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Implementation of Comprehensive School Health Education in Secondary Schools: A Process Evaluation

by

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ABSTRACT

The current movement toward comprehensive school health education (CSHE) is driven first, by the many emotional, social, and physical problems that interfere with the ability of school-aged youth to learn; second, by the unique opportunity that schools have to positively influence the lives of adolescents and families; and third, by the inadequacy of health education alone in promoting the wellbeing of young people. CSHE coordinates education, services, and environment in improving children's health knowledge, attitudes, and practices, which are linked to learning. There has been, however, a dearth of literature describing how to develop and implement CSHE.

The purpose of this study is to describe the process evaluation elements of a CSHE initiative in an effort to guide future efforts in developing effective CSHE programs. Included are the history, implementation, and project management phases of the "Partners for Healthy Living" (PHL) project in Calgary, Alberta from it's inception in March 1990 until the completion of this inquiry in April 1995.

Case and content analysis of project archives and standardized open-ended interviews with project participants provided the raw data for this study. In total, 25 interviews were conducted and included in the final analysis.

The results of this study highlight the strengths and weaknesses of CSHE's application and give credence to the comprehensive, holistic, collaborative, coordinated, and participant-driven philosophy and approach of CSHE. A number of characteristics associated with project sustainability are described. Concluding this study is a recommended developmental outline for CSHE, strengths and limitations of the study, and future directions.

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TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED) PAGE

TABLE OF CONTENTS (CONTINUED)

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

Introduction

Statement of the Problem

Adolescent health knowledge, attitudes, and behaviours have been issues of rising concern and research focus in the past decade (King & Coles, 1992; King, Robertson, & Warren, 1984; Posterski & Bibby, 1988). Many students face emotional, social, and physical problems that adversely affect their school performance (Seffrin, 1990) and their long-term health status (Allensworth & Kolbe, 1987; Cameron, Mutter, & Hamilton, 1991; Kirby, 1990; O'Rourke, 1985).

The complex and multidimensional nature of health issues confronting today's youth, for example, health issues such as suicide, depression, substance abuse, violence, and precocious and unprotected sexual activity (National Commission on the Role of the School and Community in Improving Adolescent Health, 1990) will no longer respond to the traditional, fragmented, and uni-dimensional health education approaches of yesteryear (Cameron et al., 1991). Recognizing the changing needs of students and the changing face of society, schools need to expand their mandates in addressing student health needs (DeFriese, Crossland, MacPhail-Wilcox, & Sowers, 1990; Hiebert, Collins, & Cairns, 1994a). Required is a comprehensive approach to health education, one that enlists the coordinated and cooperative efforts of school educators and community health and social service professionals (Mutter, Ashworth, Cameron, 1990).

Recognizing the interrelated and interdependent nature of health and education, a number of authors (e.g., English, 1994; Jackson, 1994; Kolbe, 1985; Lavin, 1993; Mason, 1989; Nader, 1990; Seffrin, 1994) advocate addressing the health status and educational achievement of students in a comprehensive school health program; one that empowers school age children to increase control over and improve their health-related knowledge, attitudes, or behaviour. Comprehensive school health education (CSHE) coordinates three main components - health services, health

instruction, and a healthy environment - in promoting and reinforcing positive health behaviours and healthy lifestyles in children and youth.

Despite the plethora of research literature attesting to the effectiveness of CSHE in improving students' health (e.g., Connell, Turner, & Mason, 1985; Kolbe, 1985 for review) and their ability to learn (e.g., Brown, Grubb, Wicker, & Tuel, 1985; Kolbe, 1985; Kolbe, Green, Foreyt et al., 1986; Newton, 1987; Schoener, Guerrero, & Whitney, 1988) very little information has been disseminated with respect to the planning, implementation, and on-going development of comprehensive school health programming. This type of research, called process evaluation research, fulfils the need for information on program implementation and development and ultimately assists interpretation of program outcomes and informs future efforts in similar areas (Dehar, Casswell, & Duignan, 1993).

Statement of Purpose

The present study addresses the process evaluation component of a three year CSHE project entitled Partners For Healthy Living (PHL), a joint venture supported and funded by the school board, the city health department (public health unit), and a private charitable foundation of a mid-sized Western Canadian city. The project, launched in the fall of 1992, is being implemented in six high schools. It was the first Canadian CSHE initiative targeting the adolescent student population.

The aim of this report is to concentrate on the process evaluation findings of the initiative, with the purpose of providing information on the operations and outcomes that will ultimately be useful in the planning, implementing, and managing of future CSHE initiatives.

CHAPTER 2

Literature Review

This chapter provides an overview of comprehensive school health education (CSHE) from theoretical, applied, and research perspectives. It provides a theoretical definition of CSHE and its rationale, and a review of current practices and future goals for CSHE in the Canadian context. Following is a description of CSHE as applied social research, which parallels a model of inquiry called participatory action research (PAR). The epistemological consequences of this "new" method of inquiry, or paradigmatic shift, are discussed with regard to its ideological digression from other forms of research. Finally, the role of program evaluation in CSHE is outlined, as well as its concomitant shift in attention away from the evaluation of outcomes to the evaluation of process. The characteristics of process evaluation, or the evaluation of program planning, delivery, and maintenance, are described, particularly as they concern participatory action research and the current research study.

Comprehensive School Health Education (CSHE) Theory

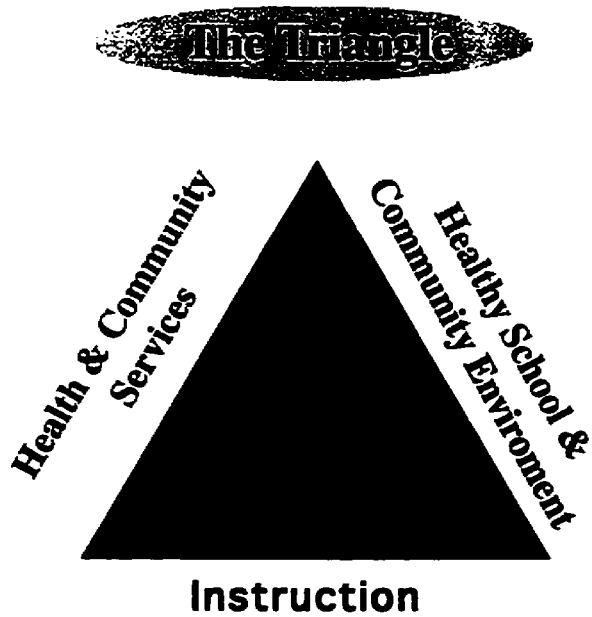
CSHE theory, based on Kolbe's health promotion model (Kolbe, 1985), earns its reputation as a comprehensive approach to health education reform on two fronts: First, it integrates three basic components, health instruction, health services, and a healthy environment; and second, it promotes a holistic approach to health and well-being.

Instruction, Services, and the Environment

CSHE theory is a coordinated approach to school health education in which school health instruction, school health services, and a healthful environment (figure 1) are integrated and coordinated with community efforts to enable school age children to increase control over and improve their health-related knowledge, attitudes, or behaviour. Although Allensworth and Kolbe (1987) later expanded the model of CSHE to include five additional components (i.e., school food

services, school-site health promotion programs for faculty and staff, school counselling and psychology programs, school physical education, and integrated community and school health promotion efforts), the primary mandate for CSHE focuses on compulsory health instruction for all grade levels, supported by school-site service delivery, and internally consistent school policies that take account of the entire environment surrounding the school, family, and community (CASH, 1991). This coordinated approach has grown out of recognition that health problems (and solutions) are embedded in a social context (Mutter et al., 1990), and therefore that health instruction must be viewed as only one component of the larger arena of social, environmental, and health service aspects.

Figure 1
The Components of Comprehensive School Health Education



Holistic Definition of Health

CSHE theory is guided by a broad-based conceptualization of health that goes beyond traditional health models with their emphasis on disease and injury prevention and includes aspects of health and wellness promotion (Hiebert, Collins, & Cairns, 1994b; Kolbe, 1985). With this shift in thinking there is an emphasis on all factors that affect a person's physical, social, and emotional well being (Hiebert et al., 1994a). The comprehensive approach to health education is instrumental in not only modifying and preventing, but also initiating and maintaining a variety of health behaviours (Carlyon & Cook, 1981). Ultimately, the enhancement of positive health behaviours in adolescents may have the greatest effect over the long-term, impacting the quality and longevity of one's life and health in adulthood (Kirby, 1990).

The Rationale

The research literature has shown that exposure to CSHE produces positive gains in health knowledge, attitudes, and practices (Connell et al., 1985; Kolbe, 1985 for review) and that such gains are linked to learning (Brown et al., 1985; Kolbe, 1985; Kolbe et al., 1986; Newton, 1987; Schoener et al., 1988). Boyer (1983) asserts that without knowledge about health no other life goal can be achieved. As one cannot reasonably expect a hungry or sick child to be able to learn in school, CSHE promises to deliver educational benefits and a better future for children.

The economic benefits to be gained by directing young people toward a healthy and productive future have been well documented (see Kolbe, 1985; O'Rourke, 1985). Economics notwithstanding, there is a clear moral imperative for CSHE (Cameron et al., 1991). The ultimate goal of CSHE is the empowerment of children, and ultimately of families and communities, to take control over and improve their health status so as to become fully functioning individuals in society (Cameron et al., 1991; CASH, 1991; Pollock & Hamburg, 1985).

CSHE Practical Application

The Canadian Context

While specific achievements in health education have been forged at the national and provincial/territorial levels, including the establishment of a national school health coalition (Canadian Association for School Health - CASH) as well as provincial and territorial agencies for school health, much less has been done at the local school level to make CSHE a reality in Canadian schools.

Although the departments of education at the provincial and territorial levels have mandated separate health curricula in schools (Mutter et al., 1990) in response to public and professional interest in health reform (Cameron et al., 1991), these beginning efforts remain inadequate. For example, health education consultants continue to be responsible for more than one subject area, are not professionally trained as health educators, and still utilize instruction as the primary (if not exclusive) method of health education, in the absence of appropriate services and a healthy environment (Mutter et al., 1990). As documented by O'Rourke (1985) health instruction alone cannot lead to long term behaviour change, and with the major causes of morbidity and mortality having shifted from infectious to chronic diseases, people's health related behaviours have become key in determining their long-term health status (Allensworth & Kolbe, 1987; Cameron et al., 1991; Kirby, 1990; O'Rourke, 1985).

Despite the increased awareness among health professionals that behaviour and lifestyle are amenable to change, and that schools provide an ideal setting to begin the early promotion of positive health behaviours (O'Rourke, 1985), there is unfortunately still a tendency at the school board level to concentrate on single crisis issues (Mutter et al., 1990). As Cameron's research (1991) reveals, with few exceptions, school environments are not taken into account in health programming, nor is the role of communities in the design, implementation, and evaluation of

school health curriculum. The resulting inadequacies in service provision and coordination, coupled with general disregard for environmental health issues, offer little opportunity of further improving students' health and their ability to learn.

The exception: Dartmouth Nova Scotia. A six year CSHE demonstration project was implemented in the city of Dartmouth, Nova Scotia. CSHE programming was being delivered in nine of its 19 anglophone elementary schools, grades four through six. This health promotion project, which began September 1990, was the first of its kind to be undertaken in Canada.

The Vision

The role of schools. Schools provide an important context within which to address the health needs of children (Mason, 1989; Seffrin, 1990), since they are the one experience common to most children (Allensworth & Kolbe, 1987; O'Rourke, 1985) and serve as a major liaison with community groups (Pentz, 1986).

School health education efforts must be *holistic*, emphasizing the multidimensional nature of well-being (Pollock & Hamburg, 1985), and *comprehensive*, championing an integrated school curriculum where school health instruction, school health services, and a healthful environment are coordinated to provide multiple, complementary, and reinforcing health messages from a variety of spheres of influence (Allensworth & Kolbe, 1987; Kolbe, 1986).

The role of stakeholder groups and communities. Comprehensive school health education efforts need to go beyond the realm of the school, however, and *coordinate* with existing community health services and resources. The success of such initiatives requires the support of communities in providing consistent health messages and in reinforcing students' health enhancing behaviours (Killip, Lovick, Goldman, & Allensworth, 1987; Kirby, 1990; Pentz, 1986). This contributes to a synergy of health related efforts and change. Thus, CSHE espouses a *collaborative, interdisciplinary* approach to health education, where health education is effectively shared among

school staff, students, parents, and community agencies. This serves to promote not only consistent health messages through multiple channels, but also cooperative relations among community health and service agencies dealing with related issues (Kirby, 1990).

Comprehensive school health programming is to be a *participant driven* process whereby the interested stakeholders, including students, parents, and school personnel, conduct a needs assessment; establish program priorities; determine program delivery; develop, modify, and implement school health services, instruction, and environment; and evaluate the process and the outcomes of program delivery (Hiebert et al., 1994b). As students are the principal target group to which CSHE programming is being directed, it is essential that students' health needs are formally assessed and that initiatives are tailored locally to meet the cognitive, affective, experiential, and linguistic capabilities and needs of those students exposed to it (DeFriese et al.,1990). As Pollock and Hamburg (1985) have argued, "There is no substitute for carefully planned, skilfully implemented school health based upon individual, family, and community needs and interests." (p. 109).

CSHE Research Application

Participatory Action Research (PAR)

As applied social research, CSHE lends itself to a model of inquiry called participatory action research (PAR). PAR is a cyclical inquiry process (Elden & Chisholm, 1993; Ketterer, Price, & Polister, 1980; Peters & Robinson, 1984) that begins with a practical problem and its diagnosis and, through continued collaboration with those who experience the problem, results in a series of strategic, change-oriented action steps and the evaluation of outcomes. Evaluation in turn leads to diagnosing the situation anew based on learning from the previous activity cycles, thus enabling the system being studied to become both self-generating and self-maintaining (Elden & Chisholm, 1993).

Characteristics of PAR

While discussion of participatory action research can be found in the literature pertaining to educational transformation and reform (Corey, 1953; Elliot, 1978; Kemmis, 1981), it has not been applied specifically to the area of comprehensive school health. CSHE constitutes participatory action research, sharing the same distinctive features as PAR - features that deserve further consideration than is provided by the theoretical and practical descriptions offered above.

Inductive reasoning. Unlike orthodox research methods that begin with a theoretical question, participatory action research begins with a social or practical problem (Peters & Robinson, 1984) with the aim to produce new knowledge that contributes to practical solutions to immediate problems and also to general knowledge and theory (Elden & Chisholm, 1993; Lewin, 1946; Rapaport, 1970). In CSHE the issue at stake is the health-related problems of today's youth (Cameron et al., 1991) where the primary focus is the improvement of children's social, emotional, and physical well-being. Improving theory is secondary to this process, providing a means by which to increase the impact of CSHE (Kolbe, 1986).

As Reason (1988b) has argued, the value of this practical knowing, often referred to as grounded theory (Cook & Shadish, 1987; Glaser & Strauss, 1967), is that it is not separated from practice and experience; it is "knowing in action" which encompasses as much of our experience as possible (Reason, 1988b). Indeed, as Elden and Chisholm (1993) state, the important product of PAR is "participants learning how to learn to develop their own, more effective *practical* theories" (p. 138; emphasis added). In CSHE change efforts must become fully integrated with participants' understanding of their own unmet health needs (needs assessment), how those needs are going to be resolved (program planning and delivery), whether their attempts have been successful (evaluation), and based on these learning activities, how theory and process can be further refined (practical theory) and then reapplied to ensure the program's continued development.

Collaborative nature of inquiry. Participatory action research is carried on as a joint, cooperative endeavour among the participants (Reason, 1993) so that insiders become full participants and co-researchers. Thus, the participants in the research experience become the designers, managers, and evaluators of their experience. In CSHE programming stakeholder groups - coalitions of interested parents, community leaders, and school faculty and students - work together at all stages of program development, namely, in the planning, implementation, and assessment of the school health curriculum (Davis, Gonser, Kirkpatrick, Lavery, & Owen, 1985). The involvement of stakeholder groups in CSHE planning, development, and maintenance ensures that programs target identified needs; that health efforts are complimentary, consistent, and reinforcing; and that stakeholders are committed both philosophically and substantively to the programs intended goals.

Value driven. Given the two aforementioned features CSHE as PAR is clearly a value-driven process (Elden & Chisholm, 1993), embracing a belief in the importance of the participants values, beliefs, and intentions (Peters & Robinson, 1984) and seeking to bring about change that is socially valued (Elden & Chisholm, 1993). Action researchers have some "vision of how society or organizations could be improved and use the research process to help bring this desired future state into existence" (Elden & Chisholm, 1993, p. 127). Clearly, values are the cornerstone of the CSHE effort: A comprehensive approach to health education will not endure without the unyielding valuation of human health by parents, educators, health professionals, and the community (DeFriese et al., 1990). As Oberteuffer (1977) has argued: "If our values are straight and we value human health above all else, then health education becomes one of the master areas in all...education....Nothing is more important. " (p. 52). A unified understanding of human needs (the need for health and wellness), basic human values (the value of full health and social development),

and human potential (the potential to learn and change) motivate and inform the CSHE change process.

Political process. Participatory action research is political because it is concerned with social change; it is both driven and impeded by proximal and distal levels of political will which undoubtedly influence the degree and quality of collaboration between participants and exert powerful influences on choices made in the course of inquiry. As Reason (1993) argues we have to develop an understanding of research as a political process and of the interconnections between the epistemological and the political. In doing this it is essential that research participants explicitly explore their own political allegiances, while simultaneously acknowledging the influx of political will from more distal influences.

Such distal influences include both top-down and bottom-up levels of influence (DeFriese et al., 1990). In CSHE bottom-up political will comes from local ownership of the effort and a grass-roots network of inter-agency, pro-active influence. To be successful CSHE programming must be derived from local understanding of, and commitment to, CSHE goals and objectives (DeFriese et al., 1990). Local ownership is key in determining the success of any CSHE initiative (Oetter, 1987).

By the same token top-down national level leadership plays a significant role in defining the need and vision for change, setting the climate for change, raising public awareness, and ensuring that local initiatives can be part of a larger national agenda (DeFriese et al., 1990). Ultimately, top-down political will comes in the form of both support and restraint from regional and national political forces. For example, support for CSHE is directed through the recommendations and policy statements of the various coalitions advocating CSHE (Pollock & Hamburg, 1985) and through economic considerations related to escalating school dropout rates (see Employment and Immigration Canada, 1990; O'Rourke, 1985). Opposition to CSHE comes

through budgetary constraint considerations and an already over-loaded curriculum (CASH, 1991), disallowing the allocation of time, training, or resources to CSHE (Kolbe, 1985), and consequently leading to disjointed or piece-meal programming (Oetter, 1987). In developing and maintaining CSHE programming it is crucial to be wary of the existing and potential impact of political forces at each stage of inquiry.

Systemic and multi-disciplinary. CSHE theory, like participatory action research, has a systemic viewpoint. Social reality is a complex, multi-causal web of forces that are historically dynamic. The diversity found within social phenomenon, therefore, can no longer be treated as obstacles to be overcome in the research process (Greenwood, Whyte, & Harkavy, 1993). Instead, the resolution of social problems can only be achieved through combined intellectual forces, integrated concepts, and the use of methods of analysis from various disciplines (Whyte, 1989).

The health related problems of today's youth are an example of a complex, systemic problem that will not respond to simplistic or uni-dimensional approaches. From a practical perspective, a comprehensive approach emphasizes the multidimensional nature of well-being (Pollock & Hamburg, 1985), recognizing that there are almost always multiple causes of disease and health, and multiple interventions required to promote health (Simonds, 1977, p. 587). From an organizational perspective school health programs must be planned and carried out among the major providers in society that have established responsibilities for the health and education of the populace (Simonds, 1977, p. 587). Specifically, school efforts must be coordinated with those of parents and the various systems and agencies responsible for delivering student health and social services within the community (Cameron et al., 1991). In conclusion, while schools play a central role in CSHE programming, they cannot be sufficiently effective alone - their efforts must be reinforced by a broader, integrated community focus (Kirby, 1990).

Self-reflexive. A final critical feature of PAR that is shared by CSHE is its self-reflexive nature (Reason, 1993), or in other words, its ability to enhance the capacity of the system being studied to study and change itself (Elden & Chisholm, 1993). Such developmental change is decisive in CSHE programming where the challenge for schools and communities is to design, implement, evaluate, re-design, and re-evaluate their own locally tailored models. Ultimately, schools need to identify their own issues, establish priorities, create partnerships for more integrative comprehensive programs (Kirby, 1990), design and evaluate interventions, and re-educate based on learning from these previous activity cycles.

In summary, as applied social research CSHE is clearly consistent with the method of inquiry known as participatory action research, or PAR. Unlike orthodox research methods which emphasize objectivity, reductionism, and empiricism (Reason, 1993), PAR is participant driven and is concerned with complex systemic problems and the social construction of reality. PAR is context-bound inquiry (Susman & Evered, 1978) where the research approach must be tailored to each specific situation. It begins with participatory intent and continues by building participatory processes into the activity within the limits set by the participants and the conditions (Greenwood et al., 1993, p. 176). Its fundamental feature is the continuance of evaluation throughout the research process. Thus, developments in PAR closely parallel the broadening focus in the program evaluation literature beyond the mere evaluation of outcomes to include also issues of process.

Program Evaluation

Program evaluation is concerned with providing feedback regarding human service activities (Shaughnessy & Zechmeister, 1994). Posavek and Carey (1992) define program evaluation as a "collection of methods, skills, and sensitivities necessary to determine whether a human service is needed and likely to be used, whether it is sufficiently intense to meet the unmet need identified, whether the service is offered as planned, and whether the human service actually

does help people in need without undesirable effects." (Shaughnessy & Zechmeister, 1994). Specifically, questions asked by program evaluators are about needs, process, outcome, and efficiency. An assessment of needs seeks to determine the unmet needs of the people for whom a service is being provided. Questions about process are concerned with program planning and delivery, or how the program is actually being carried out. Evaluation of outcomes asks whether the program has been effective in meeting its stated goals. Questions regarding efficacy are those about its cost (Shaughnessy & Zechmeister, 1994).

Process Evaluation

More recently there has been a broadening focus of evaluation from a heavy concentration on program outcomes to include issues of program implementation and development (Dehar et al., 1993). In the past evaluation research was dominated by an emphasis on measuring program outcomes (LeCompte & Goetz 1984; McLaughlin, 1987; Patton, 1979), the assumption being that program implementation was a direct reflection of program planning (Dehar et al., 1993). This assumption and its concomitant inattention to implementation issues has increasingly come under fire (Patton, 1979; Tornatsky & Johnson, 1982). In the CSHE literature process evaluation research has been neglected in favour of research that examines program outcomes, or the effectiveness of CSHE programming (see Nelson, Cross, & Kolbe, 1991; Andrews & Hearne, 1984; Results of the School Health Education Evaluation, 1985).

Formative versus process evaluation. Because process evaluation has different implications at different stages in the life of a program, a lack of consensus has developed in the literature regarding the labels and meanings that are to be assigned to process evaluation (e.g., Hawe, Degeling, & Hall, 1990; McGraw, McKinlay, McClements, Lasater, Assaf, & Carleton, 1989; McClintock, 1986). However, Dehar and associates (1993) have usefully distinguished between two types of evaluation: (a) *formative* evaluation, as an on-going process that is integrated

into the development and implementation of the research project and which aims to help develop and improve programs from an early stage, when opportunities for influence are likely to be greatest; and (b) *process* evaluation as an overview of the dynamics of program implementation and development and which aims to assist in the interpretation of program outcomes and to provide specific information for the future development and improvement of similar programs. This study has the latter focus where process information was compiled in the final stages of program delivery and whose purpose is to inform future CSHE efforts. Given that in PAR evaluation is on-going, the notion of formative evaluation and its relevance to this CSHE initiative will be addressed as only one component of the larger process evaluation.

Components of process evaluation. In reviewing the literature on process evaluation McGraw and associates (1989, p. 460) found the common elements addressed by process evaluation to include: the extent to which a program reaches a target population; monitoring of program dose (i.e., frequency of delivery, participation in program activities); monitoring the situational or organizational context within which the program is implemented; the extent to which programs or services are implemented so as to achieve program goals; and finally, cost of program implementation. Dehar and associates (1993, p. 212) found the relevant features to include program origins and the chronological sequence of events in program planning and implementation; program structure, components, and delivery system; contextual factors relevant to program operation; participation rates and participant characteristics; perceptions of program participants; levels of community awareness; and resources used for program operation.

What is absent from these component overviews, however, are the more abstract, less concrete elements that must be considered in any systems analysis where humans are involved, including for example, the nature of dialogues, communication networks, and participants' acceptance of, and commitment to, the program across its evolution. In order to properly document

and analyze the way a program operates its expression in practice must be made explicit, including full exploration of the complex dynamics of human involvement. Proponents of PAR endorse the continued evaluation of human discourse throughout the process. Bartunek (1993) in talking about scholarly dialogues and participatory action research states, "It is crucial that attempts be made to describe with some precision the collaborative practices actually involved in interventions, as well as to explore the mediating mechanisms through which they have or do not have their intended impacts." (p. 1223). Mangham (1993) more pointedly makes the argument that researchers need to report more on "how ideas are negotiated or how discussion breaks down" and how that relates to particular consequences. He asserts,

> There is little or no sense of engagement, of researchers and co-researchers re-searching. There is little or no sense of issues emerging, of issues being defined and re-defined, of false starts and disappointments, of flesh and blood involvement. What action researchers need to do is develop a way for talking about the what. (p. 1247)

Despite the abundance of scholarly dialogue attesting to the centrality and import of process evaluation in program evaluation, there is a surprising dearth of research literature reporting the process evaluation elements of CSHE programming.

Summary

The multidimensional nature of health concerns facing today's youth necessitates a comprehensive approach to health reform. Schools provide an ideal context within which to cultivate such an approach, having the unique opportunity to observe and impact the lives of almost every young person (Allensworth & Kolbe, 1987; O'Rourke, 1985). Comprehensive school health education (CSHE) theory is a threefold model of health education where health instruction, services, and environment are integrated, and the school, community, and family coordinate their efforts in providing complementary and reinforcing positive health messages from a variety of

spheres of influence. Health in this context is defined in a holistic fashion, taking into account the physical, social, and psychological well-being of children and youth. The ultimate goal is to empower young people to become self-efficacious with respect to their immediate and long-term health practices.

From an applied research perspective CSHE theory fits a model of inquiry called Participatory Action Research (PAR). PAR is concerned with solving practical problems by incorporating the local knowledge of the participants within the system under study, namely those who experience the problem or their representatives. PAR assumes that insiders can generate valid knowledge as partners in a systematic inquiry based on their own categories and frameworks for understanding and explaining their world (Elden & Chisholm, 1993, p.128).

In PAR the process is as important a product as the solution to a scientific and practical problem (Elden & Chisholm, 1993, p.129). It is an emergent, intensifying process where change and learning become self-generating and self-maintaining (Greenwood et al., 1993). Unfortunately, in the CSHE literature very little has been published in the way of documenting this process.

Process evaluation fulfils the need for information on the *dynamics* of program planning, implementation, and development. It must go beyond the simple chronological reporting of events and include descriptions of the nature of dialogues, of the collaborative practices actually involved in interventions, and of the mediating mechanisms through which they have or do not have their intended impacts (Bartunek, 1993, p. 1223). Issues related to program origin, structure, and delivery are interpretable only in a situational context that takes into account participant perspectives, characteristics, and interactions.

The current study's aim is to examine these process elements in a three year CSHE pilot project being implemented in six urban high schools in Calgary, Alberta, Canada. The intention is to provide a full exploration of the complex dynamics involved in the planning, implementation,

and management of a CSHE project in order to inform future efforts. The ultimate test of the utility of this research project will be the foresight given to others in the development and improvement of future, similar programs.

Research Questions

The central evaluation issues for this study will emerge from the practical, on-site experience and knowledge of project participants, given that in participatory action research process evaluation represents knowing in action (Elden & Chisholm, 1993) rather than theoretical knowing. The impetus and direction for the evaluation will be derived from the local knowledge of program participants as it relates to the process elements of program planning, implementation, and management. Thus, three *general* process questions guided the investigation reported in this thesis:

1) What is the chronological sequence of events in program planning and implementation?

2) What developmental activities are related to program management/maintenance?

3) What factors enhance and inhibit program planning, implementation, and management?

The foregoing notwithstanding, participatory action research has as its purpose not only solving practical problems but also "elaborat[ing] the theoretical base of the approach" (Bartunek, 1993, p. 1225). In the theoretical literature CSHE has been ascribed a number of characteristics - holistic, comprehensive, coordinated, collaborative, and participant driven (Cameron et al., 1991; Cogdon & Belzer, 1991; DeGraw, 1994; Killip, et al., 1987; Lavin, 1993; Kirby, 1985; Pollock & Hamburg, 1985; Sullivan & Bogden, 1993) - and it was this researcher's intent to explore to what degree they are reflected in CSHE's practical application or to what extent there is an emergence of theory and practice. Thus, an additional research question guiding this study was:

4) To what degree are the espoused characteristics of CSHE reflected in the practical application of the PHL project?

CHAPTER 3

Methodology

To reiterate briefly, the purpose of this study was to explore the process evaluation elements of a 3 year CSHE pilot project being implemented in six Calgary high schools. School number six, however, was not included in the final analysis as it had not committed its participation at the time of this inquiry. This chapter is divided into three sections: Data sources, Procedure, and Analysis. In the data sources section a description of the research protocol - standardized open-ended interviews and archival data - is provided along with a description of the participants who provided information. The procedure section provides a detailed description of the data collection process for each data source. Ethical considerations follow from the procedural description of the interview process. The analysis section describes the logic, method, and procedure of inquiry employed by the researcher to organize and summarize the raw data.

Data Sources

Two different data sources were utilized in this study: standardized open-ended interviews, and archival data. The first of the two assessment tools, the standardized open-ended interview, facilitated participant involvement in, and subjective validation (Allport, 1981) of, the research communication. The second data source, archival data, was included for polyocularity (Maruyama, 1981), the synthesis of evidence taken from different sources.

Standardized Open-Ended Interview

The standardized open-ended interview (Patton, 1987) conducted with project participants provided the primary source of data for this study. Acknowledging the self-determination of the research participants, the capacity of the participants to give meaning to their experiences and to choose their actions, the interview as an assessment tool provides the "richest of all sources of data" (Allport, 1981, p.71), because it includes the subject's own self-knowledge: The subject

experiences, ascribes meaning, acts, and reacts (not necessarily in that order) and is given the opportunity to communicate that unique perspective to the research process. Because validity of the knowledge in process is tied up with the particular "knower" (Reason, 1981), the interview method ensures subjective validation (Allport, 1981) of the research process by allowing participants to contribute their own experience of the intervention to the scholarly dialogue (Bartunek, 1993). Through the compilation of multiple versions or viewpoints from multiple knowers, one arrives at "intersubjectively valid knowledge" which goes beyond the limitations of one knower (Reason, 1981, p.242).

Instrument Development. The standardized open-ended interview guide was developed by a faculty member and a doctoral student on the university evaluation team (Appendix A). Its format was based on open questions derived from general project goal statements (Appendix B) and on issues derived from a content analysis of the written materials associated with the project. A generic form, whereby each respondent was asked the same questions, was developed in order to increase comparability of responses and minimize interviewer effects (Patton, 1987, p.113). A knowledge question (Patton, 1987) regarding the projects' developmental history (i.e., the respondents knowledge about the program and the world that is being elicited) was asked of each participant, facilitated by minimal prompts, probes, and clarifications by the interviewer. Following from this, a series of opinion/belief (Patton, 1987) questions were asked to understand participants' cognitive and interpretative perceptions of the projects' developmental history.

Targeted Population. Interviews were targeted at four distinct project participant populations: (a) members of the school implementation committee at four of the five schools to be included in the final analysis (each made up of students, school personnel, parents, and the school nurse) (Note: Interviews were not conducted for in-school committee members at pilot school V because, at the time the interviews were initiated and analyzed, pilot school V was still at the

formative stages of project implementation and had not yet developed a school implementation committee. However, archival data from school five are included in the final analysis); (b) steering committee members (comprised of representatives from CHS, the CBE, and the University of Calgary evaluation team); (c) the project coordinator; and finally (d) original members, or innovators, of the PHL project.

Specifically, interviews conducted with school implementation committee members included the project chairperson, the school nurse, and one parent representative for each of the four school committees, as well as a group of student representatives (ranging from two to four students) from three of the four school committees. Interviews were not conducted with student representatives in one of the schools because, at the time of the interviews, the committee was in a transition phase with the original student committee members having recently graduated and the new members just being oriented. The committee chairperson in two of the schools was administrative staff, in one of the schools, the school counsellor, and in the final school, an instructional staff member.

Interviews conducted with the PHL steering committee members included two representatives from CBE, two representatives from CHS, and two representatives from the university evaluation team. An interview was similarly conducted with the project coordinator.

Finally, interviews were conducted with four individuals who were originally involved, prior to the project's implementation, in the planning and development stages of the project. Two of the original members were representatives of CHS while the other two were representatives of the CBE. Of the latter two, one of these individuals had previously acted in the position of school implementation committee chairperson and another was currently acting in that capacity, and therefore both will be counted as only one interviewee each in the final analysis. A total of 25 interviews were conducted and included in the final analysis.

Archival Data

Archival data from the records and documents recounting the activities of the PHL project were included as a supplementary source of data in this study. As the previous discussion of the need for multiple viewpoints in research indicated, non-reactive archival measures can provide a useful addition to data collection via reactive interview measures (Shaughnessy & Zechmeister, 1994), allowing the value of the evidence from the different sources to be compared and assessed (Reason, 1981). The archival data in this study included all written materials associated with the project from its early conception in the spring of 1990 through project planning, establishment, and implementation in five high schools up to March, 1995. Written materials consisted of: (a) minutes of steering committee meetings - the recorded dialogue between representatives from the CBE, CHS, and the university evaluation team, and the project coordinator; (b) minutes of the University of Calgary evaluation team meetings - the recorded dialogue between the university research coordinators, including two faculty members, five masters students, and one doctoral student; (c) minutes (via an audio-taped transcription) of a school implementation network meeting - the recorded dialogue between school implementation committee chairpersons and school nurses from the five schools, the project coordinator, and the steering committee chairperson; (d) project correspondence including workshop itineraries and handouts; newsletters; proposal drafts; action plans, time lines, flow charts and developmental outlines; initial summary documents including project history reports, interim reports, and progress reports; terms of reference statements documenting the roles and responsibilities of the steering committee, project coordinator, and the university evaluation team; program evaluation plans; and organizational structure charts.

Procedure

Interview Process

The process evaluation component of the project was initiated by a doctoral university researcher who, in collaboration with a faculty member, developed the interview protocol and conducted the first three standardized open-ended interviews (one with the project coordinator, one with a university representative, and one with a project developer). Upon this individual's resignation from the project, the present researcher assumed the responsibility of process evaluation, utilizing the already developed interview protocol.

A partial list of project participant names and contact numbers was supplied by one of the university evaluation team faculty members. This partial list included the four original members involved in the projects' initial development, as well as the current, on-going members of the steering committee, the project coordinator, and the chairpersons of each school implementation committee. The remaining contacts were forged after telephone contact was made with each of the school committee chairpersons who provided the names and phone numbers of the various other representatives sitting on the school implementation committees, namely the school nurses, parents, and students.

Each potential participant was contacted by telephone and given a thorough description of the study. This description included my role and involvement in the PHL project, information about the nature of the study and its purpose, a general description of the interview procedure and the use of audio-equipment, and the length of time required. All those contacted agreed to participate. They were queried about their preferred appointment time and location and assured that they would be given ample opportunity to ask further questions upon our meeting. All the interviews were conducted at the participants' place of work (i.e., CBE, CHS, the University of

Calgary, and the four Calgary high schools), with the exception of the parent and student interviews, which were conducted at their respective schools.

At the scheduled meeting, prior to beginning the interview, each participant was provided with a more detailed description of the research study, including the type of information sought and its intended application as well as an overview of the interview format (Appendix C). Each participant was assured of the confidentiality of his or her comments and that no identifying information would appear on the audio-tapes or transcripts. Participants were invited to ask any questions they might have of the interviewer, the research study, or the interview process.

Commencing the interviews, the researcher turned on the audio-tape and asked the opening research question from the standardized open-ended interview schedule (Appendix A). The researcher used minimal prompts and clarifications to assist each participant in telling their version of the project history. Following this, a number of specific questions were asked of each participant for which further information was needed to ensure consistency across interviews (Appendix A). Each interview ranged in length from approximately 45 to 90 minutes. The total interviews were conducted over a four month period, beginning May 9, 1994 and ending August 31, 1994.

Ethical standards. Respect for the confidentiality of participants involved in the current study was ensured by removing any identifying information from interview tapes and transcripts. Efforts were made to maintain the security of the information: The raw data collected from the audio-tapes was stored in a cabinet in the researcher's home and was accessible only to the researcher.

