about placements outside their areas of specialty.

Increased employee involvement is a feature of many work redesign initiatives in health care, on the assumption that this will contribute to a fuller use of workers' talents and higher organizational commitment (Cotton, 1997:34). Evaluations of employee involvement programs in Canadian health care organizations have focused on nursing sub-units, and include quality of work/life programs (O'Brien-Pallas and Baumann, 1992); quality circles/quality improvement teams (Melum and Sinioris, 1992); gain-sharing (pay-for-performance); shared governance/co-determination councils (Porter-O'Grady, 1994); and employee suggestion systems. However, the benefits of these programs may fall short of expectations because other organizational strategies, particularly downsizing, have undermined their effectiveness (Greenglass and Burke, 2001; Lam and Reshef, 1999).

Many knowledge-based industries acknowledge the importance of giving workers greater opportunities to use and further develop their skills. There is growing recognition in health care that human resources are valuable assets that require ongoing investment. Yet training budgets, reduced during cutbacks, have not been increased to meet growing needs. This presents a major barrier to multi-skilling, cross-training and team-based initiatives, given that to be successful these require extensive training and learning opportunities.

Rapid technological change in health care creates additional pressure to increase skills and redesign jobs. Indeed, few industries utilize such a wide array of technologies in the provision of services as does health care. New technologies permit alternative methods of assessing, monitoring and caring for patients. This adds complex cognitive skills to patient care tasks, raising work redesign implications (Armstrong et al., 1993). Balancing information needs with patient care needs has proved difficult in the context of technological changes in Canadian hospitals (Sicotte, 1998).

There is scattered evidence within health care that positive outcomes are associated with the work redesigns reviewed above. For example, job satisfaction among nurses is positively associated with autonomous clinical practice in which nurses are involved in decision making and believe they have control (Blegan, 1999; Kangas et al., 1999; McDaniel and Stumpf, 1993). Yet most nurses in Canada lack autonomy and have few opportunities to participate in decisions that affect them (Aiken et al., 2001). This should concern employers, given evidence that a lack of control over work or a lack of participation in decision making has been linked to injury and disease among health care workers (Koehoorn, 1999).

The first step in any comprehensive workplace change program must be addressing work intensification. The cumulative impact of budget cuts, workforce reductions and current professional shortages have resulted in heavy workloads, longer work hours and intensified demands for nurses (which now includes mandatory overtime) and physicians. Yet few studies have examined these issues among other health care workers, or investigated the effect of excessive work hours on employee well being and patient care. These must be priorities for future research. Furthermore, the fact that managers in all sectors are working longer workweeks and face rising expectations is not conducive to effective change management, particularly human resource renewal strategies.

Industrial Relations and Professional Associations

Extensive unionization in the health care sector makes industrial relations a prominent factor in any strategy to achieve high-quality workplaces. In fact, 62% of all workers in the sector belong to unions (Akyeampong, 2001:52). While not unionized, physicians also exercise considerable negotiating power through their professional associations. Indeed, a defining feature of the health care sector is the prominent role of professional associations, which represent a range of groups, each facing unique workplace issues. The degree of cooperation (or conflict) found in relations between health care employers and unions and professional associations can enable or hinder change initiatives aimed at creating high-quality workplaces.

As research in government suggests, new cooperative forms of labour relations are a prerequisite to workplace innovation and human resource renewal (Lowe 2001; Advisory Committee on Labour Management Relations in the Federal Public Service 2001). Despite the advantages of mutual gains or ‘win-win’ bargaining (Kochan and Osterman, 1994; Cutcher-Gershenfeld, Power and McCabe-Power, 1996), most collective bargaining is

characterized by conflict (Godard, 2000). Indeed, Canadians would point to the health care sector as an exemplar of adversarial labour-management relations. While wages are often the most visible focus of industrial disputes, in health care and elsewhere it is non-wage issues that have a greater impact on the quality of the work environment. Wage increases alone could not fix the most pressing problems faced by health care workers.

The ability of unions, or professional associations, and management to effectively resolve employee problems, complaints and grievances on a day-to-day basis is another key ingredient to quality work environments. The extensive literature on grievance initiation (Lewin and Peterson, 1999) suggests that both labour and management typically want to reduce the number of grievances at the workplace. However, a very low grievance rate may not necessarily indicate the successful resolution of conflict; other mechanisms for rectifying potential sources of grievance are needed.

The health care sector has a diversity of collective bargaining systems (Haiven, 1995). In some provinces, health care employees come under public sector legislation, while in others, they are governed by private sector trade union statutes (Gunderson, Ponak and Taras, 2001). Unionised health care workers have the right to strike in some jurisdictions but not in others. Still other jurisdictions have a hybrid model in which striking is permitted but with some procedure for designating certain workers as essential. Moreover, physicians have engaged in a variety of job actions designed to put pressure on provincial governments to address their concerns about working conditions. These provincial differences in the collective representation of health care workers and in legal regulations governing the right to strike, essential service designations and the use of interest arbitration to resolve bargaining impasses, set the parameters for labour-management cooperation in workplace change initiatives.

