Improving the School Health Action, Planning and Evaluation System (SHAPES) School Profile as a Knowledge Exchange Strategy: The Example of the Youth Smoking Survey (YSS) Profile

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners. I understand that my thesis may be made electronically available to the public.

Abstract

Objective: The objective of this study was to understand school administrators' experience using the Youth Smoking Survey (YSS) school smoking profile to inform and improve future knowledge exchange strategies with schools. **Methods:** This study employed a two-phase, sequential explanatory mixed method approach. Phase One consisted of a close-ended mail-out questionnaire to 111 school administrators who had not viewed their schools' feedback report. Phase Two consisted of telephone interviews with consenting questionnaire participants. **Results:** Of the 111 eligible schools, 71% (N=79) responded to the questionnaire; 29 school administrators participated in the follow-up interviews. Overall, questionnaire respondents rated the feedback report's layout very positively in terms of clarity and relevancy, but somewhat less positively on timeliness and level of detail (too much). The majority of school administrators (82%) plan to use the feedback report when planning programs, curriculum, or events, and would primarily discuss the report with teachers, students, and parents. While interview participants provided positive feedback regarding the communication quality, relevance, timeliness, and content of the smoking profile, further investigation revealed a weak relationship between these information characteristics and knowledge use (conceptual and instrumental). The weak association could be attributed to the small sample (N=29), the fact that participants had not previously viewed their feedback reports, and did not have adequate time to incorporate the findings into their practice. **Conclusions:** The findings have contributed to our understanding of the knowledge utilization process of school administrators. Specifically, it examined how end users perceived source and information characteristics in school smoking profile, and the extent conceptual and instrumental knowledge use are associated with the these characteristics. Findings will guide profile revisions and process.

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Table of Contents

List of Tables

List of Figures

1.0 Introduction and Overview

Youth smoking continues to exist as a public health problem in Canada. Between 1999 to 2008, the Canadian Tobacco Use Monitoring Survey has documented a decline in the smoking rate among Canadians aged 15 years and older from 25% (1999) to 18% (2008) (Health Canada, 2010). However, the smoking prevalence rate for youth aged 15-19 years has remained stagnant at 15% between 2006-2008 (Health Canada, 2010). Within this age group, there are fairly wide variations in smoking prevalence rates across Canada, including variations across schools (9%-57%). Considering that smoking rates differ by region and school, tobacco control should include school-based elements.

Since school-based prevention programs need to be tailored according to the population, the School Health Action, Planning and Evaluation System (SHAPES) provides data for population-based interventions. SHAPES was created by the Canadian Cancer Society/ University of Waterloo's Propel Centre for Population Health Impact, and colleagues across Canada (www.shapes.uwaterloo.ca). SHAPES generates health profiles on physical activity, healthy eating, smoking, and mental fitness, of students in grades 5 to 12 and of school environments across Canada. The Youth Smoking Survey (YSS) project, funded by Health Canada, uses the SHAPES system to collect data from students and school staff regarding student tobacco use to improve health of youth at the local, provincial, and national levels. The results of the survey are then compiled into individualized school smoking profiles within 8 weeks, in order to inform the school of their health status and identify strategies in order to help them take action (Cameron, Manske et al., 2007; Planinac et al., 2008).

In particular, tailored, timely feedback contained in the school smoking profile would be expected to contribute positively to school knowledge use, considering that information and its

source have been identified as playing a key role in knowledge exchange (KE). However, in the SHAPES-YSS context, this relationship has not been tested. Both the actual information contained in the smoking profile and its delivery, such as format of that content and how it reaches users, can potentially influence knowledge use.

For the YSS, studying this relationship is critical. Almost half the 329 schools that participated in the 2008-2009 YSS did not view their school report. As a result, these school administrators did not have the opportunity to even consider incorporating the results into their planning, curriculum, and programs. By gaining insight into the use of the smoking profile and impressions of it, the report can be tailored to the needs of school administrators to improve uptake of the smoking profile during policy and program planning. Consequently, the purpose of this study was to examine the effectiveness of the YSS smoking profile as a KE strategy for school administrators across Canada and to suggest improvements to the content, format, and process of providing feedback.

2.0 Literature Review

2.1 Youth Smoking Overview

High rates of smoking continue to occur in the youth population. The Canadian Tobacco Use Monitoring Survey previously found that 85% of current smokers start by 18 years of age (Health Canada, 2007). Additionally, only 18% of smokers who began at 13 years or younger have been able to stop smoking within 10 years of starting to smoke (Health Canada, 2007). Although there have been reductions in smoking prevalence in Canadian youth in the last two decades, this rate has remained stagnant the last few years (Health Canada, 2010; University of Waterloo, 2009). While previous policies were created to decrease the prevalence of smoking, changes need to be made to further decrease youth smoking prevalence. Consequently, a problem continues to exist since rates are no longer improving. Considering that four out of five people who use tobacco begin before the end of high school, and that 50% of young people who continue to smoke will die from smoking, school-based tobacco use prevention efforts are necessary (CDC, 2009; MacKay & Eriksen, 2004). Research has clearly established that smoking causes numerous cancers and chronic diseases, premature deaths, and cost $1.6 billion annually in associated health care costs in Canada (Kuper, Adami, & Boffetta, 2002; MacKay & Eriksen, 2004). Correspondingly, out of everyone alive today, 500,000,000 will be killed by tobacco (MacKay & Eriksen, 2004). In order to address the problems associated with tobacco use, the key causes of onset need to be examined.

The onset of smoking can be attributed to factors from various socioecological levels. More specifically, youth smoking can be attributed to individual level attributes (such as rebelliousness), as well as social (peer and family influences), physical (efforts to manage weight loss), and environmental (socioeconomic status and access and availability to cigarettes) factors.

For example, a social level factor contributing to the early onset of smoking in youth is peer influences at school. Since adolescents are vulnerable to begin smoking, it is important to prevent the long term health consequences due to youth smoking. For instance, Leatherdale, Cameron, Brown, & MacDonald (2005) found that students are at increased risk to smoke when more than 30% of senior students smoke. Consequently, the characteristics of the school can increase the risk of students smoking when there is a high prevalence of older students who smoke. Since school settings may increase vulnerability, effective prevention efforts need to account for the school setting.

Given that there are multiple causes contributing to the onset of youth smoking, comprehensive strategies are necessary. As part of a comprehensive strategy, the Centers for Disease Control (CDC) (2009) indicates that school health programs and school-based smoking policies can be effective at reducing the onset of smoking; other reviews have pointed to mixed results, especially in terms of maintenance of effects (Flay, 2009; Manske et al., 1997; Peterson, Kealey, Mann, Marek, & Sarason, 2000; Wiehe, Garrison, Christakis, Ebel, & Rivara, 2005). While the Hutchinson Smoking Prevention Project, a well-controlled study on school-based tobacco use prevention, reported impacts did not maintain over time (Peterson et. al., 2000), a similar Canadian study was able to maintain significantly lower smoking rates among boys (Brown et. al. 2002). Smoking prevention interventions may be effective when adapted for particular settings and populations.

As a result, contextualized interventions may be an effective solution. Cameron et al. (1999) found that school-based prevention programs were effective in reducing smoking uptake when programs were targeted at high-risk schools. Subsequently, Murnaghan, Sihvonen, Leatherdale, & Kekki (2007) reported that school-based prevention programs were effective

when they were tailored to the needs of smoking youth. Consequently, tailored approaches are necessary. Since schools are influential in implementing non-smoking initiatives among youth, researchers and educators need to collaborate so that contextually appropriate interventions inform practice (Cameron, Bauman, & Rose, 2006; Green, 2001, 2006; Green & Mercer, 2001). Given the plethora of contexts (school environments, home, municipality) that exist, firm knowledge about the setting is essential to select and adapt appropriate interventions. The YSS school smoking profile (www.yss.uwaterloo.ca) serves as a KE tool that helps to foster linkages between researchers and school administrators around smoking prevention within the school context and the local level. The YSS school smoking profile helps to create awareness of school-specific smoking behaviours to school decision makers, and urges them to use evidence informed practice within their schools and local communities to create more health promoting school environments. In spite of the school-specific data being available, schools are not implementing the evidence into practice. Consequently, a gap exists between knowledge (about student tobacco use) and practice (how to effectively respond) in schools.

2.2 Defining Knowledge Exchange

Knowledge exchange (KE) are strategies that attempt to reduce the gap between knowledge and practice. The particular terminology used effectively directs the focus of these strategies. There are numerous terms used to describe KE. In 9 countries, 29 distinct terms have been used interchangeably to identify the concept of knowledge use; however, some of these terms focus on outcomes (knowledge utilization, evidence-based decision making, research uptake, research dissemination, research implementation), while others focus on the process (innovation diffusion, knowledge transfer, knowledge exchange) (Graham et al., 2006). In spite of these terms being used interchangeably, these terms emphasize different components of

knowledge use. For instance, knowledge transfer suggests a one-way direction of knowledge (CIHR, 2008); meanwhile knowledge exchange suggests a two-way flow of knowledge (CHSRF, 2007). Even though similar terminologies are recognized in different fields, definitions of these terms are still missing or are infrequent in the literature (Graham et al., 2006).

Notable institutions therefore have constructed their own definitions of key terms in order to provide definitional clarity. The Canadian Health Services Research Foundation (CHSRF) (2007) defines KE as "collaborative problem-solving between researchers and decision makers that happens through linkage and exchange. Effective KE involves interaction between decision makers and researchers and results in mutual learning through the process of planning, producing, disseminating, and applying existing or new research in decision-making". CHSRF's definition indicates that KE is a collaborative process dependent on joint interactions. As a result, this definition will be used in this thesis. In examining CHSRF's definition, it appears that we need to understand the factors associated with the interaction through collaborative problem-solving and linkages and exchange. Secondly, researchers and decision makers are involved in the process, so it is important to examine their context. Since individuals can provide different perspectives on an issue of mutual concern, their priorities will depend on their setting. Lastly, in order for decision makers to apply new or existing research, it is important to understand characteristics of the content. In examining KE, it is necessary to select a theoretical framework that addresses these issues, as well as being designed for a school system. Considering that terminology is important, an appropriate theoretical framework would include a two-way flow of communication and an interrelationship. There are a couple of theoretical frameworks that will help in focusing the attention to KE.

2.3 Knowledge Exchange Theoretical Frameworks

Although KE has evolved over the past several decades, there continues to be limited consensus concerning understanding factors contributing to knowledge utilization. Since KE is multi-dimensional and complex, there is not one predominant theoretical framework. While there are numerous terms used to describe KE, there are a multitude of theories and frameworks that have evolved in the field of KE in the last 50 years. Only a few theoretical frameworks examine KE through the interactions, context, and content within a school system: this includes Cousin and Leithwood's (1993) knowledge utilization conceptual framework, which was also refined by Manske (2001). The theoretical framework mentioned above is of particular importance since it is complementary to Rogers' (1962) diffusion of innovations theory. The former theoretical framework focuses on helping understand the result (i.e., knowledge use), while the latter focuses on how the knowledge (i.e., innovation) gets into practice. Considering that the knowledge utilization conceptual framework(Cousins & Leithwood, 1993; Manske, 2001) takes into account the components included in CHSRF's definition of KE, this framework was used to guide the research and is described in detail below.

2.3.1 Knowledge Utilization Conceptual Framework

Cousins and Leithwood's (1993) knowledge utilization conceptual framework demonstrates the importance of the two-way exchange and interaction. This framework was further refined through additional research by Manske (2001) in order to better understand knowledge use. Figure 1 illustrates the refined knowledge utilization conceptual framework and the process of knowledge use. In this framework, knowledge use occurs along a continuum from conceptual to instrumental. Conceptual knowledge use (CKU) refers to background learning and understanding, whereas instrumental knowledge use (IKU) refers to the obtainment of new

knowledge such that decisions are made based on this new information (Cousins & Leithwood, 1993). Cousins and Leithwood's (1993) framework on educators' use of information for school improvement identified three factors contributing to knowledge use, and these factors contribute to varying uses of information for school improvement: 1) characteristics of source and information, 2) characteristics of the improvement setting, and 3) interactive processes. Manske's (2001) framework refinements confirm that there are three areas that influence knowledge use: characteristics of the source and information, context characteristics, and an

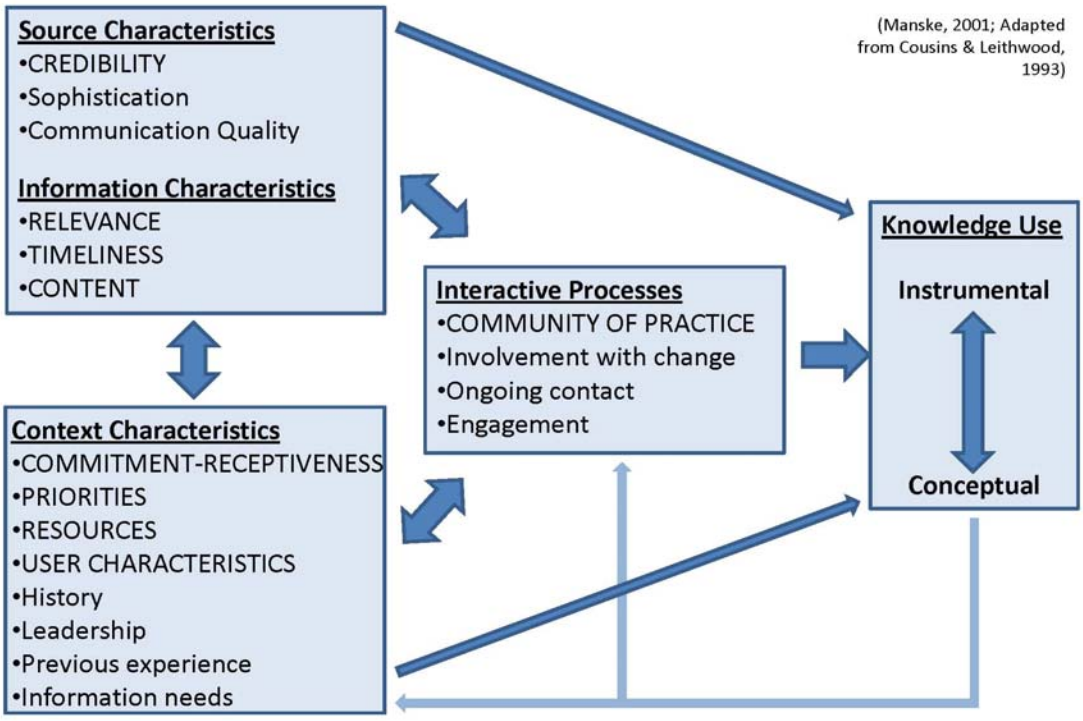


FIGURE 1: Knowledge Utilization Conceptual Framework

interactive process. Through these three factors, conceptual and instrumental knowledge use are influenced directly and indirectly.

While each of these domains contributes to knowledge use, only the source of information will be examined in-depth. The domain "characteristics of the source of information" is concerned with the individuals' perceptions of the quality of the source of new

information, such as the research evidence (Cousins & Leithwood, 1993). Within this domain, there are six factors including sophistication, credibility, relevance, communication quality, content, and timeliness. While sophistication includes concepts such as appropriateness and rigour with the source of information, credibility is concerned with the perceptions of validity and believability of the source of information and those responsible for disseminating the information (Cousins & Leithwood, 1993). Relevance refers to how practical the perceived knowledge is to the needs of the audience (Cousins & Leithwood, 1993). Following relevance, communication quality refers to dissemination efforts such as clarity, style, readability, in order to convey information to the intended audience (Cousins & Leithwood, 1993). Meanwhile, content is concerned with the actual knowledge that is disseminated and how it is evaluated; for instance, perception on how similar this new information source is with the audiences' existing knowledge (Cousins & Leithwood, 1993). Lastly, timeliness refers to information being delivered at an appropriate and useful time, for example, during an appropriate time of year (Cousins & Leithwood, 1993).

This domain was modified from Cousins and Leithwood's (1993) characteristics of the source of information to focus on the "what" aspect of sharing evidence, primarily content. Manske's (2001) adapted the framework and divided content characteristics into two categories: source characteristics and information characteristics. Within this domain, credibility, relevance, timeliness, and content are the prominent variables, while, sophistication and communication quality had a weaker relationship with knowledge use.

The second domain of the knowledge utilization framework consists of the improvement setting. This domain is concerned with the context in which information is disseminated, such as aspects of the setting where information would be used, dealing with both individual and

organizational level issues (Cousins & Leithwood, 1993). The improvement setting includes six factors: information needs, focus for improvement, political climate, competing information, user personal characteristics, and user commitment and/or receptiveness. In addition to the seven variables included in this domain, one new variable, resources, was incorporated by Manske (2001) since the availability of resources can help to facilitate knowledge use. This domain contributes to the explanation of "where" knowledge will be utilized. Dobbins et al. (2009) identified that the extent to which the organization values research evidence in decision making needs to be considered since the context and setting has implications for knowledge uptake.

Although these two domains, characteristics of source and information and context characteristics, consist of interdependent factors that directly influence knowledge use, these domains also affect knowledge use indirectly through interactive processes, the final domain. Interactive processes help to facilitate understanding and access by users transforming information into useful knowledge in relation to their specific context (Cousins & Leithwood, 1993; Manske, 2001). Within this domain, five factors emerged, including involvement, social processing, ongoing contact, engagement, and diffusion. While Cousins and Leithwood included the interactive process in their framework, variables in this domain were not operationalized, therefore explanations of knowledge use are not evaluated quantitatively. As a result, there were limitations in predicting use in this domain and the mediating effects of the interactive process on the source of information and improvement settings. Consequently, this area was adapted by Manske (2001) since only two of the five variables (ongoing contact and engagement) identified by Cousins and Leithwood (1993) were found to be effective on increasing knowledge use. Manske (2001) established that community of practice and involvement with change were also important variables associated with knowledge use. The interactive process observes "how"

social interactions facilitate knowledge construction and use. Additionally, Manske (2001) found a bi-directional flow of influences between the source and information domain and the interactive process. Between these two domains it could be determined how information fits with priorities, as well as providing the opportunity to identify new knowledge. Consequently, individuals can influence content needs, as well as new information leading to social processes.

2.3.2 Diffusion of Innovations Theory

Rogers' diffusion of innovations theory, which was developed in the early 1960s, has also been important for understanding the characteristics of knowledge exchange, especially about characteristics of the innovation itself. Rogers' theory has been especially useful and compatible with the knowledge utilization conceptual framework, specifically in understanding the components of knowledge use. CKU corresponds to Rogers' awareness stage in that the individual becomes aware of a new idea, which may lead to eventual adoption of the innovation (Rogers, 2003). Similarly, IKU is associated with Rogers' adaptation stage in that the individual determines a new idea to be useful and intends to use the new knowledge in the future (Rogers, 2003).

Rogers' diffusion of innovations theory was the original attempt to define the elements that influenced how research was incorporated into practice (Rogers, 1962), coming with a long tradition of research (1983, 1995, 2003), and provides emphasis on the innovation or new piece of knowledge. The diffusion of innovations theory attempts to explain the spread of new ideas through four key elements: the innovation, communication from one individual to another, a social system, and over time (Rogers, 2003). As an innovation, consisting of a new perceived idea, is communicated through channels over time among a social system, individuals move

through stages of awareness, persuasion, decision, implementation, and adoption (Estabrooks, 2003; Rogers, 2003).

An important element of Rogers' diffusion of innovations theory was the innovation, typically technological innovations. Similar to Manske's information and source characteristics, which is concerned with an individual's perception of the quality of the source of new information (Cousins & Leithwood, 1993), variables such as credibility, relevance, and timeliness are important in the adoption of evidence into practice (Rogers 2003). According to Rogers (2003), in order for an individual to adopt an innovation, it is dependent on the person's perceived advantages of the innovation. Therefore, how the individuals perceives the newness of the knowledge, determines their reaction to the innovation. Likewise, Manske's context characteristics built on components of Rogers' diffusion of innovations theory. For example, the importance of resources was incorporated by Manske (2001) into the knowledge utilization conceptual framework. The availability of resources can help to facilitate knowledge use, while a lack of resources can prevent adoption or implementation of new information (Rogers, 2003). The interactive process was also observed in Rogers work. This domain observes the how interactions facilitate knowledge use, which similarly reflects Rogers' interaction effect where "individuals in a social system who have adopted an innovation influence those who have not yet adopted" (2003, p.138). An important factor in the utilization of new knowledge is the interactions and exchange between previous adopters and non-adopters. Rogers (2003) found that in order to speed up the process of adoption, information needed to be communicated more adequately so that awareness could be created sooner, in addition to shortening the length of time of the adoption process from awareness to adoption. Although disinterest could be due to lack of experience with KE (Gagliardi, Fraser, Wright, Lemieux-Charles, & Davis, 2008; Newton et al.,

2007; Rogers, 2003). Meanwhile, non-adopters are usually familiar with an innovation but are not motivated to test it out (Rogers, 2003).

2.3.3 Applicability of Knowledge Utilization Conceptual Framework

While the definition of KE is comprised of content, context, and interactions, this research study focused primarily on the content domain, specifically on the source and information characteristics and how these factors relate to knowledge use. Since each of the theoretical frameworks identified content as a key contributor to uptake of new knowledge, this research study primarily observed what school administrators view as being important information. The other two domains, context and the interactive processes, will be discussed, though the primary objective relates to content. Aspects of credibility, relevance, timeliness, and content were expected to be of increased importance to school administrators as opposed to sophistication and communication quality in influencing knowledge use since these are prominent variables previously identifies within the knowledge utilization conceptual framework.

2.4 Knowledge into Practice

In order to engage non-adopters, a range of studies have been conducted to examine the characteristics that influence KE. The following section describes the relationship between the literature and the knowledge utilization conceptual framework, keeping in mind that the characteristics of KE do not act independently but are interactive.

2.4.1 Information and Source Characteristics

In order to increase knowledge use, individuals' perception of the quality of the source of new information needs to be taken into account. Although the importance of research is recognized, it is not being implemented into practice in a timely, cost-effective, accountable

manner because of the knowledge-to-action gap (Graham et al., 2006; Grol & Grimshaw, 2003; Lomas 1991). Previous research indicated that timely and convenient delivery of information, lack of access to information and grey literature, such as unpublished research, work environments unsupportive of KE, lack of authority to implement effective research, and locating available information were all limitations to individuals using research (Ciliska, Hayward, Underwood, & Dobbins, 1999; Hunt 1996; Lomas, 2000). There are various reasons why individuals do not use evidence in program planning decisions, such as the timeliness of the information. In order to facilitate the use of knowledge into practice, decision makers want to be automatically updated with detailed information about recently published reviews that are relevant to their topic area of interest to prevent delays of being informed about new information (Dobbins, DeCorby, & Twiddy, 2004; Lapelle et al., 2006). In providing practitioners with relevant, timely content, they are able to use evidence to inform their decision making.

Nevertheless, another barrier to consider is that people have little or no experience using evidence and how to interpret the results in practice (Lapelle, Luckmann, Hatheway Simpson, & Martin, 2006). Consequently, evidence needs to be appropriately communicated to decision makers. CHSRF (n.d.) recommends that practically oriented work is presented in a reader friendly 1:3:25 report, which contains one page of main messages, a three-page executive summary, and the findings in less than 25 pages of writing which a person without research-training would understand. While the content may be communicated appropriately, information needs to be relevant to practitioners. Even though some decision makers are interested in incorporating research into practice, Lavis et al. (2003) found that only one third of individuals would find information useful and of interest from research websites. As a result, researchers need to provide information that is specific to the organization which can assist decision makers

to take action. When the evidence is relevant to the perceived audience, knowledge use will be increased.

