

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI

A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor MI 48106-1346 USA
313/761-4700 800/521-0600

ORGANIZATIONAL VALUES AND EMPLOYEE HEALTH INITIATIVES:
INFLUENCE ON PERFORMANCE AND FUNCTIONING

by

Kevin Frederick Nagel

B.A. (with Distinction), University of Regina, 1980
Honors B.A. (Economics), University of Regina, 1980
M.A. (Educational Administration), University of Victoria, 1993

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

in the Department of Communication and Social Foundations

We accept this dissertation as conforming
to the required standard:

~~Dr. Y.M. Martin Newcombe, Supervisor, Department of Communication and
Social Foundations~~

~~Dr. C.E. Hodgkinson, Professor Emeritus, Department of Communication and
Social Foundations~~

~~Dr. J. Cuff, Outside Member, School of Public Administration~~

~~Dr. M. Collis, Outside Member, Department of Physical Education~~

~~Dr. Mary Schmitz, External Examiner~~

© Kevin Frederick Nagel, 1998
University of Victoria

All rights reserved. This dissertation may not be reproduced in whole or part
without the written permission of the author.

Supervisor: Yvonne Martin-Newcombe

ABSTRACT

This study was an exploratory investigation of the perceived existence and importance of values and their influence on organizational performance. The study also included an examination of the methods used to operationalize health values; rationale used to justify the implementation of employee health programs and activities (EHPAs); importance of incentives and organizational factors for enhancing employee involvement and commitment to EHPAs; and the attributes of EHPAs and management approaches used with respect to employee health in Canada. The study was conducted among a diverse group of 187 public (including federal, provincial and municipal government entities) and private sector organizations in 1997.

Conclusions of the study included that Health values were perceived to exist and be important values in respondent organizations; values heavily influence organizational performance systematically through their affect on decision-making as it relates to the identification of “desired” outcomes; the values deemed most important by participant organizations were those values perceived to influence the achievement of the identified desired organizational outcomes and the typology of those values was consistent with Hodgkinson’s Value Paradigm. Conclusions drawn also included that the values held by decision-makers in positions of power and authority were more likely to influence organizational direction than those values held by members at lower levels of the organizational power structure. These values were also more likely to be included in

value, mission and vision statements and other plans, policies and documentation of a strategic or directional nature. Conclusions drawn with respect to EHPAs included that programs and activities such as EHPAs are often initiated as a result of values integration or clustering which involves two or more values coming together to influence the creation of a program or initiative; organizations who agreed or strongly agreed that Health values were important values in their organizations had more extensive EHPAs and/or budgets for EHPAs than organizations who did not agree with this statement; Health values are in transition due to the cut backs in provincial health budgets that have taken place since 1990; and, EHPAs are increasingly being recognized as a means of maintaining or controlling health costs and enhancing performance in Canadian organizations.

Examiners:

Dr. Y.M. Martin Newcombe, Supervisor, Department of Communication and Social Foundations

Dr. C.E. Hodgkinson, Professor Emeritus, Department of Communication and Social Foundations

Dr. J. Cutt, Outside Member, School of Public Administration

Dr. M. Collis, Outside Member, Department of Physical Education

Dr. Mary Schmitz, External Examiner

Table of Contents

	Page
Title Page.....	i
Abstract.....	ii
Table of Contents.....	iv
List of Figures.....	xv
List of Tables.....	xvi
Dedication.....	xxv
Acknowledgments.....	xxvi
Special Tribute.....	xxix
CHAPTER	
I. PROBLEM AND PURPOSE.....	1
Focusing on Health Values.....	1
The Emergence of Values as Performance Factors.....	2
Statement of the Problem.....	4
Purpose.....	5
Primary Research Questions.....	6
Secondary Research Questions.....	7
Tertiary Research Questions.....	8
Significance of this Research.....	8
Organizational Effectiveness.....	9
Employee Productivity.....	9

Controlling Health Costs.....	10
Indirect Human Resource Costs.....	11
Public Health System Costs.....	11
Quality of Life.....	12
Background.....	13
Personal and Organizational Values.....	13
Managerial Decision-Making and Value Conflicts.....	15
EHPAs and Organizational Performance.....	17
Definitions.....	18
Assumptions, Limitations and Delimitations.....	23
Assumptions.....	20
Limitations.....	20
Delimitations.....	21
Notes to Chapter 1.....	22
II. LITERATURE REVIEW.....	23
The Literature on Values.....	24
Background.....	24
Personal Values.....	36
Organizational Values.....	38
Organizational Culture and Value Congruence.....	45
Person-Situation Congruence.....	51
Person-Culture Congruence.....	54

Value Conflicts Effect on Managerial Decision-Making.....	57
Summary.....	65
The Literature on Employee Health Management.....	66
Background.....	67
EHPA Outcomes.....	71
Best Studies.....	74
Selection Criteria.....	74
Blue Cross and Blue Shield.....	75
Dupont Manufacturing Company.....	76
Kimberley-Clark Corporation.....	78
Treatwell.....	79
Minneapolis-St. Paul.....	80
Johnson & Johnson Corporation.....	81
General Motors.....	82
EHPA Results.....	85
Key Features of Successful EHPAs.....	86
The Factors Predicting Participation.....	87
Bases for Development.....	87
The Integration of EHPAs.....	88
Factors Affecting Implementation.....	89
The Literature on Organizational Effectiveness.....	90
Background.....	90

	Models of Organizational Effectiveness.....	96
	Integration of the Competing Models.....	100
	Recent Developments.....	102
	Relevance of the Research to Study Design.....	104
III.	RESEARCH METHODOLOGY.....	105
	Research Design.....	106
	Research Questions.....	107
	Primary Research Questions.....	108
	Secondary Research Questions.....	109
	Tertiary Research Questions.....	110
	Scope.....	110
	Unit of Analysis.....	110
	Participants.....	111
	Instrument.....	111
	Validity and Reliability.....	119
	Pilot Study.....	123
	Procedures.....	125
	Data Collection.....	127
	Treatment and Analysis of the Data.....	128
	Content Analysis of Responses.....	130
	Internal Consistency of Responses.....	131
	Analytical Framework - Primary and Secondary Research Questions....	131

Notes to Chapter 3.....	134
IV. RESULTS AND ANALYSIS.....	136
Findings: Primary Research Questions.....	137
Research Question 1.....	137
Perceptions of the Existence of Values.....	137
Group Perceptions of the Existence of Values.....	139
Analysis of Variance.....	140
Contingency Analysis.....	143
Scheffe Post-Hoc Test.....	147
Research Question 2.....	147
Perceptions of the Importance of Values.....	147
Group Perceptions of the Importance of Values.....	150
Analysis of Variance.....	151
Contingency Analysis.....	154
Scheffe Post-Hoc Test.....	157
Research Question 3.....	159
Perceptions of the Influence of Values on Outcomes.....	159
Group Perceptions of the Influence of Values on Outcomes.....	161
Analysis of Variance.....	161
Contingency Analysis.....	164
Scheffe Post-Hoc Test.....	164
Research Question 4.....	168

Perceptions of the Heavy Influence of Values on Outcomes.....	168
Group Perceptions of the Heavy Influence of Values on Outcomes.....	170
Analysis of Variance.....	170
Contingency Analysis.....	172
Scheffe Post-Hoc Test.....	172
Research Question 5.....	177
Perceptions of Operationalization Methods or Vehicles.....	177
Group Perceptions of Operationalization Methods or Vehicles.....	179
Analysis of Variance.....	179
Contingency Analysis.....	181
Research Question 6.....	185
Perceptions of Rationale.....	185
Group Perceptions of Rationale.....	187
Analysis of Variance.....	187
Contingency Analysis.....	189
Research Question 7.....	193
Perceptions of the Kinds of Value Conflicts.....	193
Group Perceptions of the Kinds of Value Conflicts.....	195
Analysis of Variance.....	196
Contingency Analysis.....	196
Research Question 8.....	201

Perceptions of the Types of Value Conflicts.....	201
Group Perceptions of the Types of Value Conflicts.....	203
Analysis of Variance.....	203
Contingency Analysis.....	206
Scheffe Post-Hoc Test.....	209
Research Question 9.....	209
Perceptions of Incentives.....	209
Group Perceptions of Incentives.....	212
Analysis of Variance.....	213
Contingency Analysis.....	216
Scheffe Post-Hoc Test.....	216
Research Question 10.....	220
Perceptions of Commitment Factors.....	220
Group Perceptions of Commitment Factors.....	222
Analysis of Variance.....	222
Contingency Analysis.....	225
Scheffe Post-Hoc Test.....	229
Summary.....	231
Perceptions of Thematic Categories.....	231
Group Perceptions of Thematic Categories.....	233
Significant Differences.....	233
Findings: Secondary Research Questions.....	235

Research Question 11.....	235
General Description.....	235
Alberta Provincially-Funded Organizations.....	236
Alberta Private Sector Organizations.....	236
All Alberta Organizations.....	237
British Columbia Provincially-Funded Organizations.....	237
British Columbia Private Sector Organizations.....	238
All British Columbia Organizations.....	239
Federal Government Organizations.....	239
Research Question 12.....	240
Perceptions of Visible Signs of EHPA Support.....	240
Group Perceptions of Visible Signs of EHPA Support.....	241
Contingency Analysis.....	241
Research Question 13.....	245
Perceptions of the Modes of EHPA Delivery.....	245
Group Perceptions of the Modes of EHPA Delivery.....	247
Contingency Analysis.....	247
Research Question 14.....	251
Perceptions of the Availability of EHPA Information.....	251
Group Perceptions of the Availability of EHPA Information.....	253
Contingency Analysis.....	253
Research Question 15.....	257

	Perceptions of the Concern for Rising Health Costs.....	257
	Group Perceptions of the Concern for Rising Health Costs.....	257
	Contingency Analysis.....	259
	Research Question 16.....	262
	Perceptions of Health Cost Analyses.....	262
	Group Perceptions of Health Cost Analyses.....	264
	Contingency Analysis.....	265
	Research Question 17.....	268
	Perceptions of EHPA Commitment.....	268
	Group Perceptions of EHPA Commitment.....	270
	Contingency Analysis.....	270
	Summary.....	273
	Perceptions of Thematic Categories.....	273
	Group Perceptions of Thematic Categories.....	275
	Significant Differences.....	276
	Findings: Tertiary Research Questions.....	276
	Research Question 18.....	276
	Research Question 19.....	279
	Research Question 20.....	281
	Research Question 21.....	283
V.	SUMMARY, DISCUSSION AND CONCLUSIONS.....	286
	Summary.....	286

Discussion.....	291
Factors Affecting Results.....	291
Financial Restraint.....	291
Cultural Differences.....	292
Nature of Organizations.....	293
Existence and Importance of Values.....	294
Influence of Values on Organizational Performance.....	297
Employee Health Questions.....	298
Operationalizing Health Values.....	299
Implementation Rationale.....	299
Kinds and Types of Value Conflicts.....	299
Participation Incentives.....	300
Commitment Factors.....	301
Organizational Approaches to Employee Health.....	301
Visible Employer Support For EHPAs.....	302
EHPA Delivery.....	302
Availability of EHPA Information.....	302
Concern About Rising Employee Health Costs.....	303
Analysis of Health Costs.....	303
EHPA Commitment.....	304
Participant Statements Regarding Values, EHPAs and Research Results.....	304
Conclusions.....	305

Implications For Future Research.....	312
References.....	314
Appendix A - VHM Survey Questionnaire.....	335
Appendix B - Research Study Introduction Letter.....	347
Appendix C - Participant Suggestions Regarding the VHM.....	348
Appendix D - Responses to the Open-Ended Research Questions.....	349
Appendix E - List of Quality EHPAs Studies.....	364

LIST OF FIGURES

Figure 1: Hodgkinson's Value Paradigm..... 26

LIST OF TABLES

Table 1:	Weber's Four Cell Typology of Personal Value Orientations.....	34
Table 2:	Rokeach's Terminal and Instrumental Values.....	37
Table 3:	Values Perceived to Exist in North American Organizations.....	41
Table 4:	Results of Posner & Schmidt's Values Survey (1992).....	44
Table 5:	Results of Bullen's Value Survey (1992).....	46
Table 6:	Liedtka's Value Congruence Model.....	61
Table 7:	Criteria and Measures of Organizational Effectiveness.....	91
Table 8:	Dominant Organizational Values and Key Word Descriptors.....	114
Table 9:	Pilot Study Reliability Results.....	122
Table 10:	Overview of Major Research Stages and Steps.....	126
Table 11:	Internal Consistency of Responses Using Cronbach's Alpha.....	133
Table 12:	Mean Scores and Level of Support For the Values Perceived to Exist in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	138
Table 13a:	Analysis of Variance of Values Perceived to Exist in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	141
Table 13b:	Analysis of Variance of Values Perceived to Exist in the All Alberta and All British Columbia Groups.....	142
Table 14a:	Chi Square Analysis of the Values Perceived to Exist in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	144
Table 14b:	Chi Square Analysis of the Values Perceived to Exist in the All Alberta and All British Columbia Groups.....	146

Table 15:	Scheffe Post-Hoc Pair-Wise Comparisons of Values Perceived to Exist in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	148
Table 16:	Mean Scores and Level of Support for the Values Perceived to be Important in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	149
Table 17a:	Analysis of Variance of the Values Perceived to be Important Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	152
Table 17b:	Analysis of Variance of the Values Perceived to be Important Values in the All Alberta and All British Columbia Groups.....	153
Table 18a:	Chi Square Analysis of the Values Perceived to be Important Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	155
Table 18b:	Chi Square Analysis of the Values Perceived to be Important Values in the All Alberta and All British Columbia Groups.....	156
Table 19:	Scheffe Post-Hoc Pair-Wise Comparisons of Values Perceived to be Important Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	158
Table 20:	Mean Scores and Level of Support for the Organizational Outcomes Perceived to be Influenced by Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	160
Table 21a:	Analysis of Variance of the Organizational Outcomes Perceived to be Influenced by Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	162
Table 21b:	Analysis of Variance of the Organizational Outcomes Perceived to be Influenced by Values in the All Alberta and All British Columbia Groups.....	163

Table 22a:	Chi Square Analysis of the Organizational Outcomes Perceived to be Influenced by Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	165
Table 22b:	Chi Square Analysis of the Organizational Outcomes Perceived to be Influenced by Values in the All Alberta and All British Columbia Groups.....	166
Table 23:	Scheffe Post-Hoc Pair-Wise Comparisons of the Organizational Outcomes Perceived to be Influenced by Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia... ..	167
Table 24:	Mean Score and Level of Support for the Outcomes Perceived to be Heavily Influenced by Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	169
Table 25a:	Analysis of Variance of the Organizational Outcomes Perceived to be Heavily Influenced by Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	171
Table 25b:	Analysis of Variance of the Organizational Outcomes Perceived to be Heavily Influenced by Values in the All Alberta and All British Columbia Groups.....	173
Table 26a:	Chi Square Analysis of the Organizational Outcomes Perceived to be Heavily Influenced by Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	174
Table 26b:	Chi Square Analysis of the Organizational Outcomes Perceived to be Heavily Influenced by Values in the All Alberta and All British Columbia Groups.....	175
Table 27:	Scheffe Post-Hoc Pair-Wise Comparisons of Organizational Outcomes Perceived to be Heavily Influenced by Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	176

Table 28:	Mean Score and Level of Support for the Methods or Vehicles Utilized to Operationalize Health Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	178
Table 29a:	Analysis of Variance of the Methods or Vehicles Utilized to Operationalize Health Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	180
Table 29b:	Analysis of Variance of the Methods or Vehicles Utilized to Operationalize Health Values in the All Alberta and All British Columbia Groups.....	182
Table 30a:	Chi Square Analysis of the Methods or Vehicles Utilized to Operationalize Health Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	183
Table 30b:	Chi Square Analysis of the Methods or Vehicles Utilized to Operationalize Health Values in the All Alberta and All British Columbia Groups.....	184
Table 31:	Mean Score and Level of Support For the Rationale Utilized to Justify the Implementation of EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	186
Table 32a:	Analysis of Variance of the Rationale Utilized to Justify the Implementation of EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	188
Table 32b:	Analysis of Variance of the Rationale Utilized to Justify the Implementation of EHPAs in the All Alberta and All British Columbia Groups.....	190
Table 33a:	Chi Square Analysis of the Rationale Utilized to Justify the Implementation of EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	191

Table 33b:	Chi Square Analysis of the Rationale Utilized to Justify the Implementation of EHPAs in the All Alberta and All British Columbia Groups.....	192
Table 34:	Mean Score and Level of Support for the Kinds of Value Conflicts Perceived to Impede EHPA Implementation Efforts in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	194
Table 35a:	Analysis of Variance of the Kinds of Value Conflicts Perceived to Impede EHPA Implementation Efforts in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	197
Table 35b:	Analysis of Variance of the Kinds of Value Conflicts Perceived to Impede EHPA Implementation Efforts in the All Alberta and All British Columbia Groups.....	198
Table 36a:	Chi Square Analysis of the Kinds of Value Conflicts Perceived to Impede EHPA Implementation Efforts in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	199
Table 36b:	Chi Square Analysis of the Kinds of Value Conflicts Perceived to Impede EHPA Implementation Efforts in the All Alberta and All British Columbia Groups.....	200
Table 37:	Mean Score and Level of Support for the Types of Value Conflicts Perceived to Impede EHPA Implementation in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	202
Table 38a:	Analysis of Variance of the Types of Value Conflicts Perceived to Impede EHPA Implementation Efforts in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	204
Table 38b:	Analysis of Variance of the Types of Value Conflicts Perceived to Impede EHPA Implementation Efforts in the All Alberta and All British Columbia Groups.....	205

Table 39a: Chi Square Analysis of the Types of Value Conflicts Perceived to Impede EHPA Implementation Efforts in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia..... 207

Table 39b: Chi Square Analysis of the Types of Value Conflicts Perceived to Impede EHPA Implementation Efforts in the All Alberta and All British Columbia Groups..... 208

Table 40: Scheffe Post-Hoc Pair-Wise Comparisons of the Types of Value Conflicts Perceived to Impede EHPA Implementation Efforts in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia..... 210

Table 41: Mean Score and Level of Support for Incentives that influence Short Term Employee Involvement in EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups..... 211

Table 42a: Analysis of Variance of the Incentives that Influence Short Term Employee Involvement in EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia..... 214

Table 42b: Analysis of Variance of the Incentives that Influence Short Term Employee Involvement in EHPAs in the All Alberta and All British Columbia Groups..... 215

Table 43a: Chi Square Analysis of the Incentives that Influence Short Term Employee Involvement in EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia..... 217

Table 43b: Chi Square Analysis of the Incentives that Influence Short Term Employee Involvement in EHPAs in the All Alberta and All British Columbia Groups.....218

Table 44: Scheffe Post-Hoc Pair-Wise Comparisons of the Incentives that Influence Short Term Employee Involvement in EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia..... 219

Table 45:	Mean Score and Level of Support for the Factors that Influence Long Term Employee Commitment to EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	221
Table 46a:	Analysis of Variance of the Factors that Affect Long Term Employee Commitment to EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	223
Table 46b:	Analysis of Variance of the Factors that Affect Long Term Employee Commitment to EHPAs in the All Alberta and All British Columbia Organizations.....	224
Table 47a:	Chi Square Analysis of the Factors that Affect Long Term Employee Commitment to EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	226
Table 47b:	Chi Square Analysis of the Factors that Affect Long Term Employee Commitment to EHPAs in the All Alberta and All British Columbia Groups.....	228
Table 48:	Scheffe Post-Hoc Pair-Wise Comparisons of Factors that Affect Long Term Employee Commitment to EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia.....	230
Table 49:	Composite Variable Scores and Level of Support by Thematic Category for Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	232
Table 50:	Significant Differences and Pairings Regarding Primary Research Questions for Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	234
Table 51:	Positive Response % and Level of Support for Visible Signs of EHPA Support in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	242

Table 52a:	Chi Square Analysis of the Visible Signs of Employer Support For EHPAs in Federal Government, Provincially Funded and Private Sector Groups in Alberta and British Columbia.....	243
Table 52b:	Chi Square Analysis of the Visible Signs of Employer Support For EHPAs in the All Alberta and All British Columbia Groups.....	244
Table 53:	Positive Response % and Level of Support for the Modes of EHPA Delivery Utilized in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	246
Table 54a:	Chi Square Analysis of the Modes of EHPA Delivery Utilized in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British.....	248
Table 54b:	Chi Square Analysis of the Modes of EHPA Delivery Utilized in the All Alberta and All British Columbia Groups.....	249
Table 55:	Positive Response % and Level of Support for the Types of EHPA Information that may be Available in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	252
Table 56a:	Chi Square Analysis of the Types of EHPA Information Available in Federal Government, Provincially Funded and Private Sector Groups in Alberta and British Columbia.....	254
Table 56b:	Chi Square Analysis of the Types of EHPA Information Available in the All Alberta and All British Columbia Groups.....	255
Table 57:	Positive Response % and Level of Support for Health Cost Concerns in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	258
Table 58a:	Chi Square Analysis of Health Costs Concerns in Federal Government, Provincially Funded and Private Sector Groups in Alberta and British Columbia.....	260
Table 58b:	Chi Square Analysis of Health Cost Concerns in the All Alberta and All British Columbia Groups.....	261

Table 59:	Positive Response % and Level of Support for the Level at which (and Frequency with which) Health Costs are Analyzed in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	263
Table 60a:	Chi Square Analysis of the Level at which (and Frequency with which) Health Costs are Analyzed in Federal Government, Provincially Funded and Private Sector Groups in Alberta and British Columbia.....	266
Table 60b:	Chi Square Analysis of the Level at which (and Frequency with which) Health Costs are Analyzed in the All Alberta and All British Columbia Groups.....	267
Table 61:	Positive Response % and Level of Support for the Factors Affecting EHPA Commitment in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	269
Table 62a:	Chi Square Analysis of the Factors that Affect EHPA Commitment in Federal Government, Provincially Funded and Private Sector Groups in Alberta and British Columbia.....	271
Table 62b:	Chi Square Analysis of the Factors that Affect EHPA Commitment in the All Alberta and All British Columbia Groups.....	272
Table 63:	Positive Response % and Level of Support by Thematic Category For Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups.....	274
Table 64:	Significant Differences Regarding Secondary Research Questions for Federal Government, Provincially Funded and Private Sector Groups in Alberta and British Columbia.....	277

DEDICATION

To those who CELEBRATE LIFE...for it is they who give us the motivation to improve ourselves as well as the strength and compassion to use our knowledge and abilities to help others. During my stay in Victoria, I was fortunate to have befriended four unique individuals who both exemplify the values of which this dissertation speaks and possess the ability to empower others by example. They are Margaret and Hugh Kinsley and Bette and Bill MacDiarmid. Honest, caring and perceptive, there are few people I enjoy discussing current events and Education with more than Margaret and few whose kindness and manner I have more respect for than Hugh. The Kinsleys have been a true source of inspiration and enjoyment for my family and I am proud to have them as friends. Bette and Bill are relatives who were instrumental in helping me form opinions on a wide range of matters over frequent dinners which featured perhaps the best home-made apple pie in North America. My family's relationships with these four engaging individuals stand out as highlights of our stay in Victoria and contributed greatly to our quality of life there. Not surprisingly, I can not think of four more worthy and deserving people to dedicate this dissertation to than they.

To my family (immediate, extended and by association), but particularly, to my wife Jane and daughter Ava who have supported my academic efforts with patience, encouragement, understanding and humor each and every step along the way. The "road-less-traveled" certainly would not have been as enjoyable as it turned out to be without their caring, friendship and laughter.

ACKNOWLEDGMENTS

The support of many individuals contributed to the completion of this dissertation. Those mentioned herein are not meant to represent an exhaustive list, they are simply those who came to mind during one sitting of remembrance. I therefore make a general statement of indebtedness to those who have taught and influenced me, both academically and with respect to life itself, during the period in which this work was undertaken.

Dr. Yvonne Martin-Newcombe could not have known that we would work together for more than six years when I knocked on her door in November, 1992. Over the years we spent together, Yvonne demonstrated a willingness to master a diverse range of topic areas I was exploring and investigating. She could be counted to be informative, reliable and resourceful, and just as importantly, a good friend during my time at the University of Victoria.

Both the field of educational administration and I have been benefactors of the philosophical excellence and academic works of Professor Christopher Hodgkinson. Professor Hodgkinson is a world class scholar, philosopher and leader in the field of educational administration. Beyond his obvious intellectual talents and impressive academic contributions, Christopher Hodgkinson, the person, exemplifies the values which have enabled Canadian educational institutions to distinguish themselves on the world stage. I have considered it a privilege to have been taught by him and an honor to call him a friend. I will always be grateful for his interest and contribution to my academic and professional thought processes as well as my research endeavors.

Dr. James Cutt has not only been a supporter of my work at UVIC since I returned to pursue graduate studies but also, has been a reliable professional colleague with whom I share a number of core values as they relate to public sector accountability, management and administration. Probably one of the best economic and political commentator's heard and/or seen on CBC or BCTV, Jim's unique ability to skillfully analyze complex issues and formulate pragmatic, workable solutions distinguishes him in both the classroom and the Boardroom. It also bewilders his adversaries during live media-covered debate. I have valued his friendship, counsel, quick wit and support, and, look forward to maintaining a productive working relationship with Jim in the future.

Dr. Martin Collis joined my committee shortly after he had accepted a award for being a *pioneer* in the field of workplace wellness. Dr. Collis has both a unique and entertaining method of disseminating knowledge and information that has set him apart from other practitioners in the field of health promotion. He is an innovator, a one-of-a-kind, and has proven that learning and practicing wellness can be an enjoyable experience for both the service provider and recipient. What a concept!

Dr. Mary Schmitz was my external examiner and performed this important role with the grace and intelligence that has come to distinguish her work in the field of health promotion. Mary's intimate knowledge of the research in the field of health promotion and interest in my personal research efforts have set the stage for an on-going relationship that is one of the most unexpected yet significant outcomes of my doctoral studies at the University of Victoria. I look forward to regular contact with Mary.

Dr. Peter Ribbins from Birmingham University (U.K.) was not a member of my Student Supervisory Committee however, he was instrumental in influencing my decision

to pursue doctoral studies at the University of Victoria. I was fortunate to have Peter as an instructor and friend during one summer of study in Victoria and look forward to renewing our friendship and exchanging experiences as our paths cross in the future.

Dr. Peter Murphy admitted me into the Department of Communication and Social Foundations and was also an active member of my supervisory committee for the better part of four years. Peter is energetic and creative. His interest in my field of study during my time in Victoria is appreciated.

Sara Baylow and Julie Smith in the Graduate Program office were also very helpful in keeping my studies on track. Sara kept me informed with respect to schedule and, as the department's informal advisor on APA format, also ensured my dissertation was structured in an appropriate manner.

While it is not possible to single out any person in particular, special thanks goes out to the individuals working on the McPherson Library Reference Desk and in the University of Victoria Interlibrary Loans Office. Without their assistance, conducting research, particularly from an off-campus site such as Calgary, would be a much more difficult task than it was during the 2 years I had to do it.

Finally, one of the contextual factors that influenced my academic interests as well as my personal frame of reference was the supernatural beauty of the City of Victoria and Vancouver Island as a whole. No matter how demanding the schedule became or hectic the lifestyle, a quiet jog or leisurely walk along Willows Beach or a drive up the island coast to Parksville-Qualicum or further on to Tofino or Long Beach helped make even the worst of days enjoyable. What a great place to live...and study!

SPECIAL TRIBUTE



Craigellachie of ALAMAWA

Shortly after defending my dissertation in June 1998, one of my family's best friends, and my study pal, was lost through a misfortunate accident. "Craig", our Cairn Terrier and I spent many long hours together conducting the research and writing up the results that are presented herein. He and I celebrated the many small victories students and their side-kicks have to celebrate when undertaking a study of this magnitude. He was the best study partner I could have asked for....seldom complained, spoke little and liked Pralines and Cream ice cream. He also liked to go for walks at Gyro Park where I could both collect my thoughts and relax. My daughter Ava has not known life without Craig and my wife Jane loved him as if he were a son. We all miss him terribly. I am exercising author's privilege here to remember Craig. In our minds and hearts, he exemplified the character traits that have made the dog "Man's Best Friend".

CHAPTER 1

PROBLEM AND PURPOSE

The single greatest challenge facing managers in the developed countries of the world is to raise the productivity of knowledge and service workers. This challenge, which will dominate the management agenda for the next several decades, will ultimately determine the competitive performance of companies. Even more important, it will determine the very fabric of society and the quality of life in every industrialized nation (Drucker, 1991, p. 69).

Although improving organizational performance (e.g. productivity) has been identified by leading management scholars as a top organizational priority, and, there is agreement among researchers and theorists that values influence organizational behavior including decision-making and other acts of executives, managers and staff (England, 1967; Hodgkinson, 1978; Katz & Kahn, 1978), a study of the influence of values on organizational performance has not been undertaken. This research explored the relationship that is perceived to exist between organizational values and performance, and thereby, addressed this existing gap in the values literature.

Focusing on Health Values

While the objective of this research is to enhance understanding of the relationship that exists between organizational values and performance, there are benefits in focusing on *Health* values¹. First, by concentrating efforts on a single category of values, a more in-depth understanding of how values are perceived and operationalized can be developed. Second, there is no debate as to the existence of *Health* values in Canada. For many citizens, the national health care system itself symbolizes Canadian

values (National Forum on Health, 1997). It is reasonable then, to expect that *Health* values will be present to some degree, in a majority of Canadian organizations. Third, recent research that *Health* values influence decision-making to implement employee health programs and activities (EHPAs) (Simpson, 1996) which, in turn, can positively influence such salient organizational concerns as health care costs (Breslow, Fielding, Herrman & Wilbur, 1990), absenteeism (Bertera, 1990) and employee job performance (Bernacki & Baun, 1984) suggest that increased understanding of Health values can contribute to increased understanding of organizational performance.

The Emergence of Values as a Performance Factor

Exploring values is becoming more common in the world of business and public policy. Today, it is just as common for organizations to have value statements as it is for them to have strategic management or human resource plans (Posner & Schmidt, 1992). This trend is more than a fad. It is an explicit acknowledgment of the important contribution made by values to organizational performance, which, for the purposes of this research, is considered to be the achievement of organizational outcomes related to effectiveness, efficiency, quality, productivity, innovation, quality of work life and profitability (Sink, 1985). But how, if at all, do values influence these important organizational outcomes?

An increasing number of scholars and practitioners believe that values, through their influence on individual and collective decision-making (England, 1967; Hodgkinson, 1978; Katz & Kahn, 1978), can affect an organization's ability to achieve positive performance-related outcomes. The influence values have on organizational

functioning is further supported by studies that suggest that clearly articulated values significantly affect organizational performance, and, that alignment between organizational values and personal values is a key determinant of corporate success (Howard, 1990; Posner, Kouzes & Schmidt, 1985; Posner & Schmidt, 1992).

The superior performance of firms with strong corporate cultures, for example, has been ascribed to their use of socialization and other techniques to emphasize specific core values that when shared by employees are thought to perform certain crucial functions (Barney, 1986; Tichy, 1983). Schein (1985) described these functions as external adaptation and internal integration. In fostering external adaptation, holding these core values is believed to influence employees to behave in ways that are necessary for the organization to survive in its environment. In this mode, values are thought to have a direct influence on the behavior of individuals in the workplace.

The role of values in internal integration is quite different in that it relates to the influence of shared values on interpersonal interactions. Specifically, individuals who hold the same values are thought to share certain aspects of cognitive processing. These similarities are presumed to foster comparable methods of classifying and interpreting environmental events and a common system of communication. Such qualities are essential to the success of interpersonal activities because they reduce or eliminate uncertainty, stimulus overload and other negative features of work interactions thereby enhancing coordination, job satisfaction and organizational commitment (Schein, 1985).

Value similarity is also assumed to affect coordination, satisfaction and commitment through the mechanism of prediction. That is, when employees possess similar values they also have clearer role expectations because they can more accurately

predict each other's behavior (Kluckhohn, 1951). In such cases, individuals experience less role ambiguity and conflict and tend to be more satisfied and committed to their organization (Fisher & Gitelson, 1983).

Statement of the Problem

While recent empirical research suggests that well-designed EHPAs can enhance employee health and a number of important outcomes associated with organizational performance, decisions to implement EHPAs are often influenced by a number of contextual factors including but not limited to an organization's values or culture (Wolfe, 1989). Despite broad interest, current knowledge and understanding of the influence of values on an organization's ability to achieve positive performance-related outcomes through EHPAs is limited.

Historically, Canadian organizations have had the benefit of our national medical care system to shield them from rising health costs. Since 1990, the shielding benefit provided by the system has quickly eroded as policy-makers have cut health care budgets as a primary means of reducing provincial deficits and debt. A survey of 2,000 Canadian employers conducted by the Conference Board of Canada (1996) found that 87% of Canadian employers had realized an average increase in health costs of 26% between 1990-1994. Concurrently, Health Canada's (1996) National Health Expenditures in Canada 1975-1994 report indicates that privately-paid health expenditures have increased for 20 consecutive years, reaching an historic high of \$20.4 billion in 1994. Despite this information becoming available, few forward-thinking employers in Canada are

implementing initiatives aimed at improving employee health and/or curbing health-care spending (The Conference Board of Canada, 1996).

Given the major effort Canadian organizations have made in the past decade to improve performance and reduce their costs (Nagel & Cutt, 1995), and, the growing recognition that a healthy, educated and skilled workforce is the true source of competitive advantage (Thurow, 1992), and hence, the key to improving productivity (Drucker, 1991), the reluctance of Canadian organizations to implement EHPAs raises questions about the values and value conflicts that may exist in these organizations. Due to the effect organizational performance is perceived to have on the quality of life for society as a whole (Drucker, 1991), many researchers believe identifying the relationship that is perceived to exist between values and organizational performance, particularly as it relates to EHPAs, is important and merits further investigation (Alexander & Nagel, 1996; Fielding, 1991; Hitt, Hoskisson & Harrison, 1991; Ilgen, 1990; Wolfe, Parker & Napier, 1994).

Purpose

The central purpose of this study was to clearly identify the values that are perceived to exist (and be important in) participant organizations, and, to determine the extent to which respondents perceived the achievement of seven important organizational outcomes (namely, Effectiveness, Efficiency, Quality, Productivity, Innovation, Profitability and Quality of Work Life) to be influenced by organizational values. Because recent research suggests that well-designed EHPAs can affect the achievement of important organizational outcomes (Wolfe et al., 1994) and that EHPAs are organizational expressions of Health values (Simpson, 1996), the secondary purpose of this study was to

examine employer utilization of EHPAs in Canadian organizations. Ten primary, seven secondary and four tertiary research questions guided this research. Each set of questions focused on either the primary or secondary purpose of the study or both.

Primary Research Questions

Research Question 1. Do perceptions, regarding the existence of the organizational values identified, differ significantly among the designated groups?

Research Question 2. Do perceptions, regarding the importance of the organizational values identified, differ significantly among the designated groups?

Research Question 3. Do perceptions, as to whether or not values influence an organization's ability to achieve positive performance-related outcomes, differ significantly among the designated groups?

Research Question 4. Do perceptions, as to whether or not values heavily influence an organization's ability to achieve positive, performance-related outcomes, differ significantly among the designated groups?

Research Question 5. Do perceptions, as to the methods or vehicles utilized by organizations to operationalize *Health* values, differ significantly among the designated groups?

Research Question 6. Do perceptions, concerning the rationale utilized by organizations to justify the implementation of EHPAs, differ significantly among the designated groups?

Research Question 7. Do perceptions, regarding the kinds of value conflicts that impede EHPA implementation efforts, differ significantly among the designated groups?

Research Question 8. Do perceptions, regarding the types of value conflicts that impede EHPA implementation efforts, differ significantly among the designated groups?

Research Question 9. Do perceptions, of the incentives utilized to enhance short term employee involvement in EHPAs, differ significantly among the designated groups?

Research Question 10. Do perceptions, of the factors that affect long term employee commitment to EHPAs, differ significantly among the designated groups?

Secondary Research Questions

Research Question 11. How could participant organizations, in terms of workforce characteristics, be described?

Research Question 12. Do perceptions, as to whether or not employers have demonstrated visible support for EHPAs, differ significantly among the designated groups?

Research Question 13. Do perceptions, regarding how EHPAs offered in the past 12 months have been delivered, differ significantly among the designated groups?

Research Question 14. Do perceptions, regarding the internal availability of information required to make informed decisions concerning employee health, differ significantly among the designated groups?

Research Question 15. Do perceptions, regarding concern for rising health-related costs, differ significantly among the designated groups?

Research Question 16. Do perceptions, regarding the level (and frequency) at which health-related costs are analyzed, differ significantly among the designated groups?

Research Question 17. Do perceptions, regarding EHPA commitment, differ significantly among the designated groups?

Tertiary Research Questions

Research Question 18. What perceptions are held by private and public sector organizational representatives with respect to values?

Research Question 19. What perceptions are held by private and public sector organizational representatives with respect to EHPAs?

Research Question 20. What perceptions are held by private and public sector representatives with respect to obstacles to EHPA implementation?

Research Question 21. What perceptions are held by private and public sector representatives with respect to benefits that may be derived from the results of this research?

Significance of this Research

The systematic study of value effects on organizational decision-making, particularly as it relates to the implementation of EHPAs, could contribute significantly to an improved understanding of both individual and organizational functioning. Organization and management scholars may develop more elaborate and precise explanations of key organizational system outcomes by understanding the value systems that are operational as well as the influence values have on organizational performance. The areas in which increased understanding can be expected are outlined below.

Organizational effectiveness. According to Cameron and Whetten (1983), organizational effectiveness has a long and varied history. In its simplest form, research related to the study of organizational values, particularly as it relates to EHPAs, attempts to explain why organizations function as they do and how they might function more effectively. Research, as proposed in this study, will not clarify why organizations do what they do, but, it may help explain how organizations can enhance goal attainment and improve performance.

Organizations achieve goals and improve performance through people. When employees put forth their optimal effort and are more committed, organizational performance improves. EHPAs have been shown to affect the quality of effort employees are able to put forth (Pate & Blair, 1983) and to enhance job performance (Bernacki & Baun, 1984). At the same time, EHPAs have been reported to improve employee satisfaction (Breslow et al., 1990) while value congruence between employees and their organization has been shown to improve motivation and involvement (Schein, 1981) and commitment (Posner, Kouzes & Schmidt, 1985). Accordingly, the study of *Health* values may help researchers identify how to increase organizational effectiveness.

Employee productivity. As with organizational effectiveness, employee productivity continues to garner a seemingly disproportionate share of attention from organizational and managerial researchers (Drucker, 1991). A variety of programs have been initiated to improve productivity in recent years including total quality management, effectiveness frameworks, benchmarking, mentorship, quality circles, management by objectives, world class emulation, and, high performance management to name just a few (Nagel & Cutt, 1995). While these programs focus on creating processes and

mechanisms designed to modify employee behavior, the research issue is whether such practices actually result in employees working more effectively (Wolfe, Ulrich & Parker, 1987). Investigation of organizational values may produce another set of factors that influence employee productivity. Consequently, scholars interested studying productivity might consider models that include values as a possible contributor.

Controlling health costs. This issue represents a major organizational challenge in both Canada and the United States. Most employers in Canada are spending more than 10% of payroll on health expenditures while health related costs continue to grow by as much as 15-20% per year (The Conference Board of Canada, 1996). Analysts predict that employer's health costs will continue to rise significantly in the future as government cost-containment policies become entrenched, job and stress related illnesses become more widespread and baby-boomers near retirement (Alexander & Nagel, 1996). Health care in America is among most expensive employee benefits (Bureau of National Affairs, 1996).

One way of containing and/or controlling health costs is by ensuring the workforce is mentally and physically fit as these employees typically require less medical attention than unfit employees. Not surprisingly, recently published health management research supports this assertion and suggests that well-designed EHPAs can enhance employee health (Wolfe, Parker & Napier, 1994) and reduce health costs (Baun et al., 1986; Breslow et al., 1990). Thus, scholars interested in approaches that decrease organizational costs (or conversely, increase effectiveness) might consider studying *Health* values as a means of identifying barriers to EHPA implementation.

Indirect human resource costs. Organizations experience health-related indirect human resource costs in the form of absenteeism, turnover and re-staffing. Maxey et al. (1982) estimate that it costs \$700 million (U.S.) to replace (via recruitment and staffing) the 200,000 American employees who are killed or disabled each year by cardiovascular disease alone. They also report that the cost of replacing a senior executive can be as high as \$600,000 (U.S.). As the Canadian and American workforces and costs related to recruitment and staffing are relatively comparable, similar indirect human resources costs to those estimated by Maxey et al. (1982) can be anticipated in Canada with respect to replacing workers or executives who have been killed or disabled by preventable illness and disease.

Should studies of organizational values, particularly those related to employee health, be able to contribute to the development of a healthier Canadian workforce, they should also be able to contribute to a reduction in health-related indirect human resource costs (such as those incurred with respect to recruitment and staffing). Accordingly, researchers interested in managing absenteeism may be find the study of *Health* values both informative and practically useful.

Public health system costs. While the discussion of *Health* values as they relate to EHPAs has thus far been limited to the workplace, many researchers believe that the study of *Health* values has the potential to influence population health through EHPA's ability to generate spill-over or indirect positive benefits for participant family members, friends and associates through the home-to-work interface, and, through general corporate and societal culture exchange. As described in the Strategies for Population Health: Investing in the Health of Canadians, a report prepared by the Federal, Provincial and

Territorial Advisory Committee on Population Health, values of peers and social networks, such as those that exist within organizations, are perceived to play an important role in the formation and maintenance of improved population health practices and behavior.

Services that educate children and adults about health risks and health choices, and encourage and assist them to adopt healthy living practices, make a contribution....The values and normative behaviors of peers and social networks are powerful influences on health practices. Social conditioning plays a crucial role in determining and sustaining health behaviors. (pp. 22-25)

Quality of Life. Hodgkinson (1983) believes that a values-based approach to organizational administration which, in this research includes the management of employee health, is needed if improvements in the quality of administration and life for citizens are to be realized. As Hodgkinson puts it:

The need for a valuational approach to administration is intensified in an era of pluralism and value confusion....Increasingly the quality of life is organizationally determined. (p. 56)

Because so much of modern life is conducted in or governed by organizations....In the post-industrial society we are all dependent upon the quality of administration for the quality of our lives. (p. 13)

Although the study of *Health* values, particularly as it relates to the implementation of EHPAs, will not completely explain organizational outcomes, organizational and management scholars interested in improving employee productivity and performance, controlling indirect human resource costs, enhancing organizational effectiveness, reducing public health system costs, and, influencing factors affecting the

quality of societal life may derive more complete models by considering the influence of *Health* (and other) values on both individual and organizational functioning.

Background

Some scholars believe that over the course of the last decade, societies have displayed an increasing willingness to forego some level of material well-being to protect their natural environments, elevate their under-privileged classes and better provide social services. These developments suggest an evolution of values towards a more humane, socially concerned and environmentally conscious society with an expanded concept of productivity and higher priority for the aesthetic qualities of life. Not surprisingly, as society's values have changed, so have the values which guide organizational decision-making. Organizations have become more concerned about the health and general well-being of their employees and have acknowledged their responsibilities for the organization's customers, neighbors and community at large. Thus in addition to the traditional role of the workplace to offer economic incentives and reasonable conditions of employment, there is now the added incentive of enhancing worker health to achieve social as well as economic goals (Baker & Green, 1991).

Personal and organizational values. Many theorists believe that personal and organizational values (and value conflicts) influence organizational behavior including decision-making and other acts of executives, managers and staff (England, 1967; Hodgkinson, 1978; Liedtka, 1989; Nagel & Cutt, 1995).

Although the notion of shared values or culture has been important in the study of organizational behavior for the past decade (Barley, Meyer & Gash, 1988; O'Reilly,

1989), recognition of organizational values as one of the executive's fundamental functions has early roots (Barnard, 1938; Selznick, 1957). Interest in organizational values and corporate culture has grown as a result of the conclusion that organizations with strong cultures often exhibit superior overall performance (Barney, 1986; Deal & Kennedy, 1982; Kilmann, 1984; Peters & Waterman, 1982). Further evidence for this conclusion has come from accounts of the Japanese system of management (Ouchi, 1981; Pascal & Athos, 1981). These descriptions attribute the high levels of motivation and involvement of Japanese workers, in large part, to their adoption of the dominant values and philosophies held by their organizations (Schein, 1981).

Research conducted in the 1970s and 1980s indicated that organizations were taking a keen interest in the affect of values on organizational functioning. Everet (1986) and McDonald & Zepp (1990) reported that about eighty percent of large corporations in North America had taken the initiative to develop statements of organizational values. Similar research conducted in the 1990s revealed that organizational interest in values has continued to increase with almost ninety percent of organizations having or developing value statements (Nagel, 1995). Content analysis of organizational value statements and value-laden directional documents such as mission and vision statements led Nagel to develop a list of fourteen dominant organizational values. Through discussion of the values statements with respondents, Nagel (1995) made a number of key observations regarding the development and influence of values in organizations, including the perceived role of senior management.

Posner, Kouzes & Schmidt (1985) conducted a study to explore the question: "What difference does it make whether or not an individual's values are compatible or

congruent with those of his or her organization?" As a result of their study, these researchers concluded that efforts to clarify and merge personal and corporate values can have a significant payoff for both managers and their organizations. As a follow-up to this study, Posner and Schmidt (1992) conducted a values survey among 1,100 members of the American Management Association and found thirteen organizational values to be dominant. Their results also indicated that organizational values can and do change and/or evolve over time.

Bullen (1992) conducted a study to explore the impact of values on the career advancement of women in the British Columbia public service. Bullen examined: the extent to which the values of public service managers are shared with those of their organization and among themselves; the relationship among career advancement and value congruency; and the reported change in manager's values between the time of entry into careers in management and the time of the investigation. Bullen found fifteen organizational values to be dominant in the British Columbia Public Service.

Managerial decision-making and value conflicts. Despite the considerable attention that values and value systems have received in the management literature, little empirical work has been directed at exploring the role of values or the implications of value conflicts on managerial decision-making processes (Liedtka, 1989). Traditional decision-making theories view the decision-maker as a rational actor (Allison, 1971). These theories have tended to ignore values altogether (Cavanaugh, 1976) or assume that the values operating in any given decision situation are either consonant or are prioritized by the organization thus providing clear and consistent guidelines for managerial decision-making.

Dissenters from the rational model have pointed out important ways in which the realities of organizational life depart from such a convenient assumption. Weick (1969) argued that individuals rely upon pre-determined scripts rather than independent thought to guide behavior. Other short-comings of traditional decision-making theory found in the various literatures include the need to recognize the subjective element (Culbert & McDonough, 1985), behaviors such as satisficing (Cyert & March, 1965), defensive routines (Argyris, 1985) and a mobilization of bias (Bachrach & Baratz, 1971).

Hodgkinson (1978) believed that "the intrusion of values into the decision-making process is not merely inevitable, it is the very substance of decision". (p. 59) He asserts that some degree of value conflict is the "normal human and administrative condition" (p. 121) and explains that it is the pervasiveness of values which ensures conflict exists:

Values impinge upon and are intertwined in every phase of the administrative process and this of itself, guarantees conflict...the basic lines of tension are between individual and organization in the one direction and between organization and the environment on the other. These tensions, their humane bases and the pervasion of values ensure that administration is a difficult art and one which can be at once the noblest, the oldest and the basest of the professions. (Hodgkinson, 1983, pp. 3-4)

Toffler (1986) interviewed 33 managers asking them to describe situations in which they had faced value conflict. Participants described 59 situations of which more than 66% related to performance evaluation, human resource policies and systems, and, relationships on the job. Toffler identified four specific types of value conflict as a result of her research: conflict between two or more personally held values; conflict between personal values and the values held by another person or the organization; conflicts between basic principles and the need to achieve a desired outcome (means/ends

conflict); and conflict between two or more individuals or groups to whom one has an obligation.

Liedtka (1989) developed a theoretical model for examining the source of value conflict in a given situation. Her *Value Congruence Model* characterizes the value systems of the individual and the organization to be either in harmony (consonance) or in contention (contending) as related to the specific values involved in the difficult situations under consideration. After completing her study, Liedtka concluded that while the *Value Congruence Model* was a useful framework to characterize the nature of the value conflicts experienced by managers, it failed to link directly with a given manager's decision process as hypothesized at the outset. She subsequently described four different mindsets (managerial, political, value-driven and bureaucratic) from her interview notes and a review of the literature, which, she described as "certain patterns of behavior or mental approaches used by managers to frame a situation, evaluate alternatives and select a behavior". (p. 80)

EHPAs and organizational performance. EHPAs are long term organizational activities designed to promote the adoption of personal behaviors conducive to maintaining and/or improving employee health (Wolfe, Parker & Napier, 1994). Since the mid-1970s, the number of EHPAs in the North American workplace has grown exponentially (Gebhardt & Crump, 1990; Hollander & Lengermann, 1988; Warner, 1990). Organizational sponsorship of these programs in America has been motivated by a number of factors including an interest in improving the health of employees, a desire to provide additional employee benefits and a commitment to controlling health care, accident and absenteeism costs (Wolfe et al., 1994).

An increasing number of researchers believe that the potential of EHPAs to improve performance is even greater than their potential for cost-savings (Golaszewski et. al., 1992). The decision to implement EHPAs is consistent with arguments that improved competitiveness requires increased investment in human capital (Hitt et. al., 1991; Ulrich & Lake, 1990). Recent research indicates that EHPAs can positively influence morale, absenteeism, turnover, recruitment and productivity (Glasgow & Terborg, 1988; Matheson & Ivancevich, 1988; Wolfe et. al., 1987). As Ilgen (1990) has argued, if employers are concerned about performance, they must also be concerned about employee health.

Definitions

Employee health programs and activities (EHPAs). Are long term organizational activities designed to promote the adoption of personal behaviors conducive to maintaining and/or improving employee health. Such activities include: health and wellness education and promotion; diabetes, asthma, arthritis and stroke education and prevention programs; stress management, weight control, exercise and fitness and smoking cessation programs; health risk appraisals; blood pressure and cholesterol monitoring; nutrition education, back pain management and accident prevention programs. EHPAs do not include any activity that does not have health improvement as its primary focus. Accordingly, programs and activities such as employee assistance programs, occupational health services, recreational programs and health cost containment initiatives are not considered to be EHPAs for the purposes of this research.

Health. A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (World Health Organization, 1998).

Leadership. That general form of human behavior which seeks to achieve ends through organizational means (Hodgkinson, 1991).

Metavalue. A concept of the desirable so vested and entrenched that it seems beyond dispute or contention.

Operationalize. To put into operation; to make operational; the condition of being in action or at work.

Organizational Culture. The shared pattern of basic values, attitudes and norms held by the organization's members.

Organizational Performance. The ability to achieve organizational goals and objectives, and, generate positive organizational system outcomes related to effectiveness, efficiency, quality, productivity, innovation, quality of work life and profitability.

Organizational Values. Values considered most important by an organization in carrying out its mission, achieving its goals and objectives and generating positive organizational outcomes.

Value. A concept of the desirable or preferred state of affairs which possesses motivating force.

Value Conflicts. A situation at the intra-personal, intra-hierarchical or inter-hierarchical level in which there is contention between contradictory values.

Value System. An orientation of values with dynamic and static ordering.

Assumptions, Limitations and Delimitations

Assumptions. The assumptions made regarding this study were: 1) the participants selected (human resource and employee health representatives) are legitimate judges of the values held by their respective organizations; 2) that polling perceptions about values can facilitate the development of inferences concerning the relationship that may exist between values and elements of organizational performance; and, 3) that well-designed EHPAs can assist organizations achieve positive outcomes.

Limitations. The limitations of this research are related to the cost and transferability of information provided by participants. In an effort to minimize research costs, a limited number of key contacts were selected for participation. Delbecq et al. (1975) believed that:

With a homogenous group of people, ten to fifteen participants might be enough (and)...few new ideas are generated within a homogeneous group once the size exceeds thirty well-chosen participants". (p. 89)

Between 20-80 participants from each of the respondent groups were selected. The non-randomized nature of the participant selection process limits the power (and therefore, the transferability of results) of the research and makes it probable that other researchers utilizing different participants and methods will produce somewhat varying responses to similar questions. In addition, the responses and information provided by participants were accepted at face value without independent verification. Consequently, the transferability of results from this research must be viewed with caution. It is the researcher's view that this study should be considered as a starting point for more focused

and rigorous research efforts with respect to the influence of values and employee health initiatives on organizational performance.

Delimitations. The delimitations of this research refer to its limits or boundaries such as the definition of EHPAs utilized; timeline; quality of responses received; and the number of participants. The definition of EHPAs adopted with respect to this research is not universally accepted although it is consistent with the discussion of EHPAs found in the literature (e.g. Fielding & Piserchia, 1989; Glasgow & Terborg, 1988; Wolfe & Ulrich, 1987; Wolfe, Parker & Napier, 1994). This research is limited to the responses provided by 187 administrators and employees responsible for EHPA and related decision-making in private, public and government organizations over a seven month period.

Notes to Chapter 1

1. Sharkey et al., (1995) believed Health was a value in at least three senses. First, it is something valued among other things of value. Second, it is an instrumental good and therefore, is valued for how it makes one feel or for what it enables one to do as opposed to something that is valued in its own right. Third, it is inherently a value rather than a factual state of affairs. Beyond the significance we attach to certain conditions, there is no health or disease in nature. What counts as health or disease is as dependent upon our values as upon any principle of ethics or precept of law.

CHAPTER 2

LITERATURE REVIEW

This chapter reviews the relevant research with respect to values, organizational effectiveness and employee health management. Given the vastness of these literatures, no attempt is made in this chapter to develop a comprehensive recitation of the various research methodologies and findings contained in each of them. Rather, a conceptual review of the literature is presented as prior research is summarized and organized into the individual but contextually related research streams.

While the values literature may be the most pertinent to this research, perspectives of organizational effectiveness and employee health management are also important. Collectively, these literatures are relevant to this dissertation as it relates to two vital aspects of the organizational decision-making process. First, the influence of values on decision-making as it relates to the identification of desired organizational objectives or outcomes (i.e. those outcomes related to effectiveness, efficiency, quality, productivity, innovation, quality of work life, profitability, etc.) as described in the organizational effectiveness literature. Second, the influence of values on decision-making as it relates to the selection of organizational interventions (i.e. implementing EHPAs as a means of reducing costs) required to achieve the desired outcomes.

The Literature on Values

The domain of values as a topic for empirical study in the social sciences may be roughly demarcated as that of the beliefs of human beings about what is right, good or desirable and of their corresponding actions and attitudes. Research into values began in the disciplines of anthropology, sociology and psychology but has since become widespread. A survey of the field indicates that methods of research into values may be loosely classified into two groups. The first group consists of those studies in which the researcher takes the stance of an observer and looks at aspects of behavior under natural or experimental conditions. The second group consists of attempts to discover people's value-related beliefs by asking them directly, listening to their speech, examining their writings or obtaining answers to questionnaires. Research of this type is by far the most popular and is the approach adopted herein.

Background

Many theorists believe personal values to be a critical influence upon behavior including the decisions or actions of managers (Christensen, Andrews, Bower, Hamermesh & Porter, 1987; England, 1967; Freeman & Gilbert, 1988; Hodgkinson, 1978; Katz & Kahn, 1978; Kelly, 1980; Nagel & Cutt, 1995). Consistent with the growing interest in values research, numerous definitions of values appear in the literature. For example, Morrill (1980) believes that values "serve as the authorities in the name of which choices are made and action taken" (p. 62) while Rokeach (1973) defines values as:

...an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence. (p.5)

Hodgkinson (1983) perceived values as "concepts of the desirable with motivating force, or, concepts of the desirable which tend to act as motivating determinants of behavior" (p. 36) and supported Kluckhohn's (1951) more elaborate definition of values:

A value is a conception, explicit or implicit, distinctive of an individual or characteristic as a group, of the desirable which influences the selection from available modes, means, and ends of action. (in Hodgkinson, 1978, p. 121)

Hodgkinson (1983) reasons that values are subjective because they are concepts and have to do with the "phenomenology of desire" which manifests itself at different ontological levels and exhibits different relationships to consciousness. Hodgkinson specifies that there are only four grounds or justifications for valuing: principles (Type I values); consequences (Type IIA values); consensus (Type IIB values); and preference (Type III values). He believes that one of the most challenging tasks faced by administrators is the prioritization and emphasis of "right" versus "good" values and has constructed a value paradigm consisting of three levels of values ranging from "right" to "good" which he suggests may offer assistance to administrators in regard to analyzing and resolving value conflicts (Figure 1). Level I values, the highest order or "right" oriented values, are established on principles derived from a religious calling or ideological commitment. They are transrational in nature and go beyond reason as they imply an act of faith or intent or will as it is manifested in the acceptance of a principal. Level IIA values are justified on the grounds of rationality, particularly on the basis of an

Value Type	Grounds of Value	Psychological Faculty	Philosophical Orientation	Value Level	RIGHT ↑ ↓ GOOD
I	PRINCIPLES	Conation/willing	religion existentialism intuition	I	
II	CONSEQUENCE (A)	Cognition/reason	utilitarianism pragmatism humanism democratic liberalism	II	
III	CONSENSUS (B)	Thinking			
IV	PREFERENCE	Affect Emotion Feeling	Behaviorism Positivism Hedonism	III	

Figure 1: Hodgkinson's Value Paradigm

analysis of the consequences of holding them. Level IIB values are also justified on the grounds of rationality but are based on a social consensus which may be manifested in the form of a statute or law. Within this level, values based on consequence are considered to be relatively higher order values than those based on consensus. Level III values, the lowest order or "good" oriented values, are justified on the grounds of preference. For example, whether the action or object is liked (or not) by the subject. (p. 38-39)

In addition to the various value types described in his paradigm, which has been empirically verified by Lang (1986), who used the paradigm to determine the type of commitment individuals have to their organizations, and, by Kasten and Ashbaugh (1988) who used the paradigm to identify the specific value considerations school principals draw upon when making difficult decisions, Hodgkinson (1978) believes that organizations are governed by potent value imperatives or metavalues which can be detected at the administrative-managerial subsystem level of the organization.

Hodgkinson (1978) describes a metavalue as:

....a concept of the desirable so vested and entrenched that it seems to be beyond dispute or contention. It usually enters as an unspoken or unexamined assumption into the ordinary value calculus of individual or collective life..(metavalues) go for the most part unquestioned, beyond value and so intrude unconsciously to affect value behavior. (p. 180)

Hodgkinson (1978) proposes that there are five principal metavalues: maintenance, growth, efficiency; effectiveness and rationality (pp. 180-185). According to Hodgkinson (1983), efficiency and effectiveness are the most dominant metavalues. (p. 43) Maintenance relates to the on-going survival of the organization. The maintenance metavalue is nomothetic and is a fundamental part of the administrator's value bias.

Growth can be conceived as protective insofar as it augments power and protects against threats to survival. Accumulation of power is a natural administrative reflex. Therefore, challenging this metavalue is to challenge the second law of organization and the natural tendency of systems. The efficiency metavalue underlies all administrative decisions and establishes a criterion of choice which involves seeking the largest result or pay-off for any given application of resources. Challenging this metavalue is to challenge the principles of economic accountancy and issues of administrative philosophy. The effectiveness metavalue is concerned with the achievement of objectives or accomplishment of desired ends. As a metavalue, effectiveness is tautologous for it means the desirability of achieving desired ends, and therefore, is largely incontestable. (pp. 180-185) Other metavalues identified by Hodgkinson (1983) include: personal metavalues such as survival and fulfillment and academic metavalues which include rationality. (p. 43)

For Rokeach, a mode of conduct refers to those values which he calls "instrumental values". These values are of two kinds: moral values and competence values. Moral values tend to have an interpersonal focus which when violated arouse pangs of conscience or feelings of guilt for wrong doing. Competence values on the other hand, have a personal rather than an interpersonal focus and do not seem to be especially concerned with morality. Their violation leads to feelings of shame about personal inadequacy rather than to feelings of guilt about wrong doing. The other dimension in Rokeach's definition is the "end-states of existence" notion which corresponds to his "terminal values" classification. These values also are of two kinds: personal values and

social values. They may be self centered or society-centered, intrapersonal or interpersonal in focus.

To empirically assess the relative importance assigned to values within an individual's value system, Rokeach developed a value survey. Since its creation, the Rokeach Value Survey (RVS) has been one of the most widely used instruments for measuring personal values. As Braithwaite & Law (1985) explain:

Part of its popularity is undoubtedly due to the success researchers have had in finding specific values that differentiate various political, religious, economic, generational and cultural groups...A further advantage of the instrument is that success can be achieved relatively economically...In addition to these attractions, the RVS is one of the few instruments based on a well-articulated conceptualization of value. (p. 250)

Rokeach's value survey identifies 36 values corresponding to 18 end-states of existence values and 18 modes of conduct values. Rokeach's categories of terminal and instrumental values can be further sub-divided into the following sub-categories: personal or social terminal values and moral or competence instrumental values. The 18 instrumental values are similarly treated by Rokeach. He believes that behaving honestly leads one to believe that he is behaving morally whereas behaving logically, intelligently or imaginatively leads one to feel that he is behaving competently. Thus the instrumental value honesty is thought to be a moral value whereas logical, intellectual and imaginative are thought to be competence values. Rokeach rationalizes that a one-to-one relationship between the two kinds of instrumental values (moral and competence) and the two kinds of terminal values (social and personal) does not exist since neither the social nor personal terminal values can be said to be associated with either the moral or competence

instrumental values. Rokeach believed that all combinations of value orientations must therefore be considered.