Three quarters of the audio-taped interviews were transcribed verbatim by the researcher on a personal home computer. The remaining interviews were transcribed by a contracted transcriber. Issues of confidentiality were discussed and observed: Tapes were not marked by any identifying information, nor did the transcriber retain a hard or soft copy of the data. In total approximately

369 single-spaced, typed pages of interview data were transcribed by both the researcher and contracted transcriber.

Archival Data Collection

Archival data was compiled from three primary sources: the project coordinator, a university evaluation team faculty member, and the researcher. The project coordinator was instrumental in disseminating regular progress reports, outlining the project's ongoing development, as well as the minutes of the steering committee meetings. The minutes of the evaluation team meetings and the one school implementation information-sharing meeting were collected by the researcher. The remaining archival data, supplied by a university evaluation team faculty member, included the abundance of the previously described project correspondence. All the data were compiled and organized chronologically for analysis. In total approximately 360 single-spaced, typed pages of archival data were included in the final analysis.

Analysis

Logic of Inquiry

Four interrelated approaches to thinking underlie this research inquiry. They represent alternatives to traditional or orthodox logic (Rowan, 1981) and include existentialism (Hainer, 1968), ecological thinking (Rowan, 1981), dialectics (Hegel, 1971), and hermeneutics (Kockelman, 1975). First, according to existentialism, human inquiry is characterized by more information than can be handled pragmatically, and experience and phenomena exist as they are perceived (Rowan, 1981). In the current study, where conceptualization of data was characterized by the emergence of alternatives, the researcher processed information through choice and commitment to such alternatives - that being the best possible choice from the researcher's perspective. Second, the researcher, according to ecological thinking (Rowan, 1981), adopted a systemic orientation in the interpretation of data, acknowledging patterns of interaction and multi-directional influences.

Third, consistent with dialectics, which holds that human experience is not absolute but at some level contains contradiction, the current research process included "looking for such contradictions, and trying to do justice to all that is there" (Rowan, 1981, p.132). Information that was inconsistent with, or contradictory to, general findings was included in the analysis. Finally, the researcher embraced hermeneutic logic, which posits that human understanding is historical and intersubjective (Rowan, 1981), by utilizing a method of inquiry rooted in the experiential knowledge of those actually involved.

Method of Inquiry

Case analysis (Patton, 1987) and content analysis (Holsti, 1969; Patton, 1987) were the preferred methods of analysis for this study. Case analysis consisted of condensing the raw case data (i.e., all the information collected about the program) both chronologically and thematically to provide a holistic, descriptive picture of the program. Content analysis supplemented this approach by further organizing and summarizing the raw data through the identification of common themes and specific characteristics of messages (Holsti, 1969).

Procedure of Inquiry

The procedures utilized for analyzing the raw data by case and content analysis included various dynamic steps. For each data source (i.e., archival data and interview data) the first step required compiling the raw data from the two data sources, a process that included (a) transcribing verbatim the audio-taped standardized open-ended interviews, the typed out version of the taped interview becoming one source of the raw data, and (b) organizing the archival data according to chronology, the organized data becoming the second source of raw data.

Case analysis. A general descriptive picture of the overall program was prepared by compiling a comprehensive case record of all the descriptive data, identifying topical developmental themes, and organizing this information chronologically. All descriptive data were

identified through the highlighting method. *Topical developmental themes* within that descriptive data were distinguished by the underlining and coding method where each theme was represented by a different colour underline and matching code. The different "levels" of topical themes were distinguished by their assigned codes (e.g., "PL" = planning stage, "IMP" = implementation stage, "MA" = management stage)

Content analysis. Content analysis of the data occurred in three primary steps. The first step necessary in performing a content analysis of any data is called coding, or defining the relevant categories and appropriate units of measure. Coding was done by organizing the raw data into clusters of *interpretative themes* by the highlighting method. Each colour of highlight represented a different interpretative theme for which a code was assigned. This process occurred through multiple cycles, beginning with the identification of crude and obvious categories and cycling towards ever more subtle distinctions (Reason, 1981). The purpose in using a research cycle to analyze the data, rather than merely a single cycle of analysis, was to progressively extend, refine, differentiate, and integrate the identified categories or themes, reaching towards a theoretical saturation (Reason, 1981). In practice this required the researcher to go over and over the interview and archival data, continually checking, clarifying, deepening, and differentiating the concepts, categories, and tentative conclusions reached.

The second step in coding the common themes and elements through a re-search cycle was the systematic use of feedback loops to enhance the validity of the research: The identified themes were compared with the original data content to ensure that there existed no data that went unaccounted for in themes and that the themes were not inconsistent with any of the data.

A final important phase of the analysis required the systematic use of contradiction, or falsification: Active attempts on the part of the researcher to consciously deny, contradict, or disprove the data and the propositions which had developed about the data (Reason, 1981). This

occurred both inductively and logically. Inductively, the search for rival or competing themes and explanations involved looking for other ways of organizing the raw data that might lead to different findings. Logically, rival explanations came from thinking about other logical possibilities and then seeing if those possibilities could be supported by the data (Patton, 1987, p.159). This process ensured that confronting, challenging, and disagreeing were built into the inquiry process, enabling the researcher to maintain high-quality "discriminative awareness" (Reason, 1981).

The continuation of these three steps provided "a rigour of clarity, accuracy, and precision" (Reason, 1981, p.249) to the research process. They were continued until an exhaustive description of the data was provided.

CHAPTER 4

Results

In this chapter the results of this study will be presented. Included is a general description of the developmental events of the three stages of project development - planning, implementation, and management. Included also is a description of various factors associated with each stage that enhanced and inhibited project developments. In the planning stage the associated enhancing and inhibiting factors are described as they affected planning developments. In the implementation stage relevant enhancing and inhibiting factors are relayed for their effects on the implementation process. In the management stage the description of the enhancing and inhibiting factors outlines their effects both on management and implementation developments. As well, a description of factors that are unavoidable, meaning that they are a natural developmental consequence of CSHE planning, implementation, and management, will also be included for each stage. The unavoidable factors arose from the on-site knowledge of participants and became an unanticipated consideration of the researcher. Additionally, a description of general "outcomes" is described for the implementation stage of project development.

Planning Stage

The planning stage of the PHL project marks the period of time preceding implementation of CSHE at the school level. A general description is provided for the national agenda informing the PHL project. This is followed by a description of local events, marked by seven developmental steps, and the relative enhancing, inhibiting, and unavoidable factors. The latter are summarized in figure 2, and a description of each follows.

Figure 2
Planning Stage Summary

Description	1. Initial dialogues 2. Board approval 3. Project implementation planning 4. Defining project goals, structure, and function 5. Funding 6. Evaluation negotiation and instrument development 7. Project coordination
Enhancing Factors	• Initial interagency relationship building • Visionaries • Steering committee structure • High level political will (i.e., governing bodies) • Project coordinator
Inhibiting Factors	• Lack of initial interagency relationship building • Role ambiguity • Conflicting expectations • Over-extension of the coordinator's role
Unavoidable Factors	• Busy work • Juggling agency politics • Changing climate of agencies

Description

In describing the historical antecedents of the PHL project both national and local level influences are to be considered, the latter being marked by seven developmental phases.

National agenda. In contemplating the historical foundation of a CSHE initiative it is necessary to recognize the powerful influence that national level leadership has in defining the need and vision for change, setting the climate for change, and raising public awareness (DeFriese et al., 1990). The PHL project was born out of a larger national agenda - a number of significant events having occurred prior to its inception. First, the Canadian Association for School Health (CASH) was formed in 1989, bringing together coalitions of voluntary and professional health organizations concerned with health in schools (Mutter et al, 1990). Second, two national conferences occurred in Ottawa, Ontario - Exchange `88 and Exchange `90 - which brought together senior officials from the education field to consult on important health issues confronting schools and how to address

them through the promotion of comprehensive school health programming. Finally, a number of national school-based research efforts were under way, among them the Dartmouth, Nova Scotia project, a 6-year CSHE demonstration project being implemented in 20 elementary schools (see Mutter et al., 1990 for review). These key events informed the initial exploratory dialogues of the PHL project occurring at the local level in Calgary, Alberta.

Local Events. The planning stage of the CSHE initiative in Calgary is marked by seven sequential developmental phases which are not mutually exclusive: (1) initial exploratory dialogues occurring between CBE and CHS; (2) securing board approval for a local CSHE initiative; (3) initial project implementation planning; (4) defining project goals/objectives, structure, and function; (5) obtaining project funding; (6) developing an evaluation plan and the evaluation instruments; and (7) hiring a project coordinator (see figure 2, row 1). Project planning spanned an approximate 2.5 year period of time, beginning with initial exploratory dialogues in the spring/summer of 1990 and ending with the start-up of project implementation in pilot school I in the fall of 1992.

1. Initial dialogues. Cooperative exploratory discussion initially developed between senior administration of the two boards, CBE and CHS, who met 2-3 times yearly to discuss school and community health programs. Initially, a task group of two people from CBE and five people from CHS came together to explore the feasibility of placing health clinics in CBE high schools, having been inspired by the health promotion model which has as its goals (a) developing better health programs for children, (b) forging links with the community, and (c) coordinating resources in an emerging time of limited resources. Identifying with, and embracing, the goals of the health promotion model, representatives from the two boards formed a School Health Steering Committee (SHSC). However, recognizing that a specific health clinic focus is only one component of any health promotion initiative, they decided to work together toward a community health mobilization

plan (CHMP), a more comprehensive, holistic, and coordinated approach to addressing health issues. In attempting to conceptualize such an approach board representatives solicited the advice of Dr. Gordon Mutter, Chief of Education and Training, Health Promotion Directorate for Health and Welfare Canada, on a comprehensive school health plan (CSHP) which posits the integration and coordination of health instruction, health services, and a healthy environment within the school setting, directed toward developing an environment that protects and promotes the health of students and school personnel. Dr. Mutter advised that such an approach should start at the elementary level and carry through to grade 12, maintaining that one must start with younger students in order to effect behavioural change. In May 1990, the SHSC renamed the CHMP to the CSHP, stating their objective to read: "By the year 2001 each Calgary Board of Education high school will have developed and implemented a Comprehensive School Health Plan.". The SHSC decided to target high schools (as opposed to elementary schools as was advised by Dr. G. Mutter) with a CSHP, because it was felt that many components of CSHE were already in place in the elementary and junior high schools where high school students have only one mandated health education course during their high school career (Grade 11 Career and Life Management - CALM). Furthermore, they observed that health and community support systems had not been coordinated or easily accessed in this population. At this time a budget proposal was drafted to be submitted to Alberta Health requesting funding for a 3 year project; this initiative was unsuccessful.

A workshop was planned for the fall of 1990 to explore the feasibility of CSHE, examine levels of commitment, identify existing resources, define stakeholder roles and responsibilities, and develop a statement of purpose. A letter was sent to the University of Calgary Faculty of Medicine and Faculty of Educational Psychology to elicit their involvement, inviting them to attend the informational workshop and providing them with some background information on a CSHP. The 2-day workshop was held in September 1990 and an agreement was made to pursue a CSHE project

in Calgary high schools. Participants included representatives from Health and Welfare Canada, CBE, CHS, Alberta Education, Alberta Health, and the University of Calgary.

From this workshop tasks for future action were identified, prioritized and delegated. They included the following steps: (a) Write, ratify, and present a CSHP executive summary to the health (CHS) and school (CBE) boards, the objective being to build awareness of the project, gain support, and sensitize the boards to potential funding issues, and advise Alberta Health and Alberta Education of potential board approval of the CSHP; (b) enlist the potential pilot school principals and provide inservice/background documentation on a CSHP, including arranging an information-sharing conference call between potential Calgary principals and principals involved in a comprehensive school health project in Dartmouth, Nova Scotia; (c) following approval by both boards, appoint a steering committee structural body to oversee the projects' development; and (d) call a meeting regarding potential sources of support and resource.

The workshop was concluded by identifying stakeholder commitment (other than CBE and CHS) to a local CSHP. First, Health and Welfare Canada was to advise the Council of Ministers of Education on the Calgary initiative, provide ongoing literature review and relevant reports, volunteer advisory/consultant services, and identify funding opportunities. Second, Alberta Health representatives offered to provide the assistant deputy minister with briefing notes and Alberta Health with the corresponding minutes, as well as having all working members advise their relevant Standing Committees in health. Third, the University of Calgary agreed to provide research support in kind (e.g., evaluation, data analysis) and to identify possible sources of funding for research. The role of Alberta Education was left undetermined.

2. Board approval. The action steps identified by the workshop participants regarding the draft and presentation of an executive summary of a CSHP to the two boards were followed through in November 1990. The CBE members approved the proposal. The CHS members also approved

the proposal in principal, directing, however, the SHSC to strengthen the social/emotional component of the proposal and to develop a section on evaluation of outcomes.

3. Project implementation planning. Immediately following board approval, the action plan to enlist the potential pilot school principals and provide inservice/background documentation was undertaken. A number of suggestions were put forth regarding introducing the CSHP to potential pilot schools: (a) Be concrete and specific as to what the CSHP can do for the school; (b) acknowledge that most schools already have the components of a CSHP, and it is a matter of coordinating these components; and (c) acknowledge the political and philosophical barriers that make the implementation of a CSHP difficult; however, note the least invasive point of entry, that being CALM curriculum coordinators. A meeting was held between the CALM coordinators and members of the SHSC to do some brainstorming on how they could work together. Initial thinking had the proposed initiative being implemented in three high schools.

4. Defining project goals, structure, and function. The goals and objectives driving the PHL project were unclear. In the project archives three separate documents, developed at different times throughout the life of the project (two of which were undated), were disseminated regarding project goals and objectives (see Appendix B for a full review). Nowhere in steering committee minutes does it demonstrate that project goals were revisited or renegotiated.

While project implementation planning was under way, project innovators simultaneously turned their attention toward conceptualizing more clearly the structural body that was to oversee the project. The board representatives felt it was necessary first, to appoint a steering committee that would continue to develop the project and provide coordination and second, to hire a coordinator to model the implementation process in the schools. The structure and function of the project went through three developmental phases prior to project implementation at the school level.

The first phase was typified by initial exploratory dialogue about the structure of the steering committee and the proposed hiring of the coordinator. Representatives from the health and education boards discussed developing a larger SHSC with representatives from CHS, CBE, the Ministry of Social Services (MSS), Parent Association, and the University of Calgary Educational Psychology faculty. Despite these early deliberations, in January 1991, the two boards decided only to foster linkages with MSS as opposed to having their direct representation on the steering committee. Whether an invitation was ever extended to the Parent Association is not documented. The rationale underlying the exclusion of MSS and the Parent Association from sitting on the SHSC is not documented. The proposed hiring of a coordinator was conditional upon the attainment of funding.

At the same time, issues related to SHSC and coordinator functioning were discussed. It was felt that the steering committee should have terms of reference, provide a forum for information exchange, and act as a parent body for an implementation committee at the school level and that the coordinator would model the CSHP implementation process in the schools, possibly being assisted by a small steering committee. In that same month, January 1991, the SHSC planned action steps around developing and ratifying a working definition of a CSHP (Appendix D), an outline of criteria for a CSHP (Appendix E), an outline of the implementation process for a CSHP (Appendix F), a job description for the coordinator of a CSHP (Appendix G), a terms of reference, and reporting mechanisms for committees at the various levels. Two months following, in March 1991, with the exception of the latter two, drafts of the foregoing were presented to the steering committee for revision and approval. Terms of reference went undeveloped until the coordinator was hired. Reporting mechanisms went undeveloped until project implementation was under way. Both will be addressed in later sections of this report.

The second phase saw the clarification of project structure as a condition of obtaining project funding (described in a later section). In May 1991 the steering committee model was discussed and ratified: The steering committee was to be comprised of two representatives each from CHS, CBE, and the University of Calgary Educational Psychology Department (evaluation) as well as the funded coordinator. Each parent body was to identify the representatives for the steering committee. The original thought on the steering committee model as being a parent body for an implementation committee at the school level was retained. The school implementation committee would report to the steering committee via the coordinator. In the longer term it was projected that this may see the development of a coalition of groups involved with school health where the coalition would be focused on advocacy and would not be decision-making. It was thought also that there would be an advisory committee, which would primarily offer support and advice and likely be short-term.

The third phase, occurring in March 1991, the first steering committee meeting in almost a year and after the project coordinator was hired, saw the steering committee set out to clarify and document the purpose of the steering committee, and the roles and responsibilities of the steering committee and the coordinator, developing the terms of reference for the project (Appendix H). In April 1991, when the project slogan (Partners for Healthy Living) and logo (the triangle) were selected, the SHSC was renamed the Partners for Healthy Living Steering Committee (PHL SC).

Regarding the roles and responsibilities of the *specific representatives* on the PHL SC (i.e., CHS, CBE, and the University of Calgary), each presented a general synopsis to the other members of the PHL SC but did not formally document or contract these terms. CHS offered that one of their roles in the CSHP was to "coordinate various resources to be used" and to "[identify] the needs of the schools and the community and [determine] what is the best way to meet these needs". As

well, CHS was to "act as an advisor in the goals, strategies, and implementation of the initiative", and "as a link between the initiative and the various departments within Calgary Health Services".

At this time the CBE did not articulate its function in the project. The CBE representatives did, however, comment on the departments mixed sentiments toward the PHL initiative. They outlined the "concern that the initiative may overlap into what is already being covered by others", but they recognized that "with the focus being towards multidisciplinary work, program continuity, and integrated concepts, the system is showing their readiness for this initiative". CBE support was directed from the Superintendent's Council of the CBE and the Advisory Committee which represents the various employee bargaining groups, the trustees, and the Employee Assistance Program.

The University of Calgary representative advised that the primary role of the university was the "coordination of the evaluation component" which "means being involved with the idea generation stage to help people get an idea what the community needs are and then prioritize them". The university representatives offered "to work to develop the program/services in order that it is structured in a way that it can be evaluated". The university was to "develop the evaluation with concrete ways of measuring the success of the initiative and give appropriate feedback ".

The program coordinator described herself in a "planning role for the initiative". As well, she was to be the "link between the steering committee, the community and the school". The coordinator felt responsible for "the administration of this initiative and any school-based inservicing as required."

5. Funding. In November 1990 steering committee representatives decided that in order to pilot the CSHP in six schools more resources were required. It was suggested that a joint funding proposal be drafted and that a decision be made as to (a) who will do the proposal and (b) to whom the proposal will be sent. This decision was tended to the next meeting in December 1990. The

steering committee discussed forming a funding subcommittee that would investigate funding sources and draft appropriate proposals. Three committee members began work in this area.

Five possible funding sources were identified for which members of the steering committee were to begin investigating funding criteria. The potential funding bodies included the Burns Foundation, the Kahanoff Foundation, the Fenerty Foundation, the Nickle Foundation, the Wild Rose Foundation, and the Health Promotion Branch of Health and Welfare Canada. Once the funding criteria for each funding body was established, the Medical Officer of Health for CHS adapted proposals to be sent to each foundation. Additionally, in May 1991, a Plan B Budget was developed in case the primary funding targets were unsuccessful. The Plan B proposal targeted three potential populations to cooperatively develop a CSHP, including a school health coordinator, health nurses in existing schools, and the occupational health nurse of CBE. The first two of three funding proposals were unsuccessful.

In May 1991 discussion centred on the Kahanoff Foundation, and the funding criteria to be included in a proposal. A proposal was submitted for which the Kahanoff Foundation requested clarification on three components: the steering committee structure, the coordinator's role, and the evaluation component. The requests were satisfied: the structure of the steering committee was clarified (as previously described); a job description for the coordinator was provided (Appendix G); and a letter was provided by a representative in the Educational Psychology Department of the University of Calgary indicating their supportive research role. The Kahanoff Foundation expressed a conditional interest in the project for a 3 year period. The conditions were the provision of a detailed evaluation plan (to be described in the next section under the heading "evaluation negotiation") and endorsement among CBE, CHS, and the University of Calgary. Upon the satisfaction of these conditions, the Kahanoff Foundation agreed to provide 100% funding for year 1, 75% for year 2, and 50% for year 3, where alternative funding from the two "joint but

equal" boards (CBE and CHS) would balance the funding shortfall over the final two year period. A representative from the Kahanoff Foundation felt that a formal contract was not necessary but rather, that the various correspondence between all those involved would suffice.

Funding was finally put in place (i.e., budget allocation codes and the provision for budget carryover from year to year were set up) the summer of 1992 to be provided from the Kahanoff Foundation semi-annually. The University of Calgary requested that funding directed to them from the Kahanoff Foundation be placed in a research trust account. The steering committee reported back to the Kahanoff Foundation in December 1992 about the division of moneys explaining that, to date, 90% of the budget was going to salaries, where the advisors were donating their time, and the research assistants were receiving half the going rate for other university research assistants.

6. Evaluation negotiation and instrument development. The university was invited to become involved in order to establish a program evaluation plan - a condition of funding. Representatives from CBE and CHS met with University of Calgary representatives from the Department of Educational Psychology and together they identified (a) the outcome measures they hoped to elicit (the coordination of health services, instruction, and environment), (b) the observable indicators that would indicate those outcome measures were being met (changes in attitudes, skills, and knowledge), and (c) a means by which to gather data on those observable, tangible indicators (needs assessment, impact assessment, program specific evaluation, and process evaluation).

The university representatives approached the Kahanoff Foundation with the proposed evaluation plan, attaining funding approval. Following from this, a developmental outline for the program evaluation component of the project was presented to the steering committee (Appendix I), and instrument development proceeded.

The steering committee, still the SHSC at the time, identified two primary objectives underlying the form and process of instrument development. The first was the development of an assessment tool that would measure the effects of the PHL project. This evaluation component required (a) the assessment of the perceived needs of the student population in the context of the CSHE components - namely instruction, services, and school environment; and (b) the assessment of the overall impact, or of the differences evidenced in student, school personnel, and parent health attitudes, knowledge, and skills as a result of CSHE programming. The second objective was to develop an evaluation method that would allow participant involvement. The research agenda was to include the participants as part of the evaluation process, namely instrument development and refinement, and data retrieval and analysis.

This expectation of participant involvement gave rise to a number of recommendations from the steering committee regarding the evaluation component: It was recommended that the assessment tools be self-directing and explanatory for ease of administration; "time efficient", being no longer than three or four pages in length to be completed within a 30 minute time frame; and "age appropriate", matching the reading and comprehension levels of respondents through straightforward instructions and streamlined questions. As well, it was recommended that the procedures for data collection and analysis be "user friendly".

Two instruments - the Health Needs Assessment and the Global Impact Assessment - were developed (for a description of each instruments' development process see Collins, 1993 and Reeh, 1995 respectively). The needs assessment questionnaire was designed to assess the specific health needs of the targeted population (students, parents, school personnel) according to 13 holistic general needs areas (i.e., physical health, sexuality, counselling, family and home life, school performance, health promotion, mental/emotional health, peer relationships, safety and accident prevention, home atmosphere, involvement with teachers and staff, involvement with other

students, and school building and grounds), whereas the global impact assessment questionnaire was designed to address the overall impact of the CSHE effort according to its three components (instruction, services, and environment) in terms of skill, attitude, or knowledge changes. In total eight survey instruments were developed to be administered in each school - five versions of the needs assessment and three versions of the global impact assessment. The needs assessment surveys included (a) students' perceptions of their health related needs, (b) parents' perceptions of students' health related needs, (c) school personnel perceptions of students' health related needs, (d) parents' perceptions of their own health related needs, and (e) school personnel perceptions of their own health related needs. The impact surveys included (a) student global impact, (b) parent global impact, and (c) school personnel global impact.

Following development of the draft instruments, the SHSC reported the complexity and detail of the evaluation to be overwhelming and not what a school could easily use at that point. The SHSC requested that the needs assessment instrument be further shortened and that the ranking response be deleted. The evaluation team, however, did not comply with these suggestions, offering that instrument development reflected a participant driven process, and that the final form must be based on stakeholder groups' decision making. The final health needs assessment survey administered in pilot school I therefore remained its original length and contained the ranking response question (see appendix K for a sample question from pilot school I's final health needs assessment survey).

7. Project coordination. The means through which project coordination was to occur was the employment of a full-time project coordinator. In May 1991 the project coordinator's role was clarified as a condition of funding. At this time a job description (Appendix G) for the coordinator was developed and included in the packages for funding. Considerable time was spent designing the job description of the project person at that time. It was further articulated that there was a need

for a key coordinator within the school by a school person and that the credibility of the coordinator's position would relate to a work cycle tied to the school year. A strong candidate was identified through the CBE and final selection was to be by the steering committee. The coordinator's administrative reporting was to be to the CBE but work accountability was to be to the steering committee.

In January 1992 a year after the initial talks began, the job description (Appendix G) for the position of project coordinator was posted. The coordinator acted as steering committee chairperson for two years from the time of her employment. Initially, she was given an office at CHS. The CBE provided a lap top computer for the coordinator to use. Steering committee meetings were held on a monthly basis once the coordinator was hired.

The coordinator spent the first 6 months of her employ establishing links with the community and schools prior to project implementation in pilot school I. Given that much of her resource base and in-service opportunities had been with CHS, she began her work by re-establishing that network and introducing herself to the various division directors. Within the CBE, on a similar vein, she began developing an awareness of other kinds of initiative projects that currently existed that were either community linked through school based projects or other supervisory management people. She accessed community-school coordinators, the community liaison officer, and an interagency collaboration committee. At the same time the coordinator began the work of action planning and establishing time-lines for project development with the steering committee. Work with pilot school I began in September 1992.

Factors that Enhanced

Following is a description of five factors identified by project participants that enhanced the planning stage of project development. They included (a) initial interagency relationship

building, (b) visionaries, (c) steering committee structure, (d) high level political will (i.e., governing bodies), and (e) the project coordinator (see figure 2, row 2).

Initial interagency relationship building. Prior to any formal discussions on CSHE a cooperative working relationship between the two Calgary boards - CBE and CHS - had already been established:

> The Calgary Board of Education and the Calgary Health have always worked really well together, with a very strong relationship for years, and it's just very natural for us to work together. So I think that makes a big difference in the development. (CHS representative, steering committee)

The initial year of exploratory dialogues enhanced the planning stage of project development by facilitating the development of collaborative working relationships. Collaborative relationship building was contingent upon three important characteristics: (i) increasing interagency understanding; (ii) personalizing working relationships; and (iii) engaging in a process of consensus-building.

First, it was important that the different agencies have the opportunity to learn about and understand how another agency operates, as suggested by the following participant's statement: "That was one of the big issues, sorting out the representation and learning the politics about the two organizations....that to me, was a major, major issue...the sorting out of the interagency." (CBE representative, project developer). Similarly, another participant noted, "I think that has been really neat: to get a glimpse of how another agency operates without being a part of it. The grass is always greener, but you get to see its brown spots." (CBE representative, project developer).

Second, it was important that at least some of the board members establish personal working relationships. As one participant indicated,

> That I think was a critical component: Having a real trusting relationship between a couple of people, one from each agency... You need some really gut-level, honest communication going on, and that goes beyond the official meeting stuff. (CBE representative, project developer)

Another participant suggested that the personalized working relationship is the bottom line: "What it really comes down to, to me, is human relationships between people, and knowing each other." (CBE representative, project developer).

Third, it was important that participants develop a consensus regarding shared goals or a common vision: "[The most rewarding was] meeting with other professionals who shared a common vision and were willing to work together to find some practical way of experimenting with it." (CHS representative, project developer). Participants described a process in which the various representatives had to look at their individual mission statements and determine whether they were compatible or whether they would have to "go through and make some compromise of changes to make them fit" (school nurse).

Visionaries. In the planning and development stages of the project it was critical having visionaries - committed key persons who believed in the philosophy, actively promoted it, and had the political will to help pull people together:

> I think you need a couple of key players, a couple of committed key people, and they have to read the situation and read the environment and go for it....It has to be one person from each agency that's committed and willing to follow through, and also has the ability - the political will - to help pull people together. (CBE representative, project developer)

Having identified herself as one of these key, visionary players who "believe[s] strongly in the model and the potential for the life of schools", one participant suggested that "any project like that

is going to require that kind of person" (CBE representative, project developer). These people put CSHE on the agenda and safeguarded it, ensuring that it remained there.

Steering committee structure. The steering committee provided an interdisciplinary working structure. It formalized the integrating of efforts that had already begun to develop between the various community representatives concerned with the health status of youth. It facilitated the breakdown of walls between disciplines where the emphasis was shifting to collective responsibility:

> The walls between disciplines are breaking down as we're realizing that we cannot take responsibility for a particular aspect of human life. It is intimately linked and we all have a part to play in each other's education, social well-being, health. We are all responsible collectively....So, in short, [the steering committee structure] was a wonderful way of breaking down the sectoral boundaries between us professionals. (CHS representative, project developer)

An important characteristic of the steering committee was its inclusion of a direct service perspective. This direct school perspective brought "the life of the schools to the steering committee" (CBE representative, project developer) which was deemed valuable given that "sometimes the decision makers and the doers see what is happening in very different ways" (coordinator):

> It helps to have some people on the steering committee that are directly involved, front-line staff, because then you're not missing that part....You don't just have admin. people - not just the administrative perspective. You must have the service delivery link (CHS representative, steering committee)

Having people that were right at the ground level helped to keep the steering committee in touch with the practical issues experienced at the level of schools.

High level political will: governing bodies. In the formative stages of project development it was critical to work through the political "wheel" talking to higher levels. Specifically, it was important to get "buy-in" and support from the governing bodies, and to get the senior leaders, namely the Chief Superintendent (CBE) and the Chief Medical Officer of Health (CHS), together to discuss the initiative. Given that the concept of CSHE was farther removed from the Calgary school system than the health system, it was particularly important to enlist support at the school board level: "[The CBE] has to endorse it. It has to be strong with it. That has to be part of their mandate almost, you know?...There has to be some sort of support system and recognition." (school nurse). The sanctioning authority of these governing bodies was related to project credibility and sustainability. As identified by one steering committee representative, "You can have all the need established, the enthusiasm at the middle management or teacher level, but unless you have support from above, it is going to die." (CHS representative, project developer).

Project coordinator. Given the responsibilities of the people designing the project, many of whom were employed in supervisory positions, hiring a coordinator to do the "leg work" was imperative. As one participant noted, "We could not ourselves actually do the project, simply because of time and job requirements and so forth. So we knew that we had to have a facilitator." (CBE representative, project developer). Similarly, another participant stated:

> Having the project manager is critical... because the developers couldn't...carry it out. It requires somebody to keep at it, and at it, and work at it, and visit schools, promote and talk. So it is a full time job, I guess is what I am trying to say, and it needs full time commitment. (CBE representative, steering committee)

From whence the coordinator should be derived is less clear however. Project participants expressed divergent viewpoints as to whether the coordinator should be from within or outside of the school system. On the one hand, participants suggested that hiring someone from within the

school system was the most suitable given that an internal coordinator is sensitive to the bureaucracy of the educational system:

> Having a coordinator that had strong contacts in the school system [was important] - having somebody who had linkages in the school system because the school system is so different than health. You had to be really aware of the hierarchy and the protocols and all that sort of thing. (CBE representative, steering committee)

Other participants suggested it was important to hire someone from the education system given their "built in credibility" and its implication for the time frame in which the PHL project was to evolve. Given that the PHL project had only a 3 year mandate, hiring a coordinator from the education system was described by participants as efficient given that significant time would then be avoided having to build working relationships with those in the school system: "We finally decided that someone with a teaching background might be most appropriate because of the time. They have the credibility...We needed someone with some built in credibility." (CBE representative, project developer).

On the other hand, participants indicated that hiring someone from within the school system was inefficient such that the time demands of the project were said to be incompatible with the working structure of schools. First, it was said that schools are hindered by a time-consuming bureaucracy. One participant stated, "I would reconsider having a coordinator from the school system because...it is such a huge bureaucracy and she's employed in that bureaucracy. She gets caught up in that and I think that can consume time." (CHS representative, steering committee). Second, it was said that the 8 month work schedule of schools impeded the efficiency of project development: "Even though schools aren't in in summer, I think a lot of work can be done....this type of project would benefit from having somebody all year round, so that there's not lost time." (CHS representative, steering committee). Essentially, particpants suggest that while hiring a

coordinator from the school system saves some time at the front end of project start-up given the coordinator's built in credibility at the level of schools, some time is also lost due to the time-consuming bureaucratic practices of the school system and the shortened working year. It is unclear under each circumstance the quantity of time saved and lost or their difference.

Factors that Inhibited

Four factors were identified by project participants as inhibiting the planning stage of project development. They include (a) lack of initial interagency relationship building, (b) role ambiguity, (c) conflicting expectations, and (d) over-extension of the coordinator's role (see figure 2, row 3).

Lack of initial interagency relationship building. While initial interagency relationship between the CBE and CHS was identified as enhancing the CSHE planning stage, lack of such relationship building between the university and the two boards was identified as a hindrance. Questions were raised by some program participants about the quality of the working relationships established between the different agencies in relation to the university where the collaborative, interdisciplinary nature of the steering committee was found to exist only in principle and not in deed: "I think that the whole collaborative approach in our heads we had, in our actions we didn't." (CHS representative, project developer). Participants suggested that "a bit more [relationship building] especially with the University" (CHS representative, project developer) might have facilitated common understanding, consensus, and personalized relations, hence, collaborative working relations:

> I would want to do...some more team building amongst the steering committee, so that there is a greater chance of creating some sort of a *common mentality* as far as the whole initiative is concerned and the relation of the various parts. I don't like to use the word "retreat" or whatever, but it really is making sure that we create a *meeting of the minds*, and

> the mutual respect that comes with getting to *know each other better.* (university representative, steering committee; emphasis added)

Role ambiguity. Similarly threatening collaborative working relations between project planners was role ambiguity. There was an absence of any clear, documented terms of reference outlining the specific roles and responsibilities of the *individual* governing bodies: "I think that one of the major issues that are surfacing is the fact that we are operating, or were operating from a lack of terms of reference." (CBE representative, steering committee). Terms of reference were initially established outlining the purpose, roles, and structure of the steering committee as a whole without demarcating the specific responsibilities of each representative group. The consequence of this was described by one participant: "[Lack of terms of reference] definitely added to the problems that developed in terms of misunderstanding about the role of each one of the parties." (CBE representative, steering committee). As well, the role of the coordiator was not clearly demarcated: "The role of the coordinator has never been really clearly outlined. The steering committee hasn't done that, and the coordinator herself hasn't really done that." (university representative, steering committee). This lack of role definition was deemed to be particularly problematic in relation to the evaluation component:

> I think at the beginning trying to clarify what exactly we wanted the evaluation team to do was very stressful, and I think I fault all sides for that in that we were not very clear in the beginning exactly what we wanted, who was going to do what work, and that was fairly stressful. (CHS representative, project developer)

Although steering committee discussion around roles and responsibilities did occur in March 1992 (steering committee minutes), following employment of the coordinator, they were not formally proposed and adopted into the terms of reference policy until April 1994.

Conflicting expectations. Threatening, once again, collaborative working relations were mixed messages between the two boards and the evaluation team with respect to the *form* of the evaluation component. Participants suggested that there were "two different concepts of evaluation going on" (CBE representative, project developer). As one participant explained, "One of the big steering committee issues was evaluation...and I believe what's going on are different philosophies." (CBE representative, project developer). The three partners (CBE, CHS, and the University of Calgary) were united in wanting the evaluation to be participant driven and accountable (i.e., to demonstrate the effects of CSHE); however, the two boards and the University of Calgary differed in how they would see this proceed.

First, the two boards and the university embraced different views regarding the means by which to develop a participant driven evaluation component. The CBE and CHS expressed the opinion that the evaluation instruments need to be "streamlined" (i.e., 3-4 pages in length; 30 minute duration time) and *developed* in the schools by the participants for the participants. They expressed the opinion that the comprehensive surveys developed by the university representatives were "inappropriate", "unwieldy", and "long", and that based on anecdotal write-ins on questionnaires and on staff conversations, the goal of developing a tool that can be used by schools had not been met.

The university representatives promoted a bottom-up evaluation process, beginning with a comprehensive instrument that would allow the stakeholder groups - students, parents, and school personnel - to *tailor* the instrument to fit their needs. Thus, university representatives were of the opinion that the schools had to tailor the already developed comprehensive forms into more school-specific, user friendly instruments. They perceived themselves to be only external consultants to the evaluation process, teaching school participants how to incorporate evaluation into program planning. A university representative had this to say about the discrepant viewpoints:

> What [the two boards] really expected was that the very first time [they did the Delphi procedure] they would get a finished product, so they end[ed] up right from the outset saying, "This is way too long. This will never float in schools." We were saying, "Yes, we know that, but we are starting off with it being comprehensive, and the process is for the people who are going to use it to weed it down, not for us to weed it down." I had to keep reminding them that the philosophy was that it was from the bottom up, from the real people up, rather than from the steering committee down. (university representative, steering committee)

Thus, the point of conjecture between the two boards and evaluation team concerned *instrument development* (i.e., developing a streamlined questionnaire from the outset) versus *instrument tailoring* (i.e., tailoring a complex form into a more streamlined form), although both perceived them to constitute a participant driven process.