2.4.2 Context Characteristics

Not only are information and source characteristics influential in knowledge use, but the context of the decision maker also needs to be considered. A variety of factors affect whether new knowledge will be applied, such as previous experiences. Individuals are more willing to incorporate knowledge into their practice if they perceive the research as being consistent with their own experiences (Dobbins, Ciliska, Cockerill, Barnsley, & DiCenso, 2002), as well as when resources are accessible (Thompson, Estabrooks, & Degner, 2006). Cultural changes in the environment are also necessary in order for the implementation of new knowledge to be beneficial; in particular, organizations that are more inclined to create learning and educational atmospheres are more likely to integrate research into their practice (Rycroft- Malone, Harvey, McCormack, Seers, & Tichen, 2002). KE attempts to facilitate the application of evidence, with the assumption that evidence-guided action will have greater impact. Therefore, it is important to ensure both researchers and decision makers are involved in the KE process.

However, there are several factors that influence the decision maker's role, including stage of the research process, required time commitment, alignment between decision maker expertise and needs of the research initiative, and nature of the existing relationship (Ross, Lavis, Rodriguez, Woodside, & Dennis, 2003). While individual determinants, such as involvement in research activities, information seeking, and education, may be important factors in the uptake of research, other determinants such as role and setting, influence a person’s behaviour towards using research (Estabrooks, Floyd, Scott-Findlay, O’Leary, & Gushta, 2003). Therefore it is important to determine whether the utilization of evidence is associated the individual’s position

in the school, the school type (e.g. elementary or secondary), or even the location of the school to facilitate effective KE strategy.

2.4.3 Interactive Process

In addition to understanding how context affects knowledge use, it is also essential to understand how factors associated with the interaction process impact knowledge utilization. Interpersonal contact is essential in improving individuals' use of knowledge in practice (Thompson et al., 2006). As suggested by the CHSRF definition of KE, when researchers and decision makers are involved throughout the research process, it is more likely that research evidence will be used in practice. In order to effectively implement a KE strategy it is important to identify exchange of information. There is much evidence suggesting that when research is disseminated through personal one-to-one contact rather than group-based interventions, more effective research utilization is made possible (Grol & Grimshaw, 2003; Lavis et al., 2003). Consequently, two-way interactive processes between individuals is more successful in transforming information into useful knowledge.

While there have been efforts to involve decision makers in the research process, researchers tend to use passive means to involve decision makers, such as through written updates and emails (Ross et al., 2003). Rather than being a joint partner, decision makers usually only provide support and are not involved in the research (Ross et al., 2003). Involvement tends to be more superficial rather than genuine partnership. As a result, new linkages are necessary to bring together researchers and practitioners in order to effectively collaborate to improve the health of the population (Cameron, Jolin, Walker, McDermott, & Gough, 2001). The fact that less than 30% of schools implement evidence-based interventions into school curriculum indicates there is a gap between research evidence and the needs of

teachers and school administrators (Ringwalt, Ennett, Vincus, Rohrbach, & Simons-Rudolph, 2004). In order to minimize this disconnect, evidence needs to be appropriate to the local context (Green, 2001).

3.0 Rationale and Research Questions

The purpose of this study was to understand school administrators' experience using the YSS school smoking profile by means of a two-phase, sequential explanatory mixed method design (Creswell, 2003). The rationale for combining both quantitative and qualitative data in this proposed study is to gather statistical, quantitative results from school administrators across Canada and then follow up with a few willing individuals to probe and explore those results in more depth. In the first phase a survey addressed the smoking profile uptake with school administrators whose schools participated in the 2008-2009 YSS but did not view their report prior to the study. In the second phase, qualitative interviews were used to probe the effectiveness of KE through the use of the school smoking profile by exploring aspects of smoking profile uptake with school administrators, who agreed in phase one to participate in a short follow-up interview, in order to better understand how to effectively communicate school specific results with school administrators. This research utilized the CHSRF (2007) definition of KE and the knowledge utilization conceptual framework. Based on the results from this study, the YSS school smoking profile will be improved as a KE strategy to facilitate greater knowledge utilization of school-specific results. Additionally, this study aimed to improve our understanding of school administrators' opinions of the YSS school smoking profile to inform future interactions and collaborations with schools.

In keeping with the KE definition and related literature, the following research questions were examined:

1. How effective is the school smoking profile in facilitating conceptual knowledge use and instrumental knowledge use for school administrators who do not view their school's smoking profile?

2. How could the school smoking profile be improved as part of knowledge exchange strategy?

4.0 Methodology

4.1 The Youth Smoking Survey

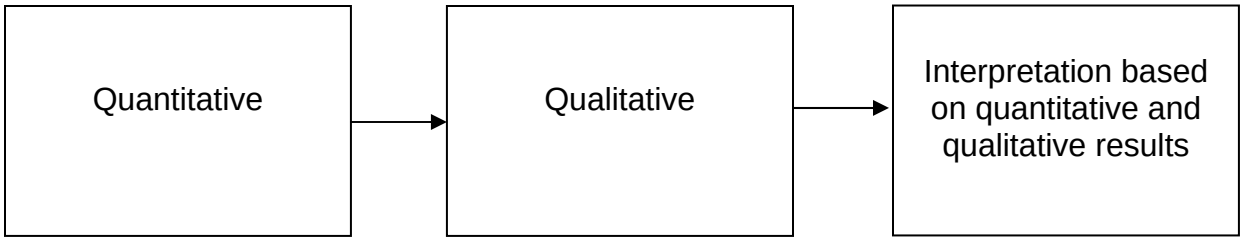
To ensure that surveillance is relevant at the local level, it is necessary for researchers to engage with stakeholders to move research into practice. In an attempt to provide local, provincial, and national level data to school stakeholders, the YSS was developed in 1994 and was the largest, most comprehensive survey on youth smoking behaviour since 1979 (Health Canada, 1996). The survey was also administered in 2002, 2004/2005, 2006/2007, 2008/2009, and continues to be administered bi-annually in all provinces across Canada. The YSS engages with schools to examine factors influencing tobacco use in Canadian youth. School-level data that are gathered from the questionnaires are compiled into a school smoking profile for school administrators. The smoking profile details the prevalence of tobacco use, as well as patterns and attitudes of a school's student population towards tobacco use. The report also provides comparisons of non-smokers and smokers to provincial and national smoking rates. In the 2008/2009 school year, the YSS was completed by 51,922 students in 329 schools across Canada. Consequently, the survey is able to provide an accurate description of youth smoking in Canada. As a result, YSS is designed to be a KE tool that provides school administrators with contextually relevant data about youth tobacco use and school-based tobacco control prevention programming.

4.1 Research Design

This study was based on a mixed methods approach which included both quantitative and qualitative information. By using both quantitative and qualitative data sources, findings were validated and cross-checked through triangulation since each type of data collection method has strengths and weaknesses (Patton, 2002). The combination of both quantitative and qualitative

methods enabled the strengths of one approach to compensate for the weaknesses of the other approach (Creswell, 2003; Patton, 2002). The different types of data lead to a better understanding of how the YSS school smoking profile was used. Although there are three general strategies that are used in mixed method design (sequential, concurrent, and transformative procedures), this research study only focused on the sequential procedures. In sequential procedures, "the researcher seeks to elaborate on or expand the findings of one method with another method" (Creswell, 2003, p.16). This involves using quantitative methods followed by qualitative methods or vice versa. The sequential mixed method strategy was selected since quantitative data would collect information from a wide range of individuals that could be generalized to the population. Following quantitative data collection, qualitative, open-ended interviews would collect more intensive, in-depth information from fewer participants. As a result, the research questions were examined using a two-phase, sequential explanatory mixed methods approach. This strategy included quantitative data collection in phase one, followed by the qualitative data collection in phase two (Figure 2). The quantitative data purposefully informed the qualitative portion of the study.

FIGURE 2: Sequential explanatory design



1. Two phase design
2. Qualitative data help to explain and build on initial quantitative findings

4.2 Data Collection and Procedures

Prior to the data collection commencing, the background information on potential participants was updated on the secure Online Survey Implementation System v2.0 (OSIS)

website. OSIS facilitates the implementation of large surveys by managing information on the participants, including position, school, school population, province, and other background information relevant to the participant's school. These profiles are used for the YSS project to record school background information, track YSS progress, and note communication with schools.

4.2.1 Phase 1: Quantitative Data Collection

Phase one of the data collection procedures included the quantitative portion of the study consisting of a close-ended questionnaire (Appendix A) mail-out. According to Dillman, Smyth, & Christian (2009), on average, mailed surveys provide a higher response rate compared to web surveys, 71% compared to 55%. The questionnaire was sent to school administrators from 2008-2009 YSS schools who did not download their smoking profile prior to October 1, 2009. The mail-out excluded PEI schools since a complementary study had other plans for contacting the schools. The school smoking profile questionnaire (Appendix A) included components to explore respondents' conceptual knowledge use, such as awareness and sharing, and instrumental knowledge use, such as effort to use the smoking profile, decisions, and actions. Several sources contributed to the content or ideas for the questionnaire. The knowledge use questions were derived from Skinner's (2007) knowledge uptake questions. Additional items were consistent with the 2008-2009 YSS School Feedback Form (University of Waterloo, n.d), and feedback from the New Brunswick Wellness Survey (University of New Brunswick, n.d).

In order to optimize the response rate, all school administrators from participating YSS schools who did not download their smoking profile, were mailed, via courier, in a confidential envelope, an information letter (Appendix B), a hard copy of their school's smoking profile summary (Appendix C) and smoking profile (Appendix D), and the questionnaire (Appendix A).

Based on the Dillman et al. (2009) recommendation of offering a small token to encourage response, the package included a $2 Tim Horton's gift card. Dillman suggested that including a prepaid financial incentive is one of the most significant improvements to response rates (Dillman et al., 2009). High response rates reduce non-response bias. The token situates the questionnaire in a positive light through this unexpected gesture (Dillman et al., 2009).

Dillman et al. (2009) also indicated that higher response rates are associated with personalization and using recognizable graphics and sponsor stationary. Consequently, the school feedback information letter (Appendix B) included personalization (first and last name of the respondent) and institutional logos (the University of Waterloo and YSS). The letter referenced the school-specific smoking profile (i.e., containing school name as well as data). The letter asked the school administrators to complete the accompanying questionnaire, specified the University of Waterloo Research Ethics Board approval, and consent procedure.

As per Dillman et al.'s (2009) recommended protocol, follow-up employed multiple methods of contact in order to maximize the response to the questionnaire and decrease non-responders. Accordingly, a reminder call (Appendix E) was made to English language schools and a reminder email (Appendix F) was sent to French language schools a week after schools received the initial mail-out package. School administrators who had misplaced or requested another copy of the questionnaire were sent an electronic version via email. Those who had not returned the questionnaire the following week were mailed a replacement questionnaire with a brief description of the study via email. School administrators were encouraged to participate since their feedback would help to ensure the school smoking profile meets the needs of schools across the country. A thank you email (Appendix G) was sent within one week after the completion of the questionnaire. Each questionnaire also asked respondents to participate in a

15-minute follow-up telephone interview. Respondents indicating agreement to participate in a follow-up telephone interview were presumed to have consented. These telephone interviews are described in more detail in Phase Two of the data collection procedure.

4.2.2 Phase 2: Qualitative Data Collection

Phase two consisted of telephone interviews with consenting questionnaire participants. The primary researcher planned to interview 20 to 30 participants. More importantly, the sample size was based on saturation of themes uncovered and the quality of the cases in order to ensure valid, meaningful, and insightful results (Patton, 2002). Participants were phoned or, if unreachable, emailed to schedule an interview time at their convenience. During the interview scheduling, participants were asked to have a copy of their school's smoking profile in front of them during the interview to enable probing and interactive discussion of specific sections of the smoking profile. An email reminder was sent the day prior to the interview to remind the participant of the interview time and to have a copy of their school's smoking profile (Appendix H) available for reference. Interviews were approximately 15-minutes in duration. The semi-structured, open-ended questions (Appendix I) addressed topics regarding the format and structure, content, and utilization of the smoking profile. Participants were informed that interviews were recorded and that they could choose not to respond to any questions or could withdraw from participation at any time. Participants' questionnaire responses were incorporated into the interview, in addition to more in-depth questions regarding school administrators' utilization of the smoking profile and how the report could be improved. These interviews also gathered detailed information regarding the strengths and weaknesses of the smoking profile structure, content, and format. Following the interview, the audio recordings

were transcribed. Reflexive notes were taken during each of the interviews to record overall thoughts, ideas, and impressions (Creswell, 2003).

4.3 Sample Selection

There were 329 elementary and secondary school administrators (in most cases principals) who agreed to participate in the 2008-2009 YSS (Table 1). The 2008-2009 YSS sampling method is described in the user guide (University of Waterloo, 2009). While the 2008-2009 YSS sample was representative of grades 6-12 in each province, the sample used was representative of administrators who did not look at their school smoking profile.

TABLE 1: Total number of school administrators participating in the 2008-2009 YSS, by province and school type (N=329)

Province	Elementary Schools	Middle Schools	Secondary Schools	K-12 Schools	Total
NL	14	3	3	5	25
PE	40	7	7	4	58
NS	10	4	9	1	24
NB	13	5	5	5	28
QC	22	1	12	0	35
ON	26	4	15	1	46
MB	14	4	7	5	30
SK	14	0	5	6	25
AB	11	3	7	4	25
BC	24	4	3	2	33
Total	188	35	73	33	329

Each school received an electronic version of their school-specific smoking profile. The University of Waterloo's Propel Centre, as the Secretariat implementing the YSS, was able to track downloads of the school smoking profile through its OSIS. As a result, 133 schools were identified that did not view their smoking profile prior to October 1, 2009. The schools in this latter category constituted the sample. Table 2 illustrates the total number of school administrators, by province and school type, who did not view their school's smoking profile.

TABLE 2: Total number of school administrators by school type who did not view their school's smoking profile (N=133)

Province	Elementary Schools	Secondary Schools	Middle Schools	K-12 Schools	Total
NL	7	2	2	3	14
PE	13	4	2	3	22
NS	2	5	1	0	8
NB	5	3	2	3	13
QC	11	5	1	0	17
ON	14	9	0	0	23
MB	2	0	1	0	3
SK	6	3	0	5	14
AB	3	1	0	1	5
BC	10	1	3	0	14
TOTAL	73	35	10	15	133

Since there were so few administrators from middle schools and K-12 schools, the remaining investigation combined these categories into high schools. Both middle and K-12 schools include grades from both elementary and secondary categories. These schools were combined with high schools since schools tend to make decisions based on the highest grades. By merging elementary schools and K-12 schools with secondary schools, responses can be validated across school types.

After seeing the relatively high amount of schools that did not download their smoking profile (Table 2), the YSS team was interested in receiving feedback from this population on how the smoking profile could be improved. Sending the profile to these schools not only would provide an opportunity for these school administrators to view their school's profile, but the format and content would also be easily recalled when responding to questions. Although making improvements to the smoking profile may not increase school administrators' viewing rate due other factors, such as work priorities, the YSS project wanted to learn non-viewers' perceptions of the smoking profile. The student investigator was also able to take advantage of previous YSS data on smoking susceptibility and current smokers for schools who did and did

not view their smoking profile. In schools where the smoking profile had not been viewed, 30% of the students were susceptible to smoking and 5% of the students were current smokers. By comparison, in schools where school administrators had previously viewed their school's smoking profile, students were slightly less likely to be susceptible to smoking (28%) and fewer students were current smokers (4%). Considering that rates of smoking susceptibility and current student smokers were comparable in schools where administrators had and had not viewed their school's smoking profile, apparently the smoking risk was not what led them to fail to view the school profile.

From the 133 school administrators who did not view their smoking profile, only those who agreed to participate in follow-up interviews on the questionnaire were contacted again. The school smoking profile questionnaire was sent to French-language schools, but those schools were not asked to participate in any of the follow-up interviews. Consequently, only English language school administrators were contacted for follow-up interviews. Based on 133 schools not viewing their report, the target number of returned and completed questionnaires was 93, approximately 70%. Based on the number of questionnaires returned, it was anticipated that 23 (25%) would consent to the follow-up interviews.

4.4 Data Analysis

4.4.1 Quantitative Analysis

Questionnaire data were entered into a database and checked against the actual completed questionnaire. Data were transferred and analyzed using SAS statistical software to generate descriptive analysis (SAS Institute, 2000). Responses consisted of nominal/categorical data; therefore results were reported using frequencies and means. Using descriptive analyses nominal data were explored, such as the extent the smoking profile was read once the mailed version was

received, delivery preferences, smoking profile format preference, and who the information will be shared with. Pearson correlation was also used to measure the strength between predictive variables and knowledge use. Instances of CKU and IKU in the qualitative data were tallied. Then the predictive variables from the questionnaire, which included clarity (communication quality), relevance, timeliness, and detail (content), were correlated with instances of CKU or IKU. Since relevance, timeliness, and content have been known to strong relationships with knowledge use, similar results were expected.

4.4.2 Qualitative Analysis

Following data collection from the short follow-up interviews, the audio-recorded interviews were transcribed verbatim by a contracted transcription company. In order to ensure transcription accuracy, the transcribed data from the transcription company was checked against the interview audio files. Participants were also sent their transcripts to ensure accuracy of their perspectives (Creswell, 2003). Participants were given the opportunity only to clarify responses, within a two-week time frame, to ensure correct interpretation. If participants did not respond, transcripts were considered accurate. As well, all transcripts were cleaned of any identifying information of participants in order to ensure confidentiality. The interview transcripts were sent to the respective interviewees via email to provide the participants with the opportunity to review the transcripts to ensure that their responses were accurately captured. While several participants were satisfied with the transcript provided, only one participant provided further clarification and explanations to their transcript. Transcribed interview data were then imported and analyzed using NVivo 8 qualitative analysis software (QSR International, 2008). Interviews were then coded according to themes and categories in an attempt to examine patterns and explain participants' perspectives.

Trustworthiness of the qualitative analysis was addressed in two ways. First, the method of constant comparative analysis established consistent coding in order to provide confidence in the results (Patton, 2003). The basic rule of the constant comparative method is that "while coding an incident for a category, compare it with the previous incidents coded in the same category" in order to generate larger categories that can be later integrated (Glaser, 1965, p.439).

In addition to the constant comparative method, a second coder independently coded a subset of three randomly-selected transcripts. The second coder fully coded one transcript and then both coders met and discussed their coding results. Then the second coder coded the front half of a second transcript and the back half of a third transcript. The coders met again to compare and discuss their results. Using a second independent coder helped to ensure that naturally arising categories were used, resulting in a precise, reliable, and reproducible coding system (Berg, 2009). Using NVivo 8 software, agreement between the coders was calculated using percentages to determine trustworthiness with an average agreement of 97%. Any disagreements were reconciled through discussion and reasoning for coding for a particular theme. Once consensus in the coding was reached between the two coders, matrix coding queries were developed to compare results across different groups and themes, for example, observing if the school type impacts which information is considered to be valuable in the smoking profile.

After quantitative and qualitative data analysis was completed, the results were compared to determine how information converged. Finally, recommendations were made to the YSS smoking profile team to facilitate improvements to the report.

4.4.3 Strategies for Validating Findings

Quantitative and qualitative analyses were described in detail to provide transparent methodology in this study. Additionally, the response rate and non-response rate for the

questionnaire and the interviews were examined to determine response bias and generalizability of the findings. Accordingly, an examination of response rates determines the effect of non-responses on the data (Bose, 2001; Creswell, 2003).

To ensure validity of quantitative and qualitative findings, methods triangulation was used. Methods triangulation involved comparing and integrating data from quantitative and qualitative methods, representing a form of comparative analysis (Patton, 2003). Questionnaire and interview data was used in a complementary fashion to answer the research questions. Through multiple data collection methods and analysis, triangulation strengthened the reliability and validity by increasing confidence in the findings through areas of convergence in the data (Patton, 2003). By using triangulation as a method of analysis, systematic bias and distortion were reduced during data analysis since findings were checked against other sources and perspectives (Creswell, 2003; Patton, 2003). As a result, the weaknesses in a single method were compensated by the strengths in the other method. Any inconsistencies in the findings between the two methods were not viewed as weakening the credibility of the results but rather it provided the opportunity for deeper insight into the relationship between the finding and the use of the smoking profile. While areas of convergence increased confidence in findings, areas of divergence provided the opportunity to better understand the complex nature of KE by focusing on the extent the findings converged in order to provide a more balanced overall result (Patton, 2003). As a result, the qualitative analysis explored how the two data sets converged, as well as examine the extent to which the themes supported or helped to explain the quantitative data.

5.0 Ethical Considerations

All the procedures in this research proposal were submitted and cleared by the University of Waterloo Research Ethics Board.

Procedures to ensure confidentiality and informed consent were built into the research. In order to ease the burden on schools, due to the potentially numerous telephone and email contacts, implied consent was obtained through the completion of the questionnaire, and verbal consent was obtained for the interviews prior to conducting the interviews. Participants had the option not to respond to any questions and could withdraw from participation at anytime without penalty or questioning.

In the questionnaires, no identification information was collected apart from the school name. When questionnaire responses were coded, a school identification number was applied and no other identifying information was included, such as the participant's name or school name. In the interviews, the participants' names were not be recorded; an ID number prior to the telephone interview was assigned. Prior to the audio recorded interviews being transcribed, the transcriptionists from the contracted transcription company were asked to complete a confidentiality form. As well, all transcripts were cleaned of any identifying information of participants in order to ensure confidentiality.

The completed questionnaires, audio recordings, and transcripts were kept confidential in a secure location and anonymized versions of electronic copies were stored in a research office, at the University of Waterloo, in secure folders that have limited access. The questionnaire and interview data will be kept in a locked cabinet or in secure electronic folders for seven years, after which the data will be destroyed. Only the student investigator, her supervisor, and others working on the YSS had access to participants' data. The final thesis submission and results

shared restrict reporting to aggregate form where there will be no potential to identify individual respondents.

6.0 Results

6.1 Sample

Distribution of participating schools is represented in Figure 3. As illustrated in Table 2, of the 133 schools in the sample, 111 were deemed eligible to participate. PEI schools were excluded from data collection since PEI school administrator recruitment was affiliated with the SHAPES-PEI project and the project implementation was further postponed. As a result, there were 111 schools that did not view their school smoking profile. Of the 111 eligible schools, 71% (N=79) responded to the questionnaire. However, one of the completed questionnaires from Quebec was not properly faxed and the school plus the administrator's responses were not identifiable. Consequently, there were 78 fully completed and legible questionnaires.