Health care industrial relations is further complicated by the fact that there are more than 30 health care occupations and professions that are regulated under provincial or federal legislation in Canada. The number of regulated health professional groups continues to expand – and they too are key stakeholders in workplace issues. Nevertheless, the roles and responsibilities of many of these newly emerging health care occupations (e.g., midwives, herbal practitioners, surgical assistants, hospitalists), the extent to which they are professionalized, and their relationship with other health care professions are all potential sources of friction. Adding to this complex mix of stakeholders, the five distinct health care sub-sectors (acute, long-term, home, community, and mental health care) (Haiven, 1995) have varying levels of unionisation and different unions representing similar occupations.

This profile of industrial relations in health care raises strategic considerations about the most appropriate organizational location for initiating workplace change. Achieving buy-in from all affected groups for comprehensive human resource management and workplace change strategies that cut across an entire organization could be daunting. Given the diversity of occupations, professions, unions and sub-sectors noted, the chances of improving the work environment may be greatest in smaller, less heterogeneous units, where a collaborative approach to change could be utilized and the organizational, union

and professional association politics minimized. These small successes could be built on incrementally across the system.

The limited research on industrial relations in the health care sector mainly has examined nurses. There has been some interest in the topic of physicians and unions and a small amount of research on physicans' attitudes toward binding arbitration as a means of resolving disputes with governments over income issues (Burke, 1995). However, the issue of physician unionisation is receiving more attention, particularly in the United States (Hoff, 2000).

More generally, industrial relations research has not focused on the health care sector, so many important issues must still be addressed. For example, unions and employers require more information about the needs of the growing number of health care workers employed on a part-time or contract basis. Union leaders and rank-and-file members may have different views on the costs and benefits of union participation in workplace change programs. We know little about the impact of such programs on employees, unions and professional associations. Another research priority is the role of unions in each of the subsectors, particularly labour-management issues in the subsectors outside of acute care. For example, a concern to unions is the shift to long-term, home and community care services. Unlike the acute care sector, this 'outer' sector has a lower rate of unionisation, lower wages, and a number of employers who may be driven more by cost reduction and efficiency than on improving working conditions and wages for employees (Haiven, 1995).

Looking beyond health care, research in other industries suggest that unions can play a constructive role in implementing workplace change (Cooke, 1992), particularly high performance work systems (Kumar 1995; Nissen 1997). Research suggests, for example, that participation in employee involvement programs may benefit both the union and its members (Reshef et al. 1999). Yet, despite the emphasis in human resource management literature on high involvement work practices in the main stream (Pfeffer and Veiga, 1999 and Wood, 1999), relatively little is known about the introduction and survival of such practices in the unionized environment outside the manufacturing sector (Eaton, 1994).

Unions and industrial relations are largely invisible in discussions of creating high-quality health care workplaces – which in our assessment is a serious oversight. While work environment, occupational health, and job design issues important to health care workers have been identified in the literature reviewed above, there is little discussion of the role of labour-management relations in achieving desired outcomes. For example, employee recruitment and retention are not just a 'management problem'. Unions play a role in negotiating working conditions, yet rarely are active partners in developing solutions to these human resource challenges. Solving the staff retention problem in the next several years will surely test the willingness and ability of both management and labour to cooperate on a common objective.

To be partners in workplace change programs, it is essential that management seek unions' active involvement from the start and fully share information on the planned

changes. This requires a shift in management thinking, so that more emphasis is placed on the process of change, not just the end results. Needed is a commitment on the part of both labour and management to forge a relationship based on trust and openness – goals that are difficult to achieve and maintain (Godard and Delaney, 2000, Wells, 1997). Unions too must change their resistant stance on workplace change (Lowe 2000). Looking into the future, a critical factor in the success of new work redesign strategies may well be the restoration of confidence and trust between management and employees and their unions.

Employment Relationships

At this point, we shift our discussion to employment relationships, which are the underlying social and psychological dynamics of workplaces. Trust is at the core of the psychological contract between workers and employers. However, downsizing and restructuring often violate workers' sense of trust, with the result that the employer's expectations regarding loyalty also may not be met. In recent years, management literature has begun to address ways of renegotiating and re-establishing trust and loyalty (Lewicki, McAllister and Bies, 1998). Particular attention has been paid to ways of building and maintaining trust, how trust is destroyed, the connection between control and trust, and the impact of new human resource management strategies on trust (and vice versa). However, Canadian health care organizations have not been included in this research.

CPRN's recent study *What's a Good Job: The Importance of Employment Relationships* (Lowe and Schellenberg, 2001) shows that high-quality work environments contribute to strong employment relationships, and in turn are related to improved quality of work life, and organizational performance. This study examines the four pillars of employment relationships: trust; commitment; communication; and influence. The study shows that health professionals have the lowest scores of all occupational groups on all four dimensions of employment relationships, that their job satisfaction is below the national average, and that they are least likely of all occupations to describe their work environment as healthy.