Second, while both groups wanted to be accountable, demonstrating that CSHE programming works, each had discrepant views of what accountability would look like. The university was insistent that data be collected through rigorous quantitative measures and that hard data were important in providing outcomes that would support project continuation. The school-based participants wanted an instrument that was not statistically intense, arguing that the effects of CSHE are subtle - changes in awareness and attitudes - and not susceptible to precise measurement.

While participants depicted these conflicting expectations as "frustrating", they also indicated that they provided a learning opportunity. As one participant explained:

> I think there's been some real learning opportunities together...when you take an academic approach with a very practical approach. One says, "You really need to have this done.", and you're saying, "My God! How do I get the questionnaires done, do this, and how do we

> juggle classes, and you've got these kids moving in and out..." Just those kinds of realities. (CHS representative, steering committee)

Another participant suggested that "once we got back into realizing we were on the same wavelength, just with different approaches, things went well". She indicated,

> That was about integrate, dialogue, talk, and if you don't understand then ask again, and if you're not getting what you want then write it out so that everything is clear, and I think we had some mixed messages, which I fault myself as much as anybody else. (CHS representative, project developer)

Over-extension of the coordinator's role. The coordinator's roles and responsibilities were over-extended in this initiative. First, the coordinator acted as the steering committee chairperson for two years from the time of her employment. This compounded her role strain, creating conflicts of interest:

> [The coordinator] should have been in a committee member role rather than a committee chairperson role...I think that puts [the coordinator] in a better position to respond to views as the committee sees them, not feeling like she's caught and sandwiched in the middle. That's been a concern. (CBE representative, steering committee)

Rather than reporting and being accountable to the body by which she was hired, the coordinator was directing it. Consequently, the coordinator lacked a resource to which she could turn for guidance, direction, and critical feedback and was inquired instead to give of that herself. Second, the coordinator was doing the work of three sizeable domains: program planning/implementation, clerical, and marketing/promotion. This overburden served to compromise her functioning: "I think that some of the things are slipping between the cracks. It may seem like I am being fairly negative...but I think that the reality is that it is probably too big for one person to do." (university representative, steering committee). The coordinator herself only identified the clerical duties as

"stressful", indicating that they were "time consuming", and "not an efficient use of my time". Another participant shared her concern, suggesting, "It may have been easier for her somehow if there was somebody who could help her with that day to day stuff." (CBE representative, steering committee). From whence the expectation arose that the coordinator would be responsible for the three domains is not clear. Clerical responsibilities became her responsibility by default when funding and secretarial support staff at the CBE was cutback. Initial discussions with regard to project structure and function deemed that the coordinator was responsible for "modelling and in-servicing the implementation process in schools"; "providing a link between the steering committee, community [sic] and school"; and "administrating the initiative". Where marketing and promotion falls within these roles was not clarified nor was it included in the terms of reference.

Prepare for the Unavoidable

Three factors were identified by participants as being unavoidable extensions of project planning activities. They include (a) "busy work", (b) juggling agency politics, and (c) the changing climate of agencies (see figure 2, row 4).

Busy work. The process of planning and implementation involves a large degree of initial ground work to be done: reviewing the relevant literature, setting up meetings, contacting people, educating people, promoting the philosophy, exploring funding options, negotiating evaluation, establishing time-lines. As one participant noted, "I think that's something that needs to be addressed by anyone right from the start, of this leg-work, the ground-work." (CBE representative, project developer). Participants indicated that this busy work and attention to details can detract from one's ability to see the "bigger picture" (university representative). One participant explained that "we got caught verbally by getting into the detail, and we missed the overall" (CHS representative, project developer). It also restricts one's ability to take stock of earlier experiences:

> I think that to a degree on our level at least, there's always too much work to do...and I can't ever get ahead enough to think, "How can we pull together what we've learned?" I feel like we'll get to the end of the project and we'll be trying to pull together what we've learned then, and than we won't have used what we've learned. (university representative)

Juggling agency politics. CSHE promotes a collaborative, interdisciplinary approach to health education. Time must be devoted to learning about corporate culture differences - differences in bureaucracy, roles, and language - in order to enhance interagency cooperation and the tying together of stakeholder groups. Sorting out these differences is a source of potential conflict: "There's always problems when you bring people from different organizations together - the health services, the school board, the university - with clarifying what their people understand or believe about the project." (CBE representative, project developer). Another participant commented, "One thing that was initially trying was balancing the personalities of all the partners...pulling together how all of these very important decision makers were now going to work together." (coordinator). In a flattened hierarchy consideration must be given to agency roles and accountability:

> Anybody who's a joint agency person I think needs to come into it with their eyes open of how they're going to be evaluated, who's going to be their lead supervisor. Even though we talked about being equal partnership and 50-50, you still need to agree, if it's 50-50 and one of us says this and the other one says that, how are we going to break the tie? How are we going to negotiate? Because it takes a lot of time and I think that needs to be sorted out right from the start. (CBE representative, project developer).

According to one participant, "It's all of those little nitty, gritty things in working out...that, again, require lot's of patience and tolerance to sort them out." (CBE representative, project developer). Another participant expressed that, while being "answerable to two different boards and two

different masters has probably raised its own share of difficulties", that was "both the potential and the challenge" of this approach (CHS representative, project developer).

The changing climate of agencies. Shifting priorities and personnel changes in school and health systems is a reality that must be contended with when implementing a long-term intervention such as CSHE. During the PHL project both CHS and CBE contended with fiscal cutbacks and personnel reorganization. First, dwindling resources threaten longevity. One participant commented, "There were tremendous cutbacks in education and health and that has implications for how you get your work done....So we're all dealing with that right now in trying to figure out how this is going to be." (CHS representative, steering committee). Another participant questioned "how far reaching [CSHE] will be based on the fact that health and education are being hit so hard financially right now" and indicated that "none of us know what health and education is going to look like by the end of this year" (coordinator). Second, fiscal cutbacks effect productivity. One participant expressed that the "low points are when you get your services cut back and you know there's so much more that you could do" (CHS representative, steering committee). Third, reorganization threatens continuity given that "the political will that had been there three years before was starting to wither away" (CBE representative, project developer). This reorganization of school and health systems requires participants to remain flexible and adaptable and work with the developing changes: "Because of the fiscal realities I'm dealing with now, I start up almost each semester with a different way of working." (coordinator). It also requires project participants to spend time educating the new players coming on board. This requires back-tracking, clarifying, and ensuring that each understands the philosophical foundation of the project, past and current developments, and future goals. As one participant explained, "You can't bring somebody into an existing group without doing some integration." (CHS representative, project developer).

Implementation Stage

The implementation stage of project development is concerned with those developments that happened at the level of schools, beginning with the initiation of pilot school I. A description of the nine developmental stages characterizing project implementation and the associated enhancing, inhibiting, and unavoidable factors are summarized in figure 3. A more detailed description of each follows.

Figure 3
Implementation Stage Summary

Description	1. Project initiation and approval 2. "School implementation committee" formation 3. Initiative start-up 4. Focus groups and the survey tailoring process 5. Survey administration and data collection 6. Program planning 7. Knowledge dissemination and project promotion 8. Implementing interventions 9. Evaluation
Enhancing Factors	• School administrative support • School implementation committee formation • Needs assessment • Dissemination and promotion at the school level • Project coordinator • Higher political will (i.e., steering committee structure) • Needs prioritizing
Inhibiting Factors	• Inadequate preliminary education • Misguided expectations • Top-heavy stakeholder representation • Structure of the survey • Survey pre-test • Role ambiguity • Incomplete steering committee representation
Unavoidable Factors	• Add-on • Preliminary education • Changing personnel and re-education • Long, slow process • Small changes • Time constraints • Communication challenges • Ambiguity

Description

Typically, nine stages marked the implementation process in each of the schools: (1) project initiation and approval; (2) "school implementation committee" formation; (3) initiative start-up; (4) focus groups and the survey tailoring process; (5) survey administration and data collection; (6) program planning; (7) knowledge dissemination and project promotion; (8) implementing interventions; and (9) evaluation (see figure 3, row 1). Because the specific circumstances of each stage are variable across the different schools, a description of the general process of each developmental stage will include also the nuances that are particular to each school. Where appropriate, the various stages will conclude with a general summary indicating the extent to which the schools, as a collective, captured the vision of CSHE through their activities.

1. Project initiation and approval. In the first year and a half those schools (pilots I and II) that were approached with the prospect of implementing CSHE were viewed by the steering committee members to be "progressive" in terms of their thinking about, and potential readiness, for change whereas the final schools (pilots III, IV, V, and VI) were described by the project coordinator as "totally new frontiers". School initiation involved gaining administrative approval for project implementation. The concept of CSHE was introduced by the coordinator to administrative staff in each pilot school. With the principals latitude the idea was then presented to the school leadership cabinet for approval.

Pilot school I was introduced to the project in the spring/summer of 1992, and project implementation proceeded in September 1992. Pilot school II was introduced to the project in October 1992 and was committed to come on board by February 1993. Pilot school III was introduced to the project in May 1993, formalizing its beginning in September 1993. Pilot school IV was introduced to the project in September 1993 and committed to go ahead in October 1993. Pilot school V was introduced to the project in September 1993 and made a decision to commit to

the project that same month. Pilot school VI was introduced to the PHL project in June 1994, subsequently voting that same month to support the initiative. Thus, the greatest time lag between project initiation and approval was experienced in pilot schools I, II, and III, averaging an approximate 4 month period. The process of approval was much swifter for schools IV, V, and IV, averaging an approximate 1 month period.

In all the schools a decision to proceed with project implementation followed a democratic process where majority support of the school leadership cabinet was required. Only for pilot school III was it recorded that there was unanimous approval. The greatest hesitancy around initiative commitment was reported for pilot schools I and VI. In pilot school I staff members expressed various attitudes including: a "wait and see what happens" attitude; the attitude that the initiative is a "cutsey" project spelling "female driven as a health curriculum project"; and the attitude that targeting personal health in schools is a sensitive area. In pilot school VI the principal expressed various concerns including the hard costs and time costs of implementation, the proposed benefits of CSHE in the face of competing priorities, and the confidentiality of the survey results. The data does not reveal whether, or how, the above attitudes and concerns were deliberated and/or resolved prior to proceeding with project implementation.

2. "School implementation committee" formation. Once the concept of CSHE was introduced to each school, and administrative approval to participate in the PHL pilot project had been gained, the second developmental step in schools I through IV involved the formation of a school implementation committee made up of stakeholder representatives, including students, parents, and administrative, teaching, and support staff, and community resource staff (i.e., school nurse). An additional community resource representative - a multicultural liaison person - sat on the committee in pilot school IV given the schools ethnically diverse population. The numerical

representation of each stakeholder population varied within and across the schools over time. At the time of this inquiry, school V had yet to form a school implementation committee.

The development of a school implementation committee was based on recommendations made by the project coordinator and members of the university evaluation team who provided the initial consultation to schools regarding the formation of a representative school implementation committee (i.e., comprised of a representative sample of the school population).

The process of identifying the potential committee members and inviting them to participate occurred in a similar manner in each of the four pilot schools. Teaching staff representation was elicited by the various department heads sitting on the school cabinet. Each department head approached the curriculum instructors in the school to inform them of the proposed project and to ask them for their support and commitment to the initiative, as well as for their participation on the school implementation committee. Support staff and the school nurse were informed of the prospective project by the school principal. Parent representation was secured from the Parent Advisory Councils at the various schools. The project coordinator and school principal presented the notion of CSHE and the upcoming project to the various parent groups and asked for their involvement. Student involvement was obtained on the recommendation of teachers or the school principal. At schools I and III students were approached informally during class time, whereas in schools II and IV students received a formal letter giving them an overview of the initiative and an opportunity to become involved in the CSHE initiative.

The school implementation committee in each of the four schools was headed by a chairperson. In schools I and II the chairperson was initially designated by the coordinator, while in schools III and IV the chairperson was designated by the school principal. In three of the four schools an administrator or staff person initially sat in the position of committee chairperson, where one school only ever saw the position filled by a parent. In school I the project coordinator sat on

the implementation committee as the committee chairperson, later to be succeeded by an administrator; in school II the chairperson was an administrator, later to be succeeded by a parent; in school III the chairperson was a school counsellor, later to be succeeded by an administrator; in school IV the chairperson was an instructional staff member.

In general, for schools I through IV the formation of the school implementation committee preceded the remaining developmental steps, for which the school implementation committee became responsible for effecting (i.e., initiative start-up, tailoring the survey instruments, administering the surveys, disseminating the survey results and promoting the project in the school, planning programs based on identified needs, implementing interventions, and evaluating programs). However, in pilot school III where it was the original intention of the school principal to see how the process could work within existing committees at the school, tailoring and administration of the global impact survey occurred with the teaching staff before students were invited to participate. As well, in pilot school V tailoring and administration of both the needs and global impact surveys, as well as prioritizing of the identified needs, occurred prior to committee formation, although various students were invited to participate in this process. As will be indicated in the following sections, the degree and form of each of the remaining developmental stages often varied for each of the schools, as well as the level and make-up of stakeholder involvement at each stage.

The formation of a school implementation committee comprised of parent, student, teacher, and community (i.e., public health nurse) representatives was consistent with the interdisciplinary approach of CSHE. It represented the melding of interest groups at the local level, including the school, home, and community perspective.

3. Initiative start-up. Once the school implementation committee was formed in each pilot school various administerial tasks had to be undertaken in order to mobilize the school for project

implementation. These tasks included establishing a meeting schedule and location (the logistics of which included having to set up a method of informing people of said meetings, as well as arranging food); taking and distributing minutes of all such meetings; planning an agenda; conducting an informal assessment of CSHE components already in place at the school (i.e., brainstorming what was being done, and what services were being used, to meet five areas of health - mental, emotional, social, physical, curriculum); and introducing and explaining the concept, purpose, and form of the evaluation process. According to time line records kept by the coordinator, introductory CSHE presentations were made at staff meetings, parent advisory council meetings, and student forums in the various pilot schools. They were documented as being initially the responsibility of the project coordinator, whereas later in pilot school IV, the responsibility became that of the school implementation committee representatives. The form and content of these introductory presentations, however, were not recorded in the project archives.

4. Focus groups and the survey tailoring process. For each school the next developmental step involved tailoring of the survey instruments, the purpose being to develop an evaluation instrument that was school-specific (i.e., generated by the school for the school). This process was performed by focus groups in each school and facilitated by the project coordinator and members of the university evaluation team.

In pilot school I the survey tailoring process was more complex than in the remaining schools, because it served as the sample high school in which the initial testing and refining of the developed health needs assessment questionnaire was to be done. A representative cross-section of stakeholder groups from pilot school I was utilized toward this end including approximately 12 students (including representatives from student council and the peer support team, recent school re-entries and drop-outs, and a mix of ethnic, gender, socio-economic, and academic factors); members of the School Parents' Association (6-9 people); teachers involved in current health

programming (2); teachers with little interest/involvement in health education (2); administrator (1); the school resource officer (1); the school nurse (1); and a guidance counsellor (1).

The health needs assessment form, composed of a series of stem questions followed by lists of potential responses (items), was tested and refined by the Delphi method (see Collins, 1993 for a full review). Simply, the Delphi process included a series of five steps (see Appendix J for steps 1-4, and for step 5): (a) rating each item under the question stem according to a five point Likert scale ranging from strongly agree to strongly disagree, first according to the respondents' perceptions of their own needs, and second according to the respondents' perceptions of the needs of adolescents generally; (b) adding any additional items to the list of items under each stem question following the criterion outlined in task one; (c) prioritizing (ranking) the top ten items under each stem question in terms of one's own needs and the perceived needs of adolescents generally; (d) rating and ranking the necessity of the stem questions (without the items under them) which entailed first, rating the stems individually and adding any additional stems to the list and rating them also and second, rank ordering the final list of stems; and finally (e) rating and ranking the items with reference to the participants' perceptions of the *importance* of asking each question in the questionnaire according to a five point Likert scale ranging from very important to very unimportant. Additionally, participants were asked to make any suggestions regarding changes to the wording of instructions, stems, and items in order to eliminate ambiguity or confusion and to suggest any rearrangements to ensure appropriate grouping of items. The process was repeated until responses were consistent and no further items were to be added or deleted. This process of refinement according to the Delphi method required only two rounds (see Appendix K for a sample from the revised and completed health needs survey administered in pilot school I).

In each school thereafter school implementation committee members were each given a copy of the two comprehensive survey forms (i.e., needs assessment survey and global impact

survey) relevant to their population (i.e., students received the student forms; parents received the parent forms; and school personnel received the school personnel forms) provided by the university evaluation team. Committee members were to complete the surveys on their own time, noting any questions, concerns, or changes to be addressed, and to bring their revised surveys back to the implementation committee, subsequently breaking up into focus groups to discuss and sanction the proposed changes.

The length of the process, and the nature and quantity of changes made to the instruments, varied for each of the four schools. The implementation committee in school IV took the longest, having held over 20 meetings and invested approximately 500 person hours into the tailoring process, and making the most dramatic revisions to the form, content, and grammar of the survey instruments. Key components of the tailoring process at pilot school IV, over and above those of content and grammar, included formatting for electronic scoring purposes and for the multicultural diversity of the school population.

Despite vast differences between the schools in the length and outcome of the tailoring process, the majority of focus group participants from each of the four school were united in their depiction of the process as "long" and "time-intensive". The tailoring process saw a gradual evolution of the evaluation instruments as the structural changes (i.e., changes in grammar, syntax, and vocabulary) were incorporated into the comprehensive forms.

Tailoring of the assessment instruments across the various pilot schools reinforced the grass-roots, participant-driven approach of CSHE. Local participants took an active role in tailoring the instruments to fit the local needs of program participants, thus initiating their role as program developers.

5. Survey administration and data collection. In each of the four schools the university evaluation team and the project coordinator assisted the school implementation committees in their

preparation for survey administration. The nature and organization of the survey administration tasks became more refined with each succeeding pilot, and by school IV, a preparatory process checklist for survey administration, developed by the university evaluation team, was put in place for later pilots (Appendix L). A complete description of survey administration and data collection includes (a) survey administration tasks, (b) survey administration dates, (c) survey administration expenses, and (d) data analysis.

a) Survey administration tasks. Generally, the survey administration tasks across the four schools (with slight variations) included: determining the size of the target population (i.e., random sample or entire population) to be sampled; duplicating the survey instruments; stamping each survey (and the associated computer "scoreable" scantron response sheet(s) in those schools where it was utilized) with an identification number; developing three sets of instruction sheets for each of the two survey forms - needs and impact - including a standardized teacher instruction sheet for class administration of student forms, a standardized parent instruction sheet for the self-administered parent forms, and a standardized school personnel instruction sheet for the self-administered school personnel forms (except in pilot school I, where the notion of using standardized instruction sheets was raised with hindsight as a recommendation for later implementation); packaging the surveys, instruction sheets, and scantron forms (where appropriate) into envelopes; and finally, securing a block of time for administration of the student surveys in each school.

Schools I through III did a random survey of the student population, whereas school IV surveyed the entire school population in order to ensure representativeness of the significant ethnic minority population at that school. School V similarly surveyed the entire school population. In each school half of the surveyed populations (students, school personnel, parents) received the needs assessment survey and the other half received the global impact survey. School personnel

filled out their respective forms on their own time. Each student survey was accompanied by the parallel parent form.

Pilot school IV had the additional tasks of including a translated instruction sheet with parent surveys where English was spoken as a second language (ESL) and of scheduling parent focus groups to provide translation service to parents in completing their surveys. Translated surveys were not provided given the financial costs of having them translated. Students whose parents spoke English as a second language were identified previously through a demographic questionnaire and were notified of the translation service and dates by telephone. There was a poor parent turn-out rate, however, and many of the ESL parent forms were not returned (10% return rate).

In schools I through III survey respondents indicated their responses on the survey instrument, whereas in school IV and V computer scoreable scantron answer sheets were provided. School IV initially conducted two pilot tests of the revised survey instrument using the scantron answer sheets to ensure that the instructions were understandable.

b) Survey administration dates. In pilot school I the needs assessment survey was administered in October, 1992, and the global impact survey was administered in February, 1993. Following this, the university evaluation team suggested that the global impact survey be administered at the same time or preceding the needs assessment survey in order to ensure that the global impact pre-measure is not contaminated by increased CSHE awareness arising from the introduction of the needs assessment instrument. In pilot school II the needs assessment survey and the global impact survey were administered in May, 1993; in pilot school III the global impact survey was administered to school personnel in August, 1993 and to students and parents in September, 1993, and the needs assessment survey was administered December, 1993; in both pilot

schools IV and V the global impact and needs assessment surveys were administered in September, 1994.

At the time of this inquiry pilot school II was planning, and pilot school III was contemplating, survey readministration, where their intention was to readminister the surveys according to their original form. Nothing had yet been carried out. Pilot school I, however, was in the process of redesigning the survey format for a second administration at the school. The original needs assessment survey form was being drafted in a shorter length and it included survey reading/comprehension level revisions. The redesigned assessment process aimed to meet the needs of students and the school by being time efficient (one 20 minute teacher advisory class), a low cost item (1-2 pages), and understandable by school staff, students, and parents (comprehension level, reportable data). The needs assessment instrument was being redeveloped by a subcommittee of students and staff to be administered to the school population in April 1995, where parent surveys were to be sent home with the students' April report card.

c) Survey administration expenses. The degree to which survey production and administration costs were school-based varied across the schools. Pilot schools I and II were considered by the PHL SC to be "total support pilots" in their survey administration efforts, where the costs associated with survey production, duplication, and administration were funded by the project. In pilot schools III, IV, and V administration was expected to demonstrate a more self-managed approach. However, following survey administration, pilot school V put in a request to the PHL SC to reimburse survey costs, and pilot school III in anticipation of reassessment at some later date wished to establish additional agreements for covering printing costs and other re-administration tasks. The PHL SC responded that reimbursements for the costs of paper and printing were to be reviewed at the project's completion date, given that funds at that point were already targeted and unavailable for transfer. Pilot school VI projected that the survey duplicating

costs could not be supported by the school for lack of resources and equipment. At the time of this inquiry the PHL SC agreed to explore alternate printing services at the Calgary Board of Education.

d) Data analysis. The data analysis stage, which consisted of data entry, analysis, and reporting, was largely performed by the university evaluation team. For pilot schools I and II data entry and analysis were performed by the university evaluation team where a summary of student, parent, and school personnel needs were compiled and then presented to the school committees. Pilot school III was the only school to attempt a self-guided, school-based data entry and analysis of the needs assessment data. The data entry process was to occur through an integrated instruction approach in Computer Studies and Mathematics classes; however, miscommunication in the procedures for data entry between the university evaluation team and the school representatives resulted in its delay, and it was eventually taken over by the university evaluation team. The issue of "meaningful class time use" with regard to the entire data entry process was raised by school participants. Data analysis, however, was performed by the school mathematician in school III without hindrance. In pilot school IV data entry and analysis were performed by the university. For pilot schools V and VI (identified by the steering committee as self-guided schools) data analysis was to occur at the Calgary Board of Education (CBE) for which a computer program was developed by the university to provide a descriptive summary of the survey results to the schools. At the time of this inquiry pilot school V had received a summary of their survey results according to this process, whereas pilot school VI had yet to conduct survey administration.

Generally, school survey administration efforts were heavily mediated by the influence of the university evaluation team. School administration tasks were performed by school persons under the guidance of the university evaluation team, and the process in each school was more similar than different. Data collection and analysis were largely performed by the university evaluation team except in pilot school III, where the school mathematician performed the analysis,

and in pilot school V, where the CBE utilized the university-developed computer program to analyze the data.

The expectation that schools would become totally self-guided with respect to the data retrieval and analysis components of evaluation went unrealized. A problem was identified at the level of schools with the time and staff commitment needed to make it a truly school-based process. In its existing format school participants described the tasks of data retrieval and analysis as being incompatible with the reality of time and personnel constraints in schools.

The top-heavy role of the university in the tasks of data analysis detracted from the participant-driven approach of CSHE. Participants were not actively involved in the analysis stage of program development.

6. Program planning. Three steps marked the program planning stage in each of the four schools: (a) prioritize the identified health needs, choosing the top (i.e., the most pressing) needs on which to focus and begin work; (b) form subcommittee task groups based on prioritized needs; and (c) develop a CSHE action plan to address identified needs.

a) Prioritize health needs. The prioritizing process in schools I through IV was facilitated by both the project coordinator and a member of the university evaluation team. The prioritizing process in school V was facilitated by a member of the university evaluation team only. This facilitative role consisted of aiding each school implementation committee (i) understand and interpret the descriptive summary of the survey results, (ii) establish a method of ranking the highest priority student health needs as indicated on the survey, and (iii) choose an initial two to four high priority needs on which to begin program planning. Exceptions to this rule occurred for pilot schools III and V where the school implementation committee did not perform the above tasks: In pilot school III the needs results were first presented to a committee of teachers for prioritizing after which students became involved to form subcommittees and plan programs; in pilot school V,

having had yet to form a school implementation committee, the school staff and Parent Council prioritized the needs.

The actual method and outcomes of the rank ordering process varied across the five schools. In schools I through III prioritizing of students' health needs proceeded by (i) rank ordering the general needs areas from the last summary question block of the survey (Appendix M) according to their mean rating on a 5 point Likert response scale and (ii) identifying and rank-ordering a number of specific health items, similarly based on mean-rating scale scores, within the prioritized general need areas, on which to focus and begin work. In schools IV and V the final general needs response scale was eliminated from the questionnaire by the university evaluation team, the rationale being that the responses to this section did not highly correlate with the summary scale scores of the question blocks corresponding to the same general health needs areas throughout the questionnaire, suggesting perhaps that respondents were spontaneously self-generating definitions for these needs areas. For school IV prioritizing of the students' health needs proceeded first, by rank ordering the general needs areas based on the summary scale scores of the question blocks and second, by rank ordering the specific health items within the prioritized general needs areas according to the items' mean ratings and response frequency distribution. School V prioritized students' health needs by ranking all the health needs items with a mean rating scale score of 4.00 or above (i.e., agree to strongly agree) and organizing them within their respective general needs areas according to the items' response frequency distribution.

With the exception of pilot school I all the prioritized health needs in each of the schools were derived through a bottom-up, student-centred approach (i.e., were based on *students'* perceived health needs as indicated by the needs survey results). Pilot school I was the only school to prioritize health needs that were unsupported by the needs assessment data but were, in the opinion of school personnel, a health concern.

Given that schools I, II, and III used the same means to prioritize adolescents needs, their results are combined in tables 1 and 2. In pilot school I the most important student health concerns as indicated on the students' needs assessment surveys were (1) coping with problems, (2) family relationships, (3) sexuality, and (4) school performance (table 1). The highest priority specific health items within each general needs area appear in table 2. The school implementation committee prioritized two health needs - nutrition and parent involvement - that were *not* identified as high priority needs on the students' Needs Assessment survey. The decision to address these two "student needs" was handed down from the school personnel whose external justification included: first, nutrition was a problem because school personnel could see that students were eating unhealthy lunch and because cafeteria workers reported students coming to school without breakfast; and second, parent involvement had always been inadequate at the school, and its resolve could indirectly impact students' home and family relationships (one of the prioritized student health needs).

In pilot school II the most important student health needs as indicated on the students' needs assessment surveys were (1) school building and grounds, (2) school performance, (3) physical health, and (4) sexuality (table 1). The highest priority specific health items within each general needs area appear in table 2 . The needs items that were identified as the most pressing for which to begin program planning were those health items within the school building and grounds general needs area, including washroom cleaned/repaired, longer cafeteria hours, better temperature control, no smoking, and healthier food available. In addition to recognizing and prioritizing students' health needs pilot school II also included the most pressing health concerns as indicated by the school personnel's and the parents' needs assessment surveys: air quality and temperature control and improved home-school communication, respectively.

Table 1

Students' Highest Priority "General Needs Areas"
Pilot Schools I, II, and III

SCHOOL		
I	**II**	**III**
Coping With Problems	School Building/Grounds	School Performance
Family Relationships	School Performance	Physical Health
Sexuality	Physical Health	Sexuality
School Issues	Sexuality	Mental/Emotional Health
Physical Health	Counselling	Involvement with Teachers/Staff
Peer Relationships	Mental/Emotional Health	School Building/Grounds
Emotional Health	Safety/Accident Prevention	Involvement with Students
Counselling Services	Involvement with Teachers/Staff	Peer Relationships
School Environment	Involvement with Students	Counselling
Medical Services	Peer Relationships	Family/Home Life
Behavior of Friends	Home Atmosphere	Safety/Accident Prevention
Interpersonal Environment	Health Promotion	Home Atmosphere
Information Services	Family/Home Life	Health Promotion

In pilot school III the top identified health needs as indicated on the students' needs assessment survey included (1) school performance, (2) physical health, (3) sexuality, and (4) mental/emotional health (table 1). The highest priority specific health items within each general needs area appear in table 2. A significant time lapse occurred in the process at pilot school III from the initial prioritizing of the students' health needs according to the needs assessment survey results to the identification of target needs upon which to begin program planning. Project development was reinstated (the fall of 1994) almost a year after survey administration when new administration came into the school and revisited the analysis of the data. The initial stages of

program planning were launched by identifying those needs on which to begin working, including school performance needs, such as better study skills, better comprehension and better teaching methods, in addition to nutrition and stress management needs.

Table 2

Pilot Schools I, II, and III
Students' Highest Priority Specific Health Needs Items
According to "General Needs Areas"

SCHOOL

I	III	III
Coping With Problems	***School Building/Grounds***	***School Performance***
Suicide prevention skills	Washrooms cleaned/repaired	More interest in classes
Coping with pressures	Longer cafeteria hours	Better study skills
Positive thinking skills	Better temperature control	Stronger life skills focus
Goal-setting skills	No smoking	Better comprehension
Relaxation skills	Healthier food available	Better teaching methods
Family Relationships	***School Performance***	***Physical Health***
Desire to leave home	More interesting classes	Nutrition
Conflict with parents	Longer lunch break	More sports programs
Parental rules	More life skills focus	Better fitness/weight facilities
Communication skills	Better study skills	Body Image
Conflict resolution	More motivation to attend	Meals program
Sexuality	***Physical Health***	***Sexuality***
HIV/AIDS counselling	Physical fitness programs	Condom vending machines
STD/AIDS prevention	Cancer/heart disease prevention	STD/AIDS prevention
Parenting skills	Nutrition	Sexual assault counselling/referral
Sexual decision-making	Body image	Sexual decision-making
STD/AIDS testing/treatment	Stop smoking programs	STD/HIV/AIDS counselling/referral
School Performance	***Sexuality***	***Mental/Emotional Health***
More interest in class	STD/AIDS prevention	Stress management
More parental support	Condom vending machines	Time management
More useful learning	Birth control counselling/referral	Coping with the future
School atmosphere	Sexual assault counselling/referral	Self-confidence

In pilot school IV the most important student health concerns as indicated on the students' needs assessment surveys were (1) counselling, (2) school performance, (3) school building and grounds, and (4) school safety. Pilot school IV identified washroom conditions, and school safety and security as initial needs areas in which to direct program planning efforts.

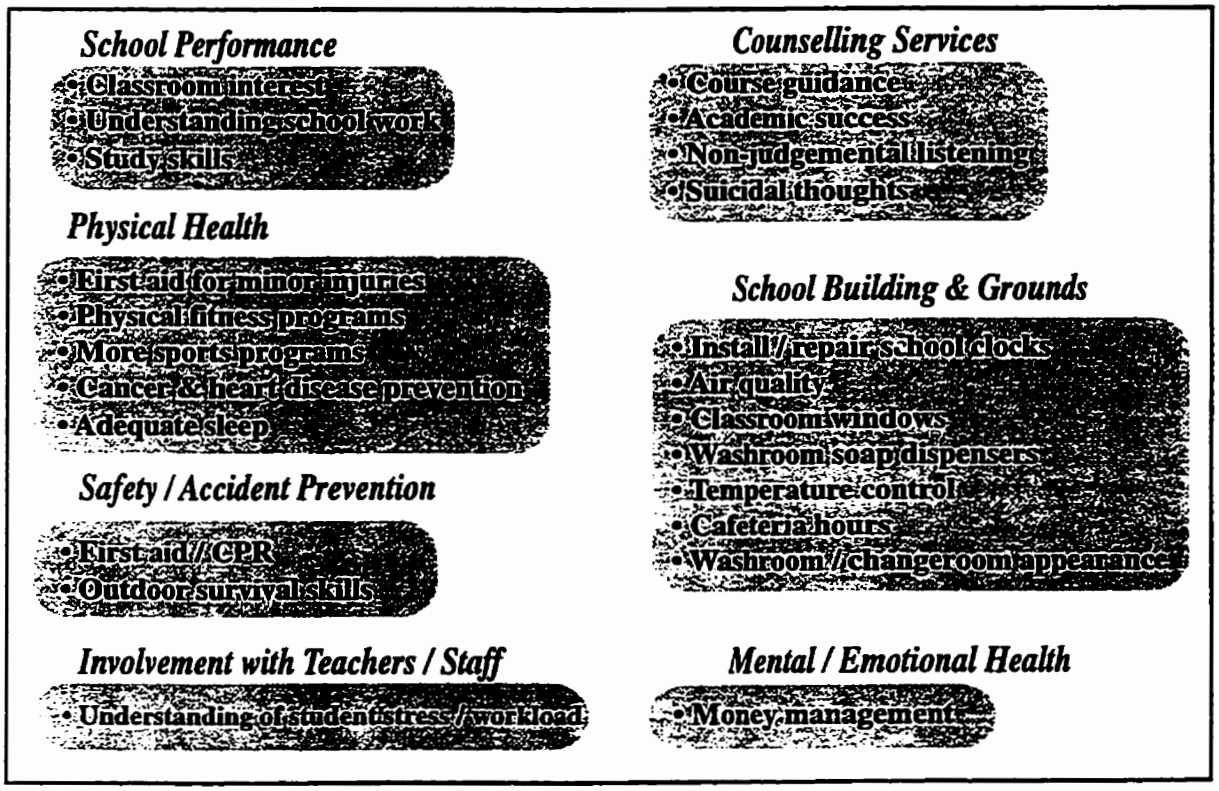
At the time of this inquiry the Parent Council and school staff at pilot school V were still in the process of analyzing the raw data and developing a workable list of health priorities. The results of the initial prioritizing process, as described previously, are listed in table 3.

Table 3

Pilot School V

Students' Highest Priority Specific Health Needs Items

According to "General Needs Areas"



b) Task group formation. In schools I through IV the second task in the program planning stage was the formation of task groups to address the targeted needs areas (as previously mentioned, school V was still in the process of identifying students' priority needs at the time of this inquiry, and had not yet moved into task group formation). These subcommittees were formed from members of the larger implementation committee as well as other interested parents, teachers, and students. Pilot school I formed a subcommittee for each identified need, including a nutrition

subcommittee and a parent involvement subcommittee. Pilot school II formed various committee structures to address students' and parents' greatest health needs as determined from the specific health items identified on the needs assessment surveys, including a washroom improvement subcommittee, a cafeteria/nutrition subcommittee, and a smoking cessation/prevention subcommittee. Pilot school III subcommittee structures included the nutrition subcommittee, the school performance subcommittee, and the mental/emotional health subcommittee concerned with stress management. At the time of this inquiry pilot school IV had formed two subcommittee structures to address physical environment needs and safety prevention and promotion needs.

c) Action planning. The final phase of the program planning stage concerned the development of action plans to address the prioritized needs. This developmental phase was facilitated by members of the university evaluation team who provided general action-planning guidelines for each of the schools. Pilot school IV and V received a written protocol for this process (Appendix N) although, at the time of this inquiry, neither school had yet to move into formal action planning. These general guidelines encouraged implementation committee members to address each prioritized health need based on a number of specific considerations: (i) Can you concretely define the health issue? (i.e., is the health need item self-explanatory or is further inquiry into its intended meaning necessary?); (ii) What can you do to address the issue? (i.e., what specific actions can the school or community take to meet the identified need?); (iii) Who is accountable for meeting these needs? (i.e., who in the school or community might be able to assist or help implement the strategies listed previously?); (iv) How will we know when we have successfully addressed this issue? (i.e., what possible outcome measures or observable indicators of success might there be?); and (v) Who is interested in supporting a specific response strategy? (i.e., who is willing to commit him or herself to a specific task, duty, or role in implementing the identified

interventions?). The nature of the action planning process according to these guidelines was variable across schools.

