



## **Needs Assessment and Environmental Scan:**

### **The Multifaceted Potential of the School as a Setting for Health Promotion**

Prepared by:

Heather Wilson Strosher  
Kristen Sinats

## INTRODUCTION

This report is part of a Canadian Institutes for Health Research funded project entitled “The Multifaceted Potential of the School as a Setting for Health Promotion.” The project team conducted an environmental scan and needs assessment to determine school health research priorities and to identify gaps in knowledge.

Representatives from provinces/territories across the country were selected based on their involvement with school health practice and research and asked to participate in either an online web survey or a key informant telephone interview. Participants were asked to a) identify research priorities and gaps in knowledge; b) discover barriers to creating a national research agenda on the impact of the school environment on health; c) discover solutions to these barriers; and d) join an electronic network concerned with sharing information about school health research. A total of 21 key informant interviews were conducted and 100 respondents completed the web survey. Key informants were selected because of their experience, knowledge, and investment in school health; they represented practitioners from the education and health sectors, parent volunteers, government consultants, policy makers/decision makers, and researchers interested in school health. The web survey was completed by school district (n = 63) and public health unit (n = 37) personnel from across Canada.

## THE ROLE OF RESEARCH

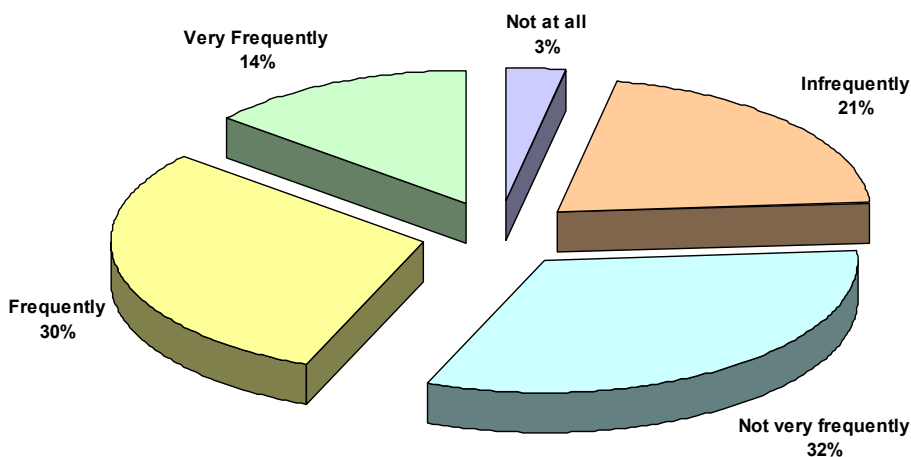
Key informants were asked what role research plays in their positions in order to gain an understanding of the current uses and knowledge of school health research; for many it is used to gather information and evidence, inform and advocate for policies and practices, and to develop curriculum and programs.

*Research that gives educators and public health people guidance about what kind of programs, policies and practices they can use in order to achieve results.*

Most of the respondents were aware of projects or research at a local or provincial level but felt that knowledge of school health research on a national level was minimal. Of the web survey respondents, 80% have used school health research to modify their practices, policies, programs or services. Web survey respondents, primarily education and public health professionals, were asked to indicate the extent to which they use school health research in their work. As illustrated in Figure 1, 44% of the respondents indicated that they use school health research frequently or very frequently and 56% indicated that they use school health research not very frequently, infrequently or not at all.

Figure 1

*Extent of use of School Health Research (Web Survey Respondents: n = 98)*



## RESEARCH PRIORITIES

Based on responses from the interviews and the web survey, the following topics were identified as pertinent to school health research: healthy eating and physical activity, mental health, violence in schools, sexuality, tobacco and drug use, the influence of the media, and the relationship between behaviours established in childhood and chronic diseases in adulthood. Although specific topics were consistently identified as research priorities, several participants stressed the need for research pertaining to comprehensive school health.

*The whole area of Comprehensive School Health... and whether it has been the best approach in terms of impacting students' health and learning.*

*The other thing I think we need really seriously is data on the impact of comprehensive school health or health promoting schools and not just health impacts but academic impacts.*

*We also need to know about what community practices promote linkages that actually implement the elements of comprehensive school health.*

Participants were given a list of potential research themes and topics and asked to indicate their level of interest; Appendix B outlines respondents' research priorities as indicated by their level of interest in these topics. In addition, participants were asked to comment on their reactions to a conceptual diagram (see Appendix C) developed to capture the inclusiveness and complexity of the school environment as it relates to school-based health promotion. Of the web survey respondents, 67% indicated that *yes* the diagram reflected the complexity of the school environment and 23 % agreed that it was *somewhat* reflective of the complexity of the school environment. However, the majority of verbatim comments made by the participants suggest that the conceptual diagram is too visually cluttered and complicated. Hence, work needs to be done to develop a conceptual framework that captures the complexity of the school environment as it relates to health promotion but presents it in a meaningful and straightforward manner.