An individual's sense of organizational commitment and trust rests on the perception that their employer takes her or his interests and well being into account. Excessive workloads, insecurity and job strain can quickly erode that sense of trust and commitment, with potentially negative implications for job satisfaction, morale and turnover. Furthermore, commitment and job design strategies can be mutually reinforcing. A top-down approach to job redesign will do little to bolster commitment and, as such, is a recipe for disappointing results. Conversely, job design strategies aimed at increasing employee participation and improving communication stand a good chance of strengthening the organizational commitment of employees. Nursing studies consistently report that autonomy, improved communication, and respect are positively associated with job satisfaction, recruitment and positive assessments of the work environment (e.g., see Blegan, 1993; Kangas et al., 1999; Gillies et al., 1990).

This suggests that managers can begin rebuilding these fragile relationships by addressing some of the work environment and job design issues raised in earlier sections of this paper. At a basic level, strong employment relationships are linked to good human resource management practices – like open communications, treating people with respect, providing constructive feedback – which are low-cost and highly effective.

Outcomes for Workers and Organizations

So far, we have outlined the key components of a high-quality workplace, their interconnections, and their relevance to the health care sector. Because this research is located in a range of disciplines, many determinants and outcomes are examined, with no consensus on which are most important. Furthermore, there is little effort to discuss findings across disciplinary boundaries.

Research on the psychosocial work environment reveals that job strain in the health care sector and elsewhere affects personal relationships, increases sick time and job dissatisfaction, and is associated with increased workplace conflict and turnover (Baumann et al., 2001). Across a wide range of workplaces, there is considerable evidence showing that job design, job rewards, family-friendly management practices, and organizational change can have major health implications for workers.

Specifically, stressful working conditions are associated with direct (absenteeism) and indirect (job dissatisfaction) effects on organizational performance (Karasek and Theorell, 1990, Robson et al., 1998). Work-family conflict also has economic costs. For example, Duxbury, Higgins and Johnson (1999) estimated that in 1997 work-life conflict cost Canadian organizations roughly $2.7 billion in work absences, and the health care system approximately $425.8 million in physician visits. Yet employers may not see a need to address either of these problems because their accounting systems are unable to measure the economic impact of employee health. Even when good financial data on health costs are available, employers may not act unless the organizations' values, culture and mission support improved workplace health (Pratt, 1999; Nagel and Cutt, 1999).

A prominent theme in the workplace literature is that workers' perceptions of the quality of their work environment is critical for outcomes such as job satisfaction, commitment, absenteeism and performance (Lowe, 2000, Lowe and Schellenberg, 2001). More specifically, studies of high-performance work systems (e.g., Appelbaum et al., 2000) and lean production (e.g., Rinehart et al., 1997) have shown the positive effects of the former and the negative effects of the latter on employee health and well-being. Furthermore, organizational change – especially downsizing – has been shown to undermine the health status of those most affected (e.g., Kivimaki et al., 2000).

Occupational health studies typically examine discrete health outcomes. These include stress-related health problems, increased risk of morbidity, health behaviours, and injury – in short, issues of exposure and risk. Models linking workplace determinants to health outcomes are most fully developed in the area of psychosocial stress. There is now

substantial evidence that specific job content, ergonomic, organizational and labour market factors are associated with individual health outcomes.

Looking specifically at health care organizations, in earlier sections of the paper we noted a number of studies that identify outcomes, particularly for workers. For example, studies have linked organizational factors to nurses' job satisfaction (Kovner, C. et al., 1994; Gillies et al., 1990; Wilson, et al., 1994). Throughout these studies, nurses have consistently described the following factors that influence their job satisfaction: a) autonomous clinical practice in which nurses are involved in decision making and believe they have control; b) status, significance and value placed on nursing within and throughout the facility by administration and by physicians; and c) supportive relationships with peers, physicians, and management, characterised by mutual respect and mutual concern for providing quality care.

Still other studies have linked work organization characteristics with injury and disease among health care workers. The main organizational factors associated with negative health outcomes include: work overload or pressure (Bru et al., 1996), a lack of control over work or a lack of participation in decision making (Petterson et al., 1995), relations in the workplace including poor social support (Bourbonnais et al, 2001) or problems with management style such as unsupportive leadership or a lack of communication/feedback (Landeweerd and Baumans, 1994).

Generally speaking, most of this research examines individual outcomes, with less attention given to organizational outcomes. For example, while it is clear that job design has a strong bearing on employees' psychological well being, less is known about how it affects organizational performance (Parker and Wall, 1998:136). Because stress research analyzes individuals, it has not addressed whether organizations perform more or less well when large proportions of their workers experience workplace stressors (Jex, 1998: 92). Those studies that do examine organizational outcomes tend not to include worker outcomes. Given evidence of increased mental and physical work effort, it is important to assess the implications of this for employee stress and health, and how these outcomes could undermine organizational efficiency and service quality.