Efforts to define the identified health needs were inconsistent across all the schools. In pilot school I no effort was made to concretely define the prioritized needs, nutrition and parent involvement. Nutrition was understood by school staff to be a health concern because students were believed to be coming to school without breakfast. Home-school communication was felt to be a high priority need because of the historically low parent attendance at Parent Advisory meetings in the school. Pilot school II, on the other hand, put in place a number of means for concretely defining the prioritized health needs: a checklist questionnaire was administered to students in order to concretely define the needed changes in washroom conditions; a cafeteria survey was administered to determine students' preferences for various nutritious menu choices; a parent-school communication survey was given to parents visiting the school for parent-teacher interviews in order to determine what improvements were needed in home-school communication; an air quality assessment of air flow, carbon monoxide levels, and total air particulate was conducted in the school, and a 75 minute photo presentation of its results compiled; and a smoking survey was administered to students in order to gain baseline demographic information on the problem's extent, including number of smokers, frequency and quantity of cigarette use, and brand preferences. Like pilot school I, pilot school III similarly failed to conduct any preliminary measures to concretely define the prioritized health needs. Schools IV and V were still in the very formative stages of program planning, school IV having just identified and prioritized the top needs, and school V having not yet completed the prioritizing process. Neither school had moved into these later formal action planning stages.

All the pilot schools engaged in a process of action planning as a means to address the prioritized needs. In pilot school I two potential action plans were considered including a breakfast

cart program, to offer nutritious snacks to students for a nominal fee, and a family fun night to encourage parent involvement in the school and improve parent-child relations. In pilot school II action planning concerned washroom repairs; cafeteria food choices; vending machine supplies; home-school communication through parent-teacher interviews and school forums; a 5 year air-quality improvement plan; and various smoking elimination strategies, including holding student focus groups to obtain information on students opinions of what an effective smoking prevention program should include, offering smoking cessation programs to students and staff by the Canadian Cancer Society, developing a smoke free policy, having the Mt. Everest climbing team visit the school and discuss the hazards of smoking, cleaning up the courtyard smoking area, and developing a "Quit and Win" contest between schools. In pilot school III action-planning centred on the possible implementation of a breakfast cart and salad bar to address nutrition needs; the scheduling of tutorials in core subject areas and the planning of a Spring retreat for Grade 10 students to address school performance priorities; the development of a peer support program and various stress management strategies to address a variety of the mental/emotional health concerns; and a review of a non-smoking policy. In pilot school IV the school implementation committee had thus far identified two priorities for action (physical school environment and school safety) but had not yet moved into formal action planning.

Both internal school resources and external community resources were found to be accountable for action implementation. Pilot schools I and III largely used internal school resources. In pilot school I the breakfast cart program was to be engineered through the cooperative efforts of the Business Services, Career and Life Management, and Food Services program already in place in the school. In pilot school III the help of food preparation staff in the school was solicited to organize breakfast cart food choices and healthy eating promotion weeks in the cafeteria; the Parent Advisory Council and Student Services department were targeted to

cooperatively plan a January Stress Busters workshop; and the school guidance counsellor and interested students sponsored the peer support program. Pilot school II solicited the involvement of both internal and external resources. Community support was obtained for washroom improvements (by Classic Cleaners who donated 35 soap dispensers), the development of the Nutrition Survey report (by the CHS nutritionist, public health nurse, and a university research associate), vending machine supplies (by a new supplier), air-quality (by an air-quality assessor from CBE), and smoking cessation (by representatives from "Action on Smoking and Health" who assisted in compiling junior high smoking data; representatives from the Cancer Society and Alberta Lung Association who offered consultation on existing smoking cessation programs; and a graduate student from the department of Community Health Sciences who lead student focus groups on smoking prevention, and who performed a research study on adolescents perceptions of effective smoking cessation strategies). Internal school resources were used to compile the results of the parent-school communication survey (by the school's business department), to compile the results of the school-based smoking surveys (by the grade 8 leadership class), and to fund the courtyard beautification efforts (by the Students' Union). Pilot school IV and V had not yet moved into the stage of action planning; however, initial efforts were being made at pilot school V to link with a community health project in its area called Opening Doors (a partnership of Calgary communities, agencies, and the four departments of Health, Justice, Education, and Social Services) in order to determine those health survey results that could appropriately be shared with the community project.

The amount of program evaluation planning that occurred in each pilot varied. In pilot school I little emphasis was put into planning for the evaluation of health programming. Although financial records, pre and post, were retained for the cafeteria salad bar and breakfast nutrition cart, and an opportunity was available to track public health nurse referrals using a CHS system to

provide baseline information, these potential sources of evaluation data were not pursued by the school. In pilot school II issues relating to outcome evaluation were taken into consideration when each of the surveys was developed to attain a concrete definition of the prioritized health needs. A washroom checklist, cafeteria survey, parent-school communication survey, and smoking cessation survey all provided pre and post test measures of students' (or parents', in the case of the parent-school survey) attitudes and behaviours. At the time of this inquiry pilot school III had not yet developed or performed any program specific evaluation activities.

Finally, the degree of stakeholder involvement in the planning of action initiatives was different across the various pilot schools. In pilot school I the previously described planned interventions were the ambition of the school administrative and teaching staff and the school nurse. Student input was excluded from this planning stage, although the various health programs did see a gradual evolution into more student-driven efforts as students became more involved in program maintenance. In pilot school II each stakeholder population was involved across the various aspects of program planning: student committee members developed the washroom conditions checklist questionnaire; student and school staff committee members developed the cafeteria survey; parent committee members were instrumental in developing the parent-school communication survey, while various parent and student volunteers conducted the personal interviews with parents visiting the school during parent-teacher interviews. Student representation in the planning stage was consistently strong in pilot school II where interventions were derived by specifically asking students what was intended by the identified needs and how they wished to deal with them. Until the time of this inquiry, program planning was primarily an adult-driven process in pilot school III with less involvement by student representatives. Action planning around nutrition concerns, and school performance/stress management was largely driven by school personnel. The stress management workshop being planned for parents and students was chiefly organized by Parent

Advisory Council representatives who also sat on the school implementation committee. Students were, however, responsible for the Peer Support Program.

Overall, the tasks of program planning (i.e., needs prioritizing, task group formation, and action planning) in the schools as a collective reflected a participant driven process (with some schools demonstrating more-or-less participant driven characteristics). Generally, the prioritizing process was based on participants' identified needs, and participants were implicated in the various action planning efforts.

7. Knowledge dissemination and project promotion. Given the overlapping nature of dissemination and promotion (i.e., feeding-back project developments to participants), dissemination refers only to the communication of the survey results at the level of schools, and promotion refers to all other activities intended to profile the project at the level of schools and the community.

a) Dissemination. In pilot school I the committee reported the results of the needs assessment survey in the following ways: Parents involved in filling out the surveys were informed via a written letter home and a verbal report to the Parent Advisory meeting; teachers were informed via the advised cabinet and department heads and the school staff meeting; support staff had a presentation at their following monthly meeting; and students were informed via their Student Council representatives who reported to Teacher Advisor (home room) classrooms. In pilot school II staff received the survey results at their regular staff meeting, and students had the results presented to them during advisory home room by the implementation committee. Additionally, a large noon hour forum was provided to again communicate the survey results and to further enlist the involvement of interested students and school personnel (names of volunteers were taken down to be solicited for later SIC activity). Nothing was documented of the survey dissemination process in pilot school III. In pilot school IV health survey results were first reported to the Parents'

Advisory Council, followed up by a Network meeting held by the school implementation committee to share the survey results and elicit the interest and commitment of other parents, students, and teachers (sign-up lists were available for interested volunteers). School personnel were expected to attend, and each was encouraged to bring along at least two students, or a student and a parent, to the meeting. Pilot school V had not yet conducted survey administration.

b) Promotion. Project promotion activities in the pilot schools were internal save one at pilot school I, which profiled the CSHE initiative to the larger community. In pilot school I, a large health resource fair was held as a "kick off" for the CSHE project, introducing the PHL project to staff, students, parents, and the community. It served an intra-promotional goal by educating students and staff to the on-going, long term focus of the initiative; by demonstrating a belonging to the initiative by the whole school environment; and by sharing information on community services and organizations that contribute to healthy lifestyle management. It served an extra-promotional goal by introducing community services to the pilot school's CSHE project. In addition to the health resource fair pilot school I included another intra-school promotional venue through the advertisement of a nutrition information bulletin throughout the school, developed by a student nurse from a random survey of students' most pressing concerns and questions about nutrition. The extent of intra-school marketing and promotional activity in pilot school II was by far the most comprehensive of the four. It included a competition to name the implementation committee (a "Name the Project" contest - the winner receiving two tickets to the Imax theatre), promotional posters, CSHE project logo decorating the doors of the renovated washrooms, newsletters, daily intercom bulletins, a public display of the CSHE project at an open house for beginning students, and a showcase of a photo essay prepared by an air quality assessor. In pilot school III the school nurse was instrumental in promoting the PHL project to students and staff by scheduling classroom

visits to talk about CSHE and her role as a public health nurse. Project promotion activities had not yet occurred in pilot school IV or V.

Despite the above-noted promotional efforts, holistic health promotion as a whole was underdeveloped in the PHL project. The opportunities provided for pilot stakeholders, both at the school and community levels, to develop an understanding of the holistic approach were sparse. On-going project promotion and knowledge dissemination on the philosophy and implementation of CSHE as a means to educate and inform new students and personnel filtering into the schools each year were inadequate, and promotion of the holistic approach of the PHL project at the local community level was almost non-existent.

8. Implementing interventions. Interventions have been implemented in all four of the schools, with school II demonstrating the largest number of interventions, totalling eight interventions, over a period of 2 years and 6 months (i.e., from the time they received the survey results), and school IV the least, totalling one intervention over 5 months (having only come on board more recently). In each of the four schools the interventions designed were congruent with the comprehensive school health philosophy, establishing linkages between the three components of CSHE, namely health instruction, health services, and a healthy school environment. The interventions to be described following will include also, in brackets, the particular component(s) of CSHE of which it was comprised.

In pilot school I the nutrition subcommittee consulted with the CSHE dietician and school nurse (service) regarding healthy food choices and utilized the Business Services program (instruction) in order to market the mid-morning muffin breakfast cart (environment). The promotion of good eating habits included also the Commercial Food Preparation Program (instruction) in preparing food for the cafeteria where breakfast was made available for students and staff ,and a lunch salad bar was started (environment). A Family Fun Night was held to encourage

improved school-family relationships and parent involvement (environment). School programs (instruction) were showcased and other community business (service) were invited to attend. "Off-shoots" of the CSHE healthy school environment (i.e., health interventions that occurred at the school but were not included in the prioritized needs) included the Employee Assistance Program's (service) work site health promotion for staff (i.e., one day workshop on stress management); the Dental Screening Program (service) for grade 12 students; the Alberta Association for Drug Addiction Counselling (AADAC) Recovery Assistance Program (service) which was an in-service training program for staff; and a noon hour parenting skills program for adolescents (instruction).

In pilot school II through the cooperation and input from school caretakers and CBE Occupational Health and Safety Department (service), washroom improvements were made, such that all school washroom cubicles had doors and locks installed, were freshly painted, and had new mirrors and soap dispensers installed (environment), the soap dispensers having been donated by Classic Cleaners (service). Nutritional concerns (environment) were addressed through the Students Union's hiring of a new vending machine supplier (service) who included also nutritious snacks. Concerns regarding the cafeteria food choices and hours of operation were still unaddressed at the time of this inquiry. As identified as an area of need from the parent-school communication survey results at pilot school II, a large forum was held for parents to discuss topics such as course content, educational costs, and budget cutbacks. Also, a list of core values was compiled, including what the school culture should be, and teachers', students', and parents' roles (environment). The CBE air quality assessor (service) provided initial instruction and awareness around air quality control for committee planning purposes and further opportunities for integrated student learning in science, health, and mathematics programs (instruction). Consultation occurred with the Environmental Health Division of CHS and CBE Occupational Health and Safety (service). A three-tiered action plan resulted involving a total environment awareness program

(instruction), air quality testing, and establishment of building inspection and maintenance protocols (environment). A summer cleaning procedure, involving school-based facility operators, students, school personnel, and parents in the process, was also developed (environment). Promotion of a healthy non-smoking school environment began with a peer leadership training program (instruction), where the initial training and instruction was provided by the Canadian Cancer Society's "Stamp Out Smoking" program (service), followed by a registration campaign for a six week smoking cessation program (environment). As well, the Smoke-free 2,000 initiative was launched through Alberta Lung Association (service), targeting smoking elimination in the grade seven population over the next five years until their graduation in the year 2,000 (environment). Junior high health teachers increased program time to the smoking issue (instruction). The smoking courtyard underwent a beautification effort: It was cleaned and supplied with concrete tables, planters and ashtrays, to provide a pleasant meeting and eating space for all students (environment). Calgary cement (service) was involved in the design and installation of the concrete tables.

In pilot school III the nutrition subcommittee, in cooperation with the Food Preparation staff, organized a breakfast food cart as well as a salad bar week in the cafeteria to promote healthy food choices for students and staff (environment). School performance concerns were addressed through the regular scheduling of tutorials for students to obtain extra help in core subject areas for which teachers were credited a co-curricular teaching assignment (instruction). The Career and Life Management (CALM) curriculum (instruction) presented stress management strategies at the beginning of the year and during peak stressful periods, such as examination time. Study tips were inserted into the school bulletin, and grade 10 orientation student planners were given out to students by home room teachers to help them improve their time management skills (instruction). A "Stress Busters" workshop was held for students and parents with the cooperation of the school guidance counsellors, Parent Council, and public health nurse (service), offering sessions on study

skills, relaxation techniques, self-esteem building, and the Myers Briggs inventory (instruction). A peer support program (instruction) was put in place to help students cope with mental/emotional health concerns. Finally, a grade 10 student "Study Break Retreat" was held offering morning seminars and afternoon lifestyle activities on strategies to improve study skills and time management (instruction).

Pilot school IV, in the very formative stages of planning interventions, had implemented one intervention related to school safety and security concerns (environment). In an effort to reduce school vandalism students were required to obtain "hall passes" in order to leave their classroom during class time, and anyone in the halls without such a pass was requested to go back to their classroom.

Generally, the participant driven approach of CSHE was upheld in the PHL project through the development of student-centred interventions. However, it was simultaneously compromised by the underdevelopment of health education programs targeting the other stakeholder groups - namely teachers and parents.

As a collective, the interventions developed across the various pilot schools tended to reflect the comprehensive approach of CSHE, coordinating, in various degrees, health instruction, service, and environment components. However, consistent priority was given to environmental health changes, where changes to academic instruction and service provision were less developed. The most prevalent student health needs' area identified across the five schools was school environment. Environmental changes included: nutrition programs (pilot schools I, II, and III); improved school-family relationships and communication through a family fun night (pilot school I); a parent forum (pilot school II); washroom improvements (pilot school II); air quality inspection and maintenance (pilot school II); smoking elimination efforts (pilot school II); courtyard beautification (pilot school II); and school safety (pilot school IV). The coordination of current

course curricula with specific health interventions was underdeveloped. Instructional changes were primarily targeted at the Career and Life Management (CALM) curriculum and were not assimilated into the academic curriculum. The exceptions to this included the utilization of the Business Services Program to market the morning breakfast cart (pilot school I); utilization of the Commercial Food Preparation Program to prepare food for the cafeteria (pilot school I); and the integration of air quality instruction into course curriculum (pilot school II). Finally, the services component of the CSHE framework failed to reach its full potential in the PHL project. Long-standing service provision was overlooked in favour of more immediate, transient service utilization at the school level. As well, where schools utilized the services provided in the community in coordinating their interventions, relevant community agencies did not coordinate their programs with school priorities and goals: Much less happened at the community level in terms of local initiatives supporting the physical and psychological environment within schools, the exception being the Opening Doors community initiative, which endorsed the CSHE initiative at pilot school V.

9. Evaluation. The evaluation component of the PHL project included (a) a needs assessment, (b) impact evaluation, and (c) process evaluation.

a) Needs assessment. The first step in the evaluation process in all pilot schools was to determine the schools' priority health needs in order to direct comprehensive school health programming. In pilot school IV and V only student health-related needs were prioritized, whereas in pilot schools I through III the initial results of the needs assessment were analyzed to also determine how closely adolescents' and adults' perceptions of adolescent needs matched up. It was found that the constellation of priority needs identified by students in each school were quite different, supporting the necessity of doing school-specific needs assessments. The pattern of both teacher and parent perceptions of adolescent health-related needs were similar to each other, similar

across all three schools, but showed noteworthy differences from adolescents' identified needs (see Hiebert, Collins, & Cairns 1994a for a full review), reinforcing the importance of inquiring into students perceptions of their own health-related needs when designing interventions.

b) Impact evaluation. The impact evaluation included (i) program specific evaluation and (ii) the global impact assessment.

(i) Program specific evaluation. Each research associate on the University of Calgary evaluation team was assigned one pilot school to assist with the action plan and program specific evaluation. As previously outlined in "action planning", when consulting schools on program planning, the university evaluation team recommended that committees ask themselves specific questions when designing interventions to ensure that the evaluation component would be built into the implementation process. Generally speaking, specific program evaluation has been neglected in each of the schools to date. While some of the interventions at the schools were designed with follow-up evaluation in mind (i.e., through pre and post measures), at the time of this inquiry follow-up measurement had yet to be undertaken.

(ii) Global impact assessment. The global impact assessment tool was designed in order to evaluate the overall impact of CSHE at each school according to its instruction, service, and environment components. At the time of this inquiry pre-test global impact measures had been conducted at all four schools, while post-test measures had been collected for school II only. Analysis of the impact data had not yet begun.

c) Process evaluation. A process evaluation was to be conducted in order to provide a full description of the processes involved in the PHL project's planning and development. Written and interview material were to provide the data for this review. Data collection began with the current researcher through the performance of standardized open-ended interviews with project participants in the Spring of 1994, approximately four years after the project's initial developmental planning

talks began and one year before the pilot project's official ending. The collection of archival data occurred the following Spring of 1995, and analysis followed throughout the fall/winter of 1995/96. Results of the analysis were compiled into written form the fall/winter 1996/97.

Outcomes

A discussion of the project implementation stage of project development would not be complete without addressing the general outcomes, over and above the implemented interventions, that were reported at the school and agency level. Participants noted that the effects of CSHE are usually subtle but important: "I think that maybe major outcomes are not always part of this kind of process - that some more inconsequential outcomes may have a greater impact" (school nurse). Another participant suggested,

> It's more subtle than going to a stop smoking class and having kids quit smoking. It's the whole environment of the school that you see on a day-to-day basis....there is so much that goes on just in attitude changes that someone coming from outside cannot come in and see. (vice-principal)

According to participants CSHE "set the stage" for meaningful changes in school and community health in various ways.

First, the CSHE project raised both people's awareness and understanding of comprehensive school health. One participant, noting that "the teachers are talking about it [and] the students are talking about it", suggested that awareness alone "measures some success" (school nurse). Another participant indicated, "I think it's certainly increased the understanding of people in education of the importance of health and the difference that it does make" (CHS representative, steering committee).

Second, the CSHE project raised people's sensitivities to one another. One participant claimed, "As a parent with a child here at school, it gives me a feeling for what students are feeling

and also for the administrators - the amount of work involved by them - so I think there's more respect all around." (parent).

Third, the CSHE project encouraged collective responsibility for health and made people more invested and accountable. One participant, noting the powerful effects of collective responsibility, claimed,

> I come away from those [school implementation committee] meetings with a sense of team, a sense of family, a sense of shared purpose. I love to watch the adults make connections with the kids and the kids feeling a sense of ownership and taking initiative... (principal)

Another participant equally noted the effects of collective responsibility on parental involvement: "This gave [parents] a purpose for being involved in the life of the school. So they got much more actively involved, and that was a wonderful outcome." (assistant principal).

Fourth, the CSHE project created an avenue for collaborative working alliances across and within groups. At the school level one participant indicated that the CSHE project has "been fabulous for getting parents, and students, and teachers together" (assistant principal). At the agency level another participant claimed that the CSHE project "is making a difference...for how we work together, and how we work with school boards, and how we work with partners on behalf of kids" (CHS representative, steering committee).

Finally, according to participants, CSHE had begun to initiate changes in health attitudes and behaviours. One participant commented on these changes in relation to healthy eating: "I see kids eating healthy food in the classrooms, kids buying from the health cart,...stopping me and saying, `Oh, I ate breakfast this morning.'" (school nurse). These changes were attributed to goal-directed activity such that participants were "not just doing surveys and filling out questionnaires and sitting around", but instead they were engaging in "a lot of action" (parent).

Factors that Enhanced

Seven factors were identified as enhancing the implementation stage of project development. They include (a) school administrative support, (b) school implementation committee formation, (c) needs assessment, (d) dissemination and promotion at the school level, (e) the project coordinator, (f) higher political will (steering committee structure), and (g) needs prioritizing (see fiugre 3, row 2).

School administrative support. Support of the school administration was consistently identified by participants as being critical to the project's success. One participant stated, "You need your administration really strongly supportive or I think it falls apart right there." (school nurse). In comparing those schools with and without administrative support one participant stated,

> Whenever there's been an administrator who has deeply cared and has worked closely with the committee, it's been more successful; in schools where the administration is comme-ci comme-ca with it, it tends to be less successful and more of a struggle for the committee. (CBE representative, steering committee)

The administration must "believe in the vision [and] potential" of CSHE and "actively be involved and support it - keep it going" (previous school implementation committee chairperson). The power of the administration lies in its ability to bring the school together, to "get people all moving in one direction" (principal), and to offer support, guidance, and encouragement in the CSHE effort. In discussing her influence one administrator commented,

> I think there's the power of the principalship in terms of the principal has the power to guide, to facilitate....So my role has been one of foundation...and it's a bridging....I wanted to build a strong foundation and to make sure that it was solidly linked. (principal)

Another administrator indicated, "[It is] just being there and being committed to it, and being excited about what people are doing, and acknowledging ideas and affirming people's energies and thanking them." (principal).

School implementation committee structure. The committee structure was valuable from an organizational standpoint as well as from the standpoint of serving as the vehicle for a collaborative, interdisciplinary alliance between the various stakeholder groups. Organizationally, the steering committee structure, with its chairperson and subcommittee structures, facilitated development: "We're making changes, and I think we are doing it much quicker than any other way....because there is a committee. They are doing the changes." (parent). First, the committee chair was central in keeping committees focused, on task, and importantly, on time, because "we have a lot of brainstorming and talk about a lot of issues in a session" (school nurse). As one committee chair explained,

> You want to lead them so you don't just sit there and spin your wheels....my role is a leader, a motivator, sort of a jack-of-all-trades....[my most important contribution] is keeping things going and getting it done, and motivating people and having them enjoy being there.

Second, the subcommittee structures expedited action planning by allowing different groups of individuals to "get out there and take on action for the larger committee" (school nurse), and by addressing multiple issues simultaneously through "3 or 4 subcommittees working at the same time" (parent). Third, the size of the committee and subcommittee structures was related to productivity. To avoid the phenomenon of "spinning wheels" (i.e., trying to explore too many tasks at one time) project participants expressed that the steering committee should start out small and that subcommittee structures remain small. In commenting on the small size of the subcommittee structures one participant alluded to the potential negative effects of doing otherwise: "I'm glad

there are not more people on the actual subcommittees because it would be a mess. It would be so unorganized." (student).

In addition to its organizational advantages the committee structure became the vehicle through which the collaborative, interdisciplinary alliance between the various stakeholder groups developed. One school staff member commented, "It has been wonderful to see staff, students, and parents interact in a meaningful way. Education is famous for saying we work together, but unfortunately, with the stressors and strains on the process, it's difficult to always do." (principal). A number of characteristics of the school implementation committee were identified as contributing to a successful interdisciplinary alliance, including consensus-building, ownership, nonhierarchial ways of relating/shared leadership, multiple perspectives, and being flexible, informal, and voluntary.

First, collaborative working groups displayed a dynamic of consensus-building: "There was discussion. It wasn't like you introduced an idea and everybody just went `yes', but there was questioning and there were decisions made, agreed upon, and there was compromising." (school nurse).

Second, collaborative working groups demonstrated grass-roots ownership of the project and buy-in by stakeholder groups. Local ownership required participants to be both educated and involved. Participants had to be educated about the long-term vision of CSHE and understand the practical realities of getting there in order to buy-in to the process. Participants explained that "kids and teachers cannot have personal investments if they don't know what they're getting" (school nurse) and that participants must be educated about "the long-term impact of this kind of change [in order to] live with some of the short term costs" (CHS representative, project developer). Ownership also required participant involvement. As one participant suggested, "If three groups [students, parents and teachers] are going to own it, the three groups have to be responsible for it."

(school nurse). According to participants, it was important that this involvement penetrated all stages of program development from tailoring the needs assessment to the design and implementation of interventions. This expectation was not necessarily intuitive. As suggested by one participant, "You actually have to take part in [the committee]. You actually do have to be an active participant, and I think before I thought, 'Well, I'll just be listening and giving some feedback'. But now I actually have to do the work as well." (parent).

Third, working alliances were facilitated by the abandonment of hierarchial models of relating by stakeholder participants where a model of "shared leadership" (principal) was embraced:

> The pyramid that goes on in schools disappeared - everyone had worth, and I think the students really felt that they were on an equal footing with everyone else, and I think that's important, that we were all gathered there, all working for a cause, and we were just members of the committee. (school nurse)

Fourth, the collaborative working alliance between stakeholder groups was enhanced through the sharing of perspectives. One participant indicated that "it's a case of people learn[ing] and shar[ing] from each other and valu[ing] different expertise" (assistant principal). Another participant explained, "I was getting to think at the start maybe we could do it on our own, and then I realized that we can't do it on our own. We need other people - people's involvement and information and stuff." (student). Additionally, this exchanging and sharing of ideas was multidirectional. In describing this characteristic one student explained,

> Whenever [students] speak everyone always listens to us, and they always take into consideration what we're saying. And it's not like we're right all the time either. You know, sometimes we'll say something, and they'll say, "Well, what about this?" And I'll say, "I didn't think about that." And so it works both ways. (student)

According to participants, incorporating these multiple perspectives was instrumental in broadening perspectives and raising people's sensitivities to one another:

> The most rewarding...is the way I saw staff listening to students...as people who have things to offer - ideas that are valid points. It was really nice to see that and to see the respect given. I was really quite impressed. (school nurse)

It also enabled participants to "validate each other" and "help each other grow" (principal). Finally, embracing multiple perspectives and expertise was also resourceful and efficient:

> By working with all the various groups, what happens is the people who either have the ideas, the time, or the resources at a particular moment will come up with the ideas and then specific things can happen. (assistant principal)

Fifth, working alliances were flexible, informal, and voluntary. Flexible working groups encouraged participants to "change [their] role to fit what's needed by the group" (student). Informal working groups allowed participants to open up and be themselves, increasing comfort level:

> You're allowed to speak your mind in the groups which is great. The students...are very, very open, and I find that interesting. Especially they're very comfortable with the staff. They don't hold anything back, and now I too feel more comfortable saying things as well....So it's a very easy group to work with...because it's so informal. (parent)

Finally, collaborative working groups encouraged participants to contribute on a voluntary basis, according to interest: "The way that we do our subcommittees ad hoc [I'd keep the same]. You know, `Who wants to do this? Who's interested?'. And then you always have hands go up." (parent). Having people participate according to interest was related to sustained involvement and productivity. As one participant suggested, having people participate according to interest is "part

of what makes it effective, because the people on the committees are really excited about getting things done, so they're more willing to do the work" (student).

Needs assessment. The needs assessment survey was critical to the implementation process on three counts: It initiated participant involvement, facilitated the identification of stakeholder needs, and provided hard data to initiate action-steps and support school-based efforts. First, the tailoring of the needs assessment survey initiated the process of participant involvement by allowing stakeholder groups to streamline the needs analysis to school-specific characteristics. According to one participant, "That was a good process. We felt involved with the survey and we had a say as to what was written in the survey." (school nurse). Second, the surveying process allowed information about stakeholder needs to come directly from the participants. Both school personnel and students spoke to the particular importance of developing CSHE based on student-centred needs. One school person had this to say about students' input: "This is your information. This is what you told us. This is not me teaching a child as a professional saying what you should do, because we all know that doesn't work." (school nurse). A student added,

> That's a big thing with the surveys that helped too - just being able to find out what the students wanted....It doesn't make sense sometimes to let the teachers decide some of the stuff that the students want because obviously you're going to have conflict. (student)

Incorporating student perspectives through a needs analysis was related to the impact of implemented interventions. As one participant explained, "They could make all these changes and they'd have absolutely no effect on the school if it wasn't what the students were interested in or they needed." (student). Third, participants described the value of attaining "hard data" from the surveys to initiate action-steps and to support school-based efforts. The needs data moved the implementation process forward into action steps as indicated by the following participants' comment: "Once we had those priority needs listed, I can't believe how quickly the results [started]

coming out." (parent). The needs data was also useful in supporting school participants' ideas and perceptions by "bringing ideas through on a piece of paper" (student) and in justifying implementation efforts to higher political will by providing "hard data to take downtown" (school personnel).

Dissemination and promotion at the school level. Disseminating CSHE information back to the stakeholder groups and promoting the CSHE project and its developments were a means by which to educate participants and sustain participant involvement. Information dissemination and project promotion overlap where both are concerned with educating participants about CSHE and feeding-back to participants the developments of CSHE. On-going education through multiple, reinforcing messages served as a reminder to stakeholder groups about the form and purpose of CSHE. One school participant alluded to the potential value of such *re*-education given the divided attention of school persons:

> What I think would have been nice is if we could have gone with personal classroom visits to each one of the classrooms with one member of the committee and talk as we would be talking now about, "What is a comprehensive school? Why are we investing this amount of time and what do you expect to see out of it? What do you expect to be forthcoming?" I know we did that at the beginning of the year, but it's tough with 90 odd staff because half the time they're sort of listening, half the time they're not listening. (school nurse)

Additionally, feeding-back project developments to stakeholder groups is an important means by which to reinforce participant involvement: "You do something and feed it back to the people....So I think that reinforcement is really critical." (principal).

Various means of information dissemination and project promotion were identified by participants as being useful where in every instance participants were in agreement that, when disseminating project information to stakeholder groups, it be personalized to them. First, use was

made of pre-existing communication channels between the stakeholder groups such that "each group sitting on the...committee reports to another group outside" (parent). Amongst the adult stakeholder groups, the established communication networks were school staff meetings and parent advisory group meetings. Students, lacking more formal communication networks, made use of an old stand-by - word of mouth: "It's really hard for the students because we don't have annual student meetings. The teachers have their meetings - we don't. We just have our friends for lunch." (student). It became a popular means of exchanging information both from and to the school implementation committee and the larger student body. As one student explained,

> We talked to a lot of people [about CSHE] who are telling us, that knew we were on the committee, like, "Change this. We'd like to see a change." And we're just the people to go back and tell this to the administration and teachers....[it's] two way talk. (student)

While students expressed that word-of-mouth communication was effective, they also indicated that it was difficult: "Really, the only way we can do it is by word of mouth, and that's just so hard....It's hard to get enough word of mouth except for among your friends." (student). Second, in addition to making use of pre-existing communication channels, other means of dissemination were developed including classroom visits, information forums, and newsletters. When doing classroom visits participants agreed that information should be provided by a stakeholder group. As one participant suggested, it should come from the committee stakeholders as a whole so that "kids see other kids active...see parents coming into classrooms...and see nurses and other teachers within the school coming into their classroom" (school nurse). Another participant supported this conclusion, commenting on the usefulness of having students disseminate the information to the rest of the student body: "[The students] went into different classrooms and talked to each classroom what the survey results were, so it was coming from the students to the students, which was a good idea." (school nurse). Another useful means of disseminating project information that developed in pilot

schools II and IV was the information forum: "[The forum] worked really well. That brought up a bunch of different things. People from the school - lot's of people - were there and lot's of stuff came up." (student). The priority given to student forums was noted by participants to be particularly important given the previously acknowledged absence of formal communication channels for students. The final means of communicating project information back to stakeholder groups was through correspondence, such as newsletters. The newsletter was particularly important in communicating with the larger parent population given that they are off-site. As one participant noted, "Something tangible should go home to the parents...in a newsletter." (school nurse).

Project coordinator. The coordinator facilitated the school implementation process in three ways: she acted as educator and resource, and provided continuity between schools. First, she played an important role as educator for new schools coming on board, educating participants about the philosophical framework and vision of CSHE and guiding them in the process. Her practical guidance was important to the school people given that the project brought with it additional responsibilities: "The critical component was a coordinator...If we didn't have [the coordinator] we wouldn't have anything, because initially it was an add on." (assistant principal). Part of the coordinator's guiding function was giving attention to details and motivating on-going project development:

> I think there is a need for a champion...pushing the project in order to say, "Well now you've got your needs assessment done, how are you looking at the environment, and the curriculum and social services?", because it takes a long time to get the feel of what this all means and then to champion it through to continue to assess: Is it working? Isn't it working? What else should we be doing? (CBE representative, steering committee)

Second, the coordinator acted as a resource person, having a knowledge of the various community resources and linking those that were appropriate with the different schools. As one participant

explained, "It's important to have people who know what the services are in their community and [the coordinator] definitely knows the services...and she has been crucial in linking us with these different services." (school nurse). Third, the coordinator was instrumental in providing continuity between schools. She was able to identify what went on in other schools and to give feedback as to how other schools were addressing similar issues. One participant indicated that this continuity provided them with a needed "framework to go by" (school nurse). From a school perspective coordination was deemed most critical during the school buy-in and start-up phases given that, as one participant stated, "It's hard to start from nowhere." (school nurse).

Higher political will: steering committee structure. The interagency steering committee structure enriched the overall process by connecting the schools' efforts together through a larger initiative - the "whole being greater than the sum of the parts" - and by contributing to project sustainability. First, the school efforts, rather than being isolated, were connected through a larger systems change. The collaborative efforts of higher political will informed and validated the process at the level of schools. The role of higher political will was "to facilitate, to support and to make sure it works out there....to make sure [the schools] do feel good about what they're doing and that they have all the tools they need to do the best job they know how" (CHS representative, steering committee). As one health representative from the steering committee explained, this was accomplished by asking questions of participants, such as "What do you need?...How do we support your role?" , as well as by asking questions of the coordinator, such as "What do we need here? How do I work with you to make sure we get where we want to go?". Second , the support provided schools by their connection to this larger systems change was instrumental in project sustainability. As one participant explained, "Having an overseeing body in the project designed the way it was provided community support...whereas, if it had just been something that just one school took on, it could easily die or another school might not take it on." (assistant principal).

Additionally, the linkage that the steering committee provided to higher political will at the organizational level, as captured in the following participant's comment, was important to the sustainability of CSHE at the level of schools:

> The advisory committee is absolutely core to the process, as they are linked, within the organizational structure, to the CEO levels, to senior management, and therefore linked to the jurisdictions, the policies, the department goals that facilitate this process....So that structure is absolutely fundamental for the long-term maintenance long after, in terms of policy development, incorporation into strategic direction, all of those kinds of connections. (coordinator)

Needs prioritizing. The process of prioritizing needs for action planning played an important function in allowing school implementation committee members to remain focused and action-oriented:

> There was a time in the middle where we had a whole bunch of issues and we had to step back and say, "Okay, these are the ones we are really going to concentrate on. We'll finish this one first and then we'll work into the next one." So that was important because it was quite possible to get so scattered...like being involved in too many things. (principal)

Ultimately, needs prioritization facilitated the transition from needs assessment to the development of action plans and initiatives by reducing the number of identified needs to a manageable working size.

Factors that Inhibited

Seven factors were identified as inhibiting the implementation stage of project development. They include (a) inadequate preliminary education, (b) misguided expectations, (c) top-heavy stakeholder representation, (d) structure of the survey, (e) survey pre-test, (f) role ambiguity, and (g) incomplete steering committee representation (see figure 3, row 3).

Inadequate preliminary education. Project participants spoke to being inadequately educated, both philosophically and practically, when introduced to PHL. Alluding to the absence of such information, one participant claimed, "The biggest glitch was for me at the beginning....I really wanted to know why we were doing this and how we were going to do it." (parent). Another participant confirmed the inadequacy of preliminary education, claiming, "I don't think I had a realistic idea of how all these things fitted together. I probably would have asked more questions. I felt like I didn't have quite enough information starting out to even ask." (school nurse). The inadequacy of the preliminary education compromised participant buy-in. As one participant explained, "You need to...build more of a foundation - and I think that wasn't there as much as it could have been - so that by the time people come to do a task, they are sold on the process; they are sold on what they are doing." (university representative). One group of students described the lack of commitment on the part of teachers, students, and parents as a consequence of being uneducated about CSHE: "No one showed up...I think it was because nobody really knew about what we were doing. Like we didn't have time to talk...and say, 'This is what we're doing, can you help us?'" (student).

