

# Executive Health in the Federal Public Service: Individual Health and Organizational Implications

## An Overview

### Introduction

The Association of Professional Executives of the Public Service of Canada (APEX) has been monitoring the health status of federal Public Service executives for over a decade. Today, it continues to support cutting edge research into this subject.

APEX-sponsored research relies on well-established, validated scales and analytic methods to quantify and assess the significance of each of the attributes and variables (explanatory and outcome) which are examined. The APEX data can therefore be used to compare results both over time and with other published research findings.

In 1997, APEX commissioned the first large scale epidemiologic study ever carried out on this group. A second major study was commissioned in 2002. Its objective was to reassess all major elements of the first study, and to examine a number of areas of concern the first study raised. Since the demographic characteristics of the respondent sample correspond to the national profile of the executive community, these research findings are relevant for all federal public service executives.

This report is the latest in a series intended to help executives understand the results of the 2002 study and suggest action they can take to

address the problems identified. It represents a significant step forward in our understanding of individual health, organizational effectiveness and the link between the two. Further, it adds to an already substantial body of knowledge about the link between how well organizations handle the health and well-being of employees and employees' relative job satisfaction, motivation and engagement.

### The Research Model

#### **The health of individuals is influenced by organizational factors**

APEX's study of executive health in the federal Public Service combines two major models which provide reliable predictions of health outcomes.

The first model originates with the landmark research conducted in the British Civil Service over the past twenty years. The "Whitehall studies" have shown that situations of *high demand-low control* are linked to a range of diseases. The most notable finding was that in those conditions, the risk of heart disease increases by over 50%. The Whitehall research also revealed that *lack of control* is a more potent risk factor in heart disease than individual lifestyle issues. These effects are illustrated in the "demand-control-social support" model from Karasek and Theorell

### The Research Team

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(1990) and Johnson *et al* (1988).

Although the second model – Siegrist’s *effort-reward* model – is a more recent development, it has already proven itself to be quite powerful for explaining adverse health effects. Research using this model has demonstrated that people who get little reward in return for high levels of effort experience more health problems than others. Siegrist found that not only did the rates of cardiovascular problems triple, but there was also greater incidence of anxiety and depression.

These models complement each other, providing separate but equally valuable contributions to our understanding of how organizational factors contribute to a wide range of health outcomes. The *control paradigm* highlights power structures, division of labour and democracy in the work place, while the *reward paradigm* addresses issues of distributive justice and fairness. Using the models together allows us to blend information on work strain and health, such as conditions of low control and low reward that are endemic to specific occupational groups.

### **Organizational performance and individual health are affected by the same elements**

The traditional focus on individual health has evolved into a full examination of underlying workplace determinants and organizational health outcomes. Researchers from a variety of disciplines have been able to shed light on the key links between organizational factors and outcomes such as *job satisfaction, commitment, absenteeism and performance* and to demonstrate the *interrelationship between the work environment and a range of health outcomes*.

Much of the research undertaken to date has attempted to identify the drivers that create high performance organizations. It is important to note that all the literature in this field stresses that an organization’s *people management* is vital to high performance and should be measured

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with as much rigour as the bottom line results. Human resource management aptitude is now considered to be no less important than fiscal management.

This means that leaders’ performance must be assessed both on what they accomplish and how they achieve results. Measures of the latter component should factor in communication, trust, pride, involvement and so on. The most common measures include notions of *work or job satisfaction* (employees’ sense of contentment which is attributable to their individual position and to their organization); *commitment* (a sense of pride in their organization, a desire to contribute to productivity, and loyalty) and *engagement* (employees’ intent to stay with the organization). Whereas *job satisfaction* is an attitudinal measure of contentment, the latter two criteria are more focussed on behaviours.

There is a symbiotic relationship between organizational outcomes and individual health status. The Canadian Policy Research Network found that organizations which have healthy and supportive work environments are able to establish commitment and trust among employees, thereby creating a positive effect on rates of absenteeism, turnover and morale. Data from a number of studies show that the drivers of organizational outcomes are very similar to those for health outcomes: *reasonable workload; good relationships* with one’s supervisor and colleagues; *low levels of conflict; fairness*; and *rewards commensurate with effort*.