Based on the analysis of the key informant interviews and web survey, three reoccurring themes emerged pertaining to research priorities: the relationship between health and learning, best practices and evaluation, and collaboration.

## **Relationship between Health and Learning**

Key informants believed it was essential to develop a better understanding of the relationship between health and learning. This includes what effect health has on children's ability to learn and what role health promotion has or should have in the education system. More in depth research that examines linkages between poor health and academic performance is needed; specifically, understanding the connection between basic literacy/basic school achievement and health status. Several key informants also discussed the importance of understanding the impact of health on academic performance and other life outcomes such as drop out rates and unemployment.

*We know that getting an education is a major determinant of health.*

*There has got to be some concrete things that we can say – “if you do commit to health as a core value for your school community, it will benefit you in the long run” ...Whatever evaluation is done has to have both the health outcomes and the academic, things that will be of interest to the education sector.*

## **Best Practices and Evaluation**

There is a need to know what interventions and programs are effective and sustainable. Key informants highlighted that schools and communities want research that has practical applications, can be implemented in the schools, and will lead to the best outcomes for students.

*We need to know what the important questions are and how to get those answered in ways that are meaningful and can lead to action.*

Moreover, examining instructional strategies and how to best integrate health promotion into all aspects of the school environment was viewed as a valuable research area.

*To what degree might the school be able to influence health behaviours and then what kind of skills and abilities would students generally need in order to influence societal change?*

Research that will result in meaningful change must be relevant to both practitioners and to policy/decision makers. Evidence-based research was suggested as a means of identifying what works and what is ineffective in relation to promoting health through schools and to ensuring that this knowledge is used.

*Decision-makers need well-qualified data to share with staff and community.  
Practitioners need tools and resources for implementing policy.*

Informants discussed the need and the current lack of evaluation around school health programs. Research that includes evaluation components would be greatly welcomed by educators, policy makers and practitioners to aid them in their decision making process and to indicate effectiveness and sustainability.

*I am perpetually asked for whether or not there is a tool that a school can use to identify how health promoting they are, where they fall in the continuum of not promoting health to excellent in promoting health.*

*There needs to be evaluation of the programs so that we know if what we are doing makes a difference.*

## **Collaboration**

Collaboration and cooperation were consistently raised as research priorities and as a barrier to doing research in this area. More specifically, understanding and facilitating collaboration between health and education systems and agencies, as well as exploring how these systems can work in partnership toward shared goals was identified by many as a priority. The need for a coherent agenda was frequently mentioned during the interviews, many emphasized the need for a collaborative approach to researching school health. People in the education field expressed frustration at being excluded from the planning and design stages of the research and people from the health sector expressed frustration at their limited access to the school. All of the people interviewed felt that increasing communication and collaboration between the two sectors would greatly influence the ability and the priority of conducting further research in the area of school health.

*How can agencies best work together to prevent the duplication of services and develop a shared vision?*

*How do we access resources that will enable the responsibilities to be shared?*

Several other forms of collaboration were also seen as research priorities: first, governmental/policy level collaboration; second, collaboration between schools and families/communities; third, multi-disciplinary research collaboration; and finally, inter-agency collaboration. For instance, on the web survey, respondents were “very interested” in the following research questions (86% and 91% respectively):

- Develop a better understanding of the linkages between the school systems and other youth and family-serving agencies.
- How can school and local agencies be encouraged to work together?

Participation of students, communities, parents, teachers, and all those involved in the school environment was considered vital to the research process in order for the research to be

meaningful and valuable. Understanding the role of parents and the community was seen as being particularly important, including the question of how to further engage and involve parents in both school health research and health education policy.

*Decisions have to come from the schools and the school community (students, parents, admin.)*

## **BARRIERS TO SCHOOL HEALTH RESEARCH**

Key informants and web survey respondents were asked to identify barriers to carrying out school health research in Canada and to developing a national research agenda on the topic. Barriers to school health research were divided into two main categories: Values and Capacity. Included under *Values* was a division between health and education sectors, as well as a lack of leadership and vision. *Capacity* included the ability of what is viewed as an overburdened education system to be engaged in research, as well as capacity related to resources.