FIGURE 3: Flowchart of the Sampling Process of the School Administrators

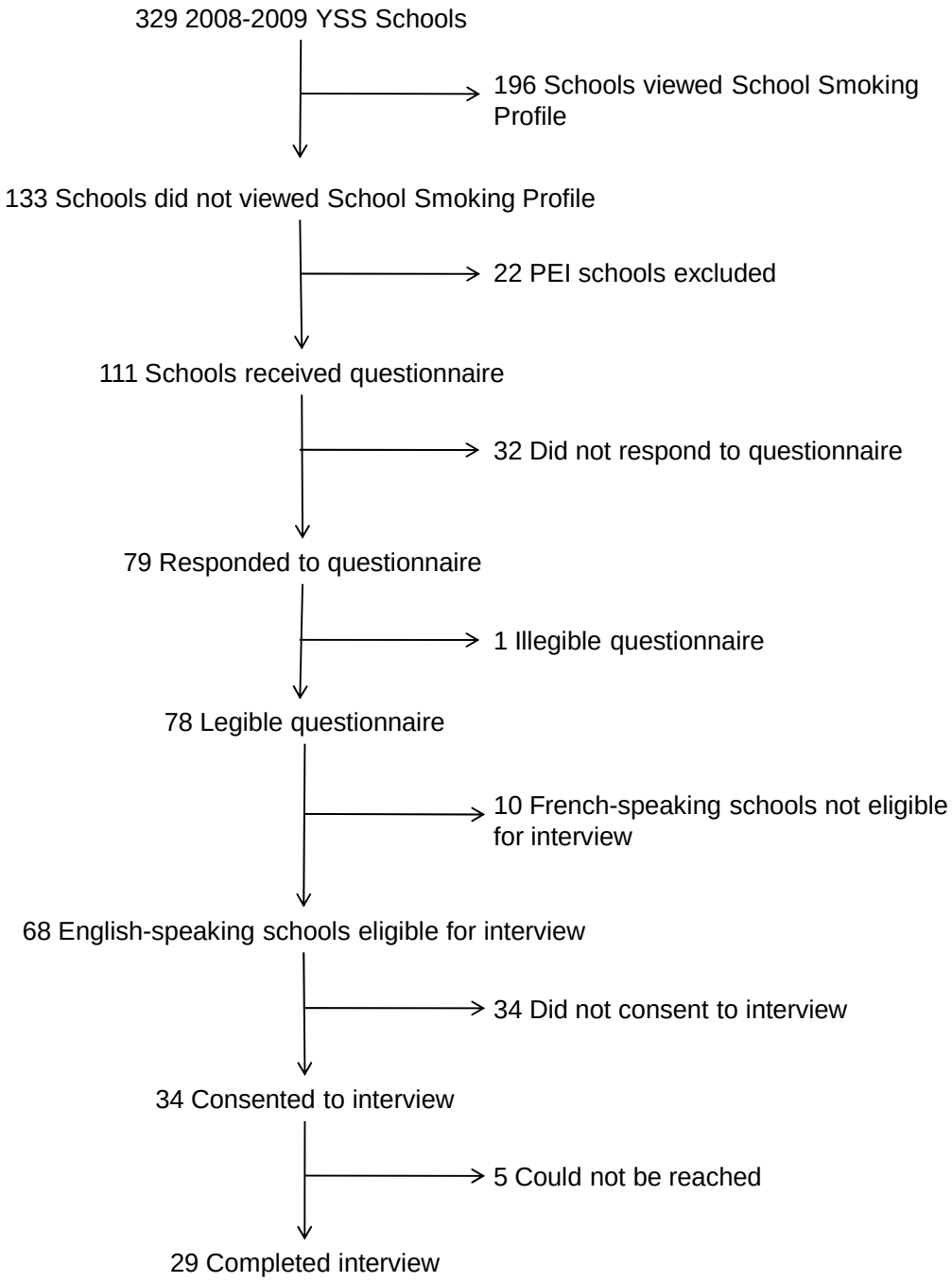


Table 3 provides the distribution of returned questionnaires as a percentage, by school type and province. Overall, the distribution of the returned questionnaires between elementary and secondary school administrators was comparable. However, there were differences between provinces. In order to validate responses, comparisons were made across school types since the distributions are comparable.

TABLE 3: Distribution of returned questionnaires as a percentage, by school type and province (N=78)

Province	Elementary Schools % (n)	Secondary Schools % (n)	Total % (n)
NL	6.4 (5)	6.4 (5)	12.8 (10)
PE	-	-	-
NS	2.6 (2)	7.7 (6)	10.3 (8)
NB	6.4 (5)	7.7 (6)	14.1 (11)
QC	6.4 (5)	2.6 (2)	9 (7)
ON	14.1 (11)	7.7 (6)	21.8 (17)
MB	3.8 (3)	0	3.8 (3)
SK	3.8 (3)	9 (7)	12.8 (10)
AB	2.6 (2)	2.6 (2)	5.1 (4)
BC	10.3 (8)	2.6 (2)	12.8 (10)
Total % (n)	56.4 (44)	43.6 (34)	100 (78)

Of the 78 participants who completed the questionnaire, 10 were from French language schools and therefore did not have the option to partake in the follow-up interviews. Out of the 68 eligible participants, 34 (50%) agreed to participate in the in the follow-up interviews. As identified in Table 4, 29 (43%) school administrators actually participated in the follow-up interviews since 5 people could not be reached after multiple telephone and email attempts.

Table 4 provides the distribution of school administrators who participated in the interviews, by school type and province. As with questionnaire completion, interview participation rates varied by province, but the total percentage of elementary versus secondary school administrators was similar.

TABLE 4: Distribution of interviewees as a percentage, by school type and province (N=29)

Province	Elementary School % (n)	Secondary School % (n)	Total % (n)
NL	13.8 (4)	6.9 (2)	21.7 (6)
PE	-	-	-
NS	0	13.8 (4)	13.8 (4)
NB	0	3.4 (1)	3.4 (1)
QC	-	-	-
ON	6.9 (2)	17.2 (5)	24.1 (7)
MB	3.4 (1)	0	3.4 (1)
SK	3.4 (1)	13.8 (4)	17.2 (5)
AB	0	0	0
BC	13.8 (4)	3.4 (1)	17.2 (5)
Total % (n)	41.4 (12)	58.6 (17)	100 (29)

Out of the 90 eligible English speaking schools (excluding PEI and French-speaking schools), there was a 38% response rate (N=34) to participating in the follow-up interviews, with 32% of the participants actually participating in the interviews.

Table 5 lists the response rates across provinces and by school type in order to examine any biases. There are variations in school administrators participation in the questionnaire and interview across the provinces, as well as across school types. For example, there was a higher response rate by Nova Scotia high school administrators to the interview and no response by elementary school administrators. Consequently, biases could exist across provinces and by school types in school administrators who agreed to participate in the study.

The school smoking profiles are also categorized into three levels based on the population of the school and how the results can be presented. Based on the initial sample of 133 school administrators who did not view their schools' profile, 16 (12%) profiles were Level I, 21 (16%) Level II, and 96 (72%) Level III. Of the 78 participants who complete the questionnaire, 6 (8%) received Level I profiles, 13 (17%) Level II profiles, and 59 (76%) Level III profiles. Comparable to the proportion of school administrators who completed the questionnaire, of the

29 interviewees, 2 (7%) received Level I profiles, 5 (17%) Level II profiles, and 22 (76%) Level III profiles. Likewise, the proportion of school administrations participating in the study were similarly distributed as the original sample,

TABLE 5: The response rate (RR) (%) to the questionnaire and interview, by province and by school type (N=90)

Province	Schools	Questionnaire RR by School Type	Provincial Questionnaire RR	Interview RR by School Type	Provincial Interview RR
NL	Elementary	71.4	71.4	57.1	42.9
	Secondary	71.4		28.6	
NS	Elementary	100	100	0	50
	Secondary	100		66.7	
NB	Elementary	100	84.6	0	10
	Secondary	75		20	
QC	Elementary	45.5	47.1*	-	-
	Secondary	33.3		-	
ON	Elementary	78.6	73.9	14.3	30.4
	Secondary	66.7		55.5	
MB	Elementary	66.7	66.7	50	33.3
	Secondary	0		0	
SK	Elementary	50	71.4	16.7	38.5
	Secondary	87.5		57.1	
AB	Elementary	66.7	80	0	0
	Secondary	100		0	
BC	Elementary	80	71.4	40	35.7
	Secondary	50		25	
Canada	Elementary	73.3	**71.2**	24.5	**32.2**
	Secondary	66.7		41.5	

*one additional unidentifiable questionnaire was received from Quebec, which increased the provincial response rate

6.2 Quantitative Results

This section provides an overview of participant responses (N=78) to the mailed out questionnaire.

6.2.1 Preferred Method of Receiving Feedback

Of the 78 school administrators who responded, 46% preferred to receive the YSS school-specific results in both hardcopy and online. Meanwhile 32% would prefer to receive the

results online and 22% prefer hardcopy reports. Figure 4 indicates the number of school administrators by school type who preferred receiving the school smoking profile results in hardcopy, online, and both hardcopy and online. Overall, there was high preference across all school types for receiving the results in both hardcopy and online. Approximately 50% of all school administrators, regardless of school type preferred the results in this format.

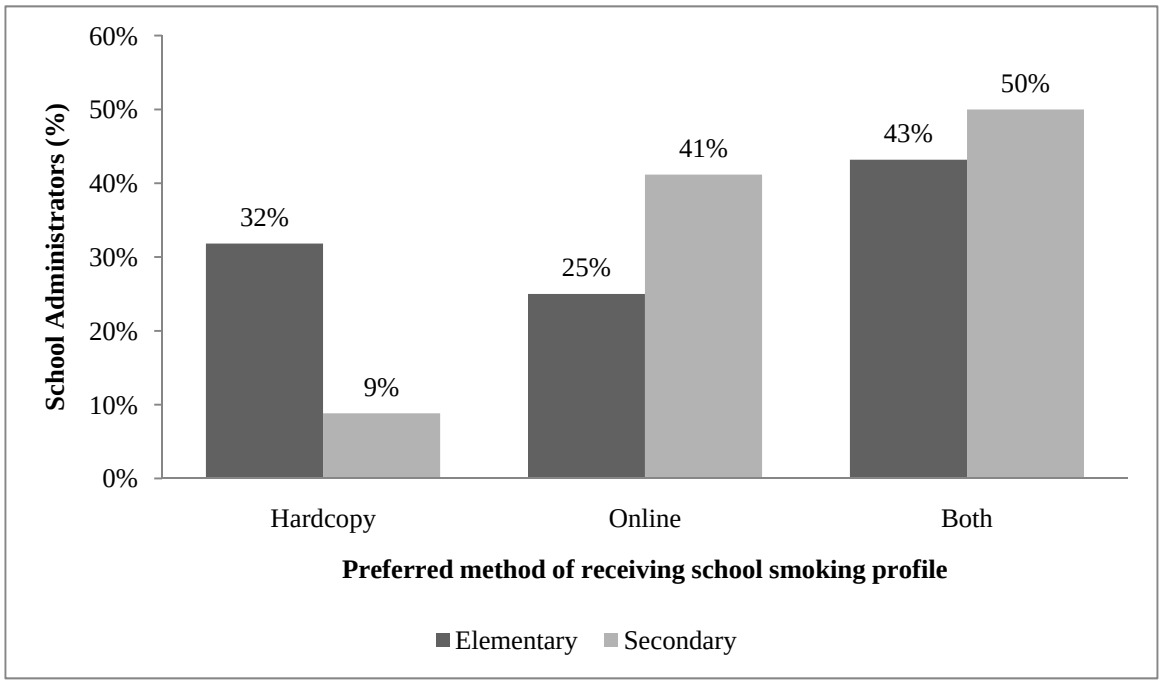


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FIGURE 4: Elementary and secondary school administrators' preferred method of receiving their school smoking profile

6.2.2 Extent Mailed Results were Read

Although the participants had not previously viewed an electronic version of their school's smoking profile, when participants were mailed a paper copy of the executive summary, school smoking profile, and questionnaire, 47% indicated that they fully read the report, 27% read only sections relevant to their school, 23% only skimmed their school's smoking profile, and 3% did not read it at all. Figure 5 presents the extent to which school administrators read their school specific results since receiving a mailed copy of their school's smoking profile. In

each case, about half of the administrators indicated that they fully read their profile (47-59%). . Meanwhile there was little variation in the remaining school administrators in elementary and secondary schools, between reading only relevant sections of the profile (26-29%) and skimming the results (23% both). Nevertheless, all of the administrators from secondary schools viewed their school's smoking profile to some degree; however, 5% of elementary school administrators had not read the smoking profile within the month it was received.

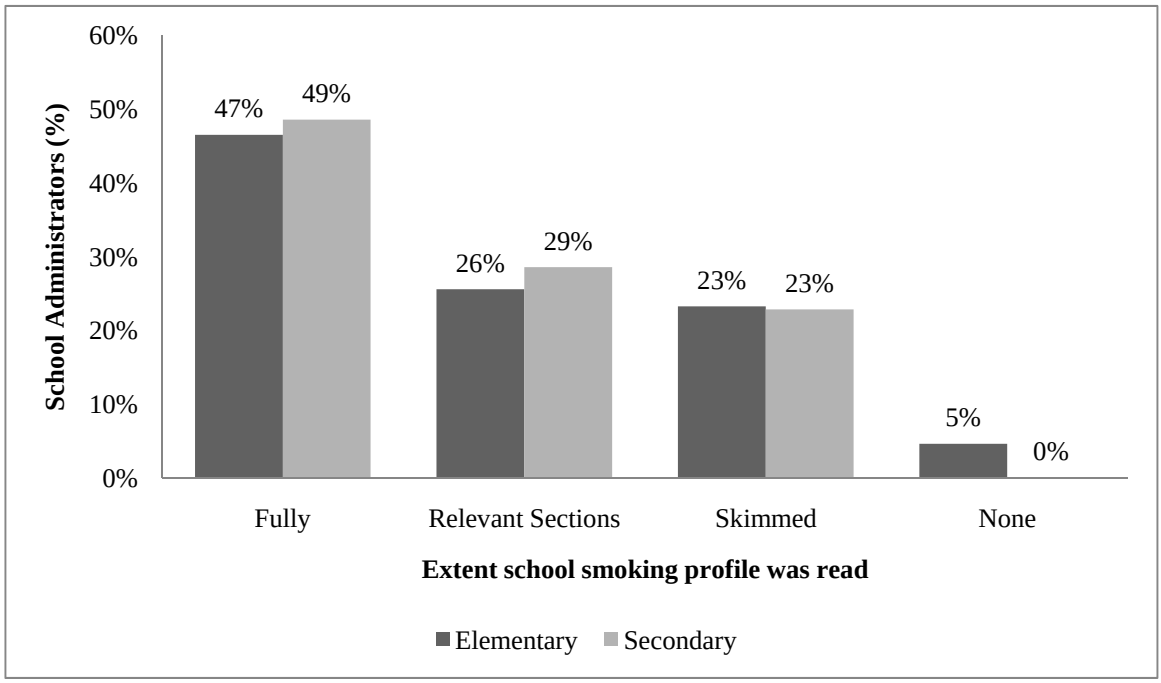

FIGURE 5: Extent to which school administrators read their school smoking profile

6.2.3 Information Quality

Overall, respondents provided very positive ratings on clarity and relevancy, but only thought the profile was somewhat timely and somewhat too detailed. While no respondents felt the profile was very unclear or not relevant, one respondent felt the profile was not timely and lacked detail. Since the largest overall proportion of respondents thought the profile was

somewhat timely and too detailed, some smaller improvements could be made in these areas, such as the time of year when the profile is sent and condensing the results presented.

Table 6 provides school administrators' ratings of the information contained in the school smoking profile based on clarity, relevancy, timeliness, and detail. The majority of all school administrators, regardless of school type, thought the information contained in the school smoking profile was clear (75% elementary and 68% secondary school administrators), and thought the information was relevant (55% elementary and 56% secondary school administrators). Additionally, over half of the elementary school administrators (57%) thought the profile was somewhat timely compared to secondary school administrators, who provide a range of responses on the issue of timeliness, from timely to not timely. In terms of detail, the majority of school administrators thought it was somewhat too detailed (40% elementary and 38% secondary school administrators) or were indifferent to the issue of detail (46% elementary and 38% secondary school administrators).

TABLE 6: School administrators' ratings of the information contained in the school smoking profile, by school type

	Categorical Rating	**School Type %(n)**	
		Elementary N=44	*Secondary N=34*
Clarity	Clear	75 (33)	67.6 (23)
	Somewhat clear	22.7 (10)	23.5 (8)
	Neutral to unclear	2.3 (1)	8.8 (3)
Relevancy	Relevant	54.5 (24)	55.9 (19)
	Somewhat relevant	36.4 (16)	38.2 (13)
	Neutral to not relevant	6.8 (3)	5.9 (2)
	Missing data	2.3 (1)	-
Timeliness	Timely	31.8 (14)	38.2 (13)
	Somewhat timely	56.8 (25)	32.4(11)
	Neutral to not timely	9.1 (4)	29.4 (10)
	Missing data	2.3 (1)	2.9 (1)
Detail	Too detailed	4.5 (2)	5.9 (2)
	Somewhat too detailed	40.1 (18)	38.2 (13)
	Neutral	45.5 (20)	38.2 (17)
	Somewhat lacks detail to lacks detail	6.8 (3)	5.9 (2)
	Missing data	2.3 (1)	-

6.2.4 Value of the Sections of the School Smoking Profile

Respondents were also asked to rank the value of each part of the school smoking profile on a scale of one to three, that is from most valuable to least valuable (Figure 6). Most of the parts of the smoking profile were ranked as being top value, which included the school-specific results (87%), the Smoking Profile Summary (74%), Quick Facts (48%), How to Use this Report (47%), Schools Can Make a Difference (46%). Half of the participants (50%) ranked The Issue section of less value to them.

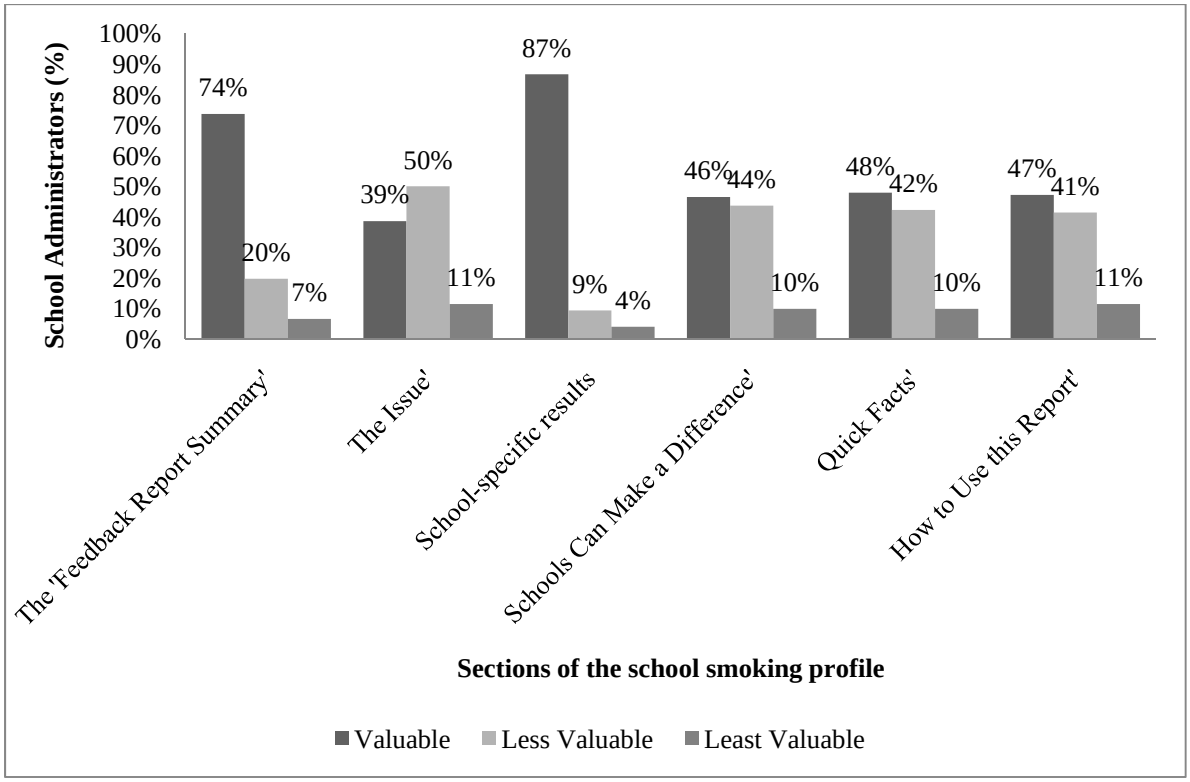

FIGURE 6: School administrator ratings of the value of the sections of the school smoking profile

6.2.5 Future Use

Respondents were asked to select all applicable responses on how they intended to use the school smoking profile. The majority of school administrators (82%) reported they plan to use the school smoking profile when planning programs, curriculum, or events. Fewer than half

(41%) expected to use the smoking profile when they have support from outside sources, such as when support is provided from public health or other organizations. Additionally, 33% of school administrators reported they will use the smoking profile when there is a health-related issue at their school, and 27% will use it for other reasons, such as for accreditation, when smoking becomes a problem, wellness coordinator presentations, growth plan information, health, teachers, to parent group to provide more data, or other programs offered by outside agencies. Meanwhile 4% indicated that they will not use the school smoking profile, and similarly, 4% do not know when they will use it.

Figure 7 identifies how the school administrators from various school types plan to use their school's smoking profile results. Regardless of the school type, school administrators reported that they will primarily use the smoking profile when planning programs, curriculum, or events (77% elementary, 91% secondary). While school administrators indicated that they will primarily use their profiles for planning, they also reported that they will use the smoking profile when they have support, when there is a health-related issue at their school, and for other reasons, but less commonly compared to planning. Although all of the secondary school administrators planned to use the smoking profile in some capacity, 7% of elementary school administrators indicated that they will not use the report and 5% were not sure when they would use it.

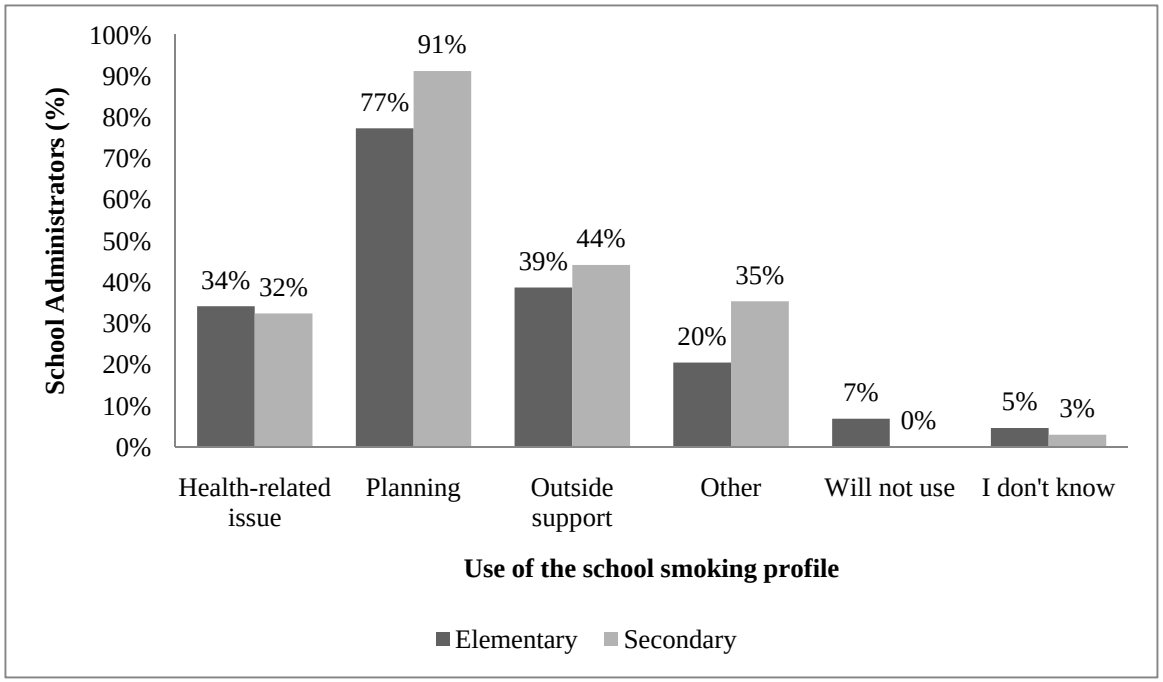

FIGURE 7: School administrators' future use of the school smoking profile, by school type

6.2.6 Future Plans to Share

Most of the school administrators (95%) plan to discuss their school's smoking profile with teachers, 68% with students, 65% with parents, 22% with others in the community such as public health, 18% with the school board, and 4% don't plan on sharing the school smoking profile. The school administrators who reported that they did not plan on sharing the results of the school smoking profile (N=3) were all from elementary schools; two of these administrators were from French-speaking elementary schools. Even though the two administrators from Quebec both thought the smoking profile was somewhat relevant and timely, one respondent thought it was somewhat too detailed, whereas the other reported the detail as being neutral. The French-speaking administrators also thought the report was either clear or somewhat clear. The English-speaking elementary school administrator from British Columbia only reported on the

clarity of the results as being neutral. However, this respondent did not comment on the relevancy, timeliness, or detail of the information contained in the school smoking profile.