The major gap in practical knowledge, then, is a clear understanding of the link between work environment conditions and patient outcomes. There is some evidence that downsizing and restructuring in hospitals not only have negative health impacts on workers, but also lead to a perception among those staff most affected that patient care deteriorates (Woodward, 1999; Shannon, 2001; Wagar and Rondeau, 2000). All of this speaks to the need for breaking down disciplinary silos to address complex practical problems.

Implications for Health Care Workplace Research and Practice

The major research gap identified in our discussion of outcomes is the relationship between work environments, job design and organizational factors, on one hand, and

employee and organizational outcomes, on the other hand. This requires integrative conceptual frameworks and research designs that are capable of considering all (or most) of the factors outlined in our model of a high-quality workplace.

Addressing this gap requires closer collaboration between researchers and practitioners. Indeed, improved monitoring and evaluation of any human resource management intervention or organizational change would go a considerable distance to addressing this gap. Surprisingly little effort is made to assess the impact (both positive and negative) of all the organizational change initiatives now underway, in order to identify innovative practices that create a 'workplace of choice'. More dialogue between the research community and employers, as well as between health professional associations and unions, would pave the way for the collection and analysis of information useful for all parties. Finally, new research initiatives on the work environment must include all groups of health care workers.

For the health care sector, perhaps the most difficult aspect of performance measurement will be devising valid and reliable techniques for linking outcomes across three main areas: employees, organizations, and patients. In light of the complex array of factors that are relevant to high-quality workplaces, adapting tools such as balanced scorecards and human resource audits (Kaplan and Norton, 2001; Pratt, 2001) to health care organizations will require creative modifications.

In terms of practice, it is important to acknowledge that the very structure, values, cultures and working relationships inherent in an organization contribute to the quality of work. Workplaces that meet workers' needs to participate and make a contribution, provide psychological and economic security, offer opportunities for skill development, and have the right balance of job demands and resources will be more effective and healthier than workplaces lacking these traits. Human resource management practices play a central role in creating these working conditions. This raises questions about the most effective roles and structures for human resource departments in health care organizations. Also important are the organization's culture and values – making human resources assets rather than costs, and supporting this through the actions and statements of the entire management team, from the CEO to front-line supervisors.

There are positive signs of building momentum in this direction. A growing number of large private and public sector employers are recognizing that healthy work environments contribute to productivity (Bachmann, 2000; Canadian Labour and Business Centre 2001).

Within the health care sector, several models provide a basis for further innovation. In particular, the model of Organizational Healthiness for Health Care Organizations (Cox & Leiter, 1992) emphasises the importance of the combination of preventing stress and burnout, developing employee skills and evaluating health care services. The model suggests that the healthiness of a health care organization can affect service quality both directly through the design and management of procedures and structures and indirectly through the organization's impact on staff health and commitment. Organizations that

enhance the health and commitment of their staff are expected to provide better quality service than those that do not. Ensuring that health care workers remain healthy and committed, and can work until the time of retirement is equally important in the current climate of an ageing workforce and of recruitment issues.

The concept of magnet hospitals provides further information on what constitutes a high-quality work environment, specifically for nurses (Gleason et al., 1999). One study by the American Academy of Nursing identified the following organizational characteristics that accounted for good working environments: good relationships with colleagues and supervisors; adequate staffing, time available to plan and carry out work; participatory management; opportunities for skill development and use; and good leadership.

Diffusion of these and other models faces many barriers to improving the quality of health care work environments. We have reviewed some of the main ones: the cumulative and pervasive effects of cost-cutting, restructuring and downsizing; demographic and labour market pressures; the heterogeneous composition of sector in terms of functions, occupations and professions; and the industrial relations climate. Added to this list should be the overall governance of the sector, with crosscutting lines of responsibility between departments of health at the federal and provincial levels, professional associations, regional health boards, and managers within each health care organization. Clearly, some of today's human resource challenges are system-wide, calling for co-ordinated efforts across all these decision-makers.

Recommendations

In this section, we present recommendations for policy and practice that flow from our discussion of high quality workplaces in health care. Many of these recommendations were formulated at the National Roundtable, as participants discussed and debated the points raised above.

As a whole, the recommendations call for a new vision of health human resources built around recruitment, retention, staff development and quality of work life. The vision can be a basis for action plans that spell out specific goals, roles and responsibilities, and timelines – recognizing that investments in people often take years to pay off. Progress depends on all players being committed to this vision – including ministries, unions, professional associations, and leaders and managers at all levels within health care organizations. Because there are many hurdles to overcome, it is essential to keep larger objectives in view, to experiment, and to share learning across the system.

Broad Public Policy Recommendations:

1. Each jurisdiction is encouraged to negotiate an *accord* among institutional leaders, acknowledging that they share the goal of creating high quality work environments in health care and setting out principles to guide action. A key

principle would be a commitment to engage in experiments or pilot projects that, when evaluated, could serve as a basis for new workplace models.