Research has found that the levels of correct classification shown by the RVS through a rank order method were equal to or greater than the classification levels found by using other value instruments such as Allport's *Study of Values* or England's *Personal Value Questionnaire* (Munson & Posner, 1980a). Additionally, some research has been conducted on the validity of the RVS (Munson & Posner, 1980b) as well as its test-retest reliability (Robinson & Shaver, 1969). Although Rokeach's theory of values has provided researchers with an understanding of the concept of personal values and the RVS has offered researchers a method to assess those values, a number of limitations to his theory and measure exist.

These limitations arise in large part as a result of Rokeach's failure to extend the idea of a value system beyond a general conceptualization and are compounded by the absence of an effort to empirically classify the 18 terminal and instrumental values into the proposed subcategories: personal or social for the terminal values and competence or moral for the instrumental values. By leaving the two sets of 18 personal values independent from one another, Rokeach does not provide the theoretical nor empirical bases for understanding these personal values in the context of integrative value systems. The value system for organizational managers, for example, provides the foundation for the subsequent processing of information in the decision-making process and, is ultimately, a factor in the decision itself (England, 1967).

As originally developed by Rokeach, the RVS limits the researcher's ability to comprehensively assess personal values. The primary impediment is the strict rank-

ordering task established. This approach has recently encountered serious criticism in the literature. Questions concerning the subject's ability to perform the rank-ordering task have been raised. Researchers have questioned the meaningfulness and the "do-ability" of the task (Kitwood & Smithers, 1975) and argue that the ranking appears conceptually difficult. The most common criticism of the rank-ordering task however, is that it is an ipsative measure (Braithwaite & Law, 1985; Miethe, 1985). The subject is asked to arrange a finite number of units within an enclosed framework provided by the questionnaire itself. While ipsative methods can be justified in some areas of psychometrics, unwarranted assumptions in the measurement of values have been made (Weber, 1990). Cooper & Clare (1981) argue that ipsative measures violate the assumption of complete independence of scores. For example, if a subject considered the value *Equality* to be half as important as the value *Freedom* and the goal was to compare these values, the measure must be able to reflect a two times greater preference for *Freedom* versus *Equality*. The rank-ordering task can not allow this degree of preference to be detected by the researcher.

In an effort to simplify the task for the subject and to remove the problems inherent in the ipsative, rank-ordering measure, an alternative method of rating the subject's response to the values on a greater importance-lesser importance Likert scale has recently been developed by Weber (1990). Braithwaite & Law (1985), Munson & McIntre (1979) and Munson & Posner (1980b) have proven that the RVS yields reliable, comparable results if modified from the original rank-order task to a seven-point Likert-type rating task. A more thorough comparison of the rank-ordering versus the rating

measures was performed by Miethe (1985) with similar results. To summarize the research comparing rank ordering to rating tasks, Munson & Posner (1980b) found that:

The use of interval scaling rather than ordering to assess value importance appears to offer the researcher several methodological and conceptual advantages. It provides more nearly precise information about the intensity with which an individual may hold a specific value and enables more sophisticated analytical investigation. (p. 1078)

Thus some researchers have criticized the nature of the rank-ordering task while others have found no significant limitations in the results when utilizing a rating method. The modification of the RVS to a Likert-type rating task carries a significant analytical advantage in that a greater range of statistical analyses are possible when working with ratings rather than rankings. These statistical analyses may include regression-based procedures such as canonical correlation, discriminate analysis and factor analysis.

An empirical classification of Rokeach's terminal and instrumental values into four theoretical categories was undertaken by Weber (1990) who compared the results of previous research using factor analysis as a measurement of managerial value preferences. From the previous studies (Frederick & Weber, 1987; Rokeach, 1973; Vinson, Munson & Nakanishi, 1977; Weber, 1986), some terminal values were more frequently grouped into a personal-oriented subcategory while some terminal values were more often factored into an interpersonal subcategory. The instrumental values were similarly classified into the competence or moral subcategories. Thus Weber was able to distinguish which terminal or instrumental values from Rokeach's original set of 36 values classify into each of the four value orientations conceptually discussed by Rokeach. Accordingly, Weber believed a four-cell typology of personal value orientations consisting of: personal-

competence, social competence, personal-moral and social-moral could be inferred from Rokeach's distinction of personal-social terminal values and moral-competence instrumental values (Table 1).

Weber (1990) utilized a modified version of RVS in a study conducted among 413 managers. More than 75% of the managers in his study exhibited a personal rather than social terminal value orientation. The data also showed that 72% of the managers exhibited a competence rather than moral instrumental value orientation. Combining the managers' terminal value orientation with the instrumental value orientation results in a distribution of the managers' value preferences in four value orientations. Approximately 53% of the managers surveyed exhibited a personal-competence value orientation while only 6% exhibited a social-moral value orientation.

By identifying the general characteristics of those values which most managers find important as guiding principles in their lives, some behavioral implications can be explored. The values designated as having a personal focus tend to emphasize the individual rather than a group of individuals. It can be inferred that these managers will more readily consider how a decision impacts upon themselves or will select alternatives which primarily satisfy ego needs. This is not surprising or unique to managers. However, when personal preferences or satisfaction of personal needs are in conflict with the positive consequences for a group of people, it appears that a majority of managers may place a greater emphasis upon the personal consequences, rather than the group or social consequences, in weighing their decision and guiding their actions.

A similar analysis can be made when considering that a majority of managers place a greater importance upon competence values than upon moral values. This finding

Table 1

Weber's Four Cell Typology of Personal Value Orientations

INSTRUMENTAL VALUES	TERMINAL VALUES	
Types	Personal	Social
Competence	Preference for Personal-Competence Values	Preference for Social-Competence Values
Moral	Preference for Personal-Moral Values	Preference for Social-Moral Values

is understandable when one considers that managers are immersed in a work environment where economic and psychological incentives to perform and achieve are constantly present. In this situation, most managers will adopt those values that will enable them to compete more effectively against their peers or competitors.

While the majority of the 413 managers participating in Weber's (1990) study exhibited a personal-competence value orientation, it is significant to note that almost 22% of these managers placed a greater emphasis upon social-competence values as guiding principles in their lives. These managers share the orientation toward a concern for achievement and performance yet the terminal value focus is different. The social-competence managers may not primarily seek achievement for their own sake nor seem to emphasize the satisfaction of ego needs. Rather a greater emphasis may be placed upon the group in society. This may translate into decisions that consider the group or social consequences of an action. They may be more likely to display participative management styles within the organization, and, may be more inclined to exhibit a team-player behavior in the workplace.

18% of the managers surveyed exhibited a personal-moral value orientation. Managers having this value orientation may show increased concern for individual rights which may lead to whistle blowing when confronted with corporate wrongdoing. Only 6% of the managers who participated in the survey exhibited a social-moral value orientation. These managers place a greater emphasis upon values with an other-centered focus as well as values focusing upon feelings of guilt for wrongdoing. The actions of these managers may exhibit a concern for moral principles as well as reflect a sense of group or social responsibility.

Personal Values

According to Rokeach (1973), personal values are the result of "all cultural, institutional and personal forces that act upon a person throughout his or her lifetime". (p. 23) Values are learned as individuals internalize some of the values held by the institutions to which they belong such as the family, church, corporation or educational institution. Over time these external influences become integrated into the individual's personal construct (Kelly, 1955), self-picture (Argyris, 1957) or sense of self (Beach & Mitchell, 1985). Accordingly, the influences at work on a manager in a corporate setting can be explored at a number of levels including: the external values of the society, organization or group to which the manager belongs, and, the managers own personal values (Liedtka, 1989). As indicated above, numerous researchers have relied upon the survey instrument developed by Rokeach for this purpose (Weber, 1993).

Rokeach developed both a terminal and instrumental list of values as illustrated in Table 2. Each value is presented along with a brief definition in parentheses. The instruction to the respondents is to arrange the values in order of importance to themselves personally as guiding principles in their own life. The ranking method assumes that is not the absolute presence or absence of a value that is of interest but their relative ordering. The respondents have only their own internalized system of values to assist them in ranking the values contained on the lists.

The technique employed by Rokeach with respect to establishing his lists of terminal and instrument values was intuitive in nature. He distilled his list of 18 terminal values from a number of sources which included: a review of the values literature; those obtained from 30 graduate students in psychology; those obtained from approximately

Table 2

Rokeach's Terminal and Instrumental Values

TERMINAL VALUES	INSTRUMENTAL VALUES
<p>A COMFORTABLE LIFE (a prosperous life)</p> <p>AN EXCITING LIFE (a stimulating/active life)</p> <p>A SENSE OF ACCOMPLISHMENT (lasting contribution)</p> <p>A WORLD AT PEACE (free of war/conflict)</p> <p>A WORLD OF BEAUTY (beauty of nature/arts)</p> <p>EQUALITY (equal opportunity for all)</p> <p>FAMILY SECURITY (taking care of loved ones)</p> <p>FREEDOM (independence, free choice)</p> <p>HAPPINESS (contentedness)</p> <p>INNER HARMONY (freedom from inner conflict)</p> <p>MATURE LOVE (sexual/spiritual intimacy)</p> <p>NATIONAL SECURITY (protection from attack)</p> <p>PLEASURE (an enjoyable, leisurely life)</p> <p>SALVATION (saved, eternal life)</p> <p>SELF RESPECT (self-esteem)</p> <p>SOCIAL RECOGNITION (respect, admiration)</p> <p>TRUE FRIENDSHIP (close companionship)</p> <p>WISDOM (mature understanding of life)</p>	<p>AMBITIOUS (hard-working, aspiring)</p> <p>BROAD-MINDED (open-minded)</p> <p>CAPABLE (competent, effective)</p> <p>CHEERFUL (light-hearted, joyful)</p> <p>CLEAN (neat, tidy)</p> <p>COURAGEOUS (standing up for your beliefs)</p> <p>FORGIVING (willing to pardon others)</p> <p>HELPFUL (working to assist others)</p> <p>HONEST (sincere, truthful)</p> <p>IMAGINATIVE (daring, creative)</p> <p>INDEPENDENT (self reliant, self sufficient)</p> <p>INTELLECTUAL (intelligent, reflective)</p> <p>LOGICAL (consistent, rational)</p> <p>LOVING (affectionate, tender)</p> <p>OBEDIENT (dutiful, respectful)</p> <p>POLITE (courteous, well-mannered)</p> <p>RESPONSIBLE (dependable, reliable)</p> <p>SELF-CONTROLLED (restrained, self discipline)</p>

100 informed adults through a scheduled interview process; and self examination. The number of values were then reduced by eliminating those values considered to be synonymous with one another, those which over-lapped, those which were too specific and those which simply did not represent end-states of existence.

A different procedure, although still intuitive, was utilized by Rokeach in selecting the 18 instrumental values. Anderson's (1968) list of 555 personality-trait words which was derived from a list of 18,000 trait-names compiled by Allport & Odbert (1936) was the point from which the distillation process began. The 18 instrumental values were selected from this list through a process of elimination which employed several distinguishing selection criteria including: retaining only 1 from a group of synonyms; by keeping only those judged to be maximally different from one another; retaining those considered to be important values in American society as well as those judged to be meaningful values in all cultures; and, by keeping those one could readily admit to without feeling vain or boastful.

Organizational Values

Organizational entities are also perceived to have values, however, they may be difficult to determine unless they are embodied in charters, creeds or formal statements of philosophy (Schein, 1985). These values take the form of guiding principles and beliefs perceived to exist by organizational members as a whole. As such, they play an important role in shaping individual decision-making processes (Liedtka, 1991). The role of corporate culture, the shared belief system within an organization, in framing and influencing the individual's perception and decision process has received substantial

attention in the literature (Deal & Kennedy, 1982; Hodgkinson, 1996; McCoy, 1985; Peters & Waterman, 1982; Schein, 1985; Toffler, 1986). Haberstroh and Gerwin (1972) point out that decisions are influenced not only from the personal values of the decision-makers but also from the values of others to which the decision-makers feel obliged to respond.

Similarly, recent work in the area of organization power (Enz, 1988) suggests that value congruity between members and top management plays an important role in determining the allocation of power within an organization. McCoy (1985) argues that the behavior of individuals within an organization can only be truly understood in an organizational context and claims that the active management of values through culture is the key role of the executive. Fulfilling that role requires both awareness of the environment of values in which the firm operates, development of criteria for moral action and the institutionalization of the resulting ethic. Developing value commitments involves shaping corporate culture through traditional means including rituals and rights (Fullan, 1991). Organizational influences may be made explicit in the form of procedures, control or incentive systems (Liedtka, 1991). They are also pervasive in the form of less visible shared beliefs and values that give meaning at a collective level to individual action (Isabella, 1986).

Research conducted in the 1970s and 1980s indicated that approximately 80% of large corporations in North America were reported to have developed statements of organizational values (Everet, 1986; McDonald & Zepp, 1990). Similar research conducted in the 1990s indicates that the interest in values has continued to increase. Nagel (1995) conducted a survey among seventy public and private sector organizations

in North America and found that approximately 90% of responding organizations either had value statements or were in the process of developing one. Content analysis of the value statements was utilized to identify fourteen dominant organizational values (Table 3). Based on discussions with survey respondents, Nagel (1995) made a number of observations concerning the influence of values on decision-making and the development and use of values statements in contemporary organizations.

- a) Organizational values appear to have an increasingly influential effect on managerial decision-making including those decisions related to the allocation and/or management of organizational resources. Some organizations, as a matter of policy, will not hire a potential candidate unless they are willing to formally agree in writing to abide by the values identified in the organization's values statement. Failure to abide by these values is grounds for dismissal.
- b) The executive management team is becoming increasingly responsible for instilling values in organizations. Accordingly, values statements are increasingly being used to guide behavior and decision-making and to transform organizational cultures. The systematic handling of values by the executive is considered by many to be vital to the achievement of organizational objectives.
- c) Specific methods of operationalizing values range from formally institutionalizing them into organizational structures and processes (by establishing a senior position or committee to address values-related issues; developing values-oriented training and orientation programs; etc.) to discussion of values at management forums to development of organizational value statements. Statements of values are generally considered to be more effective as behavioral guides when employees are given an opportunity to participate in their development.
- d) Values contained in organizational value statements are increasingly reflecting the important contribution made by employees. As a result, values associated with employee satisfaction, development, morale, welfare and health have been incorporated into organizational value statements.

Table 3

Values Perceived to Exist in North American Organizations

NORTH AMERICAN ORGANIZATION VALUES (1995)	
CLEAR COMMUNICATION EFFICIENCY EMPLOYEE HEALTH INNOVATION INTEGRITY LEADERSHIP LEARNING	PRODUCTIVITY QUALITY RESPECTABILITY RESPONSIBILITY SERVICE EXCELLENCE TEAMWORK TOLERANCE

Posner, Kouzes and Schmidt (1985) conducted a study to explore the question: “What difference does it make whether or not an individual's values are compatible or congruent with those of his or her organization?”. (p. 294) In order to examine the link between personal and organizational values, Posner et al. developed a *Shared Values Scale* based on participant responses to two basic statements. The first statement asked managers to estimate the extent to which their personal values were compatible with the values of their organization. The second question assessed the extent of their agreement or disagreement with the statement: “I find that sometimes I must compromise my personal principles to conform to my organization's expectations”. (p. 295) Responses to these questions were summed and three categories of shared values (low, moderate or high) were formed. Each group contained approximately equal numbers of respondents. The questionnaire also included a series of questions related to career success, commitment, understanding of values, concerns about ethical issues and perceptions of job stress.

Posner et al. (1985) concluded that efforts to clarify and merge personal and corporate values can have a significant payoff for both managers and their organizations. Their research revealed that:

Shared values are related to feelings of personal success. Managers who reported greater compatibility between their personal values and those of the organization reported experiencing significantly greater feelings of success in their lives.

Shared values are related to organizational commitment. Managers who thought their values were very compatible with those of the organization were significantly more confident that they would remain with their current employer for the next five years.

Shared values are related to self confidence in understanding personal and organizational values. Perception of a close personal-organizational value fit enhanced managers awareness and understanding of the organization's values.

Shared values are related to ethical behavior. As values compatibility increased so did the extent to which respondents agreed that their organizations were guided by highly ethically standards.

Shared values are related to feelings of job and personal stress. Work related demands were felt to be the cause of much of the stress in the personal (home) life of those whose values were not compatible with those of their organization.

Shared values are related to organizational goals. The importance attached to a variety of organizational goals by managers differed significantly according to the extent of shared values. Generally, the goals of an organization were seen as more important by those who felt their values were aligned with the organization than by those who felt that their personal values were not consistent with their organization's values.

Shared values are related to organizational stakeholders. Whether or not managers feel their values are aligned with those of the organization seems to effect their orientation, attention and concern for the various people and groups who have a stake in the activities of the corporation.

As a follow-up to their 1985 study, Posner and Schmidt (1992) conducted a values survey among 1,100 members of the American Management Association. The results of their survey indicate that organizational values can and do change and/or evolve over time and that American managers believed thirteen organizational values were dominant (Table 4).

Bullen (1992) conducted a study to explore the impact of values on the career advancement of women in the British Columbia public service. Bullen examined: the extent to which the values of public service managers are shared with those of their organization and among themselves; the relationship among career advancement and value congruency; and the reported change in manager's values between the time of entry

Table 4

Results of Posner & Schmidt's Values Survey (1992)

AMERICAN MANAGEMENT ASSOCIATION VALUES (1992)	
QUALITY CUSTOMER SERVICE EFFECTIVENESS HIGH MORALE LEADERSHIP HIGH PRODUCTIVITY EFFICIENCY STABILITY	INNOVATIVENESS PROFIT MAXIMIZATION GROWTH SERVICE TO THE PUBLIC VALUE TO THE COMMUNITY

into careers in management and the time of the investigation. According to Bullen, the fifteen dominant organizational values in the British Columbia public service, in rank order of priority (where 1 = top priority; 2 = high priority; 3 = medium priority; 4 = lower priority; and 5 = least priority), were: strong leadership; integrity; service quality; clear communication; fiscal responsibility; high productivity; consultation; organizational flexibility; creativity; employees welfare; equality; organizational efficiency; social well-being; expertise; and organizational stability. These dominant organizational values along with their ranking are illustrated in Table 5.

Organizational Culture and Value Congruence

Although the notion of organizational culture has been important in the study of organizational behavior for the past decade (Barley, Meyer & Gash, 1988; O'Reilly, 1989), creation and promotion of organizational values as one of the executive's fundamental functions has early roots (Barnard, 1938; Selznick, 1957). Conclusions that organizations with strong cultures exhibit superior overall performance (Barney, 1986; Deal & Kennedy, 1982; Kilmann, 1984; Peters & Waterman, 1982) has generated significant interest in the study of corporate culture. Further support for this conclusion has come from accounts of the Japanese system of management (Ouchi, 1981; Pascal & Athos, 1981) which, attribute the high levels of motivation of Japanese workers, at least in part, to their adoption of the dominant values and company philosophies held by their organizations (Schein, 1981).

Table 5

Results of Bullen's Value Survey (1992)

BRITISH COLUMBIA PUBLIC SERVICE VALUES (1992)			
	Rank		Rank
STRONG LEADERSHIP	1	ORGANIZATIONAL FLEXIBILITY	3
INTEGRITY	1	CREATIVITY	4
SERVICE QUALITY	1	EMPLOYEES WELFARE	4
CLEAR COMMUNICATION	2	EQUALITY	4
FISCAL RESPONSIBILTY	2	ORGANIZATIONAL EFFICIENCY	5
HIGH PRODUCTIVITY	2	SOCIAL WELL-BEING	5
CONSULTATION	3	EXPERTISE	5
		ORGANIZATIONAL STABILITY	5

The superior performance of firms with strong corporate cultures has been ascribed to their use of socialization and other techniques to emphasize specific core values, that, when shared by employees are thought to perform certain crucial functions (Barney, 1986; Tichy, 1983). Schein (1985) has succinctly described these functions as external adaptation and internal integration. In fostering external adaptation, holding these core values is believed to influence employees to behave in ways that are necessary for the organization to survive in its environment. In this mode, values are thought to have a direct effect on the behavior of individuals in the workplace.

The role of values in internal integration is quite different in that it relates to the effect of shared values on interpersonal interactions. Individuals who hold the same values are thought to share certain aspects of cognitive processing. These similarities are presumed to foster comparable methods of classifying and interpreting environmental events, and, a common system of communication. Such qualities are essential to the success of interpersonal activities because they reduce or eliminate uncertainty, stimulus overload and other negative features of work interactions thereby enhancing coordination, job satisfaction and organizational commitment (Schein, 1985).

Value similarity is also assumed to effect coordination, satisfaction and commitment through the mechanism of prediction. That is, when employees possess similar values they also have clearer role expectations because they can more accurately predict each other's behavior (Kluckhohn, 1951). In such cases, individuals experience less role ambiguity and conflict and are therefore more satisfied and committed to their organization (Fisher & Gitelson, 1983).

Because values are conceptualized as relatively stable individual characteristics, the level of value congruence should not change much over time. Accordingly, interactions between employees with different values will result in conflicts over time while conversely, interactions between employees with similar values will result in greater satisfaction and commitment with the passage of time (Meglino, Ravlin & Adkins, 1989). It is also important to emphasize that the value processes involved in generating internal integration are independent of those involved in enhancing external adaptation. As a result, some individuals may interact with a high level of efficiency and be extremely satisfied and committed to their organization while concurrently behaving in a manner that is inconsistent with the success and survival of the organization (Janis, 1972).

The desirability of establishing or maintaining a strong corporate culture is therefore, predicated on two extremely important assumptions. First, the values of an individual at work will have a direct effect on his or her behavior. Second, positive outcomes and effect will result when an individual's values are congruent with those of other persons or entities (e.g. a senior manager or organization) with whom he or she is in contact. Lack of compelling evidence for either of these assumptions may lead organizations to rely more on traditional methods of influencing behavior and to forego the effort and expense associated with the creation and nurturance of a strong corporate culture (Uttal, 1983).

Research on the first of these assumptions has established a linkage between individual values and organizational goals and outcomes (Hage & Dewar, 1973; Senger, 1970); organizational commitment (Kidron, 1978) and perpetual, attitudinal and

behavioral outcomes at the individual level (Blood, 1969; England & Lee, 1974; Merrens & Garrett, 1975; Ravlin & Meglino, 1987). Research on the second assumption, the effects of value congruence, has been more problematic. Despite support at the theoretical level, few empirical studies have dealt with the effects of value congruence. Furthermore, these studies have not found unequivocal evidence for the assumption that value congruence leads to positive outcomes.

One test of this assertion found that value congruence between managers and their organizations affected a number of individual level outcomes such as personal success, intention to remain with the organization and understanding of the organization's values (Posner, Kouzes & Schmidt, 1985). This study did not however, rule out methodological and response artifacts as neither the values of the managers nor the values of their organizations were measured. Rather, value congruence was assessed solely by asking managers whether or not they felt that their values were similar to those of their organization, and similarly, whether or not they felt that their personal principles had to be compromised to conform to their organization's expectations.

A design that did use actual value measures (Feather, 1979) found that value congruence between school children and their schools was related to the children's happiness and satisfaction. This research, however, included only perceived measures of organizational values (i.e. students assessed their own values as well as the values of their school). Value measures were therefore not independent raising the possibility that results were influenced by consistency effects (Salancik & Pfeffer, 1978).

Independent value measures were included in a study that examined the values of supervisors and their subordinates (Weiss, 1978). Results revealed that value congruence

was associated with supervisor consideration and ratings of supervisor success and competence. This study, however, examined only characteristics of the supervisor and did not include traditional measures of individual outcomes. Furthermore, theoretical relationships in this study led Weiss to conclude that the supervisory characteristics were actually antecedents of value congruence. Thus the findings did not address the relationship between value congruence and individual outcomes (i.e. satisfaction and commitment).

The absence of unequivocal support for the relationship between value congruence and various outcomes is not surprising because this issue is quite complex methodologically (Meglino, Ravlin & Adkins, 1989). For this reason, it is possible for some observed relationships to give the erroneous appearance of a congruence effect. Apparent effects for value congruence could also be the result of methodological and response artifacts. Because values are socially desirable constructs (Kluckhohn, 1951), any tendency for supervisors to respond in a socially desirable way would naturally inflate their scores on most value measures (Crowne & Marlowe, 1964). The same social desirability response bias could simultaneously produce a positive correlation between subordinates job satisfaction scores and their scores on the same value measure. Thus the tendency to respond in a socially desirable way can readily produce what appears to be a value congruence effect.

The same erroneous conclusion can result from other response artifacts such as response sets (Cronbach, 1946, 1950) and common methods variance (Campbell & Fiske, 1959), and, from methodological artifacts such as demand characteristics (Orne, 1962) and consistency and priming effects (Salancik & Pfeffer, 1978). Each may artificially

establish or enhance a correlation between value and an outcome while also prompting inflated responses on the part of individuals who are the focus of any congruence effects.

A study which controlled for artifacts that was conducted among 191 production workers and 13 managers in a large industrial products plant (who completed questionnaires containing measures of job satisfaction, organizational commitment and work values) found that workers were more satisfied and committed when their values were congruent with the values of their supervisor. Value congruence between workers and their supervisors was not significantly correlated with worker's tenure, however, its effect on organizational commitment was more pronounced for longer tenured employees (Meglino, Ravlin & Adkins, 1989).

Person-Situation Congruence

The general notion of congruence or "fit" has been an important theme in psychology and organizational behavior (Nadler & Tushman, 1980). Research in this area has taken two different directions. One has led to exploration of the interaction of individual characteristics and broad occupational attributes. The other to the exploration of the congruence between specific characteristics of an organization and the people in it. Examples of the latter approach range from studying the match of individual skills to job requirements to studying the relationship between individual characteristics and organizational climate.

Empirical results have supported the hypothesis that congruence between individuals personalities and the demands of their occupations are associated with positive affect (Spokane, 1985), and, a high likelihood of their staying in their jobs (Meir

& Hasson, 1982). A similar logic characterizes a series of studies of work adjustment conducted by Lofquist and Dawis (1969).

Tom (1971) recast the notion of person-situation complementarity to focus on person-organization fit. Subsequent studies (Diener, Larsen & Emmons, 1984; Graham, 1976; Hackman & Oldham, 1980; Keon et al., 1982; O'Reilly, 1977) have supported the extended hypothesis that congruence between individuals and organizations are associated with positive affect. Although broadly used and intuitively compelling, the person-situation framework (which is based on the premise that positive responses will occur when individuals fit or match the requirements of a situation) has spawned a number of controversial issues including how fit should be defined (Chatman, 1989). Past research has been problematic in terms of its failure to utilize common language as well as its limited use of descriptions of person, situation and personality (Davis-Blake & Pfeffer, 1989; Graham, 1976; O'Reilly, Caldwell & Mirabile, 1990; Springfield, 1988; Weiss & Adler, 1984).

Recent work in international psychology has begun to identify the characteristics of effective techniques for addressing person-situation effects. Bem and Funder (1978) argued that in addition to providing comprehensive measurements, effective techniques for assessing persons and situations should allow for holistic comparisons across multiple dimensions. Such an approach can be thought of as semi-ideographic in that, it is ideographic (compares the relative strength of attributes within a single individual) with respect to individual attributes but permits comparisons of person-situations (Luthans & Davis, 1982; Springfield, 1988). Since any given trait dimension will not be applicable to all individuals, only those personological variables that are pertinent to a focal individual

should be selected. Doing so requires an ideographic approach rather than a nomothetic one in which all individuals are rated in terms of a given attribute (Lamiell, 1981). The difficulty with an ideographic approach, however, is that it isn't clear what has to be done once a rating has been made. What is required is to be able to compare individuals even though descriptors may be differentially relevant to them.

Using the *Q-methodology* developed by Stephenson (1953), Bem and Allen (1974) developed a template-matching technique to accommodate this dual concern with relevance and comparability. This approach focuses on the salience and configuration of variables within a person rather than on the relative standing of persons across each variable. Since not all characteristics apply to all people and since what differentiates people from each other is the set of traits salient to each individual, an assessment of person-situation fit must permit such ideographic measurement of each person while also allowing comparisons across situations. Such an approach requires a large number of items or descriptors that comprehensively describe individuals and are relevant to particular situations.

Bem and Funder (1978) created a 100-item profile of the ideal person for successful performance in an array of specific situations. How well individuals might do in a situation was predicted by how well they matched the person-in-situation profile. Thus rather than comparing a person and situation on a few dimensions, an appropriate person-situation investigation would attempt to determine the overall fit of the person to the set of relevant situational attributes.

Drawing on the *Q-sort technique* used for template-matching, Caldwell and O'Reilly (1990) and O'Reilly et al. (1990) developed a profile matching process to assess

person-job fit. Using a structured interview job analysis with job incumbents and experts, they first developed a comprehensive set of competencies required for successful job performance. This set, which often ranged between sixty and ninety items, was then used to construct a consensus profile of the job. Individual profiles were then obtained by using peers and superiors as assessors. Person-job fit was measured by correlating the two profiles.

Results of a series of studies have shown that person-job fit predicts performance, satisfaction and turnover across a variety of jobs. Like template-matching, the profile comparison process comprehensively assesses individuals and situations using a common language, allows for the ipsative measurement of individual characteristics by arraying attributes in terms of their salience to the individual, and, provides a direct measure of person-situation fit. The profile comparison process goes beyond template-matching by using items that are highly specific to a target situation and equally relevant to a person and situation. Thus, the application of a *Q-sort technique* appears to be a useful way to obtain semi-ideographic assessments of fit and offers a way to resolve a number of measurement problems that have characterized earlier studies of person-situation interaction. (O'Reilly, Chatman & Caldwell, 1991)

Person-Culture Congruence

Drawing on theories from anthropology, sociology and social psychology, researchers have made a number of efforts to understand the behavior of individuals and groups in organizations using cultural concepts such as semiotics, rituals, ceremonies, stories and language (Ouchi & Wilkins, 1985; Smircich, 1983; Swindler, 1986; Trice &

Beyer, 1984). This process has generated a series of debates over issues such as the definition of culture, the appropriate methodology for investigating it, and, the proper level of analysis for its study. Barley (1983) pointed out that all studies of culture, whatever their theoretical origin, use reasonably similar terms and constructs. Differences exist among researchers in how objective or subjective, conscious or unconscious their use of these terms and constructs is, and, in what they see as appropriate elements to study. Many researchers believe that culture can be thought of as a set of cognitions shared by members of a social unit (Smircich, 1983). Rousseau (1990) provided an excellent description of the common elements in such sets and suggested a framework including fundamental assumptions, values, behavioral norms and expectations and larger patterns of behavior.

Research on culture usually begins with a set of values and assumptions (Enz, 1988; Martin & Siehl, 1983; Schein, 1985; Weiner, 1988). These values, whether conscious or unconscious, act as the defining elements around which norms, symbols, rituals and other cultural activities revolve. Thus Parsons (1951) argued that a cultural tradition emerges around values defined as "elements of a shared symbolic system which serves as a criterion or standard for selection among the alternatives of orientation which are intrinsically open in a situation" (pp. 11-12). In this vein, basic values may be thought of as internalized normative beliefs that can guide behavior. When members of a social unit share values, the basis for social expectations or norms may be formed. Should these values be widely shared throughout a larger social grouping, an organizational culture or value system may exist (O'Reilly, Chatman & Caldwell, 1991).

The pervasiveness and importance of personal values in organizational culture are fundamentally linked to the psychological process of identity formation in which individuals appear to seek a social identity that provides meaning and connectedness (Ashforth & Mael, 1989). A substantial body of research has shown that individuals tend to classify themselves into social categories such as gender, race, ethnicity and organizational affiliation and to use those categories to define themselves (O'Reilly, Chatman & Caldwell, 1991).

Schneider (1987) proposed that individuals may be attracted to organizations they perceive as having values similar to their own. In addition, organizations attempt to select recruits who are likely to share their values. New entrants are then further socialized and assimilated, those who don't fit, leave. Thus, basic individual values or preferences for certain modes of conduct are expressed in organizational choices and then reinforced within organizational contexts. Values provide the starting point with the joint processes of selection and socialization acting as contemporary means to ensure person-organization fit (Chatman, 1988). Accordingly, congruency between an individual's values and those of an organization may be at the crux of the person-culture fit.

One approach in assessing culture quantitatively is to focus on the central values that may be important to an individual's self-concept or identity as well as relevant to an organization's central value system. To properly characterize an organization's culture in terms of its central values, the range of relevant values must be identified and assessed in accordance with how much intensity and consensus there is among organizational members about those values (Enz, 1988; Saffold, 1988). In order to address these issues, two types of analysis is required. First, it must be demonstrated that preferences

individuals have for organizational cultures are comparable to the cultures that exist. Second, the relationship between individual preferences and organizational culture needs to be assessed across a broad range of values. A method of assessing culture based on the extant values of organizations and measuring person-culture fit through a semi-ideographic technique based on the profile comparison process was developed by Caldwell and O'Reilly (1990). The *Organizational Culture Profile* is an instrument which contains a set of 54 value statements that can be used to idiographically assess the extent to which certain values characterize a target organization, and, an individuals preference for that configuration of values. Person-culture fit can be calculated by correlating the profile of organizational values with the profile of the individual's preferences.

Value Conflicts Effect on Managerial Decision-Making

A positive relationship between personal values and managerial decision-making was initially suggested by Learned, Dooley and Katz (1959), Guth and Tuguri (1965) and England (1967). Subsequent studies of the values decision-making or values intended-behavior linkages have also found a positive statistical relationship (Barnett & Karson, 1987; Liedtka, 1989; McClintock & Allison, 1989; McClintock & Liebrand, 1988). An empirical investigation by Ravlin and Meglino (1987) found that values act as a guide or standard for decision-making. Beyer's (1981) exhaustive review of the literature led her to conclude that significant empirical evidence exists linking both personal and organizational values to decision-making processes in organizations. She notes:

Organizations use ideologies and values to legitimate their activities and to justify their decisions to their members and the environment. People behave in accordance with their own ideologies and values, and also, in accordance with the ideologies and values of powerful superiors. (p. 107)

Despite the considerable attention that organizational values have received in the management literature, little empirical work has been directed at exploring the effect of value conflicts on managerial decision-making processes (Liedtka, 1989). Traditional decision-making theories view the decision-maker as a rational actor (Allison, 1971). These theories have tended to ignore values altogether (Cavanaugh, 1976) or assume that the values operating in any given decision situation are either consonant or are clearly prioritized by the organization thus providing clear and consistent guidelines for managerial decision-making.

Dissenters from the rational model have pointed out important ways in which the realities of organizational life depart from such a convenient assumption. Weick (1969) argued that individuals rely upon pre-determined scripts rather than independent thought to guide behavior. Other short-comings of traditional decision-making theory found in the literature include the need to recognize the subjective element (Culbert & McDonough, 1985), behaviors such as satisficing (Cyert & March, 1965), defensive routines (Argyris, 1985) and a mobilization of bias (Bachrach & Baratz, 1971).

Hodgkinson (1978) believes that: "the intrusion of values into the decision-making process is not merely inevitable, it is the very substance of decision". (p. 59) He asserts that some degree of value conflict is the "normal human and administrative condition" (p. 121) and explains that it is the pervasiveness of values which ensures conflict exists:

Values impinge upon and are intertwined in every phase of the administrative process and this of itself, guarantees conflict...the basic lines of tension are between individual and organization in the one direction and between organization and the environment on the other. These tensions, their humane bases and the pervasion of values ensure that administration is a difficult art and one which can be at once the noblest, the oldest and the basest of the professions. (Hodgkinson, 1983, pp. 3-4)

Toffler (1986) interviewed 33 managers asking them to describe situations in which they had faced value conflict. Participants described 59 situations of which more than 66% were related to performance evaluation, human resource policies and systems, and, relationships on the job. Toffler identified four specific types of value conflict as a result of her research: conflict between two or more personally held values; conflict between personal values and the values held by another person or the organization; conflicts between basic principles and the need to achieve a desired outcome (means/ends conflict); and, conflict between two or more individuals or groups to whom one has an obligation.

As Cavanaugh (1976) points out, values are likely to operate only at an unconscious level not recognized by managers themselves or by traditional management theories. Yet values influence the selection of organizational goals, which in turn, form the criteria through which all decisions are rationally evaluated. They also determine as a result, the way in which the organizational members define the problem in the first place, and, who is considered to be a member of the dominant coalition in a satisficing model (Cyert & March, 1965). Values therefore, form the givens and frame the possibilities before the rational and satisficing processes take over.

In the absence of conflict between personal and organizational values, it can be argued that the rational and satisficing theories, although they fail to recognize values, are not seriously inaccurate in describing the actual decision process. In these cases, the individual accepts the organization's values, if they are not in conflict with his or her own, or, uses his or her own, in the absence of organizational values, all unconsciously. It is only when a conflict arises between or within value systems that the unconsciousness of decision-making is disrupted.

Hirshman (1970) offers a typology that can be used in an altered form to describe the behavioral alternatives available to organization members when conflict exists between themselves and the organization. Members may choose to exit or leave the organization, press for change from within, or, demonstrate loyalty by behaving in a manner consistent with organizational directives. The normal process in the majority of decision-making situations that managers face is acceptance of organizational values and compliance with the expected behavior. However, when the operant values in a situation are not congruent at either an organizational or personal level, the individual is forced to use in Weick's (1969) words, non-scripted processes. The issue of values then becomes evident in the sense-making process for that particular decision. This necessitates, from a research perspective, a focus upon decision-making in conflict-laden situations and upon the sources of conflict.

Liedtka (1989) developed a theoretical model for examining the source of value conflict in a given situation (Table 6). The *Value Congruence Model* or *VCM*

Table 6

Liedtka's Value Congruence Model

INDIVIDUAL VALUES	ORGANIZATIONAL VALUES	
	Contending	Consonant
Contending	I	II
Consonant	III	IV

characterizes the value systems of individuals and organizations to be either in harmony (consonance) or in contention (contending) as related to the specific values involved in the difficult situations under consideration. The *VCM* describes four potential types of value conflict:

Quadrant I: Conflict exists internally within the individual and within the organization as to what values are appropriately factored into the decision-making process.

Quadrant II: Conflict is internal only to the individual. Despite a clear organizational message, the individual has mixed emotions about the decision under consideration.

Quadrant III: The individual has clearly held and consistent values. Decision-making is complicated by the mixed message sent by the organization.

Quadrant IV: The conflict experienced is external to both the individual and the organization. Each has strongly held values which may be congruent or incongruent with the other's placing them in potentially direct conflict.

Liedtka (1989) hypothesized that conflict of differing natures, as captured in the four quadrants of the model, would lead to differing sense-making and behavioral responses on the part of managers. Upon completion of her study of value congruence, Liedtka concluded that although the *VCM* was a useful tool with which to characterize the nature of the value conflicts experienced by managers, it failed to link directly with a given manager's decision process as hypothesized at the outset. Further review of the literature and analysis of the interviews she conducted resulted in the development of four different mindsets which Liedtka (1989) described as "certain patterns of behavior or mental approaches used by managers to frame a situation, evaluate alternatives and select a behavior". (p. 80) These mindsets included:

Managerial Mindset: The manager views his or her freedom of choice as unlimited and evaluates a range of alternatives, weighing the pros and cons of each. Organizational goals and needs serve as the ultimate criteria for choice.

Political Mindset: Viewing the alternatives as limited by the relative power positions of other actors who are involved, the manager weighs benefits to be gained from choice against the personal risks associated with it and opts for loyalty. Some inventive managers also pursue a creative solution.

Value-Driven Mindset: The alternatives are viewed by the manager as constrained, not by external forces but by internal ones. Consistency with one's own important personal values is the ultimate criterion used to select voice as the behavior response.

Bureaucratic Mindset: Conspicuous for the absence of both alternatives and subsequent analysis, this mindset takes a view that no opportunities for choice exist in the situation at hand and obedience is the only viable response.

The nature of the value conflict is influential in evoking a particular mindset depending upon whether contention exists at the individual level and the source of the contention, or, if it exists at the organizational level. When conflict is internal to the individual, as it is in quadrants I and II, managers operate in the managerial or bureaucratic mindset. These mindsets focus on the organization rather than the self. The organization is relied upon for guidance either in the form of criteria (managerial mindset) or directives for action (bureaucratic mindset). When the individual is not conflicted, as in quadrants III and IV, managers utilize the political and value-driven mindsets. These mindsets focus on the self rather than the organization. The criteria used for evaluation are personal and relate to the preservation of the relationship with the organization (political mindset) or the preservation of the personal value system (value-driven mindset).

In those quadrants where the organization is conflicted, the source of organizational contention is key to determining the specific mindset utilized. For example, the managerial mindset in Liedtka's 1989 study was found only where the organizational contention was the result of competing values. Though these values were in contention, the values in conflict were clearly perceived by the manager, and accordingly, facilitated the evaluation of a range of alternatives in light of their impact upon organizational needs and goals. Because the values in question are unambiguous, they can readily serve as criteria, albeit competing ones, that can be prioritized by the manager for use in the analytic process. This is not true however, when the source of organizational contention is differences between espoused values and those in use. These instances reflect the bureaucratic mindset. Where the organization professes values that its behavior does not support, perplexed managers (unable to determine what criteria to use) abandon the active-process of decision-making altogether opting instead for the bureaucratic response of carrying out directives with no clear sense of purpose or power to do otherwise. The organizational stance defies the use of the rational process.

The findings reported by Liedtka (1989) have implications for the specific content of organizational values and their impact upon manager's decision-making processes. First, it should be noted that the four decision mindsets presented are not equally desirable from the organizational leader's viewpoint. Barnard (1938) argued that one of the functions of management is to see that a balance is achieved between meeting the needs of the individual and those of the organization. Only then do organizational rather than personal goals drive the decision-making process. Thus those mindsets that utilize organizational goals and needs as criteria rather than the individuals own personal needs

are preferred. An important function of leadership is to create a context which facilitates the use of those mindsets. Given this, the managerial mindset is most obviously beneficial to the organization. Organizational needs and values serve as criteria for decision-making in a rational analytical process.

The bureaucratic mindset, while initially appearing expedient, is potentially dangerous to the organization in the long-term. It maintains centralized control of the organization but requires that senior management be omnipotent so that the rest of the organization can safely accept their orders rather than actively participate in decision-making. In an increasingly complex and decentralized global economy, this is not feasible.

The political mindset, with its focus upon maximizing personal gains, gives little or no recognition to organizational criteria. It frequently maintains only the appearance of control on the part of senior management while opportunists manipulate the system to their own ends. The value-driven mindset may also appear not to serve the needs of the organization as the individual's personal values drive the decision-making process. Yet, in an era increasingly attuned to the concept of corporate social responsibility, it is the use of the value-driven mindset that may be most likely to avert life-threatening decisions.

Summary

The literature reviewed with respect to values has resulted in a number of important findings and conclusions. First, values and value conflicts are widely recognized as having a significant influence on managerial behavior and decision-making. Second, through the work of researchers such as Rokeach, Hodgkinson, Weber,

Toffler, Caldwell and O'Reilly, Posner and Schmidt and Liedtka, an increasing number of theoretical and conceptual approaches, methods and tools are being developed to assist in the study of values and their effects on management decision-making and the practice of administration. Third, despite the considerable attention that corporate value systems have received in the literature, little empirical work has been directed at exploring the effects of values or value conflicts on organizational performance, managerial decision-making or the practice of administration.

The Literature on Employee Health Management

The vast majority of research studies addressing employee health programs and activities (EHPAs) have been focused at the level of the individual. These studies have largely been concerned with modifying risk factors for health in order to improve the individual's health status as well as outcomes of particular relevance to employers such as absenteeism, sick days, turnover and health care costs. Few studies have addressed the broader socio-economic and environmental risk conditions for health such as those associated with poverty, housing, employment and health policy that are increasingly being discussed at the community level. Thus, the research evidence concerning the effectiveness of EHPAs reflects only a limited range of program objectives and not necessarily their full potential in the workplace. While a number of methodologically rigorous studies have recently demonstrated that positive outcomes can be achieved, past studies concerning EHPAs have been inconclusive in terms of effectiveness.

Background

Conducting research in the area of employee health has been problematic as the terminology used to label such initiatives has varied. The terms employee fitness programs (Falkenberg, 1987), work-site health promotion programs (Wolfe, Parker & Napier, 1994; Wolfe, Slack & Rose-Hearn, 1993; Terborg, 1986) and employee health management programs (Wolfe, Ulrich & Parker, 1987) have all been used. Furthermore, no widely accepted definition or delimitation of these programs (EHPAs) has emerged.

Contributing to potential confusion concerning what EHPAs are is the overlap in program content, potential benefit and reporting structures that exist among EHPAs and other more established, health-related organizational functions such as employee assistance programs and occupational medicine programs. In the interests of clarity and to ensure this research contributes to the development of a cumulative EHPA knowledge base, the definition utilized by Wolfe et al. (1994) will be employed in this research. According to Wolfe et al., EHPAs are: “long-term organizational activities designed to promote the adoption of personal behaviors conducive to maintaining or improving employee health”. (p.23)

There are many reasons why the workplace is an attractive setting for EHPAs. These include the size of the target population, reduction of time and travel barriers to employees’ participation, availability of both peer pressure and peer support, the captive audience, and, the stability of the target population (Warner et al., 1988). Decisions concerning the development of programs that are based on the strength of the current research evidence must weigh the value and potential that is inherent in these factors against the likelihood of stronger research evidence becoming available in the future.

Similarly, there are many reasons why employers are interested in instituting EHPAs. The decision to adopt these programs reside with management and often reflect financial investment decisions. Thus, the economic return on investment is considered to be an important criteria by which these programs can be evaluated. Not surprisingly then, much effort has been put forth to evaluate these programs from an economic perspective (Fielding, 1982; Shephard, 1992b; Warner, 1987). While recent empirical research results are promising, there is no consensus with regard to the economic contribution made by EHPAs due in large part to the circumstance that generating costs savings has not been the primary objective of employers who have adopted them. Wolfe et al. (1993) found that health professionals considered cost savings to be more important than did senior management. Other important criteria included altruistic concerns for employee health, the perception that such programs are appreciated by employees as a benefit, and, desires to keep up-to-date with trends in employee benefits in order to improve recruitment and reduce turnover.

Fielding (1988) noted that a program with a positive affect on recruitment, productivity, turnover and/or morale may be considered by a CEO as a better investment than one which had none of these effects but which provided a 25% annual return on investment in health benefit cost and disability claim reduction. Thus, even if the research literature does not show conclusively that benefits outweigh the costs in economic terms, there may still be valid reasons to implement EHPAs in the workplace.

It has been argued that the best approach to economic evaluation of EHPAs is through a cost-effectiveness analysis and not cost-benefit analysis (Shephard, 1992b; Warner, 1987). The latter compares costs and benefits in terms of dollars. The former

compares the cost of alternative means of achieving different health-related outcomes, and therefore, starts with the assumption that improved health and not profit is the real purpose of the program. This review includes a wide range of evaluation studies and does not necessarily attach greater weight to the economic evaluations in drawing its conclusions.

The issues stated above notwithstanding, if the bottom-line in the decision to develop an EHPA is the economic return on investment, then decision-makers must be apprised of the assumptions underlying such economic evaluations. Shephard (1992b) provides an excellent review of these issues. He notes the need for full economic evaluations to consider a range of factors including the potential transfer of benefits across various sectors of society, opportunity costs to participants, marginal costs and benefits, inflation and discounting. Results can change markedly with small changes in the analytical procedure, the choice of variable to include and the time frame over which the analysis is conducted.

Time frame is an especially crucial factor since studies which have shown a significant return on investment tend to be based on a relatively short window of time (2-5 years). In these studies, the short-term gains in health behavior or health status are thought to translate into reduced absenteeism and sick-leave pay-out, and therefore, short-term economic gains to the company. However, these improvements in health behavior and status may also lead to increased longevity (this is certainly implied in the use of risk reduction equations to predict future cardiovascular mortality). Increased longevity may increase costs related to pension pay-out and medical benefits for chronic illness in a very elderly population of retirees although Fries (1994) would argue it doesn't.

According to the literature, no single evaluation of an EHPA incorporates all the important features of economic evaluation, and, the available studies require a very critical interpretation. The strongest evidence concerning the affect of EHPAs will come from randomized controlled trials, that by design, help rule out competing explanations for changes that are observed in participants or the workplace. Randomization of experimental or control conditions, either across or within work sites, however, is often not possible. In the few projects that have randomly assigned work sites to intervention or control groups, the number of companies per group is quite small. In these studies, the number of companies as opposed to the number of employees is the major determinant of statistical power.

The majority of quality evaluation studies have used a quasi-experimental, comparison group design. Non-randomized comparison groups may come from within the same company or from other companies matched to the intervention site on important variables. Lagged controls within the same company may also be used (they receive the intervention at a later date) or the program participants may serve as their own controls in time series analysis. Regardless of the precise design, these quasi-experimental studies often leave unresolved questions about the comparability of the study groups and other competing explanations that can't be ruled out. Conrad et al. (1991) discussed the threats to the validity of conclusions drawn from EHPA evaluations. Often selection is a major problem because employees typically volunteer to participate in health promotion programs and there is considerable evidence that participants may be healthier and/or more motivated to improve their health than non-participants. Shephard (1992b) discusses the significance of the selection problem for economic analyses since the

findings from cost-benefit analyses are based on current participants and cannot necessarily be extrapolated to all employees. A much larger investment may be needed to attract those employees who are currently inactive.

Another factor complicating the evaluation of EHPAs and summarizing findings across studies is the variability in the nature and scope of interventions. Some EHPAs are quite simple and inexpensive (e.g. those involving distribution of health information pamphlets) while others are intensive and comparatively expensive such (e.g. risk factor screening and follow-up counseling). Some concentrate on a single risk factor while others target many health behaviors. Some focus on individual behavior change while others include an environmental component and/or concomitant modifications to health insurance and benefit plans. In order to be useful, evaluation results need to be accompanied by a thorough program description.

Decision-makers assessing their options for EHPAs, who wish to consider the research evidence concerning the effectiveness of these programs, must be clear about the reasons underlying their interest, the covert and overt program objectives, and, the role of the workers themselves in program planning, design, operation and evaluation. Furthermore, given all the difficulties encountered conducting and comparing evaluation studies of EHPAs, decision-makers need to look for the general weight of the evidence across the best studies available rather than the definitive study per se.

EHPA Outcomes

Fielding's (1982) review of the effectiveness of EHPAs was particularly noteworthy in that he addressed a series of questions that refer back to the quality of the

epidemiological data that relate health behavior to health problems. The fact that the credibility of these basic data may be suspect and subject to change is often ignored by more recent literature reviews. Fielding examined the data that: link the target problem to increased morbidity and mortality; establish the prevalence of the target problem among employed populations; establish the reversibility of the health risks through either behavior change or control measures; establish the association between interventions, target behaviors and/or physiological measures; and, relate costs and benefits or costs and the degrees of effect.

At the time of Fielding's review, the strongest evidence across this series of issues came from studies concerning hypertension and smoking. Less conclusive data, in particular the data concerning the effects of interventions, were evident for fitness and weight reduction. Fielding also concluded that the data concerning cost-benefit or cost-effectiveness were only suggestive for smoking cessation and quite inconclusive for the other health behaviors.

Warner (1987) and Warner et al. (1988) reviewed the literature with respect to the economic implications of EHPAs. Both studies concluded that the claims of program profitability were based on anecdotal evidence or analyses seriously flawed in terms of assumptions, data or methodology. Although Warner supported continued investment in EHPAs, he recommended the adoption of healthy skepticism of the research concerning the economic return for this investment.

Shephard (1992b) presents a critical analysis of the economic benefit of EHPAs. He concluded that while EHPAs appear to yield corporate benefits in excess of costs, this conclusion could be strengthened considerably by more controlled evaluations. Shephard

noted the measurement difficulties in studies examining effects on productivity, and, that in some analyses, the largest economic return came from reduced turnover. With respect to absenteeism, the effect of program participation was found to be consistently positive but also very small when expressed as a percentage of company payroll. The direction of findings were also positive for a reduction in medical costs and industrial injuries. Shephard called for more controlled evaluations and longer-term follow-up.

Pelletier (1993) updated a list of evaluation studies that he reviewed in 1991 and noted that from 1980 to 1991, there were 24 published studies evaluating the health effects or the cost/benefit of EHPAs. This rate of publication was equaled between 1991 and 1993. Pelletier's review found that all but one showed positive health gains and all indicated a positive return in economic terms. Although the designs of the new studies were improved over previous research, a closer inspection of the study protocols reveals a large number of uncontrolled and very short-term evaluations. The conclusions of his review were consistent with those of Shephard (1992b) in that the weight of the evidence suggests that EHPAs have positive effects on attitudes, behavior, personal health outcomes, absenteeism, sick-days and health care costs. It is also clear that less equivocal, experimental studies are needed to extinguish some nagging doubts about program affect, especially over the longer term.

The consistency of the findings across the reviews described above beg the question of what more can be learned from additional review and critique of this literature. First, it may be helpful to determine if similar findings or patterns emerge from the literature when the most rigorously designed and executed studies are examined. Second, there are a number of new studies not included in the most recent Pelletier (1993)

review, and, the most relevant studies are not necessarily covered in each review. Further, there may be value in examining the best studies identified across all the available reviews. Third, some aspects of the Pelletier (1993) review are concerned with planning and other process issues. It may be informative to examine these issues in the context of studies which also address outcomes. Process issues, other than those concerned with program participation and retention, tend not to be of major concern in the available reviews that are written from a more academic perspective.

Best Studies

Selection Criteria. The approach used in sorting the relevant articles from the larger collection of papers was to identify studies which had the following features: the existence of a comparison group either randomly assigned, matched or self-selected; a follow-up period of two years or longer; a target population of current employees (excluding retirees); evaluation of a health program that was not concerned with an EAP, occupational health initiative or short term health education interventions; and, adequate sample size for statistical power. All of these criteria were necessary for the inclusion of the study in this review.

Other preferred characteristics of studies that were selected included: the combined use of process and outcome evaluation strategies; the generalizability of the sample in terms of composition (e.g. gender, age, white and blue collar); the use of a theoretical framework for need assessment, program design, implementation, and evaluation; and, the extent to which the program was targeted at cardiovascular health or broader wellness objectives as opposed to other disease or condition-specific programs.

A total of 16 research papers were selected through this process. These papers covered the evaluation of 7 EHPAs all of which had been implemented in the 1980's. The review of the evaluation studies is organized by program in order to better identify factors limiting the strength of the conclusions.

Blue Cross and Blue Shield. The evaluation of the Blue Cross and Blue Shield EHPA was the first controlled evaluation with a follow-up period longer than one year (Gibbs et al., 1985). It was interesting to review this literature because the target population of retirees is highly relevant and some of the evaluation designs are methodologically rigorous, and, the interventions being tested are reasonably low-cost.

The EHPA developed by the American Heart Foundation (Maxey et al. 1982) consisted of health risk screening, referral to various interventions such as smoking, weight reduction and fitness, or, medical care as appropriate. Program participants were compared to a group of non-participants drawn from the same company. The outcomes assessed were the total health care costs paid out by the company for one year before, and, approximately five years after the program. Other unpublished reports from this project focused on changes in risk factors and absenteeism, and, reported positive effects. The ratio of the five-year reduction in health care costs to EHPA costs per employee was 1.45. The main limitations of this study were self-selection into the EHPA rather than random assignment. In addition, the health care utilization data, such as was analyzed in this research, tend to be skewed thus making conclusions from analyses using parametric statistics very tenuous.

The Blue Cross and Blue Shield data have been analyzed by Sciatca et al., (1993) in a different manner. This research improved upon the earlier analysis by: using data

from continuously employed employees; separating employees into four groups based on amount and type of exposure to the program; developing three data sets for the dependent variable concerning health care costs (the most important being costs for lifestyle-related diseases such as emphysema and myocardial infarction); using two rather than one year's pre-program data in the comparison, and, using non-parametric statistical tests so as not to violate the assumptions underlying the statistical analysis. The results from several group comparisons before and after the program provided no evidence that participation was associated with a reduction in health care costs or those costs that were more specifically lifestyle-related.

This research significantly improved the analysis of the data from this project (e.g., non-parametric statistical analysis and graduated program exposure) and in many ways serves as a model for analysis of studies of this type. However, the analysis of Blue Cross and Blue Shield data is limited by the use of controls who were self-selected and non-EHPA participants drawn from the same company. Non-EHPA participants, therefore, may have been exposed to or influenced by EHPA activities or may have been different at baseline on major risk factors.

Dupont Manufacturing Company. A major EHPA was conducted at Dupont Manufacturing Company in the early 1980's and two of the evaluation reports emerging from the project are reviewed herein (Bertera, 1990a, 1990b; 1993). The 1990 reports compared absenteeism and employment costs before and after the program across 41 intervention sites and 19 control sites with large numbers of hourly employees. The control sites were drawn from the same company that had yet to adopt the EHPA. The EHPA was comprised of five core elements: training for site coordinators; a health

promotion activity committee comprised of employees from all levels of the organization; orientation and publicity; health risk appraisal; and group health education opportunities. The study population included only blue-collar employees. The sample was over 80% male.

Using sites as the unit of analysis, the primary variables were the annual mean number of disability days/employee and the cost of wages, compensation and benefits for days absent due to illness. Employees at the intervention sites experienced a 14% decline in disability days over two years versus a 5.8% decline at the control sites. While these percentages represent small changes in the actual number of days per participant off work due to disability, the effect size represents several thousand days when projected over the workforce as a whole. EHPA costs were tallied and compared to these benefits. Savings in disability costs at the intervention sites offset EHPA costs in the first year and returned \$2.05 for every dollar invested by the end of the second year.

The main limitation of this research is the self-selection of work-sites into intervention or controls based on the decision of the company representatives to adopt the EHPA. Since the intervention sites had a higher average number of disability days per employee at baseline than did the control sites, regression to the mean can also not be ruled out as an explanation for the findings. Also, some of the companies may have initiated parts of the EHPA in the latter stages of the study period thus potentially attenuating the EHPA effects.

Bertera (1993) examined the effects of this EHPA on behavioral risk factors and illness days in a sub-sample of employees involved in the EHPA. A lagged comparison group was developed with employees who completed the baseline health risk appraisal

during a latter stage of EHPA implementation, and, which coincided with a two-year follow-up of the intervention group. Unlike the first study, the study sample was comprised of blue and white-collar workers. Outcome variables were drawn from the periodic health risk appraisal and included: status on seven risk factors (included serum cholesterol, high blood pressure, overweight, excess alcohol, seat belt use, smoking and lack of exercise); aggregate number of risk factors for which employees scored over the cut-off; and, self-reported days absent in the previous 12 months.

Results showed significant decreases in the level of behavioral risks for six out of seven areas among employees involved in the EHPA at high risk of cardiovascular disease. High-risk employees also experienced a 12% decrease in self-reported days absent. No such change was evident for lower-risk employees thus raising the possibility that regression effects may account for the findings. The self-selected nature of the intervention and control site and use of uncorroborated self-reports are also methodological weaknesses of the study.

Kimberley-Clark Corporation. Smith and Everly (1988) conducted an evaluation of a fitness-oriented EHPA at Kimberley-Clark Corporation. The main components of the evaluation were health and weight loss. Participants were identified on the basis of having completed the 26-week program and remaining employed over the four-year study period. A high percentage of enrollees dropped out due to a company transfer and as a result, were excluded from the analysis. A matched comparison group was developed from employees in the same company who had not participated in the EHPA but who had completed a health risk profile. Matching variables included age, gender, skin-fold (percentage body fat) and date of screening. Outcome variables were pre- and post-

intervention health care claims and workers compensation claims. Data analysis failed to show the relationship between EHPA participation and these outcome variables.

The study was important in that it showed the pitfalls in analyzing highly skewed data with parametric statistical tests without either some form of data transformation or the use of ranked data. Regression to the mean is also a significant problem in this research since it was noted that the health care claims were higher for the intervention group than controls at all measurement periods. Thus, the former may have represented a population in greater need for the intervention than controls. The research was also limited by lack of comparative data on actual weight loss, the self-selection of participants and the potential placebo effect of the health risk screening provided to both participants and controls.

Treatwell. Sorensen et al., (1992a) evaluated an EHPA designed to promote dietary changes associated with cancer risks. 16 work-sites were recruited to participate in the research, and, were randomly assigned to 8 intervention sites and 8 control sites. The program consisted of classes and food demonstrations targeted to individuals as well as environmental support. An employee advisory board tailored the program to each worksite. Pre- and post-test data were collected from 275 employees randomly selected in each worksite. Results indicated that the program was successful in decreasing fat intake at the intervention sites. However, no differences were observed in dietary fiber intake.

This study was limited by the disruption in implementing the EHPA caused by labor strikes and the fact that one of the sites withdrew which may have diluted the overall EHPA effect. In addition, sample size in this research was governed by the

number of work-sites randomly assigned to conditions rather than the number of employees. This limited the statistical power of the experiment to detect an EHPA effect. Results were also based on self-report.

Herbert et al., (1993) published a follow-up report using data from the 8 control companies and the 5 intervention companies that fully implemented the Treatwell EHPA. They were particularly concerned with its effect on specific nutrients implicated in carcinogenesis. A significant EHPA effect was observed for Vitamin A and carotene and smaller effects for risk factors such as saturated and mono-unsaturated fatty acids. These results indicate a broader effect of the intervention than just on fat and fiber intake. This research suffers from the same limitations noted above concerning self-report and the small number of work-sites that were randomized.

Minneapolis - St. Paul. A randomized controlled trial of an EHPA was conducted by Jeffery et al., (1993b) in Minneapolis-St. Paul. This EHPA was developed after extensive pilot-testing and was comprised of a combination of on-site health education classes and an incentive system organized through payroll deduction. Smoking and weight loss were the target health behaviors. The study involved 32 work-sites volunteering for the study and then randomized to the intervention or control conditions. Baseline data were collected on 200 randomly selected employees in each site who were followed for two years.