### **Individual Health Outcomes**

Long term studies have shown that cumulative exposure to stress results in serious health consequences – most notably *cardiovascular disease* – and to a lesser extent in conditions such as diabetes, cancer and asthma. Medical science has further demonstrated that continued exposure to stressors progressively worsens health status – from fatigue to discomfort to injury to disability.

Most people easily relate muscle pain (a sore neck, tight shoulders or low back pain) to long work hours and sustained pressure. However, they are not as conscious of the impact on less visible physiological systems. Few remember that the heart is a muscle too and that it will respond to physical and psychological strain in

the same fashion as the muscles in the neck, shoulders and back.

Another growing workplace health concern is *depression*, and its negative effect on performance. APEX found a significant incidence of *depression* within the executive cadre – 15.2% of executives compared to 2.6% among the general Canadian population.

*Public Service executives are not as healthy as their private sector counterparts*

The preliminary report on APEX's 2002 study of the health of Public Service executives compared its results with those of the Association's 1997 study. Since the report's release, there have been numerous inquiries about how public sector executives fare compared to their private sector counterparts. In the second, more comprehensive phase of analysis, data from the Canadian Community Health Survey (CCHS) were therefore used to compare the health status of federal and private sector executives.

The CCHS is a national study conducted by Statistics Canada and Health Canada to examine a wide range of health indicators. It provides cross-sectional estimates of health determinants, health status and health care system utilization. The CCHS data on private sector executives were collected in 2000/2001, approximately four months before the most recent APEX study was administered.

The comparative results suggest that public service executives – both male and female – have higher incidence rates for most diseases. In some instances, the rates are considerably higher (by factors of two or three) than what one might expect to see in this population.

The particular factors detrimental to health were found to be *distress*, *obesity*, *smoking*, *increased demands* and *workload*, along with greater levels of *role conflict*. Multiple regression analysis found that the Public Service executives who reported better health had more *control* over their day-to-day activities and greater *job security* than their colleagues.

Regression analyses for psychological stress

showed a similar pattern. Some factors – specifically, *flexibility*, *control* and *job security* – were found to protect against high stress levels.

*One in five Public Service executives suffers from cardiovascular disease*

Because of the very high incidence of cardiovascular disease in this group – one in five – we examined a large number of risks factors. *Age* and *gender* continued to be key determinants; in other words, being older and male were key predictors of cardiovascular disease.

Interestingly, our data identified other important factors which contribute to increased risk for cardiovascular disease. Among these, *heavy workload* was found to increased risk by 25%. This is an important finding given that heavy workload was found to have the same weight as other, more commonly recognized lifestyle risk factors. The risk increases were of the same magnitude as that estimated from *smoking* (19%), *heavy drinking* (24%) and *obesity* (13%).

These findings bolster previous research which showed that work-related factors such as *workload* and *distress* contribute to the incidence of cardiovascular disease. The higher incidence in senior public sector leaders underscores the importance of carrying out the type of thorough examination of the work environment found in this study.

### ***High levels of distress increase risk for other chronic diseases***

We also looked at a number of other diseases to determine which factors increased risk. We found that *distress*, caused by prolonged exposure to high levels of stress and strain, was a key determinant of increased risk for all the major diseases examined.

There was a significant incidence of *depression* in this group. Over half of those diagnosed by a physician for psychiatric disorder in the preceding twelve months (59.6%) experienced depression. An examination of factors contributing to increased levels of depression indicated *conflict in the workplace* as the major

contributor. In other words, an organizational climate characterized by a great deal of conflict significantly increased the risk of depression. On the other hand, a strongly supportive and fair work environment was found to be very protective, reducing the risk for depression.

Depression is a growing issue in the workplace – more and more research findings underline its negative effect on performance. The increased incidence of depression – and the contributing nature of work factors – further highlights the need to address the nature of the work environment.