Misguided expectations. There were misguided expectations on the part of the schools with respect to add-on, or the additional responsibilities incurred in implementing CSHE. In introducing CSHE to potential pilot schools the steering committee instructed that schools be educated about the components of CSHE that they already comprised, and that it would be only a matter of coordinating these components. The expectation was created in schools that project implementation would not entail any additional responsibilities, when in fact, many of the components of CSHE for school-based interventions needed to be developed or solicited from community service representatives, adding to school persons' responsibilities. Consequently,

participant frustration arose as a consequence of being unprepared or unable to anticipate added on costs. For example, in pilot school III the principal intended to integrate CSHE using existing structures. During a very successful salad promotion week, however, when students enthusiastically supported the lunch salad bar choices each day, the cafeteria staff were concerned with the tremendous increase in workload required to offer a daily salad bar as well as with its implications for adequate coverage of the program of study (foods and nutrition), mandated to provide food for the cafeteria. It was consequently abandoned.

Top-heavy stakeholder representation. The CSHE implementation process was compromised by inequitable stakeholder representation. Top-heavy stakeholder representation was identified with respect to both instrument development and program planning efforts. Regarding instrument development, some participants expressed that it was top-down, non-participant-based, and heavy in terms of lots of professionals:

> The hindrance is that at the outset, perhaps necessarily, it was top-down....there was a danger of it being seen as something that some experts from an ivory tower were laying on the school and saying, "Here's the best way to do it; now go do it". That would be the only limitation. It didn't have the grass-roots participation from the outset. (CHS representative, project developer)

Another participant expressed the opinion that the survey process was "a lot of professionals trying to put ourselves in the place of the community" and that that "was not what we really wanted" (school nurse).

Regarding school implementation planning, the process was compromised when it was either adult-driven with little regard given to student perspectives, or driven by the administration, in the absence of both student and teacher buy-in. The effects of top-heavy decision-making were

threefold: a number of identified needs that were not based on students' perceived needs, alienated and "put-upon" teachers, and various interventions that were not student-driven.

Commitment to this top-down way of relating was derived from a variety of perspectives: First, it came from the "top". For example, at pilot school I during the initial prioritizing process and implementation planning, student representation and teacher representation were secondary to administrative decision-making:

> In pilot school I they did the needs assessment and then basically said, "Don't trouble me with the data, this is what we think needs to be done in our school."....It is really this business of the adults figuring they know best what kids' need, and we've got tons of data now to say maybe adults think they know best what kids' need, and maybe they actually do, but adults' views about what kids' need and kids' views about what kids' need are really quite dissimilar. (university representative, steering committee)

One student, speaking to the experience of gradually losing her voice to the administration as the school committee moved from needs identification to program planning activities, offered a suggestion for how this might have been avoided:

> At the very beginning we had a big time voice, then it slowly started to way off, like they know what we want, but they're moving ahead....I think it would be easier if we'd been taken to meetings, like if we're on a subcommittee and one of the people on the committee...[is] going to talk to somebody at the school board, well maybe one of the students should be taken along so they can see how this happens so that maybe later we can help do it, when we have the facilities and we have the understanding. (student)

Second, the top-down perspective also came from the grass-roots "bottom". For example, in pilot school IV, a participant described a process whereby stakeholder representation was compromised when teachers looked upon "school health as the nurse thing":

> And that's exactly what I do not want....Health was shelved into the medical field....For me, what I would have liked to see is for everybody...to be talking to any member of the comprehensive school health team, and to say, "What do you think about this? Would you as a parent want to have these programs in school? Would you as a student feel that this is appropriate?" I would have much preferred to have had that sort of dialogue. (school nurse)

Third and finally, the top-down perspective came also from the "middle". Participants spoke to the coordinator's commitment to hierarchies: "I see [the coordinator] as having very much bought into and believing in that top-down model." (university representative). Similarly, another participant claimed, "[The coordinator] is very good at facilitating and helping to mobilize people to action...but as far as turning over the leadership to other people...that is something that is not being done." (university representative, steering committee).

Structure of the survey. Participants expressed that the survey was inappropriate for a working instrument. First, it was too long: "My initial real stress, and I still have an issue with it, is the length of the survey. I feel that the survey could be shortened and more succinct." (school nurse). Another participant suggested that the length of the survey affected response rates given that "some people didn't do it, I know, because it was just too long and...redundant" (school counsellor). With the comprehensive surveys being tailored in each school, the whole data collection stage was described by school-based participants as "enormous", and the fall-out from that was stressful. Even the tailored surveys were still perceived to be too long and time intensive. Participants suggested that the length and form of the survey hindered the schools' ability to become self-guided with respect to data retrieval and analysis: "There were some redundancies that made it tough in this questionnaire, and because of the length and so on, the data collection was tough too, and the interpretation was tough." (school counsellor). Second, participants described

the wording of the survey as complex and confusing, therefore making interpretation of the resulting data suspect:

> I really had some concerns about the complexity of the questions that were being asked for these kids, and how in fact they were answering them, and did they understand....I know there were concerns from our nurses in terms of again how complicated the whole questionnaire process was, and were kids able to answer them as accurately and as valid as what was intended. (CHS representative, steering committee)

Third, the surveys were described as not being age- or reading level-appropriate. As one participant explained, "I don't think the needs assessment questionnaire is very appropriate...they [need to] make a questionnaire that fits the needs of kids, that kids can understand...it has to be so simple." (school nurse). Another adult participant, in describing her experience in filling out the first needs assessment described:

> I can remember sitting in my living room in July, thinking I'll just whip through this, and I got so frustrated with it that I couldn't finish it. And I thought, if I can't finish it, how can a non-reader at [pilot school I] do this. That was probably the low point. (vice-principal)

Fourth, the survey proved to be linguistically and culturally problematic. Students who were new Canadians, having English as a second language (ESL) in pilot school IV, thought the survey was a test, and being unable to complete it in the allotted time, felt that they had failed.

Survey pre-test. A sample high school was never selected to participate in the testing and refinement phase of instrument development; rather, testing and refinement occurred prior to survey administration in the first pilot school. Survey testing followed up by survey administration was described as too "time-intensive" for one population, increasing frustrations at pilot school I with the survey process. One participant deemed it "a bad beginning - the questionnaires just about killed it" (CBE representative, project developer).

Role ambiguity. Role ambiguity existed at the level of schools with respect to the evaluation team. As one participant indicated, "One thing that wasn't clear was what you people at the university were doing" (teacher). This ambiguity is reflected in one students' statement when she, in describing various committee members, was unable to identify the evaluation team representative: "There's this one lady who I don't even know what she does, but she's there all the time." (student). The ambiguity surrounding the evaluation team's involvement was related to the disconnection that existed in the minds of participants between the practical and research components of the project:

> I think that evaluation has a very narrow connotation within the realm that we are working, both at upper levels and at the grass-roots level in the school...If you take evaluation in the very narrow sense - that I don't think we take it but I think that the rest take it - than I think it is easy to see us as a tack on. See, we're not there to build up the project, or to be an integral part of the project; we're just there at the end to see what's happened. So I think that's one fundamental flaw...I don't think it communicates our purpose, what we're really all about. (university representative)

Another participant explained:

> People had this notion that...there is no relationship between the research and the practical stuff. People are prone to making that distinction, and they made it here, and I think that was to a certain extent instrumental in them not embracing the evaluation part more openly. (university representative, steering committee)

As a result of the ambiguity surrounding the university's role, participants raised questions of "ownership". One participant indicated that "it wasn't very clear what the university's responsibility was" and "in some ways it sounded as if [the university] own[ed] the project" (school nurse). Another participant expressed,

> It was kind of hard sometimes to figure out, okay now, whose project is this? Is it the university's project or is it the Calgary Board's or Calgary Health Services'....I guess it was just kind of like, well, what is the purpose of this and who's calling the stops on this one? Is this really a Calgary Board and Calgary Health Services thing or is this the university trying to get some research so they can publish? (teacher)

Incomplete representation on the steering committee. The steering committee did not have social service representation. Although initial thinking on steering committee representation included the Ministry of Social Services representation, the two boards decided only to foster linkages as opposed to having their direct representation on the steering committee. Project participants expressed the potential benefit that was lost by not involving the ministry and other social service agents: "Some of the issues that have been identified by schools would have benefited from social services because they're related to family issues and other issues [on which] social workers could provide perspective." (CHS representative, steering committee). Other participants suggested that the under-representation on the steering committee extended beyond social services representation, having failed to include other relevant community services as well:

> My only structural change would be the representatives on the advisory committee....I have found that somewhat limiting in that, "Why isn't social services representation there? Why isn't justice or representation with the Calgary Police Services there?"....I would make that committee more comprehensive. (coordinator)

In addressing the need for a larger interdisciplinary steering committee one participant suggested an alternate working structure comprised of two steering committees: a smaller working group and a larger interagency committee: "We could have a small steering committee that would work with [the coordinator], but we needed to leave the legacy of a larger community steering committee that would start bringing in interagency." (CBE representative, project developer).

Prepare for the Unavoidable

Eight factors were identified by project participants as being necessary developments of CSHE implementation. They include (a) add-on, (b) preliminary education, (c) changing personnel and re-education, (d) long, slow process, (e) small changes, (f) time constraints, (g) communication challenges, and (h) ambiguity (see figure 3, row 4).

Add-on. With the development and implementation of a new initiative there is add-on with respect to work demands. Health and educational systems in the PHL project experienced both time and resource demands with the development of CSHE where participants explained that "something else has to go" (school counsellor) and that "we've had to steal from other programs to make sure we have the right amount of time to support it" (CHS representative, steering committee). From the school perspective particularly there were added costs (i.e., for survey production), increased teacher demands (i.e., for survey assessment and implementation of interventions), and increased school committee time (i.e., survey tailoring, data collection, program planning and implementation, knowledge dissemination, and project promotion) in implementing CSHE. Participants noted especially that the amount of organizational work increased as the committees moved into the action phase of implementation: "We're doing a lot more running around and a lot more organizing, a lot more doing this, doing that. We're not just sitting at a meeting any more....We have to do a lot more organizing for people." (student). As demonstrated by the PHL project schools can anticipate that initially CSHE requires additional work demands.

Preliminary education. Introducing CSHE to stakeholder groups requires a tremendous amount of education both philosophically - as it offers fresh thinking on holistic health, interagency collaboration, and bottom-up decision making - as well as practically. Philosophically, the concept of CSHE is a new one to schools. As one participant explained, "The first few meeting were confusing in the sense that the whole subject area was new to us." (parent). First, CSHE requires

participants to be educated on a broader concept of health that includes the social, emotional, mental components of well-being. Those familiar with this model of health can lose sight of the fact that for many others, it is a foreign concept. One participant expressed her surprise, stating, "It amazed me what a difficult concept health promotion really is for people who have not been in the area to understand." (CBE representative, project developer). Another participant similarly commented,

> The biggest impact to me was the amount of education we had to do with other teachers, other professionals, and the boards, students, and parents about the health promotion model and the fact that it was bigger than basic health concepts of brushing teeth and keeping clean. (previous school implementation committee chairperson)

Second, CSHE requires participants to be educated about interagency cooperation and communication, and tying together all of the stakeholder groups:

> One of the things that this project is trying to change is the fractured, fragmented, hierarchial, top-down, structure and philosophy and approach that's been there in education and in health services....the only way to bring all of the parents, teachers, and students together and really work from the bottom-up and allow the students to have a voice in there is to abandon those old models. (university representative)

Participants need to acquire different expectations about how to work with other stakeholder groups in a flattened hierarchy which, according to school-based participants, presents a major challenge for school personnel:

> [School personnel] have been here for a long time and it's going to take them a little bit more than a meeting to get their minds changed. (student).

As one school administrator suggested of school persons, "old habits die hard, and we are very used to hierarchies".

In addition to philosophical education time must be devoted to direct practical education and support: "I don't think that new schools will be successful unless they have direct support. And I say that from the point of view of seeing the enormous amount of education that goes on in getting a school up and running." (assistant principal). Examples of such direct practical support include a resource implementation manual and in-servicing information seminars. The addition of a resource implementation manual provides specific "how-to" information that will make schools in the start-up phase "less blind to the process" (university representative):

> I think [a manual] has been missing. I don't feel like the schools have consistent information about what this is all about, what the philosophy is all about, what the impact can be, how the whole process works, where the evaluation fits into it...if we had something that was consistent, we could turn to it. (university representative)

However, participants indicated that the implementation manual may be of limited utility unless accompanied by in-servicing:

> While I think the implementation manual will be very, very helpful and very critical, I don't think we can just hand the manual to a school and say run with it....Failing to have a project facilitator or manager, at least the manual has to be in-serviced. (assistant principal)

A mini introductory seminar can serve as an adjunct to the implementation manual by providing project participants with specific practical information on program development and evaluation:

> I think I might want to give a mini seminar for half an hour or forty minutes to the school steering committee, on the whole process of program development, implementation and evaluation, so that they could design the program, design the evaluation plan, implement the program, collect the evaluation data, consolidate the evaluation data....where [evaluation] is part of the whole program development and implementation. (university representative, steering committee)

Changing personnel and re-education. As mentioned previously, agencies are not static and schools are no exception. School personnel changes and it is likely that those participants who initiate programs will not be there to witness their outcomes. Thus, CSHE requires on-going re-education for new persons coming on board: "Every time a new player came on board, there was a lot of back-tracking, and understanding, and making sure that the philosophy was consistent. An incredible amount of time went into that." (CBE representative, project developer). An important part of this re-education concerns stakeholders' roles and responsibilities. As one participant indicated, "It really is evolving because now there are new people on the committee...We'll work through that - what are people's roles here." (school nurse). The failure to re-educate participants about stakeholder roles and responsibilities may be related to role-ambiguity, as one participant suggested in the case of the university: "At the first meeting when the university came...we were introduced....maybe we needed to have that dialogue again....maybe it should have been clarified again." (teacher).

Long, slow process. Participants expressed that both the implementation and change process were slow. The *implementation* process was slow, because, as one participant explained, "We have to work through all kinds of different people [and] kinds of different ideas, and there's more power in that, but it just takes time." (principal). The changing climate of schools served to further slow down the developmental process in that "an incredible amount of time went into [educating new participants]" (CBE representative, steering committee). The *change* process is slow, because, as another participant explained, "We know that beliefs and habits are difficult to change." (assistant principal).

The reality of the slow change process was in direct contrast to the overwhelming expectation on the part of school participants that the implementation process would be much swifter. As one participant explained:

> I think my expectations were - I thought that we would grasp this thing, get up, and get something done, and have it going, and I think that I hadn't realized that there would be as much facilitation as there has been....So one way I really want to move the thing, but then that is my way, and the other way is seeing the need for this slower time and the building of it, the need for acceptance of it by the individual schools. (CHS representative, project developer)

Another participant warned that "for anybody else getting into something like this, I think you need to be prepared to invest a lot of time and realize that it's not something you can do overnight" (CBE representative, project developer).

Small changes. In addition to recognizing that change occurs slowly, participants also recognized that change occurs in very small increments. The indoctrination of CSHE is a slow process with a minimal fan out effect. As one participant explained, "We take change around here especially long in really small increments...This is a school of small successes." (assistant principal).

Time constraints. Where the process is long free time is minimal in schools. Teachers, students, administrative personnel, and parents are already "over-loaded" in terms of their commitments and work schedule. It is difficult to find a time when people can come together: "It is a world of 20 minute meetings" where "all of this has to fit within the context of the school year" (principal). The issue of time constraint was also mentioned with respect to the length of the project as a whole. Participants felt limited in what they could accomplish in the three year time period. As one participant noted, "The stress is not feeling that you have enough time to be really effective" (CBE representative, steering committee). One participant suggested that in doing another project of this kind, she would allocate more time:

> I probably would have made it longer. I think we had forgotten that it takes a year for development up front really, and for all the development of the buy-in. I think I would make it longer, at least four years. (CHS representative, project developer)

Communication challenges. School intra-communication challenges occur in two primary ways. First, difficulties often arise in notifying committee members as to meeting times and locations, a problem that was experienced frequently by students. As one participant suggested, "The students never get told. We never get told [about a meeting] until the day." (student). According to one participant, communication problems were particularly remarkable when attendance at meetings was affected: "When pieces of our puzzle weren't there...[when] members don't show...sometimes we think, `How can we let them know?', or `What's our system of communication?'" (principal). Without clear "systems" of communication such as a designated telephone person or multiple telephone persons established early on, participants can be overlooked or left out of meeting times. The second challenge involves communicating project information back to the larger school population: "It's a real challenge to make sure that the information gets back to everyone, once you've started working on it." (school nurse). Reporting progress and linking back to the entire school requires renewed commitment, as project developments and change are on-going, as well as innovation on the part of committee members in developing new and engaging ways of sharing information.

Ambiguity. As the process occurring in each school was specific to that school, it was often described as an ambiguous process:

> The concepts were there, but it was brand new, never done before. Everybody had these concepts, but we didn't know how to do it. On the one hand it was negative, but on the other, it is amazing we got as far as we did. (CHS representative, project developer).

Another participant similarly expressed, "Every day is a new way of learning...without a map, because nobody has done this before. It is a new adventure every day." (coordinator).

Behind the Scenes: Project Management

The activity of the PHL SC did not come to a stand still once project implementation had begun in schools. Instead, the PHL SC continued to function in a management role performing a variety of activities many of which were carried over from its earlier planning function. A general description of project management activities and the associated enhancing, inhibiting, and unavoidable factors are summarized in figure 4. A more complete description of each follows.

Figure 4
Project Management Summary

Description	• Developing communication strategies • Clarifying project structure and function • Networking • Profiling the project • Overseeing coordinator functioning • Overseeing school site implementation • Developing the implementation manual • Negotiating funding • Negotiating evaluation • Preparing for project wrap-up
Enhancing Factors	• School networking strategies
Inhibiting Factors	• Failure to revisit time lines • Problematic reporting practices • Too many pilot sites • Inadequate community networking • Lack of preparation for self-guidance • Inadequate national project promotion • Inconsistent steering committee representation • Compromised evaluation
Unavoidable Factors	• Shifting priorities • Unpredictability

Description

The PHL SC performed a variety of project management activities once implementation was underway in schools including (a) developing communication strategies, (b) clarifying project structure and function, (c) networking, (d) profiling the project, (e) overseeing coordinator functioning, (f) overseeing school site implementation, (g) developing the implementation manual, (h) negotiating funding (i) negotiating evaluation, and (j) preparing for project wrap-up (see figure 4, row 1).

Developing communication strategies. The development of communication strategies within the PHL project included both internal and external reporting protocol and mechanisms.

(i) Internal communication. Reporting protocol was first established as an issue for the PHL SC to consider in June 1992 when its importance was suggested by a senior leader from Calgary Health Services. It was not deliberated, however, until September 1992 when the initiative began to expand at which time the PHL SC set out to establish reporting procedures that would aid the internal communication system of the PHL project. These included internal progress reports to be prepared by the coordinator twice yearly for the two boards (the CBE trustees and the CHS board of health) and the Kahanoff Foundation, as well as twice-yearly initiative updates to be provided by the coordinator to the senior administration of the CBE and CHS through internal memos. The progress reports provided to the two boards and the Kahanoff foundation were to include the organizational structure, school selection process, school implementation process, evaluation component progress, anticipated outcomes, and (in the case of the Kahanoff foundation) a financial statement. The internal memo updates to the CBE and CHS were to include information pertaining to the school implementation process, evaluation component progress, and anticipated outcomes. Internal reporting mechanisms provided the means for ensuring that PHL SC partners were regularly updated on initiative progress.

(ii) External communication. With respect to external reporting protocol the PHL SC determined that any packages requested for external distribution, including initiative development documents and evaluation process documents, are to be copyrighted to PHL and have to first gain the approval of the PHL SC (and school principal in cases where school-specific documents are being shared). Community speaking presentations were to be approved by the PHL SC and to be attended by a CBE or CHS representative as well as the coordinator. Pilot school data were to be treated confidentially and referred to as only Pilot school I or Pilot school A.

Upon considering professional publications, such as journals and other media, the CBE ethics process was reviewed in May 1994, and CBE ethics approval was granted the following September 1994. An outline of proposed documents to be released for professional publication had to first be presented to the PHL SC for approval, where specific scrutiny was to be given to the accuracy of reporting, the contributions made, and the credit given to the collaborative work of the CBE and CHS.

Following from a mistaken press release to local media on survey data from pilot school III (from which there was much fall-out as school staff questioned their future commitment to, and trust in, the PHL initiative), guidelines for the use of data were established by CBE Assessment Services (October 1994). When sharing data the following conditions were to apply: (a) check with the pilot school in question first; (b) remove names of schools and use a pilot number reference or pseudonym for information sharing purposes; and (c) provide general data results only, as opposed to specific item issues. Topics again had to be cleared with the PHL SC and the school administration. At this time it was decided that all survey cover sheets would be revised to profile the partnership of CBE and CHS. The employment of these criteria was intended to safe-guard the accuracy, credibility, and anonymity of externally distributed documentation.

Clarifying project structure and function. Changes to project structure and function continued to be deliberated once project implementation was under way. Project structure was once again addressed in September 1992 where the configuration of the PHL SC was to include two representatives from CBE and CHS, with the U of C then contracted to perform evaluation research and report to the steering committee. This restructuring of the PHL SC, which precluded the University of Calgary's representation, was over-turned four months later and the university's representation on the PHL SC was resumed. In January 1992 a pictorial representation of the PHL SC was developed (figure 5) that included the funding bodies, the steering committee representatives, working groups, the Calgary Health Services' school health committee, the coordinator and the school implementation committee. It did not however include an advisory committee as originally proposed in May 1991, prior to project implementation. The reason that such an advisory committee was not developed was not documented.

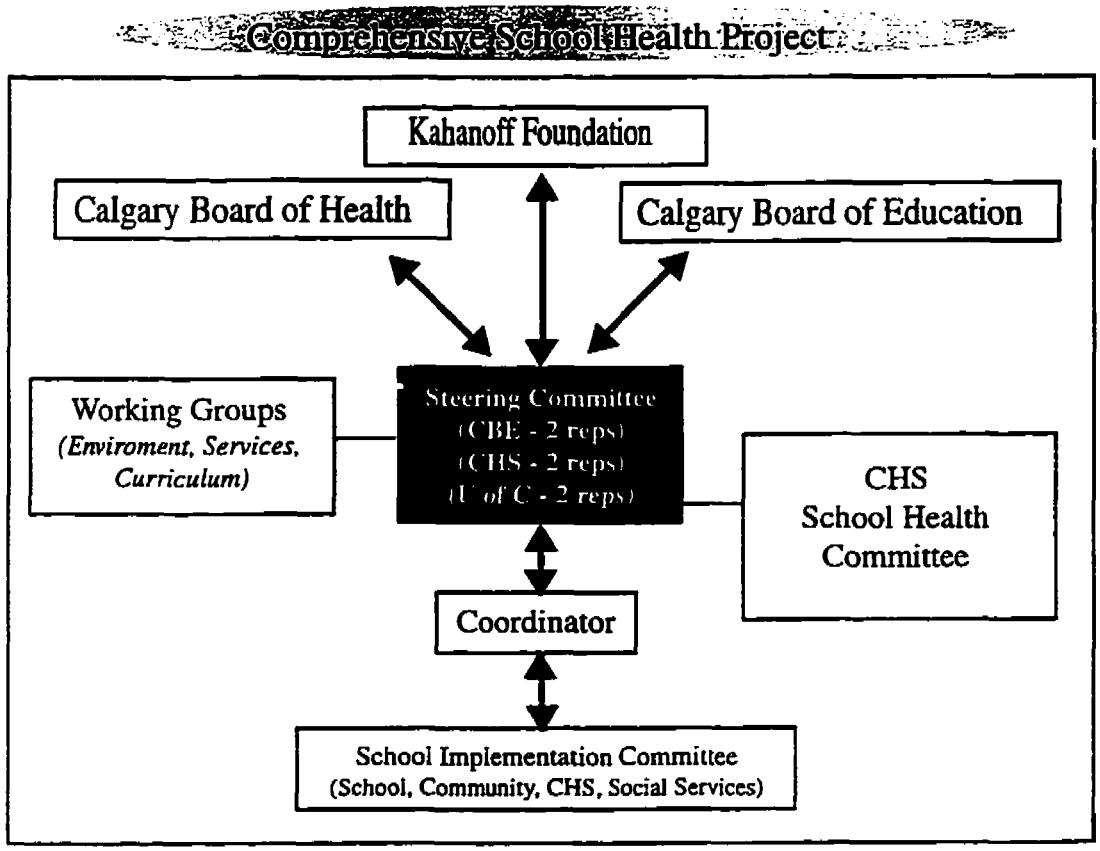
Both project structure and function were again revisited in May 1994 when the pictorial representation of the PHL SC's organizational structure was reproduced (figure 6) and the original terms of reference were revisited and updated. At this time it was proposed that the roles and expectations of the PHL SC be clarified given that the committee had moved into another phase of evolution beyond a merely planning function. The coordinator was replaced as the committee chair and three recommendations were made (though unemployed) regarding the revised terms of reference. First, it was recommended that the terms of reference include the expectation that the pilots move from total support to self-guided schools, outlining the key contacts to be made and the development of a network of schools and other available community resources. Second, it was recommended that the terms of reference include role expectations in the self-guided schools of both the coordinator (including attending school meetings, providing background support, and acting as a monitor of the initiative), and of the evaluation team (including outlining to the schools

the data entry, interpretation, and reporting procedures). Third, it was recommended that Ethics clearance/approval by CBE and the University of Calgary be added. The reason why these recommendations were not included in the draft of the Terms of Reference is unclear.

Figure 5

Partners for Healthy Living Organizational Structure

(January 1992)



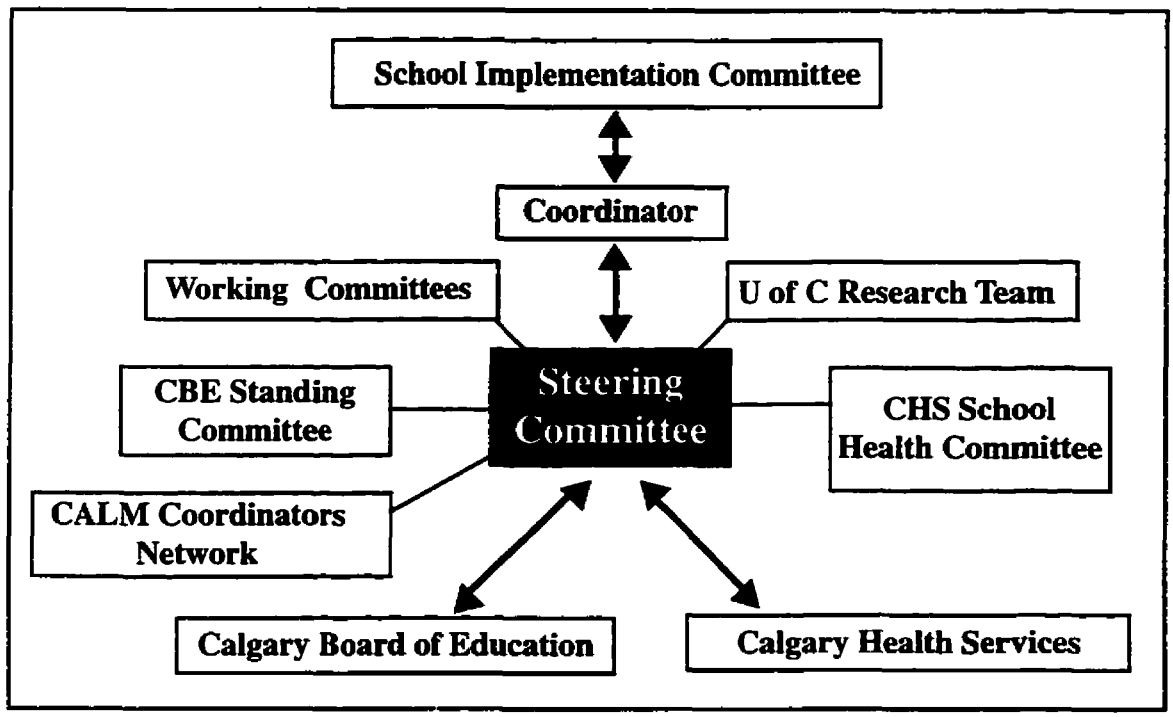
Networking. Throughout her employ the coordinator established various interagency linkages. These linkages tended to be for the most part *unilateral* linkages (i.e., agencies connected to the PHL project via the coordinator) and *external* linkages (i.e., community-community linkages and community-school linkages, but not until much later, school-school linkages). For example, the coordinator forged interagency linkages with the CBE, CHS, and the University of Calgary

evaluation team on an on-going monthly basis through reporting accountability; the coordinator represented the PHL project at the CALM (Career and Life Management) Coordinators Network where course leaders met three times yearly to discuss and coordinate the health curriculum content; the coordinator liaised with external organizations such as Health Canada, the Canadian Association for School Health (CASH), and the Alberta Coalition for School Health (ACSH) on an on-going basis as time permitted; and the coordinator acted as a support person of the Calgary Adolescent Needs Network and, beginning in September 1994, of the Opening Doors initiative (a community inter-agency collaboration project occurring in pilot school V's city district) on an on-going, monthly basis.

Figure 6

Partners for Healthy Living Organizational Structure
Revised

(May 1994)



Exceptions to the above included a *multi-lateral* interagency linkage forged with representatives of CBE, CHS, AADAC, Social Services, Calgary Catholic Board, and Alberta Education in the early stages of project implementation (December 1992) for the purpose of reviewing current thinking on collaboration and the organization of health, education, and social programs for children, and a number of *internal* stakeholder networking strategies at the level of schools. The latter included: (i) a health nurses' support group (November 1992); (ii) an information sharing meeting (February 1995) where pilot school principals shared their experiences with CBE and CHS senior leaders, the PHL SC, evaluation team, and public health nurses; (iii) a "Network Newsletter" (February 1995), serving as a coordinator's update report to be circulated to all school committees; and (iv) a "Network Meeting" (April 1995) held for pilot school implementation committee representatives (chairperson and public health nurse), PHL SC members, the evaluation team, and the coordinator (acting as chair) in order to share school pilot site updates, strengths and weaknesses of their experiences to date, and planning for the next year.

Profiling project. Throughout the PHL project's developmental history various opportunities were presented for profiling the initiative, some fulfilled and some unrealized. Those that were performed included: (i) two keynote presentations on CSHE at a conference held by the Canadian Cancer Society in Alberta (October 1992) on educational programs being developed for the school year; (ii) a letter sent to the Ottawa-Carlton Associate Medical Officer of Health (February 1993), providing an update of PHL and suggesting the possibility of using the PHL needs assessment in some of their high schools; (iii) various conference presentations (see Collins & Hiebert, 1995; Hiebert & Collins, 1993; Hiebert et al., 1994a; Hiebert et al., 1994b; Hiebert et al., 1994c; Hiebert & Collins, 1995; Hiebert & Reeh, 1995) and publications (see Cairns, Collins, & Hiebert, 1994; Collins & Hiebert, 1995; Hiebert et al., 1994b) on PHL executed by members of the evaluation team over a two year period (February 1993 to April 1995); and (iv) a proposal (January

1995) to present a paper on "Comprehensive School Health in Action: A pilot Experience" to the Canadian Home Economic Association submitted by pilot school IV's chairperson and the project coordinator.

Of those opportunities to profile the project that were unrealized the first was a presentation opportunity to the Canadian Public Health Association (CPHA) convention in Newfoundland (July 1993), for which a draft video proposal was accepted but was not developed (the reasons undocumented); the second was an opportunity to market the implementation strategy booklet (May 1994) but not undertaken given delays in development of the manual.

Overseeing coordinator functioning. Coordinator accountability was observed through a variety of communication strategies: The coordinator provided regular initiative updates to the PHL SC during their monthly meetings; progress reports to the two board (CHS and CBE) and the Kahanoff Foundation both twice yearly; and newsletter publications for CBE and CHS as needed. However, the PHL SC neglected to consider conducting an *evaluation* of the coordinator's performance until April 1994. At that time the performance evaluation of the coordinator became an interagency developed procedure jointly written by a Performance Assessment Committee, including school representatives and PHL SC members. Input was obtained from the coordinator on the process that was followed. The evaluation was performed in November 1994, almost three years after the coordinator was hired (January 1992) and only two months before the project's anticipated termination date (February 1995).

Overseeing school site implementation. The role of the PHL SC in directing project implementation in the pilot schools was ongoing. In the early stages of school implementation the PHL SC (i) directed that an information package be developed to be used at the level of schools when speaking about CSHE (documentation neither confirms nor refutes its production), (ii) reviewed the criterion for the pilot selection process (i.e., "mainstream" high schools and

administrative readiness), and (iii) directed that school implementation be more school-based and less coordinator intensive. Pilot schools V and VI were targeted as the self-guided control environments. The PHL SC reinforced its need to act in an advisory capacity, rather than a planning capacity, and discussed a self-guided, school-to school-transferable approach (March 1993), including the utilization of a quantitative instrument that can stand alone, a quick-start kit approach (i.e., implementation manual), and the development of a "network" of school representatives involved in the pilot schools which would allow for the perpetuation of the CSHE initiative after the proposed termination date. The PHL SC's achievement of this school-to-school transferable approach is debatable: Although a school "network" was eventually established, there is reason to question the achievement of a "stand-alone" instrument (based on participants perspectives), and the implementation manual was not developed within the project mandate period.

Developing the implementation manual. The development of the implementation manual (intended to be a step-by-step procedures guide to be used by self-guided pilot schools, possibly facilitated by minimal coordination or coaching time) went unrealized within the project mandate period as its form and responsibility for its development continued to change.

Initially, development of the implementation manual was to be the responsibility of the project coordinator. An implementation strategy outline was presented to the PHL SC by the coordinator (May 1993) and it was accepted. It was to incorporate all of the work done by the program coordinator and the background work done by the steering committee (e.g., introductory sections were to include the rationale, philosophy, Canadian initiatives, PHL history and goals, and the implementation process). The implementation section was to be completed before September 1993. The first draft was completed June 1993; the second draft was completed September 1993.

In January 1994, the PHL SC discussed the manual as a more complete resource, one that could be used by other school districts. They suggested that it include a resource section which

would describe the data entry, analysis, and reporting procedures and school development strategies (i.e., how to develop good questionnaires, how to monitor program development, and assess effectiveness). At this time the coordinator of the project proposed that the university evaluation team be responsible for the technical writing necessary to develop a more complete manual. A collaborative writing process was approved where two kinds of manuals would be developed: a shorter 20-30 page checklist version for quick reference (to be developed by the coordinator) and a longer more technical version (to be developed by the evaluation team). The former was to be developed for utilization in self-guided pilot schools V and VI. The latter was to be completed by January 1995; however, it was not projected to be ready for publication given that additional time would be required for impact data collection, program specific evaluation, and process evaluation results. The projected time-lines were not met. In February/April 1995, the format of the implementation manual (i.e., two versions) and responsibility for its production (coordinator and evaluation team) were once again revisited and confirmed, and issues related to ownership and royalties were discussed: Academic credit and copyright were to go to the authors; royalties were to come back to PHL SC for proper allocation; instruments that were already in place in the schools were to now belong to those schools. At the time of this inquiry, the two versions of the implementation manual were not yet complete.

Negotiating funding. Funding negotiation talks, beginning January 1993 with the growing realization that the project completion date would likely exceed the proposed funding termination date, focused on two primary concerns: first, the completion of the evaluation component of the project and later, the compensation of school-based resources.

With respect to the completion of the evaluation component, the PHL SC sought funding from the Kahanoff Foundation and the health and education boards for instrument production, printing costs, production of the implementation manual, and collection of the impact evaluation

data. The Kahanoff foundation agreed to a funding extension should the proposed time line restrict the time-full impact of CSHE at pilot schools V and VI and the retrieval and reporting of evaluation data, qualifying however, that the proposal for extension required support in principal by all partners (CBE, CHS, and the Kahanoff Foundation). The CBE and CHS, reportedly having already established the budgeting time lines for the next year, denied PHL SC funding requests and asked that the Kahanoff foundation provide 100% support in the first year of extension. The Kahanoff Foundation approved a 3 month funding extension at no additional cost to both boards.

With respect to the negotiation of school-based compensation, pilot schools I and II remained "total support" pilots, and the PHL SC began (i) exploring financial compensation for survey production expenses at pilot schools III, IV, and V; (ii) renegotiating the financial costs of reassessment at pilot school I according to a manual response alternative (as opposed to scantron scored answers); and (iii) exploring less expensive means of survey production at pilot school VI. The PHL SC determined that financial compensation would be considered after completion of the project extension date, when any excess funds would be redistributed to pilot schools based on request. The PHL SC also determined that CBE assessment services support would be made available for pilot school VI's survey production costs, as well as any other pilot school reassessments. Subsequent requests for funding of school-based planned interventions were denied. The PHL SC decided that this funding support was beyond the mandate described in their terms of reference and that interventions planned by pilot school committees required the utilization of school-based resourcing.