A cross-sectional sample of 200 was also surveyed at the two-year mark. The net two year reduction in smoking prevalence in intervention versus controls was 4.0% and 2.1% in the cross-sectional and cohort surveys respectively. The decline in smoking prevalence was positively correlated with the rate of participation (although participation

rate was quite low at 12% of smokers). In a separate analysis, Jeffery et al. (1993a) found a net reduction in self-reported absences from work in the intervention compared to the control sites. They also found that this reduction was related to the rate of participation in the smoking cessation program. No intervention effect was found for weight loss even though the weight loss program was more popular than the smoking program.

This was a well designed study that seeks to take advantage of a randomized, experimental design. The small number of sites per condition may have reduced statistical power to detect true differences across experimental and control condition for weight loss specifically. However, this strengthens the findings with respect to smoking since the analytic procedure is conservative. In some respects, the potential problem with statistical power is offset by the added explanatory power of the experimental design in ruling out confounding factors such as selection bias.

Johnson & Johnson Corporation. The evaluation of the Live for Life EHPA at Johnson & Johnson Corporation stands out among the early controlled evaluations of an EHPA. Employees at 4 companies were exposed to a health promotion program while employees at 3 comparison companies were offered an annual health screen.

Employees volunteered to participate in the EHPA. The health promotion program included a major component on exercise as well as smoking cessation, weight control, stress management, nutrition education and blood pressure intervention. Blair et al., (1986) reported a positive increase at two-year follow-up in the number of employees who exercised regularly as well as measures of their physical fitness. Shipley et al. (1988) compared smoking status measured by both self-report and biochemical indices and found that 22.6% of smokers had quit in the intervention companies compared to the

controls. The effect size was even higher for employees at high-risk for cardiovascular disease.

Bly et al., (1986) extended the evaluation of the Live for Life EHPA by comparing the group of comparison companies with two groups of intervention companies, defined on the basis of the length of time they were involved with the program. They examined outcome variables associated with health care costs and utilization and used statistical methods to control for baseline differences. Mean annual inpatient cost increases were \$43 and \$42 for the two Live for Life groups compared to \$76 for the controls. The intervention groups also had lower rates of increase in hospital days and admissions. The data suggested that exposure to the EHPA attenuated the increase in health care costs and utilization that would have occurred without the program. No significant differences were found for outpatient or other health care costs.

Participation in the initial health screening was high in both the health-screen-only and the intervention companies thus arguing against selection bias as a major confounding variable. Ruling out selection bias was also supported by the fact that a large majority of employees participated and that follow-up surveys were conducted of employees who chose not to participate in the health screen. However, as with any evaluation using a quasi-experimental design, questions remain about the comparability of the intervention and control companies at baseline.

General Motors. Erfurt et al. evaluated an EHPA instituted in 4 large auto manufacturing plants (Erfurt et al., 1990, Erfurt et al., 1991a; Erfurt et al., 1991b; Heirich et al., 1993). All facilities were large (more than 1500 employees) and employed predominantly blue-collar males. Each site was randomly assigned to 1 of 4 categories of

intervention: a control condition involving health screening and referral of individuals identified as having health problems or risks; health screening followed by health education classes offered twice yearly and the distribution of health education material; risk reduction comprised of the health screening and the health education component plus systematic follow-up of individuals at high risk by wellness counselors; and, full service involving all of the above strategies as well as additional organization supports and outreach such as competitions, buddy systems and larger group activities. Sites 3 and 4 also involved a menu of program options such as classes, guided self-help and one-to-one consultation. Outcomes that were assessed included hypertension, smoking and weight loss. Particular attention was paid to the influence of EHPA design on participation and other process variables such as the proportion of participants selecting various alternatives from the EHPA menu in sites three and four.

At the end of a three-year intervention period, random samples of initially screened employees were drawn and re-screened. The study results showed an increase in participation rates in conditions 3 and 4 where the individual could choose from a menu of alternatives and one-to-one follow-up support (Erfurt et al., 1990). For example, in sites 3 and 4 the program engages over 59% of overweight employees and almost 50% of smokers. This compared to less than 10% in the basic health education condition (site two). Erfurt et al. (1991a) also found that more hypertensives entered treatment and showed greater reduction in blood pressure in sites 3 and 4. A high percentage of employees screened in sites 3 and 4 also reported losing ten or more pounds and quitting smoking at year-three follow-up. Positive effects were even more marked in high risk employees. The organizational activities, peer support and follow-up provided in site

four was associated with better outcomes due to better maintenance of improvements than found in the other three conditions.

Erfurt et al. (1991b) extended the analysis to include data on the cost of delivering the EHPA alternatives, compared to the magnitude of outcomes achieved. Sites 3 and 4 were more cost-effective than site 2, both in terms of increasing participation and reducing the three risk factors (such as hypertension, weight loss and smoking) and preventing relapse. Site 2, which involved only traditional health education classes offered twice a year after the health screening was the least cost-effective option, and, was even lower than the control condition since outcomes were approximately equal but at much higher cost. The added cost of plant organization in site 4 to support the health promotion activities did not make as significant an impact per dollar spent as the other three components (i.e. wellness screening, follow-up outreach and counseling) and a menu of health improvement options.

Heirich et al. (1993) focused on the fitness component of this EHPA and compared three approaches and a control condition: a staffed physical fitness facility; one-to-one counseling with at-risk employees; a combination of one-to-one counseling plus organization of the worksite to encourage peer support and mutual exercise activity at work; and, the control site. Results were similar for the fitness center and the control site on the outcome measures. Both of the other programs were more effective than these two options with the combination of counseling and plant organization providing the best outcomes in terms of frequency of exercise, adequacy of blood pressure control among hypertensives, weight loss among the overweight and smoking cessation.

The results are consistent with the previous evaluation reports emanating from this project showing the added value of systematic, ongoing outreach to recruit employees and to maintain positive changes in health behavior. The cost implications of this research are important since it suggests that significant increases in the frequency of exercise can be sustained without a substantial investment in fitness facilities. Better outcomes, at approximately the same cost, were achieved through one-to-one counseling and encouragement to incorporate exercise into one's daily life.

The General Motors series of reports provides impressive evidence concerning the effectiveness and cost-effectiveness of EHPAs. The research is particularly informative because it compares interventions that are incremental in terms of personal contact and organizational activities that are intended to support behavior change. However, despite the wealth of information that may inform EHPA design and employee recruitment, the outcome data remain limited by the fact that only one site was involved in each program alternative. Despite random assignment to the study conditions, the design does not adequately rule out competing explanations of the results due to potential pre-intervention differences across the sites.

EHPA Results. It is noteworthy that of the 7 EHPA evaluations reviewed above, two found no effect (Blue Cross and Blue Shield; Kimberley-Clark), and two found a positive effect for one major anticipated outcome but not another (Treatwell and Minneapolis-St. Paul). Interpretation of the results from the Dupont EHPA, which showed positive effects, is severely limited by the self-selection of the companies into the study conditions. In three projects, companies were randomly assigned to study conditions but the statistical power of these experiments is governed largely by the

number of companies in each condition and not the number of employees. In two of the projects with randomized designs (Treatwell and Minneapolis-St. Paul) two of the four major comparisons of outcomes were not significant. The Minneapolis-St. Paul project stands out as a well-executed trial and found positive effects for smoking but not weight loss. Despite its sample size limitations, the General Motors trial is also quite informative given its substantive process data and the dose-response relationship observed between program intensity and outcome. Finally, the evaluation of the Johnson and Johnson program is a well-designed, executed and analyzed quasi-experimental study that found positive effects. A list of other recent quality studies compiled by Aldana (1998) is attached as Appendix E.

Key Features of Successful EHPAs. The criteria used to define EHPA success in the studies reviewed ranged from short-term consequences for the individual such as a change in attitude or health behavior to medium and longer-term health outcomes to a variety of indicators of particular interest to the employer group including reductions in absenteeism, turnover, sick leave and health care benefit utilization. Other criteria for success related to program planning, implementation and operation.

A discussion of the key features of successful EHPAs completes the literature review on employee health management. This includes notation of factors associated with participation in EHPAs as well as factors related to retention and maintenance of change in health-related behavior. It also concerns factors related to successful adoption and maintenance of EHPAs in workplace settings. This is not meant to be a definitive statement of planning and process issues rather, it represents the observations and conclusions that were most consistently noted across the outcome studies reviewed.

The factors predicting participation. These are not well known. Participation is clearly higher for on-site compared to off-site programs and seems to be effected by other aspects of accessibility such as scheduling and using work time. Organizational and peer support also seem to be relevant as well as giving employees a choice across a menu of alternatives including guided self-help. In general, the workplace must provide an environment conducive to maintaining behavior change. Data seem mixed with respect to the use of incentives to increase participation. There is a consensus of opinion emerging that blue-collar employees prefer group activities for fitness compared to white collar employees who seem to prefer more individually-oriented activities. Programs dealing with stress reduction and alcohol use often have more problems with participation than other types of programs. Lovato and Green (1990) and Wilson (1990) provide recent reviews of the literature on program participation.

Bases for development. Compared to programs being developed in the community-at-large or in school settings, EHPAs tend not to be guided by theoretical models of individual behavior change or theories of organizational change. Relevant theories at the individual level include social learning theory, diffusion of innovation, health belief model or the stages of change model (Centre for Health Promotion, 1993). Although all the projects are grounded in an epidemiological risk factor approach, this does not provide guidance on how best to change the relevant health behaviors.

At the organizational level, most EHPAs are loosely based on a systems approach to planning with cycles of need assessment, design, implementation and evaluation. The Dupont EHPA (Bertera, 1990b) for example, was based on the "PRECEDE/PROCEED" planning model which allows for easy integration of individual and environmental factors

into planning and program design. The Lifegain model used by Allen and Allen (1986) is a planning model emphasizing the need to work with the normative culture operating in the worksite. Social marketing represents a conceptual and practical approach to planning, design, implementation and evaluation which has clear application in the worksite but which was not used in the studies reviewed. Overall, the argument can be made that EHPAs should be better designed and implemented with a more solid theoretical and conceptual foundation.

The integration of EHPAs. There is little information in the literature regarding the integration of EHPAs with other health-related programs in the community so as to take advantage of potential synergy and additive effects. However, it is interesting that large scale community-based cardiovascular trials such as those conducted in Stanford, North Karelia and Pawtucket often include workplace interventions and conceptualize these interventions in a unified program model. This integration with other community programs does not seem to naturally occur for EHPAs arising from within the workplace itself. There is evidence from school-based programs however, that this type of cross-site integration can contribute to positive outcomes (Pentz et al., 1989).

Most experts in the field agree on the need for an overall corporate health strategy that integrates EHPAs, EAP and occupational health and safety (Dejoy & Southern, 1993; Walsh & Egdahl, 1989). There is also general agreement on the need to involve all organizational levels in planning, implementation and evaluation. A paper by Sorensen et al. (1992b) discusses some of the issues concerning employee advisory boards as a vehicle for organizing EHPAs. There is also the need for support and enthusiasm from employers to establish positive company norms. This may be evidenced by support for

environmental changes such as smoking policies, bicycle racks, company sponsorship in group activities such as corporate challenges and funding for interventions such as fitness facilities, smoking cessation programs and so forth.

Factors affecting implementation. One factor found to influence EHPA implementation is the stability of the worksite in terms of employment, labor relations, threat of shut-down, strike and lock-out. Steckler (1989) showed that the lack of EHPA effects could be traced to poor implementation of a training-the-trainers model. The model broke down in large part as a result of distractions caused by the threat of plant closure and related labor actions.

There is also a need for a multi-factoral approach that will address a range of health behaviors and environmental issues through a variety of interventions. The availability of employee choice in the type of intervention in which to participate seems to increase participation outcomes. EHPAs based only on a didactic, health education format are not as successful as those which use one-to-one person support and follow-up and organizational supports such as corporate challenges to help maintain positive health behavior changes.

The literature reviewed with respect to employee health management suggested that the weight of the evidence seemed to indicate a positive effect for EHPAs on health behaviors, personal health outcomes and other factors such as absenteeism, sick leave and health care costs. While the more detailed review of selected EHPA evaluations also showed more positive than negative findings, more guarded optimism may be warranted based on the results of the new and improved studies. Even these best studies have significant limitations in design and/or analysis that preclude conclusive statements of

causality. There seems to be sufficient evidence to warrant proceeding with EHPAs however, program planners should proceed with considerable attention being paid to the articulation of clear objectives and a program design capable of maximizing the changes of program affect at reasonable cost.

The Literature on Organizational Effectiveness

Organizational effectiveness is a topic with a voluminous literature spanning several disciplines including but not limited to psychology, sociology, business, economics, political science, education and health. The theoretical literature on organizational effectiveness has historically been characterized as being confused, and despite its volume, still appears to be in a developmental stage. As illustrated in Table 7, theorists have had difficulty agreeing on what the term organizational effectiveness means. Yet almost all of these experts acknowledge the term is the central theme in organization theory. As Goodman and Pennings (1977) put it: "it is difficult to conceive of a theory of organizations that does not include the concept of effectiveness". (p. 2)

Background

While many problems have hampered the advancement of this literature (Cameron & Whetten, 1983; Hannan & Freeman, 1977; Goodman & Pennings, 1977; Scott, 1977) one suggested to be of over-riding importance is the fact that effectiveness is not a concept but a construct (Quinn & Rohrbaugh, 1983). A concept is an abstraction

Table 7

Criteria and Measures of Organizational Effectiveness (1)

1. Overall effectiveness. The general evaluation that takes into account as many criteria facets as possible. It is usually measured by combining archival performance records or by obtaining overall ratings or judgments from persons thought to be knowledgeable about the organization.
2. Productivity. Usually defined as the quantity or volume of the major product or service that the organization provides. It can be measured at three levels: individual, group and total organization via archival records or ratings or both.
3. Efficiency. A ratio that reflects a comparison of some aspect of unit performance with the costs incurred with that performance.
4. Profit. The amount of revenue from sales left after all costs and obligations are met. Percentage return on investment and percentage return on total sales are sometimes used as alternative definitions.
5. Quality. The quality of the primary service or product provided by the organization may take many operational forms, which are determined largely by the kind of product or service provided by the organization.
6. Accidents. The frequency of on-the-job accidents resulting in lost time.
7. Growth. Represented by an increase in such variables as total work force, plant capacity, assets, sales, markets, profit share and number of innovations. It implies a comparison of an organization's present state with its own past state.
8. Absenteeism. The usual definition stipulates unexcused absences, but even within this constraint there are a number of alternative definitions (e.g. total time absent versus frequency of occurrence).
9. Turnover. Some measure of the relative number of voluntary terminations, which is almost always assessed via archival records.
10. Job satisfaction. Has been conceptualized in many ways, but the model view might define it as the individual's satisfaction with the amount of various job outcomes that he or she is receiving.
11. Motivation. In general, the strength of the predisposition of an individual to engage in goal-directed action or activity on the job. It is not a feeling of relative satisfaction with various job outcomes but is more akin to a readiness or willingness to work at accomplishing the job's goals. As an organizational index, it must be summed across people.

Table 7 (Continued)

Criteria and Measures of Organizational Effectiveness (1)

12. **Morale.** The model definition seems to view morale as a group phenomenon involving extra effort, goal communality, commitment and feelings of belonging. Groups have some degree of morale, whereas individuals have some degree of motivation (and satisfaction).
13. **Control.** The degree and distribution of management control that exists within an organization for influencing and directing the behavior of organization members.
14. **Conflict/cohesion.** Defined at the cohesion end by an organization in which the members like one another, work well together, communicate fully and openly, and coordinate their work efforts. At the other end lies the organization with verbal and physical clashes, poor coordination and ineffective communication.
15. **Flexibility/adaptation.** Refers to the ability of an organization to change its standard operating procedures in response to environmental changes.
16. **Planning and goal setting.** The degree to which an organization systematically plans its future steps and engages in explicit goal-setting behavior.
17. **Goal consensus.** Distinct from actual commitment to the organization's goals, consensus refers to the degree to which all individuals perceive the same goals for the organization.
18. **Internalization of organizational goals.** Refers to the acceptance of the organization's goals. It includes the belief that the organization's goals are right and proper.
19. **Role and norm congruence.** The degree to which the members or an organization are in agreement on such things as desirable supervisory attitudes, performance expectations, morale and role requirements.
20. **Managerial interpersonal skills.** The level of skill with which managers deal with supervisors, subordinates and peers in terms of giving support, facilitating constructive interactions and generating enthusiasm for meeting goals and achieving excellent performance.
21. **Managerial task skills.** The overall level of skills with which the organizations managers, commanding officers or group leaders perform work-centered tasks and tasks centered on the work to be done and not the skills employed when interacting with other organizational members.

Table 7 (Continued)

Criteria and Measures of Organizational Effectiveness (1)

-
- 22. Information management and communication. Completeness, efficiency and accuracy in analysis and distribution of information critical to organizational effectiveness.
 - 23. Readiness. An overall judgment concerning the probability that the organization could successfully perform some specified task if asked to do so.
 - 24. Utilization of environment. The extent to which the organization interacts successfully with its environment and acquires scarce and valued resources necessary to its effective operation.
 - 25. Evaluations by external entities. Evaluations of the organization or unit by the individuals and organizations in its environment with which it interacts. Loyalty to, confidence in, and support given the organization by such groups as suppliers, customers, stockholders, enforcement agencies and the general public would fall under this label.
 - 26. Stability. The maintenance of the structure, function and resources through time, and more particularly, through periods of stress.
 - 27. Value of human resources. A composite criterion that refers to the total value or total worth of the individual members, in an accounting or balance sheet sense, to the organization.
 - 28. Participation and shared influence. The degree to which individuals in the organization participate in making the decisions that affect them directly.
 - 29. Training and development emphasis. The amount of effort that the organization devotes to developing its human resources.
 - 30. Achievement emphasis. An analog to the individual need for achievement referring to the degree to which the organization appears to place a high value on achieving major new goals.
-

Note. 1 = Adapted from John P. Campbell, "On the Nature of Organizational Effectiveness". In P.S. Goodman, J.M. Pennings (Eds.), *New Perspectives on Organizational Effectiveness*. San Francisco: Jossey-Bass, 1977, pp. 36-41.

from observed events which are directly observable and/or easily measured while constructs are inferences at a higher level of abstraction from concrete events and cannot be easily be defined by pointing to specific occurrences. They need to be constructed from concepts at lower levels of abstraction. Examples of constructs include leadership, motivation and intelligence. The crux of the problem is that no one seems to be sure which concepts (e.g. productivity, innovation, etc.) should be built into the construct of organizational effectiveness (Cameron, 1981; Steers, 1975). As a result there has been a proliferation of numerous models of organizational effectiveness many of which are idiosyncratic to the values of the researcher.

Despite the apparent current state of confusion, there are a number of encouraging themes and recent developments in the theoretical literature that offer a more optimistic view of the process for advancing the organizational effectiveness construct (Cameron, 1986a, 1986b, 1979, 1978; Kanter & Brinkerhoff, 1981; Pfeffer, 1977; Quinn & Rohrbaugh, 1980; Scott, 1977; Seashore, 1979; Strasser et al., 1981). As pointed out by Kanter and Brinkerhoff (1981), there is an air of technicality surrounding the area of organizational effectiveness as though the central problem were merely that of refining measures. However, the most important questions in this area are not technical but conceptual in nature; not how to measure effectiveness but rather what to measure; how definitions and techniques are chosen; and, how they are linked to other aspects of internal and external organizational dynamics. Numerous problems of defining and assessing organizational effectiveness have been noted in the literature, the most significant of which are related to criteria problems.

As indicated by Cameron (1978), criteria problems tend to be of two kinds: the type of criteria selected to indicate effectiveness, and, the sources or originators of the criteria. Criteria problems include issues related to: which organizational models underlay the selection of criteria; whether universal or unique criteria must be applied; whether normative (prescribed) or descriptive (derived) criteria should be used; and, appropriate use of dynamic versus static criteria. Sources of criteria problems include which constituencies should determine effectiveness criteria and provide the data for their measurement and what levels of analysis should be used. There is still considerable debate in the literature over which criteria are best (Cummings, 1983; Schneider, 1983).

A number of scholars and researchers have made contributions with respect to clarifying the organizational effectiveness construct and advancing the literature. Steers (1975) suggested that the first step was to identify the relevant variables in the domain of effectiveness, and then, determine how they are related. Campbell (1977) undertook an exhaustive review of the literature to identify all of the variables in the domain of effectiveness and generated a list of 30 criteria (see Table 1). Following this work, Scott (1977), Seashore (1979, 1983), Cameron (1979, 1983, 1986a, 1986b) and Strasser et al. (1981) each helped to bring some order to organizational effectiveness theories and the literature by categorizing the various models and/or by advocating multiple model views of organizational effectiveness. Clearly, none of the existing or potential models of organizational effectiveness is likely to be universally applicable or superior to another. Different situations will require different applications and in all likelihood, an integrating framework will be required.

Models of Organizational Effectiveness

Approaches to organizational effectiveness can be reduced to one of four major models including: goal model; systems resource model; internal processes model; and, multiple constituencies model. A brief overview of each of these models is provided below.

The goal model defines effectiveness in terms of how well an organization accomplishes its stated or implied goals. Despite extensive efforts to define effectiveness in terms of outputs and goal accomplishments (Bluedorn, 1980; Campbell, 1977; Cyert & March, 1965; Deniston, Rosenstock & Getting, 1968; Etzioni, 1964; Gross, 1968, 1969; Hall 1978; Price, 1968, 1972; Warriner, 1965; Weiss, 1972; Zald, 1963) the use of goals as a basis for evaluating effectiveness has been criticized as being problematic, due to the difficulty in specifying organizational goals. A second criticism of the goal approach is its inability to develop generalizable measures of effectiveness which can be used to study a wide range of organizations. For example, measures of profitability while applicable across business organizations are not applicable when applied to assessing the effectiveness of most public sector organizations. The absence of generalizable measures is a serious problem because it hinders comparative research and the development of theory.

The system resource model defines effectiveness in terms of an organization's ability to acquire scarce and valued resources. Simply put, the more of the needed resources an organization can obtain from its external environment the more effective it is. The emphasis on outputs in the goal model is replaced by an emphasis on inputs aimed at enhancing capability and performance. The system resource approach to

effectiveness views the organization as an open system interacting with and adapting to its external environment. As noted by Seashore & Yuchtman (1967), the emphasis upon the resource acquisition capability of organizations is not intended to overlook two other key aspects of organizational performance, throughput and output. All three aspects of organizational behavior (resource acquisition, utilization and exportation) in some output form that aids further input are important to organizational effectiveness.

As with the goal approach, considerable effort has been made to define effectiveness in terms of systems resource concepts (Bowers, 1964; Bowers & Seashore, 1966; Cunningham, 1978; Katz & Kahn, 1966; Nadler & Tushman, 1980; Seashore & Yuchtman, 1967; Strasser, Eveland, Cummings, Deniston & Romani, 1981; Yuchtman, 1966; Yuchtman & Seashore, 1967). The systems resource approach is the most prominent of general systems models. Although there are many variations and adaptations of this model, Strasser et al. (1981) point out that the most important common theme is that organizational effectiveness is conceived of as a multi-dimensional construct. This results in broadening the range of criteria for measuring the effectiveness construct. These researchers also note that underlying most systems models is the view that organizations are not rational machines operating in isolation, but rather, organic systems which through their interdependent and interactive sub-systems cope with internal problems and demands of their external environments, just as individual organisms must. Consequently, systems models implicitly emphasize criteria designed to reflect the concept of an organization as a social system such as organizational flexibility, adaptability, acquisition and utilization of resources.

Although the systems resource approach is generally considered to be superior to the goal model, Strasser et al. (1981) point out that defining organizational effectiveness in system terms is also problematic. Common criticisms of the system model are that: it lacks conceptual consistency; it is difficult to operationalize; and, it is unable to account for causal relationships that may exist among the component parts of the system defined.

The internal processes model defines organizational effectiveness in terms of an organization's internal processes, structural characteristics and operations. Examples include processes for minimizing internal strain, integrating members into the system and ensuring smooth information flows. Kanter and Brinkerhoff (1981) note that under the process model, effectiveness is defined in terms of characteristics of the organization including both structural arrangements and process activities. According to these researchers, performance is a function of structure and process mediated by organization climate. Goal attainment, outputs and inputs recede in importance and the organization itself and various internal transformational processes become prime. This model has received less attention in the literature than the goal or systems resource approaches. Prominent researchers with regard to the internal processes approach have included Bennis (1966); James and Lawrence (1976); Mahoney and Frost (1974); Mott (1972); Negandhi and Reimann (1973); Pennings (1976); and, Stonich (1982).

Kanter and Brinkerhoff (1981) note that sets of internal organizational characteristics, whether involving structure or process can only be correlated roughly with an organization's overall effectiveness (including productivity or output). They can however, be useful state-of-the-systems indicators for managerial decisions. Process approaches are diagnostic since the latter consider only outputs and not internal processes

or structures. In other words, the reasons underlying organizational effectiveness can be determined through process models but not goal models. In addition, process approaches are felt to be more useful as predictive models of future performance.

The multiple constituency model defines effectiveness as the extent to which an organization's key constituencies are at least minimally satisfied. Constituencies can include employees, resource providers, customers, groups whose support is needed to ensure organizational survival and others who are significantly affected by the organization. Advocates of this model emphasize powerful external constituencies that have an impact on its functioning. Under the multiple constituency model, organizational effectiveness is based on how well the enterprise responds to the demands and expectations of its various constituencies.

The literature on multiple constituency models (Connolly et al., 1980; Keeley, 1978; Pennings & Goodman, 1977; Pfeffer & Salancik, 1978; Zammuto 1982, 1984) tends to be more current than that associated with systems or goal models. Unlike the goal and systems approaches, the effectiveness criteria employed under these models is derived from the preferences of multiple constituencies (Zammuto, 1984). The multiple constituency model disputes the one crucial assumption shared by both goal and systems models - that it is both possible and desirable to establish a single set of evaluative criteria, and thus, a single statement of organizational effectiveness (Connolly et al., 1980).

Advocates of this model argue that organizational effectiveness can reflect several or many different effectiveness statements derived from the evaluative criteria of various constituencies involved with the focal organization. Proponents of multiple constituency

approaches view goal and systems models as providing valuable, but only partial, insights into the relationships between an organization's activities and its constituencies.

As a result of its relative recent development, the multiple constituency model has not yet received the critical review it deserves. However, it seems clear that a number of important theoretical and empirical challenges will need to be addressed including: the distribution and weighting of multiple constituency satisfactions, the opportunities for constituencies to effect the organization, and, the organization's location or positioning in regard to current and possible future constituencies. The multiple constituency model is an intriguing approach which may help break the deadlock surrounding goal and systems approaches to organizational effectiveness. At the same time, however, further theoretical consideration and empirical research are called for to fully establish its conceptual and practical merits.

Integration of the Competing Models

Since the late seventies, there has been a growing awareness in the theoretical literature of the need to take into account different value perspectives in conceptualizing organizational effectiveness (Connolly et al., 1980; Keeley, 1978; Pennings & Goodman, 1977; Pfeffer & Salancik, 1978; Seashore, 1983; Zammuto 1982, 1984). Multiple constituency theory argues that organizational effectiveness must be evaluated from many perspectives including: customers, owners and stakeholders, organizational members (including executives, managers, workers and labor union representatives), partners, suppliers, and, the general public. Seashore (1983) contends that it is the constituencies who are then responsible for integrating the competing constructs of organizational

effectiveness with the values and relationships existing within their respective organizations. Integration of competing models involves establishing constituent views, forming judgmental assessments, then, integrating these views and assessments into a comprehensive framework or approach. Seashore argues that while this may seem to be a conceptually complex approach, "if this is the way the world operates, then we must accept it". (p. 115)

Most models of organizational effectiveness reported in the literature have been derived conceptually. Quinn and Rohrbaugh (1983) describe an empirical approach to developing a framework of multiple models. This involved ordering, through multivariate techniques, criteria that organizational theorists and researchers have used to evaluate the performance of organizations. Panels of leading organizational theorists and researchers were asked to make judgments about the similarity of commonly used effectiveness criteria. The findings suggest that organizational experts share an implicit theoretical framework which is manifest in an ordering of organizational effectiveness criteria along three competing values dimensions. The first value dimension is related to organizational focus, from an internal micro-emphasis on the well-being of people and processes to an external macro-emphasis on the well-being of the organization per se. The second value dimension deals with organizational structure from an emphasis on stability to an emphasis on flexibility. The third dimension is related to organizational means-and-ends from an emphasis on processes such as planning, goal setting and communication to outcomes such as productivity, growth and stability.

Aram (1976) believes these three dimensions of competing values are central dilemmas in the organizational literature. Their integration results in a multiple model

framework which encompasses human relations models, open system models, internal process models and rational goal models. Quinn and Rohrbaugh (1983) observe that this framework also clarifies the relationship that exists between the four models of organizational effectiveness, and, the two general paradigms used in organizational theory. Their work helps to organize the historic literature, indicates which concepts are most central to the construct, demonstrates convergence between the organizational effectiveness literature and the general organizational literature, and, provides a comprehensive multiple model framework.

Recent Developments

A promising development with respect to comprehensive multiple model frameworks for public sector organizations is the Canadian Comprehensive Auditing Foundation's (CCAF) "Twelve Attributes of Effectiveness Framework". The framework contains twelve attributes which the CCAF believe cover most of the critical aspects of an organization's performance in a public sector context. The twelve attributes of effectiveness as described by the CCAF (1987) include: management direction; relevance; appropriateness; achievement of intended results; acceptance; secondary impacts; costs and productivity; responsiveness; financial results; working environment; protection of assets; and monitoring and reporting.

Another promising approach considered to be a rational, eclectic configuration that reflects the models of organizational effectiveness outlined above is the two-tiered strategic management, accountability and performance measurement system developed by Nagel and Cutt (1995). This system, which has been endorsed by the Auditor General of

British Columbia, is comprised of a number of relevant elements from the CCAF Twelve Attributes of Effectiveness Framework and the Malcolm Baldrige National Quality Award, whose criteria are based on the principles of Total Quality Management (TQM). TQM, in turn, has become an important organizational value in the American Federal and State Government system as well as in many public and private sector organizations across North America.

The advantage of the system developed by Nagel and Cutt (1995) is that it provides feed-back on a wide range of outputs related to effectiveness, quality and efficiency, and, does so at multiple organizational levels - the corporate or aggregate level as well as the program or decoupled level. As a result of the incorporation of an internal indicator development and revision process, this system ensures on-going indicator relevancy and value accountability thereby enhancing the overall efficacy of the system as both a decision-making and performance management tool. The decentralized control of the system also enhances utilization and performance effects.

The above review of the organizational effectiveness literature paints a mixed picture of the current state of organizational effectiveness theory and practice. Overall, the theoretical body of literature with respect to organizational effectiveness remains largely disjointed and confused. This circumstance has contributed to the proliferation of a wide range of models of organizational effectiveness which have been driven largely by the values, theories and professional disciplines of the respective organizational theorists.

Relevance of the Research to Study Design

The approach adopted with respect to conducting this research was substantially influenced by the literature. The Values and Health Management questionnaire (VHM), a research instrument developed specifically for this study, was designed in consideration of recently published values and EHPA research papers. Similarly, the decision to pilot test the research instrument among a wide range of participants and to use two slightly different study designs (and a single grouping factor) was also influenced by recent research initiatives.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter describes the methods utilized to conduct the research. A review of the methods of research into values indicates that two approaches have been dominant. The first consists of those studies in which the researcher takes the stance of an observer and looks at aspects of behavior under natural or experimental conditions. The second consists of attempts to identify value-related beliefs by asking participants questions, listening to their everyday speech and by examining their writings and/or obtaining their answers to questionnaires. Research of this type accounts for the greatest bulk of work normally subsumed under the topic of values and is the approach taken in this dissertation (Kitwood, 1980).

This research can be separated into two distinct but related parts. The first part involved identifying the existence and importance of values and their perceived influence on an organization's ability to achieve positive, performance-related outcomes. Because employee health programs and activities (EHPAs) are considered to be organizational expressions of Health Values, and, recent North American research suggests that well-designed EHPAs can influence the achievement of important organizational outcomes, the second part this research focused on identifying the various approaches to EHPAs utilized by participants, obstacles to EHPA implementation, rationale employed to justify implementation; and participation incentives and organizational factors perceived to affect employee involvement in and commitment to EHPAs.

Research Design

A total of 187 private and public (and government) sector organizations participated in this study of values and EHPAs. The public sector participants included federal, provincial and municipal government organizations, universities, colleges, school districts and hospitals. The private sector participants included organizations from a broad cross section of Alberta and British Columbia industry. For the purposes of conducting statistical analysis, seven groups were formed from these participants. Participant groups were established using two primary criteria: size (i.e. number of organizations in each group), and, type (i.e. nature of the organizations in each group). A brief description of the participant groups is provided below.

The Alberta Provincially-Funded Group: was comprised of 48 government-funded entities which included government ministries, Crown corporations, post-secondary educational institutions (universities and colleges), school districts and hospitals.

The Alberta Private Sector Group: was comprised of 27 private or publicly held organizations representing a cross section of Alberta industry which included: agriculture, banking, chemicals, communication, electronics, engineering, financial services, manufacturing, oil & gas, printing, retail, service and transportation.

The All Alberta Group: was comprised of 82 government, private and publicly-held organizations (included those organizations in the Alberta Provincially-Funded and Alberta Private Sector groups) and seven additional municipal organizations.

The British Columbia Provincially-Funded Group: was comprised of 51 government-funded entities which included government ministries, Crown corporations, post-secondary educational institutions (universities and colleges), school districts and hospitals.

The British Columbia Private Sector Group: was comprised of 26 private or publicly-held organizations representing a cross section of British Columbia industry which included: banking, chemicals, construction, energy, engineering,

financial, forestry, manufacturing, printing, pulp and paper, retail, service, smelting and transportation.

The All British Columbia Group: was comprised of 83 government, private and publicly-held organizations (included those organizations in the British Columbia Provincially-Funded and British Columbia Private Sector groups) and six additional municipal organizations.

The Federal Government Group: was comprised of 22 federal government organizations which included departments, central agencies and Crown corporations.

As a result of the way in which the participant organizations were grouped, two slightly different designs, one for the provincially-funded, private sector and Federal government groups, and, one of the All Alberta and All British Columbia groups were employed to analyze the data. Each design consisted of a single grouping factor, and, were required to avoid comparing the various components of the participant groups with themselves. For example, the Alberta Provincially-Funded group was not compared with the All Alberta group because the former contained the majority of the organizations that comprised the latter.

Research Questions

Ten primary, seven secondary and four tertiary research questions guided this research. Each set of questions focused on either the primary or secondary purpose of the study or both. The primary and secondary research questions sought responses to questions in accordance with a 7 point Likert scale. The tertiary questions sought comments from participants with regard to values, EHPAs, obstacles to implementing EHPAs, and, research results.

Primary Research Questions

Research Question 1. Do perceptions, regarding the existence of the organizational values identified, differ significantly among the designated groups?

Research Question 2. Do perceptions, regarding the importance of the organizational values identified, differ significantly among the designated groups?

Research Question 3. Do perceptions, as to whether or not values influence an organization's ability to achieve positive performance-related outcomes, differ significantly among the designated groups?

Research Question 4. Do perceptions, as to whether or not values heavily influence an organization's ability to achieve positive, performance-related outcomes, differ significantly among the designated groups?

Research Question 5. Do perceptions, as to the methods or vehicles utilized by organizations to operationalize Health values, differ significantly among the designated groups?

Research Question 6. Do perceptions, concerning the rationale utilized by organizations to justify the implementation of EHPAs, differ significantly among the designated groups?

Research Question 7. Do perceptions, regarding the kinds of value conflicts that impede EHPA implementation efforts, differ significantly among the designated groups?

Research Question 8. Do perceptions, regarding the types of value conflicts that impede EHPA implementation efforts, differ significantly among the designated groups?

Research Question 9. Do perceptions, of the incentives utilized to enhance short term employee involvement in EHPAs, differ significantly among the designated groups?

Research Question 10. Do perceptions, of the factors that affect long term employee commitment to EHPAs, differ significantly among the designated groups?

Secondary Research Questions

Research Question 11. How could participant organizations, in terms of workforce characteristics, be described?

Research Question 12. Do perceptions, as to whether or not employers have demonstrated visible support for EHPAs, differ significantly among the designated groups?

Research Question 13. Do perceptions, regarding how EHPAs offered in the past 12 months have been delivered, differ significantly among the designated groups?

Research Question 14. Do perceptions, regarding the internal availability of information required to make informed decisions concerning employee health, differ significantly among the designated groups?

Research Question 15. Do perceptions, regarding concern for rising health-related costs, differ significantly among the designated groups?

Research Question 16. Do perceptions, regarding the level (and frequency) at which health-related costs are analyzed, differ significantly among the designated groups?

Research Question 17. Do perceptions, regarding EHPA commitment, differ significantly among the designated groups?

Tertiary Research Questions

Research Question 18. What perceptions are held by private and public sector organizational representatives with respect to values?

Research Question 19. What perceptions are held by private and public sector organizational representatives with respect to EHPAs?

Research Question 20. What perceptions are held by private and public sector representatives with respect to obstacles to EHPA implementation?

Research Question 21. What perceptions are held by private and public sector representatives with respect to benefits that may be derived from the results of this research?

Scope

As a result of the cultural differences that are perceived to exist between British Columbia and Alberta populations and organizations, an inter-provincial study was conducted. Statistical analysis of responses provided by Alberta and British Columbia-based organizations was undertaken to identify whether or not and to what extent cultural differences may have influenced responses provided by participants on the Values and Health Management questionnaire (VHM).

Unit of Analysis

The unit of analysis for this research were the organizations who chose to participate in the study. These included: private sector organizations, federal government organizations, provincial government organizations, hospitals, colleges, universities, school districts and municipal organizations.

Participants

A total of 187 administrators and employees from private and public sector organizations participated in this research. Participants from Alberta included: 14 from government organizations; 7 from municipal organizations; 12 from post-secondary educational institutions; 11 from school districts; 11 from hospitals; and, 27 from private sector organizations. Participants from British Columbia included: 13 from government organizations; 6 from municipal organizations; 11 from post-secondary educational institutions; 14 from school districts; 13 from hospitals; and, 26 from private sector organizations. A total of 22 participants were from federal government organizations. Participants were typically employed in the human resource or occupational health functions, or, had responsibility for decision-making with respect to the health programs and/or activities administered by these functions. These individuals were considered to be key contacts for this research (Lecompte & Goetz, 1984).

The participant selection process involved identifying a broad range of organization types for participation then distributing invitations to individuals employed in their respective human resource management and employee health functions. Accordingly, the participants in this research were not randomly selected. However, the administrators and employees who participated represented a diverse range of private and public sector organizations.

Instrument

A review of the literature on value tests and measures revealed that although several researchers have developed instruments to identify personal values (Caldwell & O'Reilly, 1990; Rokeach, 1973; Scott & Scott, 1965), no widely accepted instrument has

been developed to identify the existence of organizational values. The research that has been conducted with respect to identifying organizational values in general, and value conflicts in particular, is limited (Liedtka, 1989).

With no other alternatives available, a research instrument (the Values and Health Management Questionnaire or VHM) was developed for this study. Development of a specialized instrument was also believed to be necessary because the terminology, language and concepts incorporated into existing questionnaires reviewed by the researcher were not considered to be appropriate or commonly used within the designated participant groups. The survey instrument developed by Rokeach (1973) served as the primary model or guide with respect to designing the four sections of the VHM.

The first section of the VHM questionnaire, which focused on identifying values and their perceived effect on organizational performance, was comprised of four parts. Part A asked respondents to identify the degree to which 18 organizational values were perceived to exist in their organizations. Part B asked respondents to identify the importance they perceived their organization to place on the 18 values identified. Parts C and D asked respondents to identify the influence the values they identified had on their (own) organization's ability to achieve 7 specific organizational outcomes. The specific organizational outcomes for which responses were solicited included effectiveness, efficiency, quality, productivity, innovation, quality of work life and profitability.

The second section of the VHM questionnaire, which was concerned with identifying how *Health* values influence performance, was comprised of six parts. Part A asked respondents to identify the methods utilized by their organizations to operationalize *Health* values. Part B asked respondents to identify the rationale employed by their

organizations to justify the introduction of EHPAs. Part C asked respondents to identify the kinds (sorts) of value conflicts that were perceived to impede the implementation of EHPAs in their organizations. Part D asked respondents to identify the types (nature) of the value conflicts that were perceived to impede the implementation of EHPAs in their organizations. Part E asked respondents to identify the various incentives used to enhance short term employee involvement in EHPAs. Part F asked participants to identify the organizational factors that influence long term employee commitment to EHPAs.

The third section of the VHM questionnaire, which was comprised of two parts, was concerned with developing a demographic and employee health management profile for each of the participating organizations. Part A asked respondents to provide general demographic information. Part B asked respondents to provide information regarding employee health costs, concerns and management practices, and, to respond to recent employee health research findings.

The fourth section of the VHM questionnaire, which was optional, was designed to gather anecdotal data. This section featured four open-ended questions concerning: values, EHPAs, obstacles to implementing EHPAs, and, benefits to be derived from this research.

The VHM questionnaire was similar to Rokeach's RVS with some notable differences. Like the RVS, the VHM was made up of a number of organizational values derived from a meta-analysis of large value surveys (see Table 8). Unlike the RVS however, the VHM was open-ended and provided opportunities for participants to identify and score values they perceived to exist in their respective organizations (if they

Table 8

Dominant Organizational Values and Key Word Descriptors

<p>Communication Provision of accurate, timely information; being consultative.</p>	<p>Productivity Increase outputs produced and value generated without increasing inputs.</p>
<p>Efficiency Minimum waste; effectiveness, proficiency.</p>	<p>Prosperity Maximize profits and benefits for the company, community and/or society.</p>
<p>Fairness The state of being fair; just, impartial, unbiased.</p>	<p>Quality Distinguishing attributes or features; excellence, superiority.</p>
<p>Growth Developing and maturing; expanding, increasing.</p>	<p>Respectability The state of being respectable; socially acceptable behavior; considerate.</p>
<p>Health Employee physical/mental well-being; disease free, soundness, vitality.</p>	<p>Responsibility The state of being responsible; answerable, accountable.</p>
<p>Innovation A change in the way of doing things; new approach, device.</p>	<p>Service Focus on customer needs; generate customer satisfaction.</p>
<p>Integrity Uprightness, honesty, sincerity; probity.</p>	<p>Stability Unlikely to change adversely; lasting, enduring.</p>
<p>Leadership Show the way; guide or direct.</p>	<p>Teamwork Group action; collaboration, joint effort, partnership.</p>
<p>Learning Acquiring knowledge and skill on a continuous basis; life-long learning.</p>	<p>Tolerance Not interfering with; allow, permit.</p>

were not listed among the eighteen values identified). This eliminated the ipsative nature of the instrument which characterized the RVS.

The most noteworthy difference between the RVS and VHM involved the replacement of the rank-order task used by Rokeach (1973) in favor of a Likert-type rating scale. The researcher's decision to utilize the Likert-type scale for this exploratory study was based on empirical research and arguments made in favor of the Likert-scale by Weber (1990), Miethe (1985), Braithwaite and Law (1985), Munson and McIntre (1979), and, Munson and Posner (1980). Weber (1990) believed that the RVS, as originally designed by Rokeach, limited a researcher's ability to comprehensively assess personal values. As Weber (1990) put it:

The primary impediment is the strict rank-ordering task established by Rokeach...Questions concerning the subject's ability to perform the rank ordering task have been raised...Researchers such as Gorsuch (1970) and Kitwood and Smithers (1975) further address the "do-ability" of the rank-ordering task. They argue that the ranking-ordering task appears conceptually difficult as Rokeach asks the subject to consider all 18 values in each list as the values are rank ordered...The most common criticism of Rokeach's rank-ordering task is that it is an ipsative measure (Braithwaite and Law, 1985; Miethe, 1985). The subject is asked to arrange a finite number of units within an enclosed framework, provided by the questionnaire itself. While ipsative methods can be justified in some areas of psychometrics, unwarranted assumptions in the measurement of values have been made. (p. 40-41)

Weber (1990) justified his decision to utilize a Likert-type scale in place of the rank-ordering task by referencing empirical study results that supported the Likert-scaling approach (see below) and emphasizing the analytical advantages that were inherently available with the rating scales. Weber (1990) wrote (that):

In an effort to simplify the task for the subject and to remove the problems inherent in the ipsative rank-ordering measure, an alternative method of rating the subject's response to the values on a "greater importance-lesser importance"

Likert scale has recently been attempted. Braithwaite and Law (1985), Munson and McIntre (1979) and Munson and Posner (1980b) have demonstrated that the RVS yields reliable, comparable results if modified from the original rank-order task to a seven-point Likert-type rating task... The modification of the RVS to a Likert-type rating task carries a significant analytical advantage in that a greater range of statistical analyses are possible when working with ratings rather than rankings (e.g. regression-based procedures such as canonical correlations, discriminate analysis and factor analysis. (p. 41)

Miethe (1985) compared the measurement properties of both traditional (e.g. ranking and rating) and psychophysical scaling techniques (e.g. magnitude estimation and hand-grip scaling) for assessing the importance of human values. The scaling techniques were compared using four methodological criteria: test-retest reliability; discriminatory power; convergent validity; and, a form of predictive validity. The results of the comparison (which he describes below) indicated that both ranking and rating techniques were valid and reliable and superior in all categories evaluated. Miethe (1985) wrote (that):

When selecting a scaling technique to measure attitudes and opinions, one would prefer a method that exhibits high test-retest reliability, discriminatory power, converges with other methods and yields substantive results consistent with theoretical expectations or past studies. A comparison of the traditional (ranking and rating) and psychophysical techniques (magnitude and hand-grip) revealed that traditional scales of value importance were superior to psychophysical techniques on each of these measurement properties. (p. 449)

Braithwaite and Law (1985) examined the extent to which the 36 items contained in the RVS provided comprehensive and representative coverage of the value domain. They concluded that although the RVS appeared to be comprehensive, it was weak in terms of representing physical well-being and individual rights. They also identified advantages of a rating procedure over a ranking procedure from both psychometric and

empirically valid perspectives and proposed the use of an asymmetrical scale for rating values that involved finer discriminations by respondents on the positive end. These researchers were not surprised that respondents found most of the values highly desirable, given that values are widely accepted as phenomena transmitted by society's major institutions (Kluckhohn, 1951; Rokeach, 1973). As Braithwaite & Law (1985) put it:

The self-ipsatizing nature of the instrument, however, is a feature that does not seem to be justified either psychometrically or in terms of empirical validity. That is not to say that the alternative procedure suggested here, rating the values, is without weakness. Indiscriminate use of the more favorable categories remains a problem, and the development of category labels and appropriate instructions to limit such behavior deserves high research priority. At the same time, overuse of positive categories is not at all surprising when one remembers what values are. With this in mind, one must guard against developing an instrument that forces discriminations for statistical neatness while failing to reflect psychological realities. After all, it may not be the holding of particular values but rather the ability to assign priorities among one's values that is the key to understanding the way in which values influence behavior. (p. 263)

Munson and McIntre (1979) examined the relative merits of three value measurement elicitation procedures: rank-ordering task; rating by Likert-type scales; and, anchored-scaling in an effort to determine the appropriateness of these three procedures for use with the RVS in cross-cultural marketing applications. The conclusions arrived at by these researchers was that the rating approach using the Likert-type scales was not only an appropriate replacement for the rank-ordering task employed by Rokeach, but also, held a number of advantages in a marketing context. First, the Likert-type scaling approach is easily and quickly administered and requires minimal instruction. Second, subjects are estimated to take an average of one third as long to complete the scaling procedure as the ranking procedure. Third, the savings in respondent time and effort can

be achieved with little or no cost in measurement accuracy. The conclusion drawn by

Munson and McIntre (1979) (that):

The normal (Likert-type) rating approach to elicitation of the RVS scales is an appropriate replacement for the original procedure of Rokeach. This outcome is important because the rating approach is superior from a practical standpoint, in most marketing applications... This study suggests, then, that the normal Likert type of rating approach could be the favored procedure for marketing applications of the Rokeach Value Survey. In particular, researchers engaged in cross-cultural or sub-cultural marketing might find this measurement approach beneficial. (p. 50-51)

Munson and Posner (1980b) conducted a study to determine the factorial and discriminant validity of the RVS when a modified Likert-type scale rather than the rank-order task was used for measurement purposes. Results indicated that the RVS, when administered with the Likert-scaling approach, was valid in both cases. The modified RVS yielded two distinct sets of higher order values and supported the value paradigm proposed by Rokeach. The results also indicated that the factors derived from personal values were useful for discriminating between particular groups. In summarizing their research comparing rank-ordering to rating tasks, Munson and Posner (1980) stated that:

The use of interval scaling rather than the rank ordering to assess value importance appears to offer the researcher several methodological advantages. It provides more nearly precise information about the intensity with which an individual may hold a specific value and enables more sophisticated analytical investigation. (p. 1078)

While use of a ranking method rather than Likert scales may have yielded superior results with respect to validity and reliability, this researcher believed the primary determining factor of participation was the time required to complete the questionnaire. Under these circumstances, use of the Likert-type scales, given their administrative

efficiency and comparable reliability, was a better “fit” for this exploratory study.

Accordingly, a seven-point Likert-type scale was employed in this research in place of the rank-order task in Sections I and II of the VHM. The Likert-type scales utilized were consistent with those employed by Munson and McIntyre (1979) and ranged from 1-7 where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; and, 7 = strongly agree.

Open-ended and short answer questions were used by the researcher to gather information in Sections III and IV of the VHM. These sections, which were concerned with the development of demographic and employee health management profiles, involved collecting anecdotal information with respect to values, EHPAs, obstacles to implementing EHPAs, and, benefits to be derived from the research results. A description of the VHM is provided in Appendix A.

Validity and Reliability

Validity is usually defined as the capacity to actually measure what the test purports to measure. There are three basic kinds of validity: content validity; construct validity and criterion-related validity. Content validity indicates how well the content of the instrument samples the class of situations or subject matter of which measures are taken or more concisely, the extent to which the test matches the universe. Construct validity is the degree to which the test results accord with or are explained by the related underlying theory or abstract concept. Criterion-related validity is divisible into two subsets: predictive validity and concurrent validity. Predictive validity refers to the capacity to distinguish between individuals who will differ in the future. Concurrent

validity refers to the capacity to distinguish between individuals who differ in their present status.

The type of validity that was most relevant to the instrument used in this research was content validity. To ensure relevance and appropriateness, a pilot study of the research instrument was conducted (see results below). Participants were asked to provide comments on the research instrument as they related to the clarity and suitability of the definitions, terminology, statements, categorical items and questions contained therein. As a result, a few suggestions were tendered with respect to re-wording some of the value-oriented statements contained in the questionnaire, however, no definition, statement or question was deemed to be inappropriate for use by the pilot participants. Subsequent to completing the suggested revisions, the research instrument was deemed to have met the requirements associated with content validity.

The content validity of the research instrument was further supported by a review of the literature. The values identified for the purpose of this research reflect North American organizational values defined in their respective value statements or value-laden directional documents such as mission or vision statements (Nagel, 1995). The value conflicts examined in this research were consistent with those identified previously by Toffler (1986) while the rationale, incentives, factors and types of value conflicts perceived to affect EHPAs were consistent with those identified previously by Wolfe (1989), Hodgkinson (1983) and Lovato and Green (1990).

Reliability can be defined as consistency. An instrument is reliable if it consistently yields the same results or measures from repeated applications to the same subjects under the same conditions. Wesman (1976) asserted that “it is a statistical and

logical fact that no test can be valid unless it is reliable (and, therefore,) “reliability is a very fundamental characteristic of tests”. (p. 35) Van Dalen and Meyer (1962) identified three methods for measuring reliability: test-retest; parallel forms; and, split half (p. 266). Test-retest, which was the reliability test utilized in this research (see below), is a method in which the test is given to the same subjects twice and their resultant scores are correlated. Parallel forms is a method that involves the development of equivalent forms of the instrument and both are administered and the degree of correlation between the scores is determined. Split-half is a method in which the test is given once and the items are randomly divided into halves, then, the scores for each half are correlated.

Test-re-test (Pearson correlation coefficients) methods were used to compare the first and second administration VHM scores submitted by pilot participants. The reliability coefficients derived from correlation analysis yield estimates of the consistency of measurements. According to Wesman (1976), these coefficients may serve one of two basic purposes. First, to estimate the precision of the instrument itself as a measuring device. Second, to estimate the consistency of participant performance on the test (p. 36). An average Pearson correlation coefficient of .8396 was achieved for the pilot study, which, was considered to be satisfactory (see Table 9).

The reliability of the research instrument was further supported by a review of the literature. Results achieved by a comparable instrument, the RVS, using the Likert-scaling approach were considered to be satisfactory and are well-documented by Weber (1990), Miethe (1985), Braithwaite and Law (1985), Munson and McIntyre (1979) and Munson and Posner (1980b). An overview of the pilot study is provided below.

Table 9

Pilot Study Reliability Results

Number of Cases	Description of Thematic Categories	Average Item Score	Cumulative Category Score
4	Existence of Organizational Values	.9598	3.8391
6	Importance of Organizational Values	.9639	5.7833
2	Influence of Values on Performance	.9489	1.8978
2	Heavy Influence of Values on Performance	.9670	1.9340
4	Operationalization of Health Values	.9776	3.9103
5	Kinds of Value Conflicts that Impede EHPAs	.9671	4.8357
3	Types of Value Conflicts that Impede EHPAs	.8908	2.6723
2	Factors affecting Commitment to EHPAs	.9769	1.9538
6	Workforce Characteristics	.6945	4.1669
12	Corporate Health Management	.6519	7.8228

Total Coefficient Score = 38.6208

Total Cases = 46

Pearson Coefficient = .8396

Pilot Study

Subsequent to receiving approval to conduct the research from my Student Supervisory Committee, approximately 30 individuals were contacted by telephone and asked if they would be interested in participating in: 1) the main study itself; and, 2) the pilot study of the research instrument. Many of the 30 individuals contacted were known to the researcher through prior academic or professional work. As a result of this telephone inquiry and researcher familiarity with the participants, 22 of the individuals contacted agreed to participate in both the main study and pilot study of the research instrument. 18 of the participants were subsequently selected for the pilot study of the instrument while all 22 of the participants were included in the main study.

The participants selected for the pilot study of the research instrument were administrators and employees from a diverse group of private and public sector organizations. The public sector representatives came from health care (hospitals), school district, post-secondary education, and, municipal, provincial and federal government organizations. The representatives from the private sector came from organizations involved in the retail, oil and gas, forestry and finance industries. As organizational representatives from both Alberta and British Columbia were invited to participate in the research, an equal number of representatives from each province were sent invitations for the pilot study.

A total of 9 individuals from the Province of Alberta - representing federal, provincial and municipal government organizations, school districts, post-secondary education institutions, health care institutions, and, private sector organizations in the financial, retail and oil and gas industries - were invited to participate in the pilot study of

the research instrument. Similarly, a total of 9 individuals from the Province of British Columbia - representing provincial and municipal government organizations, health care institutions, school districts, post-secondary education institutions, and, private sector organizations in the retail and forestry industries - were invited to participate. All 18 of the invited individuals participated in the pilot study.

Upon confirmation of their willingness to participate in the pilot study, a preliminary draft of the research instrument (the Values and Health Management Questionnaire or VHM) was sent by facsimile to participants for their review and comments. Feedback from pilot study participants with respect to the relevance and appropriateness of the research instrument's form, definitions, terminology, statements and categorical items and statements was requested by facsimile. Revisions of the VHM, in accordance with the suggestions received, were then made by the researcher.

Subsequent to the revision of the research instrument, participants were asked to complete the revised VHM questionnaire which was again transmitted to them by facsimile. The responses to the various items contained in the VHM were then returned by facsimile and recorded by the researcher. Between 3 and 4 weeks later, participants were asked to complete the questionnaire for the second time. Again, the responses provided by the pilot study participants were returned by facsimile and recorded. Test-retest methods, using Pearson correlation coefficients, were then used to compare the scores recorded in the first and second administrations of the VHM questionnaire.

The pilot study confirmed that the questionnaire method of data collection, when supported by telephone contact, was the most appropriate methodology for conducting this research. Initially, a telephone survey or interview approach was envisioned by the

researcher. However, it soon became apparent that participants felt more comfortable responding to the questionnaire in the traditional (written) manner than they did verbally communicating their scores over the telephone. Accordingly, the questionnaire methodology for data collection was employed in both the pilot and the main study.

Procedures

This research was conducted in four stages as outlined in Table 10. The first stage of the research involved thoroughly reviewing the relevant literatures and designing an appropriate research instrument. The design was guided by the requirements outlined by Spradley (1979). Preliminary testing of the research instrument with members of the Student Supervisory Committee and private and public sector managers and employees known to the researcher was also conducted in this stage. Each participant was considered to be a key informant (Lecompte & Goetz, 1984).

The second stage of the research involved identifying and recruiting pilot participants for the purpose of securing feedback with respect to the items contained in the VHM and testing reliability. This involved developing a list of potential participants and personally calling them to determine their level of interest. Individuals interested in participating in the pilot study of the research instrument were sent a draft of the VHM and asked to provide comments and suggestions with regard to clarity, relevance and appropriateness. Subsequent to revising the instrument in accordance with suggestions received, participants were asked to complete the questionnaire. Concurrently, expressions of interest with regard to participating in the main study were distributed to a list of public and private sector organizations.

Table 10

Overview of Major Research Stages and Steps

<u>Stage 1: Preliminary Design, Testing and Revision</u>	
Step 1 -	Thorough review of the values, employee health management and organizational effectiveness literatures.
Step 2 -	Preliminary design and testing of the research instrument and the research questions.
Step 3 -	Revision of the research instrument and questions as required.
<u>Stage 2: Initiation of Pilot Projects</u>	
Step 1 -	Recruitment of 18 pilot project participants from a wide range of organizations in British Columbia and Alberta.
Step 2 -	Pilot project participant review of the questionnaire and revision of questionnaire as required.
Step 3 -	Completion of revised questionnaire by pilot participants and distribution of a study "expression of interest" to other potential participants.
<u>Stage 3: Test-Retest of Questionnaire</u>	
Step 1 -	Second administration of revised questionnaire.
Step 2 -	Correlation of pilot participant test-retest scores (for reliability).
Step 3 -	Distribution of revised questionnaire to other potential participants.
<u>Stage 4: Data Collection and Analysis</u>	
Step 1 -	Gathering of completed questionnaires.
Step 2 -	Completion of questionnaire interviews as requested by participants.
Step 3 -	Analysis of data.
Step 4 -	Completion of final dissertation chapters.

The third stage involved completing the reliability test of the research instrument. Accordingly, participants were asked to complete the questionnaire for the second time (approximately 3-4 weeks after the first administration of the instrument had been completed). Pearson correlation coefficients were used to determine the reliability of the instrument. Upon confirming that the reliability result achieved was acceptable (.8396), questionnaires were distributed to those individuals who had expressed an interest in participating in the study. A total of 250 individuals were sent the VHM via facsimile, 187 or 75% participated.

The fourth stage involved collecting data from participants which involved gathering questionnaires via facsimile and mail. When circumstances warranted, responses to items contained in the questionnaire were also communicated by telephone. In the seven instances in which this occurred, information provided by the participant was recorded by the researcher directly on the VHM questionnaire. This stage also involved analyzing the data gathered from participants and completing the final chapters of this dissertation.

Data Collection

Data were collected by facsimile and mail using a similar process to the one used in the pilot study. In order to facilitate the collection of data, a cover letter encouraging individuals to respond was drafted by the researcher and transmitted via facsimile to potential participants (Appendix B). This letter accompanied the survey package when it was distributed.

The letter identified the researcher as a graduate student (Ph.D.) in the Faculty of Education, University of Victoria as well as the organizations targeted for participation in

the research and purpose of the study. The letter also provided an estimate of time required to complete the questionnaire and indicated that participation was voluntary. Participants were informed that they could withdraw at any time and could refuse to answer any of the questions. They were also given assurances that all participant and organization names and information provided would remain strictly confidential and that all participants would receive a copy of the aggregate results. Finally, the letter indicated that the researcher would call them via telephone to confirm their interest and participation.

Treatment and Analysis of Data

The data contained in Sections I, II and III of the VHM questionnaire was processed by computer and analyzed by means of the SSPS 7.5 statistical program at the University of Calgary. Results were reported for seven groups. Six groups were comprised of Alberta and British Columbia-based organizations: private sector; provincially-funded (government ministries, Crown corporations and agencies, hospitals, universities, colleges and school districts), and, an all provincial group (the provincially-funded group, private sector and municipalities). The final group was comprised of Federal government organizations.

The statistical techniques employed in this study with regard to analyzing the data involved rating and ranking the variables contained in each of the thematic categories to determine if and to what extent differences between the participant groups existed. A total of 160 variables were analyzed (variables related to work force composition were excluded from the statistical analysis). As a result of the number of groups involved in the analysis, multivariate (MANOVA) techniques were utilized to analyze the data. The

Scheffe method, a pair-wise comparison of sample means methodology, was employed to determine the significance of the differences between the means.

The hypotheses tested with MANOVA are basically the same as those tested with ANOVA. The primary difference is that sets of means replace the individual means specified in the ANOVA. The assumptions required for proper application of MANOVA are also the same as those necessary for the ANOVA. The participant groups must be random samples from normal populations with the same variance, with one important additional assumption, the dependent variables must have a multivariate normal distribution with the same variance-covariance matrix in each group. As a result of the non-random sample used in this research (participants were invited), and, the expected positive responses to the values-related variables, both MANOVA and Chi Square (contingency) analysis were utilized to examine the results of the primary research questions. As a result of the researcher's request for a positive or negative response to the secondary research questions, Chi Square (contingency analysis) was employed with respect to analyzing the secondary research questions.