### **Values**

The health and education sectors were seen as having divergent agendas and perceptions of research priorities.

*There is a lack of consensus regarding priorities for research and even whether research should be a priority.*

*The complexity of the issues and the lack of a common understanding or beliefs about what the needs are and who should be responsible.*

School health is not consistently viewed as a priority and therefore requires a consolidated effort to isolate the research needs of all stakeholders. In particular, many of the participants shared the perception that health and health promotion do not receive enough emphasis in the school system.

*In the educational community, it is far down on the list, it's not being set as a performance standard and therefore not being reported on.*

*It is too easy for some agencies and department to support in principle these ideas but not prioritize them to the action phase.*

*Health is not a priority in the school system and it's a constant struggle we have because we see it as totally linked to student learning and establishing health behaviours.*

Leadership and vision were viewed as lacking and therefore hindering the development of a national research agenda. Lack of coordination between the health and education sectors, and between the federal and provincial/territorial governments was viewed as a major barrier.

*When we are talking about school health, I think the federal government backs off, saying it's the responsibility of the provinces.*

## **Capacity**

Capacity can be divided into two categories. First, the capacity of the education system - the education system is viewed as being overburdened and not having the time, personnel, or resources to actively engage in research. Human resources were a key barrier identified; in particular, a lack of qualified school health researchers, and a lack of adequate training.

*An overloaded education system already struggling with complex changes and an ever-expanding set of community expectations...*

*The other barrier is the educational aspect as far as making sure there is course work available in our universities.*

Second, funding capacity – as one would expect, money and resources were listed as barriers to school health research. In particular, lack of resources was consistently mentioned, as was allocation of funds within the education system to support health promotion and to enable more participation in research. Research funding was identified as a barrier, with key informants pointing to the lack of funds available for strategic, sustained school health research. Moreover, several key informants stated that research funding is driven by a biomedical focus, as opposed to a health promotion/public health agenda.

*A lot of research in the country is driven by the clinical side of health, not the preventative side and that is where the money goes and that is where the political clout is.*

## **SOLUTIONS**

Finally, solutions to address the barriers in school health research were explored. Respondents pinpointed three areas: a) Shared Vision, which includes leadership and collaboration, as well as an effort to isolate priorities; b) Support, both political and economic; and c) Communication - knowledge translation to emphasize the importance of developing a national school health research agenda.

### **Shared Vision**

Collaboration among stakeholders and multi-disciplinary research efforts were seen as the most effective means of developing a national research agenda on school health.

*Communication between health and education must improve – both want the same thing but have different approaches and language!!!*

Moreover, all areas of school health need to be linked together more systematically; integration and coordination of research efforts is required. Leadership was seen as the key to isolating research priorities and providing the necessary linkages.

*We have to look at it in holistic terms, I'm not sure we're good at that. Although, I think we're getting better.*

## **Support**

Not surprisingly, economic and political support were viewed as essential to overcoming the barriers to creating a national school health research agenda. Several informants identified the availability of sustainable, long-term funding as aiding the formation of a consolidated research effort. Political support for school health research was also seen as mandatory.

*Federal and provincial cooperation in setting a priority and maintaining focus.*

*Lobbying the health care facilities and government to become proactive instead of reactive and realigning existing dollars.*

*Everywhere that is succeeding in getting some high level commitment to health promoting schools or comprehensive school health, they are getting it from both the ministries of education and health from a high level, if you don't have that then it is very hard.*

## **Communication**

Knowledge exchange was identified as a means to moving school health research forward. Key informants identified a need for disseminating knowledge – there is an awareness that a variety of school health research is being conducted but there is limited access to this information.

*It is a real role with the knowledge transfer, around the evidence and how does that play out into best practice, I think that is an area for all research that is really being challenged at this point in time because what happens is, the research takes place and often it's at such a high level that practitioners and decision-makers maybe have difficulty - how do we use this to make decisions?*

Communication among stakeholders was seen as a key factor in school health research. There is a need for all those invested and interested in the school as a setting for health promotion to network, share knowledge, and identify common terminology.

*Coming up with a common set of definitions and terminology related to the research.*

The media was also brought up as an important method of promoting a school health research agenda and developing the necessary sense of urgency.

*More information to the general public. More opportunities to highlight the importance of comprehensive school health research.*

*Heightened political and community awareness of the importance of the school for getting and establishing health patterns of behaviours.*

## A NATIONAL SCHOOL HEALTH RESEARCH AGENDA

All of the key informants felt there was a need for a national agenda on school health research and that a national research agenda would contribute to promoting the school as a setting for health promotion.