Figure 8 illustrates school administrators' future plans of sharing the school smoking profile according to school type. Across all school types, school administrators primarily plan to share the school-specific results with teachers, students, and parents. All of the secondary school administrators have plans to share the results with teachers, whereas slightly fewer elementary school administrators (91%) plan to discuss their school's smoking profile with teachers. Similarly, there were differences between school types regarding their plans to share the results with students. While most secondary school administrators (79%) plan to discuss the results with students, fewer elementary (61%) will share the results with students. There were also variations among school administrators with their plans to share the results with parents. It appears that more secondary school administrators (71%) intend to inform parents about the school's profile, whereas fewer elementary school administrators (59%) plan to share the results with parents. Most importantly, all of the secondary school administrators plan to discuss the smoking profile results in some capacity.

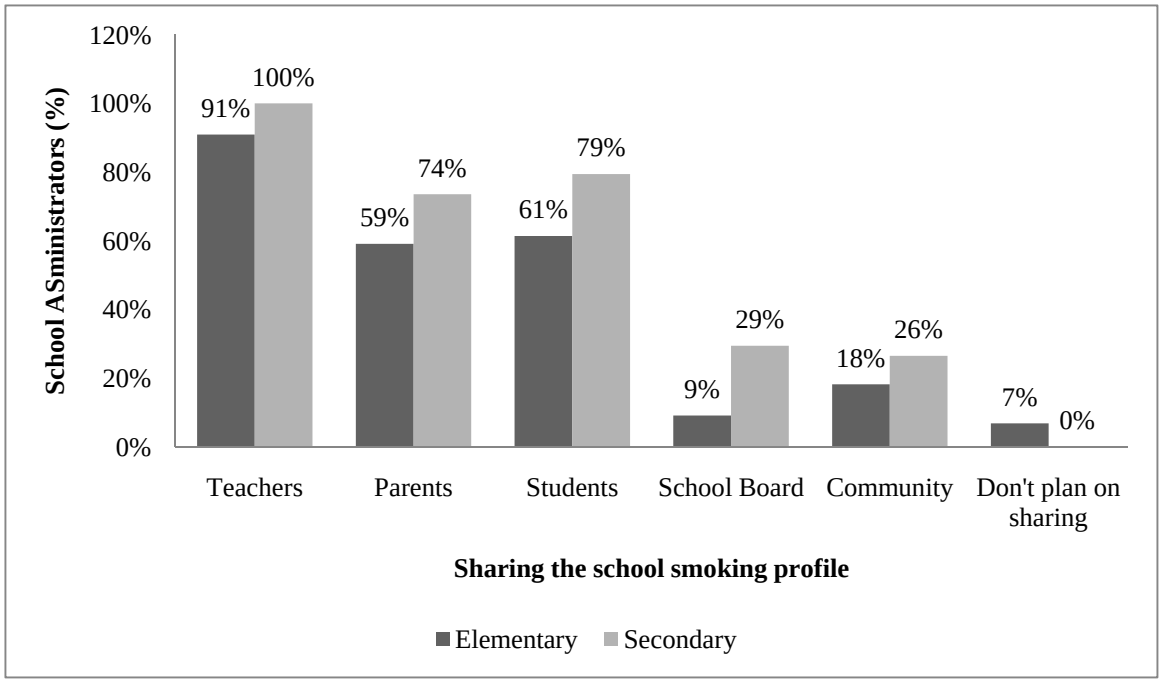

FIGURE 8: School administrators' future plans to share the school smoking profile, by school type

6.2.7 Format Preference

Participants had the opportunity to identify the format preference they favoured for the school smoking profile, either the current format, three-page summaries including graphs and text, one-page summaries with text only, or other suggestions. Over half of the school administrators (56%) would prefer to receive the school smoking profile in a three-page summary which includes graphs and text, followed by 35% preferring the current smoking profile, and 10% having preference for a one-page summary which only includes text. Meanwhile, 4% preferred other format designs, such as a three-page summary to distribute and use for presentations accompanied with the full detailed report, a 10 to 12 page report, and one participant was unsure about the format they would prefer.

When respondents were examined by school type, there was considerable variation between format preferences. Figure 9 describes the number of school administrators' format

preferences for the school smoking profile by school type. The majority of elementary (60%) and secondary (53%) school administrators would prefer a shorter three-page summary with both graphs and text. However, a considerable proportion of secondary school administrators (44%) favour the current format of the smoking profile, whereas a smaller proportion of elementary school administrators (28%) gave preference to this format.

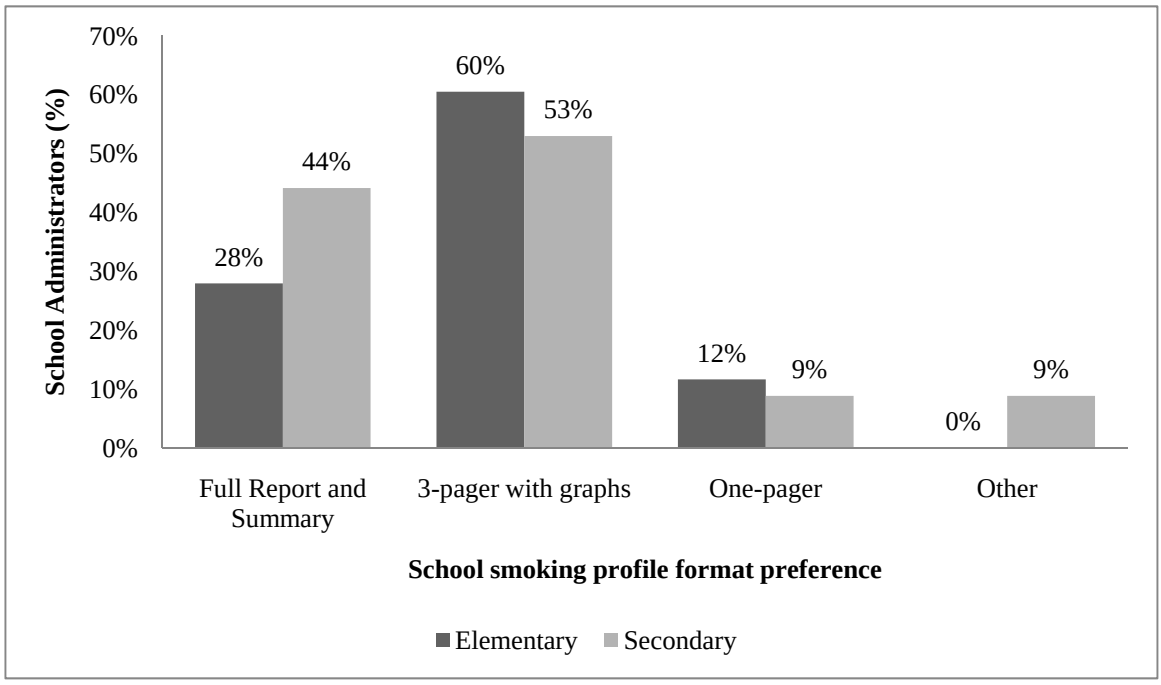

FIGURE 9: School administrators' format preference for the school smoking profile, by school type

6.3 Qualitative Results

The following section discusses the key themes that emerged from the analysis of interviews from school administrators across Canada. This analysis also explores the relationships between these themes and knowledge use of the YSS smoking profile. The framework (Figure 1) guiding the examination of the themes incorporates source and information characteristics as key predictors of KU. Information characteristics were most central to both conceptual knowledge use (CKU) and instrumental knowledge use (IKU). However, variables

associated with characteristics of the source of the communication were also important in explaining knowledge use. The analysis identified themes extracted from 29 participants' responses.

6.3.1 Source Characteristics Results

Based on the knowledge utilisation conceptual framework, the source and information domain identified source characteristic as one variable that facilitates knowledge use. This first section will discuss how source characteristics, more specifically, how credibility, sophistication, and communication quality of the school smoking profile contributes to knowledge use of school administrators.

6.3.1.1 Credibility

Only one instance of credibility was coded in the transcripts. One secondary school administrator's first impression of the smoking profile was "the fact that you guys print all of your partners on the front page kind of gives a show of force … Every one of those groups definitely adds credibility to the report" [NL, Participant 1003011]. While other participants did not discuss the credibility of the smoking profile, the initial perception of one school administrator of the source presented was of credibility and validity. Consequently the credibility of the smoking profile could have some impact on knowledge use but should be further investigated. For example, future research with SHAPES schools should ask school administrators what they think about each of the organizations that are presented on the title page of the profile, such as the University of Waterloo and/or other affiliated universities and community groups.

6.3.1.2 Sophistication

While sophistication refers to the appropriateness and rigour of the source (Cousins & Leithwood, 1993), none of the participants commented on how they felt about the organizations themselves.

6.3.1.3 Communication Quality

While none of the participants commented on sophistication, the school administrators provided much feedback on the communication quality of the school smoking profile. Communication quality refers to dissemination efforts, such as clarity, style, and readability, in order to convey information and grab the attention of the intended audience (Cousins & Leithwood, 1993; Manske 2001). In applying Manske's framework to the smoking profile, school administrators discussed the communication quality of the smoking profile in terms of its clarity, readability, and style, as well as identifying reasons for not reading the smoking profile.

In terms of clarity, school administrators thought the smoking profile was clear and "made sense" [BC, Elementary School, Participant 5910012]. When asked about the clarity of the smoking profile, one participant thought "...it was well done because…there wasn't a lot of like preamble and wishy washy stuff… It was to the point so I didn't feel like I was wasting my time reading it" [NL, Elementary School, Participant 1004002]. None of the school administrators commented on the smoking profile as being unclear or not valuable. Considering that clear communication often encourages knowledge use (Manske, 2001), the clarity in the smoking profile would assist in increasing knowledge use of the report.

In terms of readability, school administrators thought it was well organized, were drawn to the titles and fonts, liked the graphs, and liked the use of colour. More specifically, most of

the school administrators thought "the organization of the report was very well done" [NL, Secondary School, Participant 1003011]. Another commented:

> "I found the report was well organized, so it was easy to find information and easy to read the information.… Well, I like things that are systematic…. So I was able to manoeuvre through that. And, it was easy to read through." [ON, Elementary School, Participant 3532036]

Not only did they think it was very well organized, but most administrators from the various school types thought the smoking profile provided a comprehensive layout that was easy to read, find information, and understand the results.

> "Oh I think it was a pretty comprehensive report I must say and then, you know, like looking through it, you know, you have your tables and the graphs, percentages laid out very well, some good interpretation of the results and very full and comprehensive." [NL, Elementary School, Participant 1004009]

> "I thought it was pretty well laid out actually; I was pleasantly surprised because it had some good information. The information while not presented in the normal way like in tables and you know that dry kind of thing, it seemed to be kind of mixed in with you know other information and it was really user friendly I thought." [NL, Elementary School, Participant 1004002]

> "I think it's good. I like...I think you've done a great job. Like, you know, you've taken all of our statistics and then you've given us a really good report back too, right? … I think you've done a great job. Thank you. Cause, I mean, that was a lot of data for you to sift through too. I think the report is really well done. I think I said that in my feedback." [ON, Secondary School, Participant 3519097]

> "I like the format. It was easy to follow. We had no trouble. We discussed it at our staff meeting and, and you know, had no trouble at all. I mean it was easy to follow. A lot of times when we've participated in things like this the material that comes back to us is in so much jargon, statistical you know, jargon that it's difficult, because it was summarized for us already. So it was really easy to follow. And then you know, more useable data cause really most of us aren't trained in the area of statistical analysis…. generally it was a really good format. " [SK, Secondary School, Participant 4716032]

Not only did the participants identify the profile as being comprehensive, another respondent3 further established that need for appropriate language use and format. While many of the school administrators liked the communication quality of the smoking profile, there were three school

administrators from an elementary, middle, and secondary school who did not find the smoking profile to be eye-catching.

> "I would say it probably could have been better…. I'm not sure I would call it eye-catching. I would say it was something that I was interested in reading and it was informational, but I wouldn't say eye-catching." [ON, Secondary School, Participant 3507091]

These administrators thought the smoking profile could be improved but could not articulate what improvements needed to be made in order to make the report more appealing to them. Even when these participants were asked how the smoking profile could be improved to become more eye-catching, they were not sure and could not establish what needed improvement. However, the majority of the school administrators liked the presentation quality of the smoking profile.

Not only did school administrators like the presentation quality, but they also liked the style of the smoking profile. This theme was sub-divided – in terms of format preference – into into four categories: one-page summary with text only, three-page summary with text and graphs, current full report, and one-page summary with full report. Only participants from a secondary school identified preference for a one-page smoking profile. Of the two participants, one school administrator from Ontario explained their preference for a short summary:

> "What I have I thought was nice but a one page, for my purposes would have been adequate too 'cause I just, I think I pretty well knew what the results would be, so I wouldn't have had to wade through quite so much…. I think a one page thing would be adequate but the other pages do enhance the report and they are not of no value." [ON, Participant 3500071]

While a one page summary was only appropriate for a few school administrators, the majority of elementary and secondary schools identified preference for a three-page summary with text and graphs. Many participants preferred this format since a three-page summary would save them time since information could be condensed.

> "Ah, just because going through the whole report time-wise and everything just makes it easier, more concise, you know, that the main details about how it refers to our students more than, ah, having to try to read the whole [report]" [NL, Elementary School, Participant 1002020]

Not only is saving time a factor in preferring this type of shorter report, but it would more likely attract school administrators to the smoking profile. Two respondents comment on their attraction to a shorter smoking profile.

> "Well I think yeah I would; short and sweet is probably what's going to get the most attention right. But I know what that, obviously what that does is it could potentially take away the graphs and things you know some of the extras but again, short and sweet is sometimes the best way to get information to make it applicable." [NS, Secondary School, Participant 1204030]

> "It just, well for me I get a lot of paper that comes through and a lot of stuff to read so like I said earlier like just a capsulated version would be great because to know that the other stuff is there is also good but just to kind of get through the information and go okay what can I take from this, is this something that's beneficial. You know in a short version that would be awesome to save time." [ON, Elementary School, Participant 3531061]

Although school administrators tend to appreciate the full report and the detail, they want a condensed summary where they can easily be provided with the important details.

Based on the questionnaire responses, 56% of school administrators had preference for a shorter three-page summary and only 35% for the current full report. The interviews revealed that 13 out of 28 school administrators had a stronger preference for the current full report compared to the three-page summary. Most of these individuals thought "it was a really good useable size" [BC, Secondary School, Participant 5936001]. Consistently, schools across various provinces and grades thought that "…this is a pretty friendly report and it's only 14 pages..." [SK, Elementary School, Participant 4703012].[1]

[1] There were differences in the smoking profile length depending on what data were reportable for the school. When fewer data were reportable, the length of the smoking profile decreased.

> "No, I thought that the size of the report was, you know, it's not one of these massive documents that no one ever gets through. It's done in a fairly, you know, well 17 pages, there is no reason why any staff member shouldn't be able to have a look at the report and in a few minutes, you know, have a snapshot picture of what it's like to be a smoker … but as the report stands now, you know, it still does a pretty darn good job of providing that overall snapshot." [NL, Secondary School, Participant 1003011]

Not only did school administrators think the size of the smoking profile was easy to use and read, but others also commented on the detail of the full report as being adequate and valuable.

> "Well, I wouldn't say that there was anything in it that's not valuable. I mean each component of it has its place depending on what it is that you want to do with it…. Like the large report, I would not take that large report and sit down and try to give that completely out to a group of people. I would break it down into different sections and use different portions of it depending on what it is that we were going to do. I mean it's all good information and good information for us to have and it's all information that we can correlate with some of the data which we already have so what's in it is all good stuff used at different times." [NB, Secondary School, Participant 1305010]

School administrators liked that they could use the information provided in the smoking profile in various settings and contexts.

Even though most school administrators discussed preference for a shorter summary or the full report, others have commented on wanting a shorter summary to provide an overview, followed by a longer report to provide more detailed descriptions of the data. "[M]aybe just like a one pager and then, you know, just to give some orientation, and then the longer report" [NS, Secondary School, Participant 1203017]. Once again, time is an important factor in wanting a shortened report, but when time is permitting, school administrators would like to be able to have the full report as a resource for reference.

> "It's great if you've got time to sit down and go through it. I'll be honest with you I liked the shortened version better because it's sort of quick and dirty and the information that I need to find I can go right to it and I get it without having to go through the whole report…. The long one is good to sit down, go through, and have that as a reference piece of material, but the short one is good to have those

> quick notes for you when people are asking questions." [NB, Secondary School, Participant 1305010]

In order for the smoking profile to be used by school administrators who had not previously read their profiles, they need to have the time to go through the results. Even though school administrators might only have time to refer to the executive summary, they still have preference for the complete report to refer to in the future.

Overall the analysis revealed that there were preferences for a shortened three-page summary, as well as the full report. A combination of both formats would be suitable since a shortened overview could provide important initial findings, followed by the detailed report which school administrators find valuable when time permits. Table 7 identifies the almost equal split between a three-page and full report, with very weak support for a one-page report. However, given this sample only included school administrators who agreed to the interview, the preferences for either the three page report or full report is not representative of the entire sample. As a result, combining a three page summary and full report would be an option for some school administrators in this sample. The analysis also identified time as being a factor in determining the appropriateness of the source. Even though school administrators tend to be busy, some identified the report as being straightforward and user-friendly, whereas others thought it could be condensed.

TABLE 7: School administrators' smoking profile format preference, by school type

Format	Elementary School	Secondary School	Total
1-page summary	0	2	**2**
3-page summary with graphs	6	4	**10**
1-page summary & full report	0	3	**3**
full report	5	8	**13**

Not only did school administrators like the presentation quality, but they also liked the style of the smoking profile. More specifically, the majority of the school administrators, regardless of their school type, were drawn to the graphs initially and would first refer to the graphs for content before reading the text. "I'm drawn to the graphs first" [SK, Secondary School, Participant 4708056]. "I'm kind of science based so I usually always go to the graphical representation first" [NL, Secondary School, Participant 1003011]. Another respondent said:

> "Oh I would look at the graphs first. Get an immediate sense and then read through to get the details after…. I think the graphs are really useful cause they can, they can show you very graphically instantly sort of where you, again, especially the ones relating our school to the province." [BC, Middle School, Participant 5936001]

The reason most of the administrators were drawn to the graphs first was that it provided a quick overview of the results. "I liked the graphs, I liked the fact that, you know, with all the headings you can skim down and if you're looking for information you can find what you're looking for pretty fast" [BC, Elementary School, Participant 5930081]. The graphical representations were especially useful in capturing school administrators' attention and providing them with school-specific information quickly and efficiently.

> "I looked right away at the tables, the number of parents who smoke zero and the percentage of students … So those tables were the most interesting to me. I think it's great that all the different things are there because other people may not respond the way that I do right, the way that I read. I thought all of that was very informative but [the table] was the thing that I looked at first." [ON, Elementary School, Participant 3531061]

> "[I]t's always more enhancing to see graphs right? Because, you know, it draws your, it draws the eye to it. When it's just text on a page it, it's a little bit harder to grab, you know, the main, the main, what's the, the main focus of the page. You know, if you have to read through it all to get to it, it's a little harder." [SK, Secondary School, Participant 4711015]

Not only were school administrators drawn to the graphs, but at least one school administrator from each of the school types (elementary, middle, secondary, and combined

schools) found the title and use of font to be eye-catching. “I like the title…. So definitely the title. So the font. I like that” [ON, Secondary School, Participant 3519097]. The titles helped them to "[look] for information that specifically dealt with our school" [MB, Elementary School, Participant 4601046]. Consequently, the style of the titles helped to draw school administrators into the content of the smoking profile

Even though all types of school administrators were drawn to pages that included graphs and titles of interest, 19 out of 29 elementary and secondary school administrators indicated that they would have preferred a report in colour. “One thing that would have been really nice is to have the charts in colour” [NS, Secondary School, Participant 1201011]. The lack of colour seemed to be a missing factor for some administrators. "Again, maybe it's the colour again. Schools Can Make a Difference, maybe it needs to be more colour there. Maybe it's something you're not including. Right?” [ON, Secondary School, Participant 3519097]. While the smoking profile was produced in colour, only black and white printed copies of the report were sent via mail to the school administrators who had not viewed their coloured report online. However, administrators indicated that they would be more interested and drawn to the specific pages if colour was used.

> “…and like if it was coloured, then you could see boys, girls, total… If they were in colour they’d be a lot nicer. Right? ... And just because it gives you, when you see colour, I mean, you’re attracted more to colour than you are black and white. I mean, if you’ve got an 18-20 page report, and it’s all black and white, then all of a sudden you have some colour in there, I think you’ll find people are more directed towards the colour versus just the black and white.” [NL, Elementary School, Participant 1001022]

Elementary and secondary school administrators identified preference for the smoking profile to be in colour. Since the current report provided online is in colour, this re-affirms that the original style of the report is appropriate.

While the style of report was appropriate, it was not clear whether the title of the report that provides the school-specific results was appropriate. When school administrators were asked to identify their preferred naming of the report[2], slightly more interviewees indicated preference for 'School Smoking Profile.' As identified in table 8, eight school administrators preferred 'School Smoking Profile,' whereas six school administrators preferred 'School Feedback Report.'

TABLE 8: School administrators' preferences for document title, by school type

Title Preference	Elementary Schools	Secondary Schools	TOTAL
School Feedback Report	1	5	**6**
School Smoking Profile	4	4	**8**

School administrators who preferred 'School Smoking Profile' thought this name clearly described what the report was about.

> "I like that it sounds like what it's going to do -- provide a profile for your school you know around issues of smoking … [I]f you had both of those [documents] sitting in front of me I'd pick up the profile before I'd pick up the report." [NS, Secondary School, Participant 1203017]

> "…because if it's just a smoking profile it just gets tossed on the desk and nobody would know what it's for whereas it's important I think to have smoking in there somewhere. So I think I'd prefer the first one [school smoking profile] actually." [NL, Elementary School, Participant 1004002]

They tended to be drawn to the 'School Smoking Profile' since school administrators view profiles more positively rather than reports. To one school administrator, 'School Smoking Profile' appeared more collaborative and would contain information they would want to access and use in their curriculum.