Content analysis was utilized for the tertiary (open-ended) research questions contained in Section IV of the VHM. Specifically, this method was employed in the analysis of the questions related to values, EHPAs, obstacles to implementing EHPAs and benefits to be derived by participants from the study. Content analysis was also employed with respect to the information provided by participants in support of their responses to the VHM questionnaire. The seven-point Likert-type scales utilized in the VHM were scored by hand.

The Scheffe post-hoc testing method was selected to determine the significance of differences found to exist among participant groups for two basic reasons. First, it is considered to be a conservative post-hoc hypothesis testing procedure, and accordingly, confidence can be placed in the results it generates. Second, and perhaps most notably, it is recommended for studies characterized by unequal group sample sizes such as those that exist with respect to the seven groups identified in this research. Tests of skewness and kurtosis, using Pearson correlation coefficients, were employed to determine the extent to which the sample was considered to be normal.

To support the validity and reliability findings with respect to the VHM, content analysis of participant responses to the research questions contained in the VHM was conducted. In addition, Cronbach's Alpha, one of the most commonly used reliability coefficients, was employed to determine the internal consistency of participant responses to the primary and secondary research questions. Alpha is based on the average correlation of items within a test. The results of these two analyses are presented below.

Content Analysis of Responses

Although 187 individuals completed the VHM questionnaire: only seven made suggestions with respect to adding values; two tendered suggestions with respect rationale for implementing EHPAs; four suggested alternate ways/means of operationalizing *Health* values; seven identified incentives for enhancing short term employee involvement in EHPAs; and, two made suggestions regarding the factors affecting long term employee commitment to EHPAs (see Appendix C). None of the suggestions for change to the VHM were submitted by more than one individual while the majority of the

suggestions received were addressed by the existing items contained in the VHM questionnaire. The 75% response rate together with the comments received (and not received) with respect to the VHM support the content validity of the research instrument.

Internal Consistency of Responses

The reliability of the instrument was assessed for the aggregate group by calculating one of the most commonly used reliability coefficients, Cronbach's Alpha. Alpha is based on the average correlation of items within a test or its internal consistency. The results of the reliability calculation are illustrated in Table 11. The reliability scores achieved in each of the categories indicates that the correlation that could be expected between the VHM scales and all other similarly constructed scales measuring the same thing is acceptable.

Analytical Framework - Primary and Secondary Research Questions

The analytical framework utilized to analyze the data gathered from the primary research questions was consistent with the 7 point Likert type scales employed by Weber (1990), Miethe (1985), Braithwaite and Law (1985), Munson and Posner (1980b), and, Munson and McIntyre (1979). A similar approach was utilized to analyze the data gathered from the secondary research questions with two differences. First positive response percentages (PR%) were utilized in the analysis in place of Likert scores. Second, no neutral response option was provided with respect to the secondary research questions. Accordingly, the following interpretation of the Likert-type scale results for the primary and secondary research questions was employed with respect to this research:

Primary Research Questions

<u>Score</u>	<u>Interpretation of Results</u>
6.5 - 7.0	Very Strong Positive Response
5.5 - 6.4	Strong Positive Response
4.5 - 5.4	Marginal Positive Response
3.5 - 4.4	Neutral Response
2.5 - 3.4	Marginal Negative Response
1.5 - 2.4	Strong Negative Response
0.0 - 1.4	Very Strong Negative Response

Secondary Research Questions

<u>PR%</u>	<u>Interpretation of Results</u>
80-100	Very Strong Positive Response
65-79	Strong Positive Response
50-64	Marginal Positive Response
35-49	Marginal Negative Response
20-34	Strong Negative Response
0-19	Very Strong Negative Response

Table 11

Internal Consistency of Responses Using Cronbach's Alpha

Number of Variables	Description of Thematic Categories	Standardized Item Alpha	Weighted Item Alpha(1)
18	Existence of Organizational Values	.8935	16.0830
18	Importance of Organizational Values	.9033	16.2594
7	Existence of a Values affect on Performance	.7939	5.5573
7	Extent of a Values affect on Performance	.8455	5.9185
12	Operationalization of Health Values	.8646	10.3752
18	Rationale for Implementing EHPAs	.9248	16.6464
8	Kinds of Value Conflicts that Impede EHPA Use	.9003	7.2024
4	Types of Value Conflicts that Impede EHPA Use	.6903	2.7612
14	Incentives that affect Employee Involvement in EHPAs	.8483	11.8762
16	Factors that affect Employee Commitment to EHPAs	.8895	14.2320
38	Corporate Health Management	.7684	29.1992

Total Cases = 160 (workforce composition characteristics not included)

Cronbach's Alpha (Weighted) = .8507(1*)

Note (1*): Weighted Item Alpha = Standardized Item Alpha times the number of variables

Notes to Chapter 3

The technique employed with respect to establishing the list of organizational values proposed for this research was intuitive in nature and similar to the process used by Rokeach (1973). The list of organizational values was distilled from a number of sources which included: a review of the traditional values literature; those obtained from three recent values surveys; and self examination. The number of values were then reduced by eliminating those values judged to be synonymous with one another, those which over-lapped, those which were too specific and those which simply did not reflect current organizational life. The definitions of the dominant values used for the purposes of this research, as defined in Webster's New World Dictionary, Third College Edition (1997), are described below.

1. Communication - the giving or exchanging of information; transmit messages, clearly informing in a timely manner, consultative.
2. Efficiency - ability to produce a desired effect, service or product with a minimum of expense or waste; ability, effectiveness, proficiency.
3. Fairness - state or instance of being fair; just, impartial, unbiased.
4. Growth - the process of growing, maturing, developing; expansion, increase.
5. Health - employee physical and mental well-being; freedom from disease, soundness, vitality.
6. Innovation - change in the way of doing things; new approach, method, custom or device.
7. Integrity - the quality or state of being of sound morale principle; uprightness, honesty, sincerity.

8. Leadership - the ability to lead; to show the way, to guide or direct, as by persuasion or influence, to a course of action or thought.
9. Learning - acquiring knowledge and skill on a continuous or life long basis.
10. Productivity - the increase of outputs (or value) relative to the expenditure of inputs (or resources) required to produce them (it); fertility, effective results.
11. Prosperity - prosperous condition, good fortune, wealth, success; maximize profits and value to the company (organization), community and society.
12. Quality - the characteristics, attributes or features which distinguish a product or service; *refers to excellence or superiority.*
13. Respectability - the quality or state of being respectable; conforming to socially acceptable behavior, proper, correct, to show consideration for.
14. Responsibility - condition or instance of being responsible; answerable, accountable.
15. Service - focusing effort on serving customers in a manner that meets their needs and generates customer satisfaction.
16. Stability - the state or quality of being stable; not likely to be affected adversely; lasting, enduring.
17. Teamwork - joint action by a group of people in which individual interested are subordinated to group unity and efficiency; collaboration, partnership.
18. Tolerance - tolerating other's beliefs and practices; to not interfere with, allow or permit.

CHAPTER 4

RESULTS AND ANALYSIS

The results of this research are presented in this chapter - in three sections. The first section addresses the ten primary research questions that guided this research. The second section addresses the seven secondary research questions related to EHPAs and health management approaches utilized in participant organizations. The third section addresses the four tertiary (open-ended) research questions regarding: values; EHPAs; obstacles to implementing EHPAs; and, the perceived benefits that may be derived by participants from this research.

The framework utilized for presenting the data in each of the three sections was developed in consideration of the types of research questions addressed and the various descriptive and statistical analyses conducted. For each of the primary research questions, a re-statement of the research question is provided followed by a display of descriptive data related to the rating of the variables and groups. Statistical data produced by MANOVA, Chi Square and Scheffe analyses is then presented. A similar approach was adopted for presenting the results with respect to the secondary research questions, however, the statistical information provided was limited to Chi Square results. For each of the tertiary research questions, descriptive information related to the content analysis of the open-ended questions concerning values, EHPAs, obstacles to implementing EHPAs and benefits to be derived by participants was presented.

Findings: Primary Research Questions

Research Question 1

Do perceptions, regarding the existence of the organizational values identified, differ significantly among the designated groups?

Perceptions of the Existence of Values. Table 12 illustrates the individual and group ratings for the values perceived to exist in respondent organizations. *Service*, *Communication* and *Integrity* values had the highest ratings at 6.26, 5.94, and 5.92 respectively. *Respectability* and *Responsibility* values (both) had ratings of 5.91 followed by *Quality* values at 5.90, *Learning* values at 5.89 and *Prosperity* values at 5.87. *Stability*, *Tolerance* and *Health* values had the lowest mean ratings at 4.60, 4.83 and 5.37. These findings support Hodgkinson's value paradigm in which values are defined as concepts of the desirable which influence choice and postulates a hierarchical view of commitment to values ranging from high level (Type I) values to lower level (Type III) values. The ratings also support the assertion that *Health* values, although perceived to exist in respondent organizations, are not considered to be *key* values. A ranking of the organizational values in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Table 12

**Mean Scores and Level of Support for the Values Perceived to Exist in Federal
Government, Provincially-Funded and Private Sector Groups in Alberta and British
Columbia, and, the All Alberta and All British Columbia Groups**

Organizational Value	Groups(1)							Mean	Level of Support(2)
	1	2	3	4	5	6	7		
Communication	5.82	6.23	5.95	5.80	5.95	5.96	5.90	5.94	6
Efficiency	5.52	6.11	5.83	5.44	5.42	5.72	5.70	5.67	6
Fairness	5.52	5.73	5.79	5.76	5.66	5.59	5.78	5.69	6
Growth	5.41	6.03	5.42	5.88	4.76	5.62	5.58	5.52	6
Health	5.19	5.50	5.57	5.40	5.19	5.29	5.51	5.37	5
Innovation	5.68	6.00	5.71	5.68	5.71	5.79	5.70	5.75	6
Integrity	5.66	5.92	6.00	6.16	5.90	5.75	6.05	5.92	6
Leadership	5.54	5.80	5.81	5.56	5.71	5.63	5.73	5.68	6
Learning	5.80	5.88	6.12	5.80	5.81	5.83	6.01	5.89	6
Productivity	5.82	6.03	5.61	5.64	5.42	5.89	5.62	5.71	6
Prosperity	5.43	6.38	5.65	6.28	5.76	5.75	5.86	5.87	6
Quality	5.80	6.23	5.81	5.92	5.81	5.94	5.85	5.90	6
Respectability	5.86	5.92	5.79	6.16	5.85	5.88	5.91	5.91	6
Responsibility	5.96	6.03	6.06	5.92	5.42	5.98	6.01	5.91	6
Service	6.15	6.50	6.20	6.36	6.09	6.27	6.25	6.26	6
Stability	4.15	5.38	4.57	5.36	3.38	4.57	4.83	4.60	5
Teamwork	5.52	5.61	5.55	5.20	5.57	5.55	5.43	5.49	5
Tolerance	4.64	4.88	5.22	4.84	4.47	4.72	5.09	4.83	5
Mean	5.52	5.89	5.70	5.73	5.43	5.65	5.71	5.66	6

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the categories of level of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = neutral; 5 = marginal positive support; 6 = strong positive support; and, 7 = very strong positive support.

Values Perceived to Exist
Ranking by Mean Score and Level of Support

<u>Rank</u>	<u>Values</u>	<u>Mean</u>	<u>Level of Support</u>
1	Service	6.26	Strong Positive Support
2	Communication	5.94	Strong Positive Support
3	Integrity	5.92	Strong Positive Support
4	Respectability	5.91	Strong Positive Support
4	Responsibility	5.91	Strong Positive Support
5	Quality	5.90	Strong Positive Support
6	Learning	5.89	Strong Positive Support
7	Prosperity	5.87	Strong Positive Support
8	Innovation	5.75	Strong Positive Support
9	Productivity	5.71	Strong Positive Support
10	Fairness	5.69	Strong Positive Support
11	Leadership	5.68	Strong Positive Support
12	Efficiency	5.67	Strong Positive Support
13	Growth	5.52	Strong Positive Support
14	Teamwork	5.49	Marginal Positive Support
15	Health	5.37	Marginal Positive Support
16	Tolerance	4.83	Marginal Positive Support
17	Stability	4.60	Marginal Positive Support

Group Perceptions of the Existence of Values. Table 12 also illustrates the ratings of the values perceived to exist for each of the seven participant groups. The Alberta Private Sector group rated these values highest at 5.89 followed by the British Columbia Private Sector group and the All British Columbia group at 5.73 and 5.71 respectively. The British Columbia Provincially-Funded group rated the values at 5.70 while the All Alberta, Alberta Provincially-Funded and Federal Government groups rated these values at 5.65, 5.52 and 5.43. A ranking of the groups in accordance with their respective rating and an interpretation of the corresponding level of support is presented below.

Group Ranking by Mean Score
and Level of Support

<u>Rank</u>	<u>Group</u>	<u>Mean</u>	<u>Level of Support</u>
1	Alberta Private Sector	5.89	Strong Positive Support
2	British Columbia Private Sector	5.73	Strong Positive Support
3	All British Columbia	5.71	Strong Positive Support
4	British Columbia Provincially-Funded	5.70	Strong Positive Support
5	All Alberta	5.65	Strong Positive Support
6	Alberta Provincially-Funded	5.52	Strong Positive Support
7	Federal Government	5.43	Marginal Positive Support

Analysis of Variance. Table 13a illustrates significant differences exist among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Growth* ($F = 2.92, p < .05$), *Prosperity* ($F = 4.49, p < .05$) and *Stability* values ($F = 6.32, p < .05$). Table 13b illustrates no significant differences between the All Alberta and All British Columbia groups, with respect to the values identified, were found to exist ($p < .05$).

Significant differences with respect to *Growth* values were found to exist between the Alberta Private Sector and Federal Government groups. Given past and on-going efforts to reduce the size (and spending) of federal government operations, the receipt of a relatively low federal government response to the *Growth* value was not surprising. At the same time, the strong performance of the Alberta economy, which has been fueled by the growth of the Alberta private sector, appears to have had a positive influence on that group's value ratings.

Table 13a

Analysis of Variance of the Values Perceived to Exist in Federal Government,
Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Organizational Value	Sum of Squares	df	Mean of Squares	F	p
Communication	03.39861	4	0.84965	0.58416	.675
Efficiency	10.05633	4	02.51408	1.58222	.181
Fairness	02.03939	4	00.50985	0.29875	.878
Growth	23.23600	4	05.80900	2.92408	.023*
Health	04.65874	4	01.16468	0.66661	.616
Innovation	02.03808	4	00.50952	0.37533	.826
Integrity	04.97076	4	01.24269	0.77336	.544
Leadership	02.58795	4	00.64699	0.42461	.791
Learning	03.31516	4	00.82879	0.64920	.628
Productivity	05.69584	4	01.42396	0.90450	.463
Prosperity	22.66386	4	05.66596	4.49263	.002*
Quality	03.82153	4	00.95538	0.78565	.536
Respectability	02.34030	4	00.58507	0.44866	.773
Responsibility	06.48050	4	01.62012	1.37562	.245
Service	02.97038	4	00.74260	0.94830	.438
Stability	71.10379	4	17.77595	6.32136	.000*
Teamwork	02.86915	4	00.71729	0.44345	.777
Tolerance	11.93667	4	02.98417	1.66435	.161

* Denotes significant differences at $p < .05$.

Table 13b

Analysis of Variance of the Values Perceived to Exist in the All Alberta and All BritishColumbia Groups

Organizational Value	Sum of Squares	df	Mean of Squares	F	p
Communication	00.11679	1	00.11679	0.08086	.777
Efficiency	00.02278	1	00.02278	0.01376	.907
Fairness	01.31084	1	01.31084	0.74816	.388
Growth	00.06750	1	00.06750	0.03467	.853
Health	01.74126	1	01.74126	1.06063	.305
Innovation	00.30230	1	00.30230	0.22965	.632
Integrity	03.41446	1	03.41446	2.01810	.158
Leadership	00.32895	1	00.32895	0.22037	.639
Learning	01.25468	1	01.25468	1.05149	.307
Productivity	02.84298	1	02.84298	1.90320	.170
Prosperity	00.47013	1	00.47013	0.32893	.567
Quality	00.35286	1	00.35286	0.27795	.599
Respectability	00.04837	1	00.04837	0.03764	.846
Responsibility	00.02650	1	00.02650	0.02296	.880
Service	00.00962	1	00.00962	0.01201	.913
Stability	02.67821	1	02.67821	0.89291	.346
Teamwork	00.59917	1	00.59917	0.37021	.544
Tolerance	05.09142	1	05.09142	3.03922	.083

Significant differences with respect to *Prosperity* values were found to exist between the Alberta Private Sector and British Columbia Private Sector groups, and, the Alberta Provincially-Funded group. These differences may, at least in part, be explained by the profit orientation of private sector organizations and the budget cuts (which in some cases have exceeded 20%) that have been absorbed by Alberta Provincially-Funded organizations since 1992. The Alberta Government's reluctance to restore previously established funding levels despite their achievement of three consecutive surplus budgets may be a contributing factor to the relatively low ratings submitted by respondents from the Alberta Provincially-Funded organizations.

Significant differences with respect to *Stability* values were found to exist between the Alberta Private Sector and British Columbia Private Sector groups, and, Federal Government group. As a result of on-going financial restraint in the Federal government and a recovering private sector economy in Ontario, many of the most qualified and technically skilled Federal government employees have left the civil service for jobs in the private sector. This "brain drain" coupled with continued Federal government efforts to reduce the size of government has led to continuous organizational change and instability. These circumstances may have influenced the ratings submitted the Federal government group.

Contingency Analysis. Table 14a illustrates significant differences exist among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Leadership* and *Stability* values ($p < .05$). Table 14b illustrates that the All Alberta and All British Columbia groups differed significantly with respect to *Integrity* values ($p < .05$).

Table 14a

Chi Square Analysis of the Values Perceived to Exist in Federal Government,
Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Organizational Value	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Communication	182	06.6%	93.4%	03.48349	4	.48039
Efficiency	176	10.2%	89.8%	03.13165	4	.53604
Fairness	173	08.7%	91.3%	02.86436	4	.58077
Growth	162	11.1%	88.9%	05.30038	4	.25784
Health	172	12.8%	87.2%	07.53446	4	.11020
Innovation	178	06.2%	93.8%	03.86689	4	.42432
Integrity	175	06.3%	93.7%	08.20978	4	.08419
Leadership	173	08.1%	91.9%	10.77560	4	.02921*
Learning	176	05.7%	94.3%	07.63445	4	.10592
Productivity	170	07.1%	92.9%	04.55066	4	.33658
Prosperity	164	06.1%	93.9%	04.80405	4	.30800
Quality	174	03.4%	96.6%	05.29432	4	.25841
Respectability	177	05.1%	94.9%	03.55116	4	.47014
Responsibility	178	03.9%	96.1%	02.81006	4	.59010
Service	182	01.1%	98.9%	04.92201	4	.29539
Stability	158	37.3%	62.7%	23.10238	4	.00012*
Teamwork	171	09.4%	90.6%	01.29073	4	.86295
Tolerance	148	20.3%	79.7%	03.80481	4	.43307

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Approximately 18% of respondents in the Alberta Provincially-Funded group indicated that they did not perceive *Leadership* values to exist in their respective organizations compared with less than 4% of respondents in the Alberta and British Columbia Private Sector, British Columbia Provincially-Funded and Federal Government groups. One explanation for the significance of the differences may be that the Alberta Provincially-Funded group did not perceive unilateral budget cutting as being consistent with good leadership.

Approximately 75% of respondents in the Federal Government group did not perceive *Stability* values to exist in their respective organizations while 46% of respondents in the Alberta Provincially-Funded group and 34% of participants in the British Columbia Provincially-Funded group had similar perceptions. On-going downsizing of Federal Government operations would have had a negative influence of responses provided with respect to this value.

Approximately 12% of respondents in the All Alberta group indicated that they did not perceive *Integrity* values to exist in their organization compared to 4% of respondents in the All British Columbia. The manner in which the public sector budget cuts were implemented in Alberta may have had an influence on these value ratings. Some public sector employees who received pay-cuts or pay freezes (i.e. Alberta Teachers) were promised by government officials that wage levels would be restored once the government was able to put its *financial house* in order. Although surplus budgets have been achieved by the province, the government has yet to follow through with its promise to restore wages.

Table 14b

Chi Square Analysis of the Values Perceived to Exist in the All Alberta and All British Columbia Groups

Organizational Value	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Communication	161	06.8%	93.2%	00.08470	1	.77102
Efficiency	155	10.3%	89.7%	00.30831	1	.57872
Fairness	153	09.2%	90.8%	01.31623	1	.25127
Growth	145	09.7%	90.3%	00.00664	1	.93507
Health	151	11.3%	88.7%	03.14453	1	.07618
Innovation	157	05.7%	94.3%	00.16195	1	.68736
Integrity	155	07.1%	92.9%	04.89274	1	.02697*
Leadership	153	07.8%	92.2%	03.69871	1	.05445
Learning	156	05.1%	94.9%	02.21797	1	.13641
Productivity	151	06.0%	94.0%	01.19439	1	.27445
Prosperity	145	06.9%	93.1%	01.77837	1	.18235
Quality	155	03.9%	96.1%	00.66695	1	.41412
Respectability	156	05.1%	94.9%	00.42474	1	.51458
Responsibility	157	03.2%	96.8%	00.16905	1	.68096
Service	161	01.2%	98.8%	02.10206	1	.14710
Stability	138	31.9%	68.1%	01.16881	1	.27965
Teamwork	153	09.8%	90.2%	00.16431	1	.68522
Tolerance	129	18.6%	81.4%	01.44345	1	.23140

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Scheffe Post-Hoc Test. Table 15 illustrates that the Alberta Private Sector group rated the existence of *Growth* values significantly higher than the Federal Government group; the Alberta and British Columbia Private Sector groups rated the existence of *Prosperity* values significantly higher than the Alberta Provincially-Funded group; and, the Alberta and British Columbia Private Sector groups rated the existence of *Stability* values significantly higher than the Federal Government group ($p < .05$).

Research Question 2

Do perceptions, regarding the importance of the organizational values identified, differ significantly among the designated groups?

Perceptions of the Importance of Values. Table 16 illustrates the individual and group ratings for the values perceived to be important in respondent organizations. *Service*, *Responsibility* and *Quality* values had the highest ratings at 6.32, 5.96, and 5.93 respectively. *Productivity* values had a rating of 5.88 followed by *Integrity* values at 5.84, *Communication* values at 5.82, and, *Prosperity* and *Respectability* values (both) at 5.81. *Stability*, *Tolerance* and *Health* values had the lowest ratings at 4.58, 4.81 and 5.01. These findings support Hodgkinson's value paradigm in which values are defined as concepts of the desirable which influence choice and postulates a hierarchical view of commitment to values ranging from high level (Type I) values to lower level (Type III) values. The ratings also support the assertion that *Health* values, although perceived to exist in respondent organizations, are not considered to be *key* values. A ranking of the organizational values in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Table 15

Scheffe Post-Hoc Pair-Wise Comparisons of the Values Perceived to Exist in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Group	n	Mean
Growth		
Alberta Provincially-Funded	53	5.3962
Alberta Private Sector	27	6.0370*
British Columbia Provincially-Funded	51	5.4706
British Columbia Private Sector	26	5.8846
Federal Government	22	4.7727*
Prosperity		
Alberta Provincially-Funded	53	5.3962*
Alberta Private Sector	27	6.2963*
British Columbia Provincially-Funded	51	5.6471
British Columbia Private Sector	26	6.2692*
Federal Government	22	5.7727
Stability		
Alberta Provincially-Funded	53	4.1887
Alberta Private Sector	27	5.3333*
British Columbia Provincially-Funded	51	4.5490
British Columbia Private Sector	26	5.3462*
Federal Government	22	3.5000*

* Denotes pairs of groups that are significantly different at $p < .05$.

Table 16

Mean Scores and Level of Support for the Values Perceived to be Important in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Organizational Value	Groups(1)							Mean	Level of Support(2)
	1	2	3	4	5	6	7		
Communication	5.61	5.96	5.94	5.73	5.94	5.73	5.86	5.82	6
Efficiency	5.98	5.96	5.78	5.57	5.63	5.97	5.71	5.80	6
Fairness	5.42	5.30	5.70	5.23	5.63	5.38	5.53	5.45	5
Growth	5.24	6.03	5.04	5.65	4.57	5.52	5.25	5.32	5
Health	4.71	4.92	5.36	5.11	4.94	4.78	5.27	5.01	5
Innovation	5.69	5.57	5.68	5.76	5.68	5.65	5.71	5.67	6
Integrity	5.63	5.96	5.92	6.00	5.73	5.74	5.94	5.84	6
Leadership	5.61	5.73	5.66	5.73	5.57	5.65	5.68	5.66	6
Learning	5.95	5.61	5.94	5.65	5.73	5.84	5.84	5.79	6
Productivity	5.77	6.15	5.64	6.11	5.84	5.90	5.80	5.88	6
Prosperity	5.42	6.38	5.48	6.46	5.42	5.76	5.81	5.81	6
Quality	5.71	6.34	5.76	6.07	5.89	5.93	5.86	5.93	6
Respectability	5.75	5.80	5.82	5.88	5.84	5.77	5.84	5.81	6
Responsibility	6.10	6.11	6.10	5.96	5.36	6.10	6.05	5.96	6
Service	6.28	6.65	6.30	6.34	6.00	6.41	6.31	6.32	6
Stability	4.20	5.00	4.54	5.26	3.84	4.48	4.78	4.58	5
Teamwork	5.63	5.46	5.56	5.42	5.42	5.57	5.51	5.51	6
Tolerance	4.77	4.61	5.22	4.84	4.42	4.72	5.09	4.81	5
Mean	5.52	5.75	5.63	5.70	5.41	5.60	5.65	5.60	6

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the categories of level of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = neutral; 5 = marginal positive support; 6 = strong positive support; and, 7 = very strong positive support.

**Values Perceived to Be Important
Ranking by Mean Score and Level of Support**

<u>Rank</u>	<u>Values</u>	<u>Mean</u>	<u>Level of Support</u>
1	Service	6.32	Strong Positive Support
2	Responsibility	5.96	Strong Positive Support
3	Quality	5.93	Strong Positive Support
4	Productivity	5.88	Strong Positive Support
5	Integrity	5.84	Strong Positive Support
6	Communication	5.82	Strong Positive Support
7	Prosperity	5.81	Strong Positive Support
7	Respectability	5.81	Strong Positive Support
8	Efficiency	5.80	Strong Positive Support
9	Learning	5.79	Strong Positive Support
10	Innovation	5.67	Strong Positive Support
11	Leadership	5.66	Strong Positive Support
12	Teamwork	5.51	Strong Positive Support
13	Fairness	5.45	Marginal Positive Support
14	Growth	5.32	Marginal Positive Support
15	Health	5.01	Marginal Positive Support
16	Tolerance	4.81	Marginal Positive Support
17	Stability	4.58	Marginal Positive Support

Group Perceptions of the Importance of Values. Table 16 also illustrates the ratings of the organizational values perceived to be important for each of the seven participant groups. The Alberta Private Sector group rated these values highest at 5.75 followed by the British Columbia Private Sector and the All British Columbia groups at 5.70 and 5.65. The British Columbia Provincially-Funded group rated the values at 5.63 while the All Alberta, Alberta Provincially-Funded and Federal Government groups rated these values at 5.60, 5.52 and 5.41 respectively. A ranking of the groups in accordance with their rating score and an interpretation of the corresponding level of support is presented below.

Group Ranking by Mean Score
and Level of Support

<u>Rank</u>	<u>Group</u>	<u>Mean</u>	<u>Level of Support</u>
1	Alberta Private Sector	5.75	Strong Positive Support
2	British Columbia Private Sector	5.70	Strong Positive Support
3	All British Columbia	5.65	Strong Positive Support
4	British Columbia Provincially-Funded	5.63	Strong Positive Support
5	All Alberta	5.60	Strong Positive Support
6	Alberta Provincially-Funded	5.52	Strong Positive Support
7	Federal Government	5.41	Marginal Positive Support

Analysis of Variance. Table 17a illustrates significant differences exist among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Growth* ($F = 3.22, p < .05$), *Prosperity* ($F = 7.17, p < .05$) and *Stability* values ($F = 2.71, p < .05$). Table 17b illustrates that the All Alberta and All British Columbia groups differed significantly with respect to *Health* values ($F = 4.43, p < .05$).

Significant differences with respect to *Growth* values were found to exist between the Alberta Private Sector and Federal Government groups. A primary goal of the Federal Government over the past five years has been to eliminate the deficit and reduce the debt, both of which are at least in part, dependent upon reducing the size of government. The *Growth* value, in a public sector context therefore, is not perceived to be consistent with the permanent deficit and debt reduction goal. Accordingly, a relatively low rating from the Federal Government group was expected. In contrast, growth is one of the primary objectives of private sector organizations (Hodgkinson, 1983). A high rating from these organizations with respect to the *Growth* value was predictable.

Table 17a

Analysis of Variance of the Values Perceived to be Important Values in Federal
Government, Provincially-Funded and Private Sector Groups in Alberta and British
Columbia

Organizational Value	Sum of Squares	df	Mean of Squares	F	p
Communication	03.87011	4	00.96753	0.51920	.722
Efficiency	04.05872	4	01.01468	0.63589	.638
Fairness	05.37216	4	01.34304	0.64972	.628
Growth	30.83516	4	07.70879	3.22454	.032*
Health	10.93851	4	02.73463	1.25001	.292
Innovation	00.49209	4	00.12302	0.06991	.991
Integrity	03.67473	4	00.91868	0.50241	.734
Leadership	00.49676	4	00.12419	0.06532	.992
Learning	03.59190	4	00.89798	0.69088	.599
Productivity	06.70814	4	01.67703	1.15001	.335
Prosperity	34.39657	4	08.59914	7.17585	.000*
Quality	08.65976	4	02.16494	1.36009	.250
Respectability	00.31662	4	00.07916	0.05450	.994
Responsibility	08.97377	4	02.24344	2.09103	.084
Service	04.93665	4	01.23416	1.41151	.232
Stability	34.10265	4	08.52566	2.71559	.032*
Teamwork	01.20591	4	00.30148	0.16741	.955
Tolerance	12.04288	4	03.01072	1.38268	.242

* Denotes significant differences at $p < .05$.

Table 17b

Analysis of Variance of the Values Perceived to be Important Values in the All Alberta
and All British Columbia Groups

Organizational Value	Sum of Squares	df	Mean of Squares	F	p
Communication	00.68886	1	00.68886	0.36742	.545
Efficiency	02.60718	1	02.60718	1.64901	.201
Fairness	00.88142	1	00.88142	0.41213	.522
Growth	02.75185	1	02.75185	1.15510	.284
Health	09.05040	1	09.05040	4.43904	.037*
Innovation	00.12348	1	00.12348	0.07341	.787
Integrity	01.52055	1	01.52055	0.80348	.372
Leadership	00.03599	1	00.03599	0.01947	.889
Learning	00.00017	1	00.00017	0.00013	.991
Productivity	00.40856	1	00.40856	0.26655	.606
Prosperity	00.11749	1	00.11749	0.08705	.768
Quality	00.15906	1	00.15906	0.09659	.756
Respectability	00.17853	1	00.17853	0.12474	.724
Responsibility	00.11022	1	00.11022	0.11026	.740
Service	00.35917	1	00.35917	0.45894	.499
Stability	03.61531	1	03.61531	1.13323	.289
Teamwork	00.13669	1	00.13669	0.07793	.781
Tolerance	05.22672	1	05.22672	2.63569	.107

* Denotes significant differences at $p < .05$.

Significant differences with respect to *Prosperity* values were found to exist between the British Columbia Private Sector and Alberta Private Sector groups, and, the British Columbia Provincially-Funded, Federal Government and Alberta Provincially-Funded groups. Continuous public sector program restraint and the profit-orientation of private sector organizations may account for at least some of the significance of the differences that exist.

Although MANOVA identified *Stability* values as being significant, no significant pairings were found. This outcome may have been realized as a result of the conservative nature of the Scheffe post-hoc testing procedures or due to the internal consistency of participant responses with respect to this particular value.

Significant differences with respect to *Health* values were also found to exist between the All British Columbia and All Albert groups. The substantive cuts made to health budgets in Alberta over the past five years coupled with the reluctance of the Alberta government to ensure health funding meets increasing demand (despite 3 consecutive budget surpluses and an expanding population base) may provide insight into the differences that exist with respect to this value. The influence of organized labor in British Columbia may have also contributed to the significance of the differences that exist.

Contingency Analysis. Table 18a illustrates significant differences exist among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Growth* values ($p < .05$). Table 18b illustrates that the All Alberta and All British Columbia groups differed significantly with respect to *Integrity* values ($p < .05$).

Table 18a

Chi Square Analysis of the Values Perceived to be Important Values in Federal
Government, Provincially-Funded and Private Sector Groups in Alberta and British
Columbia

Organizational Value	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Communication	177	10.2%	89.8%	05.17957	4	.26936
Efficiency	172	07.6%	92.4%	02.78919	4	.59370
Fairness	169	11.8%	88.2%	01.99775	4	.73617
Growth	157	14.0%	86.0%	12.00154	4	.01734*
Health	158	19.6%	80.4%	03.50118	4	.47770
Innovation	167	08.4%	91.6%	04.26202	4	.37171
Integrity	172	07.6%	94.4%	06.34002	4	.17515
Leadership	163	09.2%	90.8%	04.13881	4	.38755
Learning	170	04.1%	95.9%	01.87319	4	.75907
Productivity	169	04.7%	95.3%	08.62265	4	.07126
Prosperity	158	04.4%	95.6%	07.58878	4	.10786
Quality	174	05.7%	94.3%	03.41710	4	.49059
Respectability	170	06.5%	93.5%	00.82936	4	.93447
Responsibility	173	03.5%	96.5%	03.84807	4	.42696
Service	182	01.6%	98.4%	09.30717	4	.05386
Stability	158	34.2%	65.8%	07.19700	4	.12584
Teamwork	174	10.9%	89.1%	00.97960	4	.91287
Tolerance	144	21.5%	78.5%	04.07500	4	.39595

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Table 18b

Chi Square Analysis of the Values Perceived to be Important Values in the All Alberta
and All British Columbia Groups

Organizational Value	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Communication	155	09.7%	90.3%	03.13721	1	.07652
Efficiency	152	07.2%	92.8%	02.45003	1	.11752
Fairness	150	12.7%	87.3%	00.37492	1	.54034
Growth	139	10.8%	89.2%	00.09174	1	.76198
Health	138	18.8%	81.2%	01.92746	1	.16504
Innovation	149	08.1%	91.9%	03.17591	1	.07473
Integrity	153	08.5%	91.5%	04.02001	1	.04496*
Leadership	142	08.5%	91.5%	02.92041	1	.08747
Learning	150	04.0%	96.0%	00.00111	1	.97341
Productivity	150	05.3%	94.7%	02.00186	1	.15711
Prosperity	139	04.3%	95.7%	02.61065	1	.10615
Quality	154	05.8%	94.2%	00.14723	1	.70120
Respectability	151	06.6%	93.4%	00.34763	1	.55546
Responsibility	153	02.6%	97.4%	01.00022	1	.31726
Service	160	00.6%	99.4%	00.98144	1	.32184
Stability	138	32.6%	67.4%	00.80201	1	.37049
Teamwork	154	10.4%	89.6%	00.00301	1	.95623
Tolerance	124	20.2%	79.8%	02.74664	1	.09746

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Approximately 39% of respondents in the Federal Government group did not perceive *Growth* values to be important values in their respective organizations compared to 13% of respondents in both the Alberta and British Columbia Provincially-Funded groups, 8% of respondents in the British Columbia Private Sector group and 4% of respondents in the Alberta Private Sector group. Continuous public sector program restraint may be a reason these values were not considered to be important in respondent organizations.

Approximately 13% of respondents in the All Alberta group indicated that they did not perceive *Integrity* values to be important values in their respective organizations compared to 4% of respondents in the All British Columbia group. The manner in which the public sector budget cuts were implemented in Alberta may provide some insight as to why significant differences exist.

Scheffe Post-Hoc Test. Table 19 illustrates that the Alberta Private Sector group rated the importance of *Growth* values significantly higher than the Federal Government group; the British Columbia Private Sector group rated the importance of *Prosperity* values significantly higher than the Federal Government group; the Alberta and British Columbia Private Sector groups rated *Prosperity* values significantly higher than the Alberta Provincially-Funded group; the Alberta Private Sector group rated *Prosperity* values significantly higher than the British Columbia Provincially-Funded group; and, the British Columbia Private Sector group rated *Prosperity* values significantly higher than the British Columbia Provincially-Funded group. No significant pairings with respect to *Stability* values were identified ($p < .05$).

Table 19

Scheffe Post-Hoc Pair-Wise Comparisons of the Values Perceived to be Important Values
in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and
British Columbia

Group	n	Mean
Growth		
Alberta Provincially-Funded	52	5.2500
Alberta Private Sector	27	6.0307*
British Columbia Provincially-Funded	53	5.1321
British Columbia Private Sector	26	5.6538
Federal Government	21	4.5714*
Prosperity		
Alberta Provincially-Funded	52	5.4615*
Alberta Private Sector	27	6.2963*
British Columbia Provincially-Funded	53	5.4151*
British Columbia Private Sector	26	6.4615*
Federal Government	21	5.4286*
Stability		
Alberta Provincially-Funded	52	4.2115
Alberta Private Sector	27	4.9630
British Columbia Provincially-Funded	53	4.4528
British Columbia Private Sector	26	5.2692
Federal Government	21	4.0476

* Denotes pairs of groups that are significantly different at $p < .05$.

Research Question 3

Do perceptions, as to whether or not values influence an organization's ability to achieve positive performance-related outcomes, differ significantly among the designated groups?

Perceptions of the Influence of Values on Outcomes. Table 20 illustrates the individual and group ratings for the organizational outcomes perceived to be influenced by values. *Effectiveness*, *Quality* and *Productivity* outcomes had the highest ratings at 6.02, 6.01, and 5.73. *Efficiency* outcomes had a rating of 5.71 followed by *Innovation* outcomes at 5.69, *Profitability* outcomes at 5.64 and *Quality of Work Life* outcomes at 5.19. This ordering supports Kluckhohn's (1951) assertion that values are phenomena that are transmitted by society's major institutions - as the perceived influence of values on achieving humanistic outcomes such as *Quality of Work Life* was not as great as it was with respect to achieving organizationally-promoted outcomes such as *Effectiveness* or *Quality*. The relatively low ranking of *Profitability* outcomes is perceived to be a result of the large number of public sector organizations in study. A ranking of the organizational outcomes in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Organizational Outcomes Perceived to be Influenced by Values Ranking by Mean Score and Level of Support

<u>Rank</u>	<u>Outcomes</u>	<u>Mean</u>	<u>Level of Support</u>
1	Effectiveness	6.02	Strong Positive Support
2	Quality	6.01	Strong Positive Support
3	Productivity	5.73	Strong Positive Support
4	Efficiency	5.71	Strong Positive Support

Table 20

Mean Scores and Level of Support for the Organizational Outcomes Perceived to be Influenced by Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Organizational Outcome	Groups(1)							Mean	Level of Support
	1	2	3	4	5	6	7		
Effectiveness	6.08	6.07	6.02	6.04	5.85	6.08	6.02	6.02	6
Efficiency	5.78	5.51	5.82	5.91	5.42	5.68	5.85	5.71	6
Quality	6.04	6.14	5.90	6.17	5.76	6.08	5.98	6.01	6
Productivity	5.47	6.18	5.82	5.73	5.42	5.74	5.79	5.73	6
Innovation	5.84	5.59	5.78	5.52	5.71	5.75	5.70	5.69	6
Quality of Work Life	5.08	4.92	5.45	5.39	5.04	5.02	5.43	5.19	5
Profitability	5.21	6.25	5.35	6.08	5.42	5.60	5.58	5.64	6
Mean	5.64	5.80	5.73	5.83	5.51	5.70	5.76	5.71	6

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the categories of level of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = neutral; 5 = marginal positive support; 6 = strong positive support; and, 7 = very strong positive support.

5	Innovation	5.69	Strong Positive Support
6	Profitability	5.64	Strong Positive Support
7	Quality of Work Life	5.19	Marginal Positive Support

Group Perceptions of the Influence of Values on Outcomes. Table 20 also illustrates the ratings for the outcomes perceived to be influenced by values for each of the seven participant groups. The British Columbia Private Sector group rated these outcomes highest at 5.83 followed by Alberta Private Sector and the All British Columbia groups at 5.80 and 5.76 respectively. The British Columbia Provincially-Funded group rated the outcomes at 5.73 while the All Alberta, Alberta Provincially-Funded and Federal government groups rated these outcomes at 5.70, 5.64 and 5.51. A ranking of the groups in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Group Ranking by Mean Score
and Level of Support

<u>Rank</u>	<u>Group</u>	<u>Mean</u>	<u>Level of Support</u>
1	British Columbia Private Sector	5.83	Strong Positive Support
2	Alberta Private Sector	5.80	Strong Positive Support
3	All British Columbia	5.76	Strong Positive Support
4	British Columbia Provincially-Funded	5.73	Strong Positive Support
5	All Alberta	5.70	Strong Positive Support
6	Alberta Provincially-Funded	5.64	Strong Positive Support
7	Federal Government	5.51	Strong Positive Support

Analysis of Variance. Table 21a illustrates significant differences exist among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Profitability* outcomes ($F = 5.97, p < .05$). Table 21b illustrates no significant differences

Table 21a

Analysis of Variance of the Organizational Outcomes Perceived to be Influenced by
Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta
and British Columbia

Organizational Outcome	Sum of Squares	df	Mean of Squares	F	p
Effectiveness	00.83882	4	00.20971	0.19420	.941
Efficiency	04.45723	4	01.11431	0.93170	.447
Quality	03.05587	4	00.76397	0.74592	.562
Productivity	10.86302	4	02.71576	2.14324	.078
Innovation	02.74559	4	00.68640	0.51807	.723
Quality of Work Life	07.14621	4	01.78655	0.76925	.547
Profitability	27.51558	4	06.87890	5.97600	.000*

* Denotes significant differences at $p < .05$.

Table 21b

Analysis of Variance of the Organizational Outcomes Perceived to be Influenced byValues in the All Alberta and All British Columbia Groups

Organizational Outcome	Sum of Squares	df	Mean of Squares	F	p
Effectiveness	00.11183	1	00.11183	0.11304	.737
Efficiency	01.01776	1	01.01776	0.85246	.357
Quality	00.33660	1	00.33660	0.34739	.557
Productivity	00.12180	1	00.12180	0.09811	.755
Innovation	00.09454	1	00.09454	0.07252	.788
Quality of Work Life	06.02869	1	06.02869	2.73083	.101
Profitability	00.01724	1	00.01724	0.01348	.908

between the All Alberta and All British Columbia groups, with respect to the organizational outcomes identified, were found to exist ($p < .05$).

Significant differences with respect to *Profitability* outcomes were found to exist between the Alberta Private Sector and British Columbia Private Sector groups, and, the Alberta Provincially-Funded and British Columbia Provincially-Funded groups. Given the mix of public and private sector organizations that participated in the research, it is not surprising that significant differences between these groups with respect to this specific outcome were found to exist.

Contingency Analysis. Table 22a illustrates that no significant differences among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups, with respect to the organizational outcomes identified, were found to exist ($p < .05$). Table 22b illustrates that no significant differences between the All Alberta and All British Columbia groups, with respect to the organizational outcomes identified, were found to exist ($p < .05$).

Scheffe Post-Hoc Test. Table 23 illustrates that the Alberta and British Columbia Private Sector groups rated the influence of values on *Profitability* outcomes significantly higher than the Alberta and British Columbia Provincially-Funded groups.

Table 22a

Chi Square Analysis of the Organizational Outcomes Perceived to be Influenced by
Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta
and British Columbia

Organizational Outcome	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Effectiveness	178	03.4%	96.6%	04.23311	4	.37538
Efficiency	167	05.4%	94.6%	01.77962	4	.77621
Quality	179	02.8%	97.2%	01.57678	4	.81296
Productivity	156	03.2%	96.8%	02.58509	4	.62947
Innovation	166	06.0%	94.0%	01.12489	4	.89030
Quality of Work Life	163	16.6%	83.4%	01.97072	4	.74114
Profitability	151	04.6%	95.4%	02.09455	4	.71837

Note. (1*) = do not agree

Note. (2**) = agree

Table 22b

Chi Square Analysis of the Organizational Outcomes Perceived to be Influenced byValues in the All Alberta and All British Columbia Groups

Organizational Outcome	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Effectiveness	157	02.5%	97.5%	00.00150	1	.96911
Efficiency	148	05.4%	94.6%	00.47306	1	.49158
Quality	159	02.5%	97.5%	01.05182	1	.30509
Productivity	139	02.9%	97.1%	00.01047	1	.91849
Innovation	148	06.1%	93.9%	00.09130	1	.76254
Quality of Work Life	145	15.9%	84.1%	01.55014	1	.21311
Profitability	132	04.5%	95.5%	00.00578	1	.93941

Note. (1*) = do not agree

Note. (2**) = agree

Table 23

Scheffe Post-Hoc Pair-Wise Comparisons of the Organizational Outcomes Perceived to be Influenced by Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Group	n	Mean
Profitability		
Alberta Provincially-Funded	51	5.2353*
Alberta Private Sector	27	6.2593*
British Columbia Provincially-Funded	56	5.2857*
British Columbia Private Sector	26	6.1538*
Federal Government	22	5.4545

* Denotes pairs of groups that are significantly different at $p < .05$.

Research Question 4

Do perceptions, as to whether or not organizational values heavily influence an organization's ability to achieve positive performance-related outcomes, differ significantly among designated groups?

Perceptions of the Heavy Influence of Values on Outcomes. Table 24 illustrates the individual and group ratings for the organizational outcomes perceived to be heavily influenced by values. *Quality*, *Effectiveness* and *Productivity* outcomes had the highest ratings at 5.97, 5.91, and 5.78 respectively. *Profitability* outcomes had a rating of 5.64 followed by *Innovation* outcomes at 5.60, *Efficiency* outcomes at 5.59 and *Quality of Work Life* outcomes at 5.13. Again, this ordering supports Kluckhohn's (1951) assertion that values are phenomena that are transmitted by society's major institutions - as the perceived influence of values on achieving humanistic outcomes such as *Quality of Work Life* was not as great as it was with respect to achieving organizationally-promoted outcomes such as *Quality*, *Effectiveness* or *Productivity*. The relatively low ranking of *Efficiency* outcomes is perceived to be a result of the large number of public sector organizations in study who have already sustained large budget cuts for efficiency reasons. A ranking of the organizational outcomes in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Organizational Outcomes Perceived to be Heavily Influenced by Values Ranking by Mean Score and Level of Support

<u>Rank</u>	<u>Outcomes</u>	<u>Mean</u>	<u>Level of Support</u>
1	Quality	5.97	Strong Positive Support
2	Effectiveness	5.91	Strong Positive Support

Table 24

Mean Score and Level of Support for the Organizational Outcomes Perceived to be Heavily Influenced by Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Organizational Outcomes	-----Groups(1)-----							Mean	Level of Support(2)
	1	2	3	4	5	6	7		
Effectiveness	5.93	5.81	5.96	6.17	5.61	5.89	6.02	5.91	6
Efficiency	5.58	5.40	5.74	6.00	5.09	5.52	5.82	5.59	6
Quality	6.00	6.14	5.88	6.04	5.76	6.05	5.93	5.97	6
Productivity	5.69	6.14	5.66	5.87	5.52	5.86	5.73	5.78	6
Innovation	5.82	5.63	5.74	5.30	5.38	5.75	5.60	5.60	6
Quality of Work Life	5.34	4.66	5.41	5.30	4.76	5.09	5.37	5.13	5
Profitability	5.19	6.18	5.33	6.04	5.66	5.56	5.55	5.64	6
Mean	5.65	5.70	5.67	5.81	5.39	5.67	5.71	5.66	6

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the categories of level of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = neutral; 5 = marginal positive support; 6 = strong positive support; and, 7 = very strong positive support.

3	Productivity	5.78	Strong Positive Support
4	Profitability	5.64	Strong Positive Support
5	Innovation	5.60	Strong Positive Support
6	Efficiency	5.59	Strong Positive Support
7	Quality of Work Life	5.13	Marginal Positive Support

Group Perceptions of the Heavy Influence of Values on Outcomes. Table 24 also illustrates the ratings of the outcomes perceived to be heavily influenced by values for each of the seven participant groups. The British Columbia Private Sector group rated these outcomes highest at 5.81 followed by the All British Columbia and Alberta Private Sector groups at 5.71 and 5.70. The British Columbia Provincially-Funded and the All Alberta groups rated the outcomes at 5.67 while the Alberta Provincially-Funded and Federal Government groups rated the outcomes at 5.65 and 5.39. A ranking of the groups in accordance with their respective rating scores and interpretation of the corresponding level of support is presented below.

**Group Ranking by Mean Score
and Level of Support**

<u>Rank</u>	<u>Group</u>	<u>Mean</u>	<u>Level of Support</u>
1	British Columbia Private Sector	5.81	Strong Positive Support
2	All British Columbia	5.71	Strong Positive Support
3	Alberta Private Sector	5.70	Strong Positive Support
4	British Columbia Provincially-Funded	5.67	Strong Positive Support
4	All Alberta	5.67	Strong Positive Support
5	Alberta Provincially-Funded	5.65	Strong Positive Support
6	Federal Government	5.39	Marginal Positive Support

Analysis of Variance. Table 25a illustrates significant differences exist among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-

Table 25a

Analysis of Variance of the Organizational Outcomes Perceived to be Heavily Influenced
by Values in Federal Government, Provincially-Funded and Private Sector Groups in
Alberta and British Columbia

Organizational Outcome	Sum of Squares	df	Mean of Squares	F	p
Effectiveness	03.77661	4	00.94415	0.72917	.573
Efficiency	11.11327	4	02.77832	2.12447	.080
Quality	02.31814	4	00.57954	0.50390	.733
Productivity	06.14953	4	01.53738	1.14779	.336
Innovation	06.15822	4	01.53955	0.97111	.425
Quality of Work Life	15.17604	4	03.79401	1.62972	.169
Profitability	24.87313	4	06.21828	4.73039	.001*

* Denotes significant differences at $p < .05$.

Funded, British Columbia Private Sector and Federal Government groups with respect to *Profitability* outcomes ($F = 4.73, p < .05$). Table 25b illustrates that no significant differences between the All Alberta and All British Columbia groups, with respect to the organizational outcomes identified, were found to exist ($p < .05$).

Significant differences with respect to *Profitability* outcomes were found to exist between the Alberta Private Sector and British Columbia Private Sector groups, and, the Alberta Provincially-Funded and British Columbia Provincially-Funded groups. Again, given the mix of public and private sector organizations that participated in the research, it is not surprising that significant differences between groups with respect to this particular outcome were found to exist.

Contingency Analysis. Table 26a illustrates that no significant differences among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups, with respect to the organizational outcomes identified, were found to exist ($p < .05$). Table 26b illustrates that no significant differences between the All Alberta and All British Columbia groups, with respect to the organizational outcomes identified, were found to exist ($p < .05$).

Scheffe Post-Hoc Test. Table 27 illustrates that the Alberta Private Sector and British Columbia Private Sector groups rated the heavy influence of values on *Profitability* outcomes significantly higher than the Alberta and British Columbia Provincially-Funded groups.

Table 25b

Analysis of Variance of the Organizational Outcomes Perceived to be Heavily Influenced
by Values in the All Alberta and All British Columbia Groups

Organizational Outcome	Sum of Squares	df	Mean of Squares	F	p
Effectiveness	00.68587	1	00.68587	0.56807	.452
Efficiency	03.39114	1	03.39114	2.65885	.105
Quality	00.55021	1	00.55021	0.53031	.468
Productivity	00.65282	1	00.65282	0.51105	.476
Innovation	00.77601	1	00.77601	0.51806	.473
Quality of Work Life	02.93249	1	02.93249	1.33826	.249
Profitability	00.00212	1	00.00212	0.00137	.971

Table 26a

**Chi Square Analysis of the Organizational Outcomes Perceived to be Heavily Influenced
by Values in Federal Government, Provincially-Funded and Private Sector Groups in
Alberta and British Columbia**

Organizational Outcome	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Effectiveness	173	04.6%	95.4%	04.39565	4	.35510
Efficiency	162	06.8%	93.2%	05.16492	4	.27079
Quality	172	05.2%	94.8%	07.25525	4	.12300
Productivity	158	03.8%	96.2%	03.17749	4	.52858
Innovation	159	10.1%	89.9%	01.42541	4	.83977
Quality of Work Life	156	18.6%	81.4%	03.34849	4	.50129
Profitability	149	06.0%	94.0%	05.25742	4	.26189

Note. (1*) = do not agree

Note. (2**) = agree

Table 26b

Chi Square Analysis of the Organizational Outcomes Perceived to be Heavily Influenced
by Values in the All Alberta and All British Columbia Groups

Organizational Outcome	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Effectiveness	152	03.9%	96.1%	02.77626	1	.09567
Efficiency	143	06.3%	93.7%	02.89033	1	.08911
Quality	153	05.2%	94.8%	02.16597	1	.14110
Productivity	141	03.5%	96.5%	00.25393	1	.61432
Innovation	142	09.9%	90.1%	00.20445	1	.65115
Quality of Work Life	139	17.3%	82.7%	01.36980	1	.24185
Profitability	129	07.0%	93.0%	00.05072	1	.82181

Note. (1*) = do not agree

Note. (2**) = agree

Table 27

Scheffe Post-Hoc Pair-Wise Comparisons of the Organizational Outcomes Perceived to be Heavily Influenced by Organizational Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Group	n	Mean
Profitability		
Alberta Provincially-Funded	51	5.1765*
Alberta Private Sector	27	6.1852*
British Columbia Provincially-Funded	56	5.2500*
British Columbia Private Sector	26	6.1538*
Federal Government	22	5.6818

* Denotes pairs of groups that are significantly different at $p < .05$.

Research Question 5

Do perceptions, as to the methods or vehicles utilized by organizations to operationalize health values, differ significantly among the designated groups?

Perceptions of Operationalization Methods or Vehicles. Table 28 illustrates the individual and group ratings for the methods or vehicles utilized to operationalize *Health* values in respondent organizations. *Organizational Programs*, *Training/Development Programs*, and, *Organizational Policies* had the highest ratings at 5.90, 5.71, and 5.67 respectively. *Organizational Management Practices* had a rating of 5.54 followed by *Organizational Plans* at 5.42, *Orientation* at 5.32 and *Values Statement* at 5.22. This rank ordering supports the assertion that initiatives requiring a resource commitment were considered by respondents to be more important (or effective) as operationalization vehicles than non-resource-based methods such as directional statements or evaluation criteria. A ranking of the operationalization methods or vehicles in accordance with their respective rating score and interpretation of the corresponding level of support is presented below.

Methods or Vehicles Utilized to Operationalize Health Values Ranking by Mean Score and Level of Support

<u>Rank</u>	<u>Methods or Vehicles</u>	<u>Mean</u>	<u>Level of Support</u>
1	Organizational Programs	5.90	Strong Positive Support
2	Training & Development Programs	5.71	Strong Positive Support
3	Organizational Policies	5.67	Strong Positive Support
4	Organizational Management Practices	5.54	Strong Positive Support
5	Organizational Plans	5.42	Marginal Positive Support
6	Orientation	5.32	Marginal Positive Support
7	Values Statement	5.22	Marginal Positive Support
7	Creation of a Committee Responsible	5.22	Marginal Positive Support

Table 28

Mean Score and Level of Support for the Methods or Vehicles Utilized to Operationalize Health Values in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Operationalization Methods or Vehicles	-----Groups(1)-----							Mean	Level of Support
	1	2	3	4	5	6	7		
Mission Statement	4.94	5.15	5.02	5.11	5.44	5.01	5.05	5.10	5
Vision Statement	4.94	5.05	4.69	5.00	5.44	4.98	4.78	4.98	5
Values Statement	4.94	5.15	5.11	5.47	5.66	5.01	5.22	5.22	5
Organizational Plans	5.28	5.42	5.26	5.70	5.61	5.32	5.39	5.42	5
Organizational Policies	5.46	5.89	5.59	6.05	5.44	5.60	5.72	5.67	6
Organizational Programs	5.61	5.94	5.78	6.47	5.83	5.72	5.98	5.90	6
Organizational Management Practices	5.53	5.26	5.52	5.70	5.77	5.44	5.57	5.54	6
Performance Evaluation Criteria	4.76	4.68	4.73	5.29	4.33	4.74	4.89	4.77	5
Creation of a Position Responsible	4.92	4.89	5.14	5.70	5.11	4.91	5.30	5.13	5
Creation of a Committee Responsible	4.97	4.94	5.45	5.52	5.27	4.96	5.47	5.22	5
Training and Development Programs	5.61	5.21	5.69	6.29	5.83	5.48	5.86	5.71	6
Orientation	5.25	5.00	5.45	5.64	5.27	5.17	5.50	5.32	5
Mean	5.18	5.21	5.28	5.66	5.41	5.19	5.39	5.33	5

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the categories of level of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = neutral; 5 = marginal positive support; 6 = strong positive support; and, 7 = very strong positive support.

8	Creation of a Position Responsible	5.13	Marginal Positive Support
9	Mission Statement	5.10	Marginal Positive Support
10	Vision Statement	4.98	Marginal Positive Support
11	Performance Evaluation Criteria	4.77	Marginal Positive Support

Group Perceptions of Operationalization Methods or Vehicles. Table 28 also illustrates the rating for the methods or vehicles utilized to operationalize Health values for each of the seven participant groups. The British Columbia Private Sector group rated these methods or vehicles highest at 5.66 followed by the Federal Government and All British Columbia groups at 5.41 and 5.39 respectively. The British Columbia Provincially-Funded and Alberta Private Sector groups rated the methods or vehicles at 5.28 and 5.21. The All Alberta group and Alberta Provincially-Funded group rated these methods or vehicles at 5.19 and 5.18. A ranking of the groups in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Group Ranking by Mean Score
and Level of Support

<u>Rank</u>	<u>Group</u>	<u>Mean</u>	<u>Level of Support</u>
1	British Columbia Private Sector	5.66	Strong Positive Support
2	Federal Government	5.41	Marginal Positive Support
3	All British Columbia	5.39	Marginal Positive Support
4	British Columbia Provincially-Funded	5.28	Marginal Positive Support
5	Alberta Private Sector	5.21	Marginal Positive Support
6	All Alberta	5.19	Marginal Positive Support
7	Alberta Provincially-Funded	5.18	Marginal Positive Support

Analysis of Variance. Table 29a illustrates that no significant differences among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups, with respect to

Table 29a

Analysis of Variance of the Methods or Vehicles Utilized to Operationalize HealthValues in Federal Government, Provincially-Funded and Private Sector Groups in Albertaand British Columbia

Operationalization Methods or Vehicles	Sum of Squares	df	Mean of Squares	F	p
Mission Statement	03.32424	4	00.83106	0.26121	.902
Vision Statement	07.46789	4	01.86697	0.62510	.645
Values Statement	07.92878	4	01.98220	0.72574	.576
Organization Plans	03.73734	4	00.93434	0.53167	.713
Organization Policies	06.22836	4	01.55709	0.91599	.457
Organization Programs	09.05218	4	02.26304	1.96150	.104
Organization Management Practices	02.94381	4	00.73595	0.32710	.859
Performance Evaluation Criteria	08.25653	4	02.06413	0.66309	.619
Creation of a Position Responsible	08.32458	4	02.08115	0.73717	.568
Creation of a Committee Responsible	07.70859	4	01.92715	0.82364	.512
Training and Development Programs	11.15388	4	02.78847	1.60830	.176
Orientation	04.66588	4	01.16647	0.49991	.736

the operationalization methods or vehicles identified, were found to exist ($p < .05$). Table 29b illustrates that no significant differences between the All Alberta and British Columbia groups, with respect to the operationalization methods or vehicles identified, were found to exist ($p < .05$).

Contingency Analysis. Table 30a illustrates that no significant differences among Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government organizations, with respect to the operationalization methods or vehicles identified, were found to exist ($p < .05$). Table 30b illustrates significant differences exist between the All Alberta and All British Columbia groups with respect to *Training and Development Programs* ($p < .05$).

Approximately 11% of respondents in the All Alberta group indicated that they did not perceive Training and Development Programs as important methods or vehicles for operationalizing Health values in their respective organizations compared with 3% of respondents in the All British Columbia group. An explanation for the significant differences may be that much of the funding for Alberta government training and development programs and initiatives was eliminated through the budget cuts that have been implemented since 1992.