*To achieve that policy agenda is the next big step and I don't think a policy agenda can be put into place or should be put into place without a research agenda.*

As well, the majority of the web survey respondents (83%) believed that a national research agenda on the impact of the physical and social environment of the school on health should be developed in Canada.

*To help overcome these barriers we need evidence that would indicate very clearly that this national agenda will actually save money, so we need evidence that this national agenda is really a step towards fiscal responsibility.*

*Part of our challenge and why there is a need for what I would call a comprehensive research agenda is to try and put together in one place what we do know... where are the gaps and what it is we need to know in order to have healthy children in healthy schools who are capable of learning.*

## Appendix A

### Key Informant Consent Form and Interview Questions

---

#### **Consent Form**

Purposes of this interview:

- To consult key informants on their perspectives regarding research into the school as a setting to promote health
- To invite respondents to become part of a school health research network

Below is a series of open-ended questions which will be asked to you once a telephone interview time has been arranged. There is also a second attachment; this includes potential research themes and topics for future school health research, as well as a diagram that represents the complexity of the school environment that invites respondents to reflect on these themes and offer any feedback and suggestions they may have during the telephone interview.

The potential benefits of your participation in this research include opportunities to critically reflect on your everyday professional experience, learning about activities in an area of professional interest, having the satisfaction of helping to develop a national research agenda and possibly participating in various aspects of the program of research that is developed.

All information is strictly confidential; no personal identification will be linked to any responses. Confidentiality will be achieved by the researchers using a code number and by storing this information under a password on a computer hard drive. Information will only be reported in aggregate form. Your participation in this research will be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation.

For more information about this project or the SHRN, contact Doug McCall, Executive Director of the Canadian Association for School Health who is acting as the SHRN Coordinator at [dmccall@schoolfile.com](mailto:dmccall@schoolfile.com) or 604 575 3199. Also, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Associate Vice-President, Research at the University of Victoria (250-472-4362).

You will be asked to give your verbal consent to be interviewed at the time of the telephone interview.

## **Interview Questions**

1. Please describe your current position and organization of employment with regards to school health. What role does research play in your position and in your organization as a whole?
2. Please describe your past and current involvement in school health practice or research?
3. What do you know about school health research in your community? Province? Canada?
4. Who do you view as currently playing a leadership role in school health research in your community? Province? Canada?
5. What role do you feel that school health research plays or should play for service providers and decision-makers?
6. In what areas (questions or topics) do you feel there is a strong base of research knowledge on school health? (Please note that the optional portion of this interview presents a draft list of school health research themes and topics.)
7. In what areas do you feel there are gaps in research knowledge regarding school health? In particular, what do you think practitioners and decision-makers need to know about the impact of the physical and social environment of the school on health in order to carry out their work and develop more effective programs and policies?
8. What do you think other service providers/decision-makers see as priorities in this regard?
9. Are you aware of any promising programs or projects to improve the impact of the school environment on health in your province/Canada? What are they?
10. Are you aware of researchers or practitioners in your province/Canada who are studying the impact of the school environment on health? If so, who are they?
11. Do you think we should develop a national agenda of research on the impact of the physical and social environment of the school on health in Canada?
12. What do you think are the barriers to carrying out such research in Canada and to developing a national research agenda on this topic?
13. What do you think might help to overcome these barriers?
14. What role might you or your organization play in overcoming these barriers?

15. Have you had a chance to look through the diagram and research themes, and if so do you have any feedback to provide? Did any of the themes stand out for you or can you think of any research topics that were not included?
16. Do you have any final thoughts about the need or opportunities for research on the impact of the school environment on health?
17. Background: The School Health Research Network (SHRN) is developing a web site ([www.schoolhealthresearch.org](http://www.schoolhealthresearch.org)) that will summarize key school health research, describe SHRN studies and projects, and provide links to Canadian school health research studies. The web site will also include a list of contact people interested in school health research within Canadian school boards, public health units, universities, professional and voluntary organizations and other groups as well as a list of Canadian researchers who are currently engaged in school-related studies. Our goal is to create a web-based community and to encourage linkages among researchers and those who use research findings in their work and decision-making.

Would you be interested in becoming part of the School Health Research Network?  
If so, your name, email address, and organization would be listed on the website.

## Appendix B

### Potential Research Themes and Respondent Interest Level

---

The following examples of potential themes and topics for investigation are drawn from research reviews and expert panels commissioned by the World Health Organization and national school health authorities in Australia, the United States, and Canada.