2. Health care organizations need a stable policy and funding environment in which to make workplace improvements. Five-year funding would be ideal, with flexibility to reallocate resources within a broad envelope, and accountability to achieve agreed efficiency, patient, and HR outcomes – including recruitment and retention. Each organization must have financial incentives for meeting these goals (and penalties for falling short). At the same time, health care organizations should commit to work with employees, unions and professional associations to make the necessary work environment changes – which may require adaptations in professional regulatory boundaries and collective agreements.

3. Blueprints for health care reform must explicitly consider their impact on workplaces and employees. Two questions must be addressed before any plan is implemented: How will it affect the different groups of health care workers? How will it affect recruitment, retention, employee development and other human resource management goals?

4. The Ministers of Health should establish an inter-disciplinary, applied research unit on Health Human Resource Management. By focusing on the links between work environments, human resource practices, organizational effectiveness, and patient outcomes, the unit would provide managers with much-needed evidence on 'best human resource management practices'. The unit's mandate also would include developing (with employers, unions and professional associations) multi-year demonstration projects of model health care workplaces.

Union and Professional Association Recommendations:

5. While members of the different health care unions and professional associations have unique needs, it nonetheless is important for leaders of these organizations to develop a common, long-term workplace improvement agenda. Based on documented current problems, starting points for discussion could include workload, work hours, recruitment and retention.

6. It would be useful for employer and employee groups to collaboratively document the 'lessons learned' from examples of cooperative labour-management relations, whether in health care or other industries. This scan would include alternative means of resolving grievances and addressing work environment issues during the term of a collective agreement. These lessons would help to develop and maintain a climate of positive labour relations.

7. Unions and professional associations need to address growing concerns about employee health and wellness in health care workplaces. A 'healthy workplace' perspective has the potential to move beyond the traditional parameters of

occupational health and safety to include psycho-social factors that impact the overall quality of the work environment – and, ultimately, patient care.

CEO and Management Recommendations:

8. There is a pressing need to promote workplace cultures that value employees as assets. These are high-trust, high-commitment cultures. Rebuilding commitment and trust between employee and employer must be a senior management priority within each workplace. Tangible steps would include giving workers more influence in decisions, greater openness in communication, and more investments in training and career development.

9. Organizational change must be guided by comprehensive strategies (rather than piece-meal programs) that involve all employee groups in design and implementation. Rigorous monitoring and evaluation of all organizational changes will help to create an inventory of 'best practices' that can guide future actions.

10. Where possible, jobs in the health care system should be designed to increase employees' skills, responsibility, autonomy and participation. Job redesign also can address work intensification issues. Furthermore, flexible work arrangements can help meet the diverse personal and family needs of employees, as well as providing greater organizational adaptability.

11. Integrated human resource information systems are an essential management tool, helping to make the case for specific human resource interventions—as well as showing the costs of inaction. Many health organizations do not track grievances, accidents, absenteeism, employee health and other work environment indicators. Also needed are effective monitoring and evaluation systems for all human resource management and staff development initiatives.

There are no health care organizations on the list of best places to work in Canada, as compiled by the Globe and Mail's *Report on Business Magazine* or regional business publications. This must change. The health sector can go even further, creating its own indicators of a 'workplace of choice'. These would focus on three ingredients: good quality leadership, engaged employees, and good people practices. Based on annual surveys of employees and employers, awards could be given for leading health care employers. These and other initiatives would mark substantial progress toward the goal of high quality workplaces that provide high quality health services.

References

Advisory Committee on Labour Management Relations in the Federal Public Service. 2001. *Working Together in the Public Interest*. Final Report. Ottawa: Treasury Board of Canada. (www.fryercommittee.com).

Aiken, Linda H., Sean P. Clarke, Douglas M. Sloane, et al. 2001. Nurses' reports of hospital quality of care and working conditions in five countries. *Health Affairs*. Submitted.

Aiken, L.H., H.L. Smith, and E.T. Lake. 1994. Lower Medicare mortality among a set of hospitals known for good nursing care. *Medical Care*, 32:771-787.

Akyeampong, Ernest B. 2001. Fact-sheet on unionization. *Perspectives on Labour and Income*, 13 (3):46-54.

Appelbaum, Eileen, Thomas Bailey, Peter Berg, and Arne L. Kalleberg. 2000. *Manufacturing Advantage: Why High-Performance Work Systems Pay Off*. Ithaca, NY: Cornell University Press.

Armstrong P, J. Choiniere, and E. Day. 1993. *Vital Signs: Nursing in Transition*. York: Garamond Press.

Bachmann, Kimberley. 2000. *More Than Just Hard Hats and Safety Boots: Creating Healthier Work Environments*. Ottawa: Conference Board of Canada.