Table 29b

Analysis of Variance of the Methods or Vehicles Utilized to Operationalize HealthValues in the All Alberta and All British Columbia Groups

Operationalization Methods or Vehicles	Sum of Squares	df	Mean of Squares	F	p
Mission Statement	00.03303	1	00.03303	0.01050	.919
Vision Statement	01.20643	1	01.20643	0.41155	.522
Values Statement	01.20643	1	01.20643	0.45175	.503
Organization Plans	00.11332	1	00.11332	0.06425	.800
Organization Policies	00.45967	1	00.45967	0.27599	.600
Organization Programs	01.96066	1	01.96066	1.62717	.205
Organization Management Practices	00.47916	1	00.47916	0.20657	.650
Performance Evaluation Criteria	00.72025	1	00.72025	0.22849	.634
Creation of a Position Responsible	04.47812	1	04.47812	1.57450	.212
Creation of a Committee Responsible	07.57932	1	07.57932	3.45002	.066
Training and Development Programs	04.26011	1	04.26011	2.40864	.123
Orientation	03.30316	1	03.30316	1.44423	.232

Table 30a

Chi Square Analysis of the Methods or Vehicles Utilized to Operationalize Health Values
in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and
British Columbia

Operationalization Methods or Vehicles	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Mission Statement	159	25.8%	74.2%	02.03716	4	.72892
Vision Statement	148	25.0%	75.0%	01.14811	4	.88657
Values Statement	142	16.9%	83.1%	02.21314	4	.69663
Organization Plans	159	09.4%	90.6%	02.20100	4	.69885
Organization Policies	170	08.2%	91.8%	02.14250	4	.70957
Organization Programs	169	04.7%	95.3%	04.69685	4	.31984
Organization Management Practices	163	12.9%	87.1%	00.98012	4	.91280
Performance Evaluation Criteria	151	31.1%	68.9%	04.43090	4	.35082
Creation of a Position Responsible	147	23.1%	76.9%	02.87653	4	.57870
Creation of a Committee Responsible	155	16.1%	83.9%	04.54973	4	.33669
Training and Development Programs	172	07.6%	92.4%	09.37517	4	.05238
Orientation	157	15.9%	84.1%	05.19675	4	.26770

Note. (1*) = do not agree

Note. (2**) = agree

Table 30b

Chi Square Analysis of the Methods or Vehicles Utilized to Operationalize Health Values
in the All Alberta and All British Columbia Groups

Operationalization Methods and Vehicles	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Mission Statement	142	26.1%	73.9%	01.53455	1	.21543
Vision Statement	128	24.2%	75.8%	00.40080	1	.52668
Values Statement	125	16.8%	83.2%	00.12954	1	.71891
Organization Plans	138	08.7%	91.3%	00.01105	1	.91628
Organization Policies	148	07.4%	92.6%	00.97381	1	.32373
Organization Programs	148	04.1%	95.9%	00.81267	1	.36733
Organization Management Practices	144	13.2%	86.8%	00.75516	1	.38485
Performance Evaluation Criteria	131	29.0%	71.0%	01.59246	1	.20697
Creation of a Position Responsible	127	22.0%	78.0%	00.99607	1	.31826
Creation of a Committee Responsible	134	14.2%	85.8%	00.78106	1	.37682
Training and Development Programs	150	06.7%	93.3%	04.21061	1	.04017*
Orientation	141	14.2%	85.8%	01.81137	1	.17834

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Research Question 6

Do perceptions, concerning the rationale utilized by organizations to justify the implementation of EHPAs, differ significantly among designated groups?

Perceptions of Rationale. Table 31 illustrates the individual and group ratings for the various rationale considered to be important for justifying the implementation of EHPAs. *Reduced Absenteeism, Reduced Disability, Improved Employee Satisfaction* and *Reduced Health Costs* had ratings at 5.97, 5.90, 5.88 and 5.88 respectively. *Improved Recruitment Success, Smoker Quit Rates* and *Exercise Participation* had the lowest ratings at 4.45, 4.59 and 4.67. This rank ordering supports the assertion that the most important rationale utilized to justify the implementation of EHPAs appear to be those associated with reducing existing health-related costs. A ranking of the rationale in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Important Rationale for Justifying the Implementation of EHPAs Ranking by Mean Score and Level of Support

<u>Rank</u>	<u>Rationale</u>	<u>Mean</u>	<u>Level of Support</u>
1	Reduced Absenteeism	6.19	Strong Positive Support
1	Reduced Disability Days	6.19	Strong Positive Support
2	Reduced Sick Leave	6.13	Strong Positive Support
3	Reduced Health Risks	5.97	Strong Positive Support
4	Improved Productivity	5.90	Strong Positive Support
5	Improved Employee Satisfaction	5.88	Strong Positive Support
5	Reduced Health Costs	5.88	Strong Positive Support
6	Enhanced Job Performance	5.87	Strong Positive Support
7	Improved Organizational Functioning	5.70	Strong Positive Support
8	Improved Work Habits	5.55	Strong Positive Support
9	Reduced Turnover	5.13	Marginal Positive Support
9	Improved Fitness Levels	5.13	Marginal Positive Support

Table 31

Mean Score and Level of Support for the Rationale Utilized to Justify the Implementation of EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Implementation Rationale	-----Groups(i)-----							Mean	Level of Support(2)
	1	2	3	4	5	6	7		
Reduced Health Risks	5.71	5.87	6.11	5.83	6.50	5.77	6.01	5.97	6
Improved Employee Satisfaction	5.71	6.08	6.23	5.62	5.72	5.84	6.01	5.88	6
Reduced Turnover	5.06	5.08	5.23	5.16	5.16	5.07	5.20	5.13	5
Improved Work Habits	5.63	5.58	5.53	5.58	5.38	5.61	5.55	5.55	6
Reduced Hospitalization Costs	5.04	4.62	5.27	5.12	4.72	4.90	5.22	4.98	5
Improved Fitness Levels	4.95	5.20	5.51	5.08	4.83	5.04	5.35	5.13	5
Improved Smoker Quit Rates	4.43	4.66	4.90	4.50	4.38	4.51	4.76	4.59	6
Improved Corporate Image	5.00	5.41	5.16	4.95	4.72	5.14	5.09	5.06	5
Improved Recruitment Success	4.32	4.79	4.55	4.41	4.11	4.48	4.50	4.45	4
Reduced Health Costs	6.04	5.79	5.83	6.12	5.50	5.95	5.94	5.88	6
Enhanced Job Performance	5.84	6.16	6.07	5.45	5.83	5.95	5.85	5.87	6
Reduced Absenteeism	6.37	6.16	6.25	6.04	6.05	6.30	6.17	6.19	6
Reduced Disability Days	6.26	6.16	6.27	6.16	6.05	6.22	6.23	6.19	6
Improved Exercise Participation	4.50	4.70	4.95	4.79	4.33	4.57	4.89	4.67	5
Reduced Prescription Drug Costs	5.08	5.16	4.86	5.00	4.66	5.11	4.91	4.96	5
Reduced Sick Leave	6.13	5.87	6.27	6.08	6.33	6.04	6.20	6.13	6
Improved Organizational Functioning	5.80	5.50	5.83	5.70	5.61	5.70	5.79	5.70	6
Improved Productivity	5.73	6.08	5.86	5.95	5.94	5.85	5.89	5.90	6
Mean	5.42	5.49	5.59	5.41	5.32	5.44	5.53	5.45	5

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the categories of level of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = neutral; 5 = marginal positive support; 6 = strong positive support; and, 7 = very strong positive support.

10	Improved Corporate Image	5.06	Marginal Positive Support
11	Reduced Hospitalization Costs	4.98	Marginal Positive Support
12	Reduced Prescription Drug Costs	4.96	Marginal Positive Support
13	Improved Exercise Participation	4.67	Marginal Positive Support
14	Improved Smoker Quit Rates	4.59	Marginal Positive Support
15	Improved Recruitment Success	4.45	Neutral

Group Perceptions of Rationale. Table 31 also illustrates the ratings for the rationale for each of the seven participant groups. The British Columbia Provincially-Funded group rated these rationale highest at 5.59 followed by the All British Columbia and Alberta Private Sector groups at 5.53 and 5.49 respectively. The All Alberta and Alberta Provincially-Funded groups rated the rationale at 5.44 and 5.42. The British Columbia Private Sector and Federal Government groups rated the rationale at 5.41 and 5.32. A ranking of the groups in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Group Ranking by Mean Score
and Level of Support

<u>Rank</u>	<u>Group</u>	<u>Mean</u>	<u>Level of Support</u>
1	British Columbia Private Sector	5.59	Strong Positive Support
2	Federal Government	5.53	Strong Positive Support
3	All British Columbia	5.49	Marginal Positive Support
4	British Columbia Provincially-Funded	5.44	Marginal Positive Support
5	Alberta Private Sector	5.42	Marginal Positive Support
6	All Alberta	5.41	Marginal Positive Support
7	Federal Government	5.32	Marginal Positive Support

Analysis of Variance. Table 32a illustrates that no significant differences among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia

Table 32a

Analysis of Variance of the Rationale Utilized to Justify the Implementation of EHPAs in
Federal Government, Provincially-Funded and Private Sector Groups in Alberta and
British Columbia

Implementation Rationale	Sum of Squares	df	Mean of Squares	F	p
Reduced Health Risks	09.56472	4	02.39118	1.53148	.196
Improved Employee Satisfaction	09.47844	4	02.36961	1.67606	.158
Reduced Turnover	00.73199	4	00.18300	0.07183	.991
Improved Work Habits	00.80823	4	00.20206	0.12353	.974
Reduced Hospitalization Costs	08.51662	4	02.12915	0.77438	.543
Improved Fitness Levels	09.33497	4	02.33374	0.95398	.435
Improved Smoker Quit Rates	06.45018	4	01.61255	0.61307	.654
Improved Corporate Image	05.95611	4	01.48903	0.66820	.615
Improved Recruitment Success	06.10431	4	01.52608	0.54466	.703
Reduced Health Costs	05.49155	4	01.37289	0.67551	.610
Enhanced Job Performance	07.83124	4	01.95781	1.55780	.189
Reduced Absenteeism	02.40239	4	00.60060	0.40193	.807
Reduced Disability Days	00.84235	4	00.21059	0.15863	.959
Improved Exercise Participation	07.18603	4	01.79651	0.76485	.550
Reduced Prescription Drug Costs	03.74848	4	00.93712	0.36592	.833
Reduced Sick Leave	03.26021	4	00.81505	0.57580	.681
Improved Organizational Functioning	02.28365	4	00.57091	0.39955	.809
Improved Productivity	02.14121	4	00.53530	0.46208	.763

Provincially-Funded, British Columbia Private Sector and Federal Government group, with respect to the implementation rationale identified, were found to exist ($p < .05$).

Table 32b illustrates that no significant differences between the All Alberta and All British Columbia groups, with respect to the implementation rationale identified, were found to exist ($p < .05$).

Contingency Analysis. Table 33a illustrates that no significant differences among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups, with respect to the implementation rationale identified, were found to exist ($p < .05$). Table 33b illustrates that no significant differences between the All Alberta and All British Columbia groups, with respect to the implementation rationale identified, were found to exist ($p < .05$).

Table 32b

Analysis of Variance of the Rationale Utilized to Justify the Implementation of EHPAs in
the All Alberta and All British Columbia Groups

Implementation Rationale	Sum of Squares	df	Mean of Squares	F	p
Reduced Health Risks	02.02973	1	02.02973	1.20537	.274
Improved Employee Satisfaction	01.01357	1	01.01357	0.71172	.400
Reduced Turnover	00.64748	1	00.64748	0.24994	.618
Improved Work Habits	00.13179	1	00.13179	0.08119	.776
Reduced Hospitalization Costs	03.59106	1	03.59106	1.33942	.249
Improved Fitness Levels	03.40442	1	03.40442	1.40004	.239
Improved Smoker Quit Rates	02.08701	1	02.08701	0.79665	.374
Improved Corporate Image	00.09727	1	00.09727	0.04623	.830
Improved Recruitment Success	00.01619	1	00.01619	0.00614	.938
Reduced Health Costs	00.00971	1	00.00971	0.00519	.943
Enhanced Job Performance	00.38753	1	00.38753	0.32022	.572
Reduced Absenteeism	00.50035	1	00.50035	0.35824	.550
Reduced Disability Days	00.00359	1	00.00359	0.00294	.957
Improved Exercise Participation	03.59579	1	03.59579	1.62128	.205
Reduced Prescription Drug Costs	01.42240	1	01.42240	0.59167	.443
Reduced Sick Leave	00.94446	1	00.94446	0.61910	.433
Improved Organizational Functioning	00.28377	1	00.28377	0.20401	.652
Improved Productivity	00.05043	1	00.05043	0.04232	.837

Table 33a

Chi Square Analysis of the Rationale Utilized to Justify the Implementation of EHPAs in
Federal Government, Provincially-Funded and Private Sector Groups in Alberta and
British Columbia

Implementation Rationale	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Reduced Health Risks	177	05.6%	94.4%	07.92057	4	.09453
Improved Employee Satisfaction	174	06.3%	93.7%	02.33089	4	.67515
Reduced Turnover	153	16.3%	83.7%	00.62409	4	.96035
Improved Work Habits	165	07.9%	92.1%	01.19366	4	.87914
Reduced Hospitalization Costs	138	21.7%	78.3%	02.59169	4	.62830
Improved Fitness Levels	153	15.0%	85.0%	02.85964	4	.58158
Improved Smoker Quit Rates	135	27.4%	72.6%	01.20283	4	.87763
Improved Corporate Image	142	16.2%	83.8%	01.70812	4	.78924
Improved Recruitment Success	131	33.6%	66.4%	01.39330	4	.84536
Reduced Health Costs	170	08.2%	91.8%	02.17688	4	.70326
Enhanced Job Performance	166	03.6%	96.4%	02.38219	4	.66585
Reduced Absenteeism	182	04.9%	95.1%	04.55208	4	.33642
Reduced Disability Days	177	03.4%	96.6%	02.92161	4	.57103
Improved Exercise Participation	132	25.0%	75.0%	02.47546	4	.64904
Reduced Prescription Drug Costs	150	18.7%	81.3%	02.93158	4	.56934
Reduced Sick Leave	179	03.4%	96.6%	05.16163	4	.27111
Improved Organizational Functioning	165	05.5%	94.5%	00.91762	4	.92202
Improved Productivity	168	03.0%	97.0%	03.58695	4	.46478

Note. (1*) = do not agree

Note. (2**) = agree

Table 33b

Chi Square Analysis of the Rationale Utilized to Justify the Implementation of EHPAs in
the All Alberta and All British Columbia Groups

Implementation Rationale	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Reduced Health Risks	156	06.4%	93.6%	01.60202	1	.20562
Improved Employee Satisfaction	152	06.6%	93.4%	00.48644	1	.48552
Reduced Turnover	133	16.5%	83.5%	00.07504	1	.78414
Improved Work Habits	144	07.6%	92.4%	00.13083	1	.71758
Reduced Hospitalization Costs	123	21.1%	78.9%	00.23852	1	.62528
Improved Fitness Levels	135	14.8%	85.2%	01.01004	1	.31489
Improved Smoker Quit Rates	121	27.3%	72.7%	00.02204	1	.88198
Improved Corporate Image	122	14.8%	85.2%	00.04397	1	.83390
Improved Recruitment Success	115	32.2%	67.8%	00.01479	1	.90320
Reduced Health Costs	152	07.2%	92.8%	00.09800	1	.75424
Enhanced Job Performance	147	03.4%	96.6%	00.16701	1	.68278
Reduced Absenteeism	160	04.4%	95.6%	00.14939	1	.69912
Reduced Disability Days	158	03.2%	96.8%	00.18125	1	.67030
Improved Exercise Participation	117	23.9%	76.1%	01.88489	1	.16978
Reduced Prescription Drug Costs	132	17.4%	82.6%	01.19102	1	.27512
Reduced Sick Leave	157	03.8%	96.2%	00.71993	1	.39617
Improved Organizational Functioning	145	05.5%	94.5%	00.75507	1	.38488
Improved Productivity	148	03.4%	96.6%	00.26691	1	.60541

Note. (1*) = do not agree

Note. (2**) = agree

Research Question 7

Do perceptions, regarding the kinds of value conflicts that impede EHPA implementation efforts, differ significantly among the designated groups?

Perceptions of the Kinds of Value Conflicts. Table 34 illustrates the individual and group ratings for the kinds of value conflicts perceived to impede EHPA implementation efforts. *Individual-Management, Means-Ends* and *Organizational Conflicts* had ratings of 5.14, 4.98 and 4.95 respectively. *Individual-Supervisor, Obligatory, Strategic* and *Individual-Peer Conflicts* had ratings of 4.48, 4.46, 4.39 and 4.09. *Intra-Personal Conflicts* had a rating of 3.87. This ranking, in which the most significant conflicts appear to take place at higher organizational levels while the least significant value conflicts appear to be manifest at the employee level, supports Hodgkinson's value paradigm in which values are defined as concepts of the desirable which influence choice and postulates a hierarchical view of commitment to values ranging from high level (Type I) values to lower level (Type III) values. Furthermore, the ratings of the kinds of value conflicts supports Hodgkinson's conceptualization and description of the field of value action. According to Hodgkinson (1996), values can be in conflict at any one of five levels: V1 is the individual level and involves self-interest; V2 is the informal sub-organization level and involves informal groups; V3 is the organization level and involves organization culture; V4 is the sub-cultural level and involves community; and, V5 is the cultural level and involves society at large. A ranking of the kinds of value conflicts in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Table 34

Mean Score and Level of Support for the Kinds of Value Conflicts Perceived to Impede EHPA Implementation Efforts in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Value Conflicts	Groups(1)							Mean	Level of Support(2)
	1	2	3	4	5	6	7		
Intra-Personal	4.20	3.79	4.20	3.60	3.28	4.04	4.01	3.87	4
Individual-Supervisor	4.89	4.75	4.64	3.95	3.90	4.84	4.42	4.48	4
Obligatory	4.74	4.41	4.60	4.43	3.90	4.61	4.54	4.46	4
Organizational	5.20	4.87	5.12	4.73	4.66	5.07	5.00	4.95	5
Individual-Peer	4.28	4.00	4.27	4.17	3.57	4.17	4.23	4.09	4
Individual-Management	5.05	5.33	5.10	5.04	5.23	5.15	5.08	5.14	5
Means-Ends	5.43	4.75	5.02	4.47	5.23	5.17	4.84	4.98	5
Strategic	4.38	4.70	4.33	4.30	4.23	4.50	4.32	4.39	4
Mean	4.77	4.57	4.66	4.33	4.25	4.69	4.55	4.54	5

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the categories of level of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = neutral; 5 = marginal positive support; 6 = strong positive support; and, 7 = very strong positive support.

**Kinds of Value Conflicts Perceived to Impede EHPA Implementation
Ranking by Mean Score and Level of Support**

<u>Rank</u>	<u>Kinds of Value Conflicts</u>	<u>Mean</u>	<u>Level of Support</u>
1	Individual-Management	5.14	Marginal Positive Support
2	Means-Ends	4.98	Marginal Positive Support
3	Organizational	4.95	Marginal Positive Support
4	Individual-Supervisor	4.48	Neutral
5	Obligatory	4.46	Neutral
6	Strategic	4.39	Neutral
7	Individual-Peer	4.09	Neutral
8	Intra-Personal	3.87	Neutral

Group Perceptions of the Kinds of Value Conflicts. Table 34 also illustrates the ratings for the kinds of value conflicts perceived to impede EHPA implementation efforts for each of the seven participant groups. The Alberta Provincially-Funded group rated the kinds of value conflicts highest at 4.77 followed by the All Alberta and British Columbia Provincially-Funded groups at 4.69 and 4.66 respectively. The Alberta Private Sector and the All Alberta groups rated the kinds of value conflicts at 4.57 and 4.55. The British Columbia Private Sector and Federal Government groups rated the kinds of value conflicts at 4.33 and 4.25. A ranking of the groups in accordance with their respective rating and interpretation of the level of support is presented below.

**Group Ranking by Mean Score
and Level of Support**

<u>Rank</u>	<u>Group</u>	<u>Score</u>	<u>Level of Support</u>
1	Alberta Provincially-Funded	4.77	Marginal Positive Support
2	All Alberta	4.69	Marginal Positive Support
3	British Columbia Provincially-Funded	4.66	Marginal Positive Support
4	Alberta Private Sector	4.57	Marginal Positive Support
5	All British Columbia	4.55	Marginal Positive Support
6	British Columbia Private Sector	4.33	Neutral
7	Federal Government	4.25	Neutral

Analysis of Variance. Table 35a illustrates that no significant differences among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups, with respect to the kinds of value conflicts identified, were found to exist ($p < .05$). Table 35b illustrates that no significant differences between the All Alberta and All British Columbia groups, with respect to the kinds of value conflicts identified, were found to exist ($p < .05$).

Contingency Analysis. Table 36a illustrates that significant differences exist among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Individual-Supervisor* value conflicts ($p < .05$). Table 36b illustrates that no significant differences between the All Alberta and All British Columbia groups, with respect to the kinds of value conflicts identified, were found to exist ($p < .05$).

Approximately 55% of respondents in the Federal Government and British Columbia Private Sector groups indicated that they did not perceive *Individual-Supervisor* conflicts to impede EHPA implementation efforts compared to 31% of respondents in the Alberta Private Sector group; 29% of respondents in the British Columbia Provincially-Funded group; and, 18% of respondents in the Alberta Provincially-Funded group. One explanation for these differences in perception may be the greater influence of unionized labor in British Columbia, which in some cases, may lessen the extent or existence of value conflicts that may exist between individual employees and their supervisors, and, lack of funding for EHPAs within the Federal Government system.

Table 35a

Analysis of Variance of the Kinds of Value Conflicts Perceived to Impede EHPAImplementation in Federal Government, Provincially-Funded and Private Sector Groups
in Alberta and British Columbia

Kinds (Sorts) of Value Conflicts	Sum of Squares	df	Mean of Squares	F	p
Intra-Personal Conflicts	18.22141	4	04.55535	1.31405	.267
Individual-Supervisor Conflicts	22.83601	4	05.70900	1.62855	.170
Obligatory Conflicts	10.52539	4	02.63135	0.82537	.511
Organizational Conflicts	06.63877	4	01.65969	0.51507	.725
Individual-Peer Conflicts	08.84716	4	02.21179	0.74752	.561
Individual-Management Conflicts	01.67866	4	00.41971	0.16634	.955
Means-Ends Conflicts	16.22115	4	04.05529	1.36813	.248
Strategic Conflicts	03.23934	4	00.80983	0.24514	.912

Table 35b

Analysis of Variance of the Kinds of Value Conflicts Perceived to Impede EHPAImplementation in the All Alberta and All British Columbia Groups

Kinds (Sorts) of Value Conflicts	Sum of Squares	df	Mean of Squares	F	p
Intra-Personal Conflicts	00.03754	1	00.03754	0.01073	.918
Individual-Supervisor Conflicts	05.85291	1	05.85291	1.75692	.187
Obligatory Conflicts	00.16241	1	00.16241	0.05408	.816
Organizational Conflicts	00.21026	1	00.21026	0.06928	.793
Individual-Peer Conflicts	00.14031	1	00.14031	0.04926	.825
Individual-Management Conflicts	00.18390	1	00.18390	0.07358	.787
Means-Ends Conflicts	03.62486	1	03.62486	1.21945	.271
Strategic Conflicts	01.13005	1	01.13005	0.35074	.555

Table 36a

Chi Square Analysis of the Kinds of Value Conflicts Perceived to Impede EHPAImplementation in Federal Government, Provincially-Funded and Private Sector Groupsin Alberta and British Columbia

Kinds (Sorts) of Value Conflicts	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Intra-Personal Conflicts	139	47.5%	52.5%	06.08093	4	.19319
Individual-Supervisor Conflicts	168	32.7%	67.3%	14.14999	4	.00683*
Obligatory Conflicts	148	31.1%	68.9%	08.16138	4	.08584
Organizational Conflicts	169	21.9%	78.1%	05.37928	4	.25055
Individual-Peer Conflicts	142	43.0%	57.0%	04.77511	4	.31116
Individual-Management Conflicts	165	17.0%	83.0%	01.25502	4	.86896
Means-Ends Conflicts	158	19.6%	80.4%	08.68818	4	.06938
Strategic Conflicts	141	36.9%	63.1%	01.11880	4	.89128

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Table 36b

Chi Square Analysis of the Kinds of Value Conflicts Perceived to Impede EHPAImplementation in the All Alberta and All British Columbia Groups

Kinds (Sorts) of Value Conflicts	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Intra-Personal Conflicts	121	44.6%	55.4%	00.01463	1	.90373
Individual-Supervisor Conflicts	148	29.7%	70.3%	03.63098	1	.05671
Obligatory Conflicts	127	26.8%	73.2%	00.28493	1	.59349
Organizational Conflicts	148	19.6%	80.4%	00.21079	1	.64615
Individual-Peer Conflicts	122	40.2%	59.8%	00.00156	1	.96854
Individual-Management Conflicts	144	16.0%	84.0%	00.02397	1	.87696
Means-Ends Conflicts	136	18.4%	81.6%	03.35048	1	.06719
Strategic Conflicts	123	35.8%	64.2%	00.17333	1	.67717

Note. (1*) = do not agree

Note. (2**) = agree

Research Question 8

Do perceptions, regarding the types of value conflicts that impede EHPA implementation efforts, differ significantly among designated groups?

Perceptions of the Types of Value Conflicts. Table 37 illustrates the individual and group ratings for the types of value conflicts that are perceived to impede EHPA implementation. *Type III* and *Type I* value conflicts had ratings of 4.90 and 4.39 respectively. *Type IIA* value conflicts had a rating of 4.08 while *Type IIB* value conflicts had the lowest rating at 3.76. According to Hodgkinson, higher level value conflicts (i.e. *Type I*) are the most difficult to reconcile. In this research, participants indicated that *Type III* value conflicts were most common with respect to EHPAs. This implies that the value conflicts identified were not considered to be major barriers with respect to EHPA implementation which is consistent with responses provided by participants regarding a subsequent research question. Also, given the subject of this research (EHPAs), *Type I* value conflicts are unlikely to be present while *Type IIA* may be as high a level of conflict as one could expect to reach. A ranking of the types of value conflicts in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Types of Value Conflicts Perceived to Impede EHPA Implementation Ranking by Mean Score and Level of Support

<u>Rank</u>	<u>Types of Value Conflicts</u>	<u>Mean</u>	<u>Level of Support</u>
1	Type III	4.90	Marginal Positive Support
2	Type I	4.39	Neutral
3	Type IIA	4.08	Neutral
4	Type IIB	3.76	Neutral

Table 37

Mean Score and Level of Support for the Types of Value Conflicts Perceived to Impede EHPA Implementation in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, All Alberta and All British Columbia Groups

Types (Nature) of Value Conflicts	Groups(1)							Mean	Level of Support(2)
	1	2	3	4	5	6	7		
Type I	4.50	4.56	4.55	4.17	4.04	4.52	4.42	4.39	4
Type IIB	4.42	3.65	3.97	3.21	3.23	4.15	3.72	3.76	4
Type IIA	3.95	4.43	4.37	3.30	4.42	4.12	4.01	4.08	4
Type III	4.97	5.56	4.88	4.17	4.95	5.18	4.64	4.90	5
Mean	4.46	4.55	4.44	3.71	4.16	4.49	4.19	4.28	4

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the categories of level of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = neutral; 5 = marginal positive support; 6 = strong positive support; and, 7 = very strong positive support.

Group Perceptions of the Types of Value Conflicts. Table 37 also illustrates the ratings for the types of value conflicts perceived to impede EHPA implementation efforts for each of the seven participant groups. The Alberta Private Sector group rated the types of value conflicts identified highest at 4.55 followed by the All Alberta and Alberta Provincially-Funded groups at 4.49 and 4.46 respectively. The British Columbia Provincially-Funded groups and the All British Columbia group rated the types of value conflicts at 4.44 and 4.19. The Federal Government and British Columbia Private Sector groups rated the types of value conflicts at 4.16 and 3.71. A ranking of the groups in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Group Ranking by Mean Score
and Level of Support

<u>Rank</u>	<u>Group</u>	<u>Mean</u>	<u>Level of Support</u>
1	Alberta Private Sector	4.55	Marginal Positive Support
2	All Alberta	4.49	Neutral
3	Alberta Provincially-Funded	4.46	Neutral
4	British Columbia Provincially-Funded	4.44	Neutral
5	All British Columbia	4.19	Neutral
6	Federal Government	4.16	Neutral
7	British Columbia Private Sector	3.71	Neutral

Analysis of Variance. Table 38a illustrates significant differences exist among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Type III* value conflicts ($F = 2.98, p < .05$) and *Type IIB* value conflicts ($F = 3.01, p < .05$). Table 38b illustrates that the All Alberta and All British Columbia groups also differed significantly with respect to *Type III* value conflicts ($F = 5.04, p < .05$).

Table 38a

Analysis of Variance of the Types of Value Conflicts Perceived to Impede EHPA
Implementation in Federal Government, Provincially-Funded and Private Sector Groups
in Alberta and British Columbia

Types (Nature) of Value Conflicts	Sum of Squares	df	Mean of Squares	F	p
Type I Value Conflicts	05.88258	4	01.47065	0.46081	.764
Type IIB Value Conflicts	32.73811	4	08.18453	3.01703	.020*
Type IIA Value Conflicts	23.74897	4	05.93724	2.24446	.067
Type III Value Conflicts	22.57306	4	05.64326	2.98883	.021*

* Denotes significant differences at $p < .05$.

Table 38b

Analysis of Variance of the Types of Value Conflicts Perceived to Impede EHPAImplementation in the All Alberta and All British Columbia Groups

Types (Nature) of Value Conflicts	Sum of Squares	df	Mean of Squares	F	p
Type I Value Conflicts	00.31016	1	00.31016	0.10290	.749
Type IIB Value Conflicts	06.23826	1	06.23826	2.26907	.134
Type IIA Value Conflicts	00.39030	1	00.39030	0.14443	.705
Type III Value Conflicts	09.60327	1	09.60327	5.04596	.026*

* Denotes significant differences at $p < .05$.

Significant differences with respect to *Type III* value conflicts were found to exist between the Alberta Private Sector and British Columbia Private Sector groups. One explanation for the significance of the differences in perception may be the greater number of options or choices the Alberta Private Sector group has with respect to participating (or not participating) in employee health programming due to a more private contractor-oriented labor force. Although MANOVA identified *Type IIB* value conflicts as being significant, no significant pairings were found. This outcome may have been realized as a result of the conservative nature of the Scheffe post-hoc procedures or due to the internal consistency of participant responses with respect to this particular value conflict.

Contingency Analysis. Table 39a illustrates significant differences exist among the British Columbia Private Sector, Alberta Provincially-Funded, and, Federal Government, British Columbia-Provincially-Funded and Alberta Private Sector groups with respect to *Type IIB* value conflicts ($p < .05$). Table 39b illustrates that no significant differences between the All Alberta and All British Columbia groups, with respect to the types of value conflicts identified, were found to exist ($p < .05$).

Approximately 64% of respondents in the British Columbia Private Sector group indicated that they did not perceive *Type IIB* value conflicts to impede EHPA implementation efforts compared to 43% of respondents in the Alberta Provincially-Funded group; 35% of respondents in the Federal Government group; 30% of respondents in the British Columbia Provincially-Funded group; and, 28% of respondents in the Alberta Private Sector group. An explanation for the relatively high response percentages with respect to *Type IIB* value conflicts may be that unions support the

Table 39a

Chi Square Analysis of the Types of Value Conflicts Perceived to Impede EHPA
Implementation in Federal Government, Provincially-Funded and Private Sector Groups
in Alberta and British Columbia

Types (Nature) of Value Conflicts	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Type I Value Conflicts	161	32.3%	67.7%	01.62151	4	.80492
Type IIB Value Conflicts	141	46.8%	53.2%	13.28911	4	.00995*
Type IIA Value Conflicts	138	38.4%	61.6%	07.50774	4	.11137
Type III Value Conflicts	151	14.6%	85.4%	08.21932	4	.08387

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Table 39b

Chi Square Analysis of the Types of Value Conflicts Perceived to Impede EHPAImplementation in the All Alberta and All British Groups

Types (Nature) of Value Conflicts	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Type I Value Conflicts	142	31.0%	69.0%	00.56567	1	.45198
Type IIB Value Conflicts	124	43.5%	56.5%	01.54910	1	.21327
Type IIA Value Conflicts	118	39.0%	61.0%	00.05307	1	.81780
Type III Value Conflicts	132	14.4%	85.6%	02.77052	1	.09602

Note. (1*) = do not agree

Note. (2**) = agree

introduction of EHPAs which would be consistent with responses received in connection with questions concerning EHPA commitment.

Scheffe Post-Hoc Test. Table 40 illustrates that the Alberta Private Sector group perceived *Type III* value conflicts to be significantly more influential with respect to impeding EHPA implementation efforts than the British Columbia Private Sector group. No significant pairings with respect to *Type IIB* value conflicts were identified ($p < .05$).

Research Question 9

Do perceptions, of the incentives utilized to enhance short term employee involvement in EHPAs, differ significantly among the designated groups?

Perceptions of Incentives. Table 41 illustrates the individual and group ratings for the incentives that influence short term employee involvement in EHPAs. *Locker Room With Showers, Subsidized Health Memberships, Indoor Area For Activities* and *Recognition and Achievement Awards* had the highest ratings at 5.27, 5.09, 4.99 and 4.90 respectively. *Locker Room Without Showers, Swimming Pool* and *Outdoor Areas For Activities* had the lowest ratings at 2.99, 3.20 and 3.84. This ranking indicates that the incentives which required a resource commitment by the organization were considered by respondents to be more important than non-resource based incentives. The one exception was Swimming Pool which, for many public sector organizations, is not considered an appropriate incentive. A ranking of the participation incentives in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Table 40

Scheffe Post-Hoc Pair-Wise Comparisons of the Types of Value Conflicts Perceived to Impede EHPA Implementation in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Group	n	Mean
Type IIB Conflicts		
Alberta Provincially-Funded	44	4.0227
Alberta Private Sector	25	4.5200
British Columbia Provincially-Funded	46	4.3913
British Columbia Private Sector	23	3.3043
Federal Government	22	4.5000
Type III Conflicts		
Alberta Provincially-Funded	44	4.9773
Alberta Private Sector	25	5.5200*
British Columbia Provincially-Funded	46	4.9130
British Columbia Private Sector	23	4.1739*
Federal Government	22	4.9545

* Denotes pairs of groups significantly different at $p < .05$.

Table 41

Mean Score and Level of Support for Incentives that Influence Short Term Employee Involvement in EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Participation Incentive	Groups(1)							Mean	Level of Support(2)
	1	2	3	4	5	6	7		
Monetary (or Equivalent) Prizes	4.22	3.70	4.18	3.85	4.12	4.03	4.06	4.02	4
Internal Organizational Challenges	4.68	4.45	4.24	4.42	3.87	4.60	4.31	4.36	4
Time Off From Work	4.45	4.75	4.56	3.81	4.31	4.56	4.29	4.39	4
Outdoor Area For Activities	3.85	3.45	4.45	3.71	3.56	3.70	4.19	3.84	4
Locker Room Without Showers	2.94	2.70	3.56	2.66	3.00	2.85	3.24	2.99	3
Swimming Pool	3.22	2.15	4.02	3.14	3.37	2.83	3.70	3.20	3
Meeting Rooms (Health Activities)	4.82	4.65	4.70	3.85	3.68	4.76	4.39	4.40	4
Recognition/Achievement Awards	5.05	4.85	5.21	4.76	4.43	4.98	5.05	4.90	5
External Organizational Challenges	4.22	4.70	4.51	4.33	3.56	4.40	4.44	4.30	4
Indoor Area For Activities	5.05	4.80	5.59	4.52	4.87	4.96	5.20	4.99	5
Locker Room With Showers	5.17	5.55	5.45	5.00	5.18	5.30	5.29	5.27	5
Weight Training Equipment	4.57	4.60	5.27	4.71	4.37	4.58	5.06	4.73	5
Stationary Cycles or Treadmills	4.65	4.65	5.27	4.66	4.68	4.65	5.05	4.80	5
Subsidized Health Memberships	4.97	5.35	5.10	5.28	4.68	5.10	5.17	5.09	5
Mean	4.41	4.31	4.72	4.19	4.12	4.37	4.53	4.38	4

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the categories of level of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = neutral; 5 = marginal positive support; 6 = strong positive support; and, 7 = very strong positive support.

**Incentives that Influence Short Term Employee Involvement in EHPAs
Ranking by Mean Score and Level of Support**

<u>Rank</u>	<u>Incentives</u>	<u>Mean</u>	<u>Level of Support</u>
1	Locker Room With Showers	5.27	Marginal Positive Support
2	Subsidized Health Memberships	5.09	Marginal Positive Support
3	Indoor Area For Activities	4.99	Marginal Positive Support
4	Recognition/Achievement Awards	4.90	Marginal Positive Support
5	Stationary Cycles or Treadmills	4.80	Marginal Positive Support
6	Weight Training Equipment	4.73	Marginal Positive Support
7	Meeting Rooms For Health Activities	4.40	Neutral
8	Time Off from Work	4.39	Neutral
9	Internal Organizational Challenges	4.36	Neutral
10	External Organizational Challenges	4.30	Neutral
11	Monetary (Or Equivalent) Prizes	4.02	Neutral
12	Outdoor Area For Activities	3.84	Neutral
13	Swimming Pool	3.20	Marginal Negative Support
14	Locker Room Without Showers	2.99	Marginal Negative Support

Group Perceptions of Incentives. Table 41 also illustrates the rating for the incentives that influence short term employee participation in EHPAs for each of the seven participant groups. The British Columbia Provincially-Funded group rated these incentives highest at 4.72 followed by the All British Columbia and Alberta Provincially-Funded groups at 4.53 and 4.41 respectively. The All Alberta and Alberta Private Sector groups rated the incentives at 4.37 and 4.31 respectively. The British Columbia Private Sector and Federal Government groups rated these incentives at 4.19 and 4.12. A ranking of the groups in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Group Ranking by Mean Score
and Level of Support

<u>Rank</u>	<u>Group</u>	<u>Mean</u>	<u>Level of Support</u>
1	British Columbia Provincially-Funded	4.72	Marginal Positive Support
2	All British Columbia	4.53	Marginal Positive Support
3	Alberta Provincially-Funded	4.41	Neutral
4	All Alberta	4.37	Neutral
5	Alberta Private Sector	4.31	Neutral
6	British Columbia Private Sector	4.19	Neutral
7	Federal Government	4.12	Neutral

Analysis of Variance. Table 42a illustrates significant differences exist among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Swimming Pool* ($F = 3.77, p < .05$). Table 42b illustrates that the All Alberta and All British Columbia groups also differed significantly with respect to *Swimming Pool* ($F = 6.49, p < .05$).

Significant differences with respect to *Swimming Pool* were found to exist between the British Columbia Provincially-Funded and Alberta Private Sector groups, and also, between the All British Columbia and All Alberta groups. Differences in climate between British Columbia and Alberta, the coastal location of the British Columbia respondents and the negative public perception that would be created as a result of utilizing a swimming pool as an incentive for public sector employees to participate in EHPAs may be explanations for the significance of the differences in perception that exist.

Table 42a

Analysis of Variance of the Incentives that Influence Short Term Employee Involvement
in EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in
Alberta and British Columbia

Participation Incentive	Sum of Squares	df	Mean of Squares	F	p
Monetary (or Equivalent) Prizes	05.13534	4	01.28384	0.32597	.860
Internal Organizational Challenges	08.19107	4	02.04777	0.76901	.547
Time Off From Work	11.03242	4	02.75810	0.63078	.641
Outdoor Area for Activities	18.23560	4	04.55890	1.51699	.201
Locker Room Without Showers	15.88747	4	03.97187	1.65365	.165
Swimming Pool	46.79037	4	11.69759	3.77719	.006*
Meeting Rooms for Health Activities	24.83294	4	06.20823	2.01915	.096
Recognition & Achievement Awards	08.16715	4	02.04179	0.81030	.521
External Organizational Challenges	13.75015	4	03.43754	1.35655	.253
Indoor Area for Activities	18.51115	4	04.62779	1.59849	.179
Locker Room with Showers	04.83948	4	01.20987	0.37928	.823
Weight Training Equipment	13.77618	4	03.44405	1.07652	.371
Stationary Cycles or Treadmills	09.74422	4	02.43605	0.73347	.571
Subsidized Health Memberships	05.24981	4	01.31245	0.37602	.825

* Denotes significant differences at $p < .05$.

Table 42b

Analysis of Variance of the Incentives that Influence Short Term Employee Involvement
in EHPAs in the All Alberta and All British Columbia Groups

Participation Incentive	Sum of Squares	df	Mean of Squares	F	p
Monetary (or Equivalent) Prizes	00.03001	1	00.03001	0.00747	.931
Internal Organizational Challenges	02.36851	1	02.36851	0.90778	.343
Time Off From Work	02.06611	1	02.06611	0.46467	.497
Outdoor Area for Activities	06.51951	1	06.51951	2.15211	.145
Locker Room Without Showers	04.22436	1	04.22436	1.70228	.195
Swimming Pool	21.39354	1	21.39354	6.49629	.012*
Meeting Rooms for Health Activities	03.80404	1	03.80404	1.23534	.269
Recognition & Achievement Awards	00.13796	1	00.13796	0.05804	.810
External Organizational Challenges	00.06579	1	00.06579	0.02612	.872
Indoor Area for Activities	01.67053	1	01.67053	0.56285	.455
Locker Room with Showers	00.00722	1	00.00722	0.00228	.962
Weight Training Equipment	06.69935	1	06.69935	2.14237	.146
Stationary Cycles or Treadmills	04.45332	1	04.45332	1.36824	.245
Subsidized Health Memberships	00.11320	1	00.11320	0.03475	.852

* Denotes significant differences at $p < .05$.

Contingency Analysis. Table 43a illustrates significant differences exist among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Meeting Rooms For Health Activities* ($p<.05$). Table 43b illustrates that no significant differences between the All Alberta and All British Columbia groups, with respect to participation incentives identified, were found to exist ($p<.05$).

Approximately 55% of respondents in the British Columbia Private Sector group indicated that they did not perceive *Meeting Rooms for Health Activities* as important incentives to enhance employee participation in EHPAs as compared to 44% of respondents in the Federal Government group; 25% of respondents in the Alberta Private Sector group; 24% of respondents in the British Columbia Provincially-Funded group; and, 19% of respondents in the Alberta Provincially-Funded group. Again, differences in practice, attitude and perception between private and public sector organizations, as they relate to incentives for EHPAs, may account for at least some of the significance in the differences that exist.

Scheffe Post-Hoc Test. Table 44 illustrates that the British Columbia Provincially-Funded group perceived *Swimming Pool* to be a significantly more important incentive for enhancing short term employee involvement in EHPAs than the Alberta Private Sector group.

Table 43a

Chi Square Analysis of the Incentives that Influence Short Term Employee Involvement
in EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in
Alberta and British Columbia

Participation Incentive	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Monetary (or Equivalent) Prizes	153	46.4%	53.6%	03.49494	4	.47865
Internal Organizational Challenges	140	34.3%	65.7%	03.66346	4	.45346
Time Off from Work	153	39.2%	60.8%	04.15443	4	.38551
Outdoor Area for Activities	133	44.4%	55.6%	05.92998	4	.20444
Locker Room Without Showers	122	74.6%	25.4%	03.81898	4	.43106
Swimming Pool	125	64.0%	36.0%	07.13723	4	.12881
Meeting Rooms for Health Activities	142	29.6%	70.4%	10.50725	4	.03270*
Recognition & Achievement Awards	153	18.3%	81.7%	04.74875	4	.31406
External Organizational Challenges	135	31.1%	68.9%	09.46016	4	.05057
Indoor Area for Activities	147	18.4%	81.6%	06.50156	4	.16469
Locker Room with Showers	151	15.9%	84.1%	02.73716	4	.60273
Weight Training Equipment	145	23.4%	76.6%	04.71614	4	.31768
Stationary Cycles or Treadmills	146	22.6%	77.4%	04.81511	4	.30680
Subsidized Health Memberships	150	20.7%	79.3%	01.68197	4	.79399

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Table 43b

Chi Square Analysis of the Incentives that Influence Short Term Employee Involvement
in EHPAs in the All Alberta and All British Columbia Groups

Participation Incentive	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Monetary (or Equivalent) Prizes	133	47.4%	52.6%	00.17687	1	.67408
Internal Organizational Challenges	123	31.7%	68.3%	00.23425	1	.62839
Time Off from Work	135	38.5%	61.5%	00.31162	1	.57669
Outdoor Area for Activities	115	43.5%	56.5%	00.38662	1	.53408
Locker Room Without Showers	108	75.0%	25.0%	00.04938	1	.82414
Swimming Pool	110	64.5%	35.5%	01.04746	1	.30609
Meeting Rooms for Health Activities	124	27.4%	72.6%	02.37406	1	.12337
Recognition & Achievement Awards	133	16.5%	83.5%	00.03731	1	.84684
External Organizational Challenges	121	27.3%	72.7%	00.11176	1	.73815
Indoor Area for Activities	127	18.1%	81.9%	00.74185	1	.38907
Locker Room with Showers	133	15.0%	85.0%	00.35375	1	.55200
Weight Training Equipment	127	22.0%	78.0%	00.65450	1	.41851
Stationary Cycles or Treadmills	126	22.2%	77.8%	01.00227	1	.31676
Subsidized Health Memberships	131	19.1%	80.9%	00.03237	1	.85722

Note. (1*) = do not agree

Note. (2**) = agree

Table 44

Scheffe Post-Hoc Pair-Wise Comparisons of the Incentives that Influence Short Term Employee Involvement in EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Group	n	Mean
Swimming Pool		
Alberta Provincially-Funded	42	3.2857
Alberta Private Sector	24	2.3750*
British Columbia Provincially-Funded	43	3.8372*
British Columbia Private Sector	22	3.0909
Federal Government	18	3.6667

* Denotes pairs of groups significantly different at $p < .05$.

Research Question 10

Do perceptions, of the factors that affect long term employee commitment to EHPAs, differ significantly among the designated groups?

Perceptions of Commitment Factors. Table 45 illustrates the individual and group ratings for the factors that affect long term employee commitment to EHPAs. *Participant Satisfaction, Accessibility, Convenience and Visible Corporate Support* had the highest ratings at 6.23, 6.21, 6.21 and 5.75 respectively. *Performance Contracting, Spousal Involvement and Social Reinforcement (Public)* had the lowest ratings at 4.21, 4.25 and 4.39. This ranking supports the assertion that individual (personal) benefit is the most important factor affecting long term participant commitment to EHPAs. A ranking of the commitment factors in accordance with their respective rating score and an interpretation of the corresponding level of support is presented below.

Factors that Influence Long Term Employee Commitment to EHPAs Ranking by Mean Score and Level of Support

<u>Rank</u>	<u>Commitment Factors</u>	<u>Mean</u>	<u>Level of Support</u>
1	Participation Satisfaction	6.23	Strong Positive Support
2	Accessibility	6.21	Strong Positive Support
2	Convenience	6.21	Strong Positive Support
3	Visible Corporate Support	5.75	Strong Positive Support
4	Appropriate Physical Setting	5.54	Strong Positive Support
5	Individual Goal Setting	5.28	Marginal Positive Support
6	Program Tailoring	5.15	Marginal Positive Support
7	Senior Management Participation	5.14	Marginal Positive Support
8	Involvement in Program Planning	5.13	Marginal Positive Support
9	Confidentiality	5.11	Marginal Positive Support
10	Program Variance	5.09	Marginal Positive Support
11	Financial Incentives	4.59	Marginal Positive Support
12	External Feedback On Progress	4.57	Marginal Positive Support
13	Social Reinforcement (Public)	4.39	Neutral
14	Spousal Involvement	4.25	Neutral
15	Performance Contracting	4.21	Neutral

Table 45

Mean Score and Level of Support for the Factors that Influence Long Term Employee
Commitment to EHPAs in Federal Government, Provincially-Funded and Private Sector
Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia
Groups

Commitment Factor	-----Groups(1)-----							Mean	Level of Support (2)
	1	2	3	4	5	6	7		
Accessibility	6.22	6.40	6.27	6.09	6.06	6.29	6.20	6.21	6
Convenience	6.20	6.25	6.41	5.95	6.25	6.21	6.24	6.21	6
Participant Satisfaction	6.34	6.30	6.19	6.22	6.06	6.32	6.20	6.23	6
Involvement in Program Planning	5.05	5.40	5.38	4.81	4.93	5.18	5.17	5.13	5
Appropriate Physical Setting	5.65	6.00	5.55	5.00	5.50	5.78	5.34	5.54	6
Visible Corporate Support	5.91	6.00	5.61	5.40	5.87	5.94	5.53	5.75	6
Financial Incentives	4.60	4.40	4.75	4.59	4.62	4.52	4.69	4.59	5
Senior Management Participation	5.08	5.55	5.00	5.27	4.75	5.25	5.10	5.14	5
Confidentiality	5.54	5.65	4.66	4.95	4.62	5.58	4.77	5.11	5
Program Variance	5.28	5.50	4.94	5.04	4.56	5.36	4.98	5.09	5
Individual Goal Setting	5.60	6.05	5.05	4.86	4.68	5.76	4.98	5.28	5
Performance Contracting	4.62	4.70	4.13	3.68	3.75	4.65	3.96	4.21	4
Program Tailoring	5.54	5.70	5.02	4.77	4.50	5.60	4.93	5.15	5
Spousal Involvement	4.68	4.40	4.19	4.13	3.62	4.58	4.17	4.25	4
External Feedback on Progress	4.71	4.95	4.61	4.36	4.06	4.80	4.51	4.57	5
Social Reinforcement	4.57	4.85	4.33	3.90	4.25	4.67	4.17	4.39	4
Mean	5.34	5.50	5.13	4.93	4.88	5.40	5.05	5.18	5

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the categories of level of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = neutral; 5 = marginal positive support; 6 = strong positive support; and, 7 = very strong positive support.

Group Perceptions of Commitment Factors. Table 45 also illustrates the ratings for the factors that affect long term employee commitment to EHPAs for each of the seven participant groups. The Alberta Private Sector group rated the factors highest at 5.50 followed by the All Alberta and Alberta Provincially-Funded groups at 5.40 and 5.34 respectively. The British Columbia Provincially-Funded and the All British Columbia groups rated these factors at 5.13 and 5.05 respectively. The British Columbia Private Sector and Federal Government groups rated the factors at 4.93 and 4.88. A ranking of the groups in accordance with their respective rating score and an interpretation of the corresponding levels of support is presented below.

Group Ranking by Mean Score
and Level of Support

<u>Rank</u>	<u>Group</u>	<u>Mean</u>	<u>Level of Support</u>
1	Alberta Private Sector	5.50	Strong Positive Support
2	All Alberta	5.40	Marginal Positive Support
3	Alberta Provincially-Funded	5.34	Marginal Positive Support
4	British Columbia Provincially-Funded	5.13	Marginal Positive Support
5	All British Columbia	5.05	Marginal Positive Support
6	British Columbia Private Sector	4.93	Marginal Positive Support
7	Federal Government	4.88	Marginal Positive Support

Analysis of Variance. Table 46a illustrates significant differences exist among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Individual Goal Setting* ($F = 4.61, p < .05$), *Performance Contracting* ($F = 2.89, p < .05$) and *Program Tailoring* ($F = 2.89, p < .05$). Table 46b illustrates that the All Alberta and All British Columbia groups also differed significantly with respect to *Appropriate*

Table 46a

Analysis of Variance of the Factors that Affect Long Term Employee Commitment to EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Commitment Factor	Sum of Squares	df	Mean of Squares	F	p
Accessibility	01.53129	4	00.38282	0.42028	.794
Convenience	02.96871	4	00.04777	0.77956	.541
Participant Satisfaction	01.02465	4	00.25616	0.29269	.882
Involvement in Program Planning	06.75005	4	01.68751	0.89634	.468
Appropriate Physical Setting	11.14788	4	02.78697	1.97731	.102
Visible Corporate Support	05.69542	4	01.42386	1.10097	.359
Financial Incentives	01.60197	4	00.40049	0.14068	.967
Senior Management Participation	06.95901	4	01.73975	0.68041	.607
Confidentiality	23.74966	4	05.93742	2.14060	.080
Program Variance	09.95993	4	02.48998	1.70656	.153
Individual Goal Setting	26.68619	4	06.67155	4.61474	.002*
Performance Contracting	20.57354	4	05.14339	2.89309	.025*
Program Tailoring	21.85982	4	05.46496	2.89941	.025*
Spousal Involvement	13.63083	4	03.40771	1.42600	.229
External Feedback on Progress	08.71853	4	02.17963	1.03682	.391
Social Reinforcement (Public)	10.89760	4	02.72440	1.23321	.300

* Denotes significant differences at $p < .05$.

Table 46b

Analysis of Variance of the Factors that Affect Long Term Employee Commitment to EHPAs in the All Alberta and All British Columbia Groups

Commitment Factor	Sum of Squares	df	Mean of Squares	F	p
Accessibility	00.19925	1	00.19925	0.21928	.641
Convenience	00.01519	1	00.01519	0.01454	.904
Participant Satisfaction	00.40907	1	00.40907	0.44680	.505
Involvement in Program Planning	00.00250	1	00.00250	0.00134	.971
Appropriate Physical Setting	05.39084	1	05.39084	4.32092	.040*
Visible Corporate Support	04.76800	1	04.76800	3.85560	.052
Financial Incentives	00.74437	1	00.74437	0.27902	.598
Senior Management Participation	00.64450	1	00.64450	0.26319	.609
Confidentiality	18.33728	1	18.33728	7.44306	.007*
Program Variance	04.09528	1	04.09528	3.20779	.076
Individual Goal Setting	17.21386	1	17.21386	13.75522	.000*
Performance Contracting	13.40251	1	13.40251	8.34053	.005*
Program Tailoring	12.63338	1	12.63338	7.26869	.008*
Spousal Involvement	04.73170	1	04.73170	2.03844	.156
External Feedback on Progress	02.25706	1	02.25706	1.15303	.285
Social Reinforcement (Public)	07.06637	1	07.06637	3.43441	.067

* Denotes significant differences at $p < .05$.

Physical Setting ($F = 4.32, p < .05$), *Confidentiality* ($F = 7.44, p < .05$), *Individual Goal Setting* ($F = 13.75, p < .05$), *Performance Contracting* ($F = 8.34, p < .05$) and *Program Tailoring* ($F = 7.26, p < .05$).

Significant differences with respect to *Individual Goal Setting* were found to exist between the Alberta Private Sector group, and, British Columbia Private Sector and Federal Government groups. These differences may, at least in part, be explained by the differences that exist among groups with respect to the willingness to change behaviors that affect health outcomes, and potentially, to the availability of funding for customized EHPAs.

Although MANOVA analysis identified *Performance Contracting* and *Program Tailoring* as being significant, no significant pairings were found. This outcome may have been realized as a result of the conservative nature of the Scheffe post-hoc procedures or due to the internal consistency of participant responses with respect to these factors. In addition to finding significant differences with respect to *Individual Goal Setting*, *Performance Contracting* and *Program Tailoring*, significant differences with respect to *Confidentiality* and *Appropriate Physical Setting* between the All Alberta and British Columbia groups were found to exist. Potential explanations for these differences may include climate, the greater influence of labor unions in British Columbia and use of private contractors in Alberta.

Contingency Analysis. Table 47a illustrates significant differences exist among the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to

Table 47a

Chi Square Analysis of the Factors that Affect Long Term Employee Commitment to
EHAs in Federal Government, Provincially-Funded and Private Sector Groups in
Alberta and British Columbia

Commitment Factor	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Accessibility	171	02.3%	97.7%	01.10665	4	.89322
Convenience	174	03.4%	96.6%	02.51644	4	.64169
Participant Satisfaction	171	01.8%	98.2%	01.46727	4	.83242
Involvement in Program Planning	141	12.1%	87.9%	05.83343	4	.21194
Appropriate Physical Setting	160	05.6%	94.4%	04.75763	4	.31308
Visible Corporate Support	159	06.3%	93.7%	02.77379	4	.59637
Financial Incentives	135	33.3%	66.7%	01.77143	4	.77771
Senior Management Participation	148	18.2%	81.8%	00.31092	4	.98910
Confidentiality	141	19.9%	80.1%	06.95876	4	.13808
Program Variance	140	10.0%	90.0%	08.40796	4	.07773
Individual Goal Setting	143	07.7%	92.3%	15.28023	4	.00415*
Performance Contracting	090	33.3%	66.7%	11.65385	4	.02012*
Program Tailoring	141	11.3%	88.7%	12.72410	4	.01271*
Spousal Involvement	121	34.7%	65.3%	04.50878	4	.34151
External Feedback on Progress	127	24.4%	75.6%	04.26769	4	.37099
Social Reinforcement (Public)	120	30.8%	69.2%	05.17645	4	.26967

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Individual Goal Setting, Performance Contracting and Program Tailoring ($p < .05$).

Table 47b illustrates that the All Alberta and British Columbia groups also differed significantly with respect to *Performance Contracting* ($p < .05$).

Approximately 26% of respondents in the Federal Government group indicated that they did not perceive *Individual Goal Setting* to be an important factor that affected long term employee commitment to EHPAs in their respective organizations as compared to 15% of respondents in the British Columbia Private Sector group; 5% of respondents in the British Columbia Provincially-Funded group; 4% of respondents in the Alberta Private Sector group, and, 0% of respondents in the Alberta Provincially-Funded group. An explanation for the differences may be a general lack of support and funding for customized employee health programs in the federal government environment.

Approximately 62% of respondents in the Federal Government group did not perceive *Performance Contracting* to be an important factor that affected long term employee commitment to EHPAs in their respective organizations compared to 50% of respondents in the British Columbia Private Sector group; 40% of respondents in the British Columbia Provincially-Funded group; 20% of respondents in the Alberta Provincially-Funded group; and, 13% of respondents in the Alberta Private Sector group. The relatively high ratings with regard to *Performance Contracting* indicates a general unwillingness to change lifestyle behaviors which may possibly be more entrenched in British Columbia where people often relocate for lifestyle reasons.

Approximately 29% of respondents in the Federal Government group did not perceive *Program Tailoring* to be an important factor that affected long term employee commitment to EHPAs in their respective organizations as compared to 23% of

Table 47b

Chi Square Analysis of the Factors that Affect Long Term Employee Commitment to EHPAs in the All Alberta and All British Columbia Groups

Commitment Factors	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Accessibility	151	02.6%	97.4%	00.00162	1	.96787
Convenience	152	03.9%	96.1%	00.69406	1	.40479
Participant Satisfaction	149	02.0%	98.0%	00.35404	1	.55184
Involvement in Program Planning	124	11.3%	88.7%	03.12180	1	.07725
Appropriate Physical Setting	138	04.3%	95.7%	00.00132	1	.97104
Visible Corporate Support	137	06.6%	93.4%	00.13507	1	.71323
Financial Incentives	117	35.0%	65.0%	00.00010	1	.99207
Senior Management Participation	128	18.0%	82.0%	00.01018	1	.91961
Confidentiality	123	17.1%	82.9%	02.46671	1	.11628
Program Variance	122	07.4%	92.6%	00.03736	1	.84674
Individual Goal Setting	124	04.8%	95.2%	03.23137	1	.07224
Performance Contracting	077	28.6%	71.4%	06.18139	1	.01291*
Program Tailoring	124	08.9%	91.1%	03.06037	1	.08022
Spousal Involvement	105	32.4%	67.6%	02.09483	1	.14780
External Feedback on Progress	110	21.8%	78.2%	00.27234	1	.60177
Social Reinforcement (Public)	104	28.8%	71.2%	02.24116	1	.13438

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

respondents in the British Columbia Private Sector group; 8% of respondents in the Alberta Private Sector group; 7% of respondents in the British Columbia Provincially-Funded group; and, 2% of respondents in the Alberta Provincially-Funded group. One explanation for this response is the general lack of funding for any employee health initiatives in the Federal Government sector.

Approximately 44% of respondents in the All British Columbia group did not perceive *Performance Contracting* to be an important factor that affected long term employee commitment to EHPAs in their respective organizations as compared to 18% of respondents in the All Alberta group shared this view. Again, this response indicates a general unwillingness to change lifestyle behaviors which may possibly be more entrenched in British Columbia where people often relocate for lifestyle reasons.

Scheffe Post-Hoc Test. Table 48 illustrates that the Alberta Private Sector group perceived *Individual Goal Setting* to be a significantly more important factor that affects long term employee commitment to EHPAs than the British Columbia Private Sector and Federal Government groups. No significant pairings with respect to *Performance Contracting* and *Program Tailoring* were identified ($p < .05$).

Table 48

Scheffe Post-Hoc Pair-Wise Comparisons of Factors that Affect Long Term Employee Commitment to EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Group	n	Mean
Individual Goal Setting		
Alberta Provincially-Funded	40	5.6250
Alberta Private Sector	21	6.0476*
British Columbia Provincially-Funded	37	5.0541
British Columbia Private Sector	23	4.8696*
Federal Government	18	4.6111*
Performance Contracting		
Alberta Provincially-Funded	40	4.6000
Alberta Private Sector	21	4.7143
British Columbia Provincially-Funded	37	4.1622
British Columbia Private Sector	23	3.7391
Federal Government	18	3.7778
Program Tailoring		
Alberta Provincially-Funded	40	5.5250
Alberta Private Sector	21	5.6667
British Columbia Provincially-Funded	37	5.0541
British Columbia Private Sector	23	4.8261
Federal Government	18	4.5000

* Denotes pairs of groups significantly different, $p < .05$.

Summary

An overview of the composite variable and group scores by thematic category is presented below.

Perceptions of Thematic Categories. Table 49 illustrates the composite variable and group scores by thematic category (A-J). Participants rated category C variables (influence of values on performance) highest as a group at 5.71 followed by category A variables (existence of values) and category D variables (heavy influence of values on performance) at 5.66 and 5.65 respectively. Category B variables (importance of values) had a mean rating of 5.60 while category F variables (rationale for implementing EHPAs) and category E variables (operationalization methods or vehicles) had mean ratings of 5.45 and 5.33. Category J variables (factors that influence employee commitment to EHPAs) had a mean rating of 5.17 while category G variables (kinds of value conflicts) and category I variables (incentives that affect employee involvement in EHPAs) had mean ratings of 4.54 and 4.37. Category H variables (types of value conflicts) had the lowest mean rating at 4.28. A ranking of the thematic categories in accordance with their respective mean rating score and an indication of their corresponding level of support is presented below.