[2] Data are only available for 14 interviewees. Half way through the interview process, the YSS staff requested that the remaining participants be specifically asked about title of the document.

> "We....right now at the Ministry of Ed we look at profiles.… [School Feedback Report] see that's, that's old. That sounds old school…. But schools look at profiles. And profiles give us the data. And the data, like I said, drives our teaching. Data drives our teaching and the profile. When you are looking at a report, you know what, we get so many reports, that would be, to me, a turn off…. But the profile has more positive connotation … A report often is just, ok here's our finding, you know, here's our findings, period. But in yours, you know, like, you talk about the issue, the smoking, smoking is a school issue. Well the information contained in there is more than just saying what my problem is here at my school. Profile is friendlier and it sounds, it gives you more of the impression that people are working with you. That this is something you are going to work with and not just a report. We get lots of ministry reports." [ON, Elementary School, Participant 3532036]

School administrators who preferred the 'School Smoking Profile' title liked that it clearly described what information would be contained in the report, and were more likely to read a profile versus a report.

However, other administrators across all school types did like 'School Feedback Report' as a title. Their preference stemmed from the fact that this type of report clearly described that feedback would be provided.

> "I think it's just because it's giving us the feedback. We know what the survey was on, too, right? And then we got the headings, like the titles within each of the pages. But it is a smoking profile to the school of what the students worked on." [ON, Secondary School, Participant 3519097]

Additionally, these administrators preferred 'School Feedback Report' since 'profile' might provide the wrong impression to the parents or of the school.

> "Well, just the notion of the school smoking profile, you know if I was sharing that information with parents and so on it might give a false impression about the level of smoking in our school." [BC, Elementary School, Participant 5925019]

> "I do like the smoking profile because the information, even though it's a school smoking profile, may not be a current profile. For instance, while we are a grade seven to nine school if we profile our nines by the time we receive the feedback they're already gone off to high school which is a different building so it's no longer a straight profile of the existing building but it's feedback of what was done previously and we can use the same just described as at this point in time." [NL, Middle School, Participant 1004008]

Since 'School Smoking Profile' contains smoking in the actual title, one administrator thought that other individuals might misinterpret the amount of smoking existing in the school. At the same time, another administrator thought it would not provide an accurate current profile of the school, although he did acknowledge that it would be a school smoking profile. While there was some preference for 'School Feedback Report,' more school administrators liked the school-specific results being referred to as 'School Smoking Profile.'

6.3.2 Information Characteristics Results

6.3.2.1 Relevance

Within the knowledge utilisation conceptual framework, relevance refers to how practical the perceived knowledge is to the needs of the audience (Cousins & Leithwood, 1993). In applying the framework to the smoking profile, school administrators who had not previously viewed the profile discussed the practicality of the smoking profile to their work and school. Two secondary school administrators indicated that their school's smoking profile provided them with confirmation.

> "One point, we as an administration had always, we were really concerned that our kids understood our smoking policy here, was actually, there is no smoking permitted on school grounds. We had always, we had concerns that, you know, that our school population whether or not they were clear on that policy and it appears that they actually were, so we were kind of proud that we had communicated policy correctly and of course now the actual, or students following policy I guess will be a different matter, but the communication of policy appeared to be favourable." [NL, Secondary School, Participant 1003011]

Based on the results provided in the smoking profile, school administrators were able to observe how smoking education had positive impact on their students' behaviour. However, one elementary school administrator indicated that smoking was not an issue at their school.

> "Nothing really jumped out at me; just you know the circumstances of our school being a K to six elementary the smoking issue isn't as big a one for us…. I guess

> to a limited extent [the information was useful] because it's on such a focused area and again it's an area just looking at the results that isn't a huge issue for our school right now." [BC, Elementary School, Participant 5925019]

The fact that smoking was not a problem at this school could be related to the young student body. Based on the YSS data, within this particular school 29% of the students were susceptible to smoking even though there were no current smokers and 100% of the students at this school never smoked. While smoking was not an issue at this BC elementary school, the interviewee still thought the information was relevant to their school since it provided confirmation of their previous understanding. The interviewee may not have considered the extent to which students were susceptible to smoking, or did not feel that susceptibility had the same urgency to it as actual smoking.

Not only did school administrators comment on the practicality of the knowledge, but they also discussed practicality of including other topic areas in the smoking profile. In order to determine if the smoking profile should broaden the topic areas included in the report to meet the needs of school administrators, participants were asked to indicate the usefulness of including other topic areas. The majority of school administrators (6 elementary and 8 secondary school administrators), indicated that the inclusion of other topics would be useful. "[I]t would just be maybe a little bit more of a complete picture. Just to kinda get a better handle on what's happening" [ON, Secondary School, Participant 3507091]. In addition to providing school administrators with a whole picture, broadening the content would also help to guide and inform their practice.

> "Again, it's just informing us, so that we are able to inform our practice. For instance, if we're noting, like last time we had the report, two years ago we did it as well…. But last time we had a lot more students who were smoking and had the access to cigarettes. And who had parents who were smoking and friends who were smoking. And that information was brought to the staff. And I believe that because of that they have really focused on trying to get students not to smoke.

> So the information that I received in the survey that was done this year, is we are seeing a difference. Now is it a difference because of our teaching, or is it a difference of the, you know, the people who are in front of us. Well, if you had information about drugs and alcohol, we would be able to make those same relationships, because that information just would inform our teaching practice. [ON, Elementary School, Participant 3532036]

> "I think it's another piece of the awareness and education that we need to say okay this is what our students have reported here which has a greater impact than what we think is going on." [NS, Secondary School, Participant 1201011]

However, six school administrators, across all school types, indicated that broadening the topic area wouldn't necessarily be more useful but just interesting in itself. "It would be more interesting okay. More useful, you know I don't know if I could say it would be more useful but it would be more interesting" [BC, Elementary School, Participant 5930081]. Otherwise some administrators thought that other topic areas wouldn't be necessarily more useful or they weren't sure. "I'm not sure cause I like, I like what we're doing right now…" [ON, Secondary School, Participant 3519097]. While there were six administrators who were uncertain about including other topic areas in the school smoking profile, there were 14 school administrators who thought that broadening the topics of the profiles would be more useful. Considering that almost half of the interviewees wanted the content of the profile to be broadened, YSS should incorporate other topic areas in addition to tobacco use.

6.3.2.2 Timeliness

There were several instances were timeliness was coded in the transcripts. Timeliness refers to information being delivered at an appropriate and useful time, such as during an appropriate time of year (Cousins & Leithwood, 1993). Several participants identified the best time to receive the smoking profile. School administrators gave strong preference to receiving the school specific results in the fall.

> "Probably early fall…. Cause then you, you have it for when you're planning throughout the year. If you send it in the spring to our school we're too busy

> wrapping things up in other activities" [MB, Elementary School, Participant 4601046].
>
> "Probably you know, in September is good because teachers haven't yet done all of their year-long planning. So that way it gives them, you know, it's still soon enough from when they get it earlier in the spring so that they know okay we did that, you know, the lessons, etc., we covered that area according to our curriculum. These were what the results show us. So in September they haven't planned out what they're teaching for the September to June time so that allows them then to kind of think about okay, if we, when we go to do this part, what will we focus on more so." [BC, Elementary School, Participant 5910012]
>
> "Probably the best time to get it would be around the end of September once school has started and things have settled down a bit and then we can look at it and decide whether there are some issues we need to address over the course of that school year." [BC, Elementary School, Participant 5925019]

However, one secondary school administrator specified that the best time to receive the smoking profile would be in the spring. "To get the report is probably going to be in the spring, 'cause we're, then we would you know, have time to look at it and, and you know, decipher it and do something with it in the next year" [SK, Secondary School, Participant 4711015]. Although more school administrators gave preference to receiving the smoking profile in the fall, there were a couple of administrators who would prefer to receive the results in the spring. Regardless of when the smoking profile is sent, one administrator indicated that June and September are not appropriate times to receive the results. "I would recommend near the end of September beginning of October or if it is earlier beginning of May or something would be fine but June is just a crazy month. Beginning of September is pretty crazy as well" [NL, Elementary School, Participant 1002020]. More specifically, one administrator indicated that the beginning of the calendar year would be an appropriate time to be sent the smoking profile. "You know the best time to be sent probably, I'm trying to think, probably January or February are probably the only two guaranteed months where you've got time to actually look at something" [BC, Elementary School, Participant 5930081]. Even though the time in which the school smoking

profile is delivered varied among school administrators, many indicated that early fall was preferred. However, it was apparent that June and September are not appropriate and useful times for school administrators.

School administrators also discussed several reasons why they had not read the smoking profile when it was initially sent to them in the spring. The smoking profile for all the YSS 2008/2009 schools had been sent to school administrators between May and July 2009. One of the main reasons for not reading the report was timing.

> "Time. Okay, it's nothing personal. At the end of the day from March until June in schools is crazy from everything from projected enrolments to orientation sessions to year end reports to final report cards to people coming and going." [BC, Elementary School, 5930081]

> "June would have prevented me. I just had so much at the end of the year miss, I probably didn't, you know one of those things that you put on the back burner with year-end reports and report cards and closing out procedures and everything prepared for the summer that it just would have been, it would not [have] been a priority at that time." [NL, Elementary School, Participant 1002020]

Timing was a major factor in preventing them from accessing the smoking profile online. The time when the report was sent to them was inconvenient since their school year was coming to an end and they had competing priorities. Another major reason they cited for not reading the report was that there were changes in school administrators that occurred the following school year.

> "Well it was a different principal at that time…. So I'm just picking up where he left off. He in fact may have, he didn't mention it now in his report to me and there was hundreds of things that was in his report that I picked up, you know, so it wasn't in that but it could have been sent, inadvertently on his part he may have just not passed it on. Like I had files, scores and scores of files and I didn't see it in that so probably just a little error." [NL, Elementary School, Participant 1004009]

Not only were there several changes in administration that affected the uptake of the smoking profile, but school administrators indicated that they are inundated with emails and may not always have time to access all emails, resulting in lost communication.

> "Well just the number of emails that I deal with and so on, if I don't have a hard copy in front of me it tends to disappear. So I did get a follow up hard copy, which was great." [BC, Elementary School, Participant 5925019]

> "Well, I'd say nothing more than just; when I hit July I'm out of here. By the time I returned in the middle of August I'd say it just got lost with the 50 or so other emails that arrived in July. Nothing more to it than that, I'd say I just missed the title, that's all." [NL, Secondary School, Participant 1003011]

However, another participant indicated that their lack of use of the smoking profile was related to their own concerns and not necessarily the content of the report. "I'm guessing that the fact that I didn't look at it says much more about me than about the e-mail" [BC, Middle School, Participant 5936001]. Consequently, the priorities of the school administrators can have an impact on the likelihood of using the smoking profile in terms of reading the report, as well as incorporating the results into their practice.

6.3.2.3 Content

Many of the school administrators identified content as being q very important factor to CKU and IKU. School administrators identified several topic areas that they would be interested in having incorporated into the school smoking profile. Table 9 describes the various topic areas of interest to school administrators.

TABLE 9: Interviewed school administrators' other topic areas of interest, by school type

Other Topic Areas of Interest	Elementary Schools	Secondary Schools	TOTAL
Academic achievement	0	1	1
Bullying	2	3	5
Comparisons	2	3	5
Drugs & alcohol	7	11	**18**
Gambling	0	1	1
Gender differences	0	1	1
Home influences	0	1	1
Internet use	0	2	2
Mental health	2	3	5
Physical activity & healthy eating	8	4	**12**
Sexual activity	1	1	2
Sleep	0	1	1
Where students are smoking	0	4	4

The majority of school administrators (N=18) identified drugs and alcohol as being a topic area of interest that they would like to see included in the report. "Okay, other topics. I think that if you went a little bit into drugs, drugs and alcohol" [SK, Secondary School, Participant 4709054]. "Well, definitely the drugs and the alcohol would be two that, that I would see...would be great to know more information about" [ON, Elementary School, Participant 3532036]. While school administrator would appreciate school-specific information on drugs and alcohol, there was a concern regarding parents' reactions, especially in elementary schools, whereas in secondary schools, they also wanted to know the use of prescription drugs.

> "[C]ertainly we talk about it in the classroom, drugs and alcohol, and we, and you know, we're an elementary school K to 8 and we have issues with drugs and alcohol starting sometimes in grade 5.... and certainly in grade 7 and 8 … kids in grade 7 and 8 are simply exposed to drugs and alcohol and … we've had to deal with it right at school. So including that in the survey would be very interesting I think. But it, I would also suspect that it would, it might be a harder sell for the, for the parents. Like parents tend to, … they would be more concerned if the idea of that we were actually surveying the kids about drugs. You know, somehow lots of parents respond with the idea that well if we're talking about it they're going to do it." [SK, Elementary School, 4703012]

> "[T]here's also the prescription drugs that students are getting in to, not just the illegal drugs, right? So the Oxycontin, and the prescription drugs that the kids are getting addicted to. Yeah, that would be the only other extension but that would be, I think, further into the future" [ON, Secondary School, Participant 3519097]

One secondary school administrator also indicated that they would like to see drug use associated with emotional well-being. "So there is again just like possibly a response that could also be correlated to the use of marijuana" [ON, Secondary School, 3513043].

The second most popular topic area that was identified was physical activity and healthy eating. Twelve school administrators indicated that they would like to see the inclusion of this topic area in the school smoking profile if YSS were to expand the topics that were included. The 67% of these school administrators were from elementary schools (N=8). Even though there

were many elementary schools interested in physical activity and health eating, their reasoning varied.

> "One of the main goals of the school is to promote active living, healthy and active living and you know physical well-being, mental well-being and mental health through physical activity and some various programs that we have in the school. So yeah, I mean a healthy eating component, a physical activity component would be good." [NL, Elementary School, Participant 1004009]

While one school was interested in physical activity in order to promote mental wellness, other elementary schools were interested in physical activity in order to know the activity level of their students.

> "Well it would be interesting if you could find out how much time they actually spend in physical activity and I know that's a hard thing to measure because you're relying on their memory and knowledge but like I'd be really curious to know how much they think they are physically active. That would be something that I would find interesting." [ON, Elementary School, Participant 3531061]

Furthermore, one secondary school administrator was interested in the association between physical activity and healthy eating to smoking.

> "I think there's probably a good link there with that whole idea with the healthy living and the health effects that go on there because I think that certainly kids today don't eat right and probably, well, and the home impact as well there. There are probably a lot of homes that from a balanced diet aren't pursuing that as well and certainly that gets impacted and compounded if the student or the person is a smoker as well…. Again, from my standpoint it might be interesting to see how many kids okay were, if they are playing some type of sport or being physically active, who are actually smokers. I think that might be a good piece." [ON, Secondary School, Participant 3518041]

Although there were differences between school administrators in their reasoning for their preferences, there was an obvious preference for including a physical activity and/or healthy eating component into the YSS.

The third most identifiable topic areas included a behaviour, bullying, and a way to display information, as comparisons between provinces and national averages. These topic areas

were equally identified by five school administrators each. Bullying was mostly preferred by elementary (N=2) and secondary (N=2) school administrators. Additionally both elementary school administrators were from Newfoundland. One administrator said that they'd "like to see something on bullying or school climates, you know, whether students feel that they are being bullied or feel safe at school. I suppose a youth safety survey might be nice" [NL, Elementary School, Participant 1004002]. Not only were the elementary schools from the same province, but both secondary school administrators were from Saskatchewan. One of the school administrators from Saskatchewan described an incident last year regarding bullying that occurred on Facebook and mentioned that the inclusion of bullying in a report would be useful to their school [Participant 4709054]. Consequently, contrasting environments have an interest in bullying content.

While five school administrators indicated preference for bullying content, another five administrators expressed their want for comparative results, whether it be between provinces or national averages. For example, one secondary school administrator said that they would "really like to have just the information that's pertinent to my school and to comparison with Nova Scotia" [NS, Secondary School, Participant 1201011]. "It would have been interesting to maybe see a comparison of our percentage to other schools of similar size whether it's to a provincial average or whether it's just to other schools similar to yours, how we compare to them" [BC, Elementary School, 5925019]. Not only did they want comparisons provincially, but a couple of school administrators indicated that they would like to see how their school compared nationally to other provinces in regards to smoking. "It would have been interesting to see how we, how they stacked up Canada-wide…. Cause I just don't know if maybe the province of Saskatchewan the youth are smoking more, you know, than the rest, so I thought that might have been more, it

would have been beneficial to see." [SK, Secondary School, Participant 4711015]. As a result, both the elementary and secondary school administrators would like to see comparisons of their specific schools to other schools in order to understand how well their school is doing in terms of smoking prevention.

In terms of expanding the content of the school smoking profile, other areas of interest that were expressed included: mental health (N=4), where students are smoking (N=4), internet use (N=2), sexual activity (N=2), academic achievement (N=1), gambling (N=1), gender differences (N=1), home influences (N=1), and sleeping patterns (N=1).

6.3.3 Results for Conceptual Knowledge Use (CKU)

CKU refers to background learning and understanding. Conceptual knowledge use corresponds to Rogers' awareness stage in that the individual becomes aware of a new idea, which may lead to eventual adoption of the innovation (Rogers, 2003). Of the 29 participants, 30 instances of CKU were described, ranging between zero to two instances per participant. Six of the school administrators indicated that the school-specific results provided them with confirmation of what programs and policies were working.

> "We had always had concerns that our school population, whether or not they were clear on smoking policy and it appears that they actually were, so we were kind of proud that we had communicated policy correctly and of course now the actual, or students following policy I guess will be a different matter, but the communication of policy appeared to be favourable." [NL, Secondary School, Participant 1003011]

Furthermore, seven of the school administrators indicated that the content in the school smoking profile created awareness since they found the results to be surprising. "I found some of the results really surprising. We don't tolerate smoking here and the students know that, you know.... I don't know when they would be smoking" [ON, Secondary School, Participant 3519097].

Whereas another administrator identified that the smoking profile was creating greater learning and helping to inform their school and their programs.

> "Again, it's just informing us, so that we are able to inform our practice. For instance, if we're noting, like last time we had the report, two years ago we did it as well…. But last time we had a lot more students who were smoking and had the access to cigarettes…. We have really focused on trying to get students not to smoke.… we are seeing a difference. Now is it a difference because of our teaching, or is it a difference of the, you know, the people who are in front of us. [ON, Elementary School, Participant 3532036]

While 11 school administrators indicated that they had expected the results in the smoking profile but it was still information that was important to their learning. "It was interested reading it and it was informational to know what is happening with our students." [ON, Secondary School, Participant 3507091].

However, one participant identified that they wanted to be more informed about how their school ranked in terms of smoking. "And I guess if anything now... how we stand up against the rest of the province" [BC, Secondary School, Participant 5936001]. Since decisions only occur after sufficient information has been accumulated, one school administrators identified wanting a further understanding of the issue in order for action to occur.

These qualitative instances of CKU were then enumerated and correlated with the questionnaire ratings of content. When the qualitative scores of CKU for an individual were correlated with the predictors variables of knowledge use from the questionnaire, weak relationships were observed. The predictor variables from the information and source domain included communication quality, relevance, timeliness, and content. Since credibility and sophistication were not observed in the transcription data, in addition to being weak predictors in knowledge use, these factors were excluded as predictor variables. Credibility was excluded given the infrequent mention and moderate contribution in the one example where credibility

was cited in the transcripts, credibility exhibited a weak relation to CKU. Similarly, sophistication was also not included since there no indication that this factor would exhibited a any relation to CKU.

Table 9 provides the correlation coefficients of CKU and IKU with the predictor variables. A negative weak association was also observed between communication quality, relevance, and timeliness to CKU. Meanwhile, a positive weak association was found between content and CKU. Consequently, there was no significant association between the predictor variables and CKU.

TABLE 10: Correlation coefficients between CKU or IKU and the predictors of knowledge use

Predictor Variables	CKU (*r*)	IKU (*r*)
Communication Quality	-0.08	0.09
Relevance	-0.21	0.05
Timeliness	-0.09	0.15
Content	0.06	0.07

6.3.4 Results for Instrumental Knowledge Use (IKU)

Instrumental knowledge use (IKU) refers to acquiring new knowledge such that decisions are made or action is taken based on this new information. The 29 participants described a total of 20 instances of IKU, ranging between zero to three instances per participant. Compared to CKU less respondents identified instrumental uses of knowledge which participants speculated might happen; specifically participants described a wide variety of implementation activities that might occur. Participants planned to disseminate their school's smoking profile results to several groups. For example, many school administrators had identified existing programs within their school that would benefit from the results presented in the smoking profile:

> We have education in our school. For example we have a D.A.R.E. program, Drug Abuse Resistance Education program for grade six students…. [W]e'll provide [the smoking profile] to the constable and the teacher when that begins

> and they'll come in for eight weeks, an hour each time, and they'll focus directly on you know the ill effects of drugs and then drugs and alcohol, tobacco, that kind of thing. This is a resource they can use." [ON, elementary school, 3518041]

Additionally, another school administrator indicated that parts of the smoking profile could be used in varying programs. "We have "party in the right spirit" which has to do again with drinking behaviours, that kind of thing, which could use the information as well". Some of the participants also indicated that the results were used to create awareness. One school administrator who had participated in the YSS the last three years said percentages from the smoking profile had been used since "those are all awareness tips that we have posted up around our building…. [I]t certainly has given us information that we can use in our health committee and stuff that we can post up around our building. It's all information that our kids will use." Any immediate action from school administrators included from copying the executive summary and/or the full report, verbally sharing the results, holding meetings, creating newsletters, and student involvement. Similar to the quantitative data, across all school types, the majority of school administrators identified that they planned to primarily share the results with teachers. They also identified intention of sharing the smoking profile with parents, students, wellness coordinators, other organizations and programs, such as Drug Abuse Resistance Education (D.A.R.E.), and their superintendents. By sharing the school-specific results with the schools, it has raised awareness in schools, and has potentially made parents, students, and other community members, knowledgeable about school-specific smoking rates, as well as increased their understanding of youth health at the local level.

The number of instances of IKU were also correlated with the information and sources characteristics. A weak relationship was also observed between the predictor variables and IKU (Table 9). Timeliness had a weak association to IKU ($r = 0.15$), however, the remaining variable

(communication quality, relevance, and content) demonstrated weaker relationships. As a result, the information and source characteristics were no strongly associated with knowledge use in this sample of school administrators.

7.0 Discussion

7.1 Overview

The past three years the smoking prevalence rate for youth aged 15-19 years has remained stagnant in Canada (Health Canada, 2010). Considering this and previous research evidence, school health programs and school-based smoking policies can be effective at reducing the onset of smoking (CDC, 2009). SHAPES was created to provide data for population-based interventions and to help facilitate tailored, school-based prevention programs. The YSS project uses the SHAPES system to collect data from students and school staff regarding student tobacco use to improve health of youth at the local, provincial, and national levels. The results of the survey are then compiled into individualized school smoking profiles, in order to inform the school of their student's health risk behaviours and identify strategies in order to help them take action to improve.

While there is a large body of research that has identified that tailored, timely feedback contribute positively to knowledge use, in the SHAPES-YSS school profile context, this relationship had not been tested. Both the actual information contained in the smoking profile and its delivery, such as format of that content and how it reaches users, can potentially influence knowledge use. The findings of this thesis project have contributed to our understanding of the knowledge utilization process of school administrators who originally did not download their school's smoking profile. Specifically, it examined how end users, who are the last adopters of an innovation, also identified by Rogers (2003) as laggards, perceived source and information characteristics in the school smoking profile, and the extent of conceptual and instrumental knowledge use associated with the school smoking profile. While strong measures of knowledge use are lacking, this study provides valuable implications for practice and

interventions designed to encourage the uptake and use of evidence among "laggard" school administrators.