Web survey respondents were asked to select which of the six research themes was of the most interest to them; responses are outlined in the table below. Theme A, the Relationship between Health and Learning, was chosen by the highest number of participants, 38% of respondents indicated that it was of the most interest to them.

---

Research Themes	Most Interest
A The Relationship between Health and Learning	38 %
B The Nature and Influence of the Social and Physical Environment of the School	20 %
C The Effect, Cost-Effect and Cost-Benefit of Linked Strategies and Interventions	9 %
D Multiple, Coordinated Interventions and the Process of Coordination	26 %
E Policies, Program Implementation and Monitoring	4 %
F Development of New Research Methods and Practices	3 %

---

The tables below include specific research topics for each theme, along with the level of interest in each topic indicated by the web survey respondents (topics with 75% or more respondents rating as “Very Interested” are in bold).

## Theme A:

### The Relationship between Health and Learning

*Generally speaking, much of the research has centered on level of education as a health determinant (which is equivalent to socio-economic status) and falsely equating health knowledge as a proxy for health behaviour.*

Suggested Research Topics	Very Interested	Somewhat Interested	Not Interested
Clarify the relationship between school affiliation (the child's feeling of being connected to and welcome in the school) and health status. We know that school affiliation is correlated to health, but what are the determinants that can be influenced by school-based or school-linked interventions?	62%	38%	0%
<b><i>Better understand the connection between basic literacy/basic school achievement and health status. Is there a minimum literacy and social competency level that is critical to health?</i></b>	76%	24%	0%
Clarify what learning about health (knowledge, skills, attitudes, beliefs, values, personal goal-setting, problem-solving/decision-making, media literacy, awareness of health services, career and life aspirations, etc.) is essential and exactly how curricula and teaching practice can be organized and delivered to achieve those essential outputs. Describe a minimum and optimum set of health-related learning outcomes that can be achieved by schools.	57%	41%	3%
<b><i>Develop a clearer understanding of the potential and the realistic sustainable limits of school-based and school-linked interventions to prevent specific health problems. In other words, knowing what is achievable for the school in relation to several health issues including which issues, if any, are more easily influenced by school health programs, and which issues are essential for the school to address for which age groups of youth, and at what stages of their development. These issues can include injury prevention, sexual health, safety/violence, physical activity, healthy eating, mental health, alcohol/drugs/addiction, tobacco use, environmental health, health maintenance and sanitary precautions, home economics and family studies, as well as the general development of skills such as life skills, social skills, social responsibility, media literacy, human growth and development, decision-making, goal setting, personal planning, and awareness of careers in health.</i></b>	76%	24%	0%

## Theme B:

### The Nature and Influence of the Social and Physical Environment of the School

*Generally speaking there is a need for a better understanding of the interactions between the ecology of different community and in-school environments and how these interact with public policy, programs, and practice.*

Suggested Research Topics	Very Interested	Somewhat Interested	Not Interested
Develop a more sophisticated and meaningful understanding of the school environment by examining the social and physical dynamics of different micro-environments within the school including recess and lunch hours, clubs and extra-curricular activities, sports and intramurals, the cafeteria, the school grounds, behaviours in the hallways, school rituals, etc.	44%	48%	7%
Understand the interaction between selected micro-environments within the school environment and student variables such as gender, culture, language, socio-economic status, school variables such as school rules, teacher practices, physical plant and facilities, and mediating variables such as parental attitudes/practices, and resources or community variables such as transportation, community services, social norms, community customs and resources, and how all of these factors create an overall school culture or ethos	59%	30%	11%
Understand the relationship between the culture/ethos of the school and local community norms and wider societal influences that restrict the potential of the school to influence health behaviours	56%	33%	11%

## Theme C:

### The Effect, Cost Effect and Cost Benefit of Various School-based or School-Linked Strategies and Interventions

Generally speaking, there has been considerable study of instructional strategies to prevent specific diseases and health problems. There is a need for more study of non-instructional school-based strategies such as peer helper programs, healthy cafeterias, school-based or school-linked health services, after-school programs, community service learning programs, etc., as well as the study of how one intervention can influence several health problems or overall health status.