### ***One third of executives are experiencing long term distress***

*Distress* is the point at which stress passes beyond any positive contribution to one's daily life and becomes detrimental to health. It is the result of high levels of stress and strain over extended periods of time. The General Health Questionnaire (GHQ) was used to measure the severity of the distress reported by executives, and allowed us to link it to physiologic reactivity.

In the APEX data, nearly a third (31.3%) scored above the GHQ threshold. While these are considered instances of minor psychiatric disorder, the level of psychological distress was significant enough to negatively affect a number of different body systems. Women reported higher rates of distress than did men.

Multiple regression analyses were done to determine which factors were associated with increased distress. While *heavy workload* and *workplace conflict* contribute to stress, increased *flexibility*, *fairness* and *control* reduce it.

The 2002 data extends the trend noted in the 1997 study: *lack of control* and *heavy workloads* continue to add to executives' distress level. The decreased presence of certain key factors – particularly those considered to be protective – is also striking. From 1997 to 2002, the extent of both *supervisory support* and *collegial support* declined. Both are protective factors, but supervisory support in particular has consistently been shown to be more potent.

Findings from both studies clearly demonstrate that the levels of distress experienced by federal Public Service executives are not only high but of long duration. Work factors exacerbate the

incidence of serious health conditions over the long term. They also increase the kind of minor health complaints which affect performance and organizational outcomes.

## **Organizational Outcomes**

The most recent APEX study examined a broad range of organizational outcomes linked to productivity and service delivery. We also looked at key indicators of organizational well-being. These are considered to be good measures of organizational robustness with respect to levels of employee engagement, commitment, and satisfaction. As noted earlier, these factors are considered to be key indicators in the service value chain and of productivity.

*Productivity, service delivery and individual health are closely linked*

Overall, the data replicated the pattern found in our 1997 study and in studies of executives elsewhere. The more senior the person, the higher the levels of work demands, workload and effort. However, senior executives also reported significantly more positive work outcomes – i.e. satisfaction – particularly when compared to executives at the EX-1 level. The negative work factors at more senior levels were counterbalanced by significantly higher levels of control and better access to resources.

A total of 80.3% of respondents reported that having access to new technology merely increased their workload, although that impact was significantly less pronounced at more senior levels. Lower level executives tended to be in operational positions and were therefore more reliant on technology – particularly e-mail – to do their work. Neither age nor gender was a factor.

*Most Public Service executives are satisfied with the nature of their work*

Just under half (48.7%) of respondents were deemed to have high *work satisfaction*. Most reported being quite satisfied with the nature of their work and the types of activities in which they were engaged. Further, the majority was

happy with the degree of *job security* and just over half (54%) were satisfied with their ability to meet *career goals and aspirations*.

*Over 50% of executives are highly committed to their work*

The way work is organized and the level of *effort* required – that is work hours, schedule, and work load – generated relatively low satisfaction. There was also less satisfaction associated with the *benefits* received for their efforts. Almost half were dissatisfied with current pay levels (49%) and over half (55%) were not happy with *training and development* opportunities.

We found that the senior managers who experienced greater levels of *distress* also reported significantly lower *work satisfaction*. Specifically, respondents with high levels of distress were five times more likely to have low work satisfaction. In addition, the majority of executives reporting higher levels of work stress due to *technology* (74%) were also at increased risk for low work satisfaction, by a factor of 138%.

*High work satisfaction* is derived from greater *perceived control* over day-to-day work routines. When we examined at the strength of the relationship, we found that having higher control increased the likelihood of higher work satisfaction by 375%. We also found that levels of control had the same effect on organizational outcomes as on individual health outcomes.

The study examined two types of *commitment*. *Affective commitment* is defined as an emotional attachment to and desire to maintain membership within an organization. *Continuance commitment* refers to a commitment based on the perceived costs associated with leaving an organization.