Despite the funding extension PHL SC representatives still anticipated a funding shortfall for the consolidation of the collected evaluation data as well as school-based compensation requests. A meeting of CBE and CHS senior leaders and the PHL SC was held (February 1995) to develop an "Action for Health" proposal to be submitted to the Kahanoff foundation requesting

transition funding for the continuation of CSHE and of school system support and resourcing. At the time of this inquiry a letter of intent was to be prepared, the outcome of which was yet to be determined.

Negotiating evaluation. Discussion and debate regarding evaluation was on-going throughout project implementation. Following a directive statement (February 1993) from the PHL SC to the evaluation team expressing frustration with the evaluation and advising of the intent to seek an outside opinion, the PHL SC and evaluation team met to clarify perspectives and identify concerns. The PHL SC clarified that they wanted (i) a useable measurement tool that can be validated for accuracy, (ii) an evaluation of the process, and (iii) determination of the applications (i.e., the components that provide for long term maintenance and project sustainability). They identified a number of concerns related to the measurement tool, including (i) the breadth of health issues represented (i.e., the necessity of having all this data, the ability of the schools to analyze and take action on so much information, and the appropriateness of the block of academic items); (ii) the apparent imbalance of blocks of questions, such that some areas seemed more heavily weighted by the number of questions being asked; and (iii) the wording of questions, especially of those items relating to teacher competence and adolescents' previous history, which were considered inappropriate. In response the University of Calgary evaluation team restated the importance of developing a collaborative, participant driven evaluation approach, reminding the PHL SC that the Delphi procedure was the participant driven means on which the instruments' questions were developed. They indicated that the needs assessment had already been revised to half its original length and had considered the redundancy and low frequency responses of questions. The evaluation team identified some concerns including (i) a failure on the part of the PHL SC to provide requested feedback and (ii) a deficiency in the amount of *direct* communication between themselves and the steering committee where instead they perceived information to be

transmitted indirectly through the program coordinator who acted on behalf of the PHL SC. Two important conclusions were drawn from this meeting: (i) This is a learning process and future planning must include clearer role descriptions and expectations for all stakeholders; and (ii) more time is required for revisions and for input by steering committee members and agency subcommittees (i.e., CHS School Health Committee).

A number of developments followed this meeting: (i) the evaluation team developed a master plan of the evaluation process, including the status to date (Appendix P), and a process evaluation outline (Appendix Q) to be reviewed by the PHL SC; (ii) the evaluation team assigned evaluation advocates to work with the various school implementation committees to ensure that program-specific evaluation concerns were being addressed; and (iii) a research associate from the university evaluation team was hired to perform a formative evaluation of the project to date in order to inform the later stages of project implementation. Subsequent to this, however, the evaluation team expressed that their efforts to assist program-specific evaluation was met with resistance and lack of cooperation in pilot school I. Furthermore, the research associate contracted to do the process evaluation left his position before it was to get underway.

Discussions between the PHL SC and the evaluation team about the evaluation process came full circle in May 1994: The PHL SC still insisted that the current evaluation process needed to be more user friendly and less data intensive; the university evaluation team reiterated that the tailoring process is necessary in that it accommodates a range of needs for the different schools, and insisted that simplifying the process would change the scope of the entire enterprise. The evaluation team suggested that if the process had to be changed the adult views of adolescent needs' instruments could be dropped. Despite the evaluation team's concerns and suggestion, the school implementation committee at pilot school I decided to produce a needs assessment instrument

using only the last General Needs Areas question from the original survey for their proposed reassessment.

Preparing for project wrap-up. In February 1995 senior management from CHS and CBE met to discuss the future directions for the PHL initiative. A summary of key project sustainability issues and proposed action plans were identified (Appendix R), and a proposal was put forth to develop a collaborative proposal for the "Action for Health: A Health Promotion Initiative" (Appendix S). In April 1995 the PHL SC, anticipating the termination of project funding in June 1995, discussed a contingency plan for the six pilot schools. Various resources were to be in place by the projects' completion date to facilitate project sustainability including (i) a network established of pilot school representatives, (ii) the maintenance of CSHE in the high schools one day per week through the work of the public health nurses, (iii) an implementation manual, and (iv) CBE resources (i.e., assessment team, word processing) and CHS resources (through the Nutrition division, School Health Committee and the Public Health Nurse) for the pilot sites.

Factors that Enhanced

One factor associated with the project management stage of project development was identified as having enhanced the PHL implementation process: school networking strategies (see figure 4, row 2). Sound decision making occurred at the PHL SC program management stage when school networking strategies (i.e., a "support group" for participating community nurses, "network newsletters", "network meetings") were developed (albeit late). They facilitated the transmission of information between schools, enhancing the cycle of learning for project participants. In addition, they served to connect schools to the larger initiative, thus offering some external justification for school-based efforts and reducing schools' isolation.

Factors that Inhibited

Eight factors of the project management phase of the PHL project were identified as having inhibited PHL development (see figure 4, row 3). Three of those factors, including (a) failure to revisit time lines, (b) problematic reporting practices, and (c) too many pilot sites, inhibited the program management capacity of the PHL SC. Another three factors, including (d) inadequate community networking, (e) lack of preparation for self-guidance, and (f) inadequate national project promotion, inhibited the implementation of PHL. The final two factors, including (g) inconsistent steering committee representation and (h) compromised evaluation , had implications for both the management and implementation of PHL.

Failure to revisit time lines. Failure to revisit unmet time lines compromised the ability of the PHL SC to adjust to shifting circumstances. One participant suggested,

> I think one of the things we should have done was continually assess that time line at least every two to three months, all of us together, so we can say if we are meeting it, or are we off track, are we ahead, or what needs to be done to get to this next point. (CHS representative, steering committee)

Problematic reporting practices. Bottle-neck and accountability problems identified with reporting practices compromised effective program management. First, "bottle-neck" reporting practices where information was transmitted between the various factions of the CSHE effort (i.e., schools, steering committee, evaluation team, community representatives) via the coordinator was inefficient and contributed to coordinator role strain:

> I think the fact that the organizational chart as it stands right now has the coordinator smack dab in the centre and is presented in such a way that that person has to be involved in everything, in coordinating everything, is unrealistic. I don't think you can do a good job when you have all of that. You're supposed to be up to date and communicating with

> everybody. I have difficulty getting my brain around this whole idea that some people can talk to some people but they can't talk to other people. (university representative)

This communication problem was pervasive in that two attempts to redress it (September 1992) by first, inviting the PHL SC to attend evaluation meetings and by second, inviting school administrators to report directly to the PHL SC, were unemployed.

Second, lack of clarity regarding the reporting accountability of the coordinator (i.e., she reported to the PHL SC, but as an employee of the CBE, she was required to report to them as well) compromised her functioning:

> The coordinator floats between the steering committee and it is confusing for her....I think it is difficult for a coordinator to be in this position of swinging back and forth between the university and Calgary Health Services and Calgary Board of Education. It has been hard. (CHS representative, project developer)

In redressing this problem one participant suggested, "I would have put the coordinator directly under one person....in retrospect, I think I would change the reporting relationship." (CHS representative, project developer).

Too many pilot sites. Given the exhaustive nature of the implementation process in each pilot school, the PHL SC's attempt to coordinate and manage six such operations in a three year pilot period, where the schools required on-going external direction, stretched management resources. One participant stated,

> I just find six such a huge mandate and as I think time management being something I see as very critical, I think with six it's going to be a very broad mandate....That would be the only component I would change. I really believe that three to four environments give us a very good sense of how a school site makes the transition to comprehensive school health....I'm finding six is just stretching us. (coordinator)

Inadequate community networking. Fragmentation between the various pilot schools and the respective community services with which they resided compromised the CSHE implementation process. Although the coordinator established strong linkages with the agencies represented on the steering committee (Calgary Health Services and Calgary Board of Education) and their constituents, much less was done to establish connections with community businesses and services in the local school districts. One participant explained,

> There's opportunities to increase [service representation] - to make it stronger and more integrated....We need to involve child welfare...We need to involve regional mental health. We need to involve AADAC . All of these different ends would make a difference...It is something we can definitely strengthen. (CHS representative, steering committee)

As a consequence of this lack of community mobilization, the school - community service link was limited.

Lack of preparation for self-guidance. Lack of preparation for self-guidance severely compromised the schools' ability to become self-sustaining. While the PHL SC recognized from the outset of project implementation that schools were to become more self-supportive over time, preparation toward that end was an afterthought. For example, although the PHL SC acknowledged early on that the very earliest stage of school buy-in should be more school-based (i.e., participant driven) and less coordinator intensive, they failed to explore *how* this transition might be made.

In addition to being unprepared for the practical realities of self-guidance (i.e., personnel, financial resources), schools lacked a necessary continuum of support, either through an implementation manual or through networking strategies, to aid schools in the project maintenance phase. Neither strategy was employed early enough to use in the pilot schools during the program mandate period. School networking strategies were an afterthought, considered as the project approached its termination date, whereas the manual was delayed due to the "changing of one's

collective mind" (university representative) about what it was to be and who was to be responsible for its production "mainly because the expectation again [was not] clear." (CBE representative, steering committee).

Inadequate national project promotion. Inadequate national project promotion had implications for the long-term sustainability of implementation efforts given that the project "remained a really local initiative in a lot of ways" (university representative). Although some marketing of the project occurred at the national level, it was largely the responsibility of the university evaluation team and did not become as high of a priority for other project participants:

> As far as disseminating the results or giving any sort of profile....I don't think that any of the members of the steering committee are doing that sort of thing....I think either a lot of people don't see the need for that, or they don't make it a high enough priority to spend the time it takes to make it happen. (university representative, steering committee)

Participants expressed the importance of national exposure to project credibility:

> Writing in the literature, I think, is critical...because then other educators, people across the country see what's happening and that promotes the project. And then related to that, sending people to speak about the writing in the literature. I guess giving the project credibility. (assistant principal)

Inconsistent steering committee representation. Inconsistent representation of the evaluation team on the steering committee had consequences both at the management and school implementation level. First, the university representatives' preclusion from the initial exploratory talks between the two boards, coupled by their alternating departures on sabbatical, compromised working relations at the management level. One participant explained that "the trust and relationship that you build with one is not necessarily there with [others]" and that all the participants have to "be part of the conversations" (CBE representative, project developer).

Second, the changing "status" of the evaluation team as a member of the PHL SC had implications at the level of schools: "Right from eight months into the project the evaluation team was kicked off the steering committee and the evaluation focus just got delegated to second class status." (university representative, steering committee). Although this decision was later over-turned and the evaluation team resumed representation on the PHL SC, this status change persisted at the level of schools, "transfer[ing] down to the actual way the initiatives [were] implemented":

> We end[ed] up fighting kind of an up-hill battle all of the time...I mean it is not getting evaluation as a central part, it is getting evaluation as being important enough a part that it is even addressed. (university representative, steering committee)

In redressing this problem one participants suggested, "I would certainly clarify the relationship between the evaluation team and the steering committee. We've gone back and forth for so long....Sort of, are they part of the steering committee or are they not?" (CHS representative, steering committee). Ultimately, participants suggested that, in future, it would be useful to keep steering committee representation more consistent. One participant explained, "It would have been easier if there would probably have been more stability in the steering committee...if you bring on new people, it changes the way people think, the way things are done." (CHS representative, steering committee). At the same time, however, participants recognized that the ideal is not always possible given the changing nature of agencies: "You can't guarantee that, but try to ensure as much as possible." (CHS representative, steering committee).

Compromised evaluation. Failure to perform a formative evaluation of the coordinator's performance and of the school implementation process retarded the transfer of learning from early activity cycles to later ones at both management and implementation levels. First, by failing to evaluate the coordinator's performance in the early stages of project development potentially facilitative information was lost to later management activities. Evaluation of the coordinator's role

periodically following her position's start date may have facilitated the identification of the strengths and weaknesses of her performance in order that they be maintained or modified: "We haven't done any performance appraisals, not that there is a problem, but I think that is only right to go through the appraisals so the person understands when they are on track." (CHS representative, project developer). Second, missing was a mechanism by which to systematically record the early stages of project implementation so that facilitative information would not be lost to later stages of project development. Such a formative evaluation of the project would have been particularly useful to the schools in terms of the practical measures required to get a project of this kind up-and-running in schools, and of those factors that either enhanced or hindered the process, contributing to either success or failure.

Prepare for the Unavoidable

Two factors to be contended with in the natural progression of program management were identified, including (a) shifting priorities and (b) uncertainty (see figure 4, row 4).

Shifting priorities. Changing priorities threaten the maintenance of CSHE. In the PHL project commitment to CSHE on the part of the two boards was raised as an issue in February 1993 (more than one year into project implementation at the school level). At this time the suggestion was put forth by the steering committee to review the importance of CSHE within the CBE and CHS. A CBE representative advised that within the Department of Curriculum, considering the leadership changes that occurred with fiscal cutbacks and down sizing, comprehensive school health was no longer as high a priority as it was a few years ago and had become a "forgotten item currently". Alternatively, a representative from CHS reported that comprehensive school health remained a very high priority at CHS, framing many of the new directions in program development.

Participants suggested that this varying commitment on the part of the two boards may have in part arisen from their different investments in a health focus. CHS embraces a comprehensive,

community health perspective where community health nurses regularly liaison with the schools to provide services to school-based youth:

> It wasn't really different for us in terms of comprehensive school health. As a public health nurse goes into a school, she is expected to work with the school, to understand what the needs are, to look at how she can be a team player. So I must say, for us, this wasn't a strange or new concept.... For schools it may have been a bigger leap....It was long awaited to bring schools on board with us to look at common resolution of problems. (CHS representative, steering committee).

For the CBE the CSHE concept is farther removed. One participant, offering an education perspective, explained, "Trying to make health a priority in the educational system is an on-going challenge." (CBE representative, steering committee). Participants recognized that "a school district has many priorities and many places to put their money" (CBE representative, project developer), health only being one of them.

Unpredictability. Changes in program management activities are ongoing as changes to the process itself are ongoing. A dynamic model is needed to take advantage of changing opportunities and resources and advances in knowledge regarding health promotion (DeGraw, 1994). It requires an openness to looking at and doing things differently when the process is experiencing problems. For example, funding negotiation activities, project structure, participants' roles all change as systems reorganize and as need changes. Part of this requires putting aside personal agendas to determine instead, what is in the best interest of project success and sustainability:

> You need people who are flexible, who are creative, who have a sense of vision, that they're not rigid. If you have somebody in that has to see black and white, they'll go crazy because this isn't a black and white initiative. (CHS representative, steering committee)

CHAPTER FIVE

Discussion

The purpose of this study was to explore, through archival data and standardized open-ended interviews, the developmental sequence of events in - as well as those factors that enhanced and inhibited - CSHE planning, implementation, and management in an effort to inform future efforts. An additional intention was to explore the emergence of CSHE theory and practice, or the degree to which the ascribed characteristics of CSHE are reflected in PHL's development. A summary of findings describes the various parameters of CSHE as identified in the literature, namely being holistic (Cameron et al., 1991; Kirby, 1985; Pollock & Hamburg, 1985), participant driven (Cameron et al., 1991; DeGraw, 1994), comprehensive (Cameron et al., 1991; DeGraw, 1994; Kirby, 1985), coordinated (Cogdon & Belzer, 1991; DeGraw, 1994), and collaborative (Cameron et al., 1991; DeGraw, 1994; Killip et al., 1987; Lavin, 1993; Sullivan & Bogden, 1993), and their practical implications throughout the various stages of PHL development. As well, a number of relational characteristics of the PHL initiative are described and their implications for CSHE sustainability are discussed. Further, as derived from participants' perspectives on what factors enhanced and inhibited the development, implementation, and management of the PHL project, general recommendations are outlined to offer some guidance to future potential efforts in developing CSHE programs. Finally, a description of the strengths and limitations of the current study is provided, as well as future practical and research directions for CSHE.

Summary of Findings

Parameters of CSHE Revisited

Holistic health promotion is a fundamental component of CSHE. There is a shift away from the notions that health is merely physiology and that the sole purpose of health education is to change behaviour. Instead, the emphasis is on the multidimensional nature of well-being (Pollock

& Hamburg, 1985) and CSHE as a means to prevent, initiate, or sustain behaviour as well (Carlyon & Cook, 1981). The PHL project attempted to promote a vision of health that goes beyond the mere prevention of illness and disease to include the promotion of wellness and health-enhancing choices. The challenge was met in some respects and not in others.

The PHL needs assessment instrument incorporates a holistic health view, represented by a move to a broader view of health which does not solely focus on physical health problems, but includes the social and emotional components of health as well. Further, the assessment instrument's emphasis is not only on risk-taking behaviours but on promoting well-being and positive attitudes and behaviours. From this, adolescents identified a number of proactive needs (i.e., prevention rather than remediation) (Hiebert et al., 1994b) and focused numerous action planning efforts on the development of CSHE wellness interventions, including nutrition (pilots I, II, and III), air quality (pilot II), school performance (pilot school III), stress management (pilot school III), peer support (pilot school III), and safety (pilot school IV).

Unfortunately, however, the opportunities provided for all pilot stakeholders to develop an understanding of the comprehensive holistic approach were inadequate. On-going project promotion and knowledge dissemination on the philosophy and implementation of CSHE was requested as a means to educate and inform new students and personnel filtering into the schools each year. Only in pilot schools I and II did such activity consistently occur, including a health resource fair and nutrition information bulletin at pilot school I, and a Name the Project contest, promotional posters, CSHE project logo, newsletters, daily intercom bulletins, open house displays, and a showcase photo essay at pilot school II.

Furthermore, promotion of the holistic approach at the local community level was underdeveloped. Communities need to be educated about the holistic nature of the program and realize that their different components and activities are part of a larger goal of improving overall

health, and that healthier students, parents, and teachers means healthier communities. Little effort was expended to promote CSHE developments to surrounding communities possibly given that responsibility for project promotion was not defined nor included in the project terms of reference. School participants, being the CSHE operators, have a vested interest in gaining community support for their interventions; however, at the same time, pilot schools lacked the up front human, financial, and material resources necessary to market and promote their local CSHE developments.

CSHE promotes a *grass-roots, participant driven* approach to school health where stakeholder groups are *program participants* as well as the *planners and developers* of program-related activity. As program participants, stakeholder groups' needs direct health promotion activities where the primary directive of CSHE is to empower children, as well as the communities in which they live, to alter not only their health-related behaviours but also the environments that influence them (Cameron et al., 1991). As program planners and developers, stakeholder involvement "ensures that the health education strategies developed at the school are responsive to diverse family and community values, including cultural and ethnic-specific needs....and that CSHE is not compartmentalized for the student in the school, but rather that transfer-learning takes place and that CSHE is part of the student's experience as a child in a family, growing up in a community" (National Action Plan for CSHE, 1993, p.63) The success of CSHE programming depends on support from all constituencies and a sense of community ownership (Pentz, 1986).

The needs assessment instrument provided the medium for program participant involvement first through instrument development where participants tailored the instrument to be school specific, and second through a formal needs assessment where stakeholder groups' health needs were identified and prioritized. The early involvement of participants through a needs assessment helps develop a sense of program ownership (Glanz, 1990). A finding that was common to all five schools in the project was the substantial differences existing between the

students' views of adolescent health needs and those of parents and school staff where, for the most part, the views of parents and school personnel were highly similar and the greatest differences lay between the views of students and school personnel (Hiebert et al., 1994a; Hiebert et al., 1994b). Given that CSHE has meeting the needs of students as a primary directive, this finding underscores the importance of formally assessing students' health needs and using the identified student needs to guide programming.

Involving participants as the planners and developers of CSHE was achieved in the PHL project through an interdisciplinary working structure that mobilized stakeholder groups to take responsibility for addressing the priority health needs. Functionally, this interdisciplinary structure made up of small group action-planning subcommittees, made the tasks of program planning manageable and expedient, and actioned decision-making. The mobilization of stakeholders, particularly students, was primarily a function of having done a needs assessment where the interventions were to be based on their input. Nowhere was stakeholder accountability for program planning and action shared more clearly than in pilot school II where students, parents, and school personnel consistently developed and managed action interventions.

For the project to be fully participant driven, participants need to be involved throughout all stages of program development, implementation, and evaluation. The participant driven philosophy of CSHE was compromised in the PHL project given that the evaluation component of the project was never fully owned by the school based participants. For most of the pilot schools, the evaluation tasks of data collection and analysis were performed by the university, whereas for those pilot schools that were to be self-guided, the data analysis was performed by the school board. Program specific evaluation was not embraced by any of the pilots. Clearer university role definition, enhancement of practical education for self-guided evaluation, and employment of less stringent evaluation measures may have prevented the evaluation component from becoming the

charge of external researchers and a secondary adjunct to the implementation process rather than intrinsic to it.

The participant driven philosophy was further compromised given that, while both teachers and parents were involved in the planning and implementation of health interventions targeted toward adolescents, much less was done with respect to health education programs targeting the parents and teachers themselves. Parents and teachers are the primary role models expected to demonstrate healthy lifestyle choices to youth. Researchers rank parent involvement high among the components of effective schools (Epstein, 1987). In general, parent programs are designed to strengthen families and to help them overcome problems (Kirby, 1990). "Teachers, like students, need continued opportunities for learning and skill development" (English, 1994, p.190). Staff development opportunities are needed to increase teachers' awareness of school health issues, increase valuation of the components of CSHE, and improve their abilities to role model healthy attitudes and behaviour for students (Davis & Allensworth, 1994). In addition, wellness education programs directed at staff reduce absenteeism, reduce health care insurance costs, and save school districts money in a variety of indirect ways (e.g., fewer substitutes needed) (DeFriese et al., 1990). In the PHL project less was done with respect to parents' and teachers' identified health needs in favour of upholding a truly adolescent centred approach.

CSHE attempts to address any given health education need in a *comprehensive* manner, coordinating school health instruction, school health services, and a healthful environment in order to attain complementary and synergistic effects (Kolbe, 1986). The PHL initiative coordinated adherence to the three components of CSHE such that the implemented interventions at each pilot school included varying degrees of instructional, service, and environmental changes. However, consistent priority was given to school environmental health through needs prioritizing and action initiatives in this project, where both the services and instructional components were not as fully

developed. The basic foundation of CSHE is a comprehensive kindergarten to grade 12 mandated health curriculum, which emphasizes the social skills needed to facilitate positive health behaviours and to avoid risk-taking behaviour (Kirby, 1990). While some instructional changes occurred in the health curricula, the academic curricula remained undisturbed. Furthermore, classroom presentations from community representatives, field trips to community agencies, and peer and parent involvement in instruction (Kirby, 1990) were deficient. Regarding the services component, beyond the role of the public health nurse, there was only transient, as opposed to long-standing, service provision within the schools by community agencies.

The priority given environmental health supports findings that school environments often contradict the goals of health instruction (Mutter et al., 1990), and that it is hard to encourage a healthy lifestyle when a person perceives the physical environment as unhealthy. Two alternative, but not exclusive, explanations arise to explain the underdevelopment of the services and instructional components of the CSHE triangle. On the one hand, both services and instruction developments are dependent on agency networking and community profiling which were inadequate in the PHL project. Community service providers need to be educated about CSHE in order to coordinate their programs with school priorities and goals. The assimilation of school instructional changes into the larger academic curricula would require the solicitation of trained community specialists (Resnicow, Cherry, & Cross, 1993). On the other hand, it is possible that, given the hierarchy of needs where students found environmental needs to be more immediate, the underdevelopment of the services and instructional components in the PHL project was time limited. With continued project development later efforts to employ service and instructional changes, with concomitant attention to service networking and instructional training issues, might have developed.

CSHE espouses a *collaborative, inter-disciplinary* approach to health education where health education is effectively shared among school staff, students, parents, and community agencies. The potential derived from such an approach to comprehensive school health programming includes: recognizing the interrelationships among health behaviours; delivering messages applicable to multiple risk-taking behaviours; reinforcing health enhancing behaviours in students by providing consistent messages through multiple channels; promoting cooperative relations among community health and service agencies dealing with related issues; and finally, closing existing gaps in programs and services (cf. Kirby, 1990). The PHL project suggests that interdisciplinary coordination and collaboration are two separate constructs that can exist together or in isolation.

Interdisciplinary coordination existed at the structural level in the PHL project. First, the steering committee provided a working structure that sanctioned the collective responsibility and integrative efforts of community representatives in working to improve the health status of youth. It also created a context for a systems change where schools were connected to one another through a larger community initiative. Inadequate community contacts at the interagency level, as demonstrated in the PHL project, jeopardizes community coordination and mobilization. Greater community representation on the interdisciplinary council allows for greater coordination of community services in addressing adolescent health. Kirby (1990) suggests that the development of a child and youth health council be comprised of representatives from the schools (administrators, teachers, and students), public health agencies, law enforcement agencies, youth-serving agencies, the business community, churches, parents, and other groups involved with youth.

Second, an interdisciplinary working structure at the school level (i.e., the school implementation committee) was also characterized by a melding of interest groups, including grass roots, administrative, and community service representation. Students and school staff provide a

school perspective, parents a home and community perspective, and the public health nurse a community service perspective. Student involvement is critical to the sustainability and accountability of CSHE programs given the consistent findings that adolescents' and adults' perceptions of adolescent needs are discrepant (Bartlett, 1981; CMHA, 1989; Hiebert, Collins, & Cairns, 1994a, 1994b; Isralowitz & Singer, 1982; Menanteau-Horta, 1986), that students are more likely to look to their peers for advice (Allensworth, 1993), and that change is more likely to occur if someone similar to them recommends the change (Allensworth, 1993). Young people contribute a valuable perspective as consumers of, and advocates for CSHE (National Action Plan for CSHE, 1993). Research also documents the value of involving parents in school health programming (see Allensworth, 1993; 1994 for review). Parents are a primary source of health knowledge and can be solicited as instructional and support persons and decision-makers in schools, while simultaneously acting as positive reinforcers and role-models of healthy living in the home environment (Allensworth, 1993). The family as a whole unit serves to link school, home, and the community (National Action Plan for CSHE, 1993). Involving teachers in CSHE programming is crucial given their function as health role models for students and parents (DeFriese et al., 1990) and given their role in delivering CSHE and facilitating the involvement of other health and education providers (National Action Plan for CSHE, 1993). Finally, the public health nurse serves as an important link between the school and community health programs and services. Where many other service providers do not regularly liaison with schools, the public health nurse can establish relationships with staff and students, serving an invested coordinating function. Linking with the expertise of community health providers is necessary given the complexity of issues facing the school-age population (Mutter et al., 1990), which adversely affect their academic performance (Kirby, 1990).

Third, the project coordinator facilitated the coordination of school stakeholder groups and communities by serving an important networking function. Student health needs were connected

with appropriate community resources to illustrate a shared prevention oriented approach. Various voluntary community organizations had a role to play in creating a healthy environment within the schools. The community "provides a supportive environment and serves as a crucial link between health and education as well as a resource in planning and program delivery" (National Action Plan for CSHE, 1993).

Unfortunately, however, the linkages between the school and community were typified by one-way exchanges where schools utilized the services provided in the community in coordinating their interventions, but relevant health services and community resources were deficient in coordinating their programs with school priorities and goals. Consequently, the formal, highly structured, long-term, proactive initiatives were lacking (Killip et al., 1987) resulting from multidimensional exchanges between school and community, where both adapt to the needs of the students.

The lack of community coordination in the PHL project speaks to the importance of both community networking and profiling. Since the steering committee was under-represented, community agency in-servicing activities were deficient , and internal communication practices were closed, unilateral, and bottle-necked, community networking did not reach its full potential. Similarly, project promotion activities were inadequate. Project developments were not promoted to the surrounding communities in which the pilot schools resided, and consequently communities were not educated about local CSHE initiatives and were unable to coordinate the provision of their services with the needs and goals of the schools. CSHE initiatives remained somewhat narrow and insular and were not embraced by the larger community. Schools alone cannot be sufficiently effective in improving the health and well-being of youth; their efforts must be reinforced by the broader community (Kirby, 1990). In a time of limited resources schools benefit from community resources. Requests for financial compensation by PHL pilot schools spoke to the constraints on

school-based resources and funding for project materials, a problem common to many school jurisdictions attempting to implement CSHE programs (CASH, 1991). The community must have access to the health needs and priorities of its youth in order to develop integrative and coordinated programs to meet those needs (Kirby, 1990).

Where interdisciplinary coordination exists on a structural plain, *collaboration* exists on a relational plain. Interdisciplinary working structures do not guarantee collaborative working relationships. At the steering committee level, as demonstrated by the collaborative working relationship that developed between the two boards, CBE and CHS, collaboration is contingent upon building interagency understanding, personalizing working relationships, and building consensus about roles and goals. The PHL project also demonstrates the antithesis of this where interagency misunderstanding, impersonal working relationships, and unclarified roles and goals between the two boards and the university hindered collaborative working relations. The example set by the latter speaks to the importance of educating new players coming on board about agency differences, roles, and responsibilities as well as clarifying values, goals, and objectives and documenting them in a terms of reference. The key ingredients of a collaborative interdisciplinary alliance at the school level include local ownership where participants are educated and involved; shared perspectives and shared leadership; consensus-building; and flexible, informal, and voluntary group dynamics.

Sustainability

A number of characteristics were implicated in the sustainability of CSHE, including local ownership, higher political support, education, participant involvement, and project promotion. Sustainability of CSHE was related to a critical interplay of local ownership and higher political support where local ownership required participant education and involvement. Local ownership and higher political support were both, in turn, related to project promotion.

Local ownership played an important role in the maintenance of PHL because local stakeholder groups acted as the owners and operators of the initiative. Higher political will at both national and agency levels provided the foundation for the local efforts. As Lavin (1993) has noted, without mandates it is easy to dismiss health education as unimportant, or at least expendable when cost-cutting reaches the bone (Lavin, 1993).

Local ownership was related to participant education and involvement. In the PHL project certain aspects of participant involvement and education were compromised. Specifically, school based stakeholders were generally not involved in the data collection, analysis, or program specific evaluation components of project implementation, thus not owning the entire process. As well, concerns were raised about the inadequacy of preliminary practical education which served to threaten participant buy-in. Both shortcomings jeopardized the self-sufficiency of schools and thus, the sustainability of CSHE developments in the absence of an external coordinator: Schools were not self-guided with respect to evaluation, and the lack of practical resources (i.e., implementation manual) and networking strategies (i.e., network meetings) hindered the translation of learning from one school to the next.

Higher political support and local ownership are each intimately linked with the profile that CSHE gains, implicating also project promotion activities in the sustainability of CSHE. External project promotion gives exposure and credibility to local efforts as a means of gaining support. Internal project promotion provides on-going education to fluid school systems, including on-going feed-back about project developments, necessary to reinforce participants' sense of efficacy in addressing health concerns and encourage on-going commitment and participation (Davis et al., 1985).

Recommendations

Provided is a summary of recommended developmental steps to guide future CSHE initiatives at the local level (see figure 7), derived from the identified strengths and weaknesses of the PHL project. A more complete description of each developmental step follows. The recommended developmental steps follow the assumption that future efforts will begin at an interdisciplinary community agency level rather than as a purely grass-roots effort at the level of individual schools. Further, the researcher recognizes that differences exist across time, place, character, and situation and that the following developmental guideline requires individual tailoring to such differences.

Figure 7
Summary of Recommendations

Historical Preparation	1. Consensus building • Educate and collaborate • Establish commitment/roles • Support from governing bodies • Mission statement 2. Establish an interdisciplinary steering committee • School/community agency representation • Direct school perspective • Terms of reference • Media of communication 3. Evaluation negotiation • Define purpose • Determine agents and process 4. Funding negotiation 5. Hire coordinator/marketing personnel • Job description • Roles and responsibilities

Figure 7 Continued (Summary of Recommendations)

Implementation Guidelines	1. Educate start-up schools • Philosophy • Practical • Resource tools • Pre- and in-service training 2. Develop school implementation committee • Composition and size • Leader • Parameters and procedures 3. Assess need • School health profile • Stakeholder participation • Language/cultural diversity • Prepare and administer • Analyze data • Reassess needs 4. Program planning • Prioritize needs • Form working groups • Plan for action 5. Action 6. Evaluate programs 7. Disseminate CSHE developments
Program Management Guidelines	1. Initiate a formative process evaluation 2. Delineate responsibilities at school level 3. Network • School-school • School-community 4. Profile project • Community awareness • National awareness 5. Revisit structure and function

Historical Preparation (see figure 7, row 1)

Step 1: Consensus-building. Community interest groups initiate cooperative exploratory dialogues to identify levels of commitment and resources in pursuing CSHE programming in local schools.

a) Educate and collaborate. These activities are the building blocks of the entire initiative, laying the foundation for a truly cooperative and committed endeavour. Education and public health speak two different languages, read different sorts of literature, and consort with different professions and disciplines (Lavin, 1993). Educating the different groups is necessary because the potential for local adoption of CSHE initiatives must be derived from local understanding of and commitment to shared goals and objectives (DeFriese et al., 1990). Because collaborative investigation can threaten existing balances of authority and resources and consequently polarize actors who have diverse interests, it is necessary that client systems have consensus about goals and values, thus making collaborative problem definition, data collection and analysis, and research utilization feasible (Brown & Tandon, 1983, pp. 285-291). Collaboration is necessary to CSHE because of the number and variety of functions and activities that comprise it, and the many individuals who are accountable to these component parts. As suggested by CASH (Exchange `90),

> Collaboration has become a buzz-word in many circles but the implications of the concept are not always well understood or acted upon....self-interest, organizational priorities and other issues will have to be addressed openly and honestly by coalitions. We need to be able to recognize the warning signs in the collaborative process. (p. 7)

The challenge in CSHE is to fully understand the benefits, risks and investments required to collaborate effectively in promoting CSHE programs (CASH, Exchange `90). A clear investment is the time and ground work (i.e., education, forging contacts, scheduling meetings) necessary in establishing working relationships and sorting out agency politics; risks include hidden agendas, misunderstood intentions, and misguided expectations; the benefits include broadened perspectives and shared resources and expertise.

b) Establish commitment/roles. The commitment of interest groups are determined. Professionals in a broad range of disciplines often are expected to collaborate on matters of school

health, but with little common understanding of their respective roles and responsibilities (Lavin, 1993, p.26). Roles, responsibilities, and parameters of involvement for each are defined and documented.

c) Obtain support from governing bodies. Gaining the support and commitment of higher political will is a critical step in the developmental process. In practice, society lacks administrative support and a clear responsibility for teaching health (Lavin, 1993, p.26). With the support of higher political will CSHE programming gains credibility and schools gain increased political, material, and financial support. The interest group makes their formal appeal only after thorough preparation. The selling job is backed by a soundly researched idea (McKenzie, 1988), including the rationale, goals/objectives, strategic plan, and proposed outcomes. Educating the governing bodies about the philosophy and purpose of CSHE provides a strong partnership for defending the program if necessary (Davis & Allensworth, 1994, p.402).

d) Develop a mission statement, strategic plan, and operational focus. (CASH, 1991). A mission statement is deliberated, proposed, and adopted regarding the project's purpose/objective. Program developers need a vision of the power and potential of comprehensive school health education (Davis & Allensworth, 1994). It is regularly revisited to ensure that project participants are sharing a like-vision and are goal-directed in their activities. A plan is established for the development and implementation of a CSHE initiative. The operational parameters of the plan are defined (i.e., target group, duration, etc.). The plan and its parameters are similarly revisited.

Step 2: Establish an interdisciplinary steering committee. An interagency committee is formed that is charged with the responsibility of overseeing program development.

a) Include school and community agency representatives. The critical groups to include are health, educational, social, judicial, and recreational agencies (Kirby, 1990; Killip et al., 1987). As indicated by Davis and Allensworth (1994), "Establishing a school health coordinating

committee with community representation permits the community to share program ownership and create a cadre of school health advocates" (p.402). Schools, communities, and students benefit from such an integrated network of youth-serving agencies: Schools gain increased financial support through combined resources, facilitating the attainment of educational goals; community agencies receive increased visibility, saved time and money through reduced service duplication, and more efficient and effective use of existing resources; students benefit as their identified health needs are raised to priority status by educational and community health leaders (Killip et al., 1987).

b) Incorporate a direct school perspective. Bringing in a direct school perspective at the steering committee level keeps "higher-ups" grounded in the reality of schools. A knowledge of schools must be retained throughout every stage of program planning and development: If the designed initiative is incompatible with the school context - namely, it does not take into account limited resources and overloaded and understaffed curriculum - it will merely frustrate participants and lose credibility as a viable and workable alternative.

c) Develop clear, documented terms of reference. Hidden or unarticulated agendas and expectations retard the process and impede the collaborative philosophy underlying CSHE. Expectations regarding participant roles and responsibilities, therefore, are clearly documented and *regularly reviewed*, being updated when necessary. Particularly, there must be clear communication regarding the logistics of program evaluation. Ultimately, evaluation is to be a natural part of the whole process of program development and not merely an add on. Consultants and participants need to reach a clear consensus as to *how* evaluation will be built into the process and owned by the participants (evaluation negotiation to be addressed in more detail following).

d) Develop media of communication. Communication strategies and practices are documented and compiled for reference.