7.2 Revisiting the Research Questions

The main research questions guiding this thesis attempted to understand school administrators' experience using the YSS school smoking profile. The overall goal of the YSS school smoking profile is to provide a clear picture of local youth tobacco use in order to facilitate action at the local level. The school administrators included in this study had not downloaded their school's smoking profile. These schools were sent paper copies and were invited to respond to the questionnaire and interview. Consequently, there were two questions under investigation: 1) how effective is the school smoking profile in facilitating conceptual knowledge use and instrumental knowledge use for school administrators who do not view their school's smoking profile?, and 2) how could the school smoking profile be improved as part of knowledge exchange strategy? The following sections will discuss the research question and what the research found.

7.2.1 QUESTION 1: How effective is the school smoking profile in facilitating conceptual knowledge use and instrumental knowledge use for school administrators who do not view their school's smoking profile?

7.2.1.1 Knowledge Use

Even though the participants had not read their electronic version of the school smoking profile, most of the participants indicated that they planned to use the school smoking profile in some capacity, primarily in planning. Consequently, re-sending the profile provided an indirect

intervention. Since it is uncertain whether the laggard[3] school administrators will actually use the results in practice, given that this type of adopter would be the last group of individuals to incorporate knowledge into practice, it would be beneficial to provide training or workshops on how they could incorporate their school's findings when planning programs, curriculum, or events. Otherwise it would be important for other organizations, such as public health units, to provide support to these schools, especially since laggards tend to have very little or no opinion leadership (Rogers, 2003). These new linkages are necessary to bring together researchers and practitioners in order to effectively collaborate to improve the health of students (Cameron, Jolin, Walker, McDermott, & Gough, 2001). Considering that almost all the laggard school administrators primarily plan on discussing their school's smoking profile with teachers, it is especially important to incorporate curriculum planners, teacher workshops, or other forms of support within the school environment. Similarly, many laggard school administrators plan on discussing their profiles with students and parents. Since a few elementary school administrators didn't plan on sharing the results, perhaps incentives, like workshops or lesson plans, may provide some assistance in understanding how school administrators can take action.

However, upon further investigation, weak relationships existed between the source and information characteristics and knowledge use. The weak relationships, which were not statistically significant, between the predictor variables (communication quality, relevance, timeliness, and content) and both CKU and IKU, could be due to other variables having more of an influence on knowledge use, such as interactive processes. Based on the knowledge utilization conceptual framework illustration (Figure 1), the direct relationship between the source and information characteristics and knowledge use demonstrates a weaker relationship, as

[3] Note that this term is used in the context of Rogers' theory of diffusion of innovations.

identified by the thickness of the arrow, in comparison to incorporating interactive processes, which strengthens the relationship of the source and information characteristics to knowledge use (thicker arrow). Another factor contributing the weak correlation was the fact that participants had not previously viewed their school smoking profiles and did not have adequate time to incorporate the results of the profile into their practice. Consequently, there would be fewer instances of CKU and IKU, affecting the sensitivity and variability of the measure, and causing the weaker association. The lack of variability is attributed to the few instances (ranging from 0 to 3) of CKU and IKU for each participant. As well, the sample size (N=29) may not have be robust enough to observe a relationship between the predictor variables and knowledge use. Furthermore, correlation does not imply causation. Correlation cannot infer a causal relationship between two variables, such as relevancy causing knowledge use. The negative association between communication quality, relevance, and timeliness to CKU could have been the result of missing an interaction variable. The negative association indicates that relevance, communication quality, and time does not increase the likelihood for the school administrator to use the profile in smoking profile in their practice.

7.2.2 QUESTION 2: How could the school smoking profile be improved as part of knowledge exchange strategy?

7.2.2.1 Source Characteristics

In terms of communication quality, the school smoking profile provided appropriate readability to school administrators who did not view the profiles. Most of the laggard school administrators thought the smoking profile was well organized, provided good titles, fonts, and graphs, as well as used colour appropriately. Since the smoking profile provided a

comprehensive layout that was easy to read, find information, and understand the results, no improvements are necessary to the presentation quality. Consequently, SHAPES should continue to incorporate colour and graphs into their profile's style in order to entice the reader to use the results. However, if paper copies are necessary, then it might be cost-effective to make certain pages in colour and others in black and white.

In order to ensure that all school administrators access their school's profiles, copies should continue to be provided online, in addition to sending hardcopies of the results. Considering that none of the participants had viewed their school's smoking profile when they only received an electronic version, but there were increases in fully reading their profiles when a hardcopy was sent, it would be beneficial for SHAPES to provide a mailed copy to school administrators in order to increase knowledge use. However, downloadable profiles are more cost effective. In order to reduce costs, a shorter version of smoking profile could be mailed that includes a notice that the full version is available online. The shorter version could dedicate the last page to details on how to find the online full version.

While it seems that a larger portion of school administrators fully read their school's smoking profile, the 71% response rate suggests otherwise. Since there still remain individuals who didn't complete the questionnaire, it cannot be determined if they read the profile. While it appears that there is a fairly good response rate of school administrators reading the smoking profile when it was sent to them a second time, in fact there are some biases in the sample who returned the questionnaire. People who didn't respond to the questionnaire probably skimmed the report or didn't read it at all. The reader needs to weigh this in comparison to the whole sample perhaps, and not just those who responded to the questionnaire. In which case we only know that less than 30% did not read the full profile. Consequently, a hardcopy may not be a

total solution as it may have looked like based on the questionnaire responses. On the other hand, there does seem to be value in re-sending the profile, as described in the next section.

7.2.2.2 Information Characteristics

While the style of report was appropriate, the name of the report that provides the school-specific results was not. It was recommended that the *school feedback report* be changed to *school smoking profile* since it sounds more collaborative and relevant to school curriculum for school administrators, as well as sounding more positive then report.

While the participants had not initially read their school's smoking profile, once they read the copy sent later, they thought the content of profile was mostly valuable. Considering that the Issue section of the profile was of lesser value to most participants, this section should either be shortened or removed from the profile. Although the smoking profile was of value to school administrators, a major reason for their lack of reading the profile was timing. Consequently, the time of year in which the school specific results are delivered can be a hindrance to reading and accessing the school smoking profile, even though almost half of the survey respondents thought the report was somewhat timely. It may also be useful for YSS to re-send the profile at the start of the next school year for everyone, not just those who did not download, to remind them to access their school specific data which they have indicated is valuable. Many of the school administrators also suggested that the smoking profile be delivered in the Fall, however, there were a few administrators who preferred the Spring. Considering that there were variations in when best to receive the results, it may be best to ask school administrators at the time when students complete the survey, when they would prefer to receive the results. Then the smoking profile could be tailored to the most appropriate time for that individual.

In terms of other content areas, many of the laggard school administrators expressed interest in including drugs and alcohol, as well as physical activity and healthy eating into the school smoking profile. While there were other areas of interest, such as bullying, mental health, and comparisons to provincial and national averages, approximately half of participants interviewed mentioned wanting to see more information on drugs and alcohol and/or physical activity and healthy eating. As a result, questions should be included in the YSS on these topic areas. If the school smoking profile were expanded to include these other topic areas, it may prompt more school administrators to view their school's profiles when it is initially sent. However, there were a few concerns about broadening the topic areas covered the profile, such as increasing the length of the profile and the time required by students to complete the survey. Regardless, it would be worthwhile to include other topic areas since the issue of smoking is not always an area of concern for schools, especially elementary schools. Nevertheless, these schools still appreciate receiving information about their schools' smoking rates since it provides confirmation about how smoking education had positive impact on their students' behaviour.

7.3 Lessons Learned

While many data were collected from school administrators who previously had not viewed their school's smoking profile, there were potential opportunities that were lost. There were four populations that could have been examined: those who did not look at the report, those who looked at the report, those who looked at it and did something, and those that looked at the report and did not act. Future studies should examine these other groups in order to gain further insight into how the school smoking profile is used to provide a complete perspective from all types school administrators. Additionally, further population samples could be examined. While only school administrators were included in this study, future studies could examine the school

smoking profile from the perspective of students and parents, since most school administrators intend to share the results with these groups.

7.4 Implications/Future Research Directions for SHAPES

Given the findings of this study there are some important implications and strategies for SHAPES to engage laggard school administrators. Since there was such a positive response to the questionnaire from school administrators who had not viewed their smoking profile, similar feedback should be sought from all school administrators. When the school profiles are sent to school administrators electronically, administrators should have the opportunity to include feedback about the report, whether they provide areas for improvement or information they found to be useful. These feedback forms could also be categorized and tailored based on the smoking profile level the school receives.

It is also important to build opportunities between researchers and administrators, such as collecting lessons that might be shared with other school administrators. Part of building these opportunities to share knowledge and experiences between schools would include creating a blog or wiki on the SHAPES or YSS website. By providing schools with the opportunity to communicate with one another, and to discuss their schools' future directions, helps to create awareness among schools. Additionally, by creating awareness among schools, this will influence adoption and use of the SHAPES profiles.

Considering that this thesis project targeted the laggards, school administrators who had not previously viewed their schools' smoking profile, re-sending the smoking profile, including the addition of the questionnaire and interviews, was an intervention in itself. This intervention would have prompted the laggard school administrators to view their school smoking profile, as well as in greater detail. Not only would re-sending the profiles remind school administrators of

the school-specific data that they have access to, but it would also prompt administrators who had not previously viewed their profiles to access their school's results. Since participants received multiple reminder calls, re-sent questionnaires, and interviewees were ask to view the profile during the interviews, social desirability bias may have been introduced. The laggard school administrators may have had a tendency to respond more favourably to questions, such as the extent they read their profiles, and over-reported other behaviours, such as their intention of using the profile. Whereas it would be expected that school administrators who downloaded the profile would have more accurate self-reporting, and those who didn't download and didn't respond probably did not even look at the re-sent school smoking profile. Since school administrators who had not viewed their school's profiles were followed up through an interactive process, this may have also influenced their knowledge use. The multiple contact provided an incentive to school administrator who had not previously taken the time to view their school's profile. Consequently, re-sending the school profiles should be done with all schools in the YSS, as well as other SHAPES studies.

Additionally, it could be beneficial to include a type of intervention into YSS and SHAPES to call schools to remind them about their school-specific data. For instance, staff could call school administrators whose schools have increased smoking rates and who have not viewed their school smoking profile. Re-informing schools about their profiles might trigger them to use them in their practice. A major limitation to contact all of the YSS could be cost. Other ways of increasing the interaction with schools could be through greater linkages with local public health who could contact schools, as well as facilitate knowledge use.

7.5 Strengths and Limitations

One of the strengths in this study was the research design. The two-phase sequential, explanatory mixed methods approach was a straightforward design that was easy to implement since procedures fall into clear stages (Creswell, 2003). Consequently, the two-phase mixed method design made it easy to describe and report procedures and results. In addition, since there were two data collection periods, there was the opportunity to collect responses from the same participant for specific questions, such as school administrators report preference (one-page, three-page, or full report); this type II mixed-mode reduced measurement error, which was beneficial since the questionnaire had not been previously tested (Dillman et al., 2009). Another advantage to the research design was the breadth and depth of the information gathered from using a mixed-methods approach. Since the questionnaire collected data from many individuals, and the interviews provided more intensive reporting from a smaller number of respondents, the strengths of one method balanced some of the weaknesses in the other method, such as quantitative research disregarding the experiences of the individuals and qualitative research being considered subjective. For example, on the questionnaire, asking the participants who they would share the smoking profile with, and then inquiring in the interviews how they would share the results. While there were several strengths to the research design, there were also some limitations. Even though there were benefits to the two-phase research design, the two data collection periods became more time consuming compared to using a single research study design (Creswell, 2003).

Apart from the research design, a further strength of this study was the population sample. Since the recruitment drew from a Canada-wide sample, results can be generalized nationally to school administrators who don't read their school's smoking profiles. However,

even though the sample included recruitment from all provinces, except PEI, the interviews excluded French-speaking participants, negating in-depth information to be collected from the French-Canadian perspective. The sample population also only included school administrators who did not view their smoking profiles. Consequently, the study did not include school administrators who had downloaded the profile, resulting in generalizability being more limited than implied.

Not only were there strengths and limitations in the sample, there were also strengths and limitations in the data collection procedures. Since telephone interviews were conducted with participants, they could be more candid in their responses and feel more comfortable in providing information. Nevertheless, since the physical environment could not be observed, such as the participants' body language and the setting, direct observations was unknown.

An additional strength in this study was the reliability and validity of the qualitative findings. Member checking was conducted with participants following transcription in order to ensure transcripts were an accurate representation of their perspectives. While member checking occurred to ensure reliable, valid data, multiples coders were also used in analyzing the data. Multiple coders tested a subsection of the transcripts to determine agreement of coded themes and categories in order to provide reliable and valid interpretations of the data. However, there were limitations in the data collection methods. Even though the questionnaire had not been tested for reliability or validity, type II mixed-mode surveys reduced measurement error since there was the opportunity to collect responses from the same participant for specific questions (Dillman et al., 2009).

8.0 Conclusion

This study was designed to understand school administrators' experience using the Youth Smoking Survey (YSS) school smoking profile, in order to improve the profile as a KE strategy, to facilitate greater knowledge utilization of school-specific results. In the SHAPES-YSS context, the predictive factors which contribute to knowledge use of the school smoking profile had not been examined. The findings of this study have contributed to our understanding of the knowledge utilization process of school administrators who did not view their school's smoking profile. Specifically, it has provided insight into how school administrators perceived source and information characteristics in school smoking profile, and the extent conceptual and instrumental knowledge use are associated with the these characteristics. While the findings indicated a weak association between source and information characteristics and knowledge use, further research is needed to understand how the predictor variables influence knowledge use in school administrators who have applied the school profile in decision making. This study further provides valuable implications for practice, as well as interventions designed to encourage the uptake and use of evidence among school administrators.

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APPENDIX A: School Smoking Profile Questionnaire

Youth Smoking Survey 2008-2009

School Feedback Report Questionnaire

School Name: _____

In an effort to capture the opinions of school staff involved in the implementation of the 2008-2009 YSS project, we would appreciate a few moments of your time to complete the following questionnaire. We will use your feedback to better understand and respond to the needs of participating schools for future implementations. Please fax completed questionnaires to 1-519-886-6424 or scan to yss@uwaterloo.ca.

1. **What is the best way for you to receive the school-specific feedback report included in this package?**
   a) Hard copy
   b) Online
   c) Both hard copy & online
   d) Other

2. **Have you read the feedback report?**
   a) Yes, fully
   b) Yes, but only sections relevant to our school
   c) Yes, skimmed
   d) No, not at all

3. **Rate the information contained in the feedback report:**

Clear	1	2	3	4	5	Unclear
Relevant	1	2	3	4	5	Not Relevant
Timely	1	2	3	4	5	Not timely
Too detailed	1	2	3	4	5	Lacks detail

4. **On a scale of 1 to 3, rank the value of the following parts of the feedback report. (1=highest value)**
   ___ The 'Feedback Report Summary'
   ___ 'The Issue'
   ___ School-specific results
   ___ 'Schools Can Make a Difference...'
   ___ 'Quick Facts'
   ___ 'How to Use this Report'
   ☐ Not applicable

5. **When would you use the feedback report? Check all that apply.**
   ☐ When there is a health-related issue at my school
   ☐ When planning programs, curriculum, or events
   ☐ When support is provided from outside groups (e.g., public health)
   ☐ Other, please specify: _____
   ☐ We would not use the feedback report
   ☐ I don't know

6. **With whom do you plan to discuss the feedback report? Check all that apply.**
   ☐ Teachers
   ☐ Parents
   ☐ Students
   ☐ School board
   ☐ Others in the community (e.g., public health)
   ☐ I don't plan to share the feedback report

7. **Which format would you prefer to receive the feedback report?**
   a) The current 30 page report with the Feedback Report Summary
   b) A three page report including graphs and text
   c) A one page report including text only, similar to the Feedback Report Summary
   d) Other, please specify: _____

8. **Which incentive would encourage you to participate in the YSS survey in the future?**
   a) $100 school honorarium
   b) Smaller honorarium for each participating classroom teacher
   c) Workshop following the feedback report results
   d) All of the above equally
   e) None of the above

9. **Which survey method would you prefer to administer the YSS to all eligible students* in your school?**
   a) On the web, using a school computer
   b) On the web, using a hand held device provided by the researchers (e.g., Blackberry)
   c) Paper and pencil

10. **How many student accessible computers with high-speed internet do you have in your school?** _____

11. **Estimate how long it would take all eligible students* to participate in a web survey?** __day(s)/ __week(s)

*eligible students include grades 6, 7, 8, 9, 10, 11, and/or 12

Can we contact you for a short 15-minute follow-up telephone interview? ☐ **YES** ☐ **NO**

If yes, please print your name: _____

APPENDIX B: School Smoking Profile Information Letter

Youth Smoking Survey 2008-2009

University of Waterloo

Steve Manske
Principal Investigator

Canadian Cancer Society/ National Cancer Institute of Canada's Centre for Behavioural Research and Program Evaluation

Provincial Collaborators

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University of New Brunswick

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Scott Leatherdale
Cancer Care Ontario

Jane Griffith
CancerCare Manitoba

June Blau
Saskatchewan Coalition for Tobacco Reduction

Cameron Wild
Candace Nykiforuk
University of Alberta

Chris Lovato
Marjorie MacDonald
University of British Columbia
University of Victoria

Administrator's Name
School Name
Address
City, Province, Postal Code

Dear <<administrator>>,

We have completed another successful implementation of the Youth Smoking Survey (YSS). As part of your school's participation in the project your school received an online **School Feedback Report**. As of October 1, 2009, your school has not downloaded the feedback report. As a result, we are mailing a hard copy of the **Feedback Report and Executive Summary** to your school, resending your password and login information (see below) and asking for your feedback on a brief questionnaire.

We have enclosed a yellow **School Feedback Report Questionnaire** and would appreciate your feedback. As a thank you for returning the completed questionnaire we have sent you a $2 Tim Horton's gift card. This 3-minute questionnaire is part of a Master's thesis project that is being conducted to improve the utilization of the feedback report. Participation is voluntary and will be kept confidential, and any reports that summarize the results will not identify you or your school. Data will be securely stored for 7 years and then confidentially destroyed. This project received ethics clearance through the University of Waterloo, Office of Research Ethics (519-888-4567 ext. 36005). Please fax the completed survey to 519-886-6424 or scan the completed survey to yss@uwaterloo.ca. A reminder call/email will be sent in a week requesting your participation in the questionnaire.

To access your current feedback report and past feedback reports (if applicable), please follow these steps. Contact yss@uwaterloo.ca if you need to reset your password.

1. Type the project website, www.yss.uwaterloo.ca, into your internet browser
2. Select your language of preference.
3. Click on the **"School Login"** button at the centre of the page.
4. Enter your username and password as follows:
   Username: <<insert user name>>
   Temporary password: <<insert temp password>>

Thank you again for your participation in the 2008-2009 YSS. The involvement of schools across the county was instrumental in the success of the project. If you have any questions about your feedback report or the feedback questionnaire, please contact Tammy Cumming at (519) 888-4567 ext. 33354.

Sincerely,

Daiva Tirilis	<<insert provincial collaborator's name>>	Steve Manske
Research Assistant	Provincial Collaborator	Principal Investigator
University of Waterloo	<<insert provincial collaborator's institution>>	University of Waterloo
(519) 888-4567 ext. 38511		

Youth Smoking Survey 2008-2009

AnyPlace School
Feedback Report Summary

THE ISSUE

- 17% of all deaths (approx. 37 200) in Canada are attributable to smoking, resulting in 3 times as many deaths as car accidents, suicide, homicide, alcohol, illegal drugs and AIDS combined.
- 85% of current smokers[1] start smoking by the age of 19.
- The average age at which students in grade 12 smoked their first whole cigarette is 14 years.
- Students who take up smoking show a decrease in academic achievement, and are more likely to drop out of high school than those who use marijuana or alcohol.

SMOKING AT YOUR SCHOOL

- 7% of students at your school reported being a current smoker. Overall, 33% reported having ever tried a cigarette.[2]
- 31% of students who have never smoked a cigarette have low confidence in their ability to remain smoke-free in the future.[3]
- **Peer and family influences**:
  - 95% of current smokers have friends who smoke compared to 83% of triers[4] and 27% of non-smokers[5].
  - 16% of current smokers said they are usually given cigarettes by friends, parents, siblings or someone else, and 11% usually buy them from a friend or someone else.
  - 23% of students reported that at least one person smoked on a daily basis inside their home.
  - 88% of students thought that smoking should not be allowed around kids in cars; however, 30% of students rode in the car with someone smoking during the week preceding the survey.
  - 31% reported that there were no restrictions or only some restrictions regarding smoking in the home.

EMERGING TOBACCO ISSUES

- Students use other tobacco products. For example, 21% of students indicated that that have ever tried or used flavoured tobacco products and 21% have ever tried or used cigarillos or little cigars.

PERCEPTIONS VS. REALITY

- 65% of students believe that smoking is more prevalent than it actually is at your school.
- 40% of students believe the myth that smoking helps people relax.
- 24% of students believe that smokers can quit anytime; however 74% of current smokers have tried to quit *at least* once, and failed.

TOBACCO EDUCATION

- 51% of students reported having one or more classes in the last 12 months that talked about the effects of smoking. However, 66% reported that they had not taken part in any other anti-smoking activities or events, either at school or in the community.
- Students reported on their knowledge about the health implications of tobacco use. 67% believe that there is danger to your health from an occasional cigarette.

School and Community Setting

- A sense of connection to the school and school rules can support students to make healthy choices. 84% of students at your school either agreed or strongly agreed that "*I feel I am part of my school.*"
- 70% of current smokers responded "true" or "mostly true" to the statement "*In general, I like the way I am*" compared to 69% of triers and 81% of non-smokers.
- 39% of students reported that "a lot" or "some" students at this school smoke on school property, 5% responded "false" or "usually false" to the statement "*This school has a clear set of rules about smoking for students to follow*".
- 63% of current smokers reported skipping one or more classes in the last 4 weeks compared to 48% of triers and 22% of non-smokers.

Other Findings From Your School

- 41% reported that they watch more than 2 hours of television per day.
- 95% of students spend less than one hour per day reading for fun.
- 37% reported that they spend more than 2 hours per day playing video games and 25% surf or play on the computer for more than 2 hours per day.
- 71% of students reported having had a drink of alcohol that was more than just a sip. Of those who had more than just a sip, 57% reported having 5 drinks or more of alcohol on one occasion.
- 30% reported having ever tried or used marijuana.
- 98%, 95% and 93% of current smokers reported these behaviours respectively.

Schools Can Make a Difference...

Things to Consider...

- What do you think is the connection between smoking and a decrease in academic achievement and motivation?
- What are the implications of the majority of students overestimating the smoking rate?
- What is it about our social and physical environment that tempts students to start smoking?
- Your school's results show that 24% of students believe that smokers can quit anytime. How does this fit with the fact that half of all students who smoke have tried to quit but failed?

What can we do?