Over half of respondents were found to have high affective commitment (56.4%). A similar percentage (52.6%) indicated high continuance commitment. These levels of commitment were then benchmarked against findings by IPAC (Institute for Public Administration of Canada) for both the private sector and the broader public sector. The APEX data were consistent with IPAC's conclusions: higher levels of affective commitment and lower levels of continuance

commitment among public sector employees when compared to the private sector.

Loyalty to an organization was also examined. *Turnover intent* is a measure of the extent to which individuals consider leaving the organization. It reflects both the individual's degree of satisfaction with the organization and any desire to seek opportunities elsewhere.

*Over two thirds of executives think about leaving their current job at least once a month*

The frequency with which someone thinks about leaving their current place of work is an indicator of engagement or loyalty to that organization. In our data, a third (33%) of respondents indicated that they never thought of leaving their current place of work. Slightly over a third (39%) said they thought about it monthly and 27.8% considered it weekly or more often.

Multiple regressions were used to identify the key factors influencing the intent to leave. The most significant contributor was a high level of *distress*, while *intragroup conflict* increased the risk by 38%. The risk for departure was attenuated by the perception of *fairness* (77%) and by the presence of *supervisor support* (70%).

*Executives take fewer days of sick leave and many come to work when sick*

As noted in previous reviews, executives report missing fewer days for health or stress-related reasons than other groups of employees. Many respondents indicated they came to work despite minor health problems such as colds, flu or other infections. More than two thirds of executives did not take any health leave. That being said, those who did take health leave tended to be off work for relatively long periods of time. The leading reason for taking leave (other than vacation) was *stress-related fatigue*.

The amount of leave used was influenced both by individuals' health and their sense of

attachment to the workplace. Not surprisingly, *high attachment to the workplace* moderated the use of leave and *work satisfaction* contributed to high attachment to the workplace.

Using regression analyses, we looked at the factors contributing to *absenteeism* and found the major ones to be *distress, intragroup conflict and harassment*. High levels of *responsibility for others*, on the other hand, were associated with a reduced likelihood of absenteeism.

Just being at work does not guarantee productivity. A substantial amount of research literature explores the phenomenon of *presenteeism*, people coming to work when sick and unable to work to full capacity. We found that 58.4% of executives went to work when they were physically unwell – the average was 2.2 days during the preceding six months. Forty-six percent of those who went to work when ill said that this had a negative effect on their performance.

Research has found that *depression* and *anxiety* are the major contributors to presenteeism. When we examined the rates for psychiatric problems in the APEX data, we found that 15.2 % of executives were at risk for depression versus 2.6 % of Canadians overall. Almost half of these executives (45.2 %) did not report any absenteeism.

### **The impact of the effort-reward equation**

According to the literature on occupational health, health status depends in part on balance between *effort* and *rewards*. The effort-reward model assumes that effort expended at work is part of a norm of social reciprocity wherein rewards are provided in return. *Effort* refers to the qualitative and quantitative demands associated with the work. *Rewards* are comprised of a number of elements: financial compensation, esteem, opportunities for advancement (career) and job security. Money, esteem and status play a key role in determining whether there is a lack of reciprocity or a high cost/low gain ratio in terms of the energy expended to achieve a certain level of reward or recognition.

*High effort, without appropriate rewards or recognition.... leads to negative outcomes.*

Situations characterized by a lack of reciprocity – *high effort without appropriate rewards or recognition* – generate an imbalance that leads to negative outcomes. The reaction to this kind of imbalance is similar to the strain reaction causing autonomic arousal. Long periods of autonomic arousal increase susceptibility to illness.

The study also assessed executives' views on the performance pay system using the concept of *distributive justice*. They were asked for their perception of the amount of at-risk pay awarded as well as whether rewards and recognition were equitably distributed according to effort.

### **Lower level executives feel their efforts are not well recognized**

Just under half of respondents (49.8 %) indicated they were fully satisfied with their current level of pay. Lower level executives tended to be less satisfied with their current compensation and thought there was less equity in the system. This same was true for *rewards*; the sense of equity increased with level. The issue is not strictly speaking the amount of money which is being paid but the extent to which that amount is perceived as appropriate recognition for the effort expended.