(i) Internal reporting strategies (i.e., progress reports, initiative updates) are consistent. They feedback information to participants, keep individuals informed and interested, and sustain participation.

(ii) External reporting strategies (i.e., initiative development documents, evaluation process documents, professional publications, community speaking presentations) are copyrighted, safe-guarded, and treated confidentially. External recognition of project success gives participants a sense of pride and accomplishment which fosters continuance (Bensley, 1991).

(iii) The internal system of communication is open and multilateral. Reporting practice between essential audiences represents an open-decision making structure allowing for democratic participation (Floyd & Lawson, 1992). The nature of the linkage is multidirectional as information, services, and resources are provided or exchanged among the multiple participants (Killip et al., 1987)

Step 3: Evaluation negotiation. The purpose, agent, and process of program evaluation must be clearly demarcated.

a) Define the purpose. The purpose of program evaluation is to measure the effects of CSHE. Included is needs assessment, impact evaluation, program specific evaluation, and formative process evaluation.

b) Determine the agent(s) and process of evaluation. The agents of evaluation are external research consultants and school participants. The process of evaluation follows the principles of participatory action research where client participation in the control of the entire process is required. Participants are actively involved in all stages of the research cycle, including planning, action, evaluation, and re-education about the results of the action. Thus, participants are considered researchers who collaborate with external research consultants to design the evaluation

procedures. If CSHE planning and development is initiated at the school level than school participants will benefit by enlisting an external research consultant in the development and implementation of an evaluation plan. There is potential danger in developing the evaluation process in the absence of a research perspective. Pentz (1986) pointed out that reliance on the lay community could reduce the potential for adopting theory-based programming, standardized program delivery, and long term maintenance. If CSHE planning is initiated at the community level, as in the PHL project, where evaluation planning is to precede school implementation, than it is necessary to incorporate a direct school perspective (school administration, teachers, students) in the initial evaluation planning and instrument development. A direct school perspective establishes the criteria for a workable evaluation instrument and process, where research standards found to be incompatible with the real world of schools can be identified.

Step 4: Funding negotiation. The first step in funding negotiation is determining with whom funding responsibility lies. The second step is determining need. As CSHE is not in place in many communities there will likely be some up-front costs associated with planning and program start-up (National Action Plan for Comprehensive School Health Education, 1993). Establishing need requires first establishing projected costs of program start-up and maintenance, second assessing existing resources (human, material, financial), and third calculating the shortfall. If existing resources are inadequate, mobilize support for expanding resources (Floyd & Lawson, 1992). Financial resources for school health education generally have been meagre, and categorical approaches preponderate (Lavin, 1993, p. 26). Given that data is not yet available to substantiate the long-term cost-effectiveness of CSHE (Lavin, 1993), it is difficult to justify expenditure in times of limited resources and downsizing. Health education must compete against the basic academic disciplines for school time and resources.

In exploring financial resources, an individual or small working group of individuals will need to identify potential federal, state, and local funding streams, each with its own restrictions and proposal requirements; commit time to draft and present relevant proposals; and may even have to issue recommendations to federal, state, and local officials about methods of financing CSHE programs. Alternative plans must be developed should funding requests be denied. Once funding has been secured, funding parameters must be defined in the early planning and start-up phases of project development. The division and allocation of moneys, the purpose for which moneys are to be used, and the time frame to which the conditions apply must be clearly demarcated. Effective programs continuously *reassess* resources needed to maintain a comprehensive program (Davis & Allensworth, 1994).

Step 5: Hire coordinating/marketing personnel. Required is personnel to coordinate at the school level the health promotion efforts already being made by others on children's behalf (Belzer, 1991), and to market the developments of CSHE at the local and national levels. In the early implementation phase of CSHE a coordinator is needed to coordinate those responsible for school health education, those directing school health services, and those charged with providing children with healthful school, home, and community environments, in order to facilitate the adoption of a comprehensive coordinated approach to health education. In other words, the coordinator is instrumental in coordinating the school and community (Kirby, 1990). Equally, in this phase, a marketing and promotions person(s) is (are) needed to develop a communication strategy that delivers persuasive messages to the public about the importance of CSHE in order to generate the support and interest that is needed for its widespread implementation. Given the sizeable domain of these separate responsibilities (coordinating school implementation and marketing) more than one leader is needed to effectively carry them out.

a) Develop and post job descriptions. For the position of coordinator preference is to be given to someone who has both a health and education background. The candidate should embrace collaborative and symmetrical ways of interacting. The marketing and promotions person(s) should be a leader who is an effective communicator and credible to both the education and health community: Such a leader must convince the education community that schools are the appropriate site for health education, and the public health community that school education is a critical component of health campaigns to prevent health risk behaviour and disease (National Action Plan for CSHE, 1993, p.52).

b) Define roles and responsibilities. The responsibilities of the coordinator and marketing person and how they transition are delineated. The coordinator "helps others in the school and community understand how their complementary roles can produce an additive effect on student outcomes" and develops and operationalizes "mechanisms needed to coordinate and integrate the multiple components of the [health system]" (DeGraw, 1994, p.194). The coordinator performs an initial up front resource role, modelling the coordinated implementation process at the school level, and later transitions to a facilitative/ consultative role as schools develop more independence, experience, and self-guided skills and tools. The marketing person(s) role is to identify individuals, organizations, and/or institutions who might have an interest in CSHE and secure their active participation in awareness campaigns, thus facilitating the local adoption of CSHE promotion efforts (National Action Plan for CSHE, 1993, p.53). Similarly, this transition of responsibility for marketing from external consultants to local stakeholder is defined.

Implementation Guidelines (see figure 7, row 2)

Step 1: Educate start-up schools. Schools must come to know, understand, and accept the concept and value of CSHE. This requires philosophical and practical education as well as direct support resourcing and in-service training. Preliminary school education is the responsibility of the

coordinator. The responsibility of local stakeholder groups to provide on-going education is one component of the preliminary education message delivered by the coordinator.

a) Educate about the philosophy. In an effort to secure participant buy-in it is necessary to educate the whole school prior to CSHE implementation. Oetter (1987) argues that one key to ensuring the development of CSHE is the adoption of a pro-active stance where school participants have clear expectations, understanding, and direction with respect to what constitutes a CSHE program. Participants need to understand the framework and philosophy of CSHE and *how* that framework can be incorporated into a particular school in order to be invested in the project. People will not support what they do not know about or understand, and opinions, once formed, are difficult to change. Educating people on the vision will boost participant understanding from the outset and will avoid the difficulties of having to change misconstrued perceptions. Furthermore, given the fluid nature of school systems, with changing students and school personnel, philosophical education must be on-going. Both "word of mouth" and marketing and promotional strategies are offered as potential means by which to disseminate information on CSHE.

b) Educate about the practical aspects of implementation. The implications for action must be made clear to the target groups (Floyd & Lawson, 1992), including both the opportunities and challenges to implementing CSHE (National Action Plan for CSHE, 1993). Having pertinent and reliable information not only saves time in developing and implementing a program initiative, but it contributes to the quality of the program developed (National Action Plan for Comprehensive School Health Education, 1993, p.65)

(i) Initial add-on is incurred with project implementation. Add-on takes the form of increased demands on human resources and time resulting from the advent of organizational planning meetings, needs assessment and analysis, and community networking efforts. Schools, like other service providing institutions, are interested in the

clearest possible definition of their mission and guard against forces seeking to expand the scope of services and expected outcomes beyond their capacity to deliver. It is understandable, thus, to anticipate some resistance to an expanded set of expectations regarding educating students in the area of health or in providing direct health services (DeFriese et al., 1990). Schools need to be educated about the limits to their responsibility for the health of youth and about the role of community health professionals toward that end, but that CSHE development will indeed entail initial programmatic add-on for schools.

(ii) Change through CSHE implementation is a long process. Kolbe (1985) explains that while health education on its own can improve health knowledge, attitudes, and skills, it does little to improve health behaviours. Only the implementation of a comprehensive reinforcing approach to health education, that is given *sufficient time* for it to have its intended impact, will improve health behaviours. Indeed, Connell, Turner, and Mason (1985), found that exposure to CSHE produces positive gains in knowledge, attitudes and behaviours, and that *repeated exposure* leads to greater gains. This takes time.

(iii) Time and fiscal constraints can frustrate efforts. "CSH programs face two specific problems; competition for time within the core curriculum and difficulty in providing health and social services to youth in a fiscally limited environment" (CASH, Exchange `90). Oetter (1987) similarly makes the argument that concerns regarding the large amount of time required to address the complete range of health needs in an already overcrowded curriculum become a deterrent to committing to such an endeavour. In contemplating CSHE school persons need to understand the time, staffing, and financial commitment to health promotion that is required.

c) Provide resource tools. Direct support at the school level is facilitated through the provision of information resources. Resource tools (including for example, current CSHE research

results, an introductory information package, an implementation manual, or an inventory of CSHE resources) provides schools with concrete, practical information and direction in developing CSHE in the schools. An implementation manual is a resource tool that can provide valuable information to schools regarding the specifics of program implementation at every stage of planning (i.e., from contemplation to evaluation and follow-up). Recommended is the in-service training of those who will implement activities (Belzer, 1991). In-servicing is so important during the very early stages of project start up when participant investment is still uncertain and concern and doubt are most imminent: The written word is no substitute for human discourse. The project coordinator or an alternate is to be made available to explain, to field questions, and to offer support and encouragement.

d) Provide pre-service and inservice training programs for school faculty that prepare them to be skilled providers of CSHE. As suggested by the National Action Plan for Comprehensive School Health Education (1993, p.55) teacher preparation programs should include an overview of the current health problems facing youth, current resources, concepts of collaboration and referral, the relationships across disciplines (i.e., integrating health into language, arts, music, mathematics, and science), and health lessons. Health education should be linked closely to the health issues facing the school and community and provide accurate and up-to-date information. Continuing professional development of faculty should be encouraged and supported (National Action Plan for CSHE, 1993).

Step 2: Develop a school implementation committee. The implementation committee is an important part of the school decision making / governance structure. It is a committee to action decisions and provide grass roots coordination of the stakeholder groups in the school. Encourage active participation, shared perspectives, consensus-building, and shared leadership.

a) Determine committee composition and size. Important consideration should be given to committee composition. Participants are to include a cross-section of stakeholder group representatives. The committee serves as an important link between staff, parents, and students and creates a vehicle through which students have a voice, particularly important given the consistent finding that students' needs and adult perceptions of students' needs are different. The diversity of the school implementation committee must include also administrative representation. Where administrative commitment is strong, stakeholders' perception of CSHE's worth and potential impact is strengthened, and barriers to implementation are more easily overcome (Pollock & Hamburg, 1985). Students gain a strong sense of empowerment when their identified needs and program planning efforts are backed by school administration. In determining committee size, it should be large enough to represent all the stakeholder groups but small enough to facilitate decision-making and consensus-building.

b) Select an appropriate leader. The process of selecting a chairperson is determined by the school implementation committee stakeholder participants. The qualities deemed appropriate of such a leader are collectively defined. Consideration should be given to the person's knowledge about CSHE, organization, enthusiasm, creativity, collaborative leadership style, and management skills. Effective communication skills (both speaking and writing) set the stage for performing tasks prerequisite to achieving the potential of the comprehensive school health program" (Davis & Allensworth, 1994, p.401). The chairperson serves as a role model, participating with others in working toward project goals, thus encouraging adherence (Bensley, 1991).

c) Define committee parameters and operating procedures. Establish the apportionment of financial, human (i.e., clerical), and material resources (i.e., space, equipment). Determine the authority of the school implementation committee to action decisions, and the chain of command for program approval. Operating procedures answer such questions as: How often does the

committee meet?; How many subcommittee work teams are needed for a given health issue?; Who is responsible and what is the procedure for soliciting community participation? (Davis & Allensworth, 1994, p.403).

Step 3: Assess need. Assessment of health needs for the school population represents a critical and necessary task (Davis & Allensworth, 1994): "Health education programs, health services, and environmental changes to promote health should be defined by students needs, not by administrative convenience, tradition, or pressure from professional and other interest groups" (DeGraw, 1994, p.194). A local needs assessment can draw on existing objective data sources such as public health, social service utilization, and educational outcome statistics, and employ surveys and other instruments to specifically document the needs of the population being served (DeGraw, 1994). The development of a workable needs assessment instrument as a means to surveying stakeholder needs is recommended.

a) Develop a school health profile. Determine those components of CSHE that are already in place.

b) Secure stakeholder participation. Stakeholder groups are involved in instrument *development*. If instrument development is to be school-based, than school representatives enlist the assistance of an external research consultant. If instrument development precedes school implementation, it is done so on the directive of a committee of school representatives (students, parents, and school personnel), followed by school-specific tailoring of the developed instrument to fit the health profile of each pilot school. In ensuring stakeholder participation, it is particularly important to encourage student involvement. Schools systems are hierarchial, and both students and school personnel are used to relating within that framework. Given that CSHE is a bottom-up, student-centred approach, new ways of relating need to be forged. In both instrument development

and tailoring, student perspectives are to be queried. Every dialogue or debate, question, and resolution must include student perspectives.

c) Make provisions for language and cultural diversity. Health education must address the increasing cultural diversity of students. Assessment instruments need to reflect the cultural diversity of the school population, and language alternatives must be provided, either through the provision of translated instruments, or translation services in completing instruments. CSHE objectives, curriculum development, and programs should be cognizant of the cultural norms in the community, sensitive to diverse back-grounds, and accountable to the special health and education needs of the school and community population (Davis & Allensworth, 1994; DeGraw, 1994). The necessary time, human, financial, and material resources need to be deliberated.

d) Prepare and administer. Allocate time, form working groups, prepare materials (i.e., duplicate surveys and provide identification numbers, envelopes, pencils, etc.), develop instruction sheets, and package assessment tools. Determine the population to be surveyed, establish survey time, inform school personnel, enlist personnel for survey distribution and collection.

e) Analyze data. Identify person(s) responsible for data entry and analysis. Determine reporting format. Establish time lines for reporting.

f) Reassess needs. Continuous needs assessment may provide more real-life relevance or ecological validity (Pentz, 1986) given that reality is dynamic and therefore that any statement of needs is in fact tentative and in need of repeated assessment (Kaufman, 1972). Address original needs and program plans, however, before addressing the large quantity of new data. Determine frequency of reassessment at the school level according to needs addressed.

Step 4: Program planning.

a) Prioritize needs. Establish a method for identifying the highest priority needs on which to begin action planning. The highest priority needs of each stakeholder group (i.e., students,

parents, and school personnel) are identified. Choose a manageable number of needs (i.e., 2-4 needs) on which to begin action planning.

b) Form working groups. Form working sub-committees to action each prioritized health need. Participation should be voluntary and based on participant interest.

c) Plan for action.

(i) Concretely define the needs to be actioned. Go back to the original source of the identified need to determine its operational focus.

(ii) Set action objectives and determine action strategies. Goals, strategies, and time lines are established. Timelines are important to keep "on track" in the pursuit of program goals and objectives (Davis & Allensworth, 1994).

(iii) Determine who in the school / community is accountable for effecting the actions, always with a mind to developing a coordinated approach that provides multiple, reinforcing messages from a variety of sources.

(iv) Build evaluation measures into the action to allow stakeholder groups to monitor the success of health interventions. Assessing program impact demonstrates program effectiveness and accountability (Davis & Allensworth, 1994).

(v) Determine which stakeholder participants can initiate the action steps, thereby reinforcing stakeholder groups' sense of efficacy in addressing health concerns, and encouraging their on-going commitment and participation in CSHE.

Step 5: Action.

Focus comprehensive implementation efforts on selected needs. In order to develop program initiatives that are truly comprehensive from the standpoint of integrating instruction, services, and environment, it is necessary that participants concentrate on and commit to any given need at any one time. A secondary benefit to focusing intense change in a few areas is the strong

"kick-off" message it sends to school participants. Integrate health instruction, services, and environment in addressing any given priority health need. To create lasting change, synergistic and reinforcing health messages must come from *multiple*, complementary sources.

Step 6: Evaluate the programs. It is important to track programs already in place and programs that are being enhanced through the school implementation committees' involvement. Pre and post measures should be recorded of implemented interventions to determine their impact. Program specific evaluation outcomes not only motivate on-going participant commitment and enthusiasm, but increase community support for school based CSHE efforts. "To remain viable over time, the school health system must be accountable to taxpayers and other funders, to administrators whose support is necessary to sustain the program, to school boards, to parents, and to the community at large" (DeGraw, 1994, p.194)

Step 7: Disseminate CSHE developments. Information regarding the progress of CSHE is fed back to school stakeholder groups. This feedback loop is necessary to accessibility and sustainability. First, building awareness of the components and resources available to users of the system throughout the school and community ensures accessibility. Second, according to Davis and Allensworth (1994),

> Programs often do not survive the decline of enthusiasm after the "honeymoon" period or the decline of external funding....Sustainability can occur by identifying program strengths and sharing credit for those aspects of the program. Providing opportunities for [participants] to share pride and ownership gives them a personal stake in sustaining the program. (p.403)

Part of this feedback loop can include direct recognition and reward to participants for their involvement and commitment. Bensley (1991) provides an outline of various incentives for

sustaining participation in school site wellness programs. Incentives can provide a powerful source of motivation and stimulate participation (Chapman, 1987).

Program Management Guidelines (see figure 7, row 3)

Program management activities provide a focusing or integrating component to CSHE, which "ensure that independent elements of the school health program become influential partners" (Davis & Allensworth, 1994, p.400). The level at which program management activities are to occur (i.e., the agency or school level) will need to be established by the stakeholders.

Step 1: Initiate a formative process evaluation. Generate information to refine and improve the program on an on-going basis from an early stage. Build evaluation and learning into the change process. As the capacity for self-study develops, the process itself changes (Chisholm & Elden). Formative evaluation activities include: conducting exploratory research (i.e., needs assessments), pretesting program materials, piloting interventions, soliciting feedback from program participants, assessing initial program effects, and refining the program model, objectives, and strategies (Dehar et al., 1993). Coordinator evaluation is to be part of the overall formative evaluation system, where on-going evaluation input helps to improve coordinator functioning from the early stages of program development.

Step 2: Delineate responsibilities at the school level. The role(s) of the steering committee in the school implementation process are clearly delineated. Early pilot schools, being the forerunners of school implementation, will require more direction and assistance than their later counterparts. Each pilot school is educated about steering committee start-up roles (i.e., philosophical and practical education, self-management tools). They are told about any provisions to be made for material, financial and personnel costs. They anticipate any assistance with data collection, analysis, or program evaluation. Expectations for self-guidance are clearly articulated.

Step 3: Network. Inter-agency networking occurs at the school and community levels. During project start-up inter-agency networking is the responsibility of the coordinator. As networks are established they become self-sustaining.

a) Develop school-school network systems. Schools can benefit from sharing information and pooling resources. Inter-school communication developments include network committee meetings, attended by representatives from participating schools, as well as newsletters. Information sharing ensures the efficiency and continuity of participant efforts between schools, continuing the legacy of how CSHE is developed and implemented, and provides new schools with a strong support network and information source.

b) Establish school-community network systems. Extensive networking between schools and community resources mobilizes and improves student access, maximizes existing resources, and avoids duplication of services. Oetter (1987) suggests that networking agencies and groups with a wide sphere of influence can go a long way in mobilizing communities. Several studies suggest that long-term behavioural effects can be achieved when school health programs are combined with community-wide health education efforts (cf. Resnicow et al., 1993).

Step 4: Profile project. CSHE is promoted at the community and national levels to increase public and political awareness and support. In the initial start-up phase of project development profiling will fall within the domain of the marketing person, later to become the coordinated responsibility of school and community participants as they are recruited to support and/or undertake CSHE promotion activities.

a) Promote community awareness of local CSHE developments. Few people outside of those in the health and education professions are aware of CSHE and its value for communities. Community awareness of CSHE is critical on three counts: First, schools alone cannot dramatically succeed in improving the health and well-being of students, especially when the community

environment promotes risk-taking behaviour (Kirby, 1990). Schools and communities need to promote consistent health messages. Second, schools are generally thought to be in the public domain, and therefore cannot play a role in health education unless societal values encourage such a role (DeFriese et al., 1990). The public needs to gain understanding, acceptance, and ownership of CSHE. Only with broad-based community support can CSHE ever achieve institutionalization (National Action Plan for CSHE, 1993). Third, community health institutions can benefit from schools' unique position of providing a captive audience for most youth by extending their health programs and services within that realm (Kirby, 1990). This in turn allows schools to focus on their primary mandate which is teaching. Messages about CSHE should be targeted to the general public as well as to influential groups and organizations, including families, leaders in education, government leaders, business leaders, health professionals, religious and civic leaders, social service professionals, criminal justice system leaders, sports and entertainment figures, community-based organizations, and children and adolescents. The National Action Plan for Comprehensive School Health Education (1993) recommends that messages be tailored to the needs, interests, demographics, history, and experience of targeted groups and coordinated and delivered through multiple channels, such as public service announcements, interpersonal communications, advertisements, brochures, direct mail, and publications. Strategies schools might employ to educate communities about CSHE include the media, participation campaigns, health fairs, and workshops (CASH, Exchange `90). The National Action Plan for Comprehensive School Health Education (1993) suggests developing community report cards that highlight the progress of local communities in implementing effective CSHE (p.49). Schools might also sponsor information sessions for young people, their families, and other community members, describing the role of the family in promoting effective CSHE (National Action Plan for CSHE, 1993, p.49).

b) Promote national awareness of local CSHE developments. Though schools and communities develop and control their own programs, the programs need to be supported by efforts at the national and provincial levels which form a context or foundation for the local efforts. National leadership "ensures that local districts and schools have the skills and information needed to put effective CSHE into place" (National Action Plan for Comprehensive School Health Education, 1993, p.48). Tensions still exist between comprehensive and categorical approaches to health education (Lavin, 1993), and national and state policy regulations regarding health education can be the vehicle through which a larger vision for school health can be upheld. National organizations can help to raise national consciousness; help educate the general population; develop, monitor, and enforce regulatory policies and standards; remove funding barriers; coordinate reporting requirements; help develop supportive coalitions; provide staff training and technical assistance; and help conduct program evaluations (Kirby, 1990; Lavin, 1993). These efforts will ensure some consistency at the local district level when schools attempt to design coherent programs (Lavin, 1993) and will ensure that these initiatives feel part of an agenda larger than their local programs (DeFriese et al., 1990). CSHE can be promoted through publications, conferences, or advertisements (National Action Plan for CSHE, 1993). The National Action Plan for Comprehensive School Health Education (1993) outlines several specific actions to be undertaken by the government and national organizations to inspire the involvement of other individuals and organizations in a campaign to promote CSHE. It is recommended that national health and education organizations: assign staff to promote CSHE; recruit and train volunteers to advocate for CSHE; provide educational programs to families and professionals to enhance their knowledge, beliefs and practices regarding CSHE; and to encourage local affiliates to provide technical assistance to school districts in developing CSHE (The National Action Plan for CSHE, 1993, p.65).

Step 5: Revisit structure and function. Structure and function need to be revisited periodically given that they change, as roles and responsibilities change or are clarified, and given the changing climate of agencies and shifting financial, material, and human resources. Policy at the agency and school levels must be developed, reviewed and revised regularly, as reflects the values of the organization (Davis & Allensworth, 1994). The policies need to reflect the values of CSHE. Time lines should similarly be revisited and adjusted when circumstances demand.

Critique and Future Directions

Strengths

Research validity. The criteria for validity within traditional orthodox research have been well set out (classically in Campbell & Stanley, 1966). Traditionally, questions about validity relate to experimentation and whether experiments are (a) internally valid (i.e., 'Did the experimental treatments make a difference in this specific experimental instance?'), and (b) externally valid (i.e., 'To what populations, settings, variables can this effect be generalized?'). When applied to the social-behavioural sciences (i.e., human inquiry) their utility is limited and in need of reformulating.

a) Internal validity. Internal validity refers to the extent to which an observed effect can be attributed to a particular experimental treatment condition. There are two prerequisites for ensuring internal validity within orthodox research: First, there must be experimental control, achieved by eliminating the simultaneous influence of many variables; second, there must be objectivity, requiring that researchers' and subjects' expectations and attitudes not bias the findings. However, in any study involving humans as research subjects there is reason to question the assumptions of control and rational objectivity (Howard, 1993). Any inquiry involving humans requires a complex, systemic orientation, where multiple, interactive, and historically dynamic influences are acknowledged. Furthermore, because humans are meaning-making beings, who make sense of their

world through intersubjective understanding, it is not possible to contemplate an objective science of persons. As Toulmin (1981) has argued,

> We cannot treat our subjects merely as objects; we have to find new ways of studying human behaviour which take into account that the people we are studying are going to act differently just because we are studying them; and that as human beings "and even as scientists" we have to see ourselves as reintegrated into the system of nature that we study. (pp. 2553-2554)

These "new ways" of studying human behaviour have been identified as the principles and practices of valid inquiry within new paradigm research (Reason, 1981). They guide the current research effort and include (i) cultivating high quality awareness, (ii) going round the research cycle several times, (iii) using contradiction, and (iv) accepting multiple viewpoints (Reason, 1981).

The first, cultivating high quality awareness, includes not only "getting into the experience" but also being able to "maintain a perspective on it" (Reason, 1981, p. 245). This has also been called the criterion of critical subjectivity (Reason & Rowan, 1981; Reason, 1988a): Because facts exist and are defined by a framework of understanding, the criterion of critical subjectivity requires that subjects (and therefore researchers) acknowledge their primary subjective experience, accept that their knowing is from a perspective, become critically aware of that perspective and its bias, and then articulate it in their research communications (Reason, 1993). Thus, unlike in the positivist research tradition where the aim is to ensure validity by ruling out the influence of the researcher, in the PAR tradition the aim is to "embrace and...enhance the human capacity for critical understanding" (Reason, 1993, p. 1259). What is studied, how, who makes sense of the data, and who learns are all important issues to be identified (cf. Elden & Chisholm, p. 127). In the current study, the what being studied are PHL archival data and participants' perspectives; the how is a process evaluation where the methods of analysis are case and content analysis; who learns are the

participants and other stakeholders interested in the development of CSHE. The process evaluator has been identified as an external researcher, as opposed to an internal participant. The researcher's primary subjective experience is derived from its association with the University of Calgary evaluation team rather than from within the system being studied. Sources of perspective are identified throughout the results portion of the study.

The second point towards valid inquiry involves cycles of research. Data collection proceeds by way of multiple cycles, where theory, concepts, and categories are progressively extended and refined, "reaching toward a theoretical saturation" (Reason, 1981, p. 249). It is a systematic process of re-searching, of checking perspectives, conceptions and conclusions. It is "a rigour of softness, of discovery, of turning things over" (Reason, 1981, p. 248). This process of refinement which directed the current study moved the research inquiry beyond mere impressionism to research proper.

The third principle of valid inquiry involves the use of systematic contradiction. Active efforts to identify and articulate contradictory data are built into the research process in one's effort to challenge habitual ways of thinking and experiencing. In the current study efforts were made to disprove themes, relationships and conclusions, and contradictory data were highlighted.

This practice is enhanced by the fourth principle of valid inquiry, accepting multiple viewpoints. Different sources of evidence and different perspectives are compared and assessed rather than being neglected or omitted. In this study participant perspectives were included through the standardized open-ended interviews. The unintended bias that can arise in research proper when participants are treated in a naive, formal and objective manner, and consequently form non-neutral (negative) responses (Argyris, 1968) is avoided by inviting participant perspectives. Precisely because there is total involvement of participants there is also a continuous process of checking the facts with those having firsthand knowledge (i.e., participants) (Whyte, 1989).

b) External validity. External validity refers to the "generalizability" of research, or the extent to which the results can be applied across different persons, settings, and times (Christensen, 1988). Generalizations are intended to be statements that have general meaning, being free from situational constraints. However, given that human behaviour *is* heavily mediated by the context in which it occurs, generalizations that are intended to be context free have little that is useful to say about human behaviour. As Howard (1993) has argued,

> If one wishes to generalize to circumstances where humans are kept naive (or even deceived) about the real purpose of their actions, then the traditional role for research subjects might well provide more generalizable results....If however, one wishes to generalize to circumstances where people have definite goals, plans, and intentions....then...research using other subjects who are consciously striving to achieve the study's targeted goals would likely have greater external validity than would studies using subjects who are not highly invested in the issue at hand. (p. 241)

In new paradigm research, like in orthodox research methods, some form of replication is the best guarantor of external validity. However, in new paradigm research exact replication is neither desirable nor feasible. If one comes to different conclusions it speaks neither to the validity of one's nor of the other's research results: The two research perspectives will build on each other ultimately contributing to a binocular vision (Reason, 1981, p. 250).

Process evaluation. Process evaluation is an important aspect of a comprehensive approach to program evaluation as it fulfils the need for information on program implementation (Dehar, Caswell, & Duignan, 1993). There is a paucity of published material regarding the process evaluation elements of CSHE development and implementation. Information on the internal dynamics and operations of a program over time and its strengths and weaknesses (Patton, 1979) is

important for informing future efforts in similar areas. The current study meets this challenge by providing a general developmental description of the PHL project, as well as the strengths and weaknesses of its application. Particular features of this process evaluation included the program origin, chronology of events in its development and implementation, the program structure, the influence of relevant contextual factors, communication patterns, program management activities, and participants' perceptions of strengths and weaknesses.

Limitations

Researcher inconsistency. Two researchers directed the current research effort. The process evaluation component of the project was initiated by a doctoral university researcher who, in collaboration with a faculty member, developed the interview protocol and conducted the first three standardized open-ended interviews. The present researcher assumed the responsibility of process evaluation upon the resignation of the former. Two problems arise from this circumstance. First, the present researcher utilized the already developed interview protocol and therefore had no input into its development. Not having first hand knowledge it is with good faith that the present researcher must trust that the instrument's format was derived from general project goal statements and a content analysis of archival data. Second, failure on the part of the original researcher to document the interview process created discontinuity between that researcher's original interviews and those conducted by the present researcher. The first three interviews conducted by the original researcher did not have the same preparatory introduction as those conducted by the present researcher.

"External" researcher. The process evaluation component of the project remained an external endeavour and did not become the charge of internal project participants. CSHE is to be owned and operated by local participants, requiring participant involvement at all stages of project development from fact finding, planning, action, and evaluation. Participants are to be in control of

the entire process (Hall, 1981). One might argue that total participant involvement was compromised given that local participants did not direct the process evaluation component of the project. At the same time, however, one could argue that the involvement of an independent researcher did not preclude participant involvement given that participant perspectives informed the process evaluation, and that furthermore, participant involvement came in the form of collaborating with the independent researcher to establish a mutually acceptable framework for the process evaluation. The debate of what constitutes a truly participant driven process is reflected in the participatory action research literature where, in the "weak" version, collaboration will typically take place between an independent expert and a client group, and in the "strong" version, the collaborative relationship will preclude the independent role of the expert and will focus on the equal participation of group members in all aspects of the research process (Peters & Robinson, 1984).

Incomplete evaluation. The evaluation measure utilitized in this study did not reach its full potential. The current study's process evaluation was not integrated into the on-going development and implementation of the project. Recognition of the influence of decisions and events during implementation in shaping the form and outcomes of programs has contributed to a growing awareness of the potential for evaluators to be actively involved in shaping program development from an early stage (Dehar et al., 1993). The early stages of program development provide an ideal environment for the application of evaluation findings, given that administrators are more willing to make adjustments at this stage than when a program is already established (Edwards, 1987). The current study would have benefited from such a formative evaluation, providing a formal means by which to feed-back design and process issues to project participants in an effort to inform their future efforts. The opportunity was lost in this study to incorporate learning into project activity cycles, where early learning informs later activity.

Future Directions

CSHE is applied social research that integrates practice and research. Research is central to the practical application of CSHE whereby participants engage in a cyclical process of problem formulation, planning, strategic action, and evaluation. In discussing future directions for CSHE the practical and research implications of CSHE will not be distinguished given that scientific understanding and social action are so intimately linked.

The current study did not offer clarification on the efficiency of beginning CSHE programming at the high school level as opposed to the elementary level. Consensus holds that CSHE should span grades K-12 (cf. Resnicow et al., 1993). Given that people's health related behaviours have become key in determining their long-term health status (Allensworth & Kolbe, 1987; Cameron et al., 1991; Kirby, 1990; O'Rourke, 1985), it makes sense that CSHE efforts *begin* in a younger population, continuing throughout grade school and high school, in order to facilitate the early promotion of positive health behaviours and preempt behavioural change. In the adolescent population health attitudes and practices, having already been established, will be less amenable to change than those in younger populations where such attitudes and practices have yet to be formed. Beginning at an early age the promotion of holistic health, the provision of reinforcing health messages from a variety of influences, and the participation and empowerment of students in health programming, more consistently allows for the development of preventive (rather than remedial) health interventions. According to DeGraw (1994), "a school health program beginning in the middle school or high school may exert limited impact on important health outcomes" (p. 194). DeGraw (1994) suggests further that school-centred health programs at the pre-school and elementary levels may be less politically charged and more readily accepted by the community, thus becoming customary throughout later stages of children's education. Such that there is tremendous pressure on pilot projects to demonstrate program effectiveness in order to

maintain funding support, it might prove more meaningful to pilot CSHE efforts with younger children where prevention oriented activities may be more effective and thus give a more true indication of the potential of CSHE. Future comparative and longitudinal studies will have to speak to the long term effectiveness of implementing CSHE at the secondary level versus the elementary level.

The current study supported the importance of community involvement in CSHE as well as Kirby's (1990) suggestions that community involvement be established through the development of an interdisciplinary council of community agents concerned with the status of youth and through the coordinating efforts of one or more full-time coordinators. However, the challenge ahead is to move from school-based to school-wide and community-wide programs (Allensworth, 1994; DeGraw, 1994) and to identify the characteristics of successful school-community linkages.

The current study suggested marketing and promotion of CSHE is implicated in service coordination and sustainability where, at the community level, marketing and promotion informs community agencies how they gain entry into schools and, at the national level, marketing and promotion can influence policy which in turn shapes how grassroots efforts blossom. Given the inadequacy of promotional efforts in the PHL project it is yet to be determined if, with better profiling, communities will more readily coordinate their programs and resources with the needs of schools, and it has yet to be established what effects project profiling might have on education policy reform. Future efforts will need to study the effects of a broadened community and national profile of CSHE.

It is unclear from the current study whether a local CSHE initiative could develop as a purely grass-roots effort at the level of schools without the coordinating influence of an interdisciplinary steering committee and project coordinator. Hein (1991) claims that the leadership for CSHE must come from the local level, and yet the current study suggests the importance of the

combined influence of both local leadership and higher political will in CSHE sustainability. Future efforts will have to determine the means and logistics of moving schools from an externally managed approach to a self-guided approach, and to what extent school networking strategies and terms of reference outlining the expectations and role-responsibilities for self-guided schools will contribute to the sustainability of CSHE in the absence of a coordinator and/or steering committee.

Further, future research is needed to clarify the relationship between project sustainability and the various associated factors identified in the current study, namely project promotion, higher political will, local ownership, and participant education and involvement..

Finally, future CSHE efforts will need to increase their emphasis on formative and programmatic evaluation. The inclusion of a formative evaluation will clarify the dynamics of self-reflection where participants refine and improve program developments on an on-going bases from an early stage (Dehar et al., 1993). The development and implementation of methods to monitor and evaluate the effectiveness of interventions are needed to demonstrate that they had their intended impact, lending support to the usefulness of CSHE in addressing the health related needs of the student-teacher-parent-community populations.

Conclusions

In March 1990, administrative staff from Calgary Health Services and the Calgary Board of Education came together to explore a collaborative, proactive approach to improving the health of students. A decision to focus on a comprehensive view of school health was accepted by both boards in November 1990. Funding was awarded from the Kahanoff Foundation in September 1991 with provisions for a full-time program coordinator and for program evaluation performed by the University of Calgary. The Partners for Healthy Living Project began in February 1992, targeting six Calgary high schools over a three year period ending February 1995. Additional

funding was obtained for an extended three month period, until June 1995, to allow for project termination and wrap-up.

As real-world application the comprehensive approach to school health promotion is vulnerable to all the imperfections of a human enterprise: personal and political agendas, changing climates, and shifting priorities. Despite these inherent complications and challenges, specific preparatory steps can be taken to augment the efficiency, effectiveness, and sustainability of programmatic efforts.