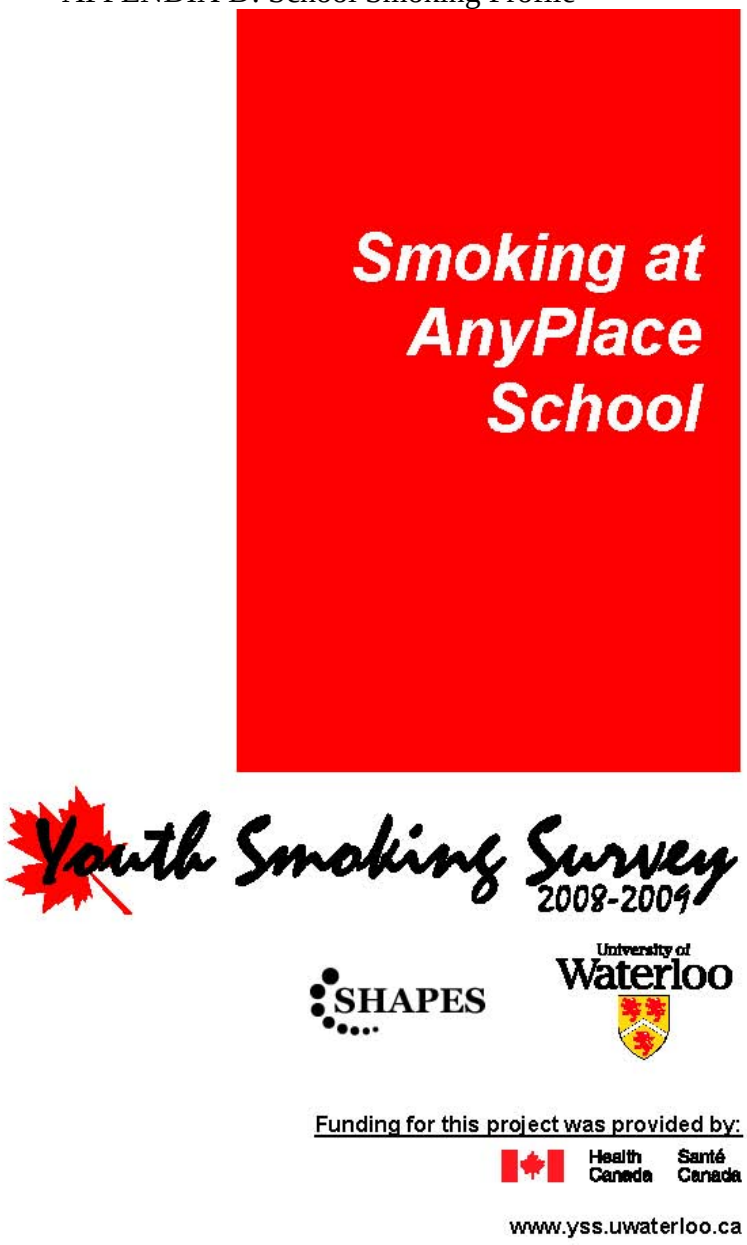
- What can be done to minimize influences that encourage students at your school to start smoking?
- What support systems are available to help students at your school who smoke to quit smoking? What other supports can you recommend that would help students at your school to quit smoking?

Please refer to the full version of your school's Feedback Report to see more detailed results. For more information, visit www.yss.uwaterloo.ca.

This project is a collaboration of: Health Canada Santé Canada University of Waterloo SHAPES

[1] A current smoker refers to "someone who has smoked at least 100 cigarettes in his/her lifetime, and who has smoked at least one whole cigarette during the past 30 days".
[2] Ever tried a cigarette refers to "someone who has ever tried a cigarette, even a few puffs".
[3] Refers to a susceptible smoker, which is "someone at high risk to begin smoking".
[4] A trier refers to "someone who has smoked less than 100 cigarettes in his/her lifetime and has smoked or puffed cigarettes in the last 30 days".
[5] A non-smoker refers to "someone who has not smoked or puffed cigarettes in the last 30 days or has never smoked a cigarette, even a puff".

APPENDIX D: School Smoking Profile



Your School Project Website:

You can access past and current project feedback reports, executive summaries and other project resources by following the instructions below.

Please follow these steps:

1. Go to www.yss.uwaterloo.ca.
2. Click on *School Login*.
3. Enter your school *Login* and *Password*.

Login: *username*

Password: Your secure password is provided at the beginning of the project. Please contact project staff at yss@uwaterloo.ca if you need to reset your password at any time.

Your School's Feedback Report

The ***Youth Smoking Survey*** (YSS) is a Health Canada sponsored national survey of students in grades 6 through 12. School-level feedback reports are made available to all participating schools. In addition to providing national data on youth smoking behaviours, the feedback report for the YSS is intended to assist community leaders (educators, students, and public health workers) in planning interventions, by accurately measuring youth smoking rates and behaviours at the school level. This report also provides the most relevant and up-to-date literature and ideas on appropriate programs and services.

This survey was conducted by the SHAPES Team at the University of Waterloo. We are pleased to provide this report of results for AnyPlace School and thank you for your participation in the 2008-2009 school year.

Please note that in some cases results in table columns or rows and graphs may not add to 100% due to rounding.

Our research team will make this report available to your school's project contact person only. Any results that are published or otherwise disseminated by the researchers will maintain the anonymity of your school. School officials should decide how best to distribute this report. We do encourage you to partner with your local health and voluntary organizations to take action on the findings reported here.

For more information on this report, or the research project associated with it, please contact:

[Name of Provincial Collaborator]
YSS Provincial Collaborator
[Name of Institution]
[Phone number]
[email]

Katy Wong
YSS Project Coordinator
SHAPES
University of Waterloo
1-800-667-1804 ext. 1-36554
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Steve Manske
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The Issue

Smoking is a School Issue

- Students who take up smoking show a decrease in academic achievement.[1]
- Smoking is associated with an increased risk of dropping out of high school; smoking is more predictive of dropping out than marijuana use or alcohol use.[2]
- Starting smoking at an early age is predictive of a number of other risk behaviours; these include fighting, drug use, and problems in school.[3-4]

Smoking is a Student Issue

- 85% of current smokers start smoking by the age of 19.[5]
- The average age at which students in grade 12 smoked their first whole cigarette is 14 years.[6]
- In 2007, 12% of students reported smoking in the last year and about 5% smoke on a daily basis. Additionally, 4% of under-aged students successfully purchased cigarettes.[7]

Web Resources

Health Canada
www.hc-sc.gc.ca/hl-vs/tobac-tabac

Ministry of Health Promotion
www.stupid.ca

Lung Association
www.lung.ca

Canadian Cancer Society
www.cancer.ca

Physicians for a Smoke-Free Canada
www.smoke-free.ca

Canadian Council for Tobacco Control
www.cctc.ca

Smoking is a Community Issue

- 17% of all deaths (or approximately 37 200 deaths) in Canada are attributable to tobacco use.[8] Tobacco kills three times more Canadians each year than alcohol, AIDS, illegal drugs, car accidents, suicide, and murder, all combined.[9] Preventing or delaying smoking can reduce short- and long-term health risks.[3,10]
- In 2007, 19% of the Canadian population aged 15 years and older were current smokers (approximately 5.2 million smokers), unchanged from one year ago.[11]

Schools Can Make a Difference...

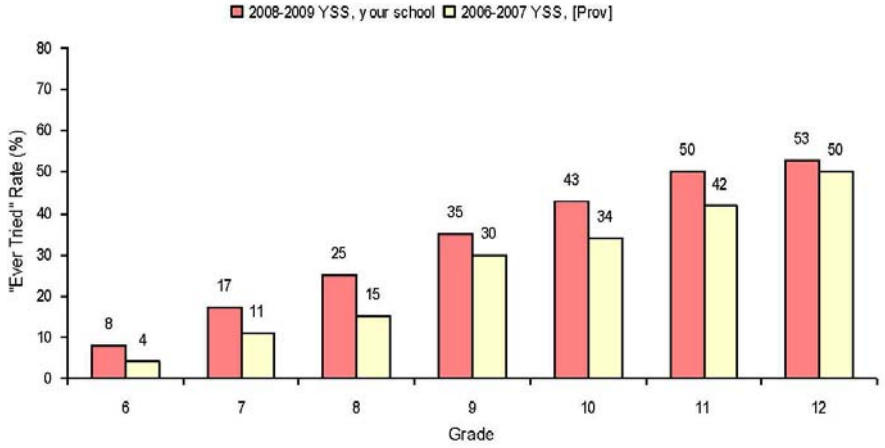
School efforts linked with those of local health and community agencies can reduce problems related to youth smoking. Research has shown that successful efforts include education (coordinated curriculum), a supportive environment (e.g., clear, enforced rules about smoking, chances for youth engagement), services (e.g., cessation) and students who know people care. See the *Youth Smoking Survey* website (www.yss.uwaterloo.ca), for a list of useful resources and websites.

Smoking at AnyPlace

Our findings show that at AnyPlace, 7% of students (7% males and 6% females) reported being a current smoker. Overall, 33% of students surveyed (34% males and 31% females) reported having ever tried a cigarette, even a few puffs. Fewer students (19%) (20% males and 19% females) reported having smoked a whole cigarette.

The *Youth Smoking Survey* (*YSS*) was first conducted in 1994 and has been repeated biennially since 2002. To help you understand how your school compares to the rest of your province, the graph below compares your school's results with provincial results from the 2006-2007 YSS.

Students Who Have Ever Tried a Cigarette



Please note: So that you can see trends for the provincial sample, the graphs in this report include <u>all</u> grades participating in the *YSS*, even though your school may not include all grades.

Definitions Used in this Report

Current smoker	• Someone who has smoked at least 100 cigarettes in his/her lifetime, and who has smoked at least one whole cigarette during the past 30 days.
Trier	• Someone who has smoked less than 100 cigarettes in his/her lifetime and has smoked or puffed cigarettes in the last 30 days.
Non-smokers	• Someone who has not smoked or puffed cigarettes in the last 30 days or has never smoked a cigarette, even a puff.
Ever tried a cigarette	• Someone who has ever tried a cigarette, even a few puffs.
Susceptible smoker	• Someone at high risk to begin smoking.

Student Susceptibility to Smoking

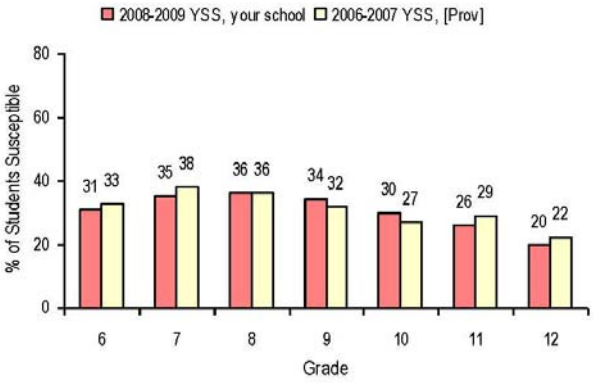
There is a relatively small window in life when one is susceptible to begin smoking. Most established smokers start experimenting with cigarettes between the ages of 10 and 18.[3] Once one becomes dependent it can be very difficult to quit. Therefore, it is important to intervene before students become dependent.

Quick Facts

The younger one starts to smoke the more likely one is to become strongly dependent on nicotine.[12]

Students who feel strongly that they will not try smoking in the future and who feel they can resist peer pressure to smoke are less likely to begin smoking in the future.

Susceptibility to Smoking of Students Who Have Never Smoked



We asked students at your school who have <u>never smoked</u> two questions about their intentions to remain smoke-free: *"Do you think in the future you might try smoking cigarettes?"* and *"At any time during the next year do you think you will smoke a cigarette?"* We also asked one question relating to their confidence in resisting peer pressure, *"If one of your best friends were to offer you a cigarette, would you smoke it?"* From their answers to these questions we determined that 31% of the students who have never smoked a cigarette have low-confidence in their ability to remain smoke-free in the future, and are thus at high risk to begin smoking. The chart above displays your school's data from the 2008-2009 YSS and provincial data from the 2006-2007 YSS on the percent of students, by grade, who were deemed susceptible to smoking.

Schools Can Make a Difference...

Many experts agree that there are stages to smoking uptake including: (1) a preparation phase in which intentions and expectations regarding smoking shift, (2) early experimentation, (3) regular but non-daily smoking, and (4) established smoking.[13] Students whose attitudes and beliefs predispose them to smoking may soon start to experiment, or may have already begun. Even when smoking rates are low, smoking control efforts should focus on preventing students from becoming susceptible, preventing susceptible students from experimenting, as well as encouraging experimenters and established smokers to quit.

Peer and Family Influences

Students take up smoking for a variety of reasons. Peers and family members influence youth smoking.[12] These influences are sometimes direct (peer pressure) but more often indirect (modelling). We asked students at your school a series of questions relating to peers and family.

All students were asked, "*How many of your closest friends smoke cigarettes?*" At your school 95% of current smokers have friends who smoke compared to 83% of triers and 27% of non-smokers. Non-smokers who have friends who smoke are the most susceptible to begin smoking themselves.

Number of friends who smoke	Percent of students responding		
	Current smokers	Triers	Non-smokers
0	5	17	73
1 or 2	15	35	17
3 or more	80	48	10

Students were asked, "*Do any of your parents, step-parents, or guardians smoke cigarettes?*" and "*Do any of your brothers or sisters smoke cigarettes?*" At your school, 77% of current smokers have family members who smoke compared to 67% of triers and 43% of non-smokers. Students who have family members who smoke face a higher risk of beginning to smoke.

Family members who smoke	Percent of students responding "Yes"		
	Current smokers	Triers	Non-smokers
Parents, step-parents, or guardians	67	56	39
Sibling(s)	51	36	14

Obtaining and Sharing Cigarettes

Current smokers usually obtain cigarettes from social sources: 8% indicated "a friend or someone else gives them to me" and 8% indicated they were given cigarettes by their parents or siblings. Current smokers also reported asking someone else to buy cigarettes *for* them (27%) or buying them *from* a friend or someone else (11%). Comparatively, 39%, 4%, 14% and 15% of triers reported these sources respectively. Moreover, 47% of students felt it would be "easy" to get cigarettes if they wanted to smoke.

Smoking is a social activity. When asked, "when you smoke, how often do you share a cigarette with others?" 49% of current smokers reported "usually/always", 44% said "sometimes", and 7% said "never". In comparison, 57%, 33% and 10% of triers reported these categories respectively.

Quick Facts from the 2006-2007 YSS

Nationally, most youth obtain cigarettes from social sources such as family or friends. This is even more pronounced among younger students.[11,12] Data from the 2006-2007 YSS showed that 81% of current smokers in grades 6 to 8 obtained cigarettes from social sources compared to 55% of current smokers in grades 9 to 12. These percentages are even higher for triers (86% and 76% respectively).

Spending Money

We asked students at your school about the amount of money they usually have each week to spend on themselves or to save. The table on the right shows how current smokers, triers and non-smokers at your school responded.

Amount of money per week	Percent of students responding		
	Current smokers	Triers	Non-smokers
$0 - 10	17	26	45
$11 – 20	16	20	20
$21 – 40	20	18	14
$41 or more	47	36	21

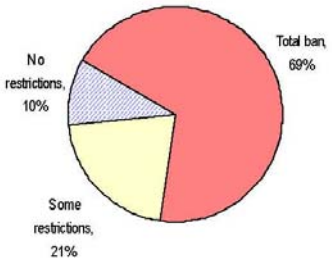
Smoking at Home

Second-hand smoke is a health concern if a family member smokes in the home and/or car.[11,14]

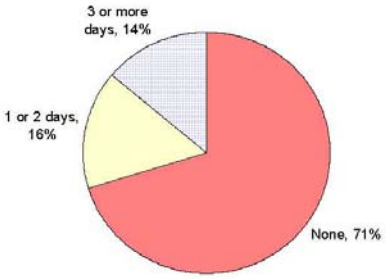
In your school, 23% of students reported that at least one person smoked on a daily basis inside their home. We asked students about smoking rules at home and 31% reported that there were no restrictions or only some restrictions regarding smoking in the home. Incidentally, 88% of students at your school responded that smoking should not be allowed around kids at home.

At your school, 88% of students thought that smoking should not be allowed around kids in cars; however, 30% of students who rode in a car during the week preceding the survey reported doing so with someone who was smoking cigarettes.

Household Rules for Smoking



Exposure to Smoking in Cars



Quick Facts from the 2006-2007 YSS

Analyses of data from the 2006-2007 YSS showed that exposure to smoking in cars and permitting smoking in the home are associated with increased risk of being susceptible to starting smoking, and being an "ever smoker". These results hold even when controlling for other important influences on susceptibility and smoking behaviour.[15]

Schools Can Make a Difference...

Smoking often occurs in social situations among peers. Programs that help students to develop skills for resisting social influences can be helpful. The most successful programs teach refusal skills (through direct instruction, modelling, rehearsal, and reinforcement) and advocacy.[16] Schools can provide an environment where smoking is clearly not acceptable, where smoking by older students is not visible and not convenient.

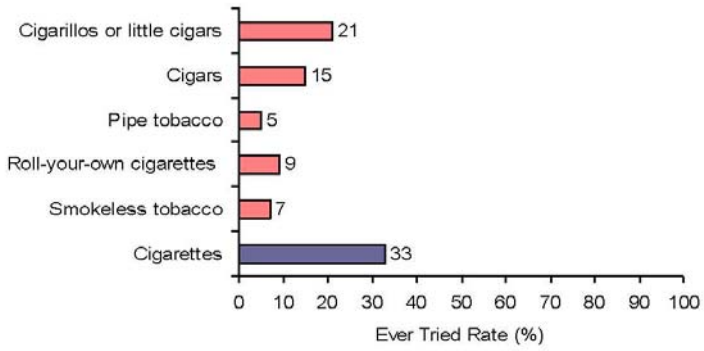
Emerging Tobacco Issues

Students use other tobacco products including cigars, cigarillos, little cigars, pipe tobacco, and smokeless tobacco (i.e., chewing tobacco). Some of these products are flavoured. In the 2008-2009 YSS, we asked youth whether they had ever used flavoured tobacco products (e.g., menthol, cherry, strawberry, vanilla flavoured, etc.). At your school, 21% indicated "yes".

Anecdotal reports of the popularity of cigarillos prompted more specific YSS questions about these particular tobacco products. Cigarillos and little cigars are commonly sold as single units for as little as $1.00, or in small packages containing 2 to 8 units.

Based on the 2006-2007 YSS, 21% of students in grades 6 to 12 (7% in grades 6 to 8; 32% in grades 9 to 12) in Canada reported having "ever tried" smoking cigars, cigarillos, or little cigars, flavoured or unflavoured. Though not as high as the "ever tried" rates for smoking cigarettes (33%) (17% in grades 6 to 8; 45% in grades 9 to 12), this proportion is high enough to warrant increased monitoring and action, especially since 5% of students who have never tried cigarettes have tried these products (1% in grades 6 to 8; 9% in grades 9 to 12).[6] The chart below provides the percentage of students at your school who reported ever trying various tobacco products, including cigarettes, according to the 2008-2009 YSS data.

Alternate Forms of Tobacco Use Compared to Cigarettes



Quick Facts

- Health Canada reports that the sale of cigarillos has grown since 2001, (when about 50 000 cigarillos were sold), to more than 80 000 000 sold in 2006.[17]
- Youth under age 20 are 3.4 times more likely to use cigarillos compared to those over the age of 25. This is different than cigarettes, where youth use is no higher than the general population, and is lower than in young adults.[18]
- Very few (7%) adult women reported smoking cigarillos in the past 30 days, although 72 000 (or 27%) of Canadian teenaged girls did.[11, 18]
- Due in part to the data that have been collected in schools like yours, various levels of government in Canada are currently taking action to combat flavoured tobacco products.[17]

Perceptions and Reality

Many students believe smoking uptake is associated with peer pressure, the desire to seem popular, and the perception that smoking is cool.[19] It is interesting to contrast this with how students themselves report their view of smoking. At your school, only 4% of students reported that smoking was cool; 10% felt that smokers "become more popular"; and 9% thought that it would be nice to date a smoker. Students also tend to overestimate the number of their peers that actually smoke leading to the misperception that it is a common behaviour.[19] Results show that 65% of students believe that smoking is more prevalent than it actually is at your school.

Exposing the Myths about Smoking

While many students are aware of the long-term health problems associated with smoking, this knowledge is not enough to prevent smoking.[20] Some adolescents believe that smoking can benefit them in the short-term. We asked students at your school about some common myths about smoking.

- **Myth:** Smoking helps people to **relax**: 40% of students believe this and 33% "don't know".
- **Fact:** Nicotine is a stimulant and smoking causes a rise in pulse rate and blood pressure.[21] Considering the short and long term social and health consequences of smoking, smoking is likely to *increase* overall stress levels.

- **Myth:** Smoking can help people **stay slim:** 21% believe this and 36% "don't know".
- **Fact:** Research has shown that smokers gain as much weight as non-smokers in the same age range.[22] This common misperception may especially influence young females to consider smoking.

- **Myth:** Smokers can **quit anytime:** 24% believe this and 15% "don't know".
- **Fact:** Nicotine is highly addictive and quitting is often very difficult even for youth and adults who are motivated to quit.[11] At your school, 74% of current smokers have tried to quit *at least* once, and failed (24% have tried to quit once; 50% have tried to quit 2 or more times).

Schools Can Make a Difference...

… by addressing the social influences to smoke.

- Correct misconceptions about the benefits of smoking and emphasize the short-term downsides and negative social consequences of smoking.
- Consider focusing on media literacy and consumer savvy. Several successful youth led campaigns have focused on exposing tobacco industry tactics for attracting youth.
- Correct misperceptions to alter students' attitudes about smoking, especially those related to the creation of "peer pressure." Communicating these results in the school newspaper, on a bulletin board, in an assembly or in other ways may help to show students that smoking is not as well regarded or common as they think. Remember that repeated long-term exposure to these new ideas will be necessary to change attitudes about smoking.

What Students Know & Think about Smoking

Tobacco Control Education at School, Community and Home

Tobacco control education is necessary and important. Knowledge about smoking is most often learned at school and it is at school that attitudes are often developed. The 2008-2009 YSS survey showed that 51% of students at your school reported having one or more classes, in the last 12 months, that talked about the effects of smoking.

We also asked students if, in the last 12 months, they had taken part in any other anti-smoking activities or events, either at school or in the community. The following shows the percentage of students who reported taking part in various anti-smoking activities or events.

20%	School assembly or class with guest speaker
3%	School health fair
8%	Media production (poster, commercial, etc.)
3%	Community event outside of school
2%	Quit smoking contest
1%	Quit smoking program or counselling
66%	I have not taken part in any of these activities or events in the last 12 months

Students' Knowledge About the Health Implications of Smoking

Students reported the following knowledge about the health implications of tobacco use:

- 72% know that you do not have to smoke for many years to harm your health.
- 89% know that smoking is harmful to non-smokers.
- 88% know that smoking is addictive.
- 48% recognize that quitting smoking can reduce health damage.
- 67% believe that there is danger to your health from an occasional cigarette.

The School Environment

The school environment plays an important role in helping students stay smoke-free. Research shows that schools influence smoking rates even after accounting for family, economic and community factors.[16] Schools are uniquely positioned to influence the health and well-being of students, ideally in partnership with home and community.

Comprehensive School Health (CSH)

Comprehensive School Health (*CSH*) is an international framework that helps us understand school health in "a planned, integrated and holistic" way.[23] The health of students is affected not just by what happens in the classroom, but also by the whole school environment and beyond. Schools influence and are influenced by their broader community and cultural environments.