Sub-themes and Suggested Research Topics	Very Interested	Somewhat Interested	Not Interested
<b>Sub-theme: Evaluation</b>			
Evaluate new school health strategies	70%	30%	0%
<i>Evaluate ways in which schools can engage youth in preventing health problems and modifying their school and neighbourhood environments, advocating for youth-friendly policies and practices (community service learning, student leadership programs, peer helper programs, etc.), etc.</i>	78%	22%	0%
Evaluate ways in which schools can involve, inform, and support parents in health-promoting interactions with their children	70%	26%	4%
Evaluate ways in which schools that are working with other agencies can reach and support families who are at risk	65%	30%	5%
Evaluate ways to maximize the benefits and extend the involvement of youth in supervised after-school programs	48%	35%	17%
Examine new questions relating to individual interventions within a comprehensive approach	39%	48%	13%
<b>Sub-theme: Instructional strategies</b>			
Under what circumstances are teachers, schools and education systems prepared and able to make sustained investments?	43%	57%	0%
To what extent can formal instruction influence coping skills, attitudes/beliefs, self-esteem, and behavioural interactions (rather than simply knowledge)?	57%	39%	4%
Are there efficiencies possible in curriculum design so that all relevant health topics are covered with a coherent scope and sequence to affect skills, beliefs, key knowledge, behavioural intentions, etc.?	39%	57%	4%

To what extent can health be integrated into other subjects?	43%	43%	13%
What is the status of current health teaching practice, competence, coverage, and comfort?	48%	39%	13%
What is the most effective and efficient scope and sequence for health curricula based on research evidence? What are the minimal learning outcomes that absolutely must be taught?	48%	43%	9%
What are the minimum intensity, duration, and learning outcomes required for each health issue? For example, 11 sessions for tobacco on selected skills, attitudes, and beliefs – but what about other issues?	48%	43%	9%
What is the most effective way of teaching generic health skills and attitudes such as decision-making, problem-solving, resistance skills, risk avoidance, health beliefs, self-esteem, and resilience?	65%	30%	5%
To what extent are Canadian-based publishers able to supply our schools with appropriate, up-to-date materials?	13%	61%	26%
To what extent can the Internet and other technology-based tools be used in health education?	30%	53%	17%
<b>Sub-theme: School Policies and Procedures</b>			
What is the impact of gender equity policies and programs? Have they been implemented?	30%	44%	26%
What are the impact and potential unintended consequences of zero tolerance policies in schools related to drugs, weapons, and other anti-social behaviours?	57%	35%	8%
To what extent are all school health policies implemented (not just whether the school has a policy)?	57%	39%	4%
<b>Sub-theme: Physical Environment</b>			
What are the effects of aesthetics and artificial design?	4%	57%	39%
To what extent can changes to the school's physical environment and resources (cafeteria food, gymnasium, school grounds, etc.) affect behaviour?	39%	57%	4%
<b>Sub-theme: School Health Services</b>			
To what extent is there systemic collaboration across sectors to deliver primary care to children and adolescents?	70%	22%	8%

To what extent are services truly accessible and actually used by youth?	70%	22%	8%
<b><i>What are the potential impact, suitability, and effect of innovative delivery methods of adolescent and children health services via the school as a hub or place for delivery (i.e. school-based clinics, parent resource centres, community resource centres, placement of nurses, police officers and social workers in schools, etc.)?</i></b>	92%	4%	4%
What is the current status of children and adolescent preventive health services in Canada? How many youth use them? For which services? Can schools increase the use of such preventive services by young people?	65%	30%	5%
<b>Sub-theme: Parental Involvement</b>			
To what extent are individual parents informed about school health programs?	35%	52%	13%
To what extent can schools be used to involve and support parents in health issues (take home student assignments, parent education nights, parent outreach, parent resource centres, referral and crisis intervention procedures, training and procedures for early identification of potential problems, etc.)?	61%	35%	4%
How can schools involve their obligatory parent advisory committees in improving the quality of health programs and services in their school and community?	52%	43%	5%
To what extent can school-based or school-links efforts encourage parents to take more interest or be more effective with their child's health?	74%	22%	4%
<b>Sub-theme: Community Involvement</b>			
Why do teachers and schools have such difficulty in working with community agencies?	74%	22%	4%
How can obligatory community service learning be used to engage students in health issues and learning?	48%	35%	17%
<b>Sub-theme: Youth Engagement, Peer Helper, Community Service Learning, Extracurricular, Co-</b>			
To what extent does engaging youth in school-related health promoting activities affect their behaviour and their environments?	70%	36%	4%

activities affect their behaviour and their environments?			
How many young people participate regularly in after-school programs that are supervised by adults? Those delivered in schools? Those delivered by other agencies?	48%	39%	13%
How can we overcome transportation, safety, and other barriers to ensure that all youth have a safe, healthy, supervised place to go after school?	57%	39%	4%
To what extent do we take knowledge about adolescent development and youth sub-cultures into account when we plan programs and develop policies?	57%	39%	4%
<b>Sub-theme: School Ethos, Social Climate:</b>			
Are children and staff in healthy schools more likely to intervene to help others?	52%	39%	9%
What is the role of the school principal? How is it changing and how will this shift away from education leadership affect the ethos of the school?	57%	39%	4%
What are the interventions that schools can use to create social support? (policies, programs, friendship clubs, extracurricular, student buddy systems, etc.)	70%	26%	4%
How can we measure and monitor school culture, climate and ethos in a meaningful, reliable, and regular way?	57%	30%	13%