Backman, Allen. 2000. *Job Satisfaction, Retention, Recruitment and Skill Mix for a Sustainable Health Care System*. Report to the Deputy Minister of Health for Saskatchewan (www.health.gov.sk.ca).

Baumann, A., et al. 2001. *Commitment and Care: The Benefits of a Healthy Workplace for Nurses, their Patients and the System*. Ottawa & Toronto: Canadian Health Services Research Foundation and The Change Foundation.

Becker, B., and B. Gerhart. 1996. The impact of human resource management on organizational performance: Progress or prospects. *Academy of Management Journal*, 39:779-881.

Blegan M.A. 1993. Nurses' job satisfaction: A meta-analysis of related variables. *Nursing Research*, 42:36-41.

Bolander, G. and A. White. 1987. A grievance system without a labour union. *Hospital Topics*, 65:17-21.

Bourbonnais, R., and M. Mondor. 2001. Job strain and sickness absence among nurses in the province of Quebec. *American Journal of Industrial Medicine*; 39:194-202.

Bru, Edvin, ReidarJ. Mykletun, Sven Svebak. 1996. Psychosocial and organizational factors at work associated with neck, shoulder and low back pain in female hospital staff. *Work and Stress*, 10 (4):308-320.

Buchbinder, S.B., et al. 1999. Estimates of costs of primary care physician turnover. *American Journal of Managed Care*, 5:1431-1438

Canadian Institute for Health Information. 2001. *Canada's Health Care Providers*. Ottawa: CIHI. (www.cihi.ca).

Canadian Health Services Research Foundation. 2001. *Listening for Direction: A National Consultation on Health Services and Policy Issues.* Ottawa: CHSRF (www.chsrf.ca).

Canadian Labour and Business Centre. 2001. *Viewpoints 2000: The Healthy Work Place*. (www.clbc.ca).

College of Family Physicians of Canadian. 2001. *2001 National Family Physician Workforce Survey* (www.cfpc.ca).

Cooke, W. 1992. Product quality improvement through employee participation: The effects of unionization and joint union-management administration. *Industrial and Labor Relations Review*, 46:119-134.

Cotton, J.L. 1993. Does employee involvement work? Yes, sometimes. *Journal of Nursing Care Quality*, 12(2):33-45.

Cox, T., and M. Leiter. 1992. The health of health care organizations. *Work and Stress*, 6:219-227.

Cutcher-Gershenfeld, J., D. Power and M. McCabe-Power. 1996. Global implications of recent innovations in US Collective Bargaining. *Relations Industrielles*, 51:281-301.

Davis, K.H. 2001. Medical laboratory technologists' national human resources review. *Canadian Journal of Medical Laboratory Science*, 63:85-96.

Duxbury, Linda, Chris Higgins, and Karen Johnson. 1999, June. *An Examination of the Implications and Costs of Work-Life Conflict in Canada*. Research report prepared for Health Canada.

Eaton, A. 1994. Factors contributing to the survival of employee participation programs in unionized settings. *Industrial and Labour Relations Review*, 47:371-389.

Ferrie, J.E., M.J. Shipley, M.G. Marmot, P. Martikainen, S.A. Stansfeld, and G.D. Smith. 2001, January. Job insecurity in white-collar workers: Toward an explanation of associations with health. *Journal of Occupational Health Psychology*, 6(1):26-42.

Firth, H.P.B. 1989. Burnout, absence and turnover amongst British nursing staff. *Journal of Occupational Psychology*, 62:55-59.

Fisher, S.R., and M.A. White. 2000. Downsizing in a learning organization: Are there hidden costs? *Academy of Management Journal*, 25:244-251.

Flarey, D., S. Youder and M. Barabas. 1992. Collaboration in labour relations: A model for union success. *Journal of Nursing Administration*, 22:15-22.

Fox, M., D.J. Dwyer, and D.C. Ganster. 1993. Effects of stressful job demands and control on physiological and attitudinal outcomes in a hospital setting. *Academy of Management Journal*, 36:289-318.

Gillies, D.A., M. Franklin, and D. Child. 1990. Relationship between organizational climate and job satisfaction of nursing personnel. *Nursing Administration Quarterly*, 14:15-22.

Gleason, Scott J., J. Sochalski, and L. Aiken. 1999. Review of magnet hospital research: Findings and implications for professional nursing practice. *Journal of Nursing Administration*, 29:9-19.

Godard, J. 2000. *Industrial Relations, The Economy, and Society* (2nd ed.). North York: Captus Press.

Godard, J. and J. Delaney. 2000. Reflections on the "high performance" paradigm's implications for industrial relations as a field. *Industrial and Labour Relations Review*, 53:482-502.

Greenglass, E.R., and R.J. Burke. 2001. Application of an impact of restructuring scale to the
health care sphere. Toronto: School of Business, York University. Working Paper.

Gunderson, M., A. Ponak and D. Taras. 2001. Union-Management Relations in Canada (4th ed.). Toronto: Addison Wesley Longman.