Using the four pillars from the CSH framework can support and enhance educational outcomes and the long-term health of youth. Employing a CSH framework encourages us to think holistically and to focus on actions within four distinct but inter-related pillars:

A healthy **social and physical environment** is reflected in:	• High quality relationships among and between staff and students in the school. • Emotional well-being of students. • Close relationships with families and the wider community. • Well-maintained buildings, grounds, play space, and equipment in and surrounding the school. • Basic amenities such as sanitation and air cleanliness.
Effective **Teaching and learning** is reflected in:	• Resources, activities and provincial/territorial curriculum where students gain age-appropriate knowledge and experiences, helping to build the skills to improve their health and well-being.
Healthy school policy is reflected in:	• Management practices, decision-making processes, rules, procedures and policies at all levels that promote health and well-being, and shape a respectful, welcoming and caring school environment.
Effective **Partnerships and services**:	• Build close connections between schools and students' families. • Build supportive working relationships within schools (staff and students), between schools, and between schools and other community organizations and representative groups. • Encourage health, education and other sectors to work together to advance school health. • Community and school- based services that support and promote student and staff health and well-being.

Attention to each of these areas helps to ensure that students are better able to "realize their full potential as learners – and as healthy, productive members of society."[23]

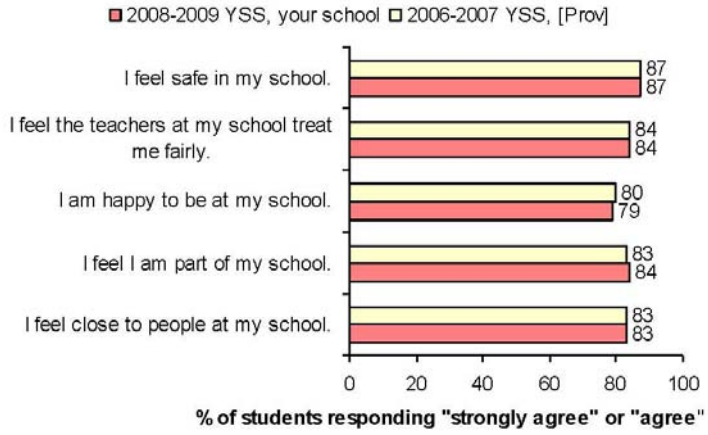
The results on the following pages describe the broader environment at your school. The environment serves as a foundation to behaviour. For example, we report how students connect to their school, their emotional-well being, rules about smoking, and the relation of student absenteeism to smoking. Improving these examples of the four pillars at your school may be a critical goal to reducing smoking rates and improving other health behaviours.

School Connectedness

As per Comprehensive School Health, a sense of connection to the school and school rules can support students to make healthy choices. Students who feel an attachment to their school, and who consider their teachers to be supportive, are less likely to smoke or engage in other unhealthy or risky behaviours.[25] We used a series of five statements to measure school connectedness. The summary score can range from a low of 5 to a high of 20. This year, your school scored 15, while the provincial average was 15 based on the 2006-2007 YSS. Current smokers at your school scored 14 compared to triers who scored 15 and non-smokers who scored 16.

The chart below shows responses of students at your school to the individual statements that comprise the school connectedness scale. These are compared to the 2006-2007 YSS provincial data.

School Connectedness Statements



Emotional Well-being

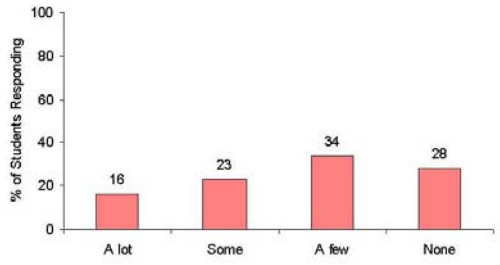
We asked students a series of questions about how they feel about themselves. The table to the right shows the percentage who reported "true" or "mostly true" to statements regarding their well-being. Responses are provided for current smokers, triers and non-smokers at your school.

Emotional well-being	Percent of students responding		
	Current smokers	Triers	Non-smokers
In general, I like the way I am.	70	69	81
When I do something, I do it well.	64	62	75
I like the way I look.	65	64	72

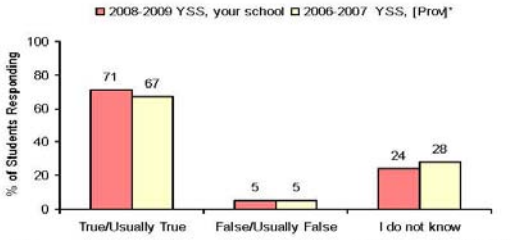
Rules Regarding Smoking at Your School

According to provincial laws, smokers are not allowed to smoke on school property.[24] We asked students at your school about their perceptions of school rules on smoking:

How many students at this school smoke on school property?



This school has a clear set of rules about smoking for students to follow



*The provincial results were calculated for students in grades 7 to 12.

Truancy/Absenteeism

Students at your school were asked how many classes they skipped when they were not supposed to in the last 4 weeks. The table to the right shows the percentage of current smokers, triers and non-smokers at your school who reported skipping classes by the number of classes skipped.

Number of classes skipped	Percent of students responding		
	Current smokers	Triers	Non-smokers
0 (none)	37	53	77
1 to 5	43	38	19
6 or more	20	10	3

Schools Can Make a Difference...

Increasing evidence demonstrates that when youth feel connected to their school and cared for by those at their school, they are less likely to use substances.[25] As well, youth who experience a greater connectedness to their teachers are less likely to start smoking.[26] Ways in which your school can create a sense of school connectedness include supporting extracurricular activities, providing opportunities for student involvement in peer-led activities and buddy programs, advocating a positive classroom atmosphere, and encouraging teacher mentorship.

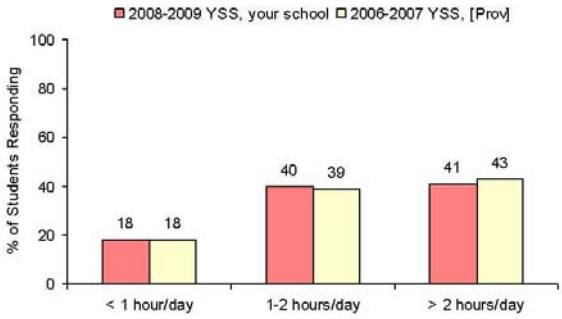
Leisure-time Activities

Quick Facts

Canada's Report Card on Physical Activity for Children and Youth indicate a recommendation of not more than two hours per day of television (TV) or leisure-related screen time.[27] Children with high screen time tend to exhibit obesity, low fitness levels, and lower levels of self-efficacy for physical activity.[27]

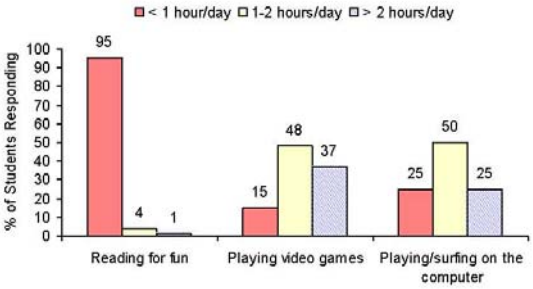
Watching a lot of TV has been linked to increases in smoking uptake in youth.[28] TV is also incompatible with healthier, more active choices for leisure time activities. In your school, 41% of students reported that they typically watch more than 2 hours of TV per day. At your school, 44% of males compared to 39% of females exceeded the two hour recommended guidelines. The chart to the right shows the amount of time students at your school reported watching TV as compared to students in your province.

Hours Spent Per Day Watching TV/Videos



Besides the number of hours watching TV, youth are engaged in playing video games and playing/surfing on the computer in their leisure time. We asked youth about the amount of time they spend engaged in these activities as well as time spent reading for fun (not for school). The chart to the right shows the average number of hours per day students at your school reported doing these activities.

Hours Spent Per Day Reading for Fun, Playing Video Games, Playing/Surfing on the Computer

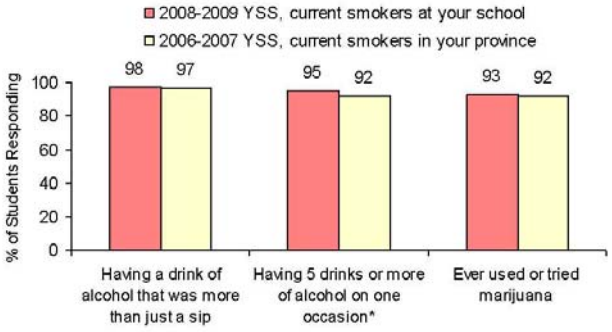


In general, screen time tends to be higher among males when compared to females and playing video games appears to be responsible for this difference.[27] At your school, 35% of males and 29% of females reported playing video games or surfing on the computer for more than 2 hours a day.

Alcohol and Marijuana Use

Students in grades 7 and above were asked about alcohol and marijuana use. At your school, 71% of students reported having a drink of alcohol that was more than just a sip. Of those who had more than just a sip, 57% reported having 5 drinks or more of alcohol on one occasion. At your school, 30% reported having tried marijuana. In your province, 67%, 52%, and 27% of students reported these behaviours respectively. The chart below shows the percentage of current smokers at your school that reported having engaged in these activities. Comparison data from the 2006-2007 YSS are also provided.

Prevalence of Alcohol and Marijuana Use Among Current Smokers



*Percent is of those who have had a drink of alcohol that was more than just a sip.

It is startling to note how young youth are when they first engage in these behaviours. Besides being illegal, students are making these decisions before developmentally being fully capable of understanding the consequences. Among grade 12 students, the average age at which students across your province first tried smoking, alcohol, and marijuana use (based on 2006-2007 data) are provided below:

	Average age (years)
First tried smoking cigarettes	14
Drinking alcohol that was more than just a sip	14
Having five drinks of alcohol on one occasion	15
Ever using or tried marijuana	15

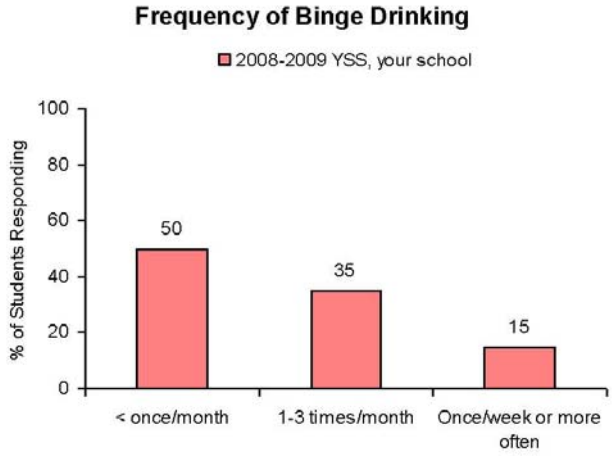
Quick Facts
from the 2006-2007 YSS

Of all youth in grades 7 to12 who have "ever tried" smoking cigarettes, 65% have tried marijuana, whereas amongst those who have never tried smoking cigarettes, only 10% have tried marijuana. Similarly, students who have tried smoking are more likely to have tried alcohol than those who have never smoked (94% vs. 57%).[6]

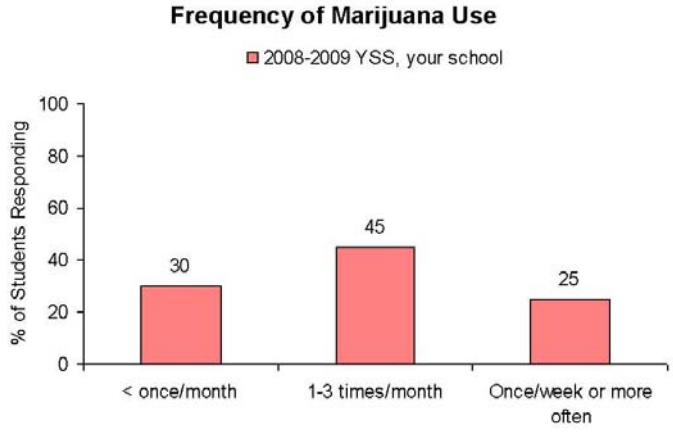
Quick Facts

Findings from the 2004 *Canadian Addictions Survey* indicate that "*tobacco use among youth aged 15-19 is a powerful and effective marker of other substance use and a good indication that these youth are engaging in other risky behaviours such as hazardous drinking.*"[1]

Of those who reported having 5 drinks of alcohol or more on one occasion in the last 12 months, these students were also asked how often they engaged in this behaviour. The chart below shows the frequency of binge drinking by students at your school.



Of those who reported using marijuana in the last 12 months, these students were also asked how often they engaged in this behaviour. The chart below shows the frequency of marijuana use by students at your school.



How to Use this Report

Use this report to identify areas of strength to build on or areas that can be addressed concerning student health and health promotional activities. Share the results with students, school staff, parents, and community members to help identify challenges regarding the health and well-being of students at your school. Involvement empowers and fosters relationships to deal with issues at hand (and future concerns). We encourage users of this report to find the ingenuity and resources for solutions. Overall, student wellness can be improved through contributions at many levels:

Students can:

- Explore ways to take action on areas of concern through student government and other student-led groups.
- Engage teachers and administrators in dialogue about the results to better understand the issues, seek solutions and create student-driven action plans.
- Join a school-based action team or student club dedicated to healthy living.
- Organize new initiatives at school (e.g. intramural sports program, recognition/awards program for people who have made a difference in promoting healthy living, initiate student/staff healthy living challenge, organize a health fair).
- Connect with students from other schools in the district to share what has been done and explore partnership opportunities.

School Staff can use the report data to:

- Support recommendations within school improvement plans.
- Plan and deliver health, physical education or other related curricula.
- Develop opportunities for staff to model healthy behaviours.
- Initiate new partnerships with parents/community resources to promote healthy living.
- Advocate for new community programs or resources and support requests for funding (e.g. grant programs).
- Enhance implementation of health policies.
- Enhance delivery of services or programs for students (e.g. counselling, school cafeteria).
- Share data with local public health units and/or school boards to identify potential areas for collective action among schools and/or follow-up and evaluate implemented actions.
- Look for opportunities to engage students in problem solving and planning.
- Advocate for increased emphasis on health as a priority in school activities and curricula.

Parents/Families and the Community can:

- Plan activities with school council or parent council.
- Consider hosting a forum or approaching media to gain support for healthy living initiatives.
- Create opportunities to model healthy behaviours at home.
- Support the school! Share skills, talents or resources to help address the issues identified in the report.
- Participate in an open house where community groups can share health and wellness programs.

Change is more likely to succeed when schools…

- Engage all stakeholders, especially students. By genuinely considering various perspectives and voices in your planning, you can expect increased support for solutions. You will also build capacity and improve your ability to achieve your main objective. Consider adding parents, community and health organizations.
- Use a comprehensive school health approach to promote healthy behaviours. This includes activities that address all of the following: (1) A healthy physical environment, (2) Instruction and programs (3) A supportive social environment and (4) Community partnerships. Communication through education is necessary but not sufficient for achieving change. To facilitate healthy behaviours, consider all components of a comprehensive school health approach. Promote environments that make the healthy choice the easy choice.
- Link with other resources (people and/or programs in the community).
- Communicate, coordinate, and collaborate.
- Evaluate results.

More About this Report:

The School Health Action Planning and Evaluation System (SHAPES) is a data collection and feedback system designed to support population–based intervention planning, evaluation, and field research related to youth. SHAPES is developed by the Centre for Behaviour Research and Program Evaluation (CBRPE) at the University of Waterloo.

The development of report content was a collaborative effort between several groups including:

- The Population Health Research Group (PHR) at the University of Waterloo
- The Centre for Behaviour Research and Program Evaluation (CBRPE) at the University of Waterloo

SHAPES generates individual school reports from survey data. This year, each of the schools participating in the Youth Smoking Survey will be receiving School Feedback Reports detailing smoking and other related behaviours. Through a largely automated system with quality control and editing procedures we can ensure that the data you receive are accurate and returned to your school in a timely manner.

We value your input and would welcome your feedback on this report and/or on your school's participation in this project. Please contact us on the web at **www.yss.uwaterloo.ca** or by e-mail at **yss@healthy.uwaterloo.ca**.

THANK YOU FOR YOUR PARTICIPATION.

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APPENDIX E: Telephone Reminder Script

"Hello. My name is Daiva Tirilis and I am a research assistant for the Youth Smoking Survey research study at the University of Waterloo.

"I am just following up on a package that was mailed to you last week. The package contained a paper copy of your school's smoking profile, as well as a yellow feedback questionnaire. To the best of our knowledge you have not yet responded to the yellow questionnaire. If you have already completed and returned the questionnaire, please accept our sincere thanks. If not, if you could take a few minutes to do so as soon as possible it would be greatly appreciated. Please fax the completed survey to 519-886-6424."

"If you did not receive the questionnaire, or if it was misplaced it, please call me at 519-888-4567 x.38511. We plan use your feedback to better understand and respond to the needs of participating schools for future implementations."

"Thank you very much for taking the time to respond to the questionnaire and participate in this study."

Thanks again.
Bye.

APPENDIX F: Email Reminder Template

[email sent to school administrator 2-weeks after questionnaire was mailed to the schools]

Subject: Youth Smoking Survey Questionnaire

Dear *[administrator]*,

Recently we sent you a **School Smoking Profile Questionnaire** (yellow), along with a paper copy of your school smoking profile. If you have not already completed the questionnaire, please take a few minutes to complete the questionnaire today and use the $2 Tim Horton's gift card as a thank you for your participation. Your feedback will help us to ensure the School Smoking profile is meeting the needs of schools across the country.

Alternatively, the questionnaire can be completed electronically using the attached document. This electronic copy can be emailed to us at yss@uwaterloo.ca. This project received ethics clearance through the University of Waterloo, Office of Research Ethics (519-888-4567 ext. 36005). If you have any questions or concerns about your participation, please contact Daiva Tirilis at 519-888-4567 ext. 38511 or email yss@uwaterloo.ca.

Sincerely,

Daiva Tirilis
Research Assistant
University of Waterloo

APPENDIX G: Thank You Email for Questionnaire Participants

Dear *[administrator]*,

Thank you very much for your participation in the School Smoking Profile Questionnaire. Your feedback will help us to ensure the School Smoking profile is meeting the needs of schools across the country. Your participation is extremely valuable and appreciated.

[insert if volunteered to participate in interview] We also want to thank you for volunteering to participate in the 15-minute telephone follow-up interview regarding the Smoking profile. A project staff person will contact you soon to set up a time for the interview and answer any questions you may have about the interview.

[insert if did not volunteer for the interview]If you would like to participate in a 15-minute follow up telephone interview regarding the smoking profile, please contact Daiva Tirilis, Research Assistant, 519-888-4567 ext. 38511 or yss@uwaterloo.ca.

We would like to assure you that this study has been reviewed by, and received ethics clearance through the Office of Research Ethics at the University of Waterloo. If you have any concerns regarding your participation in this study, please contact Dr. Susan Sykes, Director of the Office of Research Ethics at ssykes@uwaterloo.ca or 519-888-4567 ext. 36005.

If you would like a summary of the results from the School Smoking profile Questionnaire emailed to you or if you have any other questions or comments, please contact Daiva Tirilis, Research Assistant, 519-888-4567 ext. 38511 or yss@uwaterloo.ca.

Sincerely,

Daiva Tirilis
Research Assistant
University of Waterloo

APPENDIX H: Interview Reminder Email

Hi *[administrator]*,

I just wanted to remind you of our telephone interview tomorrow (*date*) at [*time*] regarding the Youth Smoking Survey Smoking profile. Please let me know if you need to reschedule to a more convenient time. If you could have a copy of your school's smoking profile with you during our discussion, it would help speed the interview process.

Thank you! I look forward to talking with you tomorrow!

Daiva Tirilis
Research Assistant
University of Waterloo

APPENDIX I: School Smoking Profile Interview Questions

Thank you for joining me today. I have some preliminary information to review, and then we'll get into the real content of our discussion. First, I want to assure you that everything you say will be kept confidential. Second, to help me track what you say, I plan to record our talk. Is that okay?

Once we're done, I'll combine your input with other interviews plus the faxed questionnaire. Any reports that summarize the results will not identify you or your school. Finally, you can choose not to respond to questions if you wish and can withdraw from participation at anytime, just let me know. We want you to be very candid throughout the interview. Our goal is to find ways that the smoking profiles are meeting the needs of schools.

Do you have the smoking profile in front of you?

If 'NO' -- Could you please take a moments to obtain your school's smoking profile? (Interviewer will be prepared to email or fax the smoking profile to facilitate progress.)

A) <u>Format/Structure</u> (3 mins.)

1. What were your first impressions of the ___-page report?
2. What do you find eye-catching about the smoking profile? (*Prompts: colour, pictures, graphs, "what you can do" boxes)*
3. Currently the Youth Smoking Survey provides each school with a 1-page summary and a ____-page report. Is there another method which you would prefer to receive your school's results? Why? **<u>OR</u>** You indicated that you would prefer a 3-pg/1pg report. Why?
4. You indicated that you would prefer to receive a **hardcopy / online / both**. However, we first emailed a link to this report back on _____. What prevented you from reading the smoking profile when you initially received the email link to the full 30-page report? Is there anything else? (e.g., Did they never get the email ie. went to junk mail [*if yes, ask what restrictions the school district/board has on email or attachments – if we want to deliver by email, what is best way to do it?*) (*Prompts: Is email the best way to receive the FR? How could we identify these emails?)*
5. What name do you prefer for this document?
    a. School Smoking Profile OR
    b. School Smoking profile

B) <u>Content</u> (4 - 14 mins.)

If you could please look and refer to the ___-page smoking profile in front of you for the next few questions. Please be as candid as possible in your feedback about the content of the smoking profile.

6. You mentioned that you **fully read / read relevant sections / skimmed** the smoking profile. How long have you spent with the report so far (reading, sharing, etc.)? (*Prompts:* What order did you *read/skim* the smoking profile?)
7. Which pages of the report were you drawn to/did you find particularly valuable?

a. What was interesting about those pages? (*Prompts: What stayed with you? Detailed text/graphs/charts?)*
b. What was unclear about those pages? (*Prompts: detailed text/graphs/charts?)*
c. What would you do with this information? (*Prompts: teachers/parents/students?)*
d. How would you share this information?

PROMPTS: What else on the page is useful?
PROMPTS: What order did you read the sections?
PROMPTS: What helps you make use of this report?

8. Who else would be interested in this information? (teachers/parents/students?)
    a. Our experience is that a report like this will have its greatest use if multiple people see it and work with it. For your school, who are the best people or groups to receive the smoking profile?
9. What pages of the report were less valuable to you and your school? Why?
10. The survey on which this report was based is the Youth Smoking Survey. If we could expand the topics covered, what other topics would you like to see in this report? (*Prompts: such as including physical activity, healthy eating, drug and alcohol, and mental fitness*)
11. How much more useful would the smoking profile be if there was a wider spectrum of topics, such as including physical activity, healthy eating, drug and alcohol, and mental fitness data, to the smoking report?
    a. What other uses would that prompt from you or your school?
12. What information did you want to obtain from the smoking profile?

C) <u>Use</u> (14 – 15 mins.)

Recap who they previously mentioned shared the smoking profile with…

13. Are you planning to use the smoking profile with anyone else in your school or community?
    a. If yes, in what way(s)? (*Prompts: identify levels from the KUU scale – share information, use it to motivate a decision; to make a decision, to guide planning; to adapt program?)*
    b. If no, why not? Is there anything that could be changed within the report to make it more useful?

PROMPTS: I want to be conscious of your time but would you have a few more minutes for a few more/___ questions?