## Theme D:

### Multiple, Coordinated Interventions and the Process of School-Agency, School-Home, School-Community Cooperation and Coordination

Generally speaking, the process of inter-agency coordination and the impact of coordinated interventions delivered through the school setting have not been well researched.

Suggested Research Topics	Very Interested	Somewhat Interested	Not Interested
<b><i>Develop a better understanding of the linkages between the school systems and other youth and family-serving agencies and systems</i></b>	86%	14%	0%
Understand the limits and contradictory pressures on school systems to promote health (i.e. the recognition of competing demands, reality of the school's mission to sort and select students, etc.)	55%	36%	9%
<b><i>Develop a better understanding of the roles that public health, recreation, sports, social services, employment, justice, and law enforcement systems play in school-based and school-linked programs and services</i></b>	77%	18%	5%
Use systems and organizational change theory and knowledge to understand implementation and sustainability issues	59%	36%	5%
For single health issues, a multi-faceted approach is superior to a single strategy but there have been relatively few intervention studies on comprehensive school health (health promoting schools) as an intervention itself. (Is it feasible to study something that covers all issues at all levels or does it need to be delineated – i.e. coordinated vs. uncoordinated interventions? Is there a diminishing return to trying to cover too many issues or too many interventions?)	45%	50%	5%
<b><i>How can school and local agencies be encouraged to work together? What is the best locus of control? How can such coordination be sustained? What are the incentives, directives, structural changes, training, assignments, and other steps needed to overcome the tendency to create vertical “silos” for program delivery?</i></b>	91%	9%	0%
What is the role of public health agencies and professionals in school-community coordination? Are public health systems adequately trained and resourced to play this role?	73%	27%	0%
There are several examples of Comprehensive School Health but we have not studied them. How did they start? How do they work? How did they fail? How can they be sustained?	73%	27%	0%
How can school health coordinating committees be sustained over time?	55%	41%	4%

## Theme E:

### Policies, Program Implementation and Monitoring

*Generally speaking, the research to date has focused on testing specific interventions in a time-limited manner. There is a need for better knowledge on how to implement and sustain policies and programs.*

*Better and more frequent monitoring of the status of policies, programs, and services available in the school and the community through the development of a set of Indicators to monitor the "health" of schools, school systems, and related systems such as public health, social services, recreation, police, and youth employment services.*

Suggested Research Topics	Very Interested	Somewhat Interested	Not Interested
Develop more meaningful indicators to measure factors such as the resiliency within children and the capacity of systems to respond to rather than simply list deficits and negative incidents or treatment statistics. The tendency in health promotion and education is to focus on the concepts that are most easily operationalized and measured. There is an urgent need for more meaningful indicators that report on a comprehensive set of indicators that cover context, inputs, and processes at all levels as well as immediate outputs and long-term outcomes.	65%	35%	0%
<b><i>Develop a better understanding of how to initiate, promote, and sustain school-agency-community cooperation. What are the policy levers, financial incentives, and training required (not structure)?</i></b>	75%	25%	0%
How can innovations in health education (more than materials and programs) be implemented and diffused effectively?	60%	35%	5%