Thematic Category Ranking by Mean Score and Level of Support

<u>Rank</u>	<u>Category</u>	<u>Mean</u>	<u>Level of Support</u>
1	C	5.71	Strong Positive Support
2	A	5.66	Strong Positive Support
3	D	5.65	Strong Positive Support
4	B	5.60	Strong Positive Support
5	F	5.45	Marginal Positive Support

Table 49

Composite Variable Scores and Level of Support by Thematic Category For Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Group	-----Thematic Categories-----										Mean	Level of Support(2)
	A	B	C	D	E	F	G	H	I	J		
AB Provincially-Funded	5.52	5.52	5.64	5.65	5.18	5.42	4.77	4.46	4.41	5.34	5.19	5
AB Private Sector	5.89	5.75	5.80	5.70	5.21	5.49	4.57	4.55	4.31	5.50	5.27	5
BC Provincially-Funded	5.70	5.63	5.73	5.67	5.28	5.59	4.66	4.44	4.72	5.13	5.25	5
BC Private Sector	5.73	5.70	5.83	5.81	5.66	5.41	4.33	3.71	4.19	4.93	5.13	5
Federal Government	5.43	5.41	5.51	5.39	5.41	5.32	4.25	4.16	4.12	4.88	4.98	5
All Alberta	5.65	5.60	5.70	5.67	5.19	5.44	4.69	4.49	4.37	5.40	5.22	5
All British Columbia	5.71	5.65	5.76	5.71	5.39	5.53	4.55	4.19	4.53	5.05	5.20	5
Mean	5.66	5.60	5.71	5.65	5.33	5.45	4.54	4.28	4.37	5.17	5.17	5

Note. 1: Where the thematic categories (A-J) represent variable groups as follows: A = 1-18; B = 19-36; C = 37-43; D = 44-50; E = 51-62; F = 63-80; G = 81-88; H = 89-92; I = 93-106; and, J = 107-122.

Note. 2: Where the categories of level of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = neutral; 5 = marginal positive support; 6 = strong positive support; and, 7 = very strong positive support.

6	E	5.33	Marginal Positive Support
7	J	5.17	Marginal Positive Support
8	G	4.54	Marginal Positive Support
9	I	4.37	Neutral
10	H	4.28	Neutral

Group Perceptions of Thematic Categories. Table 49 also illustrates the mean group scores for variables 1-122. The Alberta Private Sector group had the highest mean rating at 5.27 followed by the British Columbia Provincially-Funded and All Alberta groups at 5.25 and 5.22. The All British Columbia group had a mean rating of 5.20 while the Alberta Provincially-Funded and British Columbia Private Sector groups had mean ratings of 5.19 and 5.13 respectively. The Federal Government group had the lowest mean rating at 4.98. A ranking of the participant groups in accordance with their respective mean rating score and an indication of their corresponding level of support is presented below.

**Group Ranking by Mean Rating Score
and Level of Support**

<u>Rank</u>	<u>Group</u>	<u>Mean</u>	<u>Level of Support</u>
1	Alberta Private Sector	5.27	Marginal Positive Support
2	British Columbia Provincially-Funded	5.25	Marginal Positive Support
3	All Alberta	5.22	Marginal Positive Support
4	All British Columbia	5.20	Marginal Positive Support
5	Alberta Provincially-Funded	5.19	Marginal Positive Support
6	British Columbia Private Sector	5.13	Marginal Positive Support
7	Federal Government	4.98	Marginal Positive Support

Significant Differences. Table 50 illustrates the significant differences and significant pairings identified with respect to the groups responding to the primary research questions. The variables identified as being significantly different by

Table 50

Significant Differences and Pairings Regarding Primary Research Questions For Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Primary Research Question	Significant Differences (Manova)	Significant Pairings (Scheffe)(1)	Significant Differences (Chi Square)	Group with Highest % that Disagrees
1	Growth Prosperity Stability	2 & 5 2, 4 & 1 2, 4 & 5	Leadership Stability Integrity	1 (18% Disagree) 5 (75% Disagree) 6 (12% Disagree)
2	Growth Prosperity Stability Health	2 & 5 4 & 5; 2, 4 & 1; 2 & 3; 4 & 3 -	Growth Integrity	5 (39% Disagree) 6 (13% Disagree)
3	Profitability	2, 4 & 1, 3		
4	Profitability	2, 4 & 1, 3		
5	-		Training (Dev.) Programs	6 (13% Disagree)
7	-		Individual - Supervisor	7 (37% Disagree)
8	Type III Type IIB	2 & 4 -	Type IIB	4 (64% Disagree)
9	Swimming Pool Swimming Pool	3 & 2 7 & 6	Meeting Rooms	4 (55% Disagree)
10	Individual Goal Setting Performance Contracting Program Tailoring Appropriate Physical Setting Confidentiality	2 & 4 - - 6 & 7 6 & 7		

Note.(1): Where: 1 = Alberta Provincially-Funded group; 2 = Alberta Private Sector group; 3 = British Columbia Provincially-Funded group; 4 = British Columbia Private Sector group; 5 = Federal Government group; 6 = All Alberta group; and, 7 = All British Columbia group.

Manova were identified through an analysis of raw data while the significant differences identified through Chi Square analysis were identified through an analysis of re-coded data. More specifically, in the case of Chi Square, the 7 point Likert scale responses were grouped into positive and negative responses only. As a result, in some cases, Manova and Chi Square identified different variables as being significant which was expected as the two statistical techniques employed were, in effect, answering different questions.

Findings: Secondary Research Questions

Research Question 11

How could participant organizations, in terms of workforce characteristics, be described?

General Description: A total of 187 private and public sector organizations participated in this research: 14 were Alberta government organizations; 7 were Alberta Municipal organizations; 12 were Alberta post-secondary organizations; 11 were Alberta school districts; 11 were Alberta hospitals; 27 were Alberta private sector organizations; 13 were British Columbia government organizations; 6 were British Columbia Municipal organizations; 11 were British Columbia post-secondary organizations; 14 were British Columbia school districts; 13 were British Columbia hospitals; 26 were British Columbia private sector organizations; and 22 were federal government organizations.

For the purposes of conducting statistical analysis, seven groups were formed from the participating organizations. These groups were established in consideration of organization type.

Alberta Provincially-Funded Organizations. This group was comprised of 48 Alberta government-funded entities and included government ministries, Crown corporations, post-secondary educational institutions (universities and colleges), school districts and hospitals. The distinguishing characteristics of this group were: 77% had less than 1,500 employees; 74% had less than 20% of its members exempt (in management positions); 58% had between 30-50% male employees; 66% had less than 20% of their employees under the age of 30; 59% had less than 10% blue collar employees; and, 48% had more than 80% unionized employees.

Alberta provincially-funded organizations employed a number of EHPAs related to: flu shots, stress management, specific health management issues, disability prevention, health education, wellness, smoking cessation, lifestyle change, fitness, health promotion and back. This group also analyzed the following health-related costs: Workers Compensation Board (WCB), short term disability (STD), long term disability (LTD), employee/family assistance programs (EFAP), injury, benefits, sick leave, absenteeism, incidental health costs, dental, disability (and disability program), prescription drugs and health program.

Alberta Private Sector Organizations. This group was comprised of 27 private or publicly-held organizations representing a cross section of Alberta industry which included: agriculture, chemicals, communication, electronics, engineering, financial, manufacturing, oil and gas, printing, retail, service and transportation. The distinguishing characteristics of this group were: 58% had less than 1,500 employees; 57% had less than 20% of its members exempt (in management positions); 12% had between 30-50% male

employees; 52% had less than 20% of their employees under the age of 30; 32% had less than 10% blue collar employees; and, 11% had more than 80% unionized employees.

Alberta private sector organizations utilized a number of EHPAs related to: stress management, disability prevention, smoking cessation, health promotion, wellness and general health, blood pressure, cholesterol, health assessment, medical services, health education (lunch and learn), massage (on-site), fitness/exercise counseling, corporate and internal “health” challenges, health club membership subsidies, Yoga (on-site), Tai Chi (on-site), flu shots, ergonomics and weight loss programs. This group also analyzed the following health-related costs: WCB, STD, LTD, EAP, prescription drugs, sick leave, absenteeism, health administration, health programs and activities and suppliers with respect to health programs.

All Alberta Organizations. This group was comprised of 82 government, private and publicly-held organizations including all of the Alberta Provincially-Funded and Private Sector organizations identified above, and, 7 municipal organizations. The distinguishing characteristics of this group were: 70% had less than 1,500 employees; 68% had less than 20% of its members exempt (in management positions); 40% had between 30-50% male employees; 59% had less than 20% of their employees under the age of 30; 45% had less than 10% blue collar employees; and, 36% had more than 80% unionized employees. The All Alberta group employed EHPAs and analyzed health costs as identified above in the Alberta Provincially-Funded and Private Sector groups.

British Columbia Provincially-Funded Organizations. This group was comprised of 51 British Columbia government-funded organizations which included government ministries, Crown corporations, post-secondary educational institutions (universities and

colleges), school districts and hospitals. The distinguishing characteristics of this group were: 60% had less than 1,500 employees; 88% had less than 20% of its members exempt (in management positions); 43% had between 30-50% male employees; 59% had less than 20% of their employees under the age of 30; 42% had less than 10% blue collar employees; and 56% had more than 80% unionized employees.

British Columbia Provincially-Funded organizations utilized a number of EHPAs related to: health education, change management, disability prevention, stress management, wellness, flu shots, health committee, nutrition, diet counseling, back, smoking cessation, fitness, cardiovascular, musculoskeletal injury prevention and violence in the workplace prevention. This group also analyzed the following health-related costs: WCB, STD, LTD, EAP, absenteeism, ergonomics, benefits, sick leave, health programs and injury.

British Columbia Private Sector Organizations. This group was comprised of 26 private or publicly-held organizations representing a broad cross section of British Columbia industry which included: chemicals, construction, engineering, energy, financial, forestry, manufacturing, printing, pulp and paper, retail, service, smelting and transportation. The distinguishing characteristics of this group were: 61% had less than 1,500 employees; 79% had less than 20% of its members exempt (in management positions); 13% had between 30-50% male employees; 29% had less than 20% of their employees under the age of 30; 38% had less than 10% blue collar employees; and, 24% had more than 80% unionized employees.

British Columbia private sector organizations utilized a number of EHPAs related to: stress management, nutrition education, diet counseling, weight loss, flu shots, back,

health assessment, wellness, disability prevention, health promotion, smoking cessation, fitness, musculoskeletal injury prevention and cardiovascular. This group also analyzed the following health-related costs: WCB, STD, LTD, EAP, prescription drugs, sick leave, benefits, absenteeism and health claims.

All British Columbia Organizations. This group was comprised of 83 government, private and publicly-held organizations including all of the British Columbia Provincially-Funded and Private Sector organizations identified above, and, six municipal organizations. The distinguishing characteristics of this group were: 62% had less than 1,500 employees; 87% had less than 20% of its members exempt (in management positions); 33% had between 30-50% male employees; 51% had less than 20% of their employees under the age of 30; 37% had less than 10% blue collar employees; and, 50% had more than 80% unionized employees. The All British Columbia group employed EHPAs and analyzed health costs as identified above in the British Columbia Provincially-Funded and Private Sector groups.

Federal Government. This group was comprised of a wide range of federal government organizations which included departments, Crown corporations and agencies. The distinguishing characteristics of this group were: 36% had less than 1,500 employees; 84% had less than 20% of its members exempt (in management positions); 32% had between 30-50% male employees; 65% had less than 20% of their employees under the age of 30; 80% had less than 10% blue collar employees; and, 40% had more than 80% unionized employees.

Federal Government organizations utilized a number of EHPAs related to: employee health plan, wellness, cardiovascular, stress management, transitional

awareness, smoking cessation, health assessment, safety awareness, fitness programs, ergonomics, lifting techniques, psychological counseling, dental and disability prevention. This group also analyzed the following health-related costs: EAP, WCB, STD, LTD, health programs, accidents, benefits, sick leave, absenteeism, dental and injury.

Research Question 12

Do perceptions, as to whether or not employers have demonstrated visible support for EHPAs, differ significantly among the designated groups?

Perceptions of Visible Signs of EHPA Support. Table 51 illustrates the positive response percentages with respect to the visible signs of EHPA support. *Medical Departments or Units, EHPAs and Budgets for EHPAs* had positive response percentages of 47%, 77% and 60% respectively. More than 68% of participant organizations had either EHPAs or a budget for EHPAs which indicates EHPAs are being utilized by a majority of respondent organizations. A ranking of the visible signs of EHPA support in accordance with their respective positive response percentages and an interpretation of the corresponding levels of support is presented below.

Visible Signs of EHPA Support Ranking by Positive Response Percentage (PR%) and Level of Support

<u>Rank</u>	<u>Signs of EHPA Support</u>	<u>PR%</u>	<u>Level of Support</u>
1	EHPAs	.77	Strong Positive Support
2	Budget for EHPAs	.60	Marginal Positive Support
3	Medical Department	.47	Marginal Negative Support

Group Perceptions of Visible Signs of EHPA Support. Table 51 also illustrates the positive response percentages for each of the seven participant groups. The Alberta Private Sector group had the highest positive response percentage at 78% followed by the Federal Government and British Columbia Private Sector groups at 68% and 65%. The All Alberta and All British Columbia groups had positive response percentages of 59% and 57%. The British Columbia Provincially-Funded and Alberta Provincially-Funded groups had positive response percentages of 55% and 45%. A ranking of the groups in accordance with their respective positive response percentages and an interpretation of the corresponding levels of support is presented below.

**Group Ranking by Positive Response Percentage (PR%)
and Level of Support**

<u>Rank</u>	<u>Group</u>	<u>PR%</u>	<u>Level of Support</u>
1	Alberta Private Sector	.78	Strong Positive Support
2	Federal Government	.68	Strong Positive Support
3	British Columbia Private Sector	.65	Strong Positive Support
4	All Alberta	.59	Marginal Positive Support
5	All British Columbia	.57	Marginal Positive Support
6	British Columbia Provincially-Funded	.55	Marginal Positive Support
7	Alberta Provincially-Funded	.45	Marginal Negative Support

Contingency Analysis. Table 52a illustrates significant differences exist between the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to Budget for EHPAs ($p < .05$). Table 52b illustrates that no significant differences between the All Alberta and All British Columbia groups, with respect to the signs of visible support for EHPAs identified, were found to exist ($p < .05$).

Table 51

Positive Response % and Level of Support for Visible Signs of EHPA Support in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Visible Signs of EHPA Support	Groups(1)							Mean	Level of Support(2)
	1	2	3	4	5	6	7		
Medical Department	.39	.67	.37	.44	.50	.53	.36	.47	3
EHPAs	.62	.88	.78	.75	.86	.71	.78	.77	5
Budget for EHPAs	.34	.80	.51	.75	.67	.53	.58	.60	4
Mean	.45	.78	.55	.65	.68	.59	.57	.61	4

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the levels of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = marginal positive support; 5 = strong positive support; and, 6 = very strong positive support.

Table 52a

Chi Square Analysis of the Visible Signs of Employer Support for EHPAs in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Visible Signs of EHPA Support	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Medical Department or Unit	179	46.4%	53.6%	06.58322	4	.15962
EHPAs	182	75.8%	24.2%	08.57059	4	.07278
Budget for EHPAs	173	57.2%	42.8%	16.07518	4	.00292*

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Table 52b

Chi Square Analysis of the Visible Signs of Employer Support for EHPAs in the AllAlberta and All British Columbia Groups

Visible Signs of EHPA Support	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Medical Department or Unit	157	45.9%	54.1%	02.89667	1	.08876
EHPAs	161	74.5%	25.5%	00.90358	1	.34182
Budget for EHPAs	152	55.9%	44.1%	00.40220	1	.52596

Note. (1*) = do not agree

Note. (2**) = agree

Approximately 80% of respondents in the Alberta Private Sector group indicated that their organizations had a *Budget for EHPAs* as compared to 75% of respondents in the British Columbia Private Sector group; 67% of respondents in the Federal Government group; 51% of respondents in the British Columbia Provincially-Funded group; and, 40% in the Alberta Provincially-Funded group. One probable explanation as to why significant differences exist may be the on-going public sector restraint program.

Research Question 13

Do perceptions, regarding how EHPAs offered in the past 12 months have been delivered, differ significantly among the designated groups?

Perceptions of the Modes of EHPA Delivery. Table 53 illustrates the positive response percentages for the modes of EHPA delivery. *Mostly In-House, Exclusively In-House* and *Equally In-House and through Outside Providers* had the highest positive response percentages at 36%, 26% and 20% respectively. *Exclusively by an Outside Provider* and *Mostly by an Outside Provider* had the lowest positive response percentages at 6% and 12%. A ranking of the modes of EHPA delivery in accordance with their respective positive response percentages and an interpretation of the corresponding levels of support is presented below.

Modes of EHPA Delivery Utilized Ranking by Positive Response Percentage (PR%) and Level of Support

<u>Rank</u>	<u>Modes of EHPA Delivery</u>	<u>PR%</u>	<u>Level of Support</u>
1	Exclusively/Mostly In-House	.62	Marginal Positive Support
2	In-House and Outside Providers	.20	Strong Negative Support
3	Exclusively/Mostly External Provider	.18	Very Strong Negative Support

Table 53

Positive Response % and Level of Support for the Modes of EHPA Delivery Utilized in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Mode of EHPA Delivery Utilized	-----Groups(1)-----							Mean	Level of Support(2)
	1	2	3	4	5	6	7		
Exclusively In-House	.22	.11	.32	.50	.08	.20	.39	.26	NA
Mostly In-House	.29	.48	.41	.28	.38	.33	.34	.36	NA
Equally In-House/Outside Providers	.25	.22	.20	.11	.17	.26	.18	.20	NA
Mostly by an Outside Provider	.12	.15	.07	.11	.17	.12	.09	.12	NA
Exclusively by an Outside Provider	.12	.04	.00	.00	.20	.09	.00	.06	NA
Mean(2)	NA	NA	NA	NA	NA	NA	NA	NA	

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Not applicable as percentages (out of 100%) were assigned to all five categories.

Group Perceptions of the Modes of EHPA Delivery. Table 53 also illustrates the positive response percentages for each of the seven participant groups. The British Columbia Private Sector group had the highest positive response percentage at 78% followed by the British Columbia Provincially-Funded and All British Columbia groups (both) at 73%. The Alberta Private Sector and All Alberta groups had positive response percentages of 59% and 53%. The Alberta Provincially-Funded and Federal Government groups had positive response percentages of 51% and 46% respectively. A ranking of the groups in accordance with their respective positive response percentages and an interpretation of the corresponding levels of support is presented below.

Group Ranking by Positive Response Percentage (PR%)
and Level of Support

<u>Rank</u>	<u>Group</u>	<u>PR%</u>	<u>Level of Support</u>
1	British Columbia Private Sector	.78	Strong Positive Support
2	British Columbia Provincially-Funded	.73	Marginal Positive Support
3	All British Columbia	.73	Marginal Positive Support
4	Alberta Private Sector	.59	Marginal Positive Support
5	All Alberta	.53	Marginal Positive Support
6	Alberta Provincially-Funded	.51	Marginal Positive Support
7	Federal Government	.46	Marginal Negative Support

Contingency Analysis. Table 54a illustrates significant differences exist between the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Exclusively In-House*, and, *Exclusively by an Outside Provider* ($p < .05$). Table 54b illustrates that the All Alberta and All British Columbia groups also differed significantly with respect to *Exclusively by an Outside Provider* ($p < .05$).

Table 54a

Chi Square Analysis of the Modes of EHPA Delivery Utilized in Federal Government,Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Mode of EHPA Delivery Utilized	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Exclusively In-House	180	25.6%	74.4%	10.05160	4	.03957*
Mostly In-House	173	40.5%	59.5%	02.73544	4	.60303
In-House and Outside Providers	174	20.1%	79.9%	00.99178	4	.91104
Mostly by an Outside Provider	177	13.6%	86.4%	01.06979	4	.89904
Exclusively by an Outside Provider	178	07.9%	92.1%	14.26129	4	.00651*

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Table 54b

Chi Square Analysis of the Modes of EHPA Delivery Utilized in the All Alberta and All British Columbia Groups

Mode of EHPA Delivery Utilized	n	Group Response		Chi Square	df	p
		% (1)	% (2)			
Exclusively In-House	158	27.8%	72.2%	02.30679	1	.12881
Mostly In-House	152	40.1%	59.9%	00.58114	1	.44587
In-House and Outside Providers	153	20.3%	79.7%	00.16412	1	.68539
Mostly an Outside Provider	156	12.8%	87.2%	00.00000	1	1.0000
Exclusively by an Outside Provider	156	05.8%	94.2%	05.58979	1	.01807*

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Approximately 37% of respondents in the British Columbia Provincially-Funded group indicated that *Exclusive In-House* delivery of EHPAs was utilized in their respective organizations as compared to 28% of respondents in the Alberta Provincially-Funded group; 25% of respondents in the British Columbia Private Sector group; 11% of respondents in the Alberta Private Sector group; and, 9% of respondents in the Federal Government group. Explanations for the significant differences that exist may be varying levels of in-house expertise, and, availability of funding or resources to contract out for required EHPA programs and/or services.

Approximately 23% of respondents in the Federal Government group indicated that EHPAs were delivered *Exclusively by an Outside Provider* as compared to 13% of respondents in the Alberta Provincially-Funded group; 4% of respondents in the Alberta Private Sector group; 2% of respondents in the British Columbia Provincially-Funded group; and, 0% of respondents in the British Columbia Private Sector group. Two probable explanations for the significant differences that exist may be lack of management support and funding.

Approximately 10% of respondents in the All Alberta group indicated that their organization's EHPAs were delivered *Exclusively by an Outside Provider* as compared to 1% of respondents in the All British Columbia group. A potential explanation for these differences may be the greater propensity to contract out EHPA services in Alberta.

Research Question 14

Do perceptions, regarding the internal availability of information required to make informed decisions concerning employee health, differ significantly among the designated groups?

Perceptions of the Availability of EHPA Information. Table 55 illustrates the positive response percentages for the various types of EHPA information that may be available in organizations. *Reduce Non-Disability Related Absenteeism, Identify Health-Related Savings* and *Reduce Employee Health Risks* had the highest positive response percentages at 59%, 53% and 53% respectively. Only 27% of respondents, however, believed that their organizations had the EHPA information required to maximize value on employee health investments. A ranking of the types of EHPA information available in accordance with their respective positive response percentages and an interpretation of the corresponding levels of support is presented below.

Types of EHPA Information Available
Ranking by Positive Response Percentage (PR%)
and Level of Support

<u>Rank</u>	<u>Types of EHPA Information Available</u>	<u>PR%</u>	<u>Level of Support</u>
1	Reduce Non-Disability Absenteeism	.59	Marginal Positive Support
2	Determine Availability of Health Savings	.53	Marginal Positive Support
2	Reduce Health Risks	.53	Marginal Positive Support
2	Reduce Disability Absenteeism	.53	Marginal Positive Support
3	Contain Health Costs	.52	Marginal Positive Support
4	Maximize Value	.27	Strong Negative Support

Table 55

Positive Response % and Level of Support for the Types of EHPA Information that may be Available in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Types of EHPA Information Available	-----Groups(1)-----							Mean	Level of Support(2)
	1	2	3	4	5	6	7		
Contain Rising Health-Related Costs	.56	.67	.48	.45	.36	.60	.49	.52	4
Determine Availability of Health Savings	.59	.75	.52	.44	.24	.66	.51	.53	4
Reduce Employee Health Risks	.62	.58	.48	.43	.50	.63	.49	.53	4
Reduce Non-Disability Absenteeism	.64	.64	.56	.50	.52	.66	.58	.59	4
Reduce Disability-Related Absenteeism	.64	.52	.61	.46	.25	.62	.58	.53	4
Maximize Value on Health Investments(3)	.24	.35	.29	.29	.14	.30	.30	.27	2
Mean	.61	.70	.53	.46	.37	.63	.53	.54	4

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the levels of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = marginal positive support; 5 = strong positive support; and, 6 = very strong positive support.

Note. 3: Excluded from the calculation of the group means.

Group Perceptions of the Availability of EHPA Information. Table 55 also illustrates the positive response percentages for each of the seven participant groups. The Alberta Private Sector group had the highest positive response percentage at 70% followed by the All Alberta and Alberta Provincially-Funded groups at 63% and 61%. The British Columbia Provincially-Funded and the All British Columbia groups both had positive response percentages of 53%. The British Columbia Private Sector and Federal Government groups had positive response percentages of 46% and 37% respectively. A ranking of the participant groups in accordance with their respective positive response percentages and an interpretation of the corresponding levels of support is presented below.

Group Ranking by Positive Response Percentage (PR%)
and Level of Support

<u>Rank</u>	<u>Group</u>	<u>PR%</u>	<u>Level of Support</u>
1	Alberta Private Sector	.70	Strong Positive Support
2	All Alberta	.63	Marginal Positive Support
3	Alberta Provincially-Funded	.61	Marginal Positive Support
4	British Columbia Provincially-Funded	.53	Marginal Positive Support
5	All British Columbia	.53	Marginal Positive Support
6	British Columbia Private Sector	.46	Marginal Negative Support
7	Federal Government	.37	Marginal Negative Support

Contingency Analysis. Table 56a illustrates significant differences exist between the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Determine Availability of Health Savings, and, Reduce Disability-Related Absenteeism* ($p < .05$). Table 56b illustrates that no significant differences between the All Alberta and

Table 56a

Chi Square Analysis of the Types of EHPA Information Available in Federal
Government, Provincially-Funded and Private Sector Groups in Alberta and British
Columbia

Types of EHPA Information Available	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Contain Rising Health Costs	163	52.1%	47.9%	04.92214	4	.29538
Identify Health-Related Savings	159	54.1%	45.9%	13.98847	4	.00733*
Reduce Employee Health Risks	162	53.7%	46.3%	04.19928	4	.37971
Reduce Non-Disability Absenteeism	161	60.9%	39.1%	02.45260	4	.65314
Reduce Disability-Related Absenteeism	161	55.3%	44.7%	11.99786	4	.01737*
Maximize Value on Health Investments	137	27.0%	73.0%	02.79519	4	.59266

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Table 56b

Chi Square Analysis of the Types of EHPA Information Available in the All Alberta and All British Columbia Groups

Types of EHPA Information Available	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Contain Rising Health Costs	141	54.6%	45.4%	01.71202	1	.19072
Identify Health-Related Savings	138	58.7%	41.3%	03.09447	1	.07856
Reduce Employee Health Risks	142	54.2%	45.8%	03.65881	1	.05577
Reduce Non-Disability Absenteeism	140	62.1%	37.9%	01.00655	1	.31573
Reduce Disability-Related Absenteeism	141	59.6%	40.4%	00.26162	1	.60901
Maximize Value on Health Investments	115	29.6%	70.4%	00.00020	1	.98864

Note. (1*) = do not agree

Note. (2**) = agree

All British Columbia groups, with respect to the types of EHPA information identified, were found to exist ($p < .05$).

Approximately 77% of respondents in the British Columbia Private Sector group indicated that their organizations had the information required to *Identify Health-Related Savings* as compared to 75% of respondents in the Alberta Private Sector group; 61% of respondents in the Alberta Provincially-Funded group; 55% of respondents in the British Columbia Provincially-Funded group; and, 24% of respondents in the Federal Government group. An explanation for these differences may be the existence (or absence) of the proper data bases with respect to employee health information or the availability of funding to conduct employee health analyses for the purposes of identifying health risks and/or reducing organizational health-related costs.

Approximately 67% of respondents in the Alberta Private Sector group indicated that their organization had the health information required to *Reduce Disability-Related Absenteeism* as compared to 63% of respondents in the Alberta Provincially-Funded group; 52% of respondents in the Alberta Private Sector group; 46% of respondents in the British Columbia Private Sector group; and, 25% of respondents in the Federal Government group. Again, a probable explanation for these differences may be the absence of proper EHPA data bases or lack of funding to conduct EHPA-oriented (including cost) analyses.

Research Question 15

Do perceptions, regarding concern for rising health-related costs, differ significantly among the designated groups?

Perceptions of the Concern for Rising Health Costs. Table 57 illustrates the positive response percentages for the various health-related cost centers. *Long Term Disability (LTD)*, *Absenteeism*, *Short Term Disability (STD)* and *Workers Compensation Board (WCB)* had the highest positive response percentages at 91%, 88%, 85% and 81% respectively. *Turnover*, *Health Activities* and *Health Programs* had the lowest positive response percentages at 47%, 64% and 69%. A ranking of the cost centers in accordance with their positive response percentages and an interpretation of the corresponding levels of support is presented below.

Health Cost Concerns
Rankings by Positive Response Percentage (PR%)
and Level of Support

<u>Rank</u>	<u>Health Costs</u>	<u>PR%</u>	<u>Level of Support</u>
1	LTD	.91	Very Strong Positive Support
2	Absenteeism	.88	Very Strong Positive Support
3	STD	.85	Very Strong Positive Support
4	WCB	.81	Very Strong Positive Support
5	Health Services	.76	Strong Positive Support
6	Prescription Drugs	.70	Strong Positive Support
7	Health Programs	.69	Strong Positive Support
8	Health Activities	.64	Marginal Positive Support
9	Turnover	.47	Marginal Negative Support

Group Perceptions of the Concern for Rising Health Costs. Table 57 also illustrates the positive response percentages for each of the seven participant groups. The Alberta Private Sector group had the highest positive response percentage at 81%

Table 57

Positive Response % and Level of Support for Health Cost Concerns in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Health-Related Cost Center	-----Groups(1)-----							Mean	Level of Support(2)
	1	2	3	4	5	6	7		
Health Programs	.74	.75	.68	.65	.57	.75	.70	.69	5
Health Services	.86	.85	.72	.74	.55	.84	.75	.76	5
Health Activities	.72	.75	.56	.68	.43	.71	.64	.64	4
Short Term Disability	.93	.81	.93	.76	.75	.88	.88	.85	6
Workers Compensation Board	.82	.72	.88	.77	.85	.80	.86	.81	6
Long Term Disability	.90	.89	1.0	.85	.86	.90	.94	.91	6
Prescription Drugs	.79	.96	.51	.63	.60	.87	.56	.70	5
Turnover	.35	.70	.40	.40	.55	.48	.39	.47	3
Absenteeism	.81	.88	.96	.85	.91	.85	.93	.88	6
Mean	.77	.81	.74	.70	.67	.79	.74	.75	5

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the levels of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = marginal positive support; 5 = strong positive support; and, 6 = very strong positive support.

followed by the All Alberta and Alberta Provincially-Funded groups at 79% and 77%. The British Columbia Provincially-Funded and the All British Columbia groups (both) had positive response percentages of 74%. The British Columbia Private Sector and Federal Government groups had positive response percentages of 70% and 67% respectively. A ranking of the participant groups in accordance with their respective positive response percentages and an interpretation of the corresponding levels of support is presented below.

Group Ranking by Positive Response Percentage (PR%)
and Level of Support

<u>Rank</u>	<u>Group</u>	<u>PR%</u>	<u>Level of Support</u>
1	Alberta Private Sector	.81	Very Strong Positive Support
2	All Alberta	.79	Strong Positive Support
3	Alberta Provincially-Funded	.77	Strong Positive Support
4	British Columbia Provincially-Funded	.74	Strong Positive Support
5	All British Columbia	.74	Strong Positive Support
6	British Columbia Private Sector	.70	Strong Positive Support
7	Federal Government	.67	Strong Positive Support

Contingency Analysis. Table 58a illustrates significant differences exist between the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Prescription Drugs* ($p < .05$). Table 58b illustrates that the All Alberta and All British Columbia groups differed significantly with respect to both *Prescription Drugs* and *Turnover* ($p < .05$).

Approximately 96% of respondents in the Alberta Private Sector group indicated that the rising cost of *Prescription Drugs* was a concern to their organizations as

Table 58a

Chi Square Analysis of Health Cost Concerns in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Health-Related Cost Center	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Health Programs	163	70.6%	29.4%	02.97203	4	.56252
Health Services	166	76.5%	23.5%	07.45542	4	.11369
Health Activities	152	63.8%	36.2%	05.94699	4	.30314
STD	174	86.2%	13.8%	08.44756	4	.07649
WCB	179	84.4%	15.6%	07.20188	4	.12560
LTD	182	91.2%	08.8%	05.53866	4	.23635
Prescription Drugs	100	70.3%	29.7%	18.60083	4	.00094*
Turnover	174	48.3%	51.7%	07.17186	4	.12708
Absenteeism	181	88.4%	11.6%	05.85147	4	.21052

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Table 58b

Chi Square Analysis of Health Cost Concerns in the All Alberta and All British ColumbiaGroups

Health-Related Cost Center	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Health Programs	142	72.5%	27.5%	00.59429	1	.44076
Health Services	146	79.5%	20.5%	01.72465	1	.18910
Health Activities	131	67.2%	32.8%	00.75562	1	.38470
STD	154	87.7%	12.3%	00.06004	1	.80643
WCB	159	84.3%	15.7%	01.76988	1	.18340
LTD	161	91.9%	08.1%	00.63663	1	.42493
Prescription Drugs	135	71.9%	28.1%	15.92112	1	.00007*
Turnover	152	47.4%	52.6%	04.35884	1	.03682*
Absenteeism	159	88.1%	11.9%	03.23778	1	.07196

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

compared to 83% of respondents in the Alberta Provincially-Funded group; 63% of respondents in the British Columbia Private Sector; 60% of respondents in the Federal government group; and, 52% of respondents in the British Columbia Provincially-Funded group. Potential explanations for these significant differences may be the lack of available funding to conduct cost-analyses, and possibly, to the pressure placed upon these organizations to reduce costs associated with employee ill-health.

Approximately 87% of respondents in the All Alberta group indicated that the rising cost of *Prescription Drugs* was a concern to their organizations as compared to 56% of respondents in the All British Columbia group. Again, potential explanations for these significant differences include lack of available funding to conduct cost-analyses.

Approximately 56% of respondents in the All Alberta group indicated that the rising cost of *Turnover* was a concern to their organizations as compared to 39% of respondents in the All British Columbia group. These differences may be due to the differences in economic climate (and expected economic growth) that exist between Alberta and British Columbia.

Research Question 16

Do perceptions, regarding the level (and frequency) at which health-related costs are analyzed, differ significantly among the designated groups?

Perceptions of Health Cost Analyses. Table 59 illustrates the positive variable response percentages for the *frequency* and *types of health-related cost analyses*

Table 59

Positive Response % and Level of Support for the Level at which (and Frequency with which) Health Costs are Analyzed in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Level of Health Cost Analysis	-----Groups(1)-----							Level of Support(2)	
	1	2	3	4	5	6	7		Mean
Analysis of Health Costs	.58	.86	.79	.70	.41	.68	.78	.69	5
Business Unit	.09	.12	.10	.08	.05	.11	.09	.09	1
Program	.10	.15	.12	.04	.12	.12	.09	.11	1
Department	.12	.17	.17	.46	.17	.14	.29	.22	2
Work Site	.04	.10	.08	.06	.17	.07	.07	.08	1
Corporately	.65	.46	.53	.36	.49	.56	.46	.50	4
Mean(3)	.58	.86	.79	.70	.41	.68	.78	.69	5

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the levels of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = marginal positive support; 5 = strong positive support; and, 6 = very strong positive support.

Note. 3: Excludes levels of analysis in calculation of group means.

conducted. *Corporate analysis* had the highest positive response percentage at 50% followed by *Department* and *Program* at 22% and 11%. *Business Unit* and *Work Site* had positive response percentages of 9% and 8% respectively. The question related to whether or not health costs had been analyzed in the previous 12 months had a positive response percentage of 69%. A ranking of the levels at which (and frequency with which) health costs are analyzed in accordance with their respective positive response percentages and an interpretation of the corresponding levels of support is presented below.

Level of Health Cost Analysis
Ranking by Positive Response Percentage (PR%)

<u>Rank</u>	<u>Level of Analysis</u>	<u>PR%</u>	<u>Comments</u>
1	Corporately	.50	Out of 100%
2	Department	.22	Out of 100%
3	Program	.11	Out of 100%
4	Business Unit	.09	Out of 100%
5	Work Site	.08	Out of 100%

Group Perceptions of Health Cost Analyses. Table 59 also illustrates the positive response percentages for each of the seven participant groups. The Alberta Private Sector group had the highest positive response percentage at 86% followed by British Columbia Provincially-Funded and the All British Columbia groups at 79% and 78% respectively. The British Columbia Private Sector and the All Alberta groups had positive response percentages of 70% and 68% while Alberta Provincially-Funded and Federal Government groups had positive response percentages of 58% and 41%. A ranking of the groups in accordance with their respective response percentage related to the frequency with which

health costs are analyzed and an interpretation of the corresponding levels of support is presented below.

**Group Ranking by Positive Response Percentage (PR%)
and Level of Support**

<u>Rank</u>	<u>Group</u>	<u>PR%</u>	<u>Level of Support</u>
1	Alberta Private Sector	.86	Very Strong Positive Support
2	British Columbia Provincially-Funded	.79	Strong Positive Support
3	All British Columbia	.78	Strong Positive Support
4	British Columbia Private Sector	.70	Strong Positive Support
5	All Alberta	.68	Strong Positive Support
6	Alberta Provincially-Funded	.58	Marginal Positive Support
7	Federal Government	.41	Marginal Negative Support

Contingency Analysis. Table 60a illustrates significant differences exist between the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to the *Analysis of Health Costs* ($p < .05$). Table 60b illustrates that no significant differences between the All Alberta group and the All British Columbia group, with respect to levels of health-cost analysis identified, were found to exist ($p < .05$).

Approximately 86% of respondents in the Alberta Private Sector group indicated that their organizations had *Analyzed their Health Costs* in the past 12 months as compared to 81% of respondents in the British Columbia Provincially-Funded group; 70% of respondents in the British Columbia Private Sector group; 62% of respondents in the Alberta Provincially-Funded group; and, 41% of respondents in the Federal Government group. Potential explanations for the significant differences include lack of funding, general emphasis on reducing health related costs and, level at which accountability for health is exercised.

Table 60a

Chi Square Analysis of the Level at which (and Frequency with which) Health Costs are Analyzed in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia

Frequency and Level of Health Cost Analysis	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Analysis of Health Costs	170	69.4%	30.6%	16.11850	4	.00286*
Business Unit	167	13.2%	86.8%	03.77091	4	.43790
Program	162	14.2%	85.8%	06.74147	4	.15020
Department	169	20.7%	79.3%	06.33934	4	.17520
Work Site	167	11.4%	88.6%	04.19094	4	.38078
Corporately	172	75.0%	25.0%	04.60922	4	.32979

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Table 60b

Chi Square Analysis of the Level at which (and Frequency with which) Health Costs are Analyzed in the All Alberta and All British Columbia Groups

Frequency and Level of Health Cost Analysis	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Analysis of Health-Related Costs	148	73.6%	26.4%	01.27697	1	.25846
Business Unit	147	14.3%	85.7%	00.29059	1	.58985
Program	143	16.1%	83.9%	00.16886	1	.68113
Department	149	20.8%	79.2%	00.09727	1	.75513
Work Site	147	10.2%	89.8%	00.26319	1	.60793
Corporately	151	77.5%	22.5%	00.00683	1	.93412

Note. (1*) = do not agree

Note. (2**) = agree

Research Question 17

Do perceptions, regarding EHPA commitment, differ significantly among the designated groups?

Perceptions of EHPA Commitment. Table 61 illustrates the positive response percentages for the factors affecting commitment. *Union Support*, *Increased Investment (Health Costs)* and *Increased Investment (Health Risks)* had the highest positive response percentages at 91%, 89% and 88% respectively. *Corporate Social Responsibility*, *Influential Human Resources Function* and *Examples (Healthy Lifestyles)* had positive response percentages of 70%, 62% and 61%. The question related to whether or not values were a barrier with respect to implementing EHPAs had a positive response percentage of only 29%. A ranking of the factors of commitment in accordance with their respective positive response percentages and an interpretation of the corresponding levels of support is presented below.

Factors Affecting EHPA Commitment
Ranking by Positive Response Percentage (PR%) and Level of Support

<u>Rank</u>	<u>Commitment Factors</u>	<u>PR%</u>	<u>Level of Support</u>
1	Union Support	.91	Very Strong Positive Support
2	Increased Investment (Health Costs)	.89	Very Strong Positive Support
3	Increased Investment (Health Risks)	.88	Very Strong Positive Support
4	Corporate Social Responsibility	.70	Strong Positive Support
5	Influential Human Resources Function	.62	Marginal Positive Support
6	Examples (Healthy Lifestyles)	.61	Marginal Positive Support
7	Cultural Barriers	.29	Strong Negative Support

Table 61

Positive Response % and Level of Support for the Factors Affecting EHPA Commitment in Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Factors Affecting EHPA Commitment	-----Groups(1)-----							Mean	Level of Support (2)
	1	2	3	4	5	6	7		
Cultural Barriers(3)	.41	.20	.28	.27	.21	.34	.29	.29	5(4)
Health Risk Reductions	.87	.95	.86	.94	.72	.92	.88	.88	6
Health Cost Savings	.94	1.0	.81	.89	.74	.97	.85	.89	6
Influential HR Function	.53	.56	.52	.79	.74	.56	.62	.62	4
Corporate Social Responsibility	.67	.57	.86	.81	.56	.66	.80	.70	5
Examples - Healthy Lifestyles	.65	.56	.66	.65	.47	.64	.64	.61	4
Union Support	.97	.89	.95	.82	.89	.94	.93	.91	6
Mean	.77	.76	.78	.82	.69	.78	.79	.77	5

Note. 1: Where participant groups were numbered as follows: 1 = Alberta Provincially-Funded; 2 = Alberta Private Sector; 3 = British Columbia Provincially-Funded; 4 = British Columbia Private Sector; 5 = Federal Government Organizations; 6 = All Alberta Organizations; and, 7 = All British Columbia Organizations.

Note. 2: Where the levels of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = marginal positive support; 5 = strong positive support; and, 6 = very strong positive support.

Note. 3: Excluded from the calculation of group means.

Note. 4: .71 did not believe culture (values) were a barrier to EHPA implementation.

Group Perceptions of EHPA Commitment. Table 61 also illustrates the positive response percentages for each of the seven participant groups. The British Columbia Private Sector group had the highest positive response percentage at 82% followed by the All British Columbia group at 79% and both the All Alberta and British Columbia Provincially-Funded groups at 78%. The Alberta Provincially-Funded, Alberta Private Sector and Federal Government groups had positive response percentages of 77%, 76% and 69% respectively. A ranking of the groups in accordance with their respective response percentage and an interpretation of the corresponding levels of support is presented below.

**Group Ranking by Positive Response Percentage (PR%)
and Level of Support**

<u>Rank</u>	<u>Group</u>	<u>PR%</u>	<u>Level of Support</u>
1	British Columbia Private Sector	.82	Very Strong Positive Support
2	All British Columbia	.79	Strong Positive Support
3	All Alberta	.78	Strong Positive Support
3	British Columbia Provincially-Funded	.78	Strong Positive Support
4	Alberta Provincially-Funded	.77	Strong Positive Support
5	Alberta Private Sector	.76	Strong Positive Support
6	Federal Government	.69	Strong Positive Support

Contingency Analysis. Table 62a illustrates significant differences exist between the Alberta Provincially-Funded, Alberta Private Sector, British Columbia Provincially-Funded, British Columbia Private Sector and Federal Government groups with respect to *Health Cost Savings* ($p < .05$). Table 62b illustrates that no significant differences between the All Alberta and All British Columbia groups, with respect to the factors affecting EHPA commitment, were found to exist ($p < .05$).

Table 62a

Chi Square Analysis of the Factors that Affect EHPA Commitment in FederalGovernment, Provincially-Funded and Private Sector Group

Factors Affecting EHPA Commitment	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Cultural Barriers	155	30.3%	69.7%	04.21475	4	.37772
Health Risk Reduction	135	87.4%	12.6%	06.19242	4	.18523
Health Cost Savings	142	90.8%	09.2%	10.04804	4	.03963*
Influential HR Function	138	60.9%	39.1%	05.37852	4	.25062
Corporate Social Responsibility	141	70.9%	29.1%	06.61801	4	.15751
Examples - Healthy Lifestyles	130	61.5%	38.5%	02.15061	4	.70808
Union Support	122	92.6%	07.4%	03.14383	4	.53405

Note. (1*) = do not agree

Note. (2**) = agree

* Denotes significant differences at $p < .05$.

Table 62b

Chi Square Analysis of the Factors that Affect EHPA Commitment in the All Alberta and All British Columbia Groups

Factors Affecting EHPA Commitment	n	Group Response		Chi Square	df	p
		% (1*)	% (2**)			
Cultural Barriers	136	31.6%	68.4%	00.42511	1	.51440
Health Risk Reduction	117	89.7%	10.3%	00.41053	1	.52170
Health Cost Savings	123	93.5%	06.5%	02.50524	1	.11347
Influential HR Function	119	58.8%	41.2%	00.43590	1	.50911
Corporate Social Responsibility	123	73.2%	26.8%	03.15774	1	.07557
Examples - Healthy Lifestyles	115	63.5%	36.5%	00.12531	1	.72334
Union Support	103	93.2%	06.8%	00.04232	1	.83700

Note. (1*) = do not agree

Note. (2**) = agree

Approximately 100% of respondents in the Alberta Private Sector group indicated that their organizations would commit more resources to EHPAs if substantial *Health Cost Savings* could be realized as compared to 95% of respondents in the Alberta Provincially-Funded group; 90% of respondents in the British Columbia Provincially-Funded group; 89% of respondents in the British Columbia Private Sector Group; and 74% of respondents in the Federal Government group. Potential explanations for the significant differences may be the nature of the organization (profit versus non-profit), pressure to reduce health-related costs, and, ability to re-direct financial resources into high cost/benefit or productivity related initiatives.

Summary

An overview of the composite variable and group scores by thematic category is presented below.

Perceptions of Thematic Categories. Table 63 illustrates the positive response percentages for thematic categories K through P. Participants responded most positively to category P (employee commitment to EHPAs) at 77% followed by categories N (rising costs of employee health) and O (analysis of health costs) at 75% and 69%. Category K (visible support for EHPAs) had a positive response percentage of 61% while category M (availability of EHPA information) had a positive response percentage of 54%. Category L (modes of EHPA delivery) was not included in the group means due to the calculation of positive response percentages for each of the five delivery approaches identified.

Table 63

Positive Response % and Level of Support by Thematic Category For Federal Government, Provincially-Funded and Private Sector Groups in Alberta and British Columbia, and, the All Alberta and All British Columbia Groups

Group	-----Thematic Category(1)-----						Mean	Level of Support(2)
	K	L(3)	M	N	O	P		
AB Provincially-Funded	.45	NA	.61	.77	.58	.77	.64	4
AB Private Sector	.78	NA	.70	.81	.86	.76	.78	5
BC Provincially-Funded	.55	NA	.53	.74	.79	.78	.69	5
BC Private Sector	.65	NA	.46	.70	.70	.82	.67	5
Federal Government	.68	NA	.37	.67	.41	.69	.56	4
All Alberta	.59	NA	.63	.79	.68	.78	.69	5
All British Columbia	.57	NA	.53	.74	.78	.79	.68	5
Mean	.61	NA	.54	.75	.69	.77	.67	5

Note. 1: Where the thematic categories (K-P) represent variable groups as follows: K = 131-133; L = 134-138; M = 139-144; N = 145-153; O = 155-160; and, P = 162-168.

Note. 2: Where the levels of support were: 1 = very strong negative support; 2 = strong negative support; 3 = marginal negative support; 4 = marginal positive support; 5 = strong positive support; and, 6 = very strong positive support.

Note. 3: Excluded from the calculation of group means.

A ranking of the various thematic categories in accordance with their respective response percentages and an indication of their corresponding level of support is presented below.

**Thematic Category Ranking
by Positive Response Percentage (PR%) and Level of Support**

<u>Rank</u>	<u>Category</u>	<u>PR%</u>	<u>Level of Support</u>
1	P	.77	Strong Positive Support
2	N	.75	Strong Positive Support
3	O	.69	Strong Positive Support
4	K	.61	Marginal Positive Support
5	M	.54	Marginal Positive Support

Group Perceptions of Thematic Categories. Table 63 also illustrates the positive response percentages for each of the seven participant groups. The Alberta Private Sector group had the highest mean positive response percentage at 78% followed by the British Columbia Provincially-Funded and All Alberta groups (both) at 69%. The All British Columbia, British Columbia Private Sector and Alberta Provincially-Funded groups had mean positive response percentages of 68%, 67% and 64% respectively. The Federal Government group had the lowest mean positive response percentage at 56%. A ranking of the participant groups in accordance with their respective mean positive response percentages and an indication of their corresponding level of support is presented below.

**Group Ranking by Mean Positive Response Percentage (PR%)
and Level of Support**

<u>Rank</u>	<u>Group</u>	<u>PR%</u>	<u>Level of Support</u>
1	Alberta Private Sector	.78	Strong Positive Support
2	British Columbia Provincially-Funded	.69	Strong Positive Support
3	All Alberta	.69	Strong Positive Support
4	All British Columbia	.68	Strong Positive Support

5	Alberta Provincially-Funded	.67	Strong Positive Support
6	British Columbia Private Sector	.64	Marginal Positive Support
7	Federal Government	.56	Marginal Positive Support

Significant Differences. Table 64 illustrates the significant differences identified with respect to the seven groups responding to the secondary research questions. Each of the significantly different variables with respect to the secondary research questions was identified through Chi Square (contingency) analysis. The group having the highest mean positive response to the various research questions was also identified.

Findings: Tertiary Research Questions

Research Question 18

How did participants respond when asked for advice with respect to organizational values as described below:

Given your knowledge and experience, if you were selected to advise a committee of private and public sector companies with regard to organizational values (culture), but had to limit your advice to one statement, what would that statement be?

Statements received from participants with respect to the above question were grouped into three thematic categories: leadership; influence of values, and, nature of values. A brief summary of the various statements contained in each of the categories is provided below. A detailed listing of the statements received with regard to values is provided in Appendix D.

Table 64

**Significant Differences Regarding Secondary Research Questions For Federal
Government, Provincially-Funded and Private Sector Groups in Alberta and British
Columbia, and, the All Alberta and All British Columbia Groups**

Secondary Research Question	Significant Differences (Chi Square)	Group with Highest % that Agree
12	Budget for EHPAs	2 (80% Agree)
13	Exclusively In-House	3 (37% Agree)
	Exclusively by an External Provider	5 (23% Agree)
	Exclusively by an External Provider	6 (10% Agree)
14	Identify Health Savings	4 (77% Agree)
	Reduce Absenteeism	2 (67% Agree)
15	Prescription Drugs	2 (96% Agree)
	Prescription Drugs	6 (87% Agree)
	Turnover	6 (56% Agree)
16	Analysis of Health Costs	2 (86% Agree)
17	Increased Investment (Health Costs)	2 (100% Agree)

Note.(1): Where: 1 = Alberta Provincially-Funded group; 2 = Alberta Private Sector group; 3 = British Columbia Provincially-Funded group; 4 = British Columbia Private Sector group; 5 = Federal Government group; 6 = All Alberta group; and, 7 = All British Columbia group.

The majority of the statements received from participants with respect to leadership involved either senior management or employees actively participating in the development, operationalization or modeling of values. Leadership in this case was interpreted as “setting a good example” for others to follow or “walking the values talk”. The systematic handling of values (and values-related issues) was perceived by many respondents as vital to achieving organizational goals and objectives. Some participants believed that the *true* values of an organization were reflected in resource allocation decisions and, that adherence to values required monitoring and strict accountability from both management and employees. Finally, participants believed that the values development process should include employees and management alike.

Statements received from participants with respect to the influence of values indicated strong support for the proposition that values have a significant influence on organizational performance. Many participants indicated that values had a direct effect on organizational performance or that values have a direct impact on bottom-line results. Participants also believed that values not only act as a guide for decision-making but play a vital role in the decision itself. *Health* was perceived as a value that organizations could rally-around to improve performance and one which could empower organizations by bringing people together to address an issue of common interest.

The statements received with respect to the nature of values emphasized that organizational values needed to be balanced to include both financial and non-financial components and reflect the values of the people that work in the organization. It was generally accepted by the majority of participants that the priority assigned to financially-

oriented values out-weighed the priorities assigned to humanistic values. *Communication* and *Respect* were specifically identified as important values while *Health* values were perceived to need a higher prioritization in the organizational value hierarchy.

Research Question 19

How did participants respond when asked for advice with respect to EHPAs as described below:

Given your knowledge and experience, if you were selected to advise a committee of private and public sector companies with regard to employee health programs and activities, but had to limit your advice to one statement, what would that statement be?

Statements received from participants with respect to the above question were grouped into five thematic categories: management support; costs and benefits; EHPAs; accountability; and, general. A brief summary of the various statements contained in each of the categories is provided below. A listing of the statements received with regard to EHPAs is provided in Appendix D.

The majority of the statements received from participants with respect to management support involved management providing funding and visible encouragement for employee health programs and activities. Managers were considered to be key supporters or champions for health initiatives who could demonstrate their commitment through the resource allocation process. Overall, management support was considered critical to success due to the relatively long time it takes for health-related benefits to be realized.

Statements received from participants with respect to costs and benefits supported the introduction of health programs as a means of reducing health-related costs.

Participants warned that the down-stream costs, both financial and human, of not managing health were significant and, that a crisis management approach to health management was prohibitively expensive. Many participants emphasized that tracking health initiative outcomes and communicating results among participants were key activities that distinguished successful programs. Some participants also pointed out that the benefits of health programs are not well-understood and that health programs needed to be actively marketed internally to ensure success.

The statements received with respect to EHPAs provided insight into the management of health programs and activities. Participant responses indicated that health initiatives must be sensitive to the needs and preferences of potential participants as well as the different environments in which programs operate. A few participants proposed that health promotion and assistance interventions should be coordinated and emphasized that lifestyle choices and behaviors are interdependent. Some of the responses focused on implementing strong health policies in the workplace and the need for management and employee support. Many of the participants supported health programs and activities as an investment in the productive capacity of an organization or as insurance against productivity loss due to ill-health. Some stated that health initiatives have to be positioned as long term strategies for performance improvement rather than short term solutions to specific problems.

Many of the statements received from participants with respect to accountability emphasized that both management and employees had to accept responsibility for health

management. Some participants believed establishing clear objectives and outcomes for health programs and measuring performance against those objectives was the only way to justify EHPA existence. Many also emphasized that a clinically-based health assessment was required to inform the health program and initiative development process.

The general statements received with respect to EHPAs reflected a wide range of health topics. Some participants believed that employee health and wellness was more about a way of doing business than it was about specific health programs or activities. Many participants stated that educating senior management and the organization regarding the benefits of health programs was key to success: education first, program delivery later. Other participants stated that health programs were a primary method of maintaining human resource assets, and, that healthy employees could make a more significant contribution to overall productivity and success. Some participants indicated that organizations have to start small and build on success.

Research Question 20

How did participants respond when asked for advice with respect to the obstacles perceived to impede EHPA implementation as described below:

What do you believe is the greatest obstacle with respect to implementing employee health programs and activities in Canadian organizations that you are familiar with?

Statements received from participants with respect to the above question were grouped into three thematic categories: cost to implement/cost justification; management and employee support; and, accountability. A brief summary of the various statements

contained in each of the categories is provided below. A detailed listing of the statements received with regard to obstacles affecting EHPA implementation is provided in Appendix D.

The majority of the statements received from participants with respect to cost to implement/cost justification underscored the importance of securing both short and long term funding for health initiatives. A number of participants reported that their organizations simply did not have the financial or human resources to expend on implementing health initiatives. Others indicated an unwillingness to make a long term commitment to employee health and cited the failure to identify the direct and indirect costs of health as a major obstacle. Many participants cited the lack of information (relevant data), research, methods of evaluation and understanding of the short and long term benefits of health programs as barriers. Some indicated that the failure to monitor outcomes, communicate results and aggressively market initiatives internally were “hidden” barriers which often impeded broader EHPA implementation efforts.

Statements received from participants with respect to management and employee support confirmed that securing management and employee support for health initiatives was a major barrier. Some stated that management’s failure to recognize employee health as a legitimate management concern was their biggest obstacle. Others believed that motivation to improve health was lacking on both the part of management and employees. Some participants reported that health programs were not considered to *be bottom-line-oriented* and that because they required new learning on the part of decision-makers, they were often avoided. Some participants believed the general lack of

knowledge with respect to employee health issues combined with the entrenchment of a reactive rather than proactive management style was the most significant obstacle.

The accountability statements revealed that a lack of action with respect to employee health management was the most significant obstacle. Many participants indicated that there was no clear link between employee health and corporate objectives and that business unit, department and division managers were not held accountable for managing employee health. Others cited the lack of standards in the area of health management and the pervasiveness of a laissez-faire attitude with respect to employee health as being problematic.

Research Question 21

How did participants respond when asked to identify the potential benefits to their organization that may be derived from the research as described below:

How will the results of this survey benefit your organization?

Statements received from participants with respect to the above question were grouped into four broad thematic categories: benchmarking; developing a health initiative; informing existing health programs, plans, policies and practices; and, raising general awareness. A brief summary of the various statements contained in each of the categories is provided below. A listing of the statements received with regard to the perceived benefits to be derived from this research is provided in Appendix D.

The majority of the statements received from participants with respect to benchmarking indicated that participants felt one of the primary benefits of the research

would be to compare what they were doing in the area of employee with what others were doing and to identify *best practices*. Many of the participants believed the results would provide a comprehensive prioritization of values, rationale, incentives and factors against which their organization's values, rationale, incentives and factors could be compared.

Statements received with respect to developing a health initiative focused on using the results to rationalize the development of a health program or initiative. Some participants indicated that they planned to use the results to help build a business case for health programs. Others planned to communicate the results to management and organizational members with the hope that interest may be stimulated. Some participants indicated that the results would be presented to their executive committee for the purpose of enhancing senior management support for employee health initiatives.

The statements received with respect to informing existing health programs, plans, policies and practices revealed that using the results to *fine tune* existing health initiatives was perceived as a major benefit. A number of participants indicated that the results will help organizations establish a relevant Canadian health management data base that can be used in employee health planning. Some participants also indicated that the results will be used to inform resource allocation decision-making. Others reported that the results will be used to evaluate existing programs and future plans, establish standards and to educate managers and staff with respect to the benefits of EHPAs.

The general awareness statements reflected a broad range of concerns and perspectives with respect to employee health. Some participants indicated that the research will raise awareness of health initiatives being undertaken and the perceived link between employee health and organizational performance. Others suggested that the

results will show that employee health programs are not just for “rich” organizations but rather should be considered an integral component of any organization’s approach to enhancing performance. A few participants thought that the results may help make management more aware that health policy and value statements have to be translated into action before they are considered meaningful.

CHAPTER 5

SUMMARY, DISCUSSION AND CONCLUSIONS

This chapter contains a summary and discussion of the results as well as a brief presentation of the research conclusions. Although the influence of values on decision-making has received substantial attention in the literature (Kasten and Ashbaugh, 1988), examination of the extent to which values are shared among government, private and public sector organizations has not been vigorously pursued. Furthermore, exploration of the relationship that exists between values and the achievement of positive organizational outcomes has been neglected while empirical studies that investigate the approaches used by Canadian employers to enhance performance (i.e. productivity) through employee health programs and activities (EHPAs) are lacking. This research has addressed parts of all three of these important research agendas and provides a foundation for a broad range of values and EHPA inquiry.

Summary

Despite broad interest in the relationship that exists between values and performance, current knowledge and understanding is limited. What is known from a cursory review of the relevant values and management literatures is that values influence organizational decision-making (Hodgkinson, 1996), organizational programs, policies and activities are expressions of resident values (Simpson, 1996), well-designed EHPAs can enhance employee health and enable organizations to achieve important performance-related outcomes (Heaney & Goetzel, 1997) and decisions to implement EHPAs are often influenced by organizational values or culture (Wolfe, 1989).

What some theorists have concluded from these findings is that values not only influence decision-making at the strategic organizational level but also, at the group and individual levels where decisions concerning the types of interventions (i.e. programs) required to achieve desired organizational outcomes are finalized. The various levels at which values influence decision-making have been described by Hodgkinson (1991) as the “field of value action” (p. 44). According to Hodgkinson, values may be resident or in conflict at five separate or distinct levels: the individual level (V1), the group level (V2), the organization level (V3), the community level (V4), and the society at large level (V5).

The central purpose of this research was to clearly identify the values that were perceived to exist and be important in participant organizations and, to determine the extent to which respondents perceived the achievement of seven important organizational outcomes, namely: *Effectiveness*, *Efficiency*, *Quality*, *Productivity*, *Innovation*, *Profitability* and *Quality of Work Life* to be influenced by organizational values. The secondary purpose of this study was to investigate employer utilization of *EHPAs* in Canadian organizations.

The survey method was employed in this exploratory research. A Values and Health Management questionnaire (VHM) was developed from values, outcomes and employee health issues and practices found in the literature, to identify the existence and/or importance of these values and EHPA attributes in respondent organizations. A seven point Likert scale was utilized in the VHM to record the responses to the various literature-based research questions. Short answer and open questions regarding values, EHPAs, obstacles to EHPA implementation and survey results were also employed. Pilot

testing of the questionnaire among 18 organizational representatives was the primary means of establishing the validity of the VHM. Test re-test methods and Cronbach's Alpha were employed to determine the reliability of the instrument.