Haiven, L. 1995. Industrial relations in health care: Regulation, conflict and transition to the 'wellness model'. In G. Swimmer, and M. Thompson, (eds.) *Public Sector Bargaining in Canada*. Kingston, ON: Queen's University, IRC Press, 236-271.

Health Canada. 2000. Best Advice on Stress Risk Management in the Workplace. Ottawa: Minister of Public Works and Government Services Canada. Cat. # H39-546/2000E.

Hoff, T. 2000. Physician unionization in the United States: Fad or Phenomenon? *Journal of Health and Human Services Administration,* 23:5-23.

Houtman, I.L.D. K.M. 1995. Risk factors and occupational risk groups for work stress in The Netherlands. In: S.L Sauter,. M.L., (ed.), *Organizational Risk Factors for Job Stress*. Washington, DC: American Psychological Association.

Jex, Steve M. 1998. *Stress and Job Performance: Theory, Research, and Implications for Managerial Practice*. Thousand Oaks, CA: Sage.

Johnson, J.V. 1986. The impact of workplace social support, job demands and work control upon cardiovascular disease in Sweden. *Psychology*. Stockholm: University of Stockholm.

Kangas, S., C.C. Kee, and R. Kee-Waddle. 1999. Organizational factors, nurses job satisfaction and patient satisfaction with nursing care. *Journal of Nursing Administration*, 29:32-42.

Kaplan, Robert S. and David P. Norton. 2001. *The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment*. Boston: Harvard Business School Press.

Karasek, R., and T. Theorell. 1990. *Healthy Work: Stress, Productivity and the Reconstruction of Working Life*. New York: Basic Books.

Kivimäki, Mika, Jussi Vahtera, Jaana Pentti, and Jane E. Ferrie. 2000, April. Factors underlying the effect of organizational downsizing on health of employees: Longitudinal Cohort Study. *British Medical Journal*, 320:971-75.

Kochan, Thomas A., and Paul Osterman. 1994. *The Mutual Gains Enterprise*. Boston: Harvard Business School Press.

Koehoorn, M., S.M. Kennedy, P.A. Demers, et al. 1999. Work organization factors and musculoskeletal outcomes among a cohort of health care workers. *Health Care and Epidemiology*. Vancouver: University of British Columbia.

Kreitzer, M.J., D. Wright, C. Hamlin, S. Towey, M. Marko, and J. Disch. 1997, June. Creating a healthy work environment in the midst of organizational change and transition. *Journal of Nursing Administration,* 27(6):35-41.

Lam, Helen, and Yonatan Reshef. 1999. Are quality improvement and downsizing compatible? A human resources perspective. *Relations Industrielles*, 54(4):727-47.

Lanctot, A.M. 1999. *Nursing employment cross-country checkup January 1999-June 1999*. Ottawa: Canadian Nurses Association.

Landeweerd, J.A., and N.P.G. Baumans. 1994. The effect of work dimensions and need for autonomy of nurses' work satisfaction and health. *Journal of Occupational and Organizational Psychology*, 67:207-217.

Lathrop, J.P. 1993. *Restructuring Health Care: The Patient-focused Paradigm*. San Francisco: Jossey-Bass.

Lewin, D., and R. Peterson. 1999. Behavioral outcomes of grievance activity. *Industrial Relations*, 38:554-576.

Lowe, Graham S. 2001. *Employer of Choice? Workplace Innovation in Government: A Synthesis Report*. Ottawa: Canadian Policy Research Networks.

Lowe, Graham S. 2000. *The Quality of Work: A People-centred Agenda*. Toronto: Oxford University Press.

Lowe, Graham S., and Grant Schellenberg. 2001. *What's a Good Job? The Importance of Employment Relationships*. CPRN Study W-05. Ottawa: Canadian Policy Research Networks.

Maioni, Antonia. 2001. *"Emerging Solutions": Quebec's Clair Commission Report and Health Care Reform*, CPRN Backgrounder.

McDaniel, C., and L. Stumpf. 1993 Organizational culture: Implications for nursing service. *Journal of Nursing Administration*, 23:54-60.

Melum, M.M., and M.K. Sinioris. 1992. *Total Quality Management: The Health Care Pioneers*. Chicago: American Hospital Publishing.

Nagel, Kevin F. and James Cutt. 1999, March/April. Lower costs, higher effectiveness: A bottom-line profile of employee health. *Employee Health and Productivity*,:32-37.

Naylor, C.D. 1999. Health Care in Canada: Incrementalism under fiscal duress. *Health Affairs*, 18(3):9-26.

North, F M., S L. Syme, A Feeney, M Shipley, and M Marmot. 1996. Psychosocial work environment and sickness absence among British civil servants: The Whitehall II Study. *American Journal of Public Health*, 86(3):332-40.

O'Brien-Pallas, L., and A. Bauman. 1992. Quality of nursing worklife issues—A unifying framework. *Canadian Journal of Nursing Administration*, 5(2):12-16.