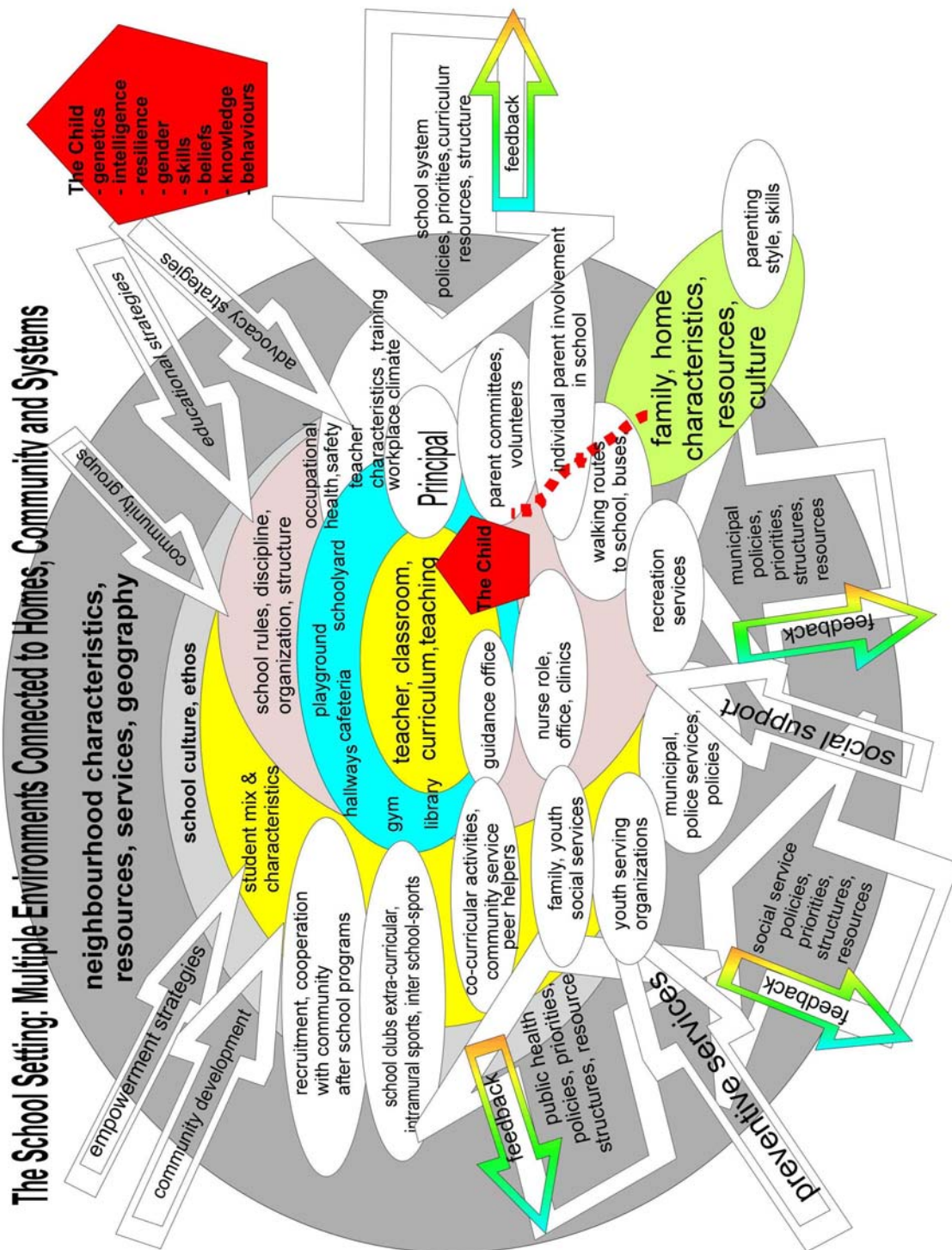
## Theme F:

### Development of New Research Methods and Practices

*This theme addresses how research should be conducted in school health. Are there new methods that we should use? Have there been problems with methods that you have seen used in measuring the impact of school health interventions or in understanding the impact of the school environment?*

Suggested Research Topics	Very Interested	Somewhat Interested	Not Interested
Randomized, controlled trials can measure the impact of a particular intervention under particular circumstances. However, this method is too blunt to help us understand the complexities of individual schools and students. Case studies are a detailed examination of a single case but cannot be generalized for other situations. Consequently, experimental or qualitative designed studies are not adequate to describe the meaning and complexity of school health situations and programs. Thus, school health research should seek to measure and monitor a “hierarchical set of causal relationships in which school factors interact with home and personal characteristics to determine school or health outcomes.	45%	45%	9%
We need more cost-benefit and cost effectiveness studies to demonstrate the value of school health programs and services. Currently, we have only a few studies on economic and cost-benefits of school-based interventions on topics such as immunization, tobacco education, and comprehensive approaches to single issues such as pregnancy prevention.	64%	36%	0%

## Appendix C Conceptual Diagram



Web survey respondents were asked three questions in relation to the diagram; these are listed below, along with their responses:

	<i>Yes</i>	<i>Somewhat</i>	<i>No</i>
Does this conceptual overview help you to visualize the various micro-environments within the school?	43 %	39 %	18 %
Is this a useful tool in helping to understand the school environment and its relationship with parents/homes, the community, and other agencies?	33 %	48 %	19 %
Is this diagram reflective of your experience of the complexity of the school environment?	67 %	23 %	10 %

The majority of the verbatim comments related to the diagram indicated that participants felt that it was too complex, busy and cluttered.