Seven groups, based on type, were established for the purposes of analyzing the data: Alberta Provincially-Funded, Alberta Private Sector, All Alberta, British Columbia Provincially-Funded, British Columbia Private Sector, All British Columbia and Federal Government. The objective with respect to analyzing the data was to determine whether or not significant differences among the group means existed. Manova and Chi Square techniques were employed to identify the significant differences that existed among group means while Scheffe post-hoc testing methods were utilized to identify significant pairings. A total of 187 respondents, representing a diverse array of private and public sector organizations including municipal, provincial and federal government departments, Crown corporations and agencies, completed the VHM questionnaire. The response rate to the survey was 75%.

Analysis of survey responses regarding the existence and importance of values produced the finding that there are more value similarities than differences among the seven groups. This supports Kluckhohn's (1951) and Scott's (1979) assertion that institutions significantly influence values. Statistical analyses conducted with respect to the existence and importance of values revealed that significant differences among the seven groups existed with respect to the following four values: *Growth*, *Prosperity*, *Stability* and *Health*. Significant differences with respect to *Growth* and *Stability* values were perceived to exist largely as a result of on-going government fiscal restraint while significant differences with respect to *Prosperity* values were perceived to exist because

of the large number of public sector (government and not-for-profit) organizations that participated in the research. Significant differences with respect to *Health* values were perceived to exist largely as a result of cultural differences that exist between Alberta and British Columbia organizations and escalating health costs that are being absorbed by employers. The results also revealed that significant differences existed with respect to *Leadership, Stability* and *Integrity* values. These significant differences were perceived to exist largely as a result of the dramatic cuts, some in excess of 20%, made to provincial government and third party operating budgets by the Alberta government. The mean ratings for the values perceived to exist and be important was 5.66 and 5.60 which, indicates strong positive support for the assertion that the values identified in this research were both perceived to exist and be important in participant organizations. It also provides evidence for Braithwaite and Law's (1985) assertion that subjects respond positively to questions concerning values.

Analysis of survey responses regarding the perceived influence and heavy influence of values on the achievement of organizational outcomes resulted in the finding that there are more similarities than differences among the seven groups. Again, this result is consistent with the second a priori value proposition that is fundamental to Scott's (1979) *Organizational Imperative*, that "all behavior must enhance the health of the organization". (p. 43) The statistical analyses conducted with respect to the organizational outcomes perceived to be influenced or heavily influenced by values revealed that significant differences existed with respect to only one outcome, *Profitability*. This significant difference was perceived to exist due to the large number of public (government and not-for-profit) organizations involved in the research. The

mean rating for the outcomes perceived to be influenced and heavily influenced by values was 5.71 and 5.66 which, indicates strong positive support for the assertion that the outcomes identified in this research were influenced by the values of the respective participant organizations.

Analysis of survey responses regarding the employee health questions produced the finding that there were more similarities than differences among the seven groups. Some of the significant differences that were identified were perceived to exist largely as a result of the entrenchment of traditional leadership practices (i.e. the organization was not innovative), the particular organization type and operational environment and, lack of evidence concerning the effect of EHPAs on organizational performance and functioning. The statistical analyses conducted with respect to the employee health questions revealed that significant differences existed regarding the: Methods Utilized to Operationalize Health Values (*Training/Development Programs*); Kinds of Value Conflicts (*Individual-Supervisor*); Types of Value Conflicts (*Type III and Type IIB*); Participation Incentives (*Swimming Pool and Meeting Rooms*); and EHPA Commitment Factors (*Appropriate Physical Setting, Confidentiality, Individual Goal Setting, Program Tailoring and Performance Contracting*). Significant differences were also found to exist with regard to: Visible Support for EHPAs (*Budgets for EHPAs*); Modes of EHPA Delivery (*Exclusively In-House Delivery and Exclusively by an External Provider*); Internal Availability of EHPA Information (*Health-Related Savings and Reducing Disability-Related Absenteeism*); Rising Health Costs (*Prescription Drugs and Turnover*); Health Information Analysis (*Frequency of Analysis*); and Indicators of EHPA Support (*Increased Investment - Health Costs*).

Discussion

Factors Affecting Results

Based on participant responses to the VHM, three factors were perceived to influence the findings of this research. First, the financial restraint and budget-cutting initiatives that have come to characterize government organizations both federally and provincially, had a dramatic effect on the ratings issued by those participant groups. Second, the cultural differences that exist between Alberta and British Columbia, particularly those related to the influence of organized labor in British Columbia and prudent fiscal management in Alberta, were perceived to have affected the rating results. Third, the nature of the organizations (public versus private and non-profit versus profit-seeking) comprising the participant groups themselves was perceived to have influenced the ratings of the vast majority of the participant organizations.

Financial Restraint. Since the beginning of the 1990s, cost containment has been the effective public sector management strategy that has dominated federal and provincial government operations. As a consequence, reducing government infrastructure and operating costs have emerged as two of the primary measures of public sector performance. While reducing the operating costs of the provincial and federal governments has pleased some taxpayers, the downstream (medium term) costs of employing a crisis management approach with respect to addressing existing employee health issues in the workplace was perceived by a number of participants as being *extremely costly in both human and financial terms.*

In-depth discussions concerning employee health programs and practices with some members of the federal and provincial government participant groups revealed that

budgets for employee health initiatives have been dramatically reduced since 1990 while work-related absenteeism due to stress has increased at an exponential rate. Furthermore, some participants reported that employee health-related proposals were met with skeptical review in a number of public sector organizations. In one particular instance, a respondent revealed that implementing a health program for government employees was not considered to be a responsible use of public funds while other respondents suggested the implementation of stress management and prevention programs would result in significant savings for employers. The majority of respondents who shared examples supported the implementation of a prevention-oriented employee health policy in their respective organizations. This policy could be utilized to address the continuum of employee health management issues ranging from prevention-oriented health promotion initiatives to disability case management. An important component of this policy would involve the organization delegating the responsibility for employee health management to the lowest level capable of discharging that responsibility. Ultimately, enabling individuals to be accountable for managing their own health would be the goal of the policy. Many participants believed decentralizing responsibility for health management, due to the inherent advantages that would be available through early detection and preventative treatment, could result in immediate benefits in the form of reduced absenteeism and improved productivity.

Cultural Differences. The rationale for conducting an inter-provincial study was to assess the differences in perceptions and responses which may be attributable to cultural and/or geographical circumstances or as Hodgkinson (1996) describes it, to identify the *field of value action* in which the value conflict resides. A review of the

variables for which significant differences were found to exist between the All Alberta and All British Columbia groups revealed that the significant differences that exist between the two groups do so at different value levels. Consequently, significant differences regarding *Prosperity* and *Health Values*, *Individual-Supervisor* value conflicts, rising *Prescription Drug* and *Turnover* costs, *Swimming Pool* and *Appropriate Physical Setting* could range between what Hodgkinson defined as the organization level (V3) and the society at large level (V5). Accordingly, significant differences with respect to these variables could be explained at least in part, by the greater influence of unionized labor, geographical location (i.e. proximity to the ocean), and, temperate climate which exists in British Columbia and, by the fiscally prudent attitude which characterizes many Alberta organizations.

Nature of Organizations. Hodgkinson (1978) believes organizations are governed by potent value imperatives or metavalues which can be detected at the administrative-managerial subsystem level of the organization. According to Hodgkinson (1978), a metavalue is “a concept of the desirable so vested and entrenched that it seems to be beyond dispute or contention”. (p. 180) He believes that five organizational metavalues exist: maintenance, growth, efficiency, effectiveness and rationality. The relatively high ratings submitted by private sector organizations with respect to *Efficiency*, *Growth* and *Prosperity* values seem to support Hodgkinson’s perspective. In contrast, the low ratings submitted by Provincially-Funded and Federal Government organizations with respect to *Efficiency*, *Growth* and *Prosperity* values seem to contradict it. It appears from these ratings that notwithstanding the differences that have historically existed between private

and public sector organizations, the on-going public sector restraint programs have exacerbated these differences..

Existence and Importance of Values

This research revealed that the values identified are perceived to both exist and be important in participant organizations. In an organizational context, the values identified were perceived by respondents not as objects but rather as *expressions of behavioral intent* and accordingly, were considered to be guides to decision-making, reference points for organizational decisions and a means of positively transforming culture. Interestingly, the identification of *Service* as the number one ranked value among both private and public organizations indicates that the competitive influence of the *market mechanism* is now having a similar affect on public sector (government) organizations as it historically has had on private sector organizations. Given the increased focus on public sector accountability and value-for-money in the past decade and, on-going efforts made by private sector organizations to enhance productivity, the co-mingling of values that are held by resource-competitive public (including government) and private sector organizations is not surprising.

The values identified as being most important in participant organizations were those values perceived to affect the achievement of desired organizational outcomes. Examples of the highest rated values perceived to be important in respondent organizations included: *Service, Responsibility, Quality, Productivity* and *Integrity*. When analyzed with Hodgkinson's *Value Paradigm*, the majority of these values would

be classified as *Type I* values while none of the lowest rated values, which included *Health, Tolerance* and *Stability*, would be classified higher than *Type IIA*.

While the majority of values identified in the research were rated some what consistently with ratings previously reported in the literature, the rating of both *Leadership* and *Health* values were exceptions. Among the 18 values perceived to be important by respondents, *Leadership* ranked eleventh and *Health* ranked fifteenth when rankings were developed from the rating scores. The relatively low rank ordering of *Leadership* appears to represent a divergence from the rankings reported by Bullen (1992), Posner and Schmidt (1992) and Nagel (1995). However, examination of the rating scores and corresponding rank ordering clarified that the use of Likert scale rating scores to determine the rank order of the values as opposed to the rank ordering task used by Rokeach (1973) was the reason *Leadership* received a low ranking. Upon review, this value was confirmed to have been scored positively by respondents resulting in an overall “strong positive support” rating, despite its seemingly low ranking.

While on the topic of leadership, it is important to note that the definition of leadership (used interchangeably with management in this study) employed in this research was consistent with Hodgkinson’s (1991) definition of administration: “Administration can be defined as that general form of human behavior which seeks to achieve ends through organizational means”. (p. 52) Although this research was not designed to investigate the process of value formulation in respondent organizations *per se*, it is undeniably connected to leadership by definition, as the core task of leadership is to reconcile divergent interests (including those of the individual and the organization)

and to cause those interests to converge upon the goals of the organization which, is the essence of organizational performance.

Participant perceptions of *Health* values were of particular interest to this research. Although these values were perceived to exist and be important in participant organizations, they were not highly rated or considered to be *key* values with respect to either existence or importance. The researcher believes that the relatively low rating of *Health* values reflects in part, the insulating influence of our national medical care system which has historically shielded Canadian employers from the real costs of employee health. As a consequence, employee health issues such as the containment or reduction of health costs, have not in the past been considered to be legitimate concerns for Canadian organizational decision-makers. As a result of the on-going shifting of health costs from public (provincial government) to private and employer plans and escalating benefits and absenteeism costs, some progressive employers have now begun to take action with respect to managing employee health.

Another interesting observation about the existence and importance of *Health* values in Canadian organizations has to do with Hodgkinson's (1996) five levels of value interaction. *Health* values are perceived by many organizational theorists as national values in Canada. For many citizens, the national health care system itself symbolizes Canadian values (National Forum on Health, 1997). Given the provincial structure of Canada's health care system, it could be argued that *Health* values are held at what Hodgkinson (1996) calls the society at large (V6) and the community levels (V5). It appears to be the opposite end of the *field of value action* however, at the individual (V1) level where the majority of conflicts with respect to *Health* values exist. Thus,

enhancing recognition of an individual's responsibility to maintain their own health and empowering individuals with the education and information required to improve their health will be vital to the evolution of *Health* values at the individual (V1), group (V2) and organization (V3) levels.

Influence of Values on Organizational Performance

This research found that values heavily influence an organization's ability to achieve performance-related outcomes by influencing the identification of desired organizational outcomes. This finding provides the foundation for additional studies concerning organizational performance and effectiveness in which values are considered to be key determinants and supports calls from Hodgkinson (1983) and other prominent philosophers, scholars and theorists for a values-based approach to administration. As Hodgkinson (1983) reasoned:

The need for a valuational approach to administration is intensified in an era of pluralism and value confusion which is at the same time an era of intensifying organizational feudalism. Increasingly, the quality of life is organizationally determined. (p. 56)

Because so much of modern life is conducted in or governed by organizations, in the post-industrial society, we are all dependent upon the quality of administration for the quality of our lives. (p. 13)

The relatively high ratings assigned to *Quality, Effectiveness, Productivity, Profitability, Innovation* and *Efficiency* outcomes compared to the low ratings assigned to *Quality of Work Life* outcomes seems to contradict the findings of some researchers who report that organizations have displayed an increasing willingness to forego some level of material well-being to improve the work environment and well-being of their workers

(Baker & Green, 1991). However, these ratings support Kluckhohn's (1951) observation that values are transmitted by society's major institutions and Scott's (1979) *a priori* value propositions with respect to his *Organizational Imperative*, as all of the outcomes identified in this research that were perceived to be influenced or heavily influenced by values generate benefits solely for the organization. Also, to the extent to which the seven organizational outcomes identified by Sink (1985), in a valuational context, are consistent with the five metavalues described by Hodgkinson (1991), the ratings of the organizational outcomes intuitively support Hodgkinson's *Value Paradigm*.

In addition to inferring that *Health* values are not considered to be *key* values by respondent organizations, some organizational researchers would interpret the relatively low ranking of *Quality of Work Life* outcomes as being indicative of a general lack of knowledge (at the organizational level) of the benefits associated with employee health programs and activities. A growing number of organizational researchers believe that the potential of *EHPAs* to improve performance is even greater than their potential for cost-savings (Golaszewski et. al., 1992) while recent research indicates that *EHPAs* can positively influence morale, absenteeism, turnover, recruitment and productivity (Glasgow & Terborg, 1988; Matheson & Ivancevich, 1988; Wolfe et. al., 1987). As Ilgen (1990) has argued, if employers are concerned about performance, they must also be concerned about employee health.

Employee Health Questions

This research confirmed that *EHPAs* were being utilized by a majority of participant organizations and that health cost containment and reduction were the primary

rationale for their implementation. A brief discussion of the findings with regard to the employee health questions is provided below.

Operationalizing Health Values. The methods deemed by respondents to be most important with respect to operationalizing *Health* values were those methods requiring a resource commitment on the part of the organization. In this regard, *Health Programs* and *Policies* were perceived to be most effective. This finding is consistent with the findings of organizational theorists who argue that improvement and cultural change both require permanent symbols to express values (Fullan, 1991) and, that improved performance requires organizations to increase their investment in human capital (Hitt et al., 1991; Ulrich & lake, 1990).

Implementation Rationale. The implementation rationale deemed to be most important were those rationale related to *Health Cost Reduction* and particularly, those rationale related to *Reducing Absenteeism*. Unfortunately, the majority of EHPAs used by respondent organizations were not evaluated making both the determination of an EHPA effect on health costs and the development of an EHPA business case difficult. These issues will have to be resolved in order for EHPAs to be used as a means to improve organizational performance. Researchers will have to identify appropriate organizational and employee health outcomes for EHPAs and develop the necessary criteria and methods needed to evaluate results objectively. EHPA outcomes should be able to be quantitatively measured (i.e. health risk scores, health costs, etc.), thereby eliminating the subjectivity that characterizes some social program evaluation methods.

Kinds and Types of Value Conflicts. Neither the kinds or types of value conflicts identified in this research were strongly perceived to impede EHPA implementation

efforts. This is not a surprising result given that one would not expect *Type I* value conflicts to be associated with EHPAs - due to the recent emergence of EHPAs and the absence of a clear link between employee health and organizational objectives in most organizations. The most influential kind of value conflict identified was *Individual-Management* conflicts while *Type III* value conflicts were the most influential type. This finding supports Hodgkinson's value paradigm in which values are defined as concepts of the desirable that influence choice and postulates a hierarchical view of commitment to values ranging from high level (Type I) values to lower level (Type III) values. This finding was also supported by participant responses to a subsequent research question in which 71% of respondents did not perceive cultural (values) barriers to impede EHPA implementation efforts.

Participation Incentives. The use of incentives to enhance short term employee involvement in employee health initiatives, particularly among government respondents, was not common practice. Comments received from respondents which supported this finding included that incentives were not "deemed necessary" nor a "responsible use of organizational resources". Such a negative response should not be surprising given the recent introduction of EHPAs in Canada. However, as health costs continue to rise and pressure on achieving cost reduction objectives intensifies, maximizing employee participation (which is the key to achieving health cost reduction targets) will become both an important indicator of participant satisfaction as well as a determinant of program success. In order for organizations to enhance participation levels, employers will have to provide adequate resources to implement EHPAs, visibly demonstrate support for employee health initiatives and entice employees to participate.

Commitment Factors. The most important commitment factors identified by respondents were those factors related to individual participant *Satisfaction* and those core program characteristics that affected *Satisfaction* such as *Accessibility, Convenience, Visible Corporate Support* and *Appropriate Physical Setting*. Some respondents expressed varying opinions with respect to the role they envisioned their organizations adopting with respect to employee health, particularly as it relates to the extent to which their organizations should assume responsibility for employee health management. Given the rate at which health costs are being transferred from the public to the private and employer sectors, employers will have to be proactive with respect to managing employee health if projected increases in employee health costs (Conference Board of Canada, 1996) are to be avoided.

Organizational Approaches to Employee Health. Larger private and public sector organizations were more likely to employ EHPAs, including prevention-oriented health promotion and disability case management programs and, analyze health-related costs than smaller private or public sector organizations. The majority of respondents did not have prevention-oriented EHPAs in place which health management researchers argue are required for goals related to health cost reduction to be achieved (Sorensen et al., 1992; Wolfe et al., 1994). Some respondent organizations did however, offer some prevention-oriented services in the form of flu shots, blood pressure monitoring and cholesterol screening. Alberta private sector organizations were the most positive group with respect to their responses to the VHM questionnaire. They were followed by the British Columbia Provincially-Funded, All Alberta, All British Columbia, Alberta Provincially-Funded, British Columbia Private Sector and Federal Government groups respectively.

Visible Employer Support For EHPAs. The majority of respondent organizations either used *EHPAs* or had a *Budget for EHPAs*. However, participants indicated that funding for EHPAs was tenuous and was typically reduced during times of fiscal restraint. Cut-backs in EHPA funding was due to a number of factors including but not limited to a lack of: quality health cost data and relevant research regarding EHPAs in Canada; organizational resources (human and financial) required to implement EHPAs; employee interest with respect to modifying unhealthy behaviors; and strategic linkages between organizational and employee health objectives that would ensure accountability. These issues will have to be addressed by employers who wish to generate positive returns on employee health-related investments.

EHPA Delivery. The majority of respondent organizations delivered their EHPAs either *Mostly or Exclusively In-House*. Respondents indicated that although EHPAs were being coordinated by in-house staff, a growing number of EHPA-related services such as health risk assessments, were administered by qualified external providers. The decision to out-source EHPAs was due to: escalating disability and absenteeism costs; internal development costs; cost/benefit (ROI) results reported by external providers; and the ability of contractors to monitor and evaluate EHPAs on an continuous basis thereby ensuring their relevancy, efficacy and contribution to the bottom-line of the organization.

Availability of EHPA Information. Quality EHPA information was not readily available in a significant number of respondent organizations and, in some cases where it did exist, it was not being used to inform the decision-making process with respect to employee health initiatives. This research also confirmed that some respondent organizations focused their efforts on reducing costs in individual cost centers including

Long Term Disability (LTD), Short Term Disability (STD) or Workers Compensation Board (WCB). These initiatives often failed because the cost savings achieved in the scrutinized cost center were off-set by cost increases in related cost centers that were not under scrutiny. This finding was supported by the results of a subsequent research question that indicated only 27% of respondents believed their organizations had the information required to maximize value on employee health investments.

Concern About Rising Employee Health Costs. The vast majority of respondent organizations were concerned about rising employee health-related costs. This finding was consistent with the independent survey results reported by the Conference Board of Canada (1996). An additional concern related to rising health and benefits costs identified by participants involved retirees who enjoyed organizational benefit entitlements. In some of the more established participant organizations, the number of retirees was larger than the number of employees. Given the propensity of retirees and their spouses to consume greater quantities of medical and health-related resources, managing rising health costs in organizations where a significant portion of the cost increases were being generated outside of the organization's *sphere of influence* was characterized by some respondents as being extremely challenging.

Analysis of Health Costs. The responsibility for managing employee health costs in a significant number of respondent organizations was not decentralized while the majority of the cost analyses conducted with respect to employee health were done so corporately (centrally) for the entire organization. According to some respondents, their organization's failure to decentralize the management of employee health had resulted in significant downstream costs being incurred, particularly in the area of stress-related

absenteeism. Notwithstanding the practice of analyzing health costs at the corporate level, 69% of respondents indicated that their organizations had analyzed at least some of their health-related costs in the past 12 months.

EHPA Commitment. This research revealed that: cultural barriers were not perceived to impede respondent organization efforts to implement EHPAs; respondent organizations would commit more resources to EHPAs if substantial health-related cost savings or reductions in employee health risks could be realized; and the human resource management functions in respondent organizations were perceived as being influential and important to organizational success. Furthermore, the results indicated that: respondent organization's executive accepted its *corporate social responsibility* as it relates to managing employee health; top decision-makers in respondent organizations were examples of individuals who led health lifestyles; and union representatives in respondent organizations supported EHPAs.

Interestingly, union support for EHPAs received the highest rating among the seven factors of commitment analyzed in this research. Some participants believed that unions supported the introduction of EHPAs due to their focus on enhancing benefits and generating value for their members through non-traditional means. However, unions have historically played a significant role in improving working conditions, particularly as it relates to safety. Union support of EHPAs is the next logical step towards ensuring not only the safety of their workers but also, the overall well-being of their membership.

Participant Statements Regarding Values, EHPAs and Research Results. The multi-faceted conclusion drawn with respect to the four tertiary (open-ended) research questions was that: values influence organizational performance and that the values of

senior managers and executives typically have the most influence on decision-making; EHPAs need to be coordinated, customized, marketed and monitored to be successful; securing funding and senior management support for EHPAs are the primary barriers to implementation, and, benefits that may be derived by participants from this study include benchmarking, management and staff education and employee health program initiation. This research also revealed that employee health managers and practitioners in the field need the appropriate management tools to make the business case to implement EHPAs. Researchers need to focus on identifying the types of financial, health and organizational data required to develop an EHPA business case, and, develop an effective way for practitioners to illustrate the information in a format that is easy to prepare and explain.

Conclusions

This research identified a list of 18 organizational values that were perceived to exist and to be important in 187 diverse private and public sector organizations in Canada. It also examined the relationship that is perceived to exist between *Health* values and organizational performance, particularly as it relates to the decision-making process involving the selection of desired organizational outcomes. Finally, this research established that EHPAs were being used in Canadian organizations largely as a means of containing or reducing health costs and explored a wide range of Canadian employee health issues and practices. As a result, this research not only provides a foundation for initiating more complex empirical *Health* values and organizational performance studies but also, more intensive investigations concerning EHPAs.

In addition to providing empirical data for other researchers with respect to organizational values and EHPAs, this research provides information which may assist non-academics and practitioners alike deal with values and EHPA issues on a day-to-day basis. Examination of the value bases that underlie the functioning of organizations, for example, will enable middle and senior managers to assess the efficacy of values within their existing operational context. Also, exploration of humanistic-based approaches of improving performance (i.e. through human resource-based programs such as EHPAs) will assist practitioners realize both tangible benefits (i.e. reductions in health risk and related costs) and intangible benefits (i.e. improved organizational morale, productivity and functioning) that are proven to influence bottom-line results.

This research also makes an important contribution to a developing but still fragmented Canadian employee health management data base. Developing a quality EHPA data base is vital to enhancing awareness of potential outcomes and effects and ultimately, will assist Canadian practitioners make the business case for implementing EHPAs. Such a data base will also assist practitioners identify the barriers that are perceived to impede the implementation of EHPAs and provide insight as to how other organizations have overcome them.

The conclusions drawn from the various literatures reviewed and data analyzed are presented below:

1. Values, in the organizational sense, were understood to be *expressions of behavioral intent*. This is consistent with Hodgkinson's (1983) definition that values are "concepts of the desirable with motivating force" (p. 36). *Health* values were perceived to exist and be important in respondent organizations. 80% of respondents indicated that

Health values existed while 68% indicated that *Health* values were important. A primary function of values is to guide organizational decision-making (to be a reference point for organizational decisions) and to support positive cultural change.

2. Values influence organizational performance systematically through their influence on organizational decision-making regarding the identification of desired organizational outcomes. Values are operationalized at the personal level (V1) in organizations through initiatives (such as programs and policies) that are designed to achieve desired outcomes.

3. The values deemed most important in respondent organizations were those values perceived to influence the achievement of the desired outcomes. The typology of those values was consistent with Hodgkinson's value paradigm where: *Type I* values were based on principle (includes metavalues); *Type IIA* values were based on an analysis of consequences; *Type IIB* values were based on consensus; and *Type III* values were based on preference.

4. Values may change in accordance with stakeholder expectations, laws, institutional priorities, regulations, knowledge of more efficient and/or efficacious practices and other environmental factors and influences however, the typology of the values resident in organizational value hierarchies will remain relatively constant or change at a much slower pace.

5. Values held by decision-makers in positions of power or authority within the organizational hierarchy are more likely to influence organizational decisions than those values held by members at lower levels of the power structure. Additionally, they are

more likely to be included in value, mission and vision statements and other directional plans, policies and organizational documentation of a strategic nature.

6. *Health* values are in transition due to the cut backs that have taken place in the provincial health care systems. As organizations realize the adverse affect employee ill-health has on performance, largely via increased costs and reduced productivity, internal efforts will be made to move *Health* values up the values hierarchy through the implementation of variously designed EHPAs.

7. Programs and activities are often created and implemented as a result of values integration or clustering which involves two or more values coming together to influence the creation of an organizational program or initiative. EHPAs are examples of programs that have the influence of multiple values (i.e. *Health, Effectiveness, Productivity, Quality* and *Efficiency*) working on their behalf. Often marketed to employees as personal health improvement initiatives, most EHPAs are sold to senior decision-makers as a means of reducing health-related costs. *Type I* values are typically required to be present in the value cluster in order for implementation to take place.

8. Organizations which agreed and/or strongly agreed that *Health* values were important values in their organizations also had *EHPAs* or *Budgets for EHPAs*. Those organizations which strongly agreed that *Health* values were important values also tended to have more comprehensive *EHPAs* in place than the other respondent organizations.

9. Due largely to the recent increases in employer health costs, EHPAs are being recognized as a means of controlling costs and improving performance in participant organizations. Quality research with respect to the effect EHPAs have on organizational outcomes is required to support and enhance the growing awareness of net benefits.

10. Organizations that are addressing employee health are doing so through specific health programs designed to reduce health costs, particularly those costs associated with *Long Term Disability (LTD)*, *Absenteeism*, *Short Term Disability (STD)* and *Workers Compensation Board (WCB)*. Programs that address *Satisfaction*, *Accessibility* and *Convenience* were deemed by respondents to be most successful (or effective). Government respondents did not support the use of incentives to enhance employee participation in EHPAs.

In addition to the conclusions drawn with respect to this research, three observations concerning Sink's (1995) seven elements of organizational performance; the efficacy of the VHM for identifying the typology of values; and an EHPA implementation approach are presented below.

1. The seven elements of organizational performance identified by Sink (1985): effectiveness, efficiency, quality, productivity, innovation, quality of work life and profitability, in a values context, are consistent with Hodgkinson's (1978) definition of metavalues: maintenance, growth, efficiency, effectiveness and rationality. Accordingly, the ratings assigned to the seven organizational outcomes identified in this research intuitively support Hodgkinson's *Value Paradigm*.

2. The *VHM* can effectively be used to identify the organizational values that are perceived to exist or be important in organizations. However, it is not adequate, as an independent assessment tool, to assess the typology of values (with the exception perhaps of *Health* values) for which ethnographic support would be required in most instances. Also, in order to effectively account for the positive participant responses to values

questions, an asymmetrical scale that involves finer discrimination on the positive end should be utilized.

3. The major barriers to EHPA implementation identified in this research were securing adequate *Financial Resources* and *Management Support* for employee health initiatives. Although there are many ways to accomplish these important objectives (and, acknowledging that for some practitioners, additional empirical evidence with respect to the financial and employee health effects of EHPAs in Canadian organizations will be required before implementation proposals can be considered), a generic 5-step approach that was proposed by a respondent is outlined below. This approach may or may not be the most appropriate approach to employ however, it is one that has worked for the respondent and is described herein simply as a means of sharing this information with those human resource and employee health practitioners who may be interested in learning about the EHPA approaches utilized in other organizations.

Step 1. Involves becoming familiar with the full range of potential values and benefits associated with EHPA initiatives. This involves examining previous EHPA initiatives, programs and proposals and gaining an understanding of the organization's perspective of the benefits related to EHPAs, reasons why past proposals or initiatives were successful (or unsuccessful) and results of similar initiatives undertaken by comparable organizations. Maintaining an awareness of new and emerging programs and EHPA research are also important activities that will help inform implementation efforts.

Step 2. Focuses on determining which potential values and benefits are important to organizational decision-makers. This involves identifying the key decision-maker issues concerning EHPAs and providing evidence that supports the EHPA initiative being

proposed. This information can be gathered through one-to-one meetings, internal surveys and focus group discussions. This step may also involve identifying a *champion* for the EHPA initiative and potential references that may be able to provide first-hand accounts of similar EHPA initiatives in their organization.

Step 3. Focuses on enhancing general awareness of the quality of the evidence surrounding the values and benefits that are important to key decision-makers. This involves assessing the quality of the information gathered for EHPA initiative justification purposes, which often includes scientific studies and organizationally-generated data. Cost information related to short term disability (STD), long term disability (LTD), Workers Compensation Board (WCB), benefits utilization, sick leave, absenteeism, major medical expense, prescription drug use and death claims are often useful in determining the extent to which benefits may be realized. It is generally accepted that organizations are under-investing in employee health initiatives, and that EHPAs should be designed to achieve reductions in claims of approximately 20%.

Step 4. Concerns emphasizing these issues in the presentation of the business case for the EHPA. This involves raising awareness of the benefits associated with the EHPA by sharing relevant information on comparable health initiatives; identifying organizational health needs and implementation rationale; creating an employee-management committee to assist in identifying EHPA outcomes; conducting an EHPA pilot project; linking employee health initiatives to the organization's loss prevention strategy; and developing an evaluation plan that accounts for both tangible and intangible benefits generated by EHPAs.

Step 5. Involves evaluating the results of the approach in terms of the level of resources and support secured for the EHPA. This will necessitate explicitly identifying: what the total extent of the organization's commitment to the EHPA was (i.e. measured in financial and human resource terms); participants who benefited; signs of visible support (i.e. participation rates) received from both employees and management; what parts of the approach were more or less successful; and finally, the extent to which results achieved were effectively communicated to EHPA participants and stakeholders.

Implications For Future Research

The results of this research provide a basis for a wide range of values and EHPA inquiry. Three general directions can be followed to extend this empirical research. The generalizability of results to other organizations can be investigated, other organizational values and performance-related outcomes can be studied and, results of this study which cannot be explained with existing data can be investigated further.

The generalizability of the study's results could be addressed from several perspectives including the extent to which the results are generalizable to a broader population of Canadian, American, European and Asian organizations. In this regard, the values and EHPA items contained in the VHM could be tested on a more universal scale by a culturally diverse group of international organizations. Based on the results of this study, the researcher suspects that cultural orientation would play a significant role with respect to the various ratings assigned to the values and EHPA items contained in the VHM questionnaire.

Since this dissertation focused on the influence of *Health* values on organizational performance, an interesting extension of the research would be to investigate the relationship that exists between each of the other organizational values and outcomes identified in the study. Subsequently, this research could be extended further by including other values and performance-related outcomes, such as those deemed to be important in international organizations (i.e. equality, freedom, security). Another extension could investigate the influence of EHPAs on the organizational outcomes identified.

The study had some unexpected or contradictory results which require further investigation to explain. For instance, although *Health* values were considered to exist and be important in respondent organizations, they were not ranked highly by participants in either the existence or importance categories. Notwithstanding this result, a majority of participants strongly supported the questions associated with EHPA commitment. As a total of seven individual factors were analyzed with respect to commitment, each of these factors requires further analysis to confirm the validity of the responses.

The results of this research provide a basis for future research as it relates to both values and EHPAs. Specifically, the results would support a future study concerning:

1. the relationship between organizational values and performance-related outcomes in a broader Canadian context or in an international context;
2. the relationship between employee health programs and activities and the organizational values and outcomes identified in this research;
3. the determinants of employee health program and activity commitment.

REFERENCES

- Allen, J. & Allen, R.F. (1986). Achieving health promotion objectives through cultural change systems. American Journal of Public Health, 1(1), pp. 42-49.
- Aldana, S.G. (1998). The art of health promotion: Practical information to make programs more effective. American Journal of Health Promotion, 2 (10), pp. 1-8. Supplement.
- Alexander, P. & Nagel, K. (1996). Employee health: The new competitive edge. Group Healthcare Magazine, December-January, pp. 27-30.
- Allison, G. (1971). The Essence of Decision. Boston: Little, Brown.
- Allport, G. & Odbert, H. (1936). Trait-names: A psycho-lexical study. Psychological Monographs, 47.
- Anderson, N.H. (1968). A list of 555 personality-trait words. In M. Rokeach (Ed.), The nature of human values. New York: Free Press.
- Aram, J.D. (1976). Dilemmas of organization behavior. Englewood Cliffs, N.J.: Prentice-Hall.
- Argyris, C. (1957). Personality and organizations. New York: Harper & Row.
- Argyris, C. (1985). Strategy, change and defensive routines. Cambridge: Ballinger Publications.
- Ashforth, B. & Mael, F. (1989). Social identity theory and the organization. Academy of Management Review, 14, pp. 20-39.
- Bachrach, P. & Baratz, M. (1979). Power and poverty. New York: Oxford University Press.
- Baker, G. & Green, F. (1991). Work, health and productivity: Overview. In G. Green and F. Baker (Eds.), Work, Health and Productivity (3-18). New York: Oxford University Press.
- Barley, S. (1983). Semiotics and the study of occupational and organizational cultures. Administrative Science Quarterly, 28, pp. 393-413.
- Barley, S., Meyer, G. & Gash, D. (1988). Cultures of culture: Academics, practitioners and the pragmatics of normative control. Administrative Science Quarterly, 33, pp. 24-60.

- Barnard, C.I. (1938). The functions of the executive. Cambridge, Mass.: Harvard University Press.
- Barnett, J.H. & Karson, M.J. (1987). Personal values and business decisions: An exploratory investigation. Journal of Business Ethics, 6, pp. 371-382.
- Barney, J. (1986). Organizational culture: Can it be a source of sustained competitive advantage? Academy of Management Review, 11, pp. 656-665.
- Baun, W., Bernacki, E. & Tsai, S. (1986). A preliminary investigation: Effect of a corporate fitness program on absenteeism and health care costs. Journal of Occupational Medicine, 28, pp. 18-22.
- Beach, L. & Mitchell, T. (1985). Image theory. Unpublished paper.
- Bem, D. & Allen, A. (1974). On predicting some of the people some of the time: The search for cross-situational consistencies in behavior. Psychological Review, 81, pp. 506-520.
- Bem, D. & Funder, D. (1978). Predicting more of the people more of the time: Assessing the personality of situations. Psychological Review, 85, pp. 485-501.
- Bennis, W.G. (1966). The concept of organizational health. In W.G. Bennis (Ed.), Changing organizations. New York: McGraw-Hill.
- Bernacki, E. & Baun, W. (1984). The relationship of job performance to exercise adherence in a corporate fitness program. Journal of Occupational Medicine, 26, pp. 529-531.
- Bertera, R.L. (1990a). The effects of workplace health promotion on absenteeism and employment costs in a large industrial population. American Journal of Public Health, 80(9), pp. 1101-1105.
- Bertera, R.L. (1990b). Planning and implementing health promotion in the workplace: A case study of the DuPont Company experience. American Journal of Health Promotion, 7(5), pp. 365-373.
- Bertera, R.L. (1993). Behavioral risk factor and illness day changes with workplace health promotion: Two year results. American Journal of Health Promotion, 7(5), pp. 365-373.
- Beyer, J. (1981). Ideologies, values and decision making in organizations. In P.C. Nystrom & W. Starbuck (Eds.), Handbook of organizational design. New York: Oxford.

- Blair, S.N., Piserchia, P.V., Wilbur, C.S. & Crowder, J.H. (1986). A public health intervention model for work-site health promotion. Impact on exercise and physical fitness in a health promotion plan after 24 months. Journal of the American Medical Association, 255(7), pp. 921-926.
- Blood, M. (1969). Work values and job satisfaction. Journal of Applied Psychology, 53, pp. 456-459.
- Bluedorn, A.C. (1980). Cutting the gordian know: A critique of the effectiveness tradition in organization research. Sociology and Social Research, 64, pp. 477-496.
- Bly, J., Jones, R. & Richardson, J. (1986). Impact of work-site health promotion on healthcare costs and utilization: Evaluation of Johnson & Johnson's LIVE-FOR-LIFE program. Journal of the American Medical Association, 256, pp. 3235-3240.
- Bowers, D.G. (1964). Organizational control in an insurance company. Sociometry, 27, pp. 230-244.
- Bowers, D.G. & Seashore, S.E. (1966). Predicting organizational effectiveness with a form-factor theory of leadership. Administrative Science Quarterly, 23, pp. 604-632.
- Bowne, D., Russel, M., Morgan, J., Optenberg, S. & Clarke, A. (1984). Reduced disability and healthcare costs in an industrial fitness program. Journal of Occupational Medicine, 26, pp. 809-816.
- Braithwaite, V. & Law, H.G. (1985). Structure of human values: Testing the adequacy of the Rokeach Value Survey. Journal of Personality and Social Psychology, 49, pp. 250-263.
- Breslow, L., Fielding, J., Herrman, A. & Wilbur, C. (1990). Work-site health promotion: Its evolution and the Johnson & Johnson experience. Preventive Medicine, 19, pp. 13-21.
- Bullen, C. (1992). Administration and values: The career advancement of women managers in the British Columbia public service. Unpublished doctoral dissertation. Department of Communication and Social Foundations, Faculty of Education, University of Victoria.
- Bureau of National Affairs, Inc. (1986). Health care costs: Where's the bottom line? Washington, DC: Author.

- Caldwell, D. & O'Reilly, C. (1990). Measuring person-job fit using a profile comparison process. Journal of Applied Psychology, 75, pp. 648-657.
- Cameron, K.S. (1978). Measuring organizational effectiveness in institutions of higher education. Administrative Science Quarterly, 23, pp. 604-632.
- Cameron, K.S. (1979). Evaluating organizational effectiveness in organized anarchies. A paper presented at the Meetings of the Academy of Management, Atlanta.
- Cameron, K.S. (1981). Domains of organizational effectiveness in colleges and universities. Academy of Management Journal, 24, pp. 25-47.
- Cameron, K.S., & Whetten, D.A. (Eds.) (1983). Organizational effectiveness: A comparison of multiple models. New York: Academic Press.
- Cameron, K.S. (1986a). Effectiveness as a paradox: Consensus and conflict in conceptions of organizational effectiveness. Management Science, 32.
- Cameron, K.S. (1986b). A study of organizational effectiveness and its predictors. Management Science, 30, 1.
- Campbell, D. & Fiske, D. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. Psychological Bulletin, 56, pp. 81-105.
- Campbell, J.P. (1977). On the nature of organizational effectiveness. In P.S. Goodman and J.M. Pennings (Eds.), New perspectives in organizational effectiveness. San Francisco: Jossey-Bass.
- Canadian Comprehensive Auditing Foundation (1987). Effectiveness reporting and auditing in the public sector. Ottawa, Canada: CCAF.
- Cavanaugh, G. (1976). American Business Values. Englewood Cliffs, N.J.: Prentice-Hall.
- Centre for Health Promotion (1993). The use of social science theory to develop health promotion programs. Centre for Health Promotion and Participation: Toronto.
- Cerrato, P. (1995). Employee health: Not just a fringe benefit. Business & Health, 13, pp. 21-26.
- Chatman, J. (1988). Matching people and organizations: Selection and socialization in public accounting firms. Unpublished doctoral dissertation. Walter A. Haas School of Business, University of California, Berkeley.

- Chatman, J. (1989). Improving interactional organizational research: A model of person-organization fit. Academy of Management Review, 14, pp. 333- 349.
- Christensen, C.R., Andrews, K.R., Bower, J.L., Hamermesh, R.G. & Porter, M.E. (1987). Business policy: Tests and cases. Homewood, Illinois: Irwin.
- Conference Board of Canada (1996). The corporate response to rising health care costs. December.
- Connolly, T., Conlon, E.M & Deutsch, S.J. (1980). Organizational effectiveness: A multiple constituency approach. Academy of Management Review, 5, pp. 211-218.
- Conrad, K.M., Conrad, K.J., & Walcott-McQuigg, J. (1991). Threats to internal validity in worksite health promotion program research: Common problems and possible solutions. American Journal of Health Promotion, 6(2), pp. 112-122.
- Cooper, D.R. & Clare, D.A. (1981). A magnitude estimation scale for human values. Psychological Reports, 49, pp. 431-38.
- Cronbach, L. (1946). Response sets and test validation. Educational and Psychological Measurement, 6, pp. 475-494.
- Crown, J. & Marlowe, D. (1964). The approval motive: Studies in evaluative dependence. New York: Wiley.
- Culbert, S. & McDonough, J. (1985). Radical management. New York: The Free Press.
- Cummings, L.L. (1983). Organizational effectiveness and organizational behavior: A critical perspective. In K. Cameron & D. Whetten (Eds.), Organizational effectiveness: A comparison of multiple models. New York: Academic Press.
- Cunningham, J.B. (1978). A systems-resource approach for evaluating organizational effectiveness. Human Relations, 31, pp. 631-656.
- Cyert, R.M. & March, J. (1965). A behavioral theory of the firm. Englewood Cliffs, N.J.: Prentice-Hall.
- Davis, C. & Gaito, J. (1984). Multiple comparison procedures within experimental research. Canadian Psychology, 25, 1, pp. 1-13.
- Davis-Blake, A. & Pfeffer, J. (1989). Just a mirage: The search for dispositional effects in organizational research. Academy of Management Review, 14, pp. 385-400.

- Deal, T. & Kennedy, A. (1982). Corporate cultures: The rights and rituals of corporate life. Reading, Mass.: Addison-Wesley.
- DeJoy, D.M. & Southern, D.J. (1993). An integrative perspective on work-site health promotion. Journal of Occupational Medicine, 35(12), pp. 1221-1230.
- Delbecq, A.L., Van de Ven, A.H. & Gustafson, D.H. (1975). Group techniques for program planning: A guide to nominal group and delphi techniques. Glenview, Illinois: Scott, Foresman and Company.
- Deniston, O.L., Rosenstock, L.M. & Getting, V.A. (1968). Evaluation of program effectiveness. Public Health Reports, 83, 4, pp. 323-35.
- Diener, E., Larsen, R. & Emmons, R. (1984). Person x situation interactions: Choice of situations and congruence response models. Journal of Personality and Social Psychology, 47, pp. 580-592.
- Drucker, P.F. (1991). The new productivity challenge. Harvard Business Review, November-December.
- England, G.W. (1967). Personal value systems of American managers. Academy of American Journal, 10, pp. 53-68.
- England, G. & Lee, R. (1974). The relationship between managerial values and managerial success in the United States, Japan England and Australia. Journal of Applied Psychology, 59, pp. 411-419.
- Enz, C. (1988). The role of value congruency in intraorganizational power. Administrative Science Quarterly, 33, pp. 284-304.
- Erfurt, J.C., Foote, A., Heirich, M.A. & Gregg, W. (1990). Improving participation in worksite wellness programs; Comparing health education classes, a menu approach, and follow-up counseling. American Journal of Health Promotion, 4(4), pp. 270-278.
- Erfurt, J.C., Foote, A. & Heirich, M.A. (1991a). Worksite wellness programs; Incremental comparison of screen and referral alone, health education, follow-up counseling, and plant organization. American Journal of Health Promotion, 5(6), pp. 438-448.
- Erfurt, J.C., Foote, A. & Heirich, M.A. (1991b). The cost-effectiveness of work-site wellness programs for hypertension control, weight loss, and smoking cessation. Journal of Occupational Medicine, 33(9), pp. 962-970.

- Etzioni, A. (1964). Modern organizations. Englewood-Cliffs, N.J.: Prentice-Hall.
- Everet, W.J. (1986). Convergence in business ethics. Journal of Business Ethics, 5, pp. 313-325.
- Falkenberg, L. (1987). Employee fitness programs: Their impact on the employee and the organization. Academy of Management Review, 12, pp. 511-522.
- Feather, N. (1979). Human values in the work situation: Two studies. Australian Psychologist, 14, pp. 131-141.
- Fielding, J.E. (1982). Effectiveness of employee health improvement programs. Journal of Occupational Medicine, 24(11), pp. 907-916.
- Fielding, J.E. (1988). The proof of the health promotion pudding is... Journal of Occupational Medicine, 30(2), pp. 113-115.
- Fielding, J.E. & Piserchia, P.V. (1989). Frequency of worksite health promotion activities. American Journal of Public Health, 79, pp. 16-20.
- Fielding, J.E. (1991). Health promotion at the work-site. In G. Green and F. Baker (Eds.), Work, Health and Productivity (pp. 256-276). New York: Oxford University Press.
- Fisher, C. & Gitelson, R. (1983). A meta-analysis of the correlates of role conflict and ambiguity. Journal of Applied Psychology, 68, pp. 320-333.
- Frederick, W.C. & Weber, J. (1987). The values of corporate managers and their critics: An empirical description and normative implications. In W.C. Frederick (Ed.), Research in social corporate performance and policy: Empirical studies of business ethics and values. Greenwich, CT: The JAI Press.
- Freeman, R.E. & Gilbert, D.R. Jr. (1988). Corporate strategy and the search for ethics. Englewood Cliffs, New Jersey: Prentice-Hall.
- Fries, J.F., Fries, S.T., Parcell, C.L. & Harrington, H. (1992). Health risk changes with a low-cost individualized health promotion program: Effects up to 30 months. American Journal of Health Promotion, May-June, 6,5, pp. 364-371.
- Fries, J. F., Bloch, D.A., Harrington, H., Richardson, N., & Beck, R. (1993). Two-year results of a randomized controlled trial of a health promotion program in a retiree population: The bank of America study. The American Journal of Medicine, 94, pp. 455-461.

- Fries, J.F., Harrington, H., Edwards, R., Kent, L.A. & Richardson, N. (1994). Randomized controlled trial of cost reductions from a health education program: The California public employees' retirement system (PERS) study. American Journal of Health Promotion, 8(3), pp. 216-223.
- Fullan, M.G. (1991). The new meaning of educational change. New York: Teachers College Press.
- Gebhardt, D. & Crump, C. (1990). Employee fitness and wellness programs in the workplace. American Psychologist, 45, pp. 262-272.
- Gibbs, J., Mulvaney, D., Henees, C., & Reed, R. (1985). Work-site health promotion. Journal of Occupational Medicine, 27, pp. 826-830.
- Glasgow, R. & Terborg, J. (1988). Occupational health promotion programs to reduce cardiovascular risk. Journal of Consulting and Clinical Psychology, 56, pp. 365-373.
- Golaszewski, T, Snow, D., Lynch, W, Yen, L. & Solomita, D. (1992). A benefit-to-cost analysis of a work-site health promotion program. Journal of Occupational Medicine, 34, pp. 1164-1172.
- Goodman, P.S. & Penning, J.M. (1977). New perspectives on organizational effectiveness. San Francisco: Jossey-Bass.
- Gorsuch, R. (1970). Rokeach's approach to value systems and social compassion. Review of Religious Research, 11, pp. 139-143.
- Graham, W. (1976). Commensurate characterization of persons, groups and organizations: Development of the Trait Ascription Questionnaire (TAQ). Human Relations, 29, pp. 607-622.
- Gross, E. (1968). Universities as organizations: A research approach. American Sociological Review, 33, pp. 518-544.
- Gross, E. (1969). The definition of organizational goals. British Journal of Sociology, 20, pp. 277-294.
- Guth, W.D. & Taguiri, R. (1965). Personal values and corporate strategy. Harvard Business Review, 43(5), pp. 123-132.
- Haberstroh, C. & Gerwin, D. (1972). Climate factors and decision process, General Systems, 17, pp. 129-141.

- Hackman, J. & Oldham, G. (1980). Work redesign. Reading, MA: Addison-Wesley.
- Hage, J. & Dewar, R. (1973). Elite values versus organizational structure in predicting innovation. Administrative Science Quarterly, 18, pp. 279-290.
- Hall, R.P. (1978). Conceptual, methodological and moral issues in the study of effectiveness. Working papers. Unpublished.
- Hannan, M.T & Freeman, J. (1977). The population ecology of organizations. American Journal of Sociology, 82, pp. 929-964.
- Health Canada (1994). National health expenditures in Canada, 1975-1994. Ottawa.
- Heaney, C.A. & Goetzel, R.Z. (1997). A review of health-related outcomes of multi-component worksite health promotion programs. American Journal of Health Promotion, 11(4), pp. 290-308.
- Hebert, J.R., Harrie, D.R., Sorensen, G., Stoddard, A.M., Hunt, M.K. & Morris, D.H. (1993). A work-site nutrition intervention: Its effects on the consumption of cancer-related nutrients. American Journal of Public Health, 83(3), pp. 391-394.
- Heirich, M.A., Foote, A., Erfurt, J.C. & Konopka, B. (1993). Work-site physical fitness programs. Comparing the impact of different program designs on cardiovascular risks. Journal of Occupational Medicine, 35(5), pp. 510-517.
- Hirshman, A. (1970). Exit, voice and loyalty. Cambridge, MA: Harvard University Press.
- Hitt, M., Hoskisson, R. & Harrison, J. (1991). Strategic competitiveness in the 1990s: Challenges and opportunities for US executives. Academy of Management Executive, 5, pp. 7-22.
- Hodgkinson, C. (1978). Towards a philosophy of administration. Oxford: Blackwell.
- Hodgkinson, C. (1983). The philosophy of leadership. Oxford: Blackwell.
- Hodgkinson, C. (1991). Educational leadership: The moral art. Albany: State University of New York Press.
- Hodgkinson, C. (1996). Administrative philosophy: Values and motivations in administrative life. Oxford: Elsevier Science Ltd.

- Hollander, R. & Lengermann, J. (1988). Corporate characteristics and work-site health promotion programs: Survey findings from Fortune 500 companies. Social Science in Medicine, 26, pp. 491-501.
- Howard, R. (1990). Values make the company: An interview with Robert Haas. Harvard Business Review, 68, pp. 132-144.
- Ilgen, D. (1990). Health issues a work: Opportunities for industrial/organizational psychology. American Psychologist, 45, pp. 273-283.
- Isabella, L. (1986). Culture, key events and corporate social responsibility. In J. Post (Ed.), Research in Corporate Social Performance and Policy, pp. 175-192. Greenwich, CT: The JAI Press.
- James, L.R. & Lawrence, A.P. (1976). Organizational structure: A review of structural dimensions and their conceptional relationships with individual behavior. Organizational Behavior and Human Performance, 16, 1, pp. 74-113.
- Janis, I. (1972). Victims of group think. Boston: Houghton Mifflin.
- Jeffrey, R.W., Forster, J.I., Dunn, B.V., French, S.A., McGovern, P.G. & Lando, H.A. (1993a). Effects of work-site health promotion on illness-related absenteeism. Journal of Occupational Medicine, 35(11), pp. 1142-1146.
- Jeffrey, R.W., Forster, J.I., French, S.A., Kelder, S.H., Lando, H.A., McGovern, P.G., Jacobs, D.R. & Baxter, J.E. (1993b). The Healthy Worker Project:: a work-site intervention for weight control and smoking cessation. American Journal of Public Health, 83(3), pp. 395-401.
- Jones, R., Bly, J. & Richardson, J. (1990). A study of work-site health promotion program and absenteeism. Journal of Occupational Medicine, 32, pp. 95-99.
- Kanter, R.M. & Brinkerhoff, D. (1981). Organizational performance: Recent developments in measurement. Annual Review of Sociology, 7, pp. 321-349.
- Kasten, K.L. & Ashbaugh, C.R. (1988). A comparative study of values in administrative decision making. Journal of Research and Development in Education, 21, 3, pp. 17-23.
- Katz, D. & Kahn, R.L. (1966, 1978). The social psychology of organizations. New York: Wiley.
- Keeley, M. (1978). Social justice approach to organizational evaluation. Administrative Science Quarterly, 22, pp. 272-292.

- Keller, L.M., Arvey, R.D, Dawis, R.V., Bouchard, Jr., T.J., & Segal, N. (1992). Work values: Genetic and environmental influences. Journal and Applied Psychology, 77, 1, pp. 79-88.
- Kelly, G.A. (1955). Theory of personality: The psychology of personal constructs. New York: W.W. Norton & Co.
- Kelly, J. (1980). Organizational behavior. Homewood, Illinois: Richard D. Irwin, Inc.
- Keon, T., Latack, J. & Wanous, J. (1982). Image congruence and the treatment of different scores in organizational choice research. Human Relations, 35, pp. 155-165.
- Kidron, A. (1978). Work values and organizational commitment. Academy of Management Journal, 21, pp. 239-247.
- Kilmann, R. (1984). Beyond the quick fix. San Francisco: Jossey-Bass.
- Kitwood, T.M. & Smithers, A.G. (1975). Measurement of human values: An appraisal of the work of Milton Rokeach. Educational Research, 17, pp. 175-179.
- Kitwood, T.M. (1980). Disclosures to a stranger: Adolescent values in an advanced industrial society. Boston: Routledge & Kegan Paul.
- Kluckhohn, C. (1951). Values and value-orientations in the theory of action. In T. Parsons & E. Shils (Eds.), Toward a general theory of action. Cambridge, MA.: Harvard University Press.
- Lang, D.L. (1986). Values and commitment: An empirical verification of Hodgkinson's value paradigm as applied to the commitment of individuals to organizations. Unpublished doctoral dissertation. Department of Communication and Social Foundations, Faculty of Education, University of Victoria.
- Lamiell, J. (1981). Toward an idiographic psychology of personality. American Psychologist, 36, pp. 276-289.
- Learned, E.P., Dooley, A.R., & Katz, R.L. (1959). Personal values and business decisions. Harvard Business Review, 37(2), pp. 111-120.
- Lecompte, M. & Goetz, J. (1984). Ethnographic data collection in evaluation research. In D. Fetterman (Ed.), Ethnography in Educational Evaluation, pp. 37-59. Beverly Hills, CA: Sage.

- Liedtka, J. (1989). Managerial values and corporate decision-making: An empirical analysis of value congruence in two organizations. In J. Post (Ed.), Research in Corporate Social Performance and Policy, pp. 55-92. Greenwich, CT: The JAI Press.
- Liedtka, J. (1991). Organizational value contention and managerial mindsets. Journal of Business Ethics, 10, pp. 543-557.
- Lofquist, L. & Dawis, R. (1969). Adjustment to work. New York: Appleton-Century-Crofts.
- Lovato, C. & Green, L. (1990). Maintaining participation in workplace health promotion programs. Health Education Quarterly, 17(1), pp. 73-88.
- Luthans, F. & Davis, T. (1982). An ideographic approach to organizational behavior research: The use of single case experimental designs and direct measures. Academy of Management Review, 7, pp. 380-391.
- Lynch, W., Golaszewski, T., Clearie, A., Snow, D., & Vickery, D. (1990). Impact of a facility-based corporate fitness programs on the number of absences from work due to illness. Journal of Occupational Medicine, 32, pp. 9-12.
- Martin, J. & Siehl, C. (1983). Organizational culture and counterculture: An uneasy symbiosis. Organizational Dynamics, 12, 1, pp. 52-64.
- Matteson, M. & Ivancevich, J. (1988). Work-site health promotion: Some Important questions. Health Values, 12, pp. 23-29.
- Maxey, C., Roy, D.P., & Kerr, S. (1982). A study of executive heart health programs in selected companies. Los Angeles: American Heart Association.
- McClintock, C.G. & Liebrand, W.B. (1988). Role of interdependence structure, individual value orientation, and another's strategy in social decision-making: A transformational analysis. Journal of Personality and Social Psychology, 55(3), pp. 396-409.
- McClintock, C.G. & Allison, S.T. (1989). Social value orientation and helping behavior. Journal of Applied Social Psychology, 19(4), pp. 353-362.
- McCoy, C. (1985). The management of values. Marshfield, MA.: Pitman Publishing.
- McDonald, G.M. & Zepp, R.A. (1990). What should be? A practical approach to business ethics. Management Decision, 28, 1, pp. 9-14.

- McIntyre, S.H. & Ryans, A. (1977). Time and accuracy measures for alternative multidimensional scaling data collection methods: Some additional results. Journal of Marketing Research, 14, pp. 607-610.
- Meglino, B., Ravlin, E. & Adkins, C. (1989). A work values approach to corporate culture: A field test of the value congruence process and its relationship to individual outcomes. Journal of Applied Psychology, 74, 3, pp. 424-432.
- Meir, E. & Hasson, R. (1982). Congruence between personality type and environment type as a predictor of stay in an environment. Journal of Vocational Behavior, 21, pp. 309-317.
- Merrens, M. & Garrett, J. (1975). The Protestant ethic scale as a predictor of repetitive work performance. Journal of Applied Psychology, 60, pp. 125-127.
- Miethe, T.D. (1985). The validity and reliability of value measurements. Journal of Psychology, 119, pp. 441-453.
- Munson, J. & McIntre, S.H. (1979). Developing practical procedures for measurement of personal values in cross-cultural marketing. Journal of Marketing Research, 16, pp. 48-52.
- Munson, J. & Posner, B. (1980a). Concurrent validation of two value inventories in predicting job classification and success of organizational personnel. Journal of Applied Psychology, 65, pp. 536-542.
- Munson, J. & Posner, B. (1980b). The factorial validity of a modified Rokeach Value Survey from four diverse samples. Educational and Psychological Measurement, 40, pp. 1073-1079.
- Nadler, D. & Tushman, M. (1980). A model for diagnosing organizational behavior: Applying a congruence perspective. Organizational Dynamics, 9, 3, pp. 35-51.
- Nagel, K.F. (1995). A survey of values, ethics and management principles in public and private sector organizations: Executive summary report. Victoria, BC: Independent Management Consultants of British Columbia.
- Nagel, K.F. & Cutt, J. (1995). Strategic management, accountability and performance measurement in a provincial government organization: A review of the approach and experience of the Ministry of Transportation and Highways. Victoria, BC: University of Victoria Center for Public Sector Studies.
- National Forum on Health (1997). Canada health action: Building on the legacy. Ottawa, Ontario: Minister of Public Works and Government Services.

- O'Reilly, C. (1977). Personality-job fit: Implications for individual attitudes and performance. Organizational Behavior and Human Performance, 18, pp. 36-46.
- O'Reilly, C. (1989). Corporations, culture and commitment: Motivation and social control in organizations. California Management Review, 31, 4, pp. 9-25.
- O'Reilly, C., Caldwell, D. & Mirabile, R. (1990). More than a mirage: Disposition-situation interaction as explanations of work behavior. Working paper. Walter A. Hass School of Business, University of California, Berkeley.
- O'Reilly, C., Chatman, J. & Caldwell, D. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. Academy of Management Journal, 34, 3, pp. 487-516.
- Orne, M.T. (1962). On the social psychology of the psychological experiment with particular reference to demand characteristics and their implications. American Psychologist, 17, pp. 776-783.
- Ouchi, W. (1981). Theory Z. Reading, MA.: Addison-Wesley.
- Ouchi, W. & Wilkins, A. (1985). Organizational culture. In R. Turner (Ed.), Annual review of sociology, 11, pp. 457-483, Palo Alto, CA: Annual Reviews.
- Parsons, T. (1951). The social system. New York: Free Press.
- Pascal, R. & Athos, A. (1981). The art of Japanese management: Applications for American executives. New York: Simon & Schuster.
- Pate, R.L. & Blair, S.N. (1983). Physical fitness programming for health promotion at the worksite. Preventive Medicine, 12, pp. 632-643.
- Pelletier, K.R. (1993). A review and analysis of the health and cost-effective outcome studies of comprehensive health promotion and disease prevention programs at the worksite: 1991-1991 update. American Journal of Health Promotion, 8(1), 50-62.
- Pennings, J.M. (1976). Dimensions of organizational influence and their effectiveness correlates. Administrative Science Quarterly, 21, 4, pp. 688-699.
- Pennings, J.M. & Goodman, P.S. (1977). Toward a framework of organizational effectiveness. In P.S. Goodman & J.M. Pennings (Eds.), New perspectives on organizational effectiveness. San Francisco: Jossey-Bass.