Parker, Sharon, and Toby Wall. 1998. *Job and Work Design: Organizing Work to Promote Well-Being and Effectiveness*. Thousand Oaks, CA: Sage.

Petterson, I-L., and B.B. Arnetz. 1997. Perceived relevance of psychosocial work site interventions for improved quality of health care work environment. *Nursing Science*, 18:4-10.

Pfeffer, J., and J. Veiga. 1999. Putting people first for organizational success. *The Academy of Management Executive*, 13:37-48.

Porter-O'Grady, T. 1994. Whole systems shared governance: Creating the seamless organization. *Nursing Economics*, 12:187-195.

Pratt, Danielle. 1999, March/April. Good Management = Good Health. *Employee Health and Productivity*, 25-27.

Pratt, Danielle. 2001. *The Healthy Scorecard*. Victoria, BC: Trafford.

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

Reshef, Y., M. Kizilos, G. Ledford and S. Cohen. 1999. Employee involvement programs: Should unions get involved? *Journal of Labor Research*, 20:557-569.

Rinehart, James, Christopher Huxley, and David Robertson. 1997. *Just Another Car Factory? Lean Production and Its Discontents*. Ithaca, NY: Cornell University Press.

Robson, L.S., H.S. Shannon, M.F.D. Polanyi, et al. 1999. A conceptual model for a healthy workplace tool. Work, Stress and Health '99: APA-NIOSH Joint Conference, Baltimore.

Robson, Lynda S. et al. 1998, April. *How the Workplace Can Influence Employee Illness and Injury*. Toronto: Institute for Work and Health, Occasional Paper # 8.

Rondeau, K.V., & Wagar, T.H. (2001). Impact of human resource management practices on nursing home performance. *Health Services Management Research*, 14: 192-202.

Schnall, Peter L., Karen Belkic, Paul Landsbergis, and Dean Baker. 2000. *Occupational Medicine: State of the Art Reviews. The Workplace and Cardiovascular Disease*. Vol. 15(1). Philadelphia, PA: Hanley and Belfus.

Shannon, H.S., C.A. Woodward, C.E. Cunningham, et al. 2001. Changes in general health and musculoskeletal outcomes in the workforce of a hospital undergoing rapid change: A longitudinal study. *Journal of Occupational Health Psychology*, 6:3-14.

Sicotte, C., J.L. Denis, and P. Lehoux. 1998. The computer based patient record: A strategic issues in process innovation. *Journal of Medical Systems*, 22:431-443.

Siegrist, J. 1996. Adverse health effects of high effort/low reward conditions. *Journal of Occupational Health Psychology*, 6:27-41.

Statistics Canada. 1999. Overview of the Work Force in Nursing. In: Dussault, G., et al. (eds.) *The Nursing Labour Market in Canada: Review of the Literature*. Montreal, QC: Université de Montréal.

Sullivan, T., and S. Adler. 1999. Work, stress and disability. *International Journal of Law and Psychiatry*, 22 (5-6): 417-424.

Sullivan, T. (ed.). 2000. *Injury and the New World of Work*. Vancouver: UBC Press.

Theorell, T., G. Ahlberg-Hultén, M. Jodko, et al. 1993. Influence of job strain and emotion on blood pressure in female hospital personnel during work hours. Scandinavian Journal of Work, Environment and Health, 19: 313-318.

Vahtera, J., M. Kivimaki, J. Pentti, and T. Theorell. 2000, July. Effect of change in the psychosocial work environment on sickness absence: A seven year follow up of initially healthy employees. *Journal of Epidemiology and Community Health*, 54(7):484-93.

Wagar, T.H., & Rondeau, K.V. (2000). Reducing the workforce: Examining its consequences in health care organizations. *International Journal of Health Care Quality Assurance incorporating Leadership in Health Services*, 13(4/5): i-vii.

Weber, D.O. 1991. Six models of patient-focused care. *Health Care Forum Journal*, 34(4):23-31.

Wells, D. 1997. When push comes to shove: Competitiveness, job insecurity and labour-management cooperation in Canada. *Industrial and Economic Democracy*, 18:167-200.

Williams, E.S., T.R. Konrad, W.E. Scheckler, D.E. Pathman, M. Linzer, J.E. McMurray, M. Gerrity, and M. Schwartz. 2001. Understanding physicians' intentions to withdraw from practice: The role of job satisfaction, job stress, mental and physical health. *Health Care Management Review*, 26(1):7-19.

Wilson, B., and H.K. Laschinger. 1994. Staff nurse perception of job empowerment and organizational commitment: A test of Kanter's theory of structural power in organizations. *Journal of Nursing Administration*, 24:39-49.

Wood, S. 1999. Human resource management and performance. *International Journal of Management Reviews*, 1:367-413.

Woodward, C.A., H.S. Shannon, C. Cunningham, et al. 1999. The impact of re-engineering and other cost reduction strategies on the staff of a large teaching hospital. *Medical Care*, 37:556-569.

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