These findings are important. Lower level executives consistently perceive they are not being fairly rewarded or recognized for their contribution, which is completely at odds with how well the people responsible for their performance reviews think the system is working.

All these results are consistent with the comments APEX has heard during its annual consultations and surveys over the past five years. Executives are comfortable with the general framework for the performance management program (PMP), but have significant concerns with how it has been implemented: based on study and consultation results, performance pay is not being consistently applied across or within

departments.

## Organizational culture

Work is not performed in a vacuum but in a social milieu. The literature shows that organizational climate, particularly with respect to *interpersonal relationships*, has a considerable influence on both individual health and organizational outcomes. The nature of those relationships and the level of social support they provide have been shown to affect a range of health outcomes.

The APEX study used indices for organizational climate ranging from the perception of *fairness and justice* in the workplace to *interpersonal conflict* and *harassment*. The overall tenor of the workplace is difficult to measure, as each individual experiences interpersonal relationships in different ways. However, the overall perception of *fairness* has been shown to influence both individual and organizational outcomes.

In order to examine these various elements in relation to a common set of procedures, we chose to focus on the performance pay process since it applies to all executives – supposedly in the same fashion – right across the Public Service. Because this process is important to all executives, their assessment of it is a key indicator of their perception of fairness in the decisions that directly effect them.

Executives' rating of *interpersonal relationships* was very positive while their estimation of *procedural equity* was quite low. In other words, the processes or the manner in which they are applied tend to produce poor perceptions of justice at all executive levels.

*There was a perception that... colleagues did not treat each other with respect .... and that suggestions were often ignored.*

To assess the degree of fairness in the workplace, we used the Fair Interpersonal Treatment Scale (FITS). The results painted a picture of a work environment in which individuals felt neither fairly treated nor appreciated. There was a

perception that complaints are not dealt with effectively, that colleagues did not treat each other with respect, that hard work was not appreciated and that suggestions were often ignored.

While respondents generally said they were being treated respectfully by their superiors, a number of behaviours were generating poor work relationships. A considerable proportion felt that favouritism affected performance ratings, and that staff were not trusted. Overall, while executives trust their immediate superior, they do not trust those more senior to the supervisor. The results are consistent with the previous data on justice and employees' perceptions of equitable treatment in the workplace.

Levels of *interpersonal support* have decreased from 1997 to 2002, both at the supervisory and peer levels. We looked at two dimensions of conflict in the workplace: *intergroup* (between different work groups) and *intragroup* (within one's work group). Occurrences of both types of conflict have not significantly changed over the five year interval; both remained higher than those reported by the National Institute for Occupational Health and Safety for a cross-section of organizations.

*Almost one in four executives had experienced harassment*

In 2002, just under a quarter of executives (21.9%) reported that they had been verbally harassed or tormented in the preceding 12 months. This is even more significant when we consider that this result comes from the group most likely to have some degree of control and protection from harassment. Clearly, *harassment* and *inappropriate behaviour* are relatively common within the executive community. When *harassment* occurred, over half of respondents said it took place on more than one occasion.

Most executives experiencing harassment did not report it formally. As in 1997, executives were more likely to report harassment if the originator was a client (44.0%), a subordinate (49.5%) or a coworker (44.9%), than if it originated with a superior (27.9%) or a supervisor (21.6%). When we examined the

sources of harassment, we found that most harassment originates with a supervisor. Subordinates are the second most common source. Clients accounted for very little of the harassment experienced by executives.

*....most harassment originates with a supervisor.*

We examined the relationship of harassment to selected health and organizational outcomes. The risk for *depression* in particular increased by 132%. Harassment also heightened the risk for *distress* by 75% and for *musculoskeletal disorders* by 44%. Not surprisingly, health problems related to harassment resulted in higher rates of *absenteeism*: the incidence of significant levels of absenteeism was twice as high for those who had been harassed. Absenteeism for stress was also twice as frequent for anyone who reported having been harassed. We also found a strong association between harassment and a number of organizational outcomes. As one might expect, harassment had a negative correlation with *work satisfaction* and a positive one with *intent to leave*.