- Pentz, M.A., Dwyer, J.H., MacKinnon, D.P., Flay, B.R., Hansen, W.B., Wang, E.Y. & Honson, C.A. (1989). A multi community trial for primary prevention of adolescent drug abuse. Effects on drug use prevention. Journal of the American Medical Association, 261(22), pp. 3259-3266.
- Peters, T.J. & Waterman, R.H. (1982, 1983). In search of excellence: Lessons from America's best run companies. New York and London: Harper & Row.
- Pfeffer, J. (1977). Usefulness of the concept. In P.S. Goodman & J.M. Pennings (Eds.), New perspectives on organizational effectiveness. San Francisco: Jossey-Bass.
- Pfeffer, J. & Salancik, G.R. (1978). The external control of organizations. New York: Harper and Row.
- Posner, B. & Schmidt, W. (1982). Values of American managers: Then and now. California Management Review, March, pp. 13.
- Posner, B. & Schmidt, W. (1984). Values and the American manager: An update. California Management Review, 23, pp. 41-60.
- Posner, B., Kouzes, J. & Schmidt, W. (1985). Shared values make a difference: An empirical test of corporate culture. Human Resource Management, 24, 3, pp. 293-309
- Posner, B. & Schmidt, W. (1992). Values and the American manager: An update updated. California Management Review, pp. 80-94.
- Price, J.L. (1968). Organizational effectiveness: An inventory of propositions. Homewood III: Irwin.
- Price, J.L. (1972). The study of organizational effectiveness. Sociological Quarterly, 13, pp. 3-15.
- Quinn, R.E. & Rohrbaugh, J. (1980). A competing values approach to organizational effectiveness. A paper presented to the Academy of Management, Atlanta.
- Quinn, R.E. & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: Towards a competing values approach to organizational analysis. Management Science, 29, March.
- Ralston, D.A., Elsass, P., Terpstra, R.H., Gustafson, D.J., & Cheung, F. (1992). Eastern values: A comparison of managers in the United States, Hong Kong and the Peoples Republic of China. Journal of Applied Psychology, 77, 5, pp. 664-671.

- Ravlin, E. & Meglino, B. (1987). Issues in work values measurement. In W. Frederick (Ed.), Research in Corporate Social Performance and Policy, pp. 153-184. Greenwich, CT: The JAI Press.
- Robinson, J. & Shaver, P. (1969). Measure of social psychological attitudes. Ann Arbor, MI: Institute for Social Research.
- Rokeach, M. (1973). The nature of human values. New York: Free Press.
- Rousseau, D. (1990). Quantitative assessment of organizational culture: The case for multiple measures. In B. Schneider (Ed.), Frontiers in industrial and organizational psychology, 3, pp. 153-192. San Francisco: Jossey-Bass.
- Saffold, G. (1988). Culture traits, strength and organizational performance: Moving beyond "strong" culture. Academy of Management Review, 13, pp. 546-558.
- Salancik, G. Pfeffer, J. (1978). An examination of need satisfaction models of job attitudes. Administrative Science Quarterly, 22, pp. 427-456.
- Schein, E. (1981). Does Japanese management style have a message for American managers. Sloan Management Review, 22, pp. 55-68.
- Schein, E. (1985). Organizational culture and leadership. San Francisco: Jossey-Bass.
- Schneider, B. (1983). Work climates: An interactionist perspective. In Feimer, N. and Geller, E.S. (Eds.), Environmental psychology: Directions and perspectives. New York: Praeger.
- Schneider, E. (1987). The people make the place. Personnel Psychology, 40, pp. 437-453.
- Sciacca, J., Seehafer, F., Reed, R., & Mulvany, D. (1993). The impact of participation in health promotion on medical costs: a reconsideration of the Blue Cross and Blue Shield of Indiana Study. American Journal of Health Promotion, 7(5), pp. 374-384.
- Scott, W.A. & Scott, R. (1965). Values and organization: A study of fraternities and sororities. Chicago: Rand McNally.
- Scott W.G. & Hart, D.K. (1979). Organizational America. Boston: Houghton Mifflin.

- Scott, W.R. (1977). Effectiveness of organizational effectiveness studies. In P.S. Goodman & J.M. Pennings (Eds.), New perspectives on organizational effectiveness. San Francisco: Jossey-Bass.
- Seashore, S.E. & Yuchtman, E. (1967). Factorial analysis of organizational performance. Administrative Science Quarterly, 10, pp. 377-395.
- Seashore, S.E. (1979). Assessing organizational effectiveness with reference to member needs. A paper presented at the Meetings of the Academy of Management, Atlanta.
- Seashore, S.E. (1983). A framework for an integrated model of organizational effectiveness. In K. Cameron & D. Whetten (Eds.), Organization effectiveness: A comparison of multiple models. New York: Academic Press.
- Selznick, P. (1957). Leadership in administration. Evanston, IL.: Row, Peterson.
- Senger, J. (1970). The religious manager. Academy of Management Journal, 13, pp. 179-186.
- Sharkey, P.W, Graham-Kresge, S. & White, G.L. (1995). Defining health education: Health values and professional responsibility. Health Values, 19, 6, pp. 23-29.
- Shephard, R.J. (1992a). Twelve years of experience of a fitness program for the salaried employees of a Toronto Life Assurance Company. American Journal of Health Promotion, 6, pp. 292-301.
- Shephard, R.J. (1992b). A critical analysis of work-site fitness programs and their postulated economic benefits. Medicine and Science in Sports and Exercise, 24(2), pp. 354-370.
- Shiple, R.H., Orleans, T., Wilbur, C.S., Piserchia, P.V. & McFadden, D.W. (1988). Effect of the Johnson & Johnson Live for Life program on employee smoking. Preventative Medicine, 17, pp. 25-34.
- Simpson, D. (1996). Bayer health congress: 1996 annual report. Toronto: Axia Innovation Mentoring Unit.
- Sink, D.S. (1985). Productivity management: Planning, measurement and evaluation, control and improvement. New York: John Wiley & Sons.
- Smircich, L. (1983). Concepts of culture and organizational analysis. Administrative Science Quarterly, 28, pp. 339-359.

- Smith, K.J. & Everly, G.S. (1988). Problems in the evaluation of occupational health promotion programs: A case analysis. American Journal of Health Promotion, 3(1), pp. 43-55.
- Sorensen, G., Morris, D.M., Hunt, M.K., Hebert, J.R., Harris, D.R., Stoddard, A. & Ockene, J.K. (1992a). Work-site nutrition intervention and employees' dietary habits: the Treatwell Program. American Journal of Public Health, 82(6), pp. 877-880.
- Sorensen, G., Hsieh, J., Hunt, M.K., Morris, D.H., Harris, D.R. & Fitzgerald, G. (1992b). Employee Advisory Boards as a vehicle for organizing worksite health promotion programs. American Journal of Health Promotion, 6(6), pp. 443-450, 464.
- Spradley, J. (1979). The ethnographic interview. New York: Holt, Rinehart and Winston.
- Springfield, A. (1988). An Aristotelian resolution of the ideographic versus nomothetic tension. American Psychologist, 43, pp. 425-430.
- Spokane, A. (1985). A review of research on person-environment congruence in Holland's theory of careers. Journal of Vocational Behavior, 26, pp. 306-343.
- Steckler, A. (1989). The use of qualitative evaluation methods to test internal validity. An example in work site health promotion program. Journal of Occupational Medicine, 31(6), pp. 551-556.
- Steers, R.M. (1975). Problems in measuring organizational effectiveness. Administrative Science Quarterly, 10, pp. 546-558.
- Stephenson, W. (1953). The study of behavior: Q-technique and its methodology. Chicago: University of Chicago Press.
- Stonich, P.J. (1982). Implementation strategy: Making strategy happen. Cambridge, M.A.: Ballinger Publishing Company.
- Strasser, S. Eveland, J.D., Cummings, G., Deniston, O. L., Romani, J.H. (1981). Conceptualizing the goal and system models of organizational effectiveness: Implications for comparative evaluation research. Journal of Management Studies, 18, 3.
- Taylor, C.L. (1996). The corporate response to rising health care costs. Ottawa: The Conference Board of Canada

- Terborg, J.R. (1986). Health promotion at the worksite: A research challenge for personnel and human resource management. In K.H. Rowland & G.R. Ferris (Eds.), Personnel and Human Resource Management, 4, pp. 225-267. Greenwich, CT: JAI.
- Thurow, L. (1992). Head to head - The coming economic battle among Japan, Europe and America. New York: William Morrow and Company, Inc.
- Tichy, N. (1983). Managing strategic change: Technical, political and cultural dynamics. New York: Wiley.
- Toffler, B.L. (1986). Tough choices: Managers talk ethics. New York: John Wiley & Sons.
- Tom, V. (1971). The role of personality and organizational images in the recruiting process. Organization Behavior and Human Performance, 6, pp. 573-592.
- Trice, H. & Beyer, J. (1984). Studying organizational cultures through rites and ceremonials. Academy of Management Review, 9, pp. 653-669.
- Tsai, S., Baun, M. & Bernacki, E. (1987). Relationship of employee turnover to exercise adherence in a corporate fitness program. Journal of Occupational Medicine, 29, pp. 572-575.
- Ulrich, D. & Lake, D. (1990). Organizational capability: The people edge. New York: Wiley.
- Van Dahlen, D.B. & Meyer, W.J. (1962). Understanding educational research. New York: McGraw Hill.
- Vinson, D., Munson, J. & Nakanishi, M. (1977). An investigation of the Rokeach Value Survey for consumer research applications. In W.O. Perrault (Ed.), Proceedings, advances in consumer research. Association for Consumer Research.
- Walsh, D.C. & Egdahl, R.H. (1989). Corporate perspectives on worksite wellness programs: A report on the seventh Pew Fellow Conference. Journal of Occupational Medicine, 31(6), pp. 551-556.
- Walsh, D. (1991). Costs of illness in the workplace. In G. Green and F. Baker (Eds.), Work, Health and Productivity, pp. 217-240. New York: Oxford University Press.
- Warner, K.E. (1987). Selling health promotion to corporate America: Uses and abuses of the economic argument. Health Education Quarterly, 14(1), pp. 39-55.

- Warner, K., Wickizer, T. Wolfe, R., Schildroth, J. & Samuelson, M. (1988). Economic implications of workplace health promotion programs: Review of the literature. Journal of Occupational Medicine, 30, pp. 106-112.
- Warner, K. (1990). Wellness at the work-site. Health Affairs, 9, pp. 63-79.
- Warriner, C.K. (1965). The problem of organizational purpose. The Sociological Quarterly, 6, pp. 139-146.
- Weber, J. (1986). Towards developing a managerial values profile. Proceedings of the Eastern Academy of Management, pp. 64-68.
- Weber, J. (1990). Managerial value orientations: A typology and assessment. International Journal of Value-Based Management, 3, 2, pp. 37-54.
- Weber, J. (1993). Exploring the relationship between personal values and moral reasoning. Human Relations, 46, 4, pp. 435-463.
- Weick, K.E. (1969). The social psychology of organizing. Reading, MA.: Addison-Wesley.
- Weiner, Y. (1988). Forms of value systems: A focus on organizational effectiveness and cultural change and maintenance. Academy of Management Review, 13, pp. 534-545.
- Weiss, H. (1972). Evaluation research: Methods of assessing program effectiveness. Englewood Cliffs, N.J.: Prentice-Hall.
- Weiss, H. (1978). Social learning of work values in organizations. Journal of Applied Psychology, 63, pp. 711-718.
- Weiss, H. & Adler, S. (1984). Personality and organizational behavior. In B.M. Staw and L.L. Cummings (Eds.), Research in organizational behavior, 4, pp. 1-50. Greenwich, CT: The JAI Press.
- Wesman, A.G. (1976). Reliability and confidence. In W.A. Mehrens (Ed.), Measurement and Evaluation, pp. 35-44. New York: Holt Rinehart.
- Wilson, M.G. (1990). Factors associated with issues related to and suggestions for increasing participation in workplace health promotion programs. Health Values, 14(4), pp. 29-36.
- Wolfe, R., Ulrich, D. & Parker, D. (1987). Employee health management programs: Review, critique and research agenda. Journal of Management, 13, pp. 603-615.

- Wolfe, R. (1989). Administration Innovation: Influence of power and context. Unpublished doctoral dissertation. School of Business Administration, University of Michigan.
- Wolfe, K., Slack, T., & Rose-Hearn, T. (1993). Factors influencing the adoption and maintenance of Canadian facility-based worksite health promotion programs. American Journal of health Promotion, 7(3), pp. 189-193.
- Wolfe, R., Parker, D. & Napier, N. (1994). Employee health management and organizational performance. Journal of Applied Behavioral Science, 30, pp. 22-42.
- World Health Organization (1998). The definition of health. On World Health Organization's internet home page; e-mail: www.who.ch/aboutwho/en/definition.html.
- Yuchtman, E. (1966). A study of organizational effectiveness. Unpublished Ph.D. dissertation study. The University of Michigan.
- Yuchtman, E. & Seashore, S.E. (1967). A system resource approach to organizational effectiveness. American Sociological Review, 32, pp. 891.
- Zald, M. (1963). Comparative analysis and measurement of organizational goals. Sociological Quarterly, 4, pp. 206-230.
- Zammuto, R.F. (1982). Assessing organizational effectiveness: Systems change, adaptation and strategy. New York: SUNY-Albany Press.
- Zammuto, R.F. (1984). A comparison of constituency models of effectiveness. Academy of Management Review, 9, 4, pp. 606-616.

Appendix A

VALUES AND HEALTH MANAGEMENT SURVEY QUESTIONNAIRE

**Organizational Values and Health Management Project
Faculty of Education, University of Victoria
Victoria, British Columbia**

SECTION I - IDENTIFYING VALUES AND PERFORMANCE OUTCOME EFFECTS

Values influence organizational performance through both individual and collective decision-making that occurs continuously at all levels (and in every functional unit) of an organization. Consequently, values can have both a broad and complex effect on organizational performance, defined for the purposes of this study as "the ability to achieve positive, organizational outcomes related to effectiveness, efficiency, quality, productivity, innovation, quality of work life and profitability." (Sink, 1985)

In this section, you will be asked to develop a values profile of your organization, and, to identify the effect your organization's value profile has on achieving positive, organizational outcomes. This will involve identifying the dominant values that you perceive to exist in your organization (Part A), and, the importance you perceive your organization to place on those values (Part B). You will also be asked to identify the effect your organization's values have on its ability to achieve the seven positive, organizational outcomes identified above (Parts C and D).

Please indicate your feeling or perception of the existence, importance and effect of the values identified in accordance with the seven-point Likert scale where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; and, 7 = strongly agree. If you do not have a feeling or perception in regard to the values, importance or effect, mark an "X" in the space provided. If you believe there are dominant values which exist in your organization that haven't been identified on the list provided, please add them in the blank spaces provided and score each value as described above. To determine if a value should be added to the list, ask yourself whether or not a majority of your co-workers would agree with the proposed addition. If you have more values to add than the four spaces provided, please advise the interviewer so that he may make a note of them and their respective ratings. Ensure that the values you add to the list (if any) have not already been included in the key descriptors for the dominant values identified. For example, the value "effectiveness" is a key descriptor for the value "efficiency". Work slowly and think carefully. The end result should show how you really feel.

Dr. Yvonne Martin-Newcombe, Supervisor (250) 721-7813

Organization ID # _____

Appendix A (continued)**Part A - Identifying the Existence of Organizational Values**

For each of the values identified below, assume that you have been asked to respond to the statement: "_____ is one of your organization's values. Use only the scale provided (where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; 7 = strongly agree, and, X = no perception) to respond.

-
- | | |
|--|---|
| 1) ___ Communication
Provision of accurate, timely information; being consultative. | 10) ___ Productivity
Increase outputs produced and value generated without increasing inputs. |
| 2) ___ Efficiency
Minimum waste; effectiveness, proficiency. | 11) ___ Prosperity
Maximize profits and benefits for the company, community and/or society. |
| 3) ___ Fairness
The state of being fair; just, impartial, unbiased. | 12) ___ Quality
Distinguishing attributes or features; excellence, superiority. |
| 4) ___ Growth
Developing and maturing; expanding, increasing. | 13) ___ Respectability
The state of being respectable; socially acceptable behavior; considerate. |
| 5) ___ Health
Employee physical/mental well-being; disease free, soundness, vitality. | 14) ___ Responsibility
The state of being responsible; answerable, accountable. |
| 6) ___ Innovation
A change in the way of doing things; new approach, device. | 15) ___ Service
Focus on customer needs; generate customer satisfaction. |
| 7) ___ Integrity
Uprightness, honesty, sincerity; probity. | 16) ___ Stability
Unlikely to change adversely; lasting, enduring. |
| 8) ___ Leadership
Show the way; guide or direct. | 17) ___ Teamwork
Group action; collaboration, joint effort, partnership. |
| 9) ___ Learning
Acquiring knowledge and skill on a continuous basis; life-long learning. | 18) ___ Tolerance
Not interfering with; allow, permit. |

Appendix A (continued)**Part B - Identifying the Relative Importance of Organizational Values**

For each of the values identified below, assume that you have been asked to respond to the statement: "_____ is one of your organization's most important values. Use the scale provided (where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; 7 = strongly agree, and, X = no perception) to respond.

- | | |
|--|---|
| 1) ___ Communication
Provision of accurate, timely information; being consultative. | 10) ___ Productivity
Increase outputs produced and value generated without increasing inputs. |
| 2) ___ Efficiency
Minimum waste; effectiveness, proficiency. | 11) ___ Prosperity
Maximize profits and benefits for the company, community and/or society. |
| 3) ___ Fairness
The state of being fair; just, impartial, unbiased. | 12) ___ Quality
Distinguishing attributes or features; excellence, superiority. |
| 4) ___ Growth
Developing and maturing; expanding, increasing. | 13) ___ Respectability
The state of being respectable; socially acceptable behavior; considerate. |
| 5) ___ Health
Employee physical/mental well-being; disease free, soundness, vitality. | 14) ___ Responsibility
The state of being responsible; answerable, accountable. |
| 6) ___ Innovation
A change in the way of doing things; new approach, device. | 15) ___ Service
Focus on customer needs; generate customer satisfaction. |
| 7) ___ Integrity
Uprightness, honesty, sincerity; probity. | 16) ___ Stability
Unlikely to change adversely; lasting, enduring. |
| 8) ___ Leadership
Show the way; guide or direct. | 17) ___ Teamwork
Group action; collaboration, joint effort, partnership. |
| 9) ___ Learning
Acquiring knowledge and skill on a continuous basis; life-long learning. | 18) ___ Tolerance
Not interfering with; allow, permit. |
| _____ | _____ |
| _____ | _____ |

Appendix A (continued)**Part C - Identifying the Existence of a Values Influence on Organizational Performance**

For each of the organizational outcomes identified below, assume that you have been asked to respond to the statement: "_____ are outcomes whose achievement is influenced by your organization's values. Use the scale provided (where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; 7 = strongly agree, and, X = no perception) to respond.

-
- | | |
|---|---|
| 1) ___ Effectiveness Outcomes
Related to the production of the desired result; achieving objectives. | 5) ___ Innovation Outcomes
Related to developing a new method or approach; changing status quo. |
| 2) ___ Efficiency Outcomes
Related to the production of the desired result with minimal waste. | 6) ___ Quality of Work Life Outcomes
Related to the excellence attributes of the workplace; health/safety, mobility. |
| 3) ___ Quality Outcomes
Related to the excellence that characterizes a product/service. | 7) ___ Profitability Outcomes
Related to the gain/benefit realized; accumulation of wealth/prosperity. |
| 4) ___ Productivity Outcomes
Related to the production of goods/ services; creation of economic value. | |

Part D - Identifying the Degree to which Values Influence Organizational Performance

For each of the organizational outcomes identified below, assume that you have been asked to respond to the statement: "_____ are outcomes whose achievement is heavily influenced by your organization's values. Use the scale provided (where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; 7 = strongly agree, and, X = no perception) to respond.

-
- | | |
|---|---|
| 1) ___ Effectiveness Outcomes
Related to the production of the desired result; achieving objectives. | 5) ___ Innovation Outcomes
Related to developing a new method or approach; changing status quo. |
| 2) ___ Efficiency Outcomes
Related to the production of the desired result with minimal waste. | 6) ___ Quality of Work Life Outcomes
Related to the excellence attributes of the workplace; health/safety, mobility. |
| 3) ___ Quality Outcomes
Related to the excellence that characterizes a product/service. | 7) ___ Profitability Outcomes
Related to the gain/benefit realized; accumulation of wealth/prosperity. |
| 4) ___ Productivity Outcomes
Related to the production of goods/ services; creation of economic value. | |

Appendix A (continued)**SECTION II - IDENTIFYING HOW HEALTH VALUES INFLUENCE PERFORMANCE**

The degree to which values are able to influence decision-making often depends on the extent of their integration into an organization's physical environment or culture. That is, the degree to which the values are embodied in an organization's day-to-day activities, processes, programs, policies and so on. For the purposes of this study, the ways and means with which health values are perceived to influence decision-making will be explored. It is appropriate that health values be selected for this exploratory examination as research suggests that well designed employee health programs and activities can effect organizational outcomes related to performance including: reducing health risks and related costs, turnover and absenteeism while improving job performance and employee satisfaction.

In this section, information with respect to how health values influence or effect organizational performance will be gathered. Accordingly, the methods utilized by organizations to operationalize health values (Part A), and, rationale utilized to justify implementing health programs and activities (Part B) must be explored. This will help to identify the various values that are effectively being operationalized through employee health initiatives. As employee inclination to participate in health-related programs and activities dramatically effects organizational decision-making, the value conflicts that are perceived to impede the implementation of employee health programs and activities (Part C and D) as well as the incentives utilized (Part E) and environmental factors (Part F) believed to enhance employee involvement in health programs/activities must be examined.

Please indicate your feeling or perception of the alternatives identified in Parts A-E by rating each of them in accordance with the seven-point Likert scale where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; and, 7 = strongly agree. If you do not have a feeling or perception as to the item identified, mark an "X" in the space provided. If you believe there are alternatives to the choices outlined, please add them in the blank spaces provided and score each item as described above. To determine if a value should be added to the list, ask yourself whether or not a majority of your co-workers would agree with the proposed addition. If you have more suggestions than blank spaces provided, please advise the interviewer so that he may make a note of them and their respective ratings. Work slowly and think carefully. The end result should show how you really feel.

Appendix A (continued)**Part A - Operationalizing Health Values**

The various methods or approaches used by organizations to operationalize their values have ranged from institutionalizing organizational values in structures and processes to development of values-based policies, programs and plans to general discussions of values at management forums (Nagel, 1995). For each of the methods or vehicles identified below, assume that you have been asked to respond to the statement: "_____ is an important method or vehicle for operationalizing health values in your organization. Use the scale provided (where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; 7 = strongly agree, and, X = no perception) to respond.

-
- | | | | |
|--------|-------------------------|---------|-------------------------------------|
| 1) ___ | Mission Statement | 7) ___ | Organizational Management Practices |
| 2) ___ | Vision Statement | 8) ___ | Performance Evaluation Criteria |
| 3) ___ | Values Statement | 9) ___ | Creation of a Position Responsible |
| 4) ___ | Organizational Plans | 10) ___ | Creation of a Committee Responsible |
| 5) ___ | Organizational Policies | 11) ___ | Training and Development Programs |
| 6) ___ | Organizational Programs | 12) ___ | Orientation |
| ___ | _____ | ___ | _____ |
| ___ | _____ | ___ | _____ |

Part B - Rationale For Implementing Employee Health Programs and Activities

For each of the positive outcomes or rationale identified below, assume that you have been asked to respond to the statement: "_____ is an important rationale for justifying the implementation of employee health programs and activities in your organization. Use the scale provided (where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; 7 = strongly agree, and, X = no perception) to respond.

-
- | | | | |
|--------|--------------------------------|---------|-------------------------------------|
| 1) ___ | Reduced Health Risks | 10) ___ | Reduced Health Costs |
| 2) ___ | Improved Employee Satisfaction | 11) ___ | Enhanced Job Performance |
| 3) ___ | Reduced Turnover | 12) ___ | Reduced Absenteeism |
| 4) ___ | Improved Work Habits | 13) ___ | Reduced Disability Days |
| 5) ___ | Reduced Hospitalization Costs | 14) ___ | Improved Exercise Participation |
| 6) ___ | Improved Fitness Levels | 15) ___ | Reduced Prescription Drug Costs |
| 7) ___ | Improved Smoker Quit Rates | 16) ___ | Reduced Sick Leave |
| 8) ___ | Improved Corporate Image | 17) ___ | Improved Organizational Functioning |
| 9) ___ | Improved Recruitment Success | 18) ___ | Improved Productivity |
| ___ | _____ | ___ | _____ |
| ___ | _____ | ___ | _____ |

Appendix A (continued)**Part C - Kinds (Sorts) of Value Conflicts Perceived to Impede EHPA Implementation**

Toffler (1986) identified several kinds of value conflicts as a result of her research with managers. For each of the various kinds identified below, assume that you have been asked to respond to the statement: "_____ *impede efforts to implement employee health programs and activities in your organization.* Use the scale provided (where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; 7 = strongly agree, and, X = no perception) to respond.

-
- | | |
|---|--|
| 1) ___ Intra-Personal Conflicts
Conflicts between two or more values held within an individual's personal value framework. | 5) ___ Individual-Peer Conflicts
Conflicts between the values held by individuals and their peers in the same work group or unit. |
| 2) ___ Individual-Supervisor Conflicts
Conflicts between the values held by individuals and those perceived to be held by their immediate supervisor. | 6) ___ Individual-Management Conflicts
Conflicts between the values held by individuals and those perceived to be held by senior management. |
| 3) ___ Obligatory Conflicts
Conflicts between the values held by an individual and the group(s) to whom that individual has an obligation. | 7) ___ Means-Ends Conflicts
Conflicts between the values held by individuals and the need to achieve a desired outcome for the organization. |
| 4) ___ Organizational Conflicts
Conflicts between the values held by individuals and the values perceived to be held by the organization. | 8) ___ Strategic Conflicts
Conflicts between the values held by individuals within an organization as it relates to the delegation of authority. |

Part D - Nature (Types) of Value Conflicts Perceived to Impede EHPA Implementation

Hodgkinson (1983) believed there were only four grounds or justifications for valuing: principles or ideology (Type I); analysis of consequences (Type IIA); social consensus (Type IIB); and preference (Type III). For each of the value types identified below, assume that you have been asked to respond to the statement: "_____ *value conflicts impede efforts to implement employee health programs and activities in your organization.* Use the scale provided (where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; 7 = strongly agree, and, X = no perception) to respond.

-
- | | |
|---|---|
| 1) ___ Type I
Conflicts justified on principle or ideological commitment. | 3) ___ Type IIA
Conflicts justified upon an analysis of the consequences of holding those values. |
| 2) ___ Type IIB
Conflicts justified on the grounds of social consensus. | 4) ___ Type III
Conflicts justified on preference. |

Dr. Yvonne Martin-Newcombe, Supervisor (250) 721-7813

Organization ID # _____

Appendix A (continued)**Part E - Incentives that Influence Short Term Employee Involvement in Health Initiatives**

Enhanced employee involvement in health programs and activities increases realizable benefits for both employees and employers. To enhance short term involvement in EHPAs, a wide range of incentives have been used (Wolfe, 1989). For each of the incentives identified below, assume that you have been asked to respond to the statement: "_____ is an important incentive for enhancing short term employee involvement in employee health programs and activities in your organization. Use the scale provided (where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; 7 = strongly agree, and, X = no perception) to respond.

-
- | | |
|--|---|
| 1) ___ Monetary (or Equivalent) Prizes | 8) ___ Recognition/Achievement Awards |
| 2) ___ Internal Organizational Challenges | 9) ___ External Organization Challenges |
| 3) ___ Time Off From Work | 10) ___ Indoor Area For Activities |
| 4) ___ Outdoor Area For Activities | 11) ___ Locker Room With Showers |
| 5) ___ Locker Room Without Showers | 12) ___ Weight Training Equipment |
| 6) ___ Swimming Pool | 13) ___ Stationary Cycles or Treadmills |
| 7) ___ Meeting Rooms for Health Activities | 14) ___ Subsidized Health Memberships |
| ___ _____ | ___ _____ |
| ___ _____ | ___ _____ |

Part F - Factors that Influence Long Term Employee Commitment to Health Initiatives

The real benefits of employee health programs are only realized through long term maintenance of healthful behaviors and environment. The available evidence suggests that combinations of environmental and individual approaches are necessary to maintain participation (Lovato & Green, 1990). For each of the factor(s) identified below, assume that you have been asked to respond to the statement: "_____ is an important factor that affects long term employee commitment to employee health programs and activities in your organization. Use the scale provided (where: 1 = strongly disagree; 2 = disagree; 3 = marginally disagree; 4 = neither disagree or agree; 5 = marginally agree; 6 = agree; 7 = strongly agree, and, X = no perception) to respond.

-
- | | |
|--|--|
| 1) ___ Accessibility | 9) ___ Confidentiality |
| 2) ___ Convenience | 10) ___ Program Variance |
| 3) ___ Participant Satisfaction | 11) ___ Individual Goal Setting |
| 4) ___ Involvement in Program Planning | 12) ___ Performance Contracting |
| 5) ___ Appropriate Physical Setting | 13) ___ Program Tailoring |
| 6) ___ Visible Corporate Support | 14) ___ Spousal Involvement |
| 7) ___ Financial Incentives | 15) ___ External Feed-Back on Progress |
| 8) ___ Senior Management Participation | 16) ___ Social Reinforcement (Public) |
| ___ _____ | ___ _____ |
| ___ _____ | ___ _____ |

Appendix A (continued)**SECTION III - DEMOGRAPHIC AND EMPLOYEE HEALTH MANAGEMENT PROFILES**

This section is designed to collect demographic information from participating organizations as well as information with respect to employee health management practices.

Part A - Demographic Profile

Please provide the following information by printing the response required or by checking (✓) the appropriate option. Note: ns = not sure.

- 1) Organization Type: _____
- 2) Number of full-time employees (approximately): _____
- 3) Industry Type: _____
- 4) Approximately what percentage of full time employees are:
 - a) Exempt _____%
 - b) Male _____%
 - c) Less than 30 years old _____%
 - d) Blue collar _____%
 - e) Unionized _____%

Part B - Employee Health Management Profile

- 1) Does your organization have a medical department or unit? ___ yes ___ no ___ ns
- 2) Has your organization offered any prevention-oriented employee health programs or activities (excluding EAP) in the past year? ___ yes ___ no ___ ns (Please specify: _____)
- 3) Does your organization have a budget for preventative employee health programs/activities (excluding EAP)? ___ yes ___ no ___ ns
- 4) How have the health programs and activities offered by your organization in the past year been administered, coordinated and conducted?
 - a) Exclusively in-house ___ yes ___ no ___ ns
 - b) Mostly in-house ___ yes ___ no ___ ns
 - c) Equally in-house and through out-side providers ___ yes ___ no ___ ns
 - d) Mostly by an outside provider ___ yes ___ no ___ ns
 - e) Exclusively by an outside provider ___ yes ___ no ___ ns
- 5) Does your organization have the employee health information it needs to:
 - a) Contain rising employee health-related costs ___ yes ___ no ___ ns
 - b) Determine if health-related savings are available ___ yes ___ no ___ ns
 - c) Reduce employee health risks ___ yes ___ no ___ ns
 - d) Reduce non-disability related absenteeism ___ yes ___ no ___ ns
 - e) Reduce disability-related absenteeism ___ yes ___ no ___ ns
 - f) Maximize value on employee health investments ___ yes ___ no ___ ns

Appendix A (continued)

- 6) Is your organization concerned about rising costs related to:
- a) Health programs ___ yes ___ no ___ ns
 - b) Health services ___ yes ___ no ___ ns
 - c) Health activities ___ yes ___ no ___ ns
 - d) STD ___ yes ___ no ___ ns
 - e) WCB ___ yes ___ no ___ ns
 - f) LTD ___ yes ___ no ___ ns
 - g) Prescription drugs ___ yes ___ no ___ ns
 - h) Turnover ___ yes ___ no ___ ns
 - i) Absenteeism ___ yes ___ no ___ ns
 - j) Other (Please specify): _____
- 7) Has your organization analyzed (or initiated the analysis of) any of its health-related costs in the past year? ___ yes ___ no ___ ns (If yes, please specify): _____
- 8) At what level does your organization analyze its health costs?
- a) Business unit ___ yes ___ no ___ ns
 - b) Program ___ yes ___ no ___ ns
 - c) Department ___ yes ___ no ___ ns
 - d) Work site ___ yes ___ no ___ ns
 - e) Corporately (centrally for entire organization) ___ yes ___ no ___ ns
 - f) Other (Please specify): _____
- 9) Is your organization affected by cultural (values) barriers with respect to implementing employee health programs and activities? ___ yes ___ no ___ ns
- 10) Would your organization commit more resources to employee health programs and activities if substantial reductions in employee health risks could be realized? ___ yes ___ no ___ ns
- 11) Would your organization commit more resources to employee health programs and activities if substantial savings in health costs could be realized? ___ yes ___ no ___ ns
- 12) Is the human resources function in your organization widely perceived as being influential and important to organizational performance and success? ___ yes ___ no ___ ns
- 13) Does the Executive accept its "corporate social responsibility" as it relates to managing employee health needs and issues? ___ yes ___ no ___ ns
- 14) Are your organization's Top Decision-Makers (i.e. members of the Executive) examples of individuals who lead healthy lifestyles? ___ yes ___ no ___ ns
- 15) Do your organization's union representatives support the introduction of employee health programs and activities? ___ yes ___ no ___ ns

Appendix A (continued)**SECTION IV - DISCUSSION QUESTIONS (OPTIONAL)**

- 1) Given your knowledge and experience; if you were selected to advise a committee of private and public sector companies with regard to:
 - a) organizational values (culture), but, had to limit your advice to one statement; what would that statement be?

 - b) employee health programs and activities, but, had to limit your advice to one statement; what would that statement be?

- 2) What do you believe is the greatest obstacle with respect to implementing employee health programs and activities in Canadian organizations that you are familiar with?

- 3) How will the results of this survey benefit your organization?

ATTENTION

Please sign and fax the letter of informed consent (next page) to me prior to completing the survey questionnaire. Also, if your organization has a values statement or value-laden mission statement or other documentation you believe would be relevant to this study, I would appreciate your sending me a copy. My address is: Kevin F. Nagel, UVIC Study, 127 Strathcona Mews SW, Calgary, Alberta T3H 1W2.

Appendix A (continued)**LETTER OF INFORMED CONSENT**Participant's Statement:

I have voluntarily agreed to participate in this research project which explores the influence of employee health values, programs and initiatives on organizational performance. I understand that the researcher is a graduate student (Ph.D.) in the Faculty of Education at the University of Victoria. I understand that my participation requires that I complete a survey questionnaire, and, that the aggregate results of the survey will be published in a thesis. I understand that all information I provide will remain strictly confidential and anonymous, and, that the survey questionnaire will be kept in a security-protected office during processing. No one will have access to the raw data but the researcher.

I understand that I do not have to answer to any questions that I do not want to respond to. I am free to withdraw my participation from this research at any time after signing this form with no questions asked and without prejudice. I understand that I am free to ask any questions now or at any time during the research process.

Participant Name

Date

Researcher's Statement:

I, Kevin F. Nagel, am the sole researcher in the investigation of the effects of employee health values, programs and initiatives on organizational performance. In accordance with ethical regulations for research involving humans, I will make every effort to protect the safety, welfare and rights of my research participants. All information I obtain will be held in the strictest of confidence and the names of subjects or the organizations they represent will not appear in any report produced as a result of the survey.

Kevin F. Nagel, Researcher

Date

Dr. Yvonne Martin-Newcombe, Supervisor (250) 721-7813

Organization ID # _____

Appendix B

Research Study Introduction Letter**UNIVERSITY OF VICTORIA**
FACULTY OF EDUCATION

Facsimile Cover Sheet

To: Whom It May Concern
Organization: ABC
Fax: ()

From: Kevin Nagel
Graduate Student
Fax: ()
Date:

Re: Employee Health Values and Management Research Project

As part of my program requirements for a Ph.D. in Educational Administration, Faculty of Education, University of Victoria, I am conducting a survey among human resource and occupational health personnel from private, public and government organizations in British Columbia and Alberta. The focus of the survey is on employee health values, programs and activities and their perceived effect (or influence) on organizational performance. The results will be published as a thesis.

To date, there has not been an in-depth study in Canada that has sought to identify the influence of employee health initiatives and values on organizational performance. However, due to the rapid and continuing escalation in employee health costs since 1990 (The Conference Board of Canada, 1996), gaining knowledge of the potential influence of these factors has become increasingly important for private and public organizations alike. By taking part in this survey, you will be informed of the types of employee health initiatives being undertaken in top performing organizations as well as the values perceived to exist therein. You will also gain insight of the perceived influence of employee health initiatives and values on performance.

Private industry, government, health and educational organizations are taking part in the survey which is expected to take between 30-45 minutes via survey questionnaire. Subjects may withdraw at any time without cause or explanation, and, have the right to refuse to answer any question. All information provided will remain strictly confidential. The survey will also be anonymous. No individual respondent or organizations they represent will be identifiable in any report resulting from the survey.

All participants will receive a copy of the survey's aggregate results for their personal reference. As your (or your delegate's) participation would be sincerely appreciated, I will call you to confirm your involvement.

Appendix C

Participant Suggestions Regarding the VHM

The number of completed questionnaires received was 187. Seven respondents identified additional values they believed to exist in their respective organizations; two respondents identified additional rationale for implementing employee health programs and activities; four respondents identified additional ways/means of operationalizing health values in their organizations; seven respondents identified additional incentives for enhancing short term employee involvement in employee health programs and activities; and, two respondents identified additional factors that influence long term employee commitment to health initiatives. The additional responses received in each of these areas are provided below.

Suggestions with regard to values included:

Timeliness.	Agility.
Environmental Responsibility.	Decisiveness.
Safety.	Opportunistic.
Student-centered.	Honesty.
Education for prosperity.	Pride.
General and Career education.	Accountability.
Caring.	Competence.
Respect.	Flexibility.
Risk taking .	

Suggestions with regard to implementation rationale included:

Improved self-image.
Better quality life.

Suggestions with regard to health values operationalization included:

Core competencies.	Mentorship.
Performance measures.	Physical resources.
Client surveys.	Leadership from the ranks.
Staff forums.	Social marketing.
Top management support.	

Suggestions with regard to employee health-related incentives included:

Cafeteria-produced “healthy” alternatives.
Employee assistance counseling.
Spousal access to services.
Initial and follow-up health assessments for interested employees.
Health consultant for employees.
Internal leaders (champions) to organize activities/programs.
On-site access to health expertise.
Flex time to participate in health programs/activities.
Make health programs and activities fun!

Suggestions with regard to employee health-related commitment factors included:

Supportive organizational culture.
Communication of the benefit to be realized by participating.
Satisfaction gained from participating.

Appendix D

Findings on the Advice Tendered by Participants

with Respect to Values, EHPAs, Obstacles to EHPA Implementation, and the Potential Benefits of this Research

Advice On Organizational Values

Participants tendered a broad range of statements when asked for advice with respect to organizational values as described below:

Given your knowledge and experience, if you were selected to advise a committee of private and public sector companies with regard to organizational values (culture), but had to limit your advice to one statement, what would that statement be?

“Employers and employees need to walk the values talk.”

“Organizational values need to be balanced.”

“Organizational values should reflect both financial and humanistic ends.”

“Senior managers need to provide leadership with regard developing and operationalizing organizational values.”

“Organizational values have a direct affect on organizational performance.”

“The systematic handling of values (and values-based issues) is vital to the achievement of organizational goals and objectives.”

“Organizational values not only act as a guide for corporate decision-making but play a vital role in the decision itself.”

“Corporate ‘action’ needs to reflect organizational values.”

“Health is a value that organizations could rally around to improve performance.”

“Health as a value needs to be elevated to the status of ‘corporate objective’ with definable and achievable targets.”

“Senior and middle managers should be held accountable for achieving results that are consistent with the organization’s values.”

“Senior management have to practice the values they preach.”

“Health values are critical for long term financial success.”

“Respect is an important organizational value.”

“Communication is an important organizational value.”

“Organizational values must be modeled by the executive, senior management and employees.”

“Values must be collectively identified and be perceived as being reflected in decision-making. They must not be mandated by senior management or used for purely propaganda purposes.”

“Visible senior management commitment to health values is required if improvement in corporate health is to be achieved.”

“Health values are necessary to establish a culture of continuous improvement.”

“Corporate decision-making has to reflect organizational values.”

“Individuals accepting responsibility for improving their own health is vital to the evolution of health as a corporate value.”

“Human resource management (which includes values education) is our core business.”

“Organizational values based on profit-making need to be balanced with people-oriented values such as health in order for the organization to be successful in the long term. “

“Health brings wealth.”

“Organizational values are both diverse and influential.”

“Values determine the type and success of organizational activities.”

“Employee health should be part of the mission or value statement of an organization.”

“To optimize success, values need to be integrated or institutionalized into all aspects of organizational life.”

“Organizational values have a direct influence on bottom line results.”

“A focus on health values will improve the service capability and well-being of an organization.”

“Corporate values must reflect the values held by organizational members.”

“Respect and caring are important organizational culture determinants.”

“Organizations need to incorporate health into their value systems.”

“True organizational values are reflected in resource allocation decisions.”

“Value conflicts and gaps exist between ‘stated’ values and ‘operative’ values.”

“Health is a critical cultural value that is also a determinant of organizational performance.”

“The creation of a values framework needs to be initiated, facilitated and supported by senior management.”

“Values need to guide core organizational decision-making.”

“The health and well-being of employees should be aggressively supported.”

“Senior managers should be examples of individuals who adhere to corporate values.”

“Communication is an important corporate value.”

“Employees need to be proactive in lobbying for improved corporate health.”

“Organizational values have a direct affect on organizational performance.”

“All organizational activities and programs should have a value rationale.”

“Organizational values affect all aspects of organizational performance and functioning.”

“Development of organizational values should include all employees.”

“Organizational values are important guides for decision-making and should reflect the fact that human behavior largely determines organizational outcomes and results.”

“Executives need to provide leadership with respect to developing a positive corporate culture.”

“Health values need to be assigned a greater priority.”

“Objective-oriented values need to be tempered with humanistic values.”

“Organizational values need to be collectively developed. Future decision-making also needs to be evaluated in accordance with the values established.”

“Values guide everything in an organization.”

“Health values are required to develop human resource potential.”

“Health values can empower organizations by bringing people together.”

“Developing values should be a ‘bottom-up’ exercise.”

“Respect is an important organizational value.”

“Values are the key operative factor in successful organizations.”

“Organizational values need to be operationalized for the benefit of both management and staff.”

“Senior management could demonstrate the existence of health values by visibly supporting health initiatives and funding employee health programs.”

“Health values support efforts to improve productivity.”

“Communication, teamwork, fairness and responsibility are key values that influence outcomes and enhance productivity.”

“Organizational values are key drivers of corporate behavior.”

“Organizational values establish the context for corporate life.”

“The priority assigned to financial values out-weigh those assigned to health values. The latter is often sacrificed to ensure the former when resource allocation decisions are made.”

“Organizational values have to be balanced to be effective as performance enhancers.”

Advice On EHPAs

Participants tendered a broad range of statements when asked for advice with respect to EHPAs as described below:

Given your knowledge and experience, if you were selected to advise a committee of private and public sector companies with regard to employee health programs and activities, but had to limit your advice to one statement, what would that statement be?

“Health initiatives require funding and active, visible management support.”

“The ‘bottom line’ will be affected by organizational health.”

“Managers need to be proactive in developing tools to deal with employee health issues.”

“The down-stream costs (both financial and human) of not managing health at the individual manager level are significant.”

“A crisis management approach in the area of employee health is prohibitively expensive.”

“Health programs will be successful if the organizational culture supports it.”

“Organizational performance is directly affected by employee health.”

“Responsibility for employee health (as well as any cost reduction-related benefits) should be shared equally between management, unions and employees.”

“Health programs need to be distinguished from safety programs. A safe work environment is not necessarily a healthy work environment”.

“Health assessments should be used to design and tailor employee health programs - not employee wish lists.”

“Establishment and on-going tracking of health outcomes is necessary to justify investment.”

“Health initiatives need internal champions - financial justification alone is not sufficient.”

“Organizational health initiatives and programs enhance individual accountability for improving and/or maintaining employee health.”

“Health initiatives (wellness and occupational health) need coordination”.

“Improved corporate morale and productivity are outcomes of effective health initiatives.”

“Workplace stress is a major contributor to deteriorating employee health.”

“Individual employees must take responsibility for improving their health by making better (more informed) lifestyle choices.”

“Employees have a responsibility to inform the organization of health issues and problems as much as organizations have a responsibility to be proactive about addressing them.”

“The benefits of health programs are generally not understood by management or employees.”

“Results of programs need to be analyzed, monitored and communicated.”

“Health programs improve productivity, morale and efficiency and save employers dollars by reducing absenteeism and improving employee well-being and functioning.”

“Health programs cannot be successful without top management support.”

“Wellness programs should be made available in the workplace. How they are funded is an issue that needs to be worked out between the employee and the employer.”

“The future success of organizations is dependent on the health of their human resources.”

“Maintaining corporate human resources is more important than maintaining the corporate vehicle fleet or upgrading corporate computer systems. It should be a priority investment.”

“Healthy employees are more productive and can make a more significant contribution to organizational performance.”

“Clear outcomes must be established for health initiatives, and, the outcomes should be collectively developed to ensure all organization members buy-in.”

“Health programs need to consider the needs of employees as well as the environment in which the programs are being delivered.”

“Employee health initiatives enhance organizational productivity and success.”

“Good health is good business.”

“Employees need to be actively encouraged to participate in health programs.”

“Senior management commitment is key to health initiative success due to the relatively long period of time it takes for health-related benefits to be realized.”

“Employee health programs are an investment in an organization’s productive capacity.”

“Although there is currently an emphasis on disability management, health programs are a better investment for the future.”

“Health programs should be designed in accordance with a hierarchy of needs - high risk individuals should be a priority.”

“Incentives should be used to enhance participation in health programs.”

“Organizational health can be financially rewarding.”

“Preventative health programs reap higher returns in the long run than reactive programs that deal with already established health problems.”

“Health programs should be an organizational priority as they are vital to efficient operation.”

“Organizations should develop a strong health policy”.

“Do the easy things first. Build on success. Recognize that employee health is cultural in nature and takes time to generate bottom line results and employee commitment.”

“The pay-back on health initiatives can be determined if an organization wants to take the time to do so. If they don’t, that says something about their values concerning employee health.”

“A commitment to improved health will result in improved performance.”

“Confidentiality with respect to employee health needs to be respected.”

“Management should demonstrate their commitment to employee health through the resource allocation process.”

“Get support for health programs from all quarters (management, employees, union) prior to putting a corporate health proposal forward. If possible, develop it collaboratively.”

“Health programs should be considered “insurance” against productivity loss due to ill-health.”

“Organizational health programs improve the organization’s image both internally and externally and in so doing facilitates employee commitment and dedication.”

“Health programs will reduce health risks and generate health-related savings.”

“Employee health needs have to guide health program design - not a health program wish list that changes every month. This will ensure benefits such as cost savings can be realized. A proper health assessment should be completed”

“Practitioners have to aggressively market health programs internally in order to secure the employee participation levels and support required to sustain the program over the long term.”

“Implementation of health programs requires full executive committee support.”

“Health programs should be viewed as a necessary investment in human resources that is required to attract and maintain a quality, productive work force.”

“Build support for health programs throughout the organization and document the contribution they make with respect to achieving organizational goals and objectives.”

“Allow the benefits of health programs to be identified by those who participate in them.”

“Health initiatives have to be positioned as long term strategies for performance improvement rather than short term solutions to problems that have recently been uncovered or publicized.”

“Effective health programs can be expected to return approximately \$3 for every dollar invested over a 3-5 year period. High risk programs have the highest pay-back.”

“Recruit a senior management “champion” to provide leadership for health programs.”

“Employee health programs and activities provide a win/win opportunity for both employers and employees.”

“Health programs need to be linked to organizational business needs and goals.”

“Corporate health improvement requires both the employer and employee to accept responsibility for changing behaviors related to health.”

“Partnerships between health organizations and business can facilitate innovative approaches to improve employee health.”

“Employee well-being is synonymous with corporate success and viability.”

“Create an employee health committee, a fun environment, and, start slow.”

“Effective health management requires patience, encouragement and support.”

“Practitioners can do a lot to improve employee health with the resources the system.”

“Conduct a survey of employees to establish interest levels in health initiatives.”

“Start small, build on success.”

“Create a culture in which the practice of healthy lifestyles is the norm. Programs with high participation rates are typically those programs whose benefits are known to participants.”

“In addition to financial returns, employee health programs generate non-financial benefits such as improved morale and commitment, reduced turnover and improved image.”

“An organization’s culture needs to be analyzed before employee health initiatives are developed for implementation. Tailoring of programs is vital to high participation levels.”

“Prevention programs are required to off-set rising costs in employee health.”

“The business case for employee health initiatives needs to be developed in consultation with senior finance personnel.”

“Organizations should focus on ensuring they facilitate improved employee health by developing a variety of programs/initiatives rather than a ‘one size fits all’ program.”

“Organizational design (ergonomic and functional) is a major determinant of workplace health.”

“Employee health and wellness is more about a way of ‘doing business’ than it is about specific health programs, activities or initiatives.”

“Health programs need to be actively promoted among management and employees.”

“Cost shifting and cutting are not the answer to managing rising health costs. Health programs should be designed to address rising health costs.”

“Educating management and employees with respect to the benefits of health initiatives is the key to success. Education first, program delivery and active participation later.”

Advice On Obstacles Impeding the Implementation of EHPAs

Participants tendered a broad range of statements when asked for advice with respect to the obstacles perceived to impede EHPA implementation:

What do you believe is the greatest obstacle with respect to implementing employee health programs and activities in Canadian organizations that you are familiar with?

“Securing adequate funding - both short and long term”.

“Getting senior management buy-in. The majority of them have not had to manage health in the past. Its a relatively new challenge and requires education and a willingness to learn”.

“Lack of a clear link between employee health and corporate objectives”.

“Lack of management knowledge and understanding of health programs, activities and ROI”.

“Lack of a generally accepted set of health outcomes (to monitor/measure progress) and a methodology for analyzing the outcomes once the programs are in place”.

“Cost justification.”

“Selling the benefits of prevention to management and employees. Employee buy-in is critical to the success of any health program.”

“Individual department, program and business unit managers need to be held accountable for employee health and its related costs.”

“Resources to implement health programs.”

“The management values framework has not traditionally included health.”

“The assumption that the public health system can address ‘work-related’ health concerns.”

“General lack of knowledge with respect to corporate health issues (and their potential effects) and ways and means of effectively dealing with employee health matters.”

“Management’s failure to recognize employee health as a legitimate corporate responsibility.”

“Lack of relevant research and ‘accepted facts’ concerning the affect corporate health initiatives have on organizational performance.”

“Understanding the costs of not addressing an identified health issue in the workplace.”

“Public perception of government spending money on ‘non-essential’ health programs for government employees.”

“Lack of quality decision-making information (i.e. cost/benefit) with respect to health programs.”

“Failure to identify what the direct and indirect costs of ill-health are.”

“Inability of employers to make a long term commitment to health programs.”

“Educating senior and middle management as to the benefits of corporate health.”

“The existence of a short term and cost-containment focus.”

“Quantifying the cost-benefit of health programs.”

“The unhealthy lifestyle choices promoted by popular culture (i.e. smoking, drug use, etc.)”

“Employee attitudes that health programs should be provided at no cost without so much as a commitment from employees to participate.”

“Individuals failure to accept responsibility for managing their own health.”

“Securing senior management commitment and support for health programs.”

“Lack of a clear link between employee health and corporate objectives.”

“Being given the time to demonstrate and document how health initiatives (personal or corporate) are directly affecting existing corporate programs, activities and performance.”

“Results/benefits achieved by health programs tend to take between 3-5 years to materialize while prioritization of funding and resources is done on a short-term basis (quarterly).”

“Staff are not asked (empowered) for input in regard to program planning or in what areas they believe the greatest value for money can be achieved.”

“Lack of quality health cost data for analysis purposes. The real costs associated with organizational ill-health are unknown.”

“Restructuring of workplace wellness resources (health, safety, hygiene and fitness) and those of other related departments and programs. Changes in the status quo will be resisted.”

“Delivering health services and programs effectively in a large decentralized organization.”

“The entrenchment of traditional ‘old school’ management attitudes that support cost cutting as a primary means of achieving organizational objectives.”

“Lack of relevant Canadian research in the area of employee health management.”

“Fear of failure.”

“Employee perception that health programs are being implemented solely to save money.”

“Perception that health programs are a cost as opposed to an investment.”

“Motivation to improve health on the part of both management and staff.”

“Management perception that health programs are non-productive ‘fluff’ rather than programs that can assist an organization reach its corporate objectives.”

“Lack of standards with respect to employee health management.”

“Health care practitioners are often poor communicators, and consequently, the benefits of health programs are often not clearly or widely understood or appreciated.”

“Lack of performance monitoring when it comes to employee health programs. Its hard to justify health programs when the benefits are not measured by the organization.”

“Gaining trust and acceptance from employees.”

“The entrenchment of a reactive approach to employee health rather than a preventative one.”

Advice On Potential Benefits to be Derived from the Research

Participants tendered a broad range of statements when asked to identify the potential benefits that may be derived from the research:

How will the results of this survey benefit your organization?

“They will be used to benchmark and evaluate internal health programs, and, to provide information for future development plans in the area of employee health”.

“The study will provide relevant employee health information”.

“They will enhance knowledge about recent developments in employee health and provide information for developing management and executive health education initiatives”.

“The results will provide a comprehensive prioritization of organizational values against which the value priorities assigned by our organization could be compared”.

“The results should provide a Canadian perspective on employee health management that can be used in employee health planning.”

“They will hopefully identify the factors and issues that should be considered with respect to developing a business case for employee health initiatives.”

“The results will ‘inform’ existing values, health initiatives and programs.”

“They will provide a basis for developing an internal wellness proposal for the executive.”

“The results should assist in prioritizing health expenditures for the coming year.”

“The results will provide a relevant data base for comparing organizational values and employee health initiatives.”

“Not sure.”

“They will enhance awareness and knowledge of health programs and related outcomes.”

“The results will provide information with respect to employee health decision-making and resource allocation.”

“They will be used to support a proposal to develop a wellness program”.

“The results could potentially identify the relevant rationale for implementing a health program.”

“Unable to determine benefit prior to receiving results.”

“They will be used as a self-assessment yardstick.”

“The information will be used to support the expansion of existing health programs.”

“Internal communication of study results may stimulate interest in developing a program.”

“Identification of rationale and cost factors used by other organizations will help build a more effective business case for employee health initiatives.”

“They will identify trends in employee health which may in turn affect the direction we take internally.”

“The results may cause our organization to review or re-examine our values.”

“The results may stimulate interest in developing an employee health program.”

“They should provide sound research for use in strategic and tactical health planning initiatives.”

“The results will be used in educating employees and managers about health programs.”

“They will assist in the evaluation of organizational health initiatives.”

“Potentially, the results will stimulate discussions about employee health initiatives in the public sector.”

“The study will raise awareness of health initiatives being undertaken and the perceived link between employee health and organizational performance.”

“Little or no perceived benefit.”

“They should assist in the justification of an employee health initiative.”

“The study will provide ideas for health planning.”

“Maybe the results will show that employee health programs are not just for organizations that can afford them (rich ones) but rather an integral component of any organization’s approach to enhancing performance.”

“The results will facilitate the sharing of information between many diverse organizations and provide different perspectives on similar employee health issues.”

“The results will provide a comprehensive prioritization of organizational values against which the value priorities assigned by our organization could be compared.”

“The results will provide a relevant Canadian data base with respect to employee health values, rationale, incentives programs and management.”

“They will be used in a presentation to the executive that should increase awareness about the importance of a wellness program.”

“The results will provides relevant research that will be used to develop an internal discussion paper about the benefits of employee health.”

“They will establish a basis for health initiative review.”

“The results may re-focus workplace health committee efforts and initiatives.”

“Hard to say.”

“They may be used to set standards for (and to evaluate) employee health programs.”

“The information may provide impetus to enhance investment in employee health as a means of off-setting increased costs in WCB, LTD and absenteeism.”

“The results should provide valid health program documentation to present to the senior management team.”

APPENDIX E

Impact of Health Promotion Programs on Medical Expenses and Absenteeism (1)

Organization	Researcher & Year	Number of Participants	Study Period	Design Rating (2)	Cost Benefit	Findings
Canada & North American Life	Shephard 1992	Experimental: 534 Control: 113	1 year	1	NA	Participants had fewer medical claims and hospital days.
Prudential	Bowne 1984	Disability: 184 Medical Cost: 121	5 years 1 year	1	1:2.9	Medical costs reduced by 50%. Disability cut by 20%.
Blue Cross/Blue Shield (CA)	Lorig 1985	5,191 employees	15 mos.	2	NA	Program participants had significantly fewer visits.
Los Angeles Fire Department	Cady 1985	4,221 employees	10 years	1	NA	Lower workers compensation costs and improved fitness.
Blue Cross/Blue Shield (Indiana)	Gibbs 1985	Participants: 667 Others: 892	5 years	1	1:2.5	Participants had lower medical expenses than the others who did not participate.
Johnson & Johnson	Bly 1986	Participants: 8,451 Controls: 2,955	5 years	3	NA	Participants had lower hospital days admissions and inpatient costs.
Tenneco	Baun 1986	Exercisers: 221 Non-Exercisers: 296	1 year	1	NA	Participants had lower non-hospital costs but higher rates of utilization.
Control Data	Jose 1987	50,000 employees	6 years	1	NA	Savings of 1.8 million were realized due to reduced medical costs and absenteeism.
Tenneco	Tsai 1988	6,104 employees	2 years	1	NA	Exercisers over 50 had fewer medical costs and fitness levels improved.
Blue Cross/Blue Shield	Conrad 1988	3,466	1-5 years	1	NA	Participants had fewer claims and lower medical costs.
General Mills	Wood 1989	Treatment: 685 Control: 341	2 years	2	1:3.5	Results based on reduced absenteeism.
General Motors	Foote 1991	Treatment: 825 Control: 169	4 years	2	1:2.3	Medical costs for hypertensive participants were lower.
Travelers Insurance	Golaszewski 1992	36,000	4 years	1	1:3.4	Results based on reduced absenteeism and projected health-related savings.
Bank of America	Leigh 1992	Treatment: 3,779 Control: 1,907	2 years	3	NA	Participants had lower medical costs, sick days and hospital days.
City of Mesa, Ariz.	Aldana 1993	Participants: 340 Others: 340	4 years	2	1:3.6	Participants had significantly lower health care costs.
Bank of America	Fries 1993	Treatment: 3,102 Control: 1,610	1 year	3	1:5.9	Participants realized reduced health risk scores, utilization and claims.
City of Birmingham	Harvey 1993	4,000 employees	5 years	1	1:2.7	Participants realized reduced hospital days and hospital admissions.
Blue Cross/Blue Shield (Indiana)	Sciaccia 1993	Participants: 430 Controls: 313	7 years	2	NA	No significant differences in medical costs were identified.
California PERS	Fries 1994	Participants: 54,902 Controls: 2,366	1 year	3	NA	Participants realized reduced risk scores, utilization and medical costs.

APPENDIX E (Con't): Impact of Health Promotion Programs on Medical Expenses and Absenteeism (1)

Manufacturing Company	Edington 1997	796 employees	6 years	1	NA	Changes in health risk were associated with changes in health care costs.
Tenneco (1)	Baun 1986	Participants: 221 Others: 296	1 year	2	NA	Participants had lower rates of absenteeism and lower medical costs.
Dallas SD (1)	Blair 1986	Participants: 3,846 Control: 8,290	1 year	3	NA	Participants had significantly lower rates of absenteeism.
Control Data (1)	Jose 1987	50,000 employees	6 years	1	NA	Reduced rates of absenteeism for those participants with lower health risks.
Coors (1)	Henritze 1989	180 post-coronary patients	6 years	1	1:10.1	Absenteeism was reduced 68.2% for participants.
General Mills (1)	Wood 1989	Participants: 685 Others: 341	2 years	2	1:3.5	Participants had lower rates of absenteeism and sick days.
Johnson & Johnson (1)	Jones 1990	Participants: 1,406 Controls: 5,218	3 years	2	NA	Wage participants had lower rates of absenteeism in the final year.
Travelers (1)	Lynch 1990	Participants: 2,232	2 years	2	NA	Participants had 13.8% less absenteeism.
Dupont (1)	Bertera 1990	Participants: 29,315 Control: 14,573	2 years	2	1:2.5	Significant reductions in disability days were achieved by participants.
Blue Cross Plans (1)	Conrad 1990	Participants: 3,466 Control: 177	11 years	2	NA	Costs associated with absenteeism were 33.6% less for participants.
Travelers (1)	Golaszewski 1992	36,000	4 years	1	1:3.4	Absenteeism was reduced by 19% for participants.
Canada Life (1)	Shephard 1992	Participants: 486 Others: 142	12 years	1	1:4.9	Results based on reduced absenteeism.
Bank of America (1)	Leigh 1992	Participants: 3,779 Others: 1,907	2 years	2	NA	Intervention led to a 4.5% increase in absenteeism.
Multiple Worksites (1)	Jeffery 1993	6,400	1 year	1	NA	Absenteeism associated with the intensity of the intervention.
Utility Company (1)	Shi 1993	9 company divisions	1 year	3	NA	Participants had lower health risk scores, sick days and medical costs.
Dupont (1)	Bertera 1993	Participants: 7,178 Control: 7,101	2 years	2	NA	Participants had significantly lower health health risks and absenteeism.
Duke University (1)	Knight 1994	15,500	3 years	1	NA	Participants realized reduced rates of absenteeism increases.
Netherlands Worksite (1)	Lechner 1997	Experimental: 469 Control: 415	1 year	2	NA	High participation in fitness programs was associated with reduction in absenteeism.

Note. 1: Studies which addressed the impact of health promotion programs on absenteeism.

Note. 2: Where the design ratings were determined as follows: 1 = no comparison or control group; 2 = properly conducted study with a comparison group but not randomized; and , 3 = properly conducted study with a randomized comparison or control group.