In planning a CSHE project significant time and energy must be invested in educating health professionals, educators, and community health and social service agents about the vision of CSHE as well as in forging interdisciplinary linkages to support program development. Stakeholder groups need to clarify and sort out interagency differences; build personal working relationships; and build consensus around the mission, focus, and strategic plans of CSHE in order to strengthen collaborative working relations. Clear terms of reference about agency roles and responsibilities are to be established at the outset and periodically reviewed and updated throughout the process. Further, as the environment of schools is so different from that of the supervisory boards, it is important to include school administration in the developmental design of CSHE programming in an effort to always keep at the forefront a direct school perspective. Hiring a coordinator who is sensitive to the climate of schools is important in facilitating the program's transition from management to the real world context of schools where initially CSHE programming is add-on to an already over-burdened system. Because the coordinator plays such a critical role in these initial stages networking and forging links in the community and schools, it is essential that his/her programming duties be a full-time commitment. Consideration should be given to marketing and promotions in order to deliver persuasive local and national messages about the importance of

CSHE as a means to generating the support and interest that is needed for its widespread implementation.

In the implementation phase it is especially important to have a quantitative instrument that can stand alone, a quick- start kit approach (i.e., information package, implementation guide, inventories of CSHE resources) with in-servicing, and a school-to-school transferable approach. Schools will require direct guidance and support in the initial stages of project implementation until the process becomes a natural part of the system. The development of an information-sharing network between CSHE participants is one means of providing that initial support as well as sustaining the effort. Early involvement of students, parents, school personnel, and communities in the implementation process results in increased participant awareness and ownership. Stakeholder groups are to participate in all aspects of the research problem from initial problem formulation to the implementation of strategies and their evaluation in order to help sustain organizational learning processes (Greenwood et al., 1993). The project is profiled to schools and communities to assist its introduction. Participants must always be striving to feed-back CSHE developments to the school and community in order to maintain its visibility and sustain ownership. School participants need to develop school specific needs assessment instruments, prioritize identified health needs, and develop comprehensive interventions on only a select few needs at any one time to ensure that the process remains workable in the school context. Where an external consultant is enlisted to assist the evaluation process, future planning must include more input from steering committee members and school participants in the development of the evaluation instruments, and clearer role descriptions and expectations for all stakeholders in the on-going evaluation activities. Program planning efforts need to include program-specific evaluation considerations in order to determine the efficacy of interventions. Interventions are designed to address simultaneously the three components of CSHE (instruction, services, and environment) and to target the various stakeholder

groups - students, parents, and school personnel. Future efforts need to include more community-based services to support school curriculum and environmental changes as well as more in-service programs for parents and school personnel. The planning and development of health interventions are to be adapted to different languages and cultures.

At the program management level open and multilateral communication practices and multiple communication strategies are necessary in facilitating the transmission of project information. Responsibility for on-going marketing and promotional activities needs to be defined where any changes or transitions in marketing responsibility are clearly articulated. As well, levels of support for school implementation and expectations for self-guidance need to be delineated. Where gaps in the availability of educational resources are identified, collaborative actions must be taken to develop such materials. A mechanism is to be developed by which to record and evaluate on-going program activities so as to build learning into the activity cycle and improve programs from an early stage.

In contemplating the development and implementation of CSHE, project developers and school based participants would do well to remember the need for flexibility, adaptability and, importantly, vision. As one insightful interviewee commented,

> In these times of economic and structural adjustment, there is even greater incentive for fresh thinking about what schools are doing and what education's for...There's an opportunity either, on the one hand, to pull back in fear and retrench into the traditional approaches that some people are calling for, or move more actively into what is really needed, which is a more human institution...Without developing whole people and strengthening the notion of community, whatever else we produce is not going to be sustainable. (original steering committee member)

Innovation in health education and promotion is upon us. The challenge now is to participate in how that change is going to occur and where it is going to lead us. The current study gives practical credence to the holistic, comprehensive, collaborative, coordinated, and participant-driven CSHE approach, and offers some general developmental guidelines toward its end.

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Appendix A

Standardized Open-ended Interview Schedule

This phase of the evaluation of the project is about the process elements of the project - its developmental history. It would probably be easiest and most helpful if you could tell me the "story" of the project from its inception until now, as you understand it, or have been apart of it. Then, if there is other information I'd like to have, I can ask some more specific questions.

1. How has your experience of the project so far been similar to or different from your expectations of the project?

2. What do you think your role in the project is? Has that role, or your definition of it changed over the course of the project?

3. How do you think your specialization has been reflected in the project development?

4. What do you think your most important contribution to the project has been?

5. What has been the most stressful to you personally about the work so far? The most rewarding?

6. What have been your personal high points, or low points, during the project?

7. What do you think has worked well in the development of the project?

8. What have the problems been?

9. How has the structure of the project affected the process? If you were doing it again, how would you structure it differently? (e.g., have a different composition of the project team)

10. What other ways would you approach the project differently if you were going to repeat it? What would you keep the same?

11. How do you think the interdisciplinary nature of the project has been helpful? How has it been a hindrance?

12. What effects do you think the project has had so far? (school, personal, professional)

13. What hopes did you have at the beginning of the project for what would be accomplished by the project? Do you think any of them have been realized? Are there others that aren't likely to work out? How have you hopes for the project changed since its beginnings?

14. What hopes do you have for the remainder of the project? How should the project personnel approach the remaining work? (similarities/differences to past approaches)

15. What do you think will happen after the project is completed?

Appendix B

General Project Goal Statements

i) Formative project goal statements driving process evaluation interview schedule development (transcript undated):

1. Coordinate the components of comprehensive school health (instruction, health and social services, and environment), to decrease duplication and gaps in community and health service delivery, and increase effective use of existing resources.
2. Identify the basic health needs within each pilot school and community.
3. Mobilize the school and community to meet the identified needs.
4. Respond to identified health needs through curriculum integration, work site health promotion, parent involvement, and other meaningful strategies determined by the School Implementation Committee.
5. Demonstrate the implementation of a comprehensive school health plan in six senior high schools.
6. Develop and pilot an implementation manual to facilitate use of the comprehensive school health approach within six Calgary Board of Education high schools.
7. Develop recommendations for the maintenance of this school-based health promotion approach beyond the pilot mandate period.

ii) Project goals and objectives as adapted from the National Commission of the Role of the School and Community in Improving Adolescent Health (1990) (transcript undated):

1. Improvement in health and wellness of both students and staff through work site health promotion strategies.
2. Integrated health education based upon stakeholder needs is more meaningful and effective than single issue, crisis management handling of concerns.
3. Effective health education is shared among home, schools, communities and community agencies.
4. Coordination of health education, health services, and healthy environment in the home, school, and community will help decrease fragmentation and compartmentalization of service delivery and increase effectiveness.
5. Health-as-lived (modelling, integrated) is a key component in school health education, however specific instruction related to some health components is critical (sexuality, drug/alcohol) in order to impact positive health behaviours.
6. The program coordinator will work with staff and existing resources to cooperatively establish more effective and efficient ways for usage, and to facilitate and share research related to the initiative.
7. Through identification of areas of overlap, pockets of strength, and gaps in service delivery, more efficient use of existing resources will occur.
8. Partners for Health Living will be piloted in two schools per year for three years to give a total of six schools, preferably high school sites.

Appendix B (continued)

General Project Goal Statements

iii) Long-term project goals described in the steering committee minutes in March 1992:

1. To develop the comprehensive school health initiative to meet the steering committee expectations and incorporate the efforts of the Calgary Board of Education program continuity team and Calgary Health Services working groups.
2. To collaborate on the development of a comprehensive school health program tailored to individual school sites that is maintained beyond the project mandate period.
3. To integrate meaningful health instruction and promotion based on stakeholder needs rather than as single issue, crisis oriented reactions.
4. To decrease fragmentation and improve effective service delivery through the coordination of health instruction, health services and healthy school environments.

Appendix C

Study Overview

Introduction

I am a graduate student at the University of Calgary, completing my final year as a M.Sc student in counselling psychology. I became involved with the Partners For Healthy Living project in the spring of 1994 as a research coordinator, assisting schools in the implementation process.

Recently, I have taken over the "process evaluation" component of the project for my Masters thesis. The interviews that I have been conducting with the various participants of the PHL project since its inception are providing me with the raw data for the study.

Nature of the Study

A process evaluation of the PHL project provides essential information on project planning, implementation, and development; the way a project is planned is not always the way it is carried out. I am interviewing people who have been involved with the project at all levels, because you - the participants - have the best insight into what has actually occurred, and what has helped or hindered that experience.

Purpose

The information gleaned from this process evaluation has two purposes: First, it will assist in the interpretation of program outcomes. In other words, it may provide us with additional evidence or understanding indicating why certain aspects of the project "worked", or did not work. Second, the process findings will provide valuable information to future projects of this nature, giving them "foresight" that we did not have in starting up a project of this kind.

Interview Format

Essentially, I want you to tell me about your experience of the project so far - its developmental history. You can talk for as long, and as much as you feel is necessary. I will interject very little.

Once your "story of the project" is complete, if there is still some more information I need, I will ask you some more specific questions.

Do you feel okay with that? Do you have any questions you would like to ask?

Appendix D

"Working" Definition of a CSHP

COMPREHENSIVE DEFINED: A New Model for the 1990's and Beyond

STEP 1:
Links to the Community

STEP 2:
Needs Assessment

STEP 3:
Develop/Modify the School Health Services

STEP 4:
Develop/Modify School Health Education

4a. The instructional objectives and methods are consistent with child developmental needs and skills and are in concert with major health objectives for a given age group.

4b. The instruction is integrated into other curricula as well as the health curriculum.

4c. The objectives are balanced, reviewed periodically, and matched to local needs.

4d. Certain health objectives will be integrated into the health services and the health environment (examples include self-care and medical decision making, use of the nurse's office; healthy nutrition and dietary behaviours; physical activity habits; and resisting peer pressure to smoke or to use drugs and alcohol irresponsibly).

4e. Health instruction will include parents/family as both recipients and supporters of health habits among students.

4f. Health instruction will include teachers and school personnel as both learners and instructors.

STEP 5:
Develop/Modify the School Environment

Overall Educational Philosophy. The educational philosophy for all instruction will recognize the necessarily [sic] of tailoring to the level of the child's development. The school also will have appropriately high expectations for the achievement and quality of performance of both students and staff.

Appendix E

Criteria for a CSHP

CHARACTERISTICS OF A COMPREHENSIVE PROGRAM

- Well planned (specific goals/objectives)
- Sequential, age appropriate
- Relevant to students and community needs
- Integrated with parent/community/health professional resources and skills
- Sensitive to cultural/environmental/other factors
- Periodically evaluated
- Delivered as intended

Appendix F

Implementation Process

DEVELOPING A COMPREHENSIVE PROGRAM FOR YOUR SCHOOL

DEFINING *"COMPREHENSIVE SCHOOL HEALTH"*

The School Health Program is a composite of learning activities and experiences within the school setting that are dictated toward developing an environment that protects and promotes the health of the students and school personnel. A comprehensive school health program includes health education, health services, and a healthful environment. The ultimate goal of the comprehensive school health program is to help young people achieve their fullest potential by accepting responsibility for personal health decisions and practices, by working with others to maintain an ecological balance helpful to society and the environment, and by becoming discriminating consumers of health information, health services, and health products.

DEFINING *"WELLNESS"*

"Wellness" is a conscious and deliberate approach to an advanced state of physical and psychological health. Wellness differs from health primarily in two areas; [sic] an emphasis in balance among the interdependent components that contribute to a person's well-being and an emphasis on encouraging individuals to assume responsibility for their own health status. Wellness can be a positive theme to a school's comprehensive health program, influencing not only instruction, but also the school's health services and environment.

A comprehensive school health program includes the following:

- Instruction intended to motivate health maintenance and not merely the prevention of disease or disability.
- Activities designed to develop decision-making competence related to health and health behaviour.
- A planned, sequential program based on students' needs and current and emerging health behaviour.
- Opportunities for all students to develop and demonstrate health-related knowledge, attitudes and practices.
- Integration of the physical, mental, emotional and social dimensions of health as the basis for study.

Appendix G

Job Description for the Coordinator

Title: Coordinator

Comprehensive School Health January 1991

Limited Term

BASIC RESPONSIBILITY :

Under direction of a steering committee the coordinator is responsible for development and implementation of a Comprehensive School Health Plan in selected school sites. Crucial to the position is an understanding of health promotion concepts and education principles.

The coordinator will develop a tool for needs assessment, perform a needs assessment, participate in the development of an overall plan and implementation of the plan, develop implementation guidelines and manual and participate in the planning and development of inservice for administration and site staff.

The coordinator will also develop community liaison with input from the steering committee and provide coordination between the school site staff, health staff and administration.

The coordinator will provide reports to the steering committee and sub committee including developing an agenda and reports.

The coordinator will also participate in the process of developing an evaluation of the plan.

Reporting Relationships:

School Board/CHS

Steering Committee

Knowledge and Skills Required :

Academic

Baccalaureate/masters in Health Education or Health Promotion

Appendix G (continued)

Job Description for the Coordinator

Professional

Valid membership in related field i.e. ATA

Work Experience

Minimum of four years in curriculum planning, implementation or health promotion.

Experience in health and marketing an asset.

Experience in program design, evaluation an asset.

Other

Demonstrated evidence of tact, diplomacy.

Demonstrated ability to communicate effectively in written and oral form.

Working Conditions :

Travel to outside organizations (in Calgary) for meetings.

Minimal evening/weekend work as required.

Term: Three Year Contract

June 1991 to June 1994

Appendix H

Terms of Reference (March 1991)

Partners for Healthy Living

A. Purpose of Partners for Healthy Living Steering Committee:

1. To receive information on items of importance to the project.
2. To discuss project concerns and issues.
3. To provide assistance and guidance regarding the evaluation design.
4. To make decisions which facilitate the implementation of the project.

B. Role and Responsibilities

1. The Steering Committee will be accountable for the overall project and its results:

   a) meeting regularly to review project progress.
   b) ensuring that all project requirements are met.
   c) will receive and process information regarding the project.
   d) develop recommendations for future development and action.
   e) conduct annual performance evaluation.
   f) liaison with Kahanoff Foundation and preparation of an annual report.

2. The Coordinator will:

   a) be responsible for assisting established school and community staff in the development and implementation of comprehensive school health conception in selected school sites.
   b) collaborate to assess needs, develop plans, implement plans, and facilitate staff development for administration and site staff.
   c) develop community networks with input from the steering committee.
   d) will help coordinate school site staff, health staff, parents, and the community.
   e) will provide periodic reports to the steering committee.
   f) will be involved in the development of processes to encourage incorporation of the comprehensive health concept on a generalized basis, once the coordinators term is completed.
   g) will participate in the process of evaluating the plan.

Appendix H (continued)

Terms of Reference (March 1991)

C. Structure

1. The Steering Committee will consist of representatives from:

   Calgary Board of Education (CBE) - 2 representatives
   Calgary Health Services (CHS) - 2 representatives
   University of Calgary Evaluation Team - 2 representatives

2. The Project Coordinator will report to and meet with the Steering Committee regularly.

3. The Chair of the Steering Committee will be elected from within.

4. The Steering Committee will meet every 4 - 6 weeks or more often as required.

5. The Program Coordinator will be responsible for recording and distribution of minutes.

Appendix I

Program Evaluation

Developmental Steps

1. Identify interested stakeholders
2. Identify potential needs
   - focus group
3. Needs assessment
   - survey
4. Action plan
   - decide which needs/services to address
5. Program development
6. Program delivery
7. Evaluate impact
   - instruction (classroom)
   - service (non-classroom)
   - environment (policy, interaction patterns, etc.)
   - focus on empowerment, transfer/application, coordination of services, etc.

Appendix J

Delphi Method of Instrument Development

Hypothetical Question for Tasks One through Four of
The Pilot Questionnaire

Answer the following questions both in terms of your own needs and your perception of the needs of others:

1. I (others) feel pressure to participate in the following activities with my (their) friends even though I (they) would not choose them on my (their) own...

	RATINGS: Me	Others	RANK: Me	Others
alcohol consumption	1 2 3 4 5	1 2 3 4 5	☐	☐
smoking cigarettes	1 2 3 4 5	1 2 3 4 5	☐	☐
street drugs (smoked)	1 2 3 4 5	1 2 3 4 5	☐	☐
street drugs (swallowed)	1 2 3 4 5	1 2 3 4 5	☐	☐
street drugs (injected)	1 2 3 4 5	1 2 3 4 5	☐	☐
prescription drugs	1 2 3 4 5	1 2 3 4 5	☐	☐
vandalism	1 2 3 4 5	1 2 3 4 5	☐	☐
shop lifting	1 2 3 4 5	1 2 3 4 5	☐	☐
skipping school	1 2 3 4 5	1 2 3 4 5	☐	☐
break & enter	1 2 3 4 5	1 2 3 4 5	☐	☐
prostitution	1 2 3 4 5	1 2 3 4 5	☐	☐
_____	1 2 3 4 5	1 2 3 4 5	☐	☐
_____	1 2 3 4 5	1 2 3 4 5	☐	☐
_____	1 2 3 4 5	1 2 3 4 5	☐	☐

Likert scale: strongly disagree (1), disagree (2), undecided (3), agree (4), strongly agree (5)

Appendix J (continued)

Delphi Method of Instrument Development

Hypothetical Question for Task Five of
The Pilot Questionnaire

How important is it to ask the following questions?

1. I feel pressure to participate in these activities with my friends even though I would not choose them on my own...

	RATINGS:	RANK:
A. alcohol consumption	1 2 3 4 5	☐
B. smoking cigarettes	1 2 3 4 5	☐
C. street drugs (smoked)	1 2 3 4 5	☐
D. street drugs (swallowed)	1 2 3 4 5	☐
E. street drugs (injected)	1 2 3 4 5	☐
F. prescription drugs	1 2 3 4 5	☐
G. vandalism	1 2 3 4 5	☐
H. shop lifting	1 2 3 4 5	☐
I. skipping school	1 2 3 4 5	☐
J. break & enter	1 2 3 4 5	☐
K. prostitution	1 2 3 4 5	☐
L. lying	1 2 3 4 5	☐
M. joy riding	1 2 3 4 5	☐
N. cheating	1 2 3 4 5	☐

Likert scale: strongly disagree (1), disagree (2), undecided (3), agree (4), strongly agree (5)

Appendix K

Sample Question from Pilot School I's Final Health Needs Assessment Survey

1. SERVICES: What would you like the school to provide?

A. Physical Health

I think I would be a healthier person physically if my school offered me...

		Rate Each Item				
		Really Disagree	Disagree	Neutral	Agree	Really Agree
1.	Physical fitness program	1	2	3	4	5
2.	Stop smoking program	1	2	3	4	5
3.	Drug or alcohol abuse program	1	2	3	4	5
4.	Healthy weight programs	1	2	3	4	5
5.	First aid for minor injuries	1	2	3	4	5
6.	Breakfast or lunch programs	1	2	3	4	5
7.	More opportunity to talk to the school nurse	1	2	3	4	5
8.	Counselling and referral about infectious diseases (like mono)	1	2	3	4	5
9.	Referral to a doctor or clinic	1	2	3	4	5
10.	Support services for students with physical disabilities	1	2	3	4	5
11.	Counselling about health problems	1	2	3	4	5
12.	A chance to talk to a nutritionist	1	2	3	4	5
13.	Counselling about how to deal with eating disorders (like starving myself or eatings lots and throwing up)	1	2	3	4	5

Please indicate which items in the above list is the most important one for you_____

Appendix L

Process Checklist:
Survey Administration Tasks

I. PRINT SURVEYS (8 forms in total)

1) Student Health Needs Survey
2) Parent Health Needs Survey
3) School Personnel Health Needs Survey
4) Parent Views of Adolescent Needs
5) School Personnel Views of Adolescent Needs
6) Student Health Impact Survey
7) Parent Health Impact Survey
8) School Personnel Health Impact Survey

* All eight forms must be printed on different colour paper (this is to ensure that they are properly packaged, and to simplify administration instructions to students and parents)

* Surveys should be printed on 11x17 paper in booklet format (this allows us to insert the various scantron forms into their respective surveys and to ensure that they do not get mixed up in each package)

II. ORDER SCANTRON ANSWER SHEETS

• Scantron forms are ordered from and delivered by the Calgary Board of Education

* One scantron form must be ordered for every instrument administered, with the exception of the Student Health Needs Survey, the Parent Views of Adolescent Needs, and the School Personnel Views of Adolescent Needs. These instruments require two scantron forms each.

* Colour coordinate scantron forms with surveys by marking them with a felt marker (again to ensure that the correct scantron form is used with its corresponding survey, given that some scantron forms in the same package will each be marked with the same I.D.#)

Appendix L (continued)

Process Checklist:
Survey Administration Tasks

III. PACKAGING AND I.D.#'S (systematic process)

A. Materials Needed:

- stack of scantron forms
- stamp (must allow for five digit #'s) and ink pad
- printed surveys (eight different stacks)
- 4 stacks of instruction forms (for Parent Needs, Parent Impact, School Personnel Needs, School Personnel Impact)
- package list

The package list:

Each survey package must contain...

- the appropriate *surveys*
- an *instruction sheet*
- the appropriate # of *scantron forms*

Package 1: (Student/parent package #1)
(1) Parent Needs Instruction form
(1) Student Health Needs Survey
(1) Parent Views of Adolescent Needs
(1) Parent Health Needs Survey
(5) Scantron forms

Package 2: (Student/parent package #2)
(1) Parent Impact Instruction form
(1) Student Health Impact Survey
(1) Parent Health Impact Survey
(2) Scantron forms

Package 3: (School personnel package #1)
(1) Personnel Needs Instruction form
(1) School Personnel Views of Adolescent Needs
(1) School Personnel Health Needs Survey
(3) Scantron forms

Appendix L (continued)

Process Checklist:
Survey Administration Tasks

Package 4: (School personnel package #2)
(1) Personnel Impact Instruction form
(1) School Personnel Views of Adolescent Needs
(1) School Personnel Health Impact Survey
(3) Scantron forms

B. Process:

1) Designate a group of people to each of the 4 sets of packages to begin work on.
2) Separate the contents to be included in each of the packages from the rest of the materials.
3) Designate:
   - one person to stamp the scantron forms
   - one person to (i) relabel the front and back of one of the two scantron forms being put into one survey with "test 3" and "test 4" (crossing off "test 1" and "test 2"), and (ii) stuff the scantron form(s) into its corresponding survey
   - one person to package each "stuffed" survey and the appropriate instruction form into the envelope
4) Stamping the Scantron forms
   - every Scantron form must be manually stamped with an I.D.#
   - every I.D.# must be 5 digits long, the first three digits indicating to which population (i.e., student, school personnel, or parent) it belongs.
     e.g. student forms begin 100
     parent forms begin 200
     school personnel forms begin 300
   - by looking at the I.D.#'s we should be able to determine which surveys belong to any one parent/student relationship.

Remember:
- Use a durable stamp and purchase plenty of ink
- Have at least two felts that match each coloured survey for marking the Scantron forms
- Order enough envelopes
- Order H.B. pencils
- Ensure that there are enough classroom instruction sheets copied

Appendix M

General Needs Area

In order to identify which health-related areas you think need the most attention, we have one final question for you.

For me, the most important needs addressed in this questionnaire are in the area of...

		Rate Each Item				
		Really Disagree	Disagree	Neutral	Agree	Really Agree
1.	Physical health (nutrition, fitness, alcohol, illness)	1	2	3	4	5
2.	Sexuality (STD/AIDS, pregnancy, sexual abuse, making choices)	1	2	3	4	5
3.	Counselling (personal problems, suicide, choosing jobs)	1	2	3	4	5
4.	Family & Home life (communication, abuse, conflict)	1	2	3	4	5
5.	School performance (study skills, special classes, tutoring)	1	2	3	4	5
6.	Health promotion (recognizing symptoms, finding help)	1	2	3	4	5
7.	Mental / emotional health (ways to cope with problems like anger, stress, low self-esteem)	1	2	3	4	5
8.	Peer relationships (peer pressure, acceptance, building relationships)	1	2	3	4	5
9.	Safety and accident prevention (safe driving, first aid, CPR)	1	2	3	4	5
10.	Home atmosphere (support, communication, alcohol abuse, family rules)	1	2	3	4	5
11.	Involvement with teachers & staff (teachers under stress, school rules, relationships between teachers & students)	1	2	3	4	5
12.	Involvement with other students (racism, understanding disabilities, friendliness)	1	2	3	4	5
13.	School building and grounds (healthy food, litter, vandalism)	1	2	3	4	5

Please indicate which items in the above list is the most important one for you _____

Appendix N

Written Protocol for School Action Planning

SUGGESTIONS FOR YOUR FOCUS GROUP DIALOGUE:

1. INTRODUCE yourself to the focus group.

2. IDENTIFY A GROUP FACILITATOR to be responsible for keeping group on task and monitoring time.

3. IDENTIFY A GROUP RECORDER to log the important points of your discussion on the appropriate pages provided in your handout.

4. CHOOSE any TWO student health needs your group determines most important to address.

5. FOR EACH HEALTH NEED ANSWER the following questions by recording group responses on the appropriate answer sheets provided in the handout.

   Question 1: **Define the issue.** What exactly does this item mean?

   Question 2: **What could we do to address this issue?** How can your school or community begin to address this issue?

   Question 3: **Who might be able to assist or help implement the strategies listed above?**

   Question 4: **How will we know when we have successfully addressed this issue?** Describe possible indicators of successful outcomes.

   Question 5: **Record** the name of any focus group members who are interested in supporting a specific response strategy.

THANK YOU FOR YOUR CONTINUED SUPPORT

The Partners for Health Living Committee appreciates your valuable time and ideas.

Appendix O

Terms of Reference Revisited (May 1994)

A. STEERING COMMITTEE

I. Purpose of Partners for Healthy Living Steering Committee:

1. To receive information on items of importance to the initiative
2. To discuss initiative concerns and issues.
3. To provide assistance and guidance regarding the evaluation design.
4. To make decisions which facilitate the implementation of the initiative.

II. Roles and Responsibilities

The Committee will:

a) meet regularly to review initiative progress.
b) ensure that all initiative requirements are met.
c) receive and process information regarding the initiative.
d) be involved in the ongoing evaluation and development of recommendations for future action.
e) conduct a performance evaluation of the Coordinator.
f) liaise with the Kahanoff Foundation.
g) provide input into and approval of the annual report.

III. Structure

1. The Steering Committee will consist of representatives from:

   a) Calgary Board of Education (CBE) - 2 representatives
   b) Calgary Health Services (CHS) - 2 representatives
   c) University of Calgary Evaluation Team - 2 representatives

2. The Coordinator will report to and meet with the Steering Committee regularly.

3. The Chair of the Steering Committee will be elected from within.

4. The Steering Committee will meet every 4 - 6 weeks or more often as required.

5. The Coordinator will be responsible for recording and distributing the minutes of meetings.

Appendix O (continued)

Terms of Reference Revisited (May 1994)

B. COORDINATOR

The Coordinator will:

a) be responsible for assisting established school and community staff in the development and implementation of comprehensive school health conception in selected school sites.
b) collaborate to assess needs, develop plans, implement plans, and facilitate staff development for administration and site staff.
c) develop community networks with input from the Steering Committee.
d) help coordinate school site staff, health staff, parents and community.
e) provide periodic reports to the Steering Committee.
f) be involved in the development of processes to encourage incorporation of the comprehensive school health concept within the selected sites.
g) be involved in the sustainability of the concept in K - 12 schools, once the Coordinator's term is completed.
h) participate in the process of evaluating the plan.

C. EVALUATION AND RESEARCH

The Evaluation Team is headed by Drs. Hiebert and Cairns of the Department of Educational Psychology, University of Calgary, and includes a number of graduate students whose work is supervised by them. The work of the team is jointly funded by the Kahanoff Foundation and the University of Calgary.

The responsibilities of the Evaluation Team include:

a) to prepare and implement an evaluation strategy for the Partners for Healthy Living initiative.
b) to develop a comprehensive needs assessment instrument for use in determining the health related needs of students, parents and school personnel in all of the schools.
c) to develop an instrument for measuring health related attitudes, beliefs and behaviours before and after the implementation of the comprehensive school health initiative.
d) to provide assistance and consultation to the pilot schools in all matters related to evaluation.
e) to develop the computer programs necessary for data analysis for the initiative and to consult with the school implementation committees concerning their use.
f) to develop, through instrument tailoring processes in each of the pilot schools, both a school-specific set of evaluation instruments and generic set.

Appendix O (continued)

Terms of Reference Revisited (May 1994)

g) to provide consultation to the school implementation committees on the development of evaluation measures for the interventions developed in each school.

h) to carry out a process evaluation of the initiative as a whole.

i) to work cooperatively with the Coordinator to prepare a written initiative manual and to test elements of the manual as may be possible in the latter stages of the initiative.

j) to report as requested to the Kahanoff Foundation and to the Steering Committee on the findings of the evaluation process.

k) to prepare the evaluation component of future proposals for continued funding of the initiative.

Appendix P

Master Plan of the Evaluation Process / Status to Date (March 1993)

Evaluation Goal

Support for Success Claims

Evaluation Components

1. Needs Analysis
2. Program Specific Assessment
   - Services, Instruction, Environment
   - Knowledge, Behaviour, Attitudes
3. Impact Assessment

Evaluation Time Line (lead time necessary)

1. Impact Assessment-Pretest (2-3 weeks)
2. Needs Assessment
   - Generic (ready)
   - Comprehensive (ready)
   - Tailored (2 weeks)
   - Comparison (generic & tailored)
3. Data Analysis (2-3 weeks)
   - School-based ?
4. Action Plan Development
   - Content
   - Delivery
   - Evaluation
5. Action Plan Implementation
6. Action Plan Assessment
7. Impact Assessment-Post test

Status to Date

Pilot School One

Completed steps 1-3

School implementation committee currently in step 4

Pilot School Two

Completed steps 1-3

School implementation committee currently in step 4

Pilot School Three

Completed step 1

School implementation committee currently in formation

Data entry for impact assessment pretest is in progress

Ground work is being laid for school-based data entry and analysis of needs assessment data

Appendix Q

Process Evaluation Outline

Purpose:

To prepare a full description of the processes involved in the Partners for Healthy Living project's planning group. A final, descriptive report would be provided at the end of the project, for use in the implementation of future projects.

Data Sources:

1. minutes of meetings
2. correspondence files
3. individual semi-structured interviews with members of planning, implementation and evaluation teams

Procedures:

1. Collect and review all written materials associated with the project
2. Prepare a content analysis of the written materials to identify critical issues
3. Prepare interview guide based on
    - issues from written materials
    - open questions derived from general project goal statements
4. Circulate interview guide for response of all participants
5. Revise guide as necessary
6. Record the initial round of interviews with members of the planning group and with any available members who are no longer with the group as needed
7. Analyze the interview material using an appropriate quantitative method
8. Prepare a descriptive report and recommendations arising from it

Appendix R

Project Sustainability Issues and Proposed Action Plans

Issue 1: Education and health are interrelated. Unhealthy children are children with impaired learning. There is an increasing demand to provide an integrated approach in meeting the complex needs of children and families.

Proposed Action:

Continue the Comprehensive School Health approach as a leverage point for the Calgary Board of Education and Calgary Health Services to work together.

Issue 2: Schools parents and communities need to work together. Health and education business plans mandate more stakeholder and community input.

Proposed Action:

Expand the development and implementation of Comprehensive School Health to all elementary, junior high and senior high schools within the Calgary Board of Education.

Issue 3: For successful development and implementation of Comprehensive School Health, education and health partners need to be committed to dedicating services, resources and time.

Proposed Action:

Joint funding in a cost sharing agreement is necessary to continue the coordination of schools currently involved and for further expansion to all district schools.

Reproduced from project archive: "Comprehensive School Health: A Progress Report", March 1995. Prepared by Cathy McLean Sterns, Coordinator.

Appendix S

Action for Health:
A Health Promotion Initiative

Purpose

Through the new initiative, Action for Health, Alberta Health is providing additional funding to Regional Health Authorities (RHA's) to enhance the planning and delivery of the health promotion and disease/injury prevention components of the three-year business plans. Overall, this will enable RHAs to support communities to identify health issues, set targets and develop infrastructures that demonstrate movement toward achieving health promotion and disease/injury prevention outcomes.

Funding is not intended to:

- provide direct health care services
- maintain and/or duplicate existing programs or resources
- be used for capital expenditures

What is Required

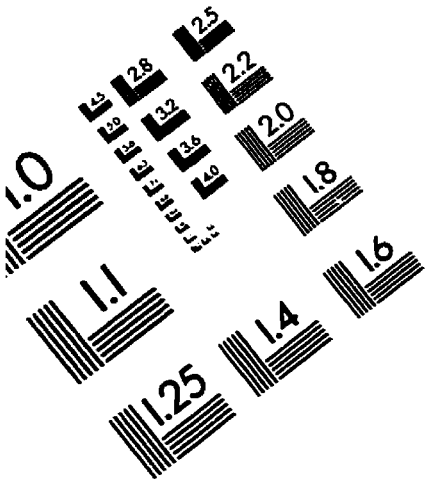
Each RHA is asked to develop and submit a two-year plan for a comprehensive health promotion and disease/injury prevention plan that links with respective three-year business plans.

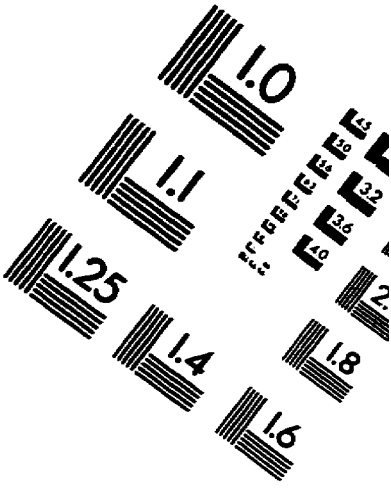
Key People to Involve

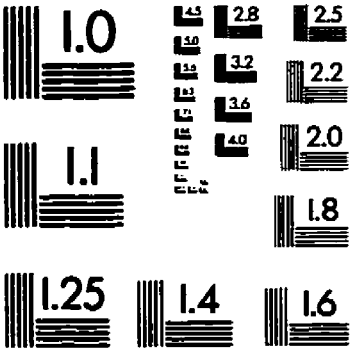
Public health units have staff with specific training and a practice-base in health promotion and disease/injury prevention. Staff and volunteers of a broad range of agencies and community representatives also bring understanding and skills in health promotion.

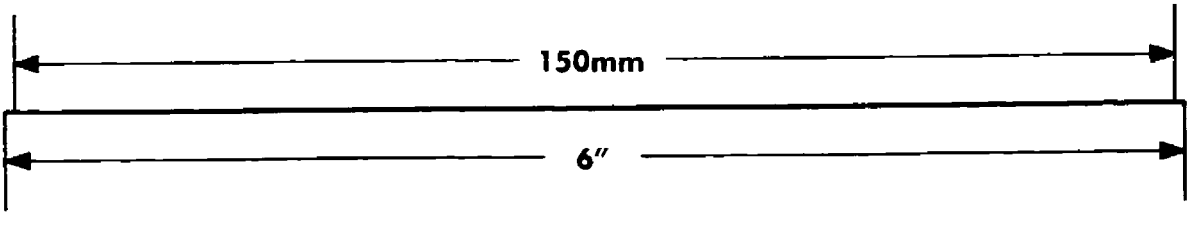
Reproduced from project archive: "Comprehensive School Health: A Progress Report", March 1995. Prepared by Cathy McLean Sterns, Coordinator.

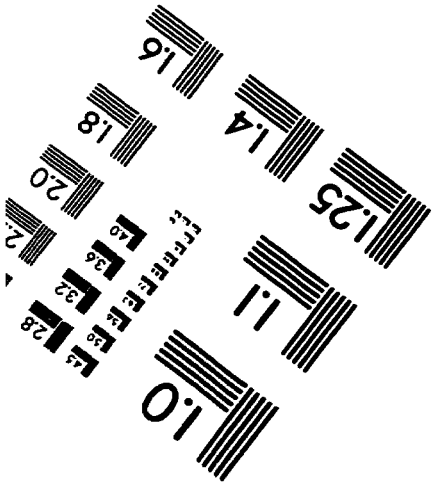
IMAGE EVALUATION
TEST TARGET (QA-3)

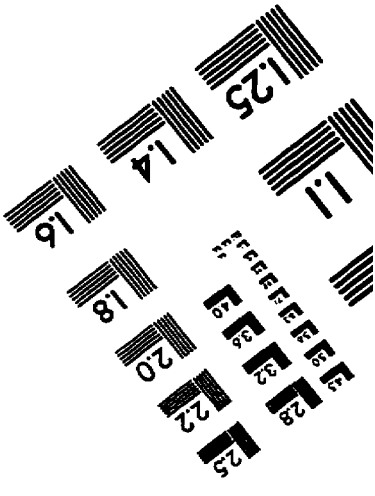












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