We used multiple regressions to identify factors which contributed to an increased susceptibility to being harassed. The likelihood of being harassed is higher for women and for executives in work environments characterized by a high level of *intragroup conflict* and a *lack of resources*. In contrast, strong *interpersonal support* reduced the likelihood of being harassed. *Supervisory support* in particular had a noticeably positive effect.

The above results demonstrate the tremendous negative effect of harassment on an organization. Being on the receiving end of harassment can produce serious emotional and physical consequences, altering the person's perception of their work environment.

It is equally clear that the degree of *supervisory support* has a significant effect across a broad range of outcomes, most importantly in its ability to counter aggressive behaviour in the workplace. The workplace climate established and monitored by the supervisor sets the context and tone for behaviour. This is another example of the importance of *leadership* to both individual health and organizational outcomes.

Literature on workplace well-being raises concerns about psychological safety in an organization where fears of *intimidation and/or harassment* are present. ***While the numbers may be relatively small, we argue that having even one person intimidated or harassed is unacceptable.***

### **Decision latitude imbalance produces job strain**

*Decision latitude* is defined as the balance between the level of demand and the amount of control one can exercise to manage the demand. When demand outweighs control, the individual experiences high levels of *strain*. For the purposes of our study, the concept of strain refers to the outcome of a *decision latitude imbalance* as commonly defined in the literature.

We used Karasek's demand-control model to create four categories of job strain based. The two dimensions were high demand versus low demand and high control versus low control. Although there were no significant differences across gender, the type of strain experienced at different levels within the executive cadre did vary.

*Almost half of all executives work over 55 hours a week*

We also examined the impact of work hours on *strain*. Based on previous research, we anticipated that working over 55 hours a week would increase the likelihood of strain and negative health impacts. Our data bore this out. Almost half the executives (46%) reported working 55 or more hours a week.

Executives with *high demand* and *high control* were in the "active coping" group; 23% of respondents were in this group. The percentage of executives in the *active* group increased significantly with level. At the EX-01 level, approximately one in five executives (18.6%) were in this group. At the EX-05 level almost one in two executives (47.6%) were in this group. Overall, the executives in this group rated themselves as being healthier; 63.9% rated their health as excellent or very good. They exhibited half the rates of high distress of those

in the passive group.

Executives with *low demand* and *high control* were in the “*low strain*” group included; 23.4% were in this group. The percentage of executives in this group was lowest at the EX-05 level (21.4%), followed by the EX-01s (22.3%) and EX-03s (26.6%). Approximately 27% of EX-02s and 30% of EX-04s fell into this group. The lowest percentage of executives working longer hours were found in this group (35.7 %). The executives in this group also rated themselves as healthier; 65.2% rated their health as excellent or very good.

Executives with low demand and low control were in the “*passive strain*” group; almost 23% of respondents were in this group. The highest percentage of executives in this group were at the EX-01 level (26.5%), followed by the EX-02s (19.8%) and the EX-03s (18.6%). Almost 12% of EX-05s fell into this group, while the lowest percentage of executives in this group was at the EX-04 level (6.1%). In the *passive* group, a smaller percentage were working long hours (39.3 %). . The executives in this group were in one of the two groups that rated themselves lowest in terms of health status; 14.5% rated their health as fair or poor. The rate for depression in the *passive* group was double that of the *low strain* group, further confirming that low demand combined with low control also has negative consequences. The passive group as well had increased levels of absenteeism.

Executives with high demand and low control were in the “*high strain*” group; the highest percentage of respondents (30.7 %) were in this group. Approximately 33% of executives at both the EX-01 and EX-02 levels were in this group. Approximately 26% of EX-03s and EX-04s were in this group, as were 19% of EX-05s. A greater number of respondents in the *high strain* category (58.0 %) were working longer hours than their colleagues in the *active* group (49.6 %). Executives this group, as well as the *passive* group, rated themselves lowest in terms of health status; 13.7% rated their health as fair or poor. They had a greater incidence of *depression* – almost three times the rate for individuals in the *low strain* group. Those in the high strain group were also three times more likely to experience high levels of *distress* than individuals in the low strain group. In addition, higher levels of strain were associated with higher levels of *absenteeism* than those in the

*low strain* group (35.7 %).

### **Insufficiently challenging work also affects health and organizational outcomes**

We looked at the effect of strain on organizational outcomes. There was a significant impact on both forms of commitment and on work satisfaction. *Affective commitment* was lowest for those in the *passive* group. Their sense of not having enough of a challenge prevents them from developing the feelings of accomplishment which would contribute to their sense of belonging or making a significant contribution. The *high strain* group also had lower levels of affective commitment. Together, these results indicate that both too much and not enough strain present difficult situations. It is the balance which is critical to maintaining affective commitment.

*....work satisfaction stems from having the right balance between job demands and job control*

The same pattern holds for *work satisfaction*. Less than a quarter of the high strain group and just over a third of the passive group reported high work satisfaction, in contrast to the low strain group (3/4) and the active group (2/3). Again, work satisfaction stems from a balance between job demands and job control, with good decision latitude favoring positive work outcomes.

We conducted a regression analysis to explore the interplay between *workload*, *decision latitude* and *strain*. Past studies have found workload to be a key determinant of strain, whereas control was the main mitigating factor. Our findings reconfirm the role that *decision latitude* plays in reducing strain and its consequent link with the health and well-being of executives. Executives in *high strain* positions (e.g., characterized by high demands and low control) have considerably more difficulty coping with the resulting detrimental impact on their health. It is also evident that *decision latitude* significantly affects key organizational outcomes. An imbalance between *job demands* and the amount of *control* one can exert has far reaching effects for both the individual and the organization.

## **The health of executives and the effectiveness of organizations stem from the same factors**

The results of APEX's research show clearly that health and organizational outcomes are intertwined. The factors which produced the greatest health risks for individuals had similar effects on organizational outcomes: reduced work performance, increased absenteeism, lower commitment, lower work satisfaction and increased intent to leave.

The connections among *workload, decision latitude, social support* and *rewards/recognition* with regard to both individual and organizational outcomes is striking. Imbalances in both the demand/control and the effort/reward paradigms presented significant risk factors for all outcomes.

## **Conclusion**

### **Striking the right balance**

This study confirms long-standing concerns about the health of federal Public Service executives. Their health is poor in comparison with their peers in the private sector and the general population. The incidence of several chronic diseases are much higher than it should be. Furthermore, the health of Public Service executives deteriorated between 1997 and 2002.

There is a strong link between work and health, with a number of factors in the work environment directly affecting individual health. These same factors have an equally powerful impact on organizational performance, particularly with respect to productivity and service delivery, two key elements of *Results for Canadians*.

This study makes a major breakthrough by reducing these elements to a manageable number of interconnected *key determinants*:

- ▶ *control,*
- ▶ *interpersonal support,*
- ▶ *job demands,*
- ▶ *effort, and*
- ▶ *rewards and recognition*

### **It's about making smart choices**

The key determinates have considerable practical value as the basis for change interventions, and day-to-day decision-making. Lack of knowledge is no longer a barrier. We know what the problems are and we know what solutions are required. These solutions lie in the balance achieved between the five key determinates, a balance that is critical for good health, productivity and client service.

Public Service executives work in an environment characterized by heavy workload and complex challenges. Job demands and the effort required to achieve them are high and will remain high. However, with control over the day to day decisions required to deal with this workload, support from their supervisors and recognition for their efforts, executives can thrive in this environment. There are no magic solutions or silver bullets. The key to leading healthy employees and effective organizations is making informed choices, on a